Digital Systems Light Catalog
2018/2019

Light is OSRAM

OSRAM

Digital Systems
Light Catalog
2018/2019

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OSRAM

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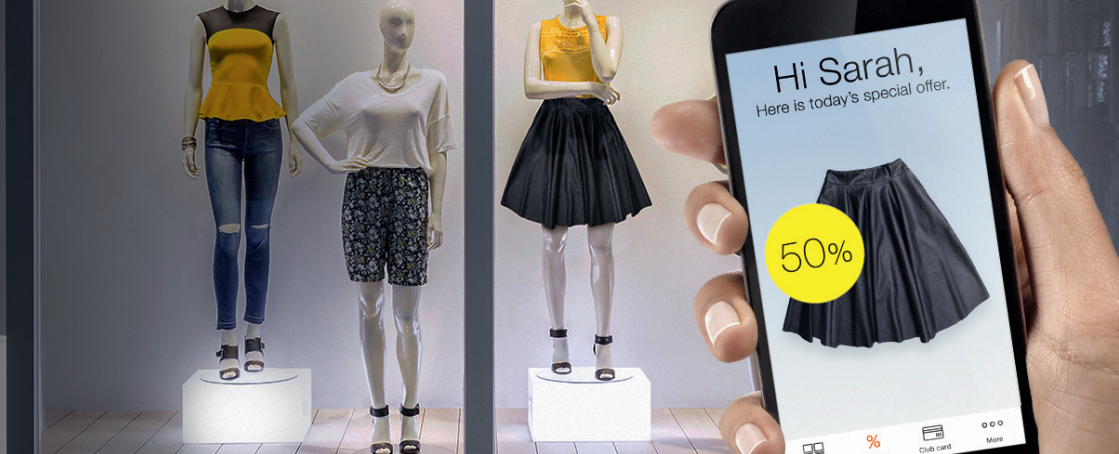## Light engines and LED modules   2.01–2.171

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Digitalize your installation

OSRAM Digital Systems has produced electronic lighting components for over 30 years. As with many growing businesses, our portfolio has evolved to offer a wide range of reliable lighting electronics and control systems. We enable our customers to deliver high-quality lighting solutions, and help our partners successfully transition from the traditional lighting world to the LED world.

Looking at the upcoming transformation towards digital lighting and IoT, OSRAM DS will be the same reliable partner, developing and delivering communication modules, smart control gear, sensors and cloud solutions which will give our customers peace of mind about emerging IoT, cloud services and other data and communication technologies and standards. As a lighting specialist with a vast experience in networked solutions, gathering and analyzing lighting data; we create solutions our customers can safely design into their luminaires or projects.

Global megatrends such as urbanization, digitalization, sustainability and ageing populations are driving the need for smart infrastructures, smart buildings and smarter working spaces. This creates a variety of social and technological requirements which can no longer be fulfilled by treating building technologies as separate units. We are looking beyond lighting to provide more value with technologies such as DEXAL™ – a digital, streamlined solution that enables luminaire manufacturers to provide smart luminaires that offer data exchange and sensor connection – and EINSTONE® beacons for the collection and distribution of data to enhance retail experiences for consumers and retailers.

Across each of the different verticals we serve – industry (including warehouses), outdoor lighting, offices, education (schools), hospitals, retail and hospitality lighting; we see one or more of these megatrends influencing the use of upcoming technologies. Our role is to fully utilize the value technology can offer in each application, where stakeholders in these segments look to technology to solve their pain-points. We therefore understand that individual solutions are necessary and must be adaptable, and we are here to help our customers find these solutions together.

We see strong future trends in the use of wireless technologies and IoT as the next level of optimizing end-user applications and satisfaction. We also understand the desire for consumer applications driven from smartphones, and for using digital tools to make our lives easier, in everything we do. These trends impact the DS business and are the basis of our development of technology solutions and services to help our partners in the changing world of lighting. Digitalization demands from us but also allows us to do more and offer more than lighting. Data gathered with lighting technology can be made available for application-specific needs, enhancing the world around us. OSRAM DS is developing and will provide the enabling field technology components (drivers, sensors, light engines, controls) and systems; and also the platform, digital services

(algorithms) and professional services from application support to installation, commissioning and maintenance services.

We want to take the guess work out of the design and component choices, to enable our customers to focus on their business. Whatever the individual or overall project need, we are committed to be the partner of choice and build our customers' visions with them. We support all our customers in fulfilling the high demands of the lighting market. This also includes the continued availability of traditional lighting controls for replacement purposes.

We look forward to working with you and taking the step to digitization and the world of IoT together.
www.osram.com/ds

Creating the future of light
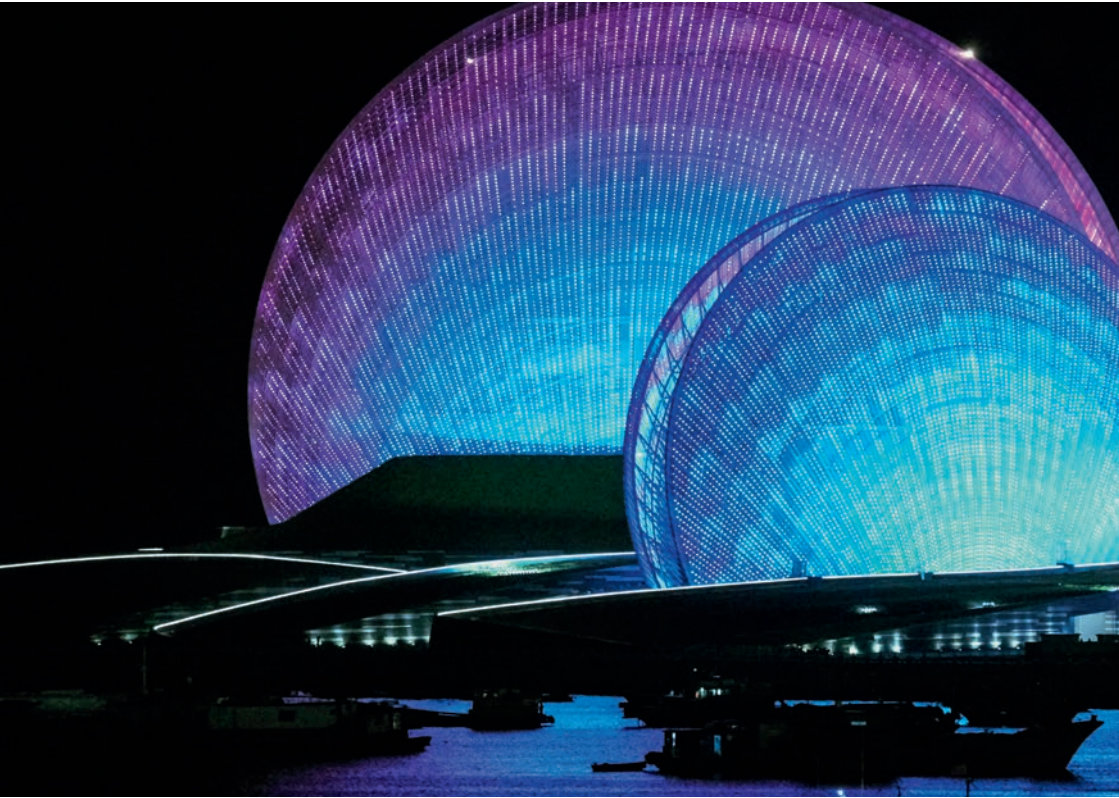
Our comprehensive expertise in the lighting industry demonstrates our passion for light. We have been re-inventing light for more than 110 years to provide a broad, state-of-the-art product portfolio that makes it simple for our customers to serve their own customers.

We are more than our customers' partner for their current needs – OSRAM understands the challenges and opportunities of innovative lighting in the future and is driving the technological change in the lighting industry. Facilitated by trends such as digitalization and connectivity, light will play a fundamental role in our lives in the future that goes beyond illumination – for instance in areas such as health, mobility, security and data transmission. Smart and connected systems will make our homes and cities more comfortable, secure and energy-efficient. OSRAM is already setting significant trends with regard to technological changes in the lighting market that improve quality of life.

As one of the leading light manufacturers in the world, OSRAM can leverage over a century of industry expertise in this market. At the end of fiscal year 2017, OSRAM had around 26,400 employees worldwide and generated a revenue of almost 4.1 billion euros. Primarily focused on semiconductor-based technologies, our products are used in highly diverse applications ranging from virtual reality to autonomous driving and from smartphones to connected lighting solutions in buildings and cities.

For more information, please go to
www.osram.com

Innovative and compliant

In addition to the general legal requirements, statutory and regulatory requirements relating to technical regulations, norms and standards are the main provisions of relevance to the OSRAM Licht Group. The last few years have been marked by comprehensive regulatory change around the world. This is a continuing trend. In view of new regulatory requirements, we are continuously modifying the portfolio of the affected products, often improving products at an early stage and thus taking on a leading role in the lighting industry.

Since the autumn of 2015, the European Commission has been working on further tightening the Energy Efficiency Regulation. Among other things, the focus has been shifted towards new energy efficiency requirements for all types of luminaires and components in the general lighting sector. As an important member of the European Light Association, OSRAM is working towards new requirements that, in addition to the primary goals energy efficiency, resource conservation and light quality, will also meet the requirements of the users and can be implemented realistically by the industry.

A world fit to live in – today and tomorrow

OSRAM offers a wide range of innovative products for sustainable lighting solutions, from components and luminaires to light management systems. In addition to improved efficiency and cost benefits, sustainable lighting offers many other advantages. Light protects, energizes, provides comfort, for example by offering a greater sense of security, and therefore improves our quality of life. And light is fascinating. Developing new solutions for the future, creating sustainable value for our customers and the environment, and introducing them to the fascination of light – that is what inspires us. In the future, digital or connected light will take on a key role for optimum lighting control.

You will find more information on this topic at www.osram.com/sustainability
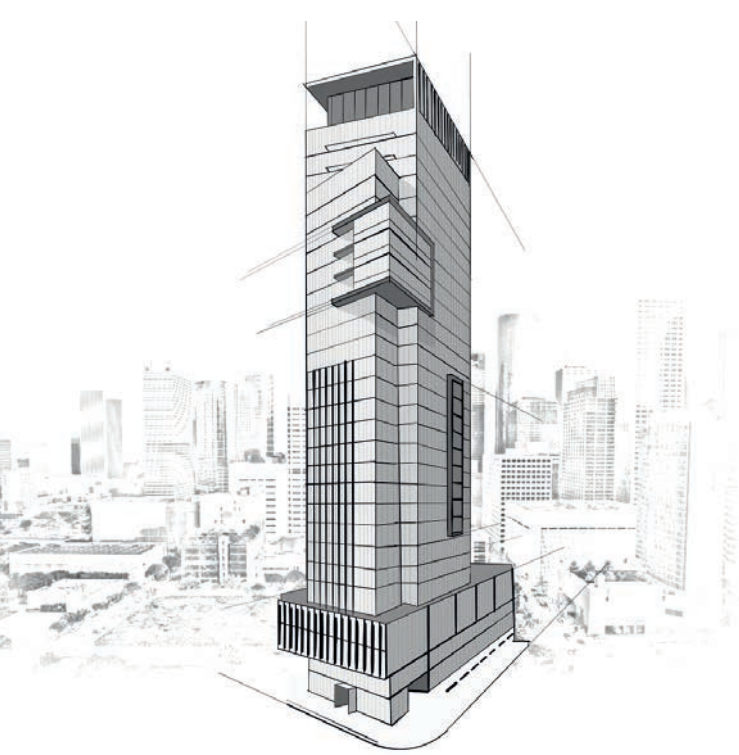
OSRAM Flex Atelier

Discover the world of flexible lighting solutions

Take a stroll through our virtual shop, the OSRAM Flex Atelier, and adapt the shop lighting to your needs.

As a service for designers and architects, we have added enhanced product information across our LINEARlight FLEX® portfolio.

Download the tender texts list at www.osram.com/ds-tender-texts or check the individual product pages.

Architectural spirit

The fourth dimension of architecture

Extraordinary building concepts are the result of a holistic approach. As an integral part of the architecture, lighting solutions support and enhance the overall visual impression. Thanks to innovative, ultra-flat and flexible lighting solutions from OSRAM, the lighting blends discreetly into the architectural concept of a room and opens up completely new opportunities for creative design.

Thanks to the UltraFlat System, luminaire manufacturers and lighting planners profit from an unprecedented level of design freedom. The currently flattest lighting system on the market with a casing height of only 11 mm allows for the design of extremely slim luminaires. The portfolio consists of ultra-flat DALI LED drivers, perfectly matched light and presence sensors as well as the particularly slim PrevaLED® Linear LED modules in various light colors and lengths.

In addition, the LINEARlight FLEX® system offers maximum flexibility – with a wide selection of different LED modules, the corresponding LED drivers and a comprehensive range of accessories, the so-called Flexessories®. While LED strips are hidden in light coves, suspended ceilings or furniture systems, BackLED® LED modules provide a particularly homogeneous backlighting in light ceilings. This way, light sets up the visual framework for the architecture and takes the overall concept to a new level. In other words, light becomes the fourth dimension of space.

Make your visionary design come true with ultra-flat lighting systems from OSRAM.

Thanks to ultra-flat lighting solutions, the lighting blends discreetly into the architectural concept of a room

Shop/Hospitality

Sensual experience in shops and hospitality areas

Stationary retail stores have to compete with the high product availability offered by online shops and face fierce competition. Therefore, it is becoming increasingly important for them to create a stimulating shopping experience with new lighting concepts. In the hospitality and hotel business, lighting triggers emotions and creates an ambience that enhances the well-being of the guests.

Miniaturized LED lighting systems open up new opportunities for the subtle integration of luminaires into their environment – in shop as well as hotel and hospitality lighting. Spotlights and downlights are therefore getting increasingly smaller and more efficient, while covering a broad spectrum of applications. The LED modules of the PrevaLED® Core family are ideal for the design of elegant track lights and spotlights. Thanks to a wide choice of lumen packages and light colors, they offer high flexibility and can therefore be used in any area.

The adjustment of the light color to the illuminated products is crucial for the shopping experience. For example, LINEARlight FLEX® POWER LED modules with the the special light colors Meat or Veggie White are suitable for the presentation of food. In the hospitality sector, the lighting mood plays a more important role. In combination with the new LED driver families OT FIT LT2 S and OT FIT CS G2, the LED modules LINEARlight FLEX®, LINEARlight FLEX® Tunable White and LINEARlight FLEX® POWER allow you to adjust a great variety of different lighting scenes.

Create an inspiring atmosphere for customers and guests – with our compact lighting systems.

Outdoor

Smart street lighting with NFC

In modern street lighting, safety and lighting mood have top priority. For cities and municipalities, energy efficiency and easy operation are also of great importance. The new OSRAM LED drivers of the product families OT 1DIM and OT 4DIM NFC meet these requirements and offer even more. Thanks to contactless NFC programming with Tuner4TRONIC®, you can reduce the complexity associated with the application of energy-saving LED luminaires and lower costs for maintenance and stock management.

Street lights with LED technology allow for high energy savings as the brightness and the dimming level, for example, can be adjusted to the requirements. This, however, drastically increases the number of different luminaire types in municipalities, leading to a higher complexity of maintenance and storage. In order to

reduce this complexity, OSRAM has developed the intelligent NFC-ready LED drivers of the product families OT 1DIM and OT 4DIM NFC. These make it possible to use flexible LED street lights that support various lumen packages, dimming modes and dimming levels.

In luminaire manufacturing, the LED drivers can be programmed efficiently with the software Tuner4TRONIC® and the corresponding NFC devices. Moreover, they can be easily programmed via smartphone with the Tuner4TRONIC® Field app, which provides municipalities and assigned installers with a simple way to replace defective LED drivers and extend existing installations – and this without requiring mains voltage.

Rely on a future-proof solution – with our NFC-ready LED drivers.

Thanks to NFC, municipalities can optimize energy efficiency without additional efforts for stock management and maintenance

HCL solutions focus on humans and the optimal light for their needs

HCL

Biologically effective light for balance and well-being

Modern lighting offers more than just optimum visibility. With innovative concepts for Tunable White and Human Centric Lighting (HCL), OSRAM uses the many positive effects of light in order to create more pleasant working environments.

HCL solutions, for example, bring the natural course of daylight and its biological effects into indoor areas. This is achieved by using artificial light with the right brightness and color temperature to supplement the daylight. The interplay of light and room climate creates an atmosphere that has a positive impact on the well-being of humans as well as on their productivity and health. This requires the application of HCL-ready luminaires that allow for melanopically effective lighting.

In combination with suitable OPTOTRONIC® OTi DALI TW LED drivers, the LED modules PrevaLED® Linear Tunable White, LINEARlight FLEX® Tunable White and BackLED® TW Plus provide a high light quality and a wide spectrum of light colors from 2,700 to 6,500 K. Lighting systems from OSRAM can be implemented in installations of any size. Light management systems such as DALI MCU TW, DALI ACU BT or DALI PROFESSIONAL form their centerpiece. Our range of solutions extends from the manual control of single rooms with Tunable White to dynamic daylight- and presence-dependent control in comprehensive HCL applications.

Improve the quality of life with light quality – with our efficient lighting systems.

Industry

Efficient LED-based industry lighting systems

High ceilings in production and logistics facilities call for lighting components with long lifetimes, wide temperature ranges, high light output levels and a high quality of light for effective working. In order to cut costs while providing high-performance lighting, many luminaire manufacturers today rely on robust LED components and intelligent control technology from OSRAM.

Our extremely reliable and energy-efficient LED system components for the industrial sector save lots of energy and reduce maintenance effort to a minimum – with perfectly matched LED modules, LED drivers and intelligent lighting control systems. With OPTOTRONIC® Intelligent DALI 100 IND and OPTOTRONIC® Intelligent DALI 150 IND as well as the OPTOTRONIC® FIT IND drivers, which are available in mid-2018, OSRAM offers

state-of-the-art constant-current LED drivers that have been specially designed for industrial applications, e.g. production areas, warehouses and high-back racking.

In combination with daylight and motion sensors, innovative light management systems from OSRAM make lighting control as easy, modern and versatile as never before. With DALI PROFESSIONAL combined with the DALI PRO Control app, even complex lighting scenarios can easily be realized and controlled via smartphone. In large and complex networks, ENCELIUM® offers high levels of flexibility and performance in order to reduce energy costs for lighting by up to 75 %.

Develop durable and energy-efficient lighting systems – with our future-proof technologies.

In industrial applications, the uninterrupted operation of the lighting is of crucial importance

App control

Wireless control via smartphone

In the connected world, the smartphone is increasingly becoming a central element. Thanks to versatile interfaces and easy-to-use apps, it also turns into an intuitive tool for intelligent lighting controls. If you would like to switch to lighting control via smartphone, OSRAM offers various simple solutions – for luminaires as well as LED modules. Moreover, all types of installation are covered and easy commissioning via app is also possible in some cases.

With their Bluetooth® interface, the DALIeco BT and DALI ACU BT controllers are ideally suited for the lighting control of small and medium-sized DALI installations via smartphone. Both controllers also support Tunable White luminaires. LUXeye® is the Bluetooth®-ready light management system for ceiling installations – with integrated light and presence sensor. The DALI PROFESSIONAL light management system is used for installations with over 30 light points.

Furthermore, OSRAM also offers wireless systems that increase flexibility and energy efficiency due to the lack of wiring, e.g. in offices and industrial facilities. In this case, not only the remote control (smartphone) and the light installation are connected, but the luminaire components (controllers, sensors etc.) are also linked to each other in a wireless network. With wireless solutions such as ENCELIUM® Wireless combined with the ZigBee2DALI adapter, you can easily update simple on/off installations to dimmable lighting without having to renew the existing wiring.

Switch now to lighting control via smartphone and make lighting as easy as it gets.

Applications

Office lighting

Focusing both on design and human needs, OSRAM lighting systems provide the basis for modern office lighting. Tunable White (TW) and Human Centric Lighting (HCL) help to improve the well-being and productivity of office workers. To provide optimal simulation of the natural daylight cycle, HCL concepts use area light sources that can be equipped with BackLED® TW Plus, PrevaLED® Linear Tunable White or LINEARlight FLEX® Tunable White LED modules. For the control of TW and HCL, OSRAM offers solutions for any project size, e.g. DALIeco BT, DALI PROFESSIONAL and ENCELIUM®. These light managements systems also allow for wireless control with smartphones, providing optimum ease of use and reducing installation costs in some cases. A highlight in terms of futuristic design is the UltraFlat system. Combining extremely flat LED drivers with sensors and the PrevaLED® Linear LED modules, it gives unprecedented freedom in the design of slim floor-standing and pendant luminaires, which become unique eye-catchers in any office. **Turn offices into a source of well-being and inspiration.**

Retail and shop lighting

In shops and supermarkets, lighting plays a vital role in drawing the customer's attention to selected products or areas. LED technology achieves even more: It improves energy efficiency and creates a universe of colors that stimulate shopping.

The ever decreasing dimensions of spot- and downlights demand extremely compact LED modules, drivers and sensors. Moreover, excellent light quality, the specific color rendering and efficient light management are necessary to display the presented products in the perfect way. In combination with our compact LED drivers, such as the OT FIT LT2 S, the slim LED modules PrevaLED® Core and LINEARlight FLEX® Tunable White provide the perfect light for every situation, from sales counters and cash desk areas to subtle shelf lighting. **Make shopping an experience – thanks to LED.**

Hospitality lighting

Intelligent and cost-efficient LED lighting systems combine functional and decorative lighting in hotels, bars, restaurants and wellness centers. For hospitality areas, our product range includes compact system solutions for spotlights and downlights, such as PrevaLED® Core for reception areas and PrevaLED® Flat AC for corridors in hotels. In addition, we also offer flexible LINEARlight FLEX® LED strips for integrated lighting. Due to flexible and individual lighting control, the LED modules and drivers can create the right atmosphere by dividing rooms into different zones, enhancing privacy or relaxation while ensuring that public areas are brightly lit. Tunable White light from warm to cold white and an almost endless variety of colors allow for customized lighting that suits each area. An overall light manage-ment system helps you to adjust the light output automatically according to the amount of natural light, achieving highest efficiency and low operating costs. **Set the right mood for guests with LED light and turn every stay into a special occasion.**

Art and museum lighting

Lighting systems in museums and galleries have to present the works of art with the optimal brightness, in the right light color and without disturbing glare effects. For these requirements, our LED systems offer a wide range of white and colored light in various light intensities. Our portfolio includes, for example, light engines and modules for spotlights and downlights, the OT FIT Compact LED drivers and the LINEARlight FLEX® LED strips for attractive embedded lighting. With our efficient light management systems, such as DALI PROFESSIONAL and DALI MCU, pre-defined constant or dynamic scenes can be set very easily and comfortably.

Furthermore, it is possible to control the combination of daylight and artificial light with high precision. The use of sensors opens up additional options to reduce energy consumption by switching on the light only when visitors are present. **Find the right balance between architecture, costs and energy efficiency.**

Backlighting and signage

An eye-catching LED backlighting and signage is simply ideal to flexibly design customized solutions for companies and shops. LED solutions provide homogeneous brightness levels for advertisement as well as logos and ensure precise control of illuminated signage applications. Our highly functional and reliable systems, consisting of high-performance LED modules, perfectly matched constant-voltage LED drivers (12 V and 24 V), various mounting accessories and intelligent light management systems, such as the DALI MCU TW, open up numerous opportunities for indoor and outdoor applications. Both the BackLED® and BoxLED® product families include various LED modules for the brilliant direct backlighting of channel letters and provide even, powerful and efficient illumination in light boxes.

This combination of homogeneous illumination, flexibility and a huge variety of colors gives you the design freedom you need. Perfect support is provided by the LED deSIGNer software, which automatically calculates the exact number of LED modules, ECGs and mounting profile components for a given project. **Attract great attention with tailored LED solutions.**

Architectural and facade lighting

Based on cutting-edge lighting technology, the smooth interplay of light and shade highlights distinctive architectural structures to make buildings stand out from their environment.

LED luminaires and modules for outdoor applications, such as the flexible LED strip LINEARlight FLEX® Protect ADVANCED, offer superior efficiency and extreme color stability. They withstand the harshest weather conditions and deliver the energy efficiency and durability required for long-term operation. Professional light management systems allow you to smoothly control colors and energy requirements. After an easy installation of the luminaires and light engines, you can save pre-defined light scenarios and dynamic light sequences and activate them via remote control, smartphone, a central touchpad or a motion sensor. **Provide LED architectural lighting that presents every facade in the perfect light.**

Industrial and logistics lighting

The correct level of light is essential in factory and warehouse settings to ensure high productivity and safety. Our perfectly matched system solutions are the ideal choice for the most challenging environments. With cutting-edge LED modules such as PrevaLED® Basic Linear or PrevaLED® Linear G4, they provide durable, high-quality lighting at high and low temperature extremes and over long operating hours, e.g. in trunking systems or water-proof, batten and high-bay luminaires. Our OTi DALI 100 IND, OTi DALI 150 IND and OT FIT IND (available in mid-2018) LED drivers have been designed to meet the special requirements of industrial applications. Efficient and convenient control is realized with sensor-based light management systems. Combined sensors with a detection range of up to 9 meters and a height of up to 13 meters are available for this purpose. With the DALI PROFESSIONAL and ENCELIUM® light management systems, we offer a perfect fit for any project size. With ENCELIUM®, you can even achieve energy savings of up to 75 %.
Use efficient lighting systems that have been specially designed for industrial use.

Smart city and street lighting

In modern street lighting, our smart outdoor technologies ensure easy installation and maintenance as well as energy-efficient operation. With the Tuner4TRONIC® software suite for Windows, the OT 1DIM and OT 4DIM NFC LED drivers from OSRAM can be programmed in a very simple and fast way. Thanks to contactless NFC programming, they allow the easy configuration of luminaires that can be flexibly adapted to different requirements. These flexible NFC luminaires significantly reduce the complexity associated with the use of energy-saving LED technology: They enable cities and municipalities to achieve new levels of energy efficiency with less effort, reducing time and costs of stock keeping and maintenance.

If a luminaire has to be replaced, it is possible to copy the original configuration of the failed LED luminaire and paste the data into the new LED driver via the Tuner4TRONIC® Field app.
Rely on a future-proof solution with NFC-ready LED drivers from OSRAM.

Case study

Glamor at its best – the award-winning "Gold on 27" bar lighting concept – a modern interpretation of Arabian luxury
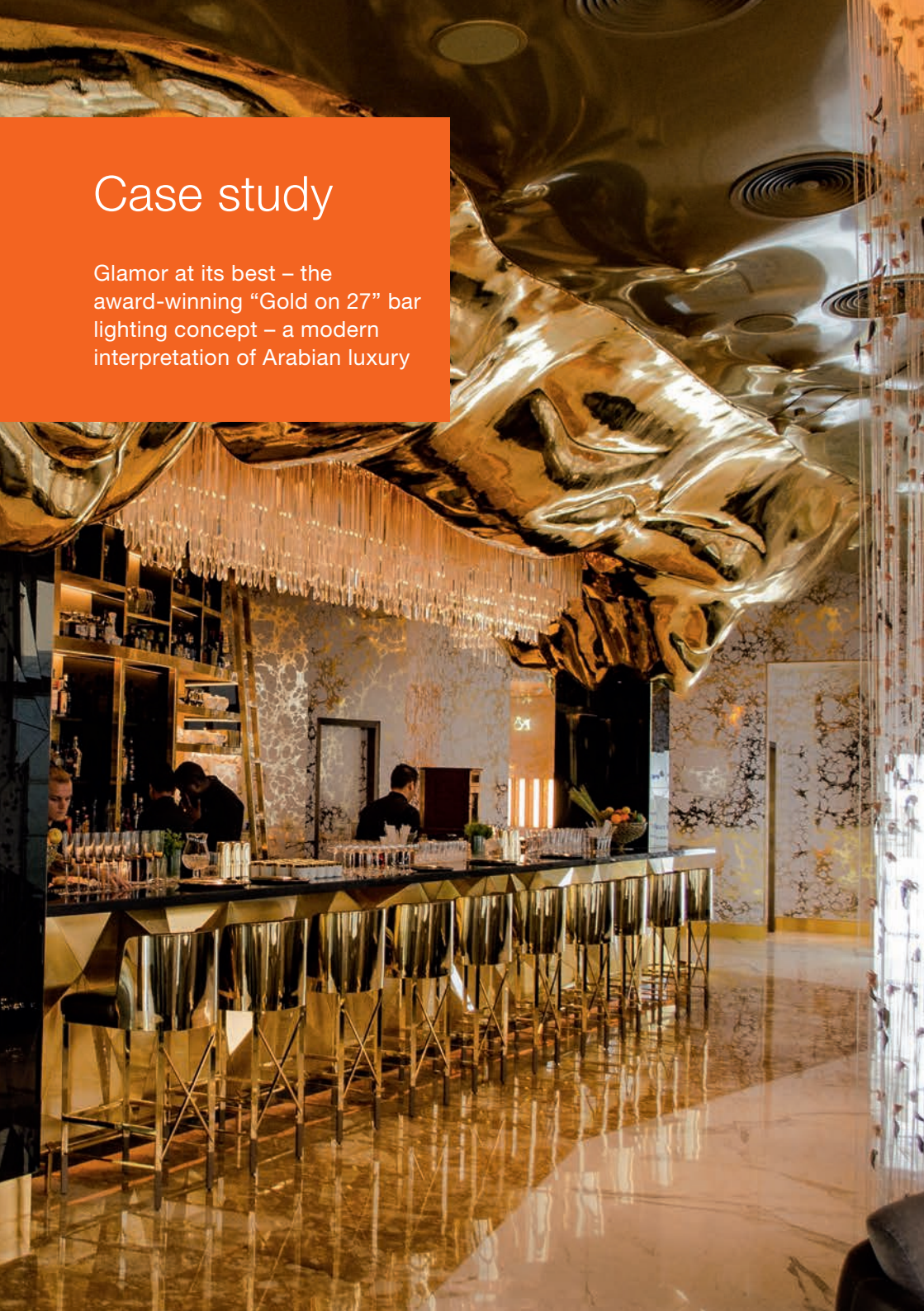
The "Gold on 27" bar in the only 7-star hotel in the world, the Burj Al Arab, sets new standards in terms of interior and lighting design. The award-winning lighting concept was created with Delta Lighting Solutions and interior designers from Keane Brands.

The lighting planners skillfully used light to accentuate the design elements to perfection: the metallic surfaces, the gold patterns on the walls, the golden sculpture on the ceiling and the illuminated bar shelves.

"Lighting the shelving and work spaces was a special challenge for us because we were not allowed to change anything on the walls. But the wall curves precisely at this point. So the lighting also had to be curved," says lead designer Patricia López-Yánez. "We decided to use LINEARlight FLEX® ShortPitch because these dimmable LED strips are very flexible and easy to cut, even into very small pieces. As a result, we were able to adapt them exactly to the counter and the shelves and achieve exactly the lighting effects we wanted. We used OPTOTRONIC® OTi DALI 75/220 LED drivers from OSRAM because they are so compact that you can install them even in the smallest of spaces." The extremely small distance between LEDs means that the flexible LED strips provide sufficient illumination. A warm color temperature of 2,700 K highlights the golden color, and the satinized diffuser softly distributes the light along the back wall of the shelving. Despite the highly reflective metal surface, a diffuse light is produced.

Finally, for the perfect mood, programmable lighting scenes were created for sunset, night and special occasions.
www.osram.com/gold-on-27

Services beyond lighting

OSRAM EINSTONE®

OSRAM EINSTONE® brings the offline and online worlds together using intelligent transmitter units known as beacons, thereby enabling the implementation of location-based services. The lighting installation provides a stable, secure and low-maintenance beacon infrastructure for these services. With EINSTONE® Smart Infrastructure and EINSTONE® Smart Retail, we can supply everything you require for your individual applications – from single components right through to complete solutions.

Comprehensive customer understanding for an exceptional customer experience

EINSTONE® Smart Retail
The EINSTONE® Smart Retail Solution offers retailers a holistic view of the customers. The intelligent combination of digital customer loyalty program, location-based marketing and the connection to CRM and POS systems will allow them to increase their revenue and the brand loyalty of their customers. Furthermore, our offering will create the ideal circumstances for custom omni-channel marketing.

EINSTONE® Smart Infrastructure
Lighting installations form the basis for our EINSTONE® Smart Infrastructure. Permanently supplied with power, the EINSTONE® beacon modules give you a stable and secure solution that is directly connected to the lighting installation. Not only does this ensure an ideal placement of beacons, it also reduces the necessary level of maintenance (and the associated costs) to an absolute minimum. EINSTONE® provides the basis for implementing a whole range of location-based applications in indoor facilities.

www.osram.com/einstone

The EINSTONE® Smart Infrastructure forms the basis for a variety of indoor location-based services. Combining the lighting installation with permanently powered beacons turns it into a positioning system.

Benefits

High signal quality
— Strong and stable signals:
  iBeacon™, Eddystone™ URL (Physical
  Web™), Eddystone™ UID, AltBeacon™
— Homogeneous distribution
  (through arrangement of the
  lighting installation)

Security
— High security and privacy standards in
  compliance with ISO/IEC 27018
  standards
— Low risk for theft/physical manipulation
  due to integration in lighting installation

Low costs
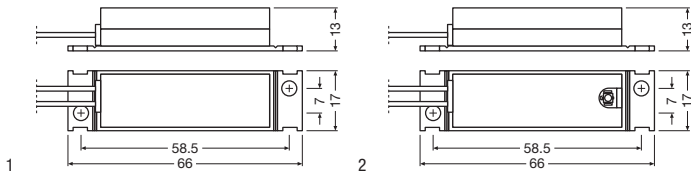— Low maintenance costs
— Integrated in existing lighting
  infrastructure

Easy management
— Beacon management & remote
  manageability via backend
— Over-the-air update management
— OSRAM firmware with
  energy management

Lighting product

OSRAM
EINSTONE®
Beacon Included

Sending
BLE signal
(location ID)

Cloud provides
location-based
service

Cloud server

Data request
based on location

OSRAM
EINSTONE®

Your
location-
based
service

Processing
services

Mobile app
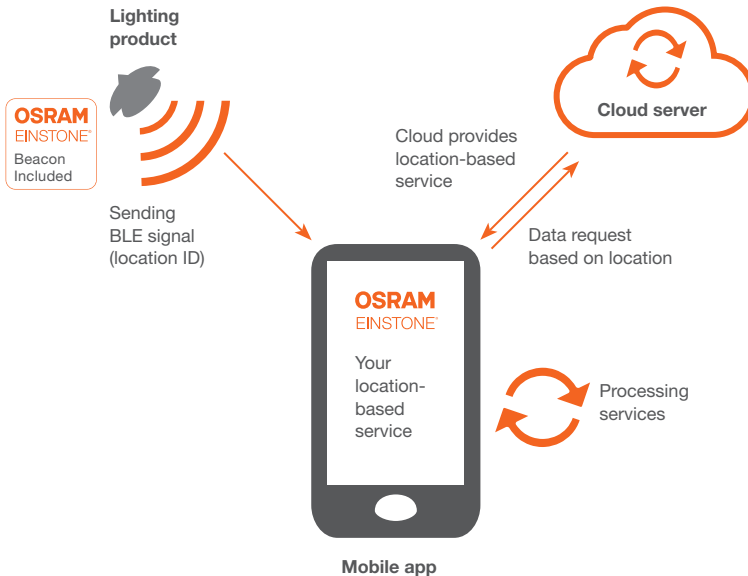
EINSTONE® module
Location-based services

Product name	GTIN (EAN)	V	W	A	AC/DC	IP	Ta	Battery	📶
EINST-CVT-KIB2	4052899986923	5…60	<1	0.01	DC	IP65	0…+45	2 x NiMH	integrated
EINST-CVT-KIN2	4052899986961	5…60	<1	0.01	DC	IP65	0…+45	-	integrated
EINST-CVT-KUB2	4052899986947	5…60	<1	0.01	DC	IP20	0…+45	2 x NiMH	external
EINST-CVT-KUN2	4052899986985	5…60	<1	0.01	DC	IP20	0…+45	-	external

Product name	🔀	⏱	⚙	l [mm]	b [mm]	h [mm]	📦	No.
EINST-CVT-KIB2	+4 dBm	100…2000 ms	iBeacon / AltBeacon / Eddystone	66	17	13	12	1
EINST-CVT-KIN2	+4 dBm	100…2000 ms	iBeacon / AltBeacon / Eddystone	66	17	13	12	1
EINST-CVT-KUB2	+4 dBm	100…2000 ms	iBeacon / AltBeacon / Eddystone	66	17	13	12	2
EINST-CVT-KUN2	+4 dBm	100…2000 ms	iBeacon / AltBeacon / Eddystone	66	17	13	12	2

Product benefits
— Homogeneous distribution
  (ideal grid in lighting installation)
— Low maintenance effort
— Integrated in existing lighting infrastructure
— High level of privacy standards
— Low risk of physical manipulation due to integration
  in lighting installation
— Beacon management and remote manageability
  via backend
— Over-the-air update management
— OSRAM firmware with energy management
— Broadcast of up to five iBeacon™, AltBeacon™ or
 Eddystone™ frames together or just the ones you
  want

Areas of application
— Location-based services
— Proximity marketing
— Loyalty programs
— Customer analytics

EINSTONE® basic
Location-based services

Product name	GTIN (EAN)	V	W	A	AC/DC	IP	Ta	📶
EINST-BASIC-BUN2	**4052899989641**	230	0.05	0.004	AC	IP20	-20…+60	external
EINST-BASIC-BIN2	**4052899989634**	230	0.05	0.004	AC	IP20	-20…+60	integrated

Product name	📡	⏱	⚙	l [mm]	b [mm]	h [mm]	📦	No.
EINST-BASIC-BUN2	+4 dBm	100…2000 ms	iBeacon / AltBeacon / Eddystone	118	30	21	25	1
EINST-BASIC-BIN2	+4 dBm	100…2000 ms	iBeacon / AltBeacon / Eddystone	108	30	21	25	1

Product benefits
— Homogeneous distribution
   (ideal grid in lighting installation)
— Low maintenance effort
— Integrated in existing lighting infrastructure
— High level of privacy standards
— Low risk of physical manipulation due to integration
   in lighting installation
— Beacon management and remote manageability
   via backend
— Over-the-air update management
— OSRAM firmware with energy management
— Support of various Beacon standards
— Broadcast of up to five iBeacon™, AltBeacon™ or
   Eddystone™ frames together or just the ones you
   want

Areas of application
— Location-based services
— Proximity marketing
— Loyalty programs
— Customer analytics

Case study

Relaxation in color: With a user-friendly concept, The House of Elemis Spa creates a comfortable atmosphere for its customers

For the complete renovation of the Elemis skincare brand's London spa, the lighting designers at Into Lighting worked with Virgile + Partner as lead designers to choose a relaxing, user-friendly concept with excellent technical support.

The new digital lighting system makes use of indirect light to create a sensual and calm atmosphere in the lounge areas and treatment rooms. A 2,700 K color temperature was chosen in order to bathe the rooms in an inviting, warm-white light. All the furniture and fittings were highlighted by flexible LINEARlight Colormix Flex LED strips.

Color therapy is one of the services Elemis offers, so a homogeneous color-changing system was integrated in the treatment room ceiling rafts. These high-quality long-life LED strips are truly flexible – they are not only easy to bend and cut, but can also be installed and connected quickly. Using the EASY Color Control and EASY Hybrid Remote devices matched to the LED strips, the Elemis Spa therapists can easily set up the required lighting scene – without disturbing their customers.
www.osram.com/house-of-elemis

Light engines and LED modules

Bringing light to your product

The advent of LEDs in the lighting industry has created unlimited freedom in light source design, thus enabling luminaires that have been unthinkable before. With our comprehensive portfolio of light engines and modules, our competence in lighting and uncompromised quality, we make our customers more successful in their businesses.

AC, DC, linear, square and round shapes, high-power, mid-power and low-power LED packages – the possibilities to create a light source seem endless. On the one hand, this provides the perfect opportunity to escape from the rigid boundaries of conventional lamps. However, on the other hand, this also creates new challenges: Matching the market needs for sustainable product propositions with fast-paced LED technology development.

Managing the technical changes required to keep a luminaire attractive over its entire production lifetime involves regular development efforts, e.g. component updates and qualification. These tasks increasingly bind valuable resources that are needed to innovate and stay competitive. We strive to support our customers by a smart component strategy to limit the effort for future product updates.

Easy to choose, easy to use

In addition to our existing performance-oriented products, we offer our customers economic alternatives. Therefore, our new portfolio provides an even wider range of products featuring increased flexibility and continuation for the changing requirements of luminaire projects:

PrevaLED® – our performance offer: exceptional performance with a comprehensive set of choices.

Basic – the economical alternative: attractive performance levels meet market standards with the reassurance of OSRAM quality.

We invite you to explore our product portfolio on the following pages. Our standard offer covers a wide range of applications and features smart solutions for outstanding products. But as we understand that every luminaire project is different, we also offer a customized approach to co-develop with you the component needed. Challenge us!

In combination with our LED drivers and LMS components, we offer system solutions that provide all the confidence and flexibility you need to stay focused on your business: **Delight your customers with the right product.**
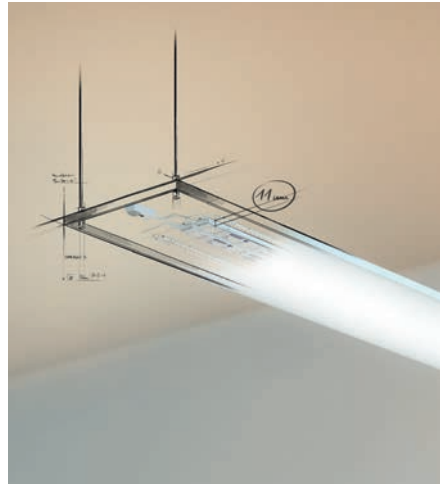
Linear Light Engines – Summary of portfolio

Linear PrevaLED® modules

Switching to LED pays off, more and more with each passing day
The portfolio of linear LED modules is characterized by high quality and reliability as well as outstanding photometric properties. In a wide variety of applications, the modules demonstrate that, today, the switch to modern LED technology is as easy as it gets.

PrevaLED® Linear LED modules are sustainable solutions for linear lighting with state-of-the-art LED technology and a great alternative to traditional lamps. They provide efficient and high-quality light for the illumination of offices, shops, retail and industrial facilities.

From cost-efficient to highly efficient – a well-thought-out linear portfolio
Our product range for linear lighting solutions not only includes highly efficient LED modules but also cost-efficient alternatives, and thus opens up a variety of application possibilities for each luminaire type.

PrevaLED® Linear Tunable White

Biologically effective light

PrevaLED® Linear Tunable White is designed as a light engine that can be flexibly used for Tunable White/Human Centric Lighting (HCL) applications. It is used in recessed, surface-mounted and pendant variants or in floor-standing luminaires for almost all applications in offices, schools, health facilities or industrial areas.

Dynamic light for enhanced well-being

The range includes an LED module that delivers warm white light (2,700 K) and cold white light (6,500 K). In combination with light management systems, it offers dynamic light scenarios such as brightness sequences or different color temperatures in the range between 2,700 and 6,500 K, thus simulating the course of natural daylight. At the location of the application, this type of dynamic light can have a positive impact on well-being and productivity.

What would a Tunable White light engine be without a driver or light management? Of course, the light engine is perfectly matched to the OPTOTRONIC® TW LED drivers. These can execute DALI DT8 for Tunable White/HCL applications as well as 2 x DALI DT6, e.g. direct/indirect lighting. A comprehensive light management range is the perfect complement to the application in terms of Tunable White/HCL. Whether for pure Tunable White applications with DALI DT8 (e.g. DALI MCU TW) or smaller as well as large HCL applications (e.g. DALIeco BT (RTC) or DALI PROFESSIONAL), OSRAM offers you the optimal solution for every application.

PrevaLED® Linear Tunable White
Linear Light Engines

Product name	GTIN (EAN)	V	A	W	K	Ra
PL-LIN-Z1 2200-TW [1]	4052899989351	51.5	0.275	14.20	2700…6500	>80

Product name	lm	lm/W	Initial SDCM	Tc		No.
PL-LIN-Z1 2200-TW [1]	2200	164	≤3	55	60	1

1) Modules perfectly matched to OSRAM OPTOTRONIC® LED drivers (see relevant table) / For current photometric data and important safety, installation and application information, see www.osram.com/led-systems / All the technical parameters apply to the entire module. In view of the complex manufacturing process for light-emitting diodes, the typical values given above for the technical LED parameters are merely statistical values that do not necessarily correspond to the actual technical parameters of an individual product; individual products may vary from the typical values / In development, data preliminary

5 Year
OSRAM Guarantee*

Product features[1]
— Module efficacy: up to 159 lm/W with 2,700 K
— Module efficacy: up to 164 lm/W with 6,500 K
— Luminous flux: 2,200 lm on 560 mm
— Color temperature range: 2,700...6,500 K
— Color rendering index R_a: > 80
— Initial color consistency: ≤ 3 SDCM
— Average lifetime (L80 B50): 50,000 h
  (temperature at T_c = 55 °C)

Product benefits
— Tunable White by adjustable color temperature
  from 2,700 K to 6,500 K
— Non-isolated LED module with perfect match to
  2-channel OPTOTRONIC® TW driver
— Cut-out area for shadow-free wiring
— High homogeneity thanks to tight LED pitch

Areas of application
— Offices
— Educational sector
— Healthcare

References/Links
For more information on the multi-level guarantee and
the terms and conditions of the guarantee, visit
www.osram.com/system-guarantee

PrevaLED® Linear G4

Highly efficient, powerful, versatile
PrevaLED® Linear G4 is characterized by its very high efficiency of up to 200 lm/W. This high-end lighting solution offers a wide range of light colors and lengths within the Zhaga LED module portfolio.

The champion for the widest range
PrevaLED® Linear G4 is mainly used in solutions for industrial and office lighting. The LED modules with high luminous flux, for example, provide the powerful light needed for high-bay luminaires.
LED modules with a length of 1,120 mm or 1,400 mm can be integrated easily into trunking systems and provide reliable lighting for production sites.

For office lighting projects, such as pendant or louver luminaires, surface-mounted or floor-standing luminaires, PrevaLED® Linear G4 offers unlimited possibilities. The product portfolio provides the widest range of light colors – from 2,700 K to 3,000 K, 4,000 K and 5,000 K to 6,500 K. Moreover, the portfolio not only features a color rendering index of CRI ≥ 80 but also an excellent color rendering index of CRI ≥ 90 and thus offers the highest levels of light quality.

PrevaLED® Linear G4 is matched to a broad range of OPTOTRONIC® Linear LED drivers – for SELV as well as non-isolated, DALI or on/off, programmable or non-programmable. It is therefore ready for universal use.

PrevaLED® Linear G4
Linear Light Engines

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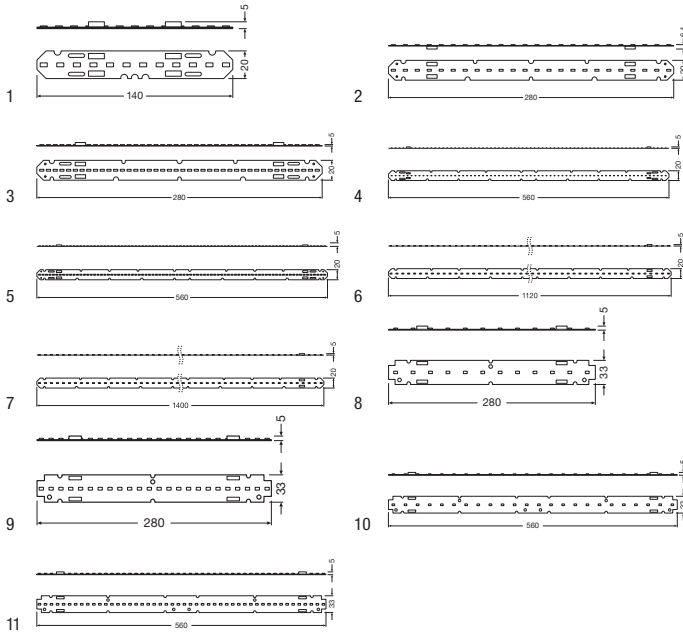
5 Year

OSRAM Guarantee*

| Product name	GTIN (EAN)	V	A	W	K	Ra	lm
PL-LIN-Z4 550-840 140X20 [1]	**4052899984745**	33.2	0.0875	2.90	4000	>80	550
PL-LIN-Z4 1100-840 280X20 [1]	**4052899984844**	33.2	0.175	5.80	4000	>80	1100
PL-LIN-Z4 2000-840 280X20 [1]	**4052899985049**	39.1	0.3	11.70	4000	>80	2000
PL-LIN-Z4 2200-840 560X20 [1]	**4052899985223**	33.2	0.35	11.60	4000	>80	2200
PL-LIN-Z4 4000-840 560X20 [1]	**4052899985421**	39.1	0.6	23.50	4000	>80	4000
PL-LIN-Z4 4400-840 1120X20 [1]	**4052899985605**	88.4	0.25	22.10	4000	>80	4400
PL-LIN-Z4 5500-840 1400X20 [1]	**4052899985803**	110	0.25	27.60	4000	>80	5500
PL-LIN-Z4 650-840 280X33 [1]	**4052899985995**	33.5	0.1	3.40	4000	>80	650
PL-LIN-Z4 1100-840 280X33 [1]	**4052899986060**	33.2	0.175	5.80	4000	>80	1100
PL-LIN-Z4 1300-840 560X33 [1]	**4052899986152**	33.5	0.2	6.70	4000	>80	1300
PL-LIN-Z4 2200-840 560X33 [1]	**4052899986220**	33.2	0.35	11.60	4000	>80	2200
PL-LIN-Z4 1100-940 280X20 [1]	**4052899984905**	34.3	0.25	8.60	4000	>90	1100
PL-LIN-Z4 2000-940 280X20 [1]	**4052899985094**	40.2	0.4	16.10	4000	>90	2000
PL-LIN-Z4 2200-940 560X20 [1]	**4052899985285**	34.3	0.5	17.10	4000	>90	2200
PL-LIN-Z4 4000-940 560X20 [1]	**4052899985476**	40.2	0.8	32.20	4000	>90	4000

Product name	lm/W	Initial SDCM	Tc	[A++]	[🔲]	[💡] No.
PL-LIN-Z4 550-840 140X20 [1]	194	≤3	75	A++	60	1
PL-LIN-Z4 1100-840 280X20 [1]	194	≤3	75	A++	60	2
PL-LIN-Z4 2000-840 280X20 [1]	190	≤3	75	A++	60	3
PL-LIN-Z4 2200-840 560X20 [1]	194	≤3	75	A++	60	4
PL-LIN-Z4 4000-840 560X20 [1]	190	≤3	75	A++	60	5
PL-LIN-Z4 4400-840 1120X20 [1]	195	≤3	75	A++	60	6
PL-LIN-Z4 5500-840 1400X20 [1]	195	≤3	75	A++	60	7
PL-LIN-Z4 650-840 280X33 [1]	190	≤3	75	A++	60	8
PL-LIN-Z4 1100-840 280X33 [1]	194	≤3	75	A++	60	9
PL-LIN-Z4 1300-840 560X33 [1]	190	≤3	75	A++	60	10
PL-LIN-Z4 2200-840 560X33 [1]	194	≤3	75	A++	60	11
PL-LIN-Z4 1100-940 280X20 [1]	132	≤3	75	A++	60	2
PL-LIN-Z4 2000-940 280X20 [1]	137	≤3	75	A++	60	3
PL-LIN-Z4 2200-940 560X20 [1]	139	≤3	75	A++	60	4
PL-LIN-Z4 4000-940 560X20 [1]	131	≤3	75	A++	60	5

1) Modules perfectly matched to OSRAM OPTOTRONIC® LED drivers (see relevant table) / For current photometric data and important safety, installation and application information, see www.osram.com/led-systems / All the technical parameters apply to the entire module. In view of the complex manufacturing process for light-emitting diodes, the typical values given above for the technical LED parameters are merely statistical values that do not necessarily correspond to the actual technical parameters of an individual product; individual products may vary from the typical values

Product features[1]
— Available with luminous flux:
550 lm on 140 mm x 20 mm
— Available with luminous flux:
1,100 lm, 2,000 lm on 280 mm x 20 mm
— Available with luminous flux:
2,200 lm, 4,000 lm on 560 mm x 20 mm
— Available with luminous flux: 4,400 lm on 1,120 mm
and 5,500 lm on 1,400 mm x 20 mm
— Available with luminous flux:
650 lm, 1,100 lm on 280 mm x 33 mm
— Available with luminous flux:
1,300 lm, 2,200 lm on 560 mm x 33 mm
— Available with color temperature:
2,700 K, 3,000 K, 4,000 K, 5,000 K or 6,500 K
— Color rendering index: > 80
— Color rendering index: > 90 for 1,100 lm,
2,000 lm on 280 mm x 20 mm
— Color rendering index: > 90 for 2,200 lm,
4,000 lm on 560 mm x 20 mm
— Average lifetime (L80 B10) for CRI ≥ 80: 50,000 h
(temperature at T_c = 55 °C)
— Average lifetime (L80 B50) for CRI ≥ 90: 50,000 h
(temperature at T_c = 55 °C)

Product benefits
— Up to 200 lm/W module efficiency for demanding
lighting solutions
— Available with a wide range of color temperatures,
lengths and color rendering indexes
— Cut-out area for shadow-free wiring
— Smart Fixation (SF) with back connector
— SELV or non-SELV module for easy luminaire design

Areas of application
— Offices
— Industry

References/Links
For more information on the multi-level guarantee and
the terms and conditions of the guarantee, visit
www.osram.com/system-guarantee
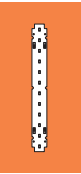
PrevaLED® Linear G4-P

The all-rounder among the LED modules

No matter for what type of luminaire, whether for pendant, surface-mounted and recessed luminaires in offices or trunking systems and high-bay luminaires in industrial applications, the PrevaLED® Linear G4-P LED module is the right choice when it comes to high-quality luminaire applications that focus both on economy and market-compliant efficiency.
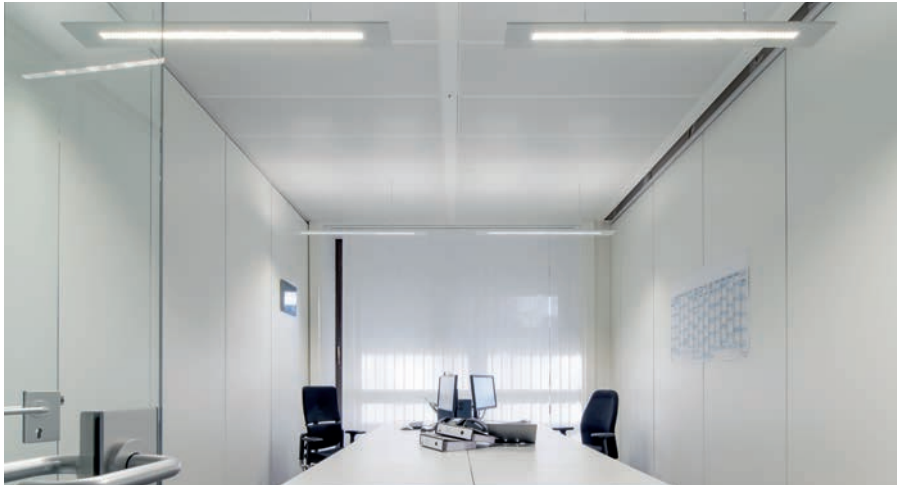
Many luminaires, one answer

PrevaLED® Linear G4-P is tuned to exactly meet the market requirements for efficiency/cost and is used in all common luminaire designs for office and industrial applications. We will continue to follow the efficiency/cost path with the upcoming product generations and thus ensure a future-proof solution.

The PrevaLED® Linear G4-P portfolio is suitable for both SELV and non-isolated operation. The advantage: Only one LED module for SELV and non-SELV luminaires.

Like all LED modules from OSRAM, PrevaLED® Linear G4-P is perfectly matched to the entire family of OPTOTRONIC® Linear LED drivers – for SELV as well as non-isolated, DALI or on/off, programmable or non-programmable.

PrevaLED® Linear G4-P
Linear Light Engines
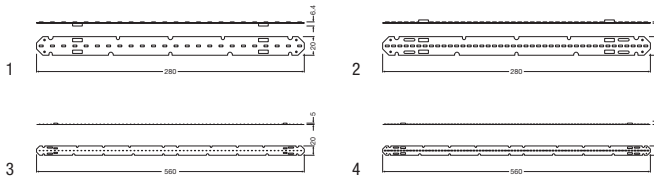
Product name	GTIN (EAN)	V	A	W	K	R$_a$	lm
PL-LIN G4-P 1100-830 280X20 [1]	**4052899989399**	33	0.175	5.80	3000	>80	1100
PL-LIN G4-P 1100-840 280X20 [1]	**4052899989412**	33	0.175	5.80	4000	>80	1100
PL-LIN G4-P 2000-830 280X20 [1]	**4052899989436**	39	0.3	11.70	3000	>80	2000
PL-LIN G4-P 2000-840 280X20 [1]	**4052899989450**	39	0.3	11.70	4000	>80	2000
PL-LIN G4-P 2200-830 560X20 [1]	**4052899989474**	33	0.35	11.60	3000	>80	2200
PL-LIN G4-P 2200-840 560X20 [1]	**4052899989498**	33	0.35	11.60	4000	>80	2200
PL-LIN G4-P 4000-830 560X20 [1]	**4052899989511**	39	0.6	23.50	3000	>80	4000
PL-LIN G4-P 4000-840 560X20 [1]	**4052899989535**	39	0.6	23.50	4000	>80	4000

Product name	lm/W	Initial SDCM	T$_c$			No.
PL-LIN G4-P 1100-830 280X20 [1]	175	≤3	75	A++	60	1
PL-LIN G4-P 1100-840 280X20 [1]	184	≤3	75	A++	60	1
PL-LIN G4-P 2000-830 280X20 [1]	172	≤3	75	A++	60	2
PL-LIN G4-P 2000-840 280X20 [1]	180	≤3	75	A++	60	2
PL-LIN G4-P 2200-830 560X20 [1]	175	≤3	75	A++	60	3
PL-LIN G4-P 2200-840 560X20 [1]	184	≤3	75	A++	60	3
PL-LIN G4-P 4000-830 560X20 [1]	172	≤3	75	A++	60	4
PL-LIN G4-P 4000-840 560X20 [1]	180	≤3	75	A++	60	4

1) Modules perfectly matched to OSRAM OPTOTRONIC® LED drivers (see relevant table) / For current photometric data and important safety, installation and application information, see www.osram.com/led-systems / All the technical parameters apply to the entire module. In view of the complex manufacturing process for light-emitting diodes, the typical values given above for the technical LED parameters are merely statistical values that do not necessarily correspond to the actual technical parameters of an individual product; individual products may vary from the typical values / In development, data preliminary

Product features[1]
— Module efficacy: up to 184 lm/W
— Available with luminous flux:
  1,100 lm or 2,000 lm on 280 mm
— Available with luminous flux:
  2,200 lm or 4,000 lm on 560 mm
— Average lifetime (L80 B10): 50,000 h
  (temperature at T$_c$ = 55 °C)
— Available with color temperature: 3,000 K, 4,000 K
— High initial color consistency: ≤ 3 SDCM
— CE marked, ENEC and VDE certified

Product benefits
— Slim module for design of narrow luminaires
— High homogeneity thanks to small LED pitch
— Cut-out area for shadow-free wiring
— SELV or non-SELV module for easy luminaire design

Areas of application
— Offices
— Industry

References/Links
For more information on the multi-level guarantee and the terms and conditions of the guarantee, visit www.osram.com/system-guarantee

Basic Linear G2

Economy as the key to success

For a variety of lighting applications that focus on economy, the Basic Linear G2 LED module has proven to be the right choice. Basic Linear G2 is primarily used in damp-proof or batten luminaires in car parks, storage rooms or corridors, which require high volumes.

Easy mounting, variable use

Basic Linear G2 is designed for lumens per euro, without missing out on good light quality and performance. Luminaires with a length of 1.2 m, in particular, can be retrofitted to LED in no time at all with the 1,120 mm long LED module.

To fully highlight the economy, the product family Basic Linear G2 is completely matched to the cost-efficient OPTOTRONIC® FIT D or ELEMENT driver families. Thanks to the flexible driver choice, the application the luminaire is meant for can definitely be implemented.

Basic Linear G2
Linear Light Engines
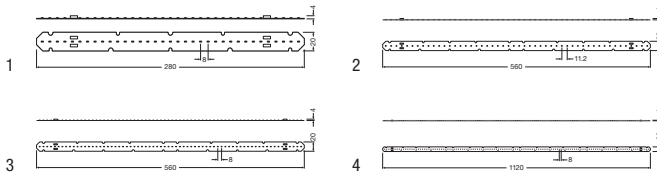
5 Year

OSRAM Guarantee*

Product name	GTIN (EAN)	V	A	W	K	Ra	lm
BA-LIN-Z2 1100-830 280X20 1)	4052899989788	30	0.25	7.30	3000	>80	1100
BA-LIN-Z2 1100-840 280X20 1)	4052899989801	30	0.25	7.30	4000	>80	1100
BA-LIN-Z2 1550-830 560X20 1)	4052899989825	41	0.25	10.30	3000	>80	1550
BA-LIN-Z2 1550-840 560X20 1)	4052899989849	41	0.25	10.30	4000	>80	1550
BA-LIN-Z2 2200-830 560X20 1)	4052899989863	59	0.25	14.70	3000	>80	2200
BA-LIN-Z2 2200-840 560X20 1)	4052899989887	59	0.25	14.70	4000	>80	2200
BA-LIN-Z2 4400-830 1120X20 1)	4052899989900	119	0.25	29.30	3000	>80	4400
BA-LIN-Z2 4400-840 1120X20 1)	4052899989924	119	0.25	29.30	4000	>80	4400

Product name	lm/W	Initial SDCM	Tc			No.
BA-LIN-Z2 1100-830 280X20 1)	145	≤3	80	A++	200	1
BA-LIN-Z2 1100-840 280X20 1)	152	≤3	80	A++	200	1
BA-LIN-Z2 1550-830 560X20 1)	145	≤3	80	A++	100	2
BA-LIN-Z2 1550-840 560X20 1)	153	≤3	80	A++	100	2
BA-LIN-Z2 2200-830 560X20 1)	145	≤3	80	A++	100	3
BA-LIN-Z2 2200-840 560X20 1)	153	≤3	80	A++	100	3
BA-LIN-Z2 4400-830 1120X20 1)	145	≤3	80	A++	50	4
BA-LIN-Z2 4400-840 1120X20 1)	153	≤3	80	A++	50	4

1) Modules perfectly matched to OSRAM OPTOTRONIC® LED drivers (see relevant table) / For current photometric data and important safety, installation and application information, see www.osram.com/led-systems / All the technical parameters apply to the entire module. In view of the complex manufacturing process for light-emitting diodes, the typical values given above for the technical LED parameters are merely statistical values that do not necessarily correspond to the actual technical parameters of an individual product; individual products may vary from the typical values / In development, data preliminary

Product features [1]
— Module efficacy: up to 153 lm/W
— Average lifetime (L70 B50): 50,000 h
  (temperature at T_p = 55 °C)
— Available with luminous flux: 1,100 lm on 280 mm
— Available with luminous flux: 1,550 lm, 2,200 lm
  on 560 mm
— Available with luminous flux: 4,400 lm on 1,120 mm
— Available with color temperature: 3,000 K or 4,000 K
— High initial color consistency: ≤ 3 SDCM
— CE marked

Product benefits
— Slim module for design of narrow luminaires
— Illumination comparable to that of reflector luminaires
— SELV or non-SELV module for easy luminaire design
— System match with OSRAM driver portfolio

Areas of application
— Underground carpark
— Industry (storage, warehouse)
— Suitable for indoor applications

References/Links
For more information on the multi-level guarantee and the terms and conditions of the guarantee, visit www.osram.com/system-guarantee

Installation hints and tips

Current distribution across LED modules connected in parallel

In the past, the wiring of conventional lamps used to be specified in advance: Lamps were either directly connected to the mains supply or there was a specific terminal pair available on the driver for each lamp. Today, state-of-the art LED technology not only enables a larger variety of possible applications, but also provides various options for the connection of modules and drivers to enable the ideal combination of constant-current drivers and LED modules. However, new challenges arise at the same time and perfect circuitry is more important than ever before.
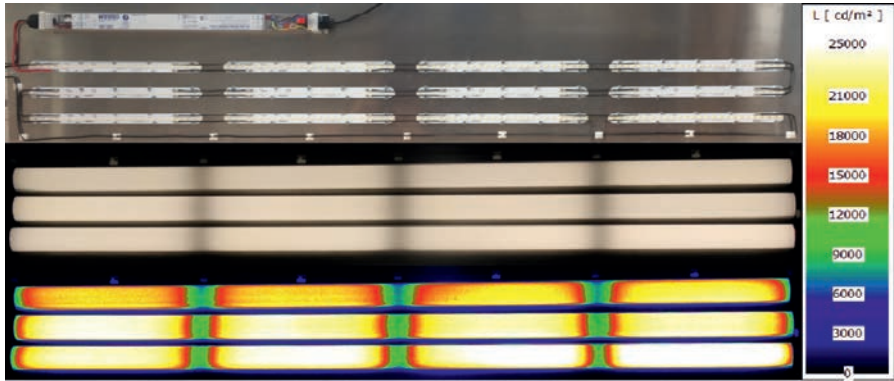
Top: Measuring set-up with driver and modules without diffuser
Center: Real photo
**Bottom:** Luminance image in false color representation with single-side power supply
Right: Scale of the luminance image

The figure above shows a sample set-up with 12 PrevaLED® Linear units connected in parallel to an OTi DALI 80/220…240/2A1 LT2 L. Together, all the modules have an overall length of 3.36 meters. The false color representation clearly shows that the first module directly connected to the driver looks significantly brighter than the last module. This can lead to disturbing brightness jumps, for example when using a light strip where the luminaires installed are flush with each other. In this example, power is supplied from one side and is looped through the individual modules. In this context, single-side power supply means that the plus and minus terminals on the same module side are used. This is illustrated once again in the following schematic representation.
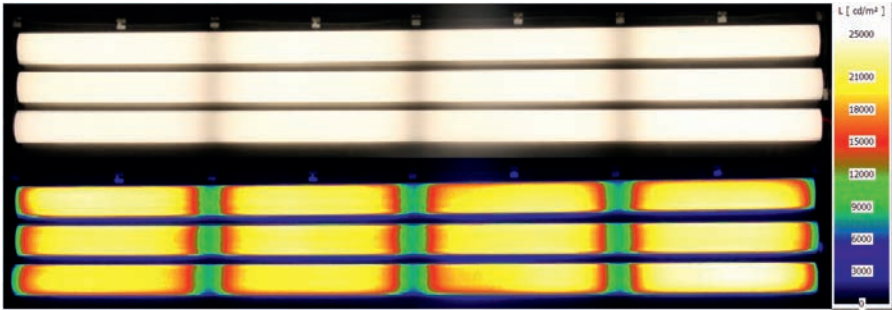
Schematic representation – "single-side power supply"
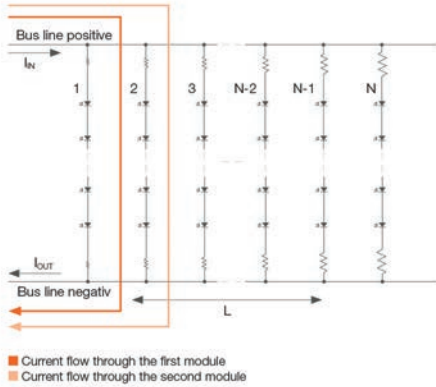
**Equivalent circuit diagram –
single-side power supply**
Source: Luminous Flux and Current
Uniformity Analysis in Linear LED Modules
Ming Li[a], Keng Chen[a], Arnulf Rupp[b],
Daniel Chu[a] & Divya Vangari[a]
[a] OSRAM Sylvania, Inc., Danvers,
 Massachusetts, USA
[b] OSRAM Licht AG, Garching, Germany

■ Current flow through the first module
■ Current flow through the second module

The figure above shows an equivalent circuit diagram of the set-up. The parasitic resistances shown in the equivalent circuit diagram correspond to the unavoidable resistances of the lines, conductors and transition resistances on the terminals. These resistances add up depending on the number of modules and due to the voltage drop on each module, the voltage decreases from one module to the next. For this reason, the current supplied by the driver cannot be distributed homogeneously across all LED modules – and the brightness level differs from module to module.

Top: Real photo
**Bottom:** Luminance image in false color representation with crossover power supply
Right: Scale of the luminance image

The figure above shows the same set-up, but with different wiring. All the modules achieve almost the same brightness level. This is due to the fact that the positive terminal is connected to one side of the modules connected in parallel and the negative terminal is connected to the other side. The following schematic representation illustrates this connection principle.

Schematic representation – "crossover power supply"
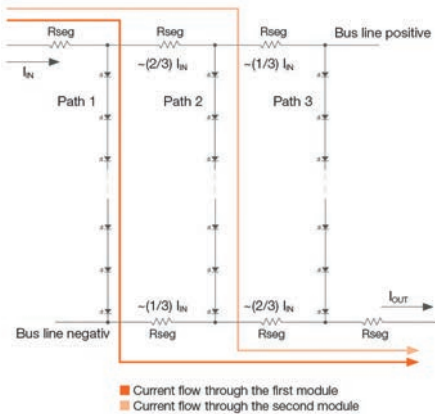
**Equivalent circuit diagram – crossover power supply**
Source: Luminous Flux and Current Uniformity Analysis in Linear LED Modules
Ming Li[a], Keng Chen[a], Arnulf Rupp[b], Daniel Chu[a] & Divya Vangari[a]
[a] OSRAM Sylvania, Inc., Danvers, Massachusetts, USA
[b] OSRAM Licht AG, Garching, Germany

The figure on the previous page shows the equivalent circuit diagram of this connection principle. When looking at the current flow through the modules in the equivalent circuit diagram (orange and bright orange lines) and adding up the parasitic resistors, the total resistance per module is 3 x Rseg. This ensures that the current supplied by the driver is evenly distributed across all the LED modules.

The problem of uneven current distribution across LED modules connected in parallel especially concerns luminaires with Safety Extra-Low Voltage (SELV), because the currents are higher and the voltages are lower. If the LED modules are consistently connected in series, each module is supplied with the same current and the problem described cannot occur.

Last but not least, it should be noted that a difference in brightness within a ready-manufactured luminaire can also be caused by other conditions such as incorrect module installation, inequalities or the contamination of reflectors and diffusers. Furthermore, other chemical impacts on the LEDs through the use of improper materials or caused by the environment etc. are also possible.
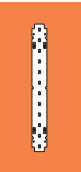
PrevaLED® Area G4

Light in a square

The LED module PrevaLED® Area G4 is ideally suited for area luminaires such as the widely used troffer luminaire. With only two LED modules, conventional luminaires are retrofitted to LED in the twinkling of an eye.

Easy luminaire integration

The LED pitch is very small, which ensures a homogeneous illumination. PrevaLED® Area G4 is a SELV-only module and is perfectly matched to the OPTOTRONIC® SELV driver family. Luminaire integration is therefore quick and comfortable.

A very high efficiency of up to 178 lm/W, a high lumen package of 5,000 to 7,000 lumens and a choice of light colors of 3,000 K or 4,000 K provide the right light in a wide variety of applications.

PrevaLED® Area G4
Area and Bar Light Engines
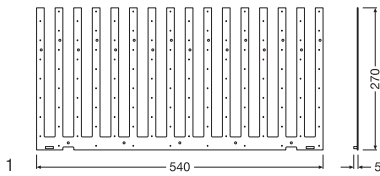
Product name	GTIN (EAN)	V	A	W	K	Ra	lm
PL-AR-G4 2500-830 [1]	**4052899529359**	41	0.35	14	3000	>80	2460
PL-AR-G4 2500-840 [1]	**4052899529373**	41	0.35	14	4000	>80	2500

Product name	lm/W	Initial SDCM	Tc	⬛	📦	No.
PL-AR-G4 2500-830 [1]	170	≤3	75	A++	20	1
PL-AR-G4 2500-840 [1]	178	≤3	75	A++	20	1

1) Modules perfectly matched to OSRAM OPTOTRONIC® LED drivers (see relevant table) / For current photometric data and important safety, installation and application information, see www.osram.com/led-systems / All the technical parameters apply to the entire module. In view of the complex manufacturing process for light-emitting diodes, the typical values given above for the technical LED parameters are merely statistical values that do not necessarily correspond to the actual technical parameters of an individual product; individual products may vary from the typical values / In development, data preliminary

Product features[1]
— Module efficacy: up to 178 lm/W
— Average lifetime (L80 B50): 50,000 h
   (temperature at T_c = 55 °C)
— Available with luminous flux: 2,500 lm
— Available with color temperature: 3,000 K or 4,000 K
— High initial color consistency: ≤ 3 SDCM
— CE marked

Product benefits
— Rectangular shape (540 mm x 270 mm) to fit in multiple square applications
— Easy installation and mounting via interconnection of two modules
— Provides homogenous light suitable for application in area luminaires
— SELV module for easy luminaire design

Areas of application
— Offices
— Hallways, corridors
— Light ceilings

References/Links
For more information on the multi-level guarantee and the terms and conditions of the guarantee, visit www.osram.com/system-guarantee

Basic Area G1

Ideal for cost optimization

For troffer luminaires that focus on economy and do not require a module efficiency higher than 150 lm/W, Basic Area G1 is just the right thing.

Basic Area G1 offers the same photometric properties as its big brother PrevaLED® Area G4. The only difference is a lower module efficiency of up to 150 lm/W.

Homogeneous illumination

Basic Area G1, which is available in the light colors 3,000 K and 4,000 K, is also characterized by its very small LED pitch, which ensures a homogeneous illumination in all applications of troffer luminaires.

Basic Area G1
Area and Bar Light Engines
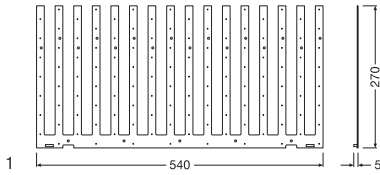
Product name	GTIN (EAN)	V	A	W	K	Ra	lm
BA-AR-G1 2500-830 540X270 [1]	**4052899989238**	42.8	0.4	17.20	3000	>80	2450
BA-AR-G1 2500-840 540X270 [1]	**4052899989252**	42.8	0.4	17.20	4000	>80	2590

Product name	lm/W	Initial SDCM	Tc			No.
BA-AR-G1 2500-830 540X270 [1]	142	≤3	75	A++	20	1
BA-AR-G1 2500-840 540X270 [1]	152	≤3	75	A++	20	1

1) Modules perfectly matched to OSRAM OPTOTRONIC® LED drivers (see relevant table) / For current photometric data and important safety, installation and application information, see www.osram.com/led-systems / All the technical parameters apply to the entire module. In view of the complex manufacturing process for light-emitting diodes, the typical values given above for the technical LED parameters are merely statistical values that do not necessarily correspond to the actual technical parameters of an individual product; individual products may vary from the typical values / In development, data preliminary

Product features[1]
— Module efficacy: up to 152 lm/W
— Average lifetime (L80 B50): 50,000 h
  (temperature at T_c = 55 °C)
— Available with luminous flux: 2,500 lm
— Available with color temperature: 3,000 K or 4,000 K
— High initial color consistency: ≤ 3 SDCM
— CE marked

Product benefits
— Rectangular shape (540 mm x 270 mm) to fit in
  multiple square applications
— Easy installation and mounting via interconnection
  of two modules
— Provides homogenous light suitable for application
  in area luminaires
— SELV module for easy luminaire design

Areas of application
— Offices
— Hallways, corridors
— Light ceilings

References/Links
For more information on the multi-level guarantee and
the terms and conditions of the guarantee, visit
www.osram.com/system-guarantee

PrevaLED® Bar

The LED module among the trunking systems

With its three-row LED arrangement on the circuit board, the light engine PrevaLED® Bar is particularly suited for trunking systems, which are used, for example, in supermarkets or for shop & retail.

Retail applications

In terms of light quality, PrevaLED® Bar has excellent properties as the three-row LED arrangement reduces the luminance and therefore the glare.

PrevaLED® Bar is perfectly matched to optics that are currently available on the market (e.g. Ledil® or Carclo®). Thus, the assembly of a professional trunking system becomes as easy as it gets. You have the choice between the light colors 3,000 K, 4,000 K and 6,500 K, for a 280 mm as well as a 560 mm long LED module.

PrevaLED® Bar is suitable for operation with SELV as well as non-isolated drivers. Rest assured that you will find the right driver for your application.

PrevaLED® Bar Gen2
Area and Bar Light Engines
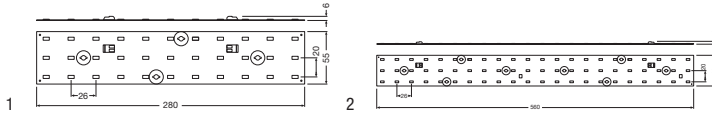
Product name	GTIN (EAN)	V	A	W	K	Ra	lm
PLG2-BAR-1100-830-280x55-DC [1]	**4052899303935**	31	0.225	7	3000	>80	1100
PLG2-BAR-1100-840-280x55-DC [1]	**4052899303959**	31	0.225	7	4000	>80	1100
PLG2-BAR-1100-865-280x55-DC [1]	**4052899303973**	31	0.225	7	6500	>80	1100
PLG2-BAR-2200-830-560x55-DC [1]	**4052899303997**	31	0.45	14	3000	>80	2200
PLG2-BAR-2200-840-560x55-DC [1]	**4052899304017**	31	0.45	14	4000	>80	2200
PLG2-BAR-2200-865-560x55-DC [1]	**4052899304031**	31	0.45	14	6500	>80	2200

Product name	lm/W	Initial SDCM	T_c			No.
PLG2-BAR-1100-830-280x55-DC [1]	155	≤3	80	A++	40	1
PLG2-BAR-1100-840-280x55-DC [1]	155	≤3	80	A++	40	1
PLG2-BAR-1100-865-280x55-DC [1]	155	≤3	80	A++	40	1
PLG2-BAR-2200-830-560x55-DC [1]	155	≤3	80	A++	40	2
PLG2-BAR-2200-840-560x55-DC [1]	155	≤3	80	A++	40	2
PLG2-BAR-2200-865-560x55-DC [1]	155	≤3	80	A++	40	2

1) Modules perfectly matched to OSRAM OPTOTRONIC® LED drivers (see relevant table) / For current photometric data and important safety, installation and application information, see www.osram.com/led-systems / All the technical parameters apply to the entire module. In view of the complex manufacturing process for light-emitting diodes, the typical values given above for the technical LED parameters are merely statistical values that do not necessarily correspond to the actual technical parameters of an individual product; individual products may vary from the typical values

Product features[1]
— High module efficacy: up to 155 lm/W
— Average lifetime (L80 B10): 50,000 h (temperature at T_c = 55 °C)
— Available with color temperature: 3,000 K, 4,000 K or 6,500 K
— High initial color consistency: ≤ 3 SDCM
— Poke-in wire connection for 0.5 mm² or 0.75 mm² wire
— Serial and parallel connection
— Self-cooling
— CE marked
— ENEC 10 mark

Product benefits
— Rectangular shape (280 mm, 560 mm x 55 mm) to fit in multiple trunking systems
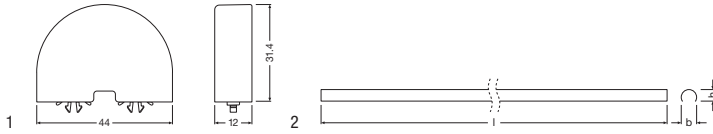— Reduced luminance thanks to three-row LED arrangement

Areas of application
— Suitable for application in trunking systems
— Industry
— Supermarkets

References/Links
For more information on the multi-level guarantee and the terms and conditions of the guarantee, visit www.osram.com/system-guarantee

PrevaLED® Linear 33 mm LED modules
Accessories

Product name	GTIN (EAN)	h [mm]	b [mm]	l [mm]		No.
PREVALED LV DIFFUSER 560	4052899130319	30	40	560	100	2
PREVALED LV DIFFUSER 600	4052899130333	30	40	600	100	2
PREVALED LV DIFFUSER 1150	4052899130357	30	40	1150	50	2
PREVALED LV DIFFUSER 1450	4052899130371	30	40	1450	50	2
ENDCAP for LIN-DIFFUSER	4052899376670	31	12	43	100	1

Product features
— Transmission > 85 %

Product benefits
— Homogeneous glare-free light distribution
— Fast snap-on mounting using mounting screws
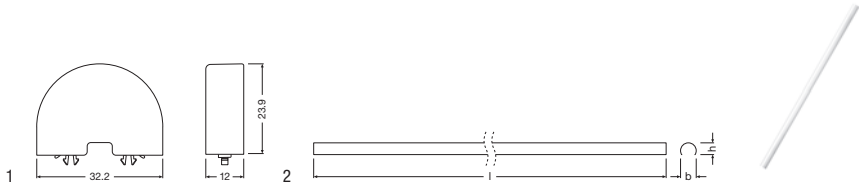— Available with length: 560 mm, 600 mm, 1,150 mm, 1,450 mm
— Prevents touching of light source

Areas of application
— Optical light impression as fluorescent tube

PrevaLED® Linear 20 mm LED modules
Accessories

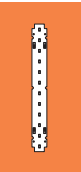| Product name	GTIN (EAN)	h [mm]	b [mm]	l [mm]	📦	💡 No.
PL-LIN DIFFUSER 560X28	4052899466692	22	28.5	560	100	2
PL-LIN DIFFUSER 600X28	4052899466739	22	28.5	600	100	2
PL-LIN DIFFUSER 1150X28	4052899466753	22	28.5	1150	50	2
PL-LIN DIFFUSER 1450X28	4052899466777	22	28.5	1450	50	2
PL-LIN ENDCAP FOR DIFFUSER 28	4052899466791	24	12	32	100	1

Product features
— Transmission > 82 %
— Material: polycarbonate (PC)

Product benefits
— Homogeneous glare-free light distribution
— Fast snap-on mounting using mounting screws
— Available with length: 560 mm, 600 mm, 1,150 mm, 1,450 mm
— Prevents touching of light source

Areas of application
— Optical light impression as fluorescent tube

PrevaLED® Linear Optic
Accessories

Product name	GTIN (EAN)	h [mm]	b [mm]	l [mm]	📦	💡 No.
PL-LIN OPTIC 60 DIFF 560X10	**4052899986527**	7.9	10.3	560	100	1
PL-LIN OPTIC 60 DIFF 1120X10	**4052899986534**	7.9	10.3	1120	100	2
PL-LIN OPTIC 50 CLR 560X10	**4052899986541**	7.9	10.3	560	100	1
PL-LIN OPTIC 50 CLR 1120X10	**4052899986558**	7.9	10.3	1120	100	2
PL-LIN OPTIC 40 CLR 560X10	**4052899986565**	7.9	10.3	560	100	1
PL-LIN OPTIC 40 CLR 1120X10	**4052899986572**	7.9	10.3	1120	100	2
PL-LIN OPTIC CLIP WT	**4052899986589**	7.5	11.8	15	700	3

Product features
— Beam angle: 40°, 50° and 60°
— Available with length: 560 mm, 1,120 mm
— Material: PMMA

Product benefits
— Linear optic for PrevaLED® Linear 20 mm
— Quick and easy mounting thanks to plastic holder
— High transmission by diffuse optic
— High transmission by transparent optic

Areas of application
— Offices
— Industry
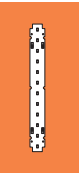
PrevaLED® Core G7

Smaller dimensions, larger selection, higher efficiency

Today, spotlights and downlights are becoming ever smaller and more efficient – but are expected to serve an even larger spectrum of applications. Whether in general lighting, shop lighting or special applications: The components must be suitable for use in a family of luminaires. The new product design of the PrevaLED® Core G7 enables optimized luminaire designs due to reduced loss of luminous flux. With its particularly low OCA height (Optical Contact Area) of just 3.5 mm and its small LES (Light-Emitting Surface) of only 10 mm or 15 mm, the reflector can be positioned very close to the light source and enables an improved light coupling and beam control. Both of these are ideal prerequisites for designing luminaires that feature optimized lighting technology and smaller overall dimensions.

**Benefit from an extended range of LED modules for spotlights and downlights**

We offer a very large spectrum of power ranges, color temperatures and light qualities:

— 1,000, 2,000, 3,000 or 5,000 lm
— 2,700, 3,000, 3,500 or 4,000 K
— CRI > 80 or > 90
— Food colors: Meat, fish, bread or fruit and vegetables
— Fashion colors: White for clothing in brilliant colors and high contrast

Depending on the application, we recommend the combination of PrevaLED® Core G7 with our LED driver families OT FIT LT2 S and OT FIT CS G2 for an optimal OSRAM system solution. More details can be found in the chapter "LED drivers" and at www.osram.com/ds.

PrevaLED® Core G7 L15 H1

Light engines and modules for spotlights, downlights and wall-mounted luminaires
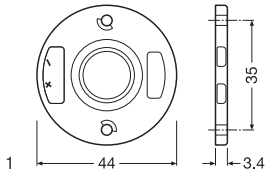
Product name	GTIN (EAN)	W	V	A	lm	lm/W	K
PL-CORE-G7 2000-827 L15 H1 [1)	4052899534308	13.50	34.4	0.393	2000	148	2700
PL-CORE-G7 2000-830 L15 H1 [1)	4052899534322	12.70	34.2	0.37	2000	158	3000
PL-CORE-G7 2000-835 L15 H1 [1)	4052899534346	12.40	34.2	0.364	2000	161	3500
PL-CORE-G7 2000-840 L15 H1 [1)	4052899534360	11.90	34.1	0.349	2000	168	4000
PL-CORE-G7 2000-927 L15 H1 [1)	4052899534384	16.20	34.9	0.465	2000	123	2700
PL-CORE-G7 2000-930 L15 H1 [1)	4052899534407	15.20	34.7	0.437	2000	132	3000
PL-CORE-G7 2000-935 L15 H1 [1)	4052899534421	16.20	34.9	0.465	2000	123	3500
PL-CORE-G7 2000-940 L15 H1 [1)	4052899534445	15.20	34.7	0.438	2000	132	4000
PL-CORE-G7 3000-827 L15 H1 [1)	4052899534469	21.40	35.2	0.608	3000	140	2700
PL-CORE-G7 3000-830 L15 H1 [1)	4052899534483	20.30	35.1	0.58	3000	148	3000
PL-CORE-G7 3000-835 L15 H1 [1)	4052899534506	20.90	35.2	0.594	3000	144	3500
PL-CORE-G7 3000-840 L15 H1 [1)	4052899534520	18.90	34.8	0.542	3000	159	4000
PL-CORE-G7 3000-927 L15 H1 [1)	4052899534544	27	36.1	0.749	3000	111	2700
PL-CORE-G7 3000-930 L15 H1 [1)	4052899534568	25.50	35.9	0.711	3000	118	3000
PL-CORE-G7 3000-935 L15 H1 [1)	4052899534582	24.30	35.7	0.682	3000	123	3500
PL-CORE-G7 3000-940 L15 H1 [1)	4052899534605	23.70	35.6	0.666	3000	127	4000
PL-CORE-G7 5000-827 L15 H1 [1)	4052899534629	41.10	36.7	1.12	5000	122	2700
PL-CORE-G7 5000-830 L15 H1 [1)	4052899534643	36.10	36.1	0.999	5000	139	3000
PL-CORE-G7 5000-835 L15 H1 [1)	4052899534667	37.70	36.3	1.038	5000	133	3500
PL-CORE-G7 5000-840 L15 H1 [1)	4052899534681	34	35.9	0.947	5000	147	4000
PL-CORE-G7 5000-927 L15 H1 [1)	4052899534704	47	37.3	1.26	5000	106	2700
PL-CORE-G7 5000-930 L15 H1 [1)	4052899534728	46.40	37.2	1.247	5000	108	3000
PL-CORE-G7 5000-935 L15 H1 [1)	4052899534742	45.30	37.1	1.221	5000	110	3500
PL-CORE-G7 5000-940 L15 H1 [1)	4052899534766	44.10	37	1.192	5000	113	4000

Product name	Ra	Initial SDCM	Tc	t [h]	🔋	📦	💡 No.
PL-CORE-G7 2000-827 L15 H1 [1]	≥80	≤3	100	60000	A+	40	1
PL-CORE-G7 2000-830 L15 H1 [1]	≥80	≤3	100	60000	A++	40	1
PL-CORE-G7 2000-835 L15 H1 [1]	≥80	≤3	100	60000	A++	40	1
PL-CORE-G7 2000-840 L15 H1 [1]	≥80	≤3	100	60000	A++	40	1
PL-CORE-G7 2000-927 L15 H1 [1]	≥90	≤3	100	60000	A+	40	1
PL-CORE-G7 2000-930 L15 H1 [1]	≥90	≤3	100	60000	A+	40	1
PL-CORE-G7 2000-935 L15 H1 [1]	≥90	≤3	100	60000	A+	40	1
PL-CORE-G7 2000-940 L15 H1 [1]	≥90	≤3	100	60000	A+	40	1
PL-CORE-G7 3000-827 L15 H1 [1]	≥80	≤3	100	60000	A+	40	1
PL-CORE-G7 3000-830 L15 H1 [1]	≥80	≤3	100	60000	A++	40	1
PL-CORE-G7 3000-835 L15 H1 [1]	≥80	≤3	100	60000	A++	40	1
PL-CORE-G7 3000-840 L15 H1 [1]	≥80	≤3	100	60000	A++	40	1
PL-CORE-G7 3000-927 L15 H1 [1]	≥90	≤3	100	60000	A+	40	1
PL-CORE-G7 3000-930 L15 H1 [1]	≥90	≤3	100	60000	A+	40	1
PL-CORE-G7 3000-935 L15 H1 [1]	≥90	≤3	100	60000	A+	40	1
PL-CORE-G7 3000-940 L15 H1 [1]	≥90	≤3	100	60000	A+	40	1
PL-CORE-G7 5000-827 L15 H1 [1]	≥80	≤3	100	60000	A+	40	1
PL-CORE-G7 5000-830 L15 H1 [1]	≥80	≤3	100	60000	A+	40	1
PL-CORE-G7 5000-835 L15 H1 [1]	≥80	≤3	100	60000	A+	40	1
PL-CORE-G7 5000-840 L15 H1 [1]	≥80	≤3	100	60000	A+	40	1
PL-CORE-G7 5000-927 L15 H1 [1]	≥90	≤3	100	60000	A+	40	1
PL-CORE-G7 5000-930 L15 H1 [1]	≥90	≤3	100	60000	A+	40	1
PL-CORE-G7 5000-935 L15 H1 [1]	≥90	≤3	100	60000	A+	40	1
PL-CORE-G7 5000-940 L15 H1 [1]	≥90	≤3	100	60000	A+	40	1

1) Modules perfectly matched to OSRAM OPTOTRONIC® LED drivers (see relevant table) / For current photometric data and important safety, installation and application information, see www.osram.com/led-systems / All the technical parameters apply to the entire module. In view of the complex manufacturing process for light-emitting diodes, the typical values given above for the technical LED parameters are merely statistical values that do not necessarily correspond to the actual technical parameters of an individual product; individual products may vary from the typical values

Product features[1]
— Complete portfolio with varying luminous flux, color temperature, color rendering
— Available with color temperature: 2,700 K, 3,000 K, 3,500 K or 4,000 K
— High module efficacy: up to 168 lm/W at T_p = 65 °C
— CE marked
— Lifetime (L80/B10): 60,000 h (temperature at T_p = 65 °C)

Product benefits
— Easy integration thanks to very compact form factor
— Easy cooling due to optimized efficiency and high maximum operation temperature
— High driver flexibility allows cost-effective and intelligent systems
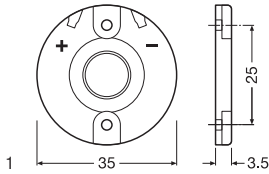— 5-year guarantee

Areas of application
— Spotlighting in shops and retail
— Down- and wall lighting in offices, corridors, meeting rooms, workplaces
— Decorative and functional lighting in hospitality, hotels, restaurants
— Functional lighting in public and commercial buildings

References/Links
For more information on the multi-level guarantee and the terms and conditions of the guarantee, visit www.osram.com/system-guarantee

PrevaLED® Core G7 L10 H1
Light engines and modules for spotlights, downlights and wall-mounted luminaires

1   35   3.5   25

5 Year

OSRAM Guarantee*

Product name	GTIN (EAN)	W	V	A	lm	lm/w	K
PL-CORE-G7 1000-827 L10 H1 [1]	**4052899533929**	7.30	35.3	0.206	1000	138	2700
PL-CORE-G7 1000-830 L10 H1 [1]	**4052899533943**	6.80	35.1	0.195	1000	146	3000
PL-CORE-G7 1000-835 L10 H1 [1]	**4052899533967**	6.60	35	0.189	1000	152	3500
PL-CORE-G7 1000-840 L10 H1 [1]	**4052899533981**	6.40	34.9	0.184	1000	156	4000
PL-CORE-G7 1000-927 L10 H1 [1]	**4052899534001**	8.80	36	0.245	1000	113	2700
PL-CORE-G7 1000-930 L10 H1 [1]	**4052899534049**	8.30	35.8	0.233	1000	120	3000
PL-CORE-G7 1000-935 L10 H1 [1]	**4052899534063**	8	35.6	0.224	1000	125	3500
PL-CORE-G7 1000-940 L10 H1 [1]	**4052899534100**	7.80	35.6	0.219	1000	128	4000
PL-CORE-G7 2000-827 L10 H1 [1]	**4052899534124**	15.30	35.4	0.431	2000	131	2700
PL-CORE-G7 2000-830 L10 H1 [1]	**4052899534148**	14.40	35.2	0.408	2000	139	3000
PL-CORE-G7 2000-835 L10 H1 [1]	**4052899534186**	13.90	35.1	0.395	2000	144	3500
PL-CORE-G7 2000-840 L10 H1 [1]	**4052899534209**	13.60	35.1	0.387	2000	147	4000
PL-CORE-G7 2000-927 L10 H1 [1]	**4052899534223**	18.50	36.1	0.512	2000	108	2700
PL-CORE-G7 2000-927 L10 H1 [1]	**4052899534247**	17.40	35.9	0.486	2000	115	3000
PL-CORE-G7 2000-935 L10 H1 [1]	**4052899534261**	16.70	35.8	0.468	2000	120	3500
PL-CORE-G7 2000-940 L10 H1 [1]	**4052899534285**	16.30	35.7	0.458	2000	123	4000

Product name	Ra	Initial SDCM	Tc	t [h]			No.	
PL-CORE-G7 1000-827 L10 H1 [1]	≥80	≤3	100	60000	A++	100	1	
PL-CORE-G7 1000-830 L10 H1 [1]	≥80	≤3	100	60000	A++	100	1	
PL-CORE-G7 1000-835 L10 H1 [1]	≥80	≤3	100	60000	A++	100	1	
PL-CORE-G7 1000-840 L10 H1 [1]	≥80	≤3	100	60000	A++	100	1	
PL-CORE-G7 1000-927 L10 H1 [1]	≥90	≤3	100	60000	A+	100	1	
PL-CORE-G7 1000-930 L10 H1 [1]	≥90	≤3	100	60000	A+	100	1	
PL-CORE-G7 1000-935 L10 H1 [1]	≥90	≤3	100	60000	A+	100	1	
PL-CORE-G7 1000-940 L10 H1 [1]	≥90	≤3	100	60000	A+	100	1	
PL-CORE-G7 2000-827 L10 H1 [1]	≥80	≤3	100	60000	A+	100	1	
PL-CORE-G7 2000-830 L10 H1 [1]	≥80	≤3	100	60000	A+	100	1	
PL-CORE-G7 2000-835 L10 H1 [1]	≥80	≤3	100	60000	A++	100	1	
PL-CORE-G7 2000-840 L10 H1 [1]	≥80	≤3	100	60000	A++	100	1	
PL-CORE-G7 2000-927 L10 H1 [1]	≥90	≤3	100	60000	A+	100	1	
PL-CORE-G7 2000-927 L10 H1 [1]	≥90	≤3	100	60000	A+	100	1	
PL-CORE-G7 2000-935 L10 H1 [1]	≥90	≤3	100	60000	A+	100	1	
PL-CORE-G7 2000-940 L10 H1 [1]	≥90	≤3	100	60000	A+	100	1	

1) Modules perfectly matched to OSRAM OPTOTRONIC® LED drivers (see relevant table) / For current photometric data and important safety, installation and application information,
see www.osram.com/led-systems / All the technical parameters apply to the entire module. In view of the complex manufacturing process for light-emitting diodes, the typical values given above for
the technical LED parameters are merely statistical values that do not necessarily correspond to the actual technical parameters of an individual product; individual products may vary from the typical
values

Product features[1]
— Complete portfolio with varying luminous flux, color temperature, color rendering
— Available with color temperature: 2,700 K, 3,000 K, 3,500 K or 4,000 K
— High module efficacy: up to 156 lm/W at T_p = 65 °C
— CE marked
— Lifetime (L80/B10): 60,000 h (temperature at T_p = 65 °C)

Product benefits
— Easy integration thanks to very compact form factor
— Easy cooling due to optimized efficiency and high maximum operation temperature
— High driver flexibility allows cost-effective and intelligent systems
— 5-year guarantee

Areas of application
— Spotlighting in shops and retail
— Down- and wall lighting in offices, corridors, meeting rooms, workplaces
— Decorative and functional lighting in hospitality, hotels, restaurants
— Functional lighting in public and commercial buildings

References/Links
For more information on the multi-level guarantee and the terms and conditions of the guarantee, visit www.osram.com/system-guarantee

PrevaLED® Core G7 driver matching overview

OSRAM NAME (LE=COB+Holder)	DALI – SELV				OT FIT LT2 – SELV & LP			OT FIT CS G2 – SELV (DIP switch)			
	OTi DALI 15/220...240/1A4 LT2	OTi DALI 25/220...240/700 LT2	OTi DALI 35/220...240/1A0 LT2	OTi DALI 50/220...240/1A4 LT2 FAN	OT FIT 15/220...240/500 LT2 S / LP	OT FIT 25/220...240/700 LT2 S / LP	OT FIT 40/220...240/1A0 LT2 S / LP	OT FIT 20/220...240/500 CS G2			
	Luminous flux depends on set current				Luminous flux depends on set current			Luminous flux [lm] according to current [mA] as follows			
								250	350	450	500
PL-CORE-G7 1000-827 L10 H1	■				■			1195	1603		
PL-CORE-G7 1000-830 L10 H1	■				■			1256	1685		
PL-CORE-G7 1000-835 L10 H1	■				■			1294	1737		
PL-CORE-G7 1000-840 L10 H1	■				■			1325	1778		
PL-CORE-G7 1000-927 L10 H1	■	■			■			1017	1365		
PL-CORE-G7 1000-930 L10 H1	■	■			■			1066	1431		
PL-CORE-G7 1000-935 L10 H1	■	■			■			1103	1481		
PL-CORE-G7 1000-940 L10 H1	■	■			■			1126	1511		
PL-CORE-G7 2000-827 L10 H1	■	■			■	■		1189	1645	2081	2291
PL-CORE-G7 2000-830 L10 H1	■	■			■	■		1251	1731	2190	2411
PL-CORE-G7 2000-835 L10 H1	■	■			■	■		1290	1784	2257	2485
PL-CORE-G7 2000-840 L10 H1	■	■			■	■		1315	1819	2301	2533
PL-CORE-G7 2000-927 L10 H1		■	■			■	■	1016	1405	1778	1958
PL-CORE-G7 2000-930 L10 H1		■	■			■	■	1065	1473	1864	2052
PL-CORE-G7 2000-935 L10 H1	■	■	■			■	■	1102	1525	1929	2124
PL-CORE-G7 2000-940 L10 H1	■	■	■			■	■	1124	1556	1968	2167
PL-CORE-G7 2000-827 L15 H1	■	■			■	■		1312	1769	2262	2487
PL-CORE-G7 2000-830 L15 H1	■	■			■	■		1386	1898	2390	2628
PL-CORE-G7 2000-835 L15 H1	■	■			■	■		1408	1928	2427	2669
PL-CORE-G7 2000-840 L15 H1	■	■			■	■		1463	2004	2522	2774
PL-CORE-G7 2000-927 L15 H1	■	■	■		■	■	■		1541	1940	2133
PL-CORE-G7 2000-930 L15 H1	■	■	■		■	■	■		1633	2055	2260
PL-CORE-G7 2000-935 L15 H1	■	■	■		■	■	■		1543	1943	2137
PL-CORE-G7 2000-940 L15 H1	■	■	■		■	■	■		1627	2048	2252
PL-CORE-G7 3000-827 L15 H1		■	■			■	■				
PL-CORE-G7 3000-830 L15 H1		■	■			■	■				
PL-CORE-G7 3000-835 L15 H1		■	■			■	■				
PL-CORE-G7 3000-840 L15 H1		■	■			■	■				
PL-CORE-G7 3000-927 L15 H1			■	■			■				
PL-CORE-G7 3000-930 L15 H1		■	■	■			■				
PL-CORE-G7 3000-935 L15 H1		■	■	■		■	■				
PL-CORE-G7 3000-940 L15 H1		■	■	■		■	■				
PL-CORE-G7 5000-827 L15 H1				■							
PL-CORE-G7 5000-830 L15 H1				■			■				
PL-CORE-G7 5000-835 L15 H1				■			■				
PL-CORE-G7 5000-840 L15 H1				■			■				
PL-CORE-G7 5000-927 L15 H1				■							
PL-CORE-G7 5000-930 L15 H1				■							
PL-CORE-G7 5000-935 L15 H1				■							
PL-CORE-G7 5000-940 L15 H1				■							

OT FIT CS G2 – SELV (DIP switch)

	OT FIT 30/220…240/700 CS G2				OT FIT 40/220…240/1A0 CS G2		
Luminous flux [lm] according to current [mA] as follows				Luminous flux [lm] according to current [mA] as follows			
500	**600**	**650**	**700**	**500**	**600**	**650**	**700**
2291	2697	2892	3082				
2411	2838	3043	3244				
2485	2925	3137	3343				
2533	2982	3198	3408				
1958	2304	2471	2633				
2052	2415	2590	2760				
2124	2500	2681	2858				
2167	2550	2735	2915				
2487	2922	3132	3338				
2628	3088	3310	3527				
2669	3136	3362	3583				
2774	3259	3494	3723				
2133	2507	2687	2863				
2260	2656	2847	3033				
2137	2511	2691	2868				
2252	2647	2837	3023				
2510	2965	3188	3407	3836	4251	4454	4849
2619	3095	3327	3556	4003	4437	4648	5061
2561	3025	3252	3476	3914	4337	4544	4947
2784	3289	3536	3780	4255	4716	4941	5379
2083	2461	2646	2828	3184	3529	3697	4025
2179	2575	2768	2959	3331	3692	3868	4211
2262	2673	2873	3071	3457	3832	4014	4371
2311	2730	2935	3137	3532	3914	4101	4465
							4722
							5228
							5052
							5489
							4257
							4295
							4377
							4467

Note:
Tolerance for optical and
electrical data: ±10 %

PrevaLED® Core AC G2

Light engines and modules for spotlights, downlights and wall-mounted luminaires
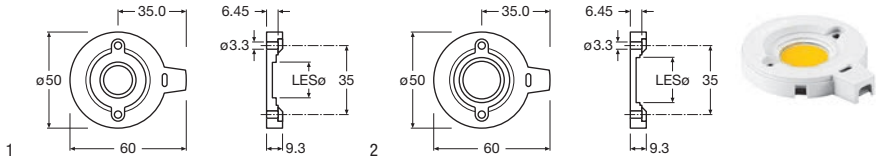
Product name	GTIN (EAN)	W	V	λ	lm	lm/W	K	Ra
PL-CORE AC-800-827 [1]	4052899952751	8.90	230	0.99	800	90	2700	83
PL-CORE AC-800-830	4052899952768	8.60	230	0.99	800	93	3000	83
PL-CORE AC-2000-830 [1]	4052899952775	19.60	230	0.99	2000	102	3000	83
PL-CORE AC-2000-840 [1]	4052899952782	18.40	230	0.99	2000	109	4000	83

Product name	Initial SDCM	LES ⌀	Tc	t [h]			No.
PL-CORE AC-800-827 [1]	≤3	14	80	50000	A+	50	1
PL-CORE AC-800-830 [1]	≤3	14	80	50000	A+	50	1
PL-CORE AC-2000-830 [1]	≤3	19	80	50000	A+	50	2
PL-CORE AC-2000-840 [1]	≤3	19	80	50000	A+	50	2

1) For current photometric data and important safety, installation and application information, see www.osram.com/led-systems / All the technical parameters apply to the entire module.
In view of the complex manufacturing process for light-emitting diodes, the typical values given above for the technical LED parameters are merely statistical values that do not necessarily correspond to the actual technical parameters of an individual product; individual products may vary from the typical values

Product features[1]

— LED light engine with integrated driver
— Light-emitting surface, diameter, mounting holes positioning according to Zhaga Book 3
— Poke-in wire connection (no special connector required)
— Available with luminous flux: 800 lm, 2,000 lm
— System efficacy: up to 94 lm/W
— Color temperature: 2,700 K, 3,000 K or 4,000 K
— Color rendering index Ra: typ. 83
— Maximum housing temperature: 80 °C at Tc point
— Initial color consistency: ≤ 3 SDCM
— Power factor: > 0.95

Product benefits

— Connect directly to 220…240 V AC mains voltage for class 1 luminaires
— No external driver required
— Easy efficiency upgrade from generation 1 modules due to unchanged form factor
— Enables very high degree of freedom in luminaire design
— Allows very compact luminaire designs

— Less complexity in logistics as no external driver or special cables are required
— Enhanced safety thanks to protective cover glass and reversible thermal shutdown
— Easy to integrate due to compatibility with Zhaga Book 3 heat sinks and reflectors
— Chip-on-board technology with great homogeneity, no diffuser required
— 5-year guarantee

Areas of application

— Spotlighting in shops
— Down- and wall lighting in offices, corridors, meeting rooms, workplaces
— Decorative and functional lighting in the hospitality industry
— Accent lighting

References/Links

For more information on the multi-level guarantee and the terms and conditions of the guarantee, visit www.osram.com/system-guarantee

PrevaLED® COIN

Light is reliable: Quickly connect to the LED age

There are a number of reasons why the PrevaLED® COIN 50 and PrevaLED® COIN 111 are very popular choices. Both products combine effortless and quick installation with easy operation with OSRAM drivers, long lifetime, high reliability and an amazing level of efficiency. Moreover, PrevaLED® COIN is highly flexible due to the easy replacement of the modules.

Both products have a broad range of application possibilities from attractive product presentation in shops and malls to beautiful illumination of exhibits in galleries or museums to spot lighting, e.g. in retail stores.

They are also simple solution replacements for MR16 and AR111 form factors with light, optics and heat sink. They offer:
— Best luminous efficacy in combination with OPTOTRONIC® constant-current ECG
— Easy and quick design-in for luminaire manufacturers
— High luminous flux packages
— Perfect replacement for existing lamps
— Excellent appearance
— Quick and comfortable initial installation

PrevaLED® COIN 50 COB G1
LED modules with integrated optics and heat sink
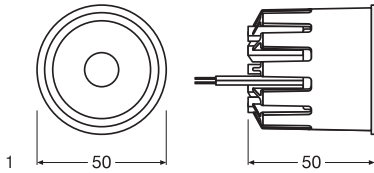
Product name	GTIN (EAN)	W	A	lm	lm/W	K
PL-CN50DC-COB 900-930-24D-G1 [1]	4052899541191	12.30	0.35	1020	82	3000
PL-CN50DC-COB 900-930-40D-G1 [1]	4052899541757	12.30	0.35	980	79	3000
PL-CN50DC-COB 900-940-24D-G1 [1]	4052899541771	12.30	0.35	1090	88	4000
PL-CN50DC-COB 900-940-40D-G1 [1]	4052899541818	12.30	0.35	1050	84	4000
PL-CN50DC-COB 1400-830-24D-G1 [1]	4052899541870	12.90	0.35	1430	111	3000
PL-CN50DC-COB 1400-830-40D-G1 [1]	4052899541894	12.90	0.35	1360	105	3000
PL-CN50DC-COB 1400-840-24D-G1 [1]	4052899541917	12.90	0.35	1510	117	4000
PL-CN50DC-COB 1400-840-40D-G1 [1]	4052899541931	12.90	0.35	1430	111	4000

Product name	Ra	Initial SDCM	∠°			No.
PL-CN50DC-COB 900-930-24D-G1 [1]	≥90	≤3	24	A+	20	1
PL-CN50DC-COB 900-930-40D-G1 [1]	≥90	≤3	40	A	20	1
PL-CN50DC-COB 900-940-24D-G1 [1]	≥90	≤3	24	A+	20	1
PL-CN50DC-COB 900-940-40D-G1 [1]	≥90	≤3	40	A+	20	1
PL-CN50DC-COB 1400-830-24D-G1 [1]	≥80	≤3	24	A+	20	1
PL-CN50DC-COB 1400-830-40D-G1 [1]	≥80	≤3	40	A+	20	1
PL-CN50DC-COB 1400-840-24D-G1 [1]	≥80	≤3	24	A+	20	1
PL-CN50DC-COB 1400-840-40D-G1 [1]	≥80	≤3	40	A+	20	1

1) Modules perfectly matched to OSRAM OPTOTRONIC® LED drivers (see relevant table). / For current photometric data and important safety, installation and application information, see www.osram.com/led-systems / All the technical parameters apply to the entire module. In view of the complex manufacturing process for light-emitting diodes, the typical values given above for the technical LED parameters are merely statistical values that do not necessarily correspond to the actual technical parameters of an individual product; individual products may vary from the typical values

Product features[1]
— Consistent white light: ≤ 3 SDCM
— Color rendering index R_a: > 80 and > 90
— Luminous flux: 980…1,500 lm (model-dependent)
— Beam angle: 15° (on demand), 24°, 40°

Product benefits
— Compact design
— Compatible with conventional MR16 lamps
— High color temperature consistency throughout the whole module
— Complying with IES TM30
— Multi-shadow-free illumination thanks to single light source
— 5-year guarantee

Areas of application
— Retail outlets
— Shop lighting
— Restaurants
— Hospitality
— Museums, galleries

References/Links
For more information on the multi-level guarantee and the terms and conditions of the guarantee, visit www.osram.com/system-guarantee

PrevaLED® COIN 111 COB G1
LED modules with integrated optics and heat sink

1   110.3   52
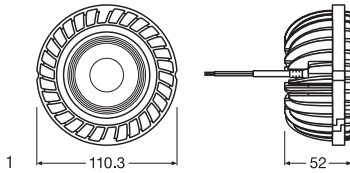
5 Year

OSRAM
Guarantee*

Product name	GTIN (EAN)	W	A	lm	lm/W	K
PL-CN111DC-COB 1800-930-24D-G1 [1]	**4052899541412**	18	0.5	1880	105	3000
PL-CN111DC-COB 1800-930-40D-G1 [1]	**4052899541436**	18	0.5	1800	100	3000
PL-CN111DC-COB 1800-940-24D-G1 [1]	**4052899541474**	18	0.5	1990	111	4000
PL-CN111DC-COB 1800-940-40D-G1 [1]	**4052899541498**	18	0.5	1910	106	4000
PL-CN111DC-COB 2800-830-24D-G1 [1]	**4052899541511**	25.9	0.7	2760	107	3000
PL-CN111DC-COB 2800-830-40D-G1 [1]	**4052899541535**	25.9	0.7	2650	102	3000
PL-CN111DC-COB 2800-840-24D-G1 [1]	**4052899541573**	25.9	0.7	2900	112	4000
PL-CN111DC-COB 2800-840-40D-G1 [1]	**4052899541597**	25.9	0.7	2780	107	4000
PL-CN111DC-COB 4300-830-24D-G1 [1]	**4052899541634**	37.6	1.05	4550	121	3000
PL-CN111DC-COB 4300-830-40D-G1 [1]	**4052899541658**	37.6	1.05	4340	115	3000
PL-CN111DC-COB 4300-830-60D-G1 [1]	**4052899541672**	37.6	1.05	4240	112	3000
PL-CN111DC-COB 4300-840-24D-G1 [1]	**4052899541696**	37.6	1.05	4780	127	4000
PL-CN111DC-COB 4300-840-40D-G1 [1]	**4052899541719**	37.6	1.05	4560	121	4000
PL-CN111DC-COB 4300-840-60D-G1 [1]	**4052899541733**	37.6	1.05	4450	118	4000

Product name	Ra	Initial SDCM	∠°			No.
PL-CN111DC-COB 1800-930-24D-G1 [1]	≥90	≤3	24	A+	12	1
PL-CN111DC-COB 1800-930-40D-G1 [1]	≥90	≤3	40	A+	12	1
PL-CN111DC-COB 1800-940-24D-G1 [1]	≥90	≤3	24	A+	12	1
PL-CN111DC-COB 1800-940-40D-G1 [1]	≥90	≤3	40	A+	12	1
PL-CN111DC-COB 2800-830-24D-G1 [1]	≥80	≤3	24	A+	12	1
PL-CN111DC-COB 2800-830-40D-G1 [1]	≥80	≤3	40	A+	12	1
PL-CN111DC-COB 2800-840-24D-G1 [1]	≥80	≤3	24	A+	12	1
PL-CN111DC-COB 2800-840-40D-G1 [1]	≥80	≤3	40	A+	12	1
PL-CN111DC-COB 4300-830-24D-G1 [1]	≥80	≤3	24	A++	12	1
PL-CN111DC-COB 4300-830-40D-G1 [1]	≥80	≤3	40	A++	12	1
PL-CN111DC-COB 4300-830-60D-G1 [1]	≥80	≤3	60	A+	12	1
PL-CN111DC-COB 4300-840-24D-G1 [1]	≥80	≤3	24	A++	12	1
PL-CN111DC-COB 4300-840-40D-G1 [1]	≥80	≤3	40	A++	12	1
PL-CN111DC-COB 4300-840-60D-G1 [1]	≥80	≤3	60	A++	12	1

1) Modules perfectly matched to OSRAM OPTOTRONIC® LED drivers (see relevant table) / For current photometric data and important safety, installation and application information,
see www.osram.com/led-systems / All the technical parameters apply to the entire module. In view of the complex manufacturing process for light-emitting diodes, the typical values given above for
the technical LED parameters are merely statistical values that do not necessarily correspond to the actual technical parameters of an individual product; individual products may vary from the typical
values

Product features [1]
— Consistent white light: ≤ 3 SDCM
— Color rendering index R_a: > 80 and > 90
— Luminous flux: 1,800…4,800 lm (model-dependent)
— Beam angle: 15° (on demand), 24°, 40°, 60°

Product benefits
— Compact design
— Compatible with conventional AR111 lamps
— High color temperature consistency throughout the whole module
— Complying with IES TM30
— Multi-shadow-free illumination thanks to single light source
— 5-year guarantee

Areas of application
— Retail outlets
— Shop lighting
— Restaurants
— Hospitality
— Museums, galleries

References/Links
For more information on the multi-level guarantee and the terms and conditions of the guarantee, visit www.osram.com/system-guarantee

PrevaLED® COIN COB driver matching overview

OSRAM NAME	DALI – SELV				OT FIT LT2 – SELV & LP			OT FIT CS G2 – SELV (DIP switch)		
	OTi DALI 15/220…240/1 A4 LT2	OTi DALI 25/220…240/700 LT2	OTi DALI 35/220…240/1A0 LT2	OTi DALI 50/220…240/1 A4 LT2 FAN	OT FIT 15/220…240/500 LT2 S / LP	OT FIT 25/220…240/700 LT2 S / LP	OT FIT 40/220…240/1A0 LT2 S / LP	OT FIT 20/220…240/500 CS G2	OT FIT 30/220…240/700 CS G2	OT FIT 40/220…240/1A0 CS G2
	Luminous flux depends on set current				Luminous flux depends on set current			Luminous flux depends on set current		
PL-CN50-COB-900-xxx	■	■			■	■		■		
PL-CN50-COB-1200-xxx	■	■			■			■		
PL-CN50-COB-1400-xxx	■	■			■	■		■		
PL-CN111-COB-1800-xxx		■	■			■			■	
PL-CN111-COB-2800-xxx			■	■		■	■		■	
PL-CN111-COB-4300-xxx				■			■			■

PrevaLED® COIN 50 G2
LED modules with integrated optics and heat sink
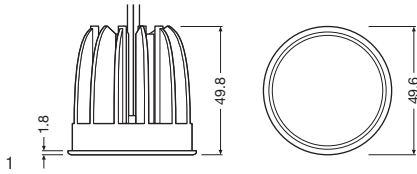
Product name	GTIN (EAN)	W	A	lm	lm/W	K	Ra
PL-CN50-900-927-24D-G2 1)	4052899324145	10.70	0.35	830	78	2700	≥90
PL-CN50-900-930-24D-G2 1)	4052899324169	10.70	0.35	830	78	3000	≥90
PL-CN50-900-940-24D-G2 1)	4052899324183	10.70	0.35	900	84	4000	≥90
PL-CN50-900-927-40D-G2 1)	4052899324206	10.70	0.35	830	78	2700	≥90
PL-CN50-900-930-40D-G2 1)	4052899324220	10.70	0.35	830	78	3000	≥90
PL-CN50-900-940-40D-G2 1)	4052899324275	10.70	0.35	900	84	4000	≥90
PL-CN50-1200-827-24D-G2 1)	4052899324299	10.70	0.35	1010	94	2700	≥80
PL-CN50-1200-830-24D-G2 1)	4052899324343	10.70	0.35	1100	103	3000	≥80
PL-CN50-1200-840-24D-G2 1)	4052899324367	10.70	0.35	1200	112	4000	≥80
PL-CN50-1200-827-40D-G2 1)	4052899324381	10.70	0.35	1010	94	2700	≥80
PL-CN50-1200-830-40D-G2 1)	4052899324404	10.70	0.35	1010	103	3000	≥80
PL-CN50-1200-840-40D-G2 1)	4052899324428	10.70	0.35	1200	112	4000	≥80
PL-CN50-1400-827-24D-G2 1)	4052899324442	12.80	0.35	1230	96	2700	≥80
PL-CN50-1400-830-24D-G2 1)	4052899324466	12.80	0.35	1340	105	3000	≥80
PL-CN50-1400-840-24D-G2 1)	4052899324480	12.80	0.35	1460	114	4000	≥80
PL-CN50-1400-827-40D-G2 1)	4052899324503	12.80	0.35	1230	96	2700	≥80
PL-CN50-1400-830-40D-G2 1)	4052899324527	12.80	0.35	1340	105	3000	≥80
PL-CN50-1400-840-40D-G2 1)	4052899324541	12.80	0.35	1460	114	4000	≥80

Product name	Initial SDCM	°	cd	⬛	⬛	No.
PL-CN50-900-927-24D-G2 1)	≤4	24	3320	A	20	1
PL-CN50-900-930-24D-G2 1)	≤4	24	3320	A	20	1
PL-CN50-900-940-24D-G2 1)	≤4	24	3600	A	20	1
PL-CN50-900-927-40D-G2 1)	≤4	40	1660	A	20	1
PL-CN50-900-930-40D-G2 1)	≤4	40	1660	A	20	1
PL-CN50-900-940-40D-G2 1)	≤4	40	1800	A+	20	1
PL-CN50-1200-827-24D-G2 1)	≤4	24	4040	A+	20	1
PL-CN50-1200-830-24D-G2 1)	≤4	24	4400	A+	20	1
PL-CN50-1200-840-24D-G2 1)	≤4	24	4800	A+	20	1
PL-CN50-1200-827-40D-G2 1)	≤4	40	2020	A+	20	1
PL-CN50-1200-830-40D-G2 1)	≤4	40	2200	A+	20	1

1) Modules perfectly matched to OSRAM OPTOTRONIC® LED drivers (see relevant table) / For current photometric data and important safety, installation and application information, see www.osram.com/led-systems / All the technical parameters apply to the entire module. In view of the complex manufacturing process for light-emitting diodes, the typical values given above for the technical LED parameters are merely statistical values that do not necessarily correspond to the actual technical parameters of an individual product; individual products may vary from the typical values

Product features[1]
— Fits into most existing traditional MR16 luminaires
— Available with 24° or 40° beam angle
— Versions with different luminous fluxes and different color temperatures available
— Cable length: 500 mm, suitable for 1.6 mm²/AWG 22 wires
— Color rendering index R_a: typ. 92 or typ. 83 (depending on version)
— Module efficacy: up to 112 lm/W
— High color consistency: 4 SDCM
— Temperature at T_p point (according to IEC 62717): 75 °C
— Maximum temperature at T_c: 95 °C (according to IEC 62717)
— Lifetime (L70/B50): 50,000 h (temperature at T_c = 75 °C)

Product benefits
— Best luminous efficacy in combination with OPTOTRONIC® constant current ECG
— Easy and quick design-in for luminaire manufacturers
— High luminous flux
— Easy installation thanks to wiring with only two cables
— 5-year guarantee

Areas of application
— Shops
— Display cabinet lighting
— Shelf lighting
— Elevators
— Hospitality, hotels, restaurants
— Corridors

References/Links
For more information on the multi-level guarantee and the terms and conditions of the guarantee, visit www.osram.com/system-guarantee

PrevaLED® COIN 111 G2
LED modules with integrated optics and heat sink
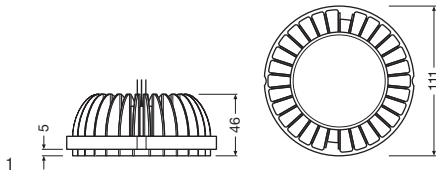
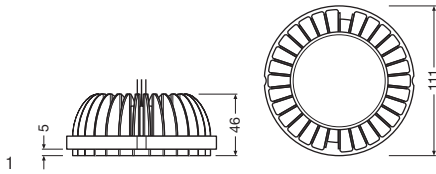| Product name	GTIN (EAN)	W	A	lm	lm/W	K	Ra
PL-CN111-1500-927-24D-G2 [1]	4052899323735	17.30	0.7	1430	83	2700	92
PL-CN111-1500-930-24D-G2 [1]	4052899323797	17.30	0.7	1430	83	3000	92
PL-CN111-1500-940-24D-G2 [1]	4052899323810	17.30	0.7	1560	90	4000	92
PL-CN111-1500-927-40D-G2 [1]	4052899323834	17.30	0.7	1430	83	2700	92
PL-CN111-1500-930-40D-G2 [1]	4052899323858	17.30	0.7	1430	83	3000	92
PL-CN111-1500-940-40D-G2 [1]	4052899323872	17.30	0.7	1560	90	4000	92
PL-CN111-2400-827-24D-G2 [1]	4052899323896	21.60	0.7	2100	97	2700	83
PL-CN111-2400-830-24D-G2 [1]	4052899323919	21.60	0.7	2300	106	3000	83
PL-CN111-2400-840-24D-G2 [1]	4052899323933	21.60	0.7	2500	116	4000	83
PL-CN111-2400-827-40D-G2 [1]	4052899323957	21.60	0.7	2100	97	2700	83
PL-CN111-2400-830-40D-G2 [1]	4052899323971	21.60	0.7	2300	106	3000	83
PL-CN111-2400-840-40D-G2 [1]	4052899323995	21.60	0.7	2500	116	4000	83
PL-CN111-3600-827-24D-G2 [1]	4052899324015	32.10	1.05	3180	99	2700	83
PL-CN111-3600-830-24D-G2 [1]	4052899324039	32.10	1.05	3470	108	3000	83
PL-CN111-3600-840-24D-G2 [1]	4052899324053	32.10	1.05	3780	118	4000	83
PL-CN111-3600-827-40D-G2 [1]	4052899324077	32.10	1.05	3180	99	2700	83
PL-CN111-3600-830-40D-G2 [1]	4052899324091	32.10	1.05	3470	108	3000	83
PL-CN111-3600-840-40D-G2 [1]	4052899324121	32.10	1.05	3780	118	4000	83

Product name	Initial SDCM	°	cd			No.
PL-CN111-1500-927-24D-G2 [1]	≤4	24	5000	A	12	1
PL-CN111-1500-930-24D-G2 [1]	≤4	24	5000	A	12	1
PL-CN111-1500-940-24D-G2 [1]	≤4	24	5460	A	12	1
PL-CN111-1500-927-40D-G2 [1]	≤4	40	2570	A	12	1
PL-CN111-1500-930-40D-G2 [1]	≤4	40	2570	A	12	1
PL-CN111-1500-940-40D-G2 [1]	≤4	40	2810	A	12	1
PL-CN111-2400-827-24D-G2 [1]	≤4	24	7560	A+	12	1
PL-CN111-2400-830-24D-G2 [1]	≤4	24	8050	A+	12	1
PL-CN111-2400-840-24D-G2 [1]	≤4	24	8750	A+	12	1
PL-CN111-2400-827-40D-G2 [1]	≤4	40	3780	A+	12	1
PL-CN111-2400-830-40D-G2 [1]	≤4	40	4140	A+	12	1
PL-CN111-2400-840-40D-G2 [1]	≤4	40	4500	A+	12	1
PL-CN111-3600-827-24D-G2 [1]	≤4	24	11130	A+	12	1
PL-CN111-3600-830-24D-G2 [1]	≤4	24	12150	A+	12	1
PL-CN111-3600-840-24D-G2 [1]	≤4	24	13230	A+	12	1
PL-CN111-3600-827-40D-G2 [1]	≤4	40	5720	A+	12	1
PL-CN111-3600-830-40D-G2 [1]	≤4	40	6250	A+	12	1
PL-CN111-3600-840-40D-G2 [1]	≤4	40	6800	A+	12	1

1) Modules perfectly matched to OSRAM OPTOTRONIC® LED drivers (see relevant table) / For current photometric data and important safety, installation and application information, see www.osram.com/led-systems / All the technical parameters apply to the entire module. In view of the complex manufacturing process for light-emitting diodes, the typical values given above for the technical LED parameters are merely statistical values that do not necessarily correspond to the actual technical parameters of an individual product; individual products may vary from the typical values

Product features[1]

— Fits into most existing traditional R111 luminaires
— Available with 24° or 40° beam angle
— Versions with different luminous fluxes and different color temperatures available
— Cable length: 500 mm, suitable for 1.6 mm²/AWG 22 wires
— Color rendering index R_a: typ. 92 or typ. 83 (depending on version)
— Module efficacy: up to 115 lm/W
— High color consistency: 4 SDCM
— Maximum temperature at T_c: 85 °C (according to IEC 62717)
— Lifetime (L70/B50): 50,000 h (temperature at T_c = 75 °C)

Product benefits

— High luminous flux
— Easy installation thanks to wiring with only two cables
— Best luminous efficacy in combination with OPTOTRONIC® constant current ECG
— Easy and quick design-in for luminaire manufacturers
— 5-year guarantee

Areas of application

— Spot and track light luminaires
— Chain stores, retail shops
— Shopping centers
— Exhibition halls
— Museums

References/Links

For more information on the multi-level guarantee and the terms and conditions of the guarantee, visit www.osram.com/system-guarantee

PrevaLED® COIN 50 AC G1
LED modules with integrated optics and heat sink
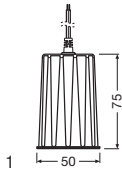
Product name	GTIN (EAN)	W	V	λ	lm	Im/W	K
PL-CN 50AC-650-830-24-G1 [1]	**4052899276727**	8.20	230	>0.90	650	79	3000
PL-CN 50AC-650-830-40-G1 [1]	**4052899276765**	8.20	230	>0.90	650	79	3000
PL-CN 50AC-650-840-24-G1 [1]	**4052899276741**	8.20	230	>0.90	720	88	4000
PL-CN 50AC-650-840-40-G1 [1]	**4052899276789**	8.20	230	>0.90	720	88	4000
PL-CN 50AC-800-830-24-G1 [1]	**4052899276604**	9.20	230	>0.90	800	87	3000
PL-CN 50AC-800-830-40-G1 [1]	**4052899276642**	9.20	230	>0.90	800	87	3000
PL-CN 50AC-800-830-60-G1 [1]	**4052899276680**	9.20	230	>0.90	800	87	3000
PL-CN 50AC-800-840-24-G1 [1]	**4052899276628**	9.20	230	>0.90	835	90	4000
PL-CN 50AC-800-840-40-G1 [1]	**4052899276666**	9.20	230	>0.90	835	90	4000
PL-CN 50AC-800-840-60-G1 [1]	**4052899276703**	9.20	230	>0.90	835	90	4000

Product name	R_a	Initial SDCM	°	cd	▣	▱	No.
PL-CN 50AC-650-830-24-G1 [1]	≥80	≤4	24	2535	A+	12	1
PL-CN 50AC-650-830-40-G1 [1]	≥80	≤4	40	1300	A+	12	1
PL-CN 50AC-650-840-24-G1 [1]	≥80	≤4	24	2810	A+	12	1
PL-CN 50AC-650-840-40-G1 [1]	≥80	≤4	40	1440	A+	12	1
PL-CN 50AC-800-830-24-G1 [1]	≥80	≤4	24	3120	A+	12	1
PL-CN 50AC-800-830-40-G1 [1]	≥80	≤4	40	1600	A+	12	1
PL-CN 50AC-800-830-60-G1 [1]	≥80	≤4	60	720	A+	12	1
PL-CN 50AC-800-840-24-G1 [1]	≥80	≤4	24	3255	A+	12	1
PL-CN 50AC-800-840-40-G1 [1]	≥80	≤4	40	1670	A+	12	1
PL-CN 50AC-800-840-60-G1 [1]	≥80	≤4	60	750	A+	12	1

1) For current photometric data and important safety, installation and application information, see www.osram.com/led-systems / All the technical parameters apply to the entire module.
In view of the complex manufacturing process for light-emitting diodes, the typical values given above for the technical LED parameters are merely statistical values that do not necessarily correspond to the actual technical parameters of an individual product; individual products may vary from the typical values

Product features[1]
— Integrated driver, heat sink and lens optics
— Fits into most existing traditional MR16 luminaires
— Available with 24°, 40° or 60° beam angle
— Versions with different luminous fluxes and different color temperatures available
— Dimmable (with suitable phase-cut dimmers)
— IP44-protected module
— Lifetime (L70/B50): 35,000 h (temperature at T_c = 73 °C)

Product benefits
— Easy and quick design-in for luminaire manufacturers
— Turn-key solution for projects
— 5-year guarantee

Areas of application
— Shop lighting
— Shopping centers
— Exhibition halls
— Museums

References/Links
For more information on the multi-level guarantee and the terms and conditions of the guarantee, visit www.osram.com/system-guarantee

PrevaLED® COIN 111 AC G1
LED modules with integrated optics and heat sink
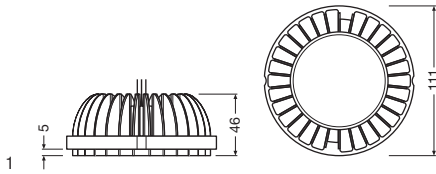
5 Year

OSRAM Guarantee*

Product name	GTIN (EAN)	W	V	λ	lm	lm/W	K
PL-CN 111AC-1200-830 24 G1 [1]	4052899165533	15.50	230	≥0.90	1250	81	3000
PL-CN 111AC-1200-830 40 G1 [1]	4052899165618	15.50	230	≥0.90	1250	81	3000
PL-CN 111AC-1200-840 24 G1 [1]	4052899165557	15.50	230	≥0.90	1350	87	4000
PL-CN 111AC-1200-840 40 G1 [1]	4052899165632	15.50	230	≥0.90	1350	87	4000
PL-CN 111AC-1800-830 24 G1 [1]	4052899165571	22.50	230	≥0.90	1850	82	3000
PL-CN 111AC-1800-830 40 G1 [1]	4052899165656	22.50	230	≥0.90	1850	82	3000
PL-CN 111AC-1800-840 24 G1 [1]	4052899165595	22.50	230	≥0.90	1950	87	4000
PL-CN 111AC-1800-840 40 G1 [1]	4052899165670	22.50	230	≥0.90	1950	87	4000

Product name	Ra	Initial SDCM	∡°	cd	[energy]	[box]	No.
PL-CN 111AC-1200-830 24 G1 [1]	83	≤4	24	4350	A	12	1
PL-CN 111AC-1200-830 40 G1 [1]	83	≤4	40	2250	A	12	1
PL-CN 111AC-1200-840 24 G1 [1]	83	≤4	24	4700	A	12	1
PL-CN 111AC-1200-840 40 G1 [1]	83	≤4	40	2400	A	12	1
PL-CN 111AC-1800-830 24 G1 [1]	83	≤4	24	6450	A	12	1
PL-CN 111AC-1800-830 40 G1 [1]	83	≤4	40	3300	A	12	1
PL-CN 111AC-1800-840 24 G1 [1]	83	≤4	24	6800	A	12	1
PL-CN 111AC-1800-840 40 G1 [1]	83	≤4	40	3500	A	12	1

1) For current photometric data and important safety, installation and application information, see www.osram.com/led-systems / All the technical parameters apply to the entire module.
In view of the complex manufacturing process for light-emitting diodes, the typical values given above for the technical LED parameters are merely statistical values that do not necessarily correspond to the actual technical parameters of an individual product; individual products may vary from the typical values

Product features[1]
— Integrated driver, heat sink and lens optics
— Fits into most existing traditional R111 luminaires
— Available with 24° or 40° beam angle
— Versions with different luminous fluxes and different color temperatures available
— Lifetime (L70/B50): 35,000 h (temperature at T_c = 68 °C)

Product benefits
— Easy and quick design-in for luminaire manufacturers
— Turn-key solution for projects
— 5-year guarantee

Areas of application
— LED replacement for high-intensity discharge lamps up to 35 W
— Shop lighting
— Shopping centers
— Exhibition halls
— Museums

References/Links
For more information on the multi-level guarantee and the terms and conditions of the guarantee, visit www.osram.com/system-guarantee

KIT PrevaLED® COIN 50 AC
Light engines and modules for spotlights, downlights and wall-mounted luminaires

5 Year

OSRAM Guarantee*

Product name	GTIN (EAN)	W	A	V	λ	lm	lm/W	K	R_a
KIT-PL-CN-AC 50-800-830-40D-G1 [1]	4052899365315	9.2	0.043	230	>0.90	800	87	3000	≥ 80
KIT-PL-CN-AC 50-800-840-40D-G1 [1]	4052899365339	9.2	0.043	230	>0.90	835	90	4000	≥ 80

Product name	°	d [mm]	h [mm]	T_c	T_a	t [h]			No.
KIT-PL-CN-AC 50-800-830-40D-G1 [1]	40	50	75.3	90	-20…+40	35000 [2]	Yes	10	1
KIT-PL-CN-AC 50-800-840-40D-G1 [1]	40	50	75.3	90	-20…+40	35000 [2]	Yes	10	1

1) For current photometric data and important safety, installation and application information, see www.osram.com/led-systems / All the technical parameters apply to the entire module.
In view of the complex manufacturing process for light-emitting diodes, the typical values given above for the technical LED parameters are merely statistical values that do not necessarily correspond to the actual technical parameters of an individual product; individual products may vary from the typical values
2) L70/B50 at T_c = 73 °C

Product features[1]
— Professional LED solution ready to install
— Versions with high color rendering and high luminous flux available
— Dimmable (with many common dimmers)

Product benefits
— Supplied with heat sink, lens optics and ECG
— Easy to install
— 5-year guarantee

Areas of application
— Complete solution for demanding general illumination and spotlight applications
— LED replacement for halogen reflector lamps
— Hospitality, hotels, restaurants
— Shop lighting
— Museums, galleries

References/Links
For more information on the multi-level guarantee and the terms and conditions of the guarantee, visit www.osram.com/system-guarantee

KIT PrevaLED® COIN 111

Light engines and modules for spotlights, downlights and wall-mounted luminaires

5 Year

OSRAM Guarantee*

Product name	GTIN (EAN)	W	A	V	λ	lm	lm/W	K	Ra
KIT-PL-CN 111-2400-830-40D-G2 [1]	4052899365131	21.60	0.7	230	> 0.90	2300	106	3000	>80
KIT-PL-CN 111-3600-830-40D-G2 [1]	4052899365155	32.1	1.05	230	> 0.90	3470	108	3000	>80
KIT-PL-CN 111-3600-840-40D-G2 [1]	4052899365193	32.1	1.05	230	> 0.90	3780	118	4000	>80
KIT-PL-CN 111-3600-840-24D-G2 [1]	4052899365179	32.1	1.05	230	> 0.90	3780	118	4000	>80

Product name	∠°	d [mm]	h [mm]	T_c	T_a	t [h]			No.
KIT-PL-CN 111-2400-830-40D-G2 [1]	40	111	46	85	-25…+40	50000 [2]	No	10	1
KIT-PL-CN 111-3600-830-40D-G2 [1]	40	111	46	85	-25…+40	50000 [2]	No	10	1
KIT-PL-CN 111-3600-840-40D-G2 [1]	40	111	46	85	-25…+40	50000 [2]	No	10	1
KIT-PL-CN 111-3600-840-24D-G2 [1]	24	111	46	85	-25…+40	50000 [2]	No	10	1

1) Modules perfectly matched to OSRAM OPTOTRONIC® LED drivers (see relevant table) / For current photometric data and important safety, installation and application information, see www.osram.com/led-systems / All the technical parameters apply to the entire module. In view of the complex manufacturing process for light-emitting diodes, the typical values given above for the technical LED parameters are merely statistical values that do not necessarily correspond to the actual technical parameters of an individual product; individual products may vary from the typical values
2) L70/B50 at T_c = 75 °C

Product features [1]

— Professional LED solution ready to install
— Versions with high color rendering and high luminous flux available
— Cardanic, matt white installation ring

Product benefits

— Supplied with heat sink, lens optics and ECG
— Easy to install
— 5-year guarantee

Areas of application

— Complete solution for demanding general illumination and spotlight applications
— LED replacement for halogen and HCI® reflector lamps
— Hospitality, hotels, restaurants
— Shop lighting
— Museums, galleries

References/Links

For more information on the multi-level guarantee and the terms and conditions of the guarantee, visit www.osram.com/system-guarantee

DRAGONeye®
LED spot modules with integrated optics
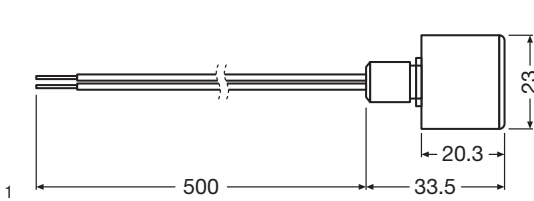
Product name	GTIN (EAN)	W	A	lm	lm/W	K
DE1-W4F-830-G3 [1]	4052899474741	1	0.35	100	100	3000
DE1-W4F-850-G3 [1]	4052899474772	1	0.35	108	108	5000

Product name	Ra	∠°	cd	A++	No.	
DE1-W4F-830-G3 [1]	80	15	1080	A++	264	1
DE1-W4F-850-G3 [1]	80	15	1300	A++	264	1

1) Modules perfectly matched to OSRAM OPTOTRONIC® LED drivers (see relevant table) / For current photometric data and important safety, installation and application information, see www.osram.com/led-systems / All the technical parameters apply to the entire module. In view of the complex manufacturing process for light-emitting diodes, the typical values given above for the technical LED parameters are merely statistical values that do not necessarily correspond to the actual technical parameters of an individual product; individual products may vary from the typical values

Product features[1]
— Type of protection IP65 according to DIN EN 60529
— The modules can only be connected in series
— Two-core connecting cable (500 mm)
— Dimmable

Product benefits
— Metal package for optimum heat removal
— Integrated M10x1.5 thread for simple installation
— No additional heat sink required
— Narrow beam angle for use as a spot source
— Perfect centering thanks to flange on the floor of the casing (diameter 12 mm)
— Low maintenance costs thanks to a lifetime of up to 70,000 h
— 5-year guarantee

Areas of application
— For accent, orientation or route lighting
— Shelf and furniture lighting
— Suitable for outdoor use

References/Links
For more information on the multi-level guarantee and the terms and conditions of the guarantee, visit www.osram.com/system-guarantee

PrevaLED® Flat AC G2

© Stefan Müller, Berlin

Simple and flat design for intelligent luminaires

Our PrevaLED® Flat AC G2 system provides an all-in-one solution to create flat and highly diffuse wall-mounted and ceiling-mounted luminaires. The popular project uses are in functional or decorative areas in hospitality or office applications.

PrevaLED® Flat AC G2 light engines provide several specific benefits:
— Only a small design-in effort is needed (integrated system solutions).
— Energy savings and an attractive application design can be achieved by using sensor technology.
— They provide high performance in terms of efficiency and quality of light.
— A touch protect accessory allows for safe operation in luminaires that can be opened by the end user.

The PrevaLED® Flat AC G2 series is available in 5 different versions:
— PC version PL-FLAT-AC-PC: Includes driver on board, phase cut dimmable
— Emergency version PL-FLAT-AC-EM: Emergency lighting for single battery systems and also for central battery system
— Master version PL-FLAT-AC-MA: Includes HF sensor and ambient light sensor as well as MA/SL control
— Slave version PL-FLAT-AC-SL: To be connected to the Master version for corridors up to 35 m in length
— DALI version PL-FLAT-AC-DA: Fully dimmable and DALI-compatible

PrevaLED® Flat AC PC

Light engines and modules for spotlights, downlights and wall-mounted luminaires
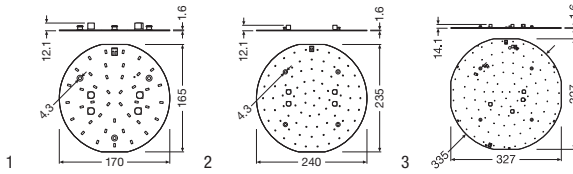
5 Year

OSRAM Guarantee*

Product name	GTIN (EAN)	W	V	λ	lm	lm/W	K	Ra
PL-FLAT-AC-PC-G2 1500-830 [1]	**4052899969629**	12.90	230	>0.98	1500	116	3000	>80
PL-FLAT-AC-PC-G2 1500-840 [1]	**4052899969612**	12.90	230	>0.98	1500	116	4000	>80
PL-FLAT-AC-PC-G2 2500-830 [1]	**4052899969636**	20.90	230	>0.98	2500	116	3000	>80
PL-FLAT-AC-PC-G2 2500-840 [1]	**4052899969643**	20.90	230	>0.98	2500	116	4000	>80
PL-FLAT-AC-PC-G2 3300-830 [1]	**4052899511965**	27	230	>0.98	3300	122	3000	>80
PL-FLAT-AC-PC-G2 3300-840 [1]	**4052899511989**	27	230	>0.98	3300	122	4000	>80

Product name	Initial SDCM	△°	Tc	t [h]	♻	📦	No.
PL-FLAT-AC-PC-G2 1500-830 [1]	≤3	110	90	50000	A+	20	1
PL-FLAT-AC-PC-G2 1500-840 [1]	≤3	110	90	50000	A+	20	1
PL-FLAT-AC-PC-G2 2500-830 [1]	≤3	140	90	50000	A+	20	2
PL-FLAT-AC-PC-G2 2500-840 [1]	≤3	140	90	50000	A+	20	2
PL-FLAT-AC-PC-G2 3300-830 [1]	≤3	140	90	50000	A+	20	3
PL-FLAT-AC-PC-G2 3300-840 [1]	≤3	140	90	50000	A+	20	3

1) For current photometric data and important safety, installation and application information, see www.osram.com/led-systems / All the technical parameters apply to the entire module.
In view of the complex manufacturing process for light-emitting diodes, the typical values given above for the technical LED parameters are merely statistical values that do not necessarily correspond to the actual technical parameters of an individual product; individual products may vary from the typical values

Product features[1]
— Dimmable (with suitable phase-cut dimmers)
— Designed for wall and ceiling luminaires with diffuse light distribution
— Low-cost LED replacement of CFL wall and ceiling luminaires
— Driver integrated on LED board
— Available diameter: 170 mm, 240 mm
— Available with color temperature: 3,000 K or 4,000 K
— Available with luminous flux: 1,500 lm, 2,500 lm, 3,300 lm

Product benefits
— Touch protection accessory for simple use in luminaires
— High reliability
— Easy to use
— Optimized design for simple thermal management
— Enables thin and efficient luminaire designs
— High quality of light thanks to low modulation
— 5-year guarantee

Areas of application
— Corridors
— Stairways
— Landings
— Hallways

References/Links
For more information on the multi-level guarantee and the terms and conditions of the guarantee, visit www.osram.com/system-guarantee

PrevaLED® Flat AC EM
Light engines and modules for spotlights, downlights and wall-mounted luminaires
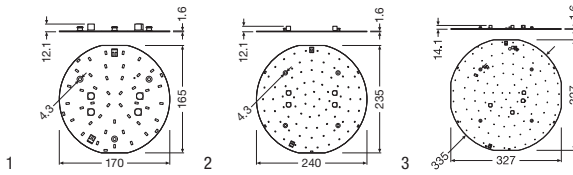
Product name	GTIN (EAN)	W	V	λ	lm	lm/W	K	Ra
PL-FLAT-AC-EM-G2 1500-830 [1]	4052899969650	12.90	230	>0.98	1500	116	3000	>80
PL-FLAT-AC-EM-G2 1500-840 [1]	4052899969667	12.90	230	>0.98	1500	116	4000	>80
PL-FLAT-AC-EM-G2 2500-830 [1]	4052899969674	20.90	230	>0.98	2500	116	3000	>80
PL-FLAT-AC-EM-G2 2500-840 [1]	4052899969681	20.90	230	>0.98	2500	116	4000	>80
PL-FLAT-AC-EM 3300-830 [1]	4052899512009	27	230	>0.98	3300	122	3000	>80
PL-FLAT-AC-EM 3300-840 [1]	4052899512023	27	230	>0.98	3300	122	4000	>80

Product name	Initial SDCM	°	Tc	t [h]			No.
PL-FLAT-AC-EM-G2 1500-830 [1]	≤3	110	90	50000	A+	20	1
PL-FLAT-AC-EM-G2 1500-840 [1]	≤3	110	90	50000	A+	20	1
PL-FLAT-AC-EM-G2 2500-830 [1]	≤3	140	90	50000	A+	20	2
PL-FLAT-AC-EM-G2 2500-840 [1]	≤3	140	90	50000	A+	20	2
PL-FLAT-AC-EM 3300-830 [1]	≤3	140	90	50000	A+	20	3
PL-FLAT-AC-EM 3300-840 [1]	≤3	140	90	50000	A+	20	3

1) For current photometric data and important safety, installation and application information, see www.osram.com/led-systems / All the technical parameters apply to the entire module.
In view of the complex manufacturing process for light-emitting diodes, the typical values given above for the technical LED parameters are merely statistical values that do not necessarily correspond to the actual technical parameters of an individual product; individual products may vary from the typical values

Product features [1]
— Designed for wall and ceiling luminaires with diffuse light distribution
— Low-cost LED replacement of CFL wall and ceiling luminaires
— Driver integrated on LED board
— Available diameter: 170 mm, 240 mm
— Available with color temperature: 3,000 K or 4,000 K
— Available with luminous flux: 1,500 lm, 2,500 lm, 3,300 lm

Product benefits
— Touch protection accessory for simple use in luminaires
— High reliability
— Easy to use
— Optimized design for simple thermal management
— Enables thin and efficient luminaire designs
— High quality of light thanks to low modulation
— 5-year guarantee

Areas of application
— Corridors
— Stairways
— Landings
— Hallways
— Emergency lighting for single battery systems
— Luminaires for emergency lighting with central battery according to IEC 60598-2-22

References/Links
For more information on the multi-level guarantee and the terms and conditions of the guarantee, visit www.osram.com/system-guarantee

PrevaLED® Flat AC MA

Light engines and modules for spotlights, downlights and wall-mounted luminaires
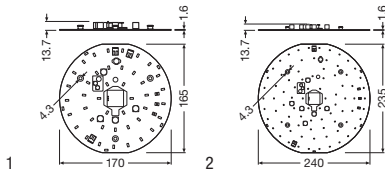
Product name	GTIN (EAN)	W	V	λ	lm	lm/W	K	Ra
PL-FLAT-AC MA-G2 1500-830 [1]	4052899969773	13.90	230	>0.98	1500	108	3000	>80
PL-FLAT-AC MA-G2 1500-840 [1]	4052899969780	13.60	230	>0.98	1500	110	4000	>80
PL-FLAT-AC MA-G2 2500-830 [1]	4052899969797	21.40	230	>0.98	2500	117	3000	>80
PL-FLAT-AC MA-G2 2500-840 [1]	4052899969803	21.40	230	>0.98	2500	117	4000	>80

Product name	Initial SDCM	∡°	T_c	t [h]			No.
PL-FLAT-AC MA-G2 1500-830 [1]	≤3	110	90	50000	A+	20	1
PL-FLAT-AC MA-G2 1500-840 [1]	≤3	110	90	50000	A+	20	1
PL-FLAT-AC MA-G2 2500-830 [1]	≤3	140	90	50000	A+	20	2
PL-FLAT-AC MA-G2 2500-840 [1]	≤3	140	90	50000	A+	20	2

1) For current photometric data and important safety, installation and application information, see www.osram.com/led-systems / All the technical parameters apply to the entire module.
In view of the complex manufacturing process for light-emitting diodes, the typical values given above for the technical LED parameters are merely statistical values that do not necessarily correspond to the actual technical parameters of an individual product; individual products may vary from the typical values

Product features[1]

— Master with integrated RF sensor (motion, dimming, auto off at daylight)
— Master/Slave system with up to 11 luminaires and up to 5 Masters
— Designed for wall and ceiling luminaires with diffuse light distribution
— Low-cost LED replacement of CFL wall and ceiling luminaires
— Driver integrated on LED board
— Available diameter: 170 mm, 240 mm
— Available with color temperature: 3,000 K or 4,000 K
— Available with luminous flux: 1,500 lm, 2,500 lm

Product benefits

— Touch protection accessory for simple use in luminaires
— High reliability
— Easy to use
— Optimized design for simple thermal management
— Enables thin and efficient luminaire designs
— High quality of light thanks to low modulation
— 5-year guarantee

Areas of application

— Corridors
— Stairways
— Landings
— Hallways

References/Links

For more information on the multi-level guarantee and the terms and conditions of the guarantee, visit www.osram.com/system-guarantee

PrevaLED® Flat AC SL
Light engines and modules for spotlights, downlights and wall-mounted luminaires
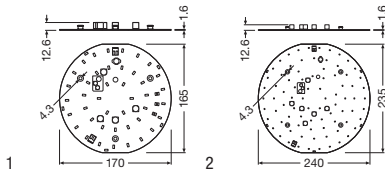
Product name	GTIN (EAN)	W	V	λ	lm	lm/W	K	Ra
PL-FLAT-AC SL-G2 1500-830 [1]	4052899969810	13.30	230	>0.98	1500	113	3000	>80
PL-FLAT-AC SL-G2 1500-840 [1]	4052899969827	13	230	>0.98	1500	115	4000	>80
PL-FLAT-AC SL-G2 2500-840 [1]	4052899969841	20.30	230	>0.98	2500	123	4000	>80
PL-FLAT-AC SL-G2 2500-830 [1]	4052899969834	20.30	230	>0.98	2500	123	3000	>80

Product name	Initial SDCM	∢°	Tc	t [h]	⬛	📦	No.
PL-FLAT-AC SL-G2 1500-830 [1]	≤3	110	90	50000	A+	20	1
PL-FLAT-AC SL-G2 1500-840 [1]	≤3	110	90	50000	A+	20	1
PL-FLAT-AC SL-G2 2500-840 [1]	≤3	140	90	50000	A+	20	2
PL-FLAT-AC SL-G2 2500-830 [1]	≤3	140	90	50000	A+	20	2

1) For current photometric data and important safety, installation and application information, see www.osram.com/led-systems / All the technical parameters apply to the entire module.
In view of the complex manufacturing process for light-emitting diodes, the typical values given above for the technical LED parameters are merely statistical values that do not necessarily correspond to the actual technical parameters of an individual product; individual products may vary from the typical values

Product features[1]
— Slave controlled by Master for dimming to 10 % and auto off at daylight
— Separate LED circuit for operation on local emergency lighting driver
— Designed for wall and ceiling luminaires with diffuse light distribution
— Low-cost LED replacement of CFL wall and ceiling luminaires
— Driver integrated on LED board
— Available diameter: 170 mm, 240 mm
— Available with color temperature: 3,000 K or 4,000 K
— Available with luminous flux: 1,500 lm, 2,500 lm

Product benefits
— Touch protection accessory for simple use in luminaires
— High reliability
— Easy to use
— Optimized design for simple thermal management
— Enables thin and efficient luminaire designs
— High quality of light thanks to low modulation
— 5-year guarantee

Areas of application
— Corridors
— Stairways
— Landings
— Hallways

References/Links
For more information on the multi-level guarantee and the terms and conditions of the guarantee, visit www.osram.com/system-guarantee

PrevaLED® Flat AC DA
Light engines and modules for spotlights, downlights and wall-mounted luminaires
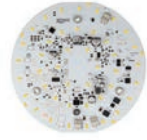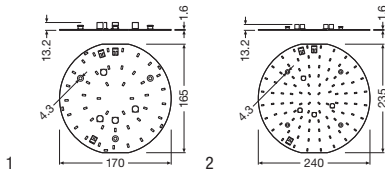
5 Year

OSRAM
Guarantee*

Product name	GTIN (EAN)	W	V	λ	lm	lm/W	K	Ra
PL-FLAT-AC DA-G2 1500-830 [1]	4052899969698	13.70	230	>0.98	1500	113	3000	>80
PL-FLAT-AC DA-G2 1500-840 [1]	4052899969704	13.40	230	>0.98	1500	115	4000	>80
PL-FLAT-AC DA-G2 2500-830 [1]	4052899969711	20.30	230	>0.98	2500	123	3000	>80
PL-FLAT-AC DA-G2 2500-840 [1]	4052899969728	20.30	230	>0.98	2500	123	4000	>80

Product name	Initial SDCM	∡°	Tc	t [h]			No.
PL-FLAT-AC DA-G2 1500-830 [1]	≤3	110	100	50000	A+	20	1
PL-FLAT-AC DA-G2 1500-840 [1]	≤3	110	100	50000	A+	20	1
PL-FLAT-AC DA-G2 2500-830 [1]	≤3	140	100	50000	A+	20	2
PL-FLAT-AC DA-G2 2500-840 [1]	≤3	140	100	50000	A+	20	2

1) For current photometric data and important safety, installation and application information, see www.osram.com/led-systems / All the technical parameters apply to the entire module. In view of the complex manufacturing process for light-emitting diodes, the typical values given above for the technical LED parameters are merely statistical values that do not necessarily correspond to the actual technical parameters of an individual product; individual products may vary from the typical values

Product features[1]
— Dimming range (DALI): 1…100 %
— Dimensions of DALI version identical to on/off version
— Designed for wall and ceiling luminaires with diffuse light distribution
— Low-cost LED replacement of CFL wall and ceiling luminaires
— Driver integrated on LED board
— Available diameter: 170 mm, 240 mm
— Available with color temperature: 3,000 K or 4,000 K
— Available with luminous flux: 1,500 lm, 2,500 lm
— Lifetime (L70/B50): 50,000 h (temperature at T_c = 80 °C)

Product benefits
— Touch protection accessory for simple use in luminaires
— High reliability
— Easy to use
— Optimized design for simple thermal management
— Enables thin and efficient luminaire designs
— High quality of light thanks to low modulation
— 5-year guarantee

Areas of application
— Corridors
— Stairways
— Landings
— Hallways
— Emergency lighting for single battery systems
— Luminaires for emergency lighting with central battery according to IEC 60598-2-22

References/Links
For more information on the multi-level guarantee and the terms and conditions of the guarantee, visit www.osram.com/system-guarantee

PrevaLED® Flat AC 4000
Light engines and modules for spotlights, downlights and wall-mounted luminaires

1
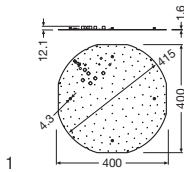
5 Year
OSRAM
Guarantee*

Product name	GTIN (EAN)	W	V	λ	lm	lm/W	K	Ra
PL-FLAT-AC-G2 4000-830 [1]	4052899389014	30.40	230	>0.98	4000	132	3000	>80
PL-FLAT-AC-G2 4000-840 [1]	4052899389038	30.40	230	>0.98	4000	132	4000	>80

Product name	Initial SDCM	∠°	Tc	t [h]			No.
PL-FLAT-AC-G2 4000-830 [1]	≤3	140	90	50000 [2]	A+	20	1
PL-FLAT-AC-G2 4000-840 [1]	≤3	140	90	50000 [2]	A+	20	1

1) For current photometric data and important safety, installation and application information, see www.osram.com/led-systems / All the technical parameters apply to the entire module.
In view of the complex manufacturing process for light-emitting diodes, the typical values given above for the technical LED parameters are merely statistical values that do not necessarily correspond to the actual technical parameters of an individual product; individual products may vary from the typical values
2) L70/B50 at T_c = 75 °C

Product features[1]
— Designed for wall and ceiling luminaires with diffuse light distribution
— Low-cost LED replacement of CFL wall and ceiling luminaires
— Driver integrated on LED board
— Available diameter: 170 mm, 240 mm
— Available with color temperature: 3,000 K or 4,000 K
— Lifetime (L70/B50): 50,000 h (temperature at T_c = 75 °C)

Product benefits
— Touch protection accessory for simple use in luminaires
— High reliability
— Easy to use
— Optimized design for simple thermal management
— Enables thin and efficient luminaire designs
— High quality of light thanks to low modulation
— 5-year guarantee

Areas of application
— Corridors
— Stairways
— Landings
— Hallways

References/Links
For more information on the multi-level guarantee and the terms and conditions of the guarantee, visit www.osram.com/system-guarantee

PrevaLED® Flat AC
Accessories
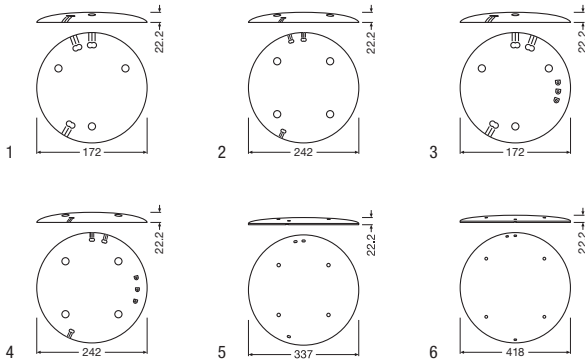
Product name	GTIN (EAN)	h [mm]	d [mm]		No.
PL-FLTP 170 G2	**4052899969872**	22.2	172	20	1
PL-FLTP 240 G2	**4052899969889**	22.2	242	20	2
PL-FLTP 170 MA G2	**4052899969858**	22.2	172	20	3
PL-FLTP 240 MA G2	**4052899969865**	22.2	242	20	4
PL-FLTP 335 G2	**4052899530102**	22.2	337	20	5
PL-FLTP 415 G2	**4052899968479**	22.2	418	20	6

Areas of application
— Touch protection accessory for PrevaLED® Flat AC for
  all versions available

Installation hints and tips

How to use the PrevaLED® Flat AC G2 Master/Slave system

I) Introduction
Take advantage of our "all-in-one device" PrevaLED® Flat AC with integrated driver on board for your extremely flat designs in large and standard-diameter luminaires with diffusers. The module creates a very homogeneous light. The optional functions cater to all requirements for corridors and circulation areas, including emergency lighting and additional energy saving thanks to motion sensing.
Our current and recently expanded PrevaLED® Flat AC portfolio comprises four diameters/lumen packages:

170 mm	240 mm	335 mm	415 mm
1500 lm	2500 lm	3300 lm	4000 lm

Master/Slave   (planned)
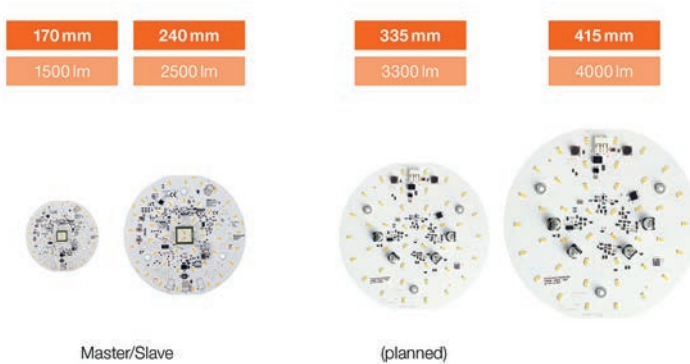
Please note:
Master/Slave devices are currently only available in 170 mm and 240 mm diameter.

II) Typical application topics with focus on PrevaLED® Flat AC G2 Master/Slave system
Our PrevaLED® Flat AC G2 Master/Slave system saves our customers money because one Master device (incl. HF motion detection sensor) can be combined with up to 10 Slave devices, which are much less expensive. Thus, a cost-efficient total set-up of 11 luminaires per system (and up to 5 Masters) is possible. One Master/Slave system can cover a maximum corridor length of approximately 35 meters. Tips for proper implementation when using more than one Master device:

1) Wiring: Master-Slave (MA/SL) – Multi-Master systems
The wiring of a PrevaLED® Flat AC G2 Master/Slave system is simple: One Master is connected directly to the mains (→ Master-in terminal), which makes this Master the main Master of the system. All other devices, such as Slaves or further Masters, must be connected to the Master-out connector of the main Master (see following picture on the following page).
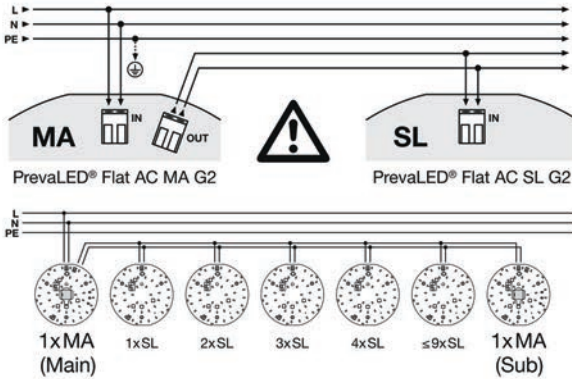
Further Masters operate as sub-Masters when connected to the output of the main Master. Please never connect the Master-out connector to the mains voltage as this destroys the device.

The available OSRAM YouTube™ video below shows the correct Multi-Master wiring as well as the operating mode of a PrevaLED® Flat AC G2 Master/Slave system: www.osram.com/prevaledflatms

2) MA/SL multi-system set-up
For corridor applications longer than 35 meters, a set-up of multiple MA/SL systems may be appropriate. These stand-alone systems are triggered separately and work independently to save as much energy as possible as well as costs.
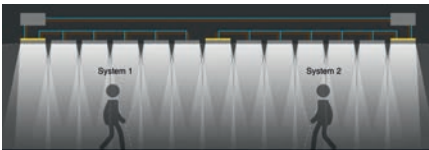
3) Functionality overview:
main Master vs. sub-Master
Identification of Master and sub-Master/s in existing installations:
The main Master can be identified by the fact that the entire system dims down when any button on the Master (see point 4: "A", "H" or "L") is pressed (= commissioning mode). A sub-Master can be identified by the fact that only the light engine dims down when any of its buttons is pressed.

Operation of a PrevaLED® Flat AC G2 Master/Slave system comprising two or more Masters:
All PrevaLED® Flat AC G2 Masters of a system have the same functionality as, for example, PrevaLED® Flat AC G2 HF and also support the Master functionality.

The setting of the following parameters, however, is not possible on any sub-Master and the corresponding menu levels cannot be addressed:

— **Hold time**
The hold time of the system can only be adjusted on the main Master. When pressing the "hold time" button on a sub-Master, its display continuously shows "0".

— **Corridor function**
The corridor function can only be activated on the main Master. When trying to activate the corridor function on a sub-Master, the corresponding menu level is disabled.

— **Luminaire mode**
A sub-Master cannot be set in luminaire mode. The corresponding menu level is disabled.

— **Teach-in mode for ambient light threshold**
The teach-in function cannot be activated on a sub-Master. The relevant menu level "6" is not accessible in this case.

— **Deactivation of motion detection**
If motion detection is deactivated on the main Master, all light engines operate as on/off modules. If motion detection is deactivated on a sub-Master, this operates as a Slave (motion detection deactivated).

In the "off" state, all Masters continuously measure their ambient light level, and the sub-Masters send the appropriate information to the main Master. When the corridor function is activated, the light engine never switches off, and light measurement is automatically and permanently deactivated.

The main Master and all sub-Masters continuously monitor whether a motion occurs inside their detection area. Whenever a low light level is measured on one of the Masters and motion is detected anywhere in the system, the light is switched on. Low light level measurement and motion detection must not necessarily be in the same position. If the ambient light measurement is deactivated on one or more Master light engines, all ambient light levels are ignored and the system turns the lights on as soon as motion is detected in the system.

Please do a quick functionality check of the main Master, Slaves and sub-Master by referring to the picture below:
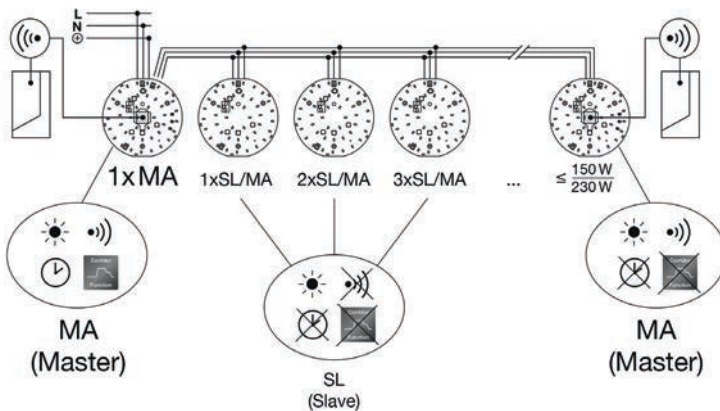
4) User interface and commissioning functions

The picture on the right shows the positions of the buttons for commissioning.
(If you press any button to switch to commissioning mode, the luminaire dims immediately down to 5 % to avoid glare.)

A •)))   H ⏱   L ☀
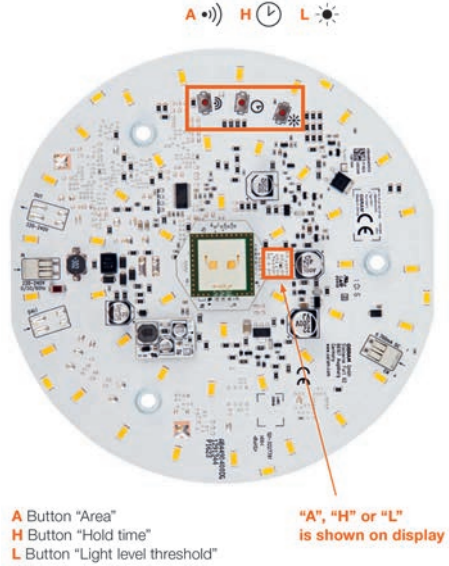
An installed PrevaLED® Flat AC G2 Master/Slave system works with the standard factory settings. For more information on user-specific settings of the interface for the PrevaLED® Flat AC G2 MA version, please refer to the cockpit chart below, which shows the various commissioning functions as well as the factory settings:

A Button "Area"
H Button "Hold time"
L Button "Light level threshold"

"A", "H" or "L" is shown on display

OSRAM •))) A Button "Area"			⏱ H Button "Hold time"			☀ L Button "Light level threshold"	
MAIN MENU (push 1 s)	**DETECTION AREA**		**HOLD TIME**			**DAYLIGHT THRESHOLD**	
Parameter/Display	**A**		**H**			**L**	
Level	0	off	0	1 s		0	off	x
	1	10 %	1	10 s	x	1	~5 lux
	2	25 %	2	30 s		2	~50 lux
	3	50 %	3	60 s		3	~100 lux
	4	75 %	4	3 min		4	~300 lux
	5	90 %	x	5	5 min		5	~500 lux
	6	100 %	6	10 min		6	teached value
			7	15 min			
	(100 % = approx. 3.5 meters conical detection range; for ceiling applications: Up to 10 meters height)					(level 6 only available after first teaching via "teach mode")	
SUB-MENU (push > 3 s)	**LUMINAIRE MODE**		**CORRIDOR FUNCTION**			**TEACH MODE**	
Parameter/Display	**E**		**C**			**P**	
Level	0	Luminaire mode enabled	0	100 % (hold time) → 10 % (10 s) → 0 %	x	0	off	x
	1	Luminaire mode disabled	x	1	100 % (hold time) → 10 %		1	Light will remain "on" for 1 minute (display shows a blinking "P"). Light will turn "off" for 1 s. Daylight value will be measured now and saved as new threshold. Light will return to 100 %.
			2	100 % (hold time) → 10 % (Xs = "H") → 0 %			
F FACTORY RESET By pressing the button A "Area" and H "Hold time" simultaneously for 3 seconds → the display shows "F"							

III) Did you know?
Additional tips & tricks

The best diffuser distance depends on the material characteristics of the diffuser and can differ from use case to use case. Different or unknown materials can influence the behavior of the HF sensor (e.g. reflecting rays can disturb the sensor). Before you use your own cover, we recommend that you carry out tests to ensure the correct functioning of the HF sensor.

General HF sensor calibration function: Once turned on, the antenna signal evaluation function measures the disturbance spectrum of the environment. This can take up to two minutes.

During this calibration process, the module can "flash" again if it detects a movement that is "not present". If the permanent disturbance spectrum of the luminaire environment changes, the changed environmental conditions are triggered again during the calibration process. (That is why the PrevaLED® Flat AC G2 device may be "flashing", and this calibration mode takes up to two minutes.) This is a built-in advantage to ensure a long-term unrestricted, optimal functioning of the sensor.

If, for example, a ceiling fan is also installed and moves around during this two-minute calibration process, this device will be detected not as a movement but as "permanent disturbance" or general environment.

To ensure a certain standard of quality, the HF sensor is subjected to a 100 % functionality test in every device. Every PrevaLED® Flat AC G2 device with HF sensors is tested after production.

IV) Bonus

For more technical and application-related topics, visit our website and download the Application Guide now.

You can find more information on our PrevaLED® Flat AC G2 light engine family on our website.

For our PrevaLED® Flat AC G2 phase cut version, a dimmer compatibility overview is available on request.

Here is a short overview of the the five different versions of PrevaLED® Flat AC G2:

— **PC (phase cut) version PL-FLAT-AC-PC**
Includes driver on board
— **Emergency light version PL-FLAT-AC-EM**
Includes C-EM (central battery) and L-EM (local battery) function
— **Master version PL-FLAT-AC-MA**
Includes HF sensor and ambient light sensor, C-EM and L-EM function and MA/SL control
— **Slave version PL-FLAT-AC-SL**
To be connected to the Master version
— **DALI version PL-FLAT-AC-DA**
Fully dimmable and DALI-compatible, includes C-EM and L-EM function

Flexible LED strips –
Summary of portfolio

Find the perfect solution to every customer's need with the Flex portfolio

OSRAM provides highest-quality shop lighting solutions for almost any project and application. You can create just the right effect to highlight products perfectly or to gently guide people through a shopping mall with our extensive product portfolio of dynamic Tunable White, high CRI, shop whites and more.

Set the stage for brilliant products, avoid yellowish effects, maintain vivid colors and make vegetables, cheese and meat appear delicious with the right special white LED strip.

Sophisticated lighting projects require a strong connection between architecture, function, light and a perfect interaction between daylight and artificial light. OSRAM provides an ideal solution with the white, Tunable White and RGBW LINEARlight FLEX® LED strips.

OSRAM LINEARlight FLEX® RGB and RGBW provide vivid colors with full single binning for homogeneity and ensure that the pure white and color consistency are maintained throughout large installations and over time.

Freedom of design with
LINEARlight FLEX® LED strips
LINEARlight FLEX® LED strips are the best choice for representative and prestigious applications, enabling the design of professional and durable lighting solutions.

Our monochromatic versions offer excellent color stability and enable the possibility to have solid colors without the need of a control system. Diffused colors are also available.

Effective solutions with VALUE Flex® LED strips

Create the desired lighting atmosphere, set decorative accents, or highlight products: in the blink of an eye with the new generation of the OSRAM VALUE Flex® LED strips. Thanks to improved features, you can design homogeneous lighting with just the right amount of light in a wide range of color temperatures.

VALUE Flex® LED strips bring homogeneous light into narrowest coves and perfectly illuminate every space with a large selection of various light colors.

The product family not only offers lumen packages from 300 to 2,400 lm/m with an efficacy of up to 140 lm/W. Thanks to

VALUE® Flex, OSRAM provides even more options for various applications: just the right solution for comfortable ambient lighting as well as brightly illuminated rooms. The new ShortPitch versions are available as protected (IP66) and non-protected LED strips (IP20): simply ideal to create homogeneous lighting solutions.

Combined with ON/OFF ELEMENT LED drivers, dimmable OTi DALI LED drivers, protected OPTOTRONIC® devices and our extended range of connectors, tracks and covers, you can design the ideal lighting solution for every need.

Visit our Flex configurator: www.osram.com/flex-configurator
Find our products: www.osram.com/flex

Shaping light – realize your own design

Design by Astrid Krogh
(www.astridkrogh.com)

OSRAM provides the possibility to customize flexible LED strips and realize unique projects. Determine the desired design and functionality and we will manufacture suitable high-quality LED strips.

We offer many possibilities, including custom-made solutions, in addition to our standard portfolio:
— Longer length reels for automated processing
— Private or personalized labels and marking
— Special light colors
— Semi-finished assemblies
— Extended performances and warranty

We can help in creating the right product to fit any need. OSRAM experts are always available to support you in making the best choice between various possible solutions. We accelerate your design-in activity thanks to our extensive knowledge and well-equipped, certified laboratories. We offer high-quality and reliable products made in Italy and we count on our "Quality First" culture.

For further information, please contact flex-support@osram.com.

LINEARlight FLEX® POWER 45 m
LED modules for professional and industrial applications
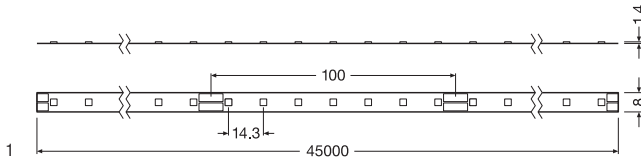
Product name	GTIN (EAN)	V	W/m	K		lm/m
LF3000-G3-830-02 45 [1]	4052899989948	24	23.7	3000	White	3000
LF3000-G3-840-02 45 [1]	4052899989962	24	21.8	4000	White	3000
LF2000-G3-830-04 45 [1]	4052899989986	24	15	3000	White	2000
LF2000-G3-840-04 45 [1]	4052899990005	24	13.6	4000	White	2000
LF1200-G3-830-06 45 [1]	4052899990029	24	8.9	3000	White	1200
LF1200-G3-840-07 45 [1]	4052899990043	24	8.1	4000	White	1200

Product name	lm MODULE	°△	METER		No.
LF3000-G3-830-02 45 [1]	6000	120	70	7	1
LF3000-G3-840-02 45 [1]	6000	120	70	7	1
LF2000-G3-830-04 45 [1]	8000	120	70	7	1
LF2000-G3-840-04 45 [1]	8000	120	70	7	1
LF1200-G3-830-06 45 [1]	7200	120	70	7	1
LF1200-G3-840-07 45 [1]	8400	120	70	7	1

1) Modules perfectly matched to OSRAM OPTOTRONIC® LED drivers (see relevant table) / For current photometric data and important safety, installation and application information, see www.osram.com/led-systems / All the technical parameters apply to the entire module. In view of the complex manufacturing process for light-emitting diodes, the typical values given above for the technical LED parameters are merely statistical values that do not necessarily correspond to the actual technical parameters of an individual product; individual products may vary from the typical values / In development, data preliminary / More versions available on request

Product features[1]
— Flexible and cuttable LED strip
— Luminous flux: up to 3,000 lm/m
— Module efficacy: up to 138 lm/W
— Dimmable with PWM technology
— Fine White (3 SDCM)
— 45,000 mm reel

Product benefits
— Large selection of light colors
— Great design freedom thanks to flexibility and cuttability of module
— Simple mounting and connection
— Toolless connection with the optional CONNECTsystem
— Easy mounting on many smooth surfaces thanks to self-adhesive tape at the back
— High luminous flux
— Extraordinary design and high-quality materials
— Type of protection: IP00

Areas of application
— Architecture lighting
— Cove lighting
— Ceiling integration

Equipment/Accessories
— Simplified connection with optional matching CONNECTsystem
— Quick installation with optional track system (OSRAM Flexessories®)
— Perfectly matched to OPTOTRONIC® 24 V electronic control gears

## References/Links
System configurator tool is available online at www.osram.com/flex-configurator

LINEARlight FLEX® Tunable White
LED modules for professional and industrial applications

Product name	GTIN (EAN)	V	W/m	K		lm/m
LF4000TW-G3-827/865-02 [1]	**4052899953260**	24	36.8	2700…6500	Tunable White	3800
LF3000TW-G3-827/865-03 [1]	**4052899953277**	24	30	2700…6500	Tunable White	3000
LF2000TW-G3-827/865-04 [1]	**4052899953284**	24	18.5	2700…6500	Tunable White	2000
LF1200TW-G3-827/865-09 [1]	**4052899953161**	24	10.5	2700…6500	Tunable White	1200
LF2X1600TWW-G1-822.835-02 [1] [2]	**4052899563339**	24	38.7	2200…3500	Tunable White	3200
LF2X1600TWW-G1-824.835-02 [1] [2]	**4052899563353**	24	37.7	2400…3500	Tunable White	3200
LFP2X1600TWW-G1-824.835-02 [1] [2]	**4052899563377**	24	37.7	2400…3500	Tunable White	3200

Product name	°∧	l [mm]	◎ METER	A	⬡	No.
LF4000TW-G3-827/865-02 [1]	120	2100	160	A+	8	1
LF3000TW-G3-827/865-03 [1]	120	3000	160	A+	8	1
LF2000TW-G3-827/865-04 [1]	120	4500	160	A+	8	1
LF1200TW-G3-827/865-09 [1]	120	9000	160	A+	8	1
LF2X1600TWW-G1-822.835-02 [1] [2]	120	2100	160	A	8	1
LF2X1600TWW-G1-824.835-02 [1] [2]	120	2100	160	A	8	1
LFP2X1600TWW-G1-824.835-02 [1] [2]	120	2100	160	A	8	-

1) Modules perfectly matched to OSRAM OPTOTRONIC® LED drivers (see relevant table) / For current photometric data and important safety, installation and application information, see www.osram.com/led-systems / All the technical parameters apply to the entire module. In view of the complex manufacturing process for light-emitting diodes, the typical values given above for the technical LED parameters are merely statistical values that do not necessarily correspond to the actual technical parameters of an individual product; individual products may vary from the typical values
2) Pre-soldered wires 500 mm long on one end / In development, data preliminary

Product features[1]
— Flexible and cuttable LED strip
— Luminous flux: up to 3,800 lm/m
— Adjustable color temperature via Tunable White: 2,700…6,500 K
— Adjustable color temperature via Tunable White: 2,200...3,500 K
— Adjustable color temperature via Tunable White: 2,400...3,500 K

Product benefits
— Simple mounting and connection
— Toolless connection with the optional CONNECTsystem
— Easy mounting on many smooth surfaces thanks to self-adhesive tape at the back
— High luminous flux
— Extraordinary design and high-quality materials
— Pre-soldered wires (TWW versions)

Areas of application
— Cove lighting
— Shop lighting
— Offices

Equipment/Accessories
— Simplified connection with optional matching CONNECTsystem
— Quick installation with optional SLIM TRACK System
— Perfectly matched to OPTOTRONIC® OTi DALI 50/220…240/24 TW
— Perfectly matched to OPTOTRONIC® OTi DALI 80/220…240/24 TW

References/Links
System configurator tool is available online at www.osram.com/flex-configurator

LINEARlight FLEX® POWER 4000
LED modules for professional and industrial applications
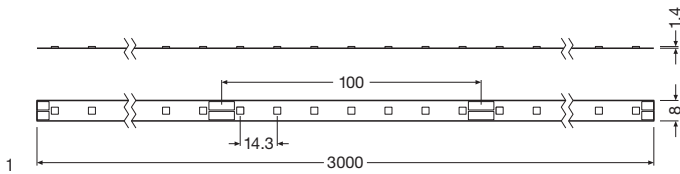
Product name	GTIN (EAN)	V	W/m	K		lm/m
LF4000-G3-827-03 [1]	4052899952867	24	28.9	2700	White	3750
LF4000-G3-830-03 [1]	4052899952874	24	28.9	3000	White	3750
LF4000-G3-840-03 [1]	4052899952881	24	28.9	4000	White	3850
LF4000-G3-850-03 [1]	4052899952898	24	28.9	5000	White	3850
LF4000-G3-865-03 [1]	4052899952904	24	28.9	6500	White	3850

Product name	°	METER			No.
LF4000-G3-827-03 [1]	120	70	A+	8	1
LF4000-G3-830-03 [1]	120	70	A+	8	1
LF4000-G3-840-03 [1]	120	70	A+	8	1
LF4000-G3-850-03 [1]	120	70	A+	8	1
LF4000-G3-865-03 [1]	120	70	A+	8	1

1) Modules perfectly matched to OSRAM OPTOTRONIC® LED drivers (see relevant table) / For current photometric data and important safety, installation and application information, see www.osram.com/led-systems / All the technical parameters apply to the entire module. In view of the complex manufacturing process for light-emitting diodes, the typical values given above for the technical LED parameters are merely statistical values that do not necessarily correspond to the actual technical parameters of an individual product; individual products may vary from the typical values

Product features[1]
— Flexible and cuttable LED strip
— Luminous flux: up to 3,850 lm/m
— Module efficacy: up to 133 lm/W
— Dimmable with PWM technology
— Fine White (3 SDCM)
— High CRI versions: typical average value 95

Product benefits
— Single bin technology for very good color consistency over time and space
— Large selection of light colors
— Large selection of white tones
— High luminous flux suitable for general lighting
— "Shop White" versions available for great color rendering without yellowing effect
— Great design freedom thanks to flexibility and cuttability of module
— Extraordinary design and high quality materials
— Simple mounting and connection
— Toolless connection with the optional CONNECTsystem
— Easy mounting on many smooth surfaces thanks to self-adhesive tape at the back

Areas of application
— Cove lighting
— Ceiling integration

Equipment/Accessories
— Simplified connection with the optional CONNECTsystem
— Quick installation with optional track system (OSRAM Flexessories®)
— Perfectly matched to OPTOTRONIC® 24 V electronic control gears

References/Links
System configurator tool is available online at www.osram.com/flex-configurator

LINEARlight FLEX® POWER 3000
LED modules for professional and industrial applications
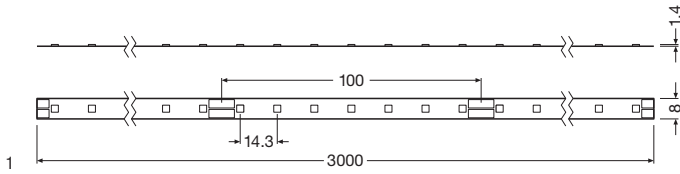
Product name	GTIN (EAN)	V	W/m	K		lm/m
LF3000-G3-820-03 [1]	**4052899952911**	24	28.9	2000	White	2500
LF3000-G3-824-03 [1]	**4052899952928**	24	28.9	2400	White	3000
LF3000-G3-827-03 [1]	**4052899952935**	24	23.7	2700	White	3000
LF3000-G3-830-03 [1]	**4052899952942**	24	23.7	3000	White	3000
LF3000-G3-840-03 [1]	**4052899952959**	24	21.8	4000	White	3000
LF3000-G3-850-03 [1]	**4052899952966**	24	21.8	5000	White	3000
LF3000-G3-865-03 [1]	**4052899952973**	24	21.8	6500	White	3000
LF3000-G3-927-03 [1]	**4052899963948**	24	28.9	2700	White	2700
LF3000-G3-930-03 [1]	**4052899963955**	24	28.9	3000	White	3000
LF3000-G3-840-03 [1]	**4052899963962**	24	26.5	4000	White	3000
LF3000-G3-SW30-02 [1]	**4052899963979**	24	27.6	3000	White	3000
LF3000-G3-SW40-02 [1]	**4052899963986**	24	27.6	4000	White	3000

Product name	°	METER			No.
LF3000-G3-820-03 [1]	120	70	A	8	1
LF3000-G3-824-03 [1]	120	70	A+	8	1
LF3000-G3-827-03 [1]	120	70	A+	8	1
LF3000-G3-830-03 [1]	120	70	A+	8	1
LF3000-G3-840-03 [1]	120	70	A++	8	1
LF3000-G3-850-03 [1]	120	70	A++	8	1
LF3000-G3-865-03 [1]	120	70	A++	8	1
LF3000-G3-927-03 [1]	120	70	A+	8	1
LF3000-G3-930-03 [1]	120	70	A+	8	1
LF3000-G3-840-03 [1]	120	70	A+	8	1
LF3000-G3-SW30-02 [1]	120	70	A+	8	1
LF3000-G3-SW40-02 [1]	120	70	A+	8	1

1) Modules perfectly matched to OSRAM OPTOTRONIC® LED drivers (see relevant table) / For current photometric data and important safety, installation and application information,
see www.osram.com/led-systems / All the technical parameters apply to the entire module. In view of the complex manufacturing process for light-emitting diodes, the typical values given above for
the technical LED parameters are merely statistical values that do not necessarily correspond to the actual technical parameters of an individual product; individual products may vary from the typical
values

Product features[1]
— Flexible and cuttable LED strip
— Luminous flux: up to 3,000 lm/m
— Module efficacy: up to 138 lm/W
— Dimmable with PWM technology
— Fine White (3 SDCM)

Product benefits
— Large selection of light colors
— Great design freedom thanks to flexibility and cuttability of module
— Simple mounting and connection
— Toolless connection with the optional CONNECTsystem
— Easy mounting on many smooth surfaces thanks to self-adhesive tape at the back
— High luminous flux
— Extraordinary design and high quality materials
— Type of protection: IP00

Areas of application
— Architecture lighting
— Cove lighting
— Ceiling integration

Equipment/Accessories
— Simplified connection with optional matching CONNECTsystem
— Quick installation with optional track system (OSRAM Flexessories®)
— Perfectly matched to OPTOTRONIC® 24 V electronic control gears

References/Links
System configurator tool is available online at www.osram.com/flex-configurator

LINEARlight FLEX® POWER 2000
LED modules for professional and industrial applications
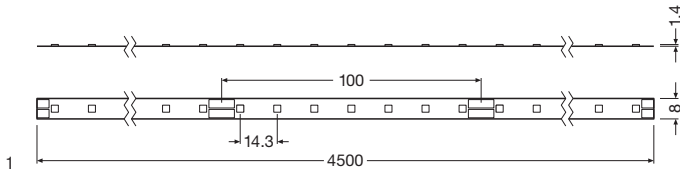
Product name	GTIN (EAN)	V	W/m	K		lm/m
LF2000-G3-820-04 [1]	4052899952980	24	17.9	2000	White	1650
LF2000-G3-824-04 [1]	4052899952997	24	17.9	2400	White	2000
LF2000-G3-827-04 [1]	4052899953000	24	15	2700	White	2000
LF2000-G3-830-04 [1]	4052899953017	24	15	3000	White	2000
LF2000-G3-840-04 [1]	4052899953024	24	13.6	4000	White	2000
LF2000-G3-850-04 [1]	4052899953031	24	13.6	5000	White	2000
LF2000-G3-865-04 [1]	4052899953048	24	13.6	6500	White	2000
LF2000-G3-927-04 [1]	4052899963993	24	17.9	2700	White	1800
LF2000-G3-930-04 [1]	4052899964006	24	17.9	3000	White	2000
LF2000-G3-940-04 [1]	4052899964013	24	16.3	4000	White	2000
LF2000-G3-SW30-04 [1]	4052899964020	24	17.9	3000	White	2000
LF2000-G3-SW40-04 [1]	4052899964037	24	17.9	4000	White	2000

Product name	°	METER			No.
LF2000-G3-820-04 [1]	120	70	A+ [2]	8	1
LF2000-G3-824-04 [1]	120	70	A+ [2]	8	1
LF2000-G3-827-04 [1]	120	70	A++ [2]	8	1
LF2000-G3-830-04 [1]	120	70	A++ [2]	8	1
LF2000-G3-840-04 [1]	120	70	A++ [2]	8	1
LF2000-G3-850-04 [1]	120	70	A++ [2]	8	1
LF2000-G3-865-04 [1]	120	70	A++ [2]	8	1
LF2000-G3-927-04 [1]	120	70	A+ [2]	8	1
LF2000-G3-930-04 [1]	120	70	A+ [2]	8	1
LF2000-G3-940-04 [1]	120	70	A+ [2]	8	1
LF2000-G3-SW30-04 [1]	120	70	A+ [2]	8	1
LF2000-G3-SW40-04 [1]	120	70	A+ [2]	8	1

1) Modules perfectly matched to OSRAM OPTOTRONIC® LED drivers (see relevant table) / For current photometric data and important safety, installation and application information,
see www.osram.com/led-systems / All the technical parameters apply to the entire module. In view of the complex manufacturing process for light-emitting diodes, the typical values given above for
the technical LED parameters are merely statistical values that do not necessarily correspond to the actual technical parameters of an individual product; individual products may vary from the typical
values
2) Applicable on smallest operable unit

Product features[1]
— Flexible and cuttable LED strip
— Luminous flux: up to 2,000 lm/m
— Module efficacy: up to 147 lm/W
— Dimmable with PWM technology
— Fine White (3 SDCM)

Product benefits
— Large selection of light colors
— Great design freedom thanks to flexibility and cuttability of module
— Simple mounting and connection
— Toolless connection with the optional CONNECTsystem
— Easy mounting on many smooth surfaces thanks to self-adhesive tape at the back
— "Shop White" versions available for great color rendering without yellowing effect
— Extraordinary design and high quality materials
— Type of protection: IP00

Areas of application
— Architecture lighting
— Cove lighting
— Ceiling integration

Equipment/Accessories
— Simplified connection with optional matching CONNECTsystem
— Quick installation with optional track system (OSRAM Flexessories®)
— Perfectly matched to OPTOTRONIC® 24 V electronic control gears

References/Links
System configurator tool is available online at www.osram.com/flex-configurator

LINEARlight FLEX® POWER 1200
LED modules for professional and industrial applications

| 1.4 |
| 100 |
| 14.3 |
| 8 |
| 9000 |
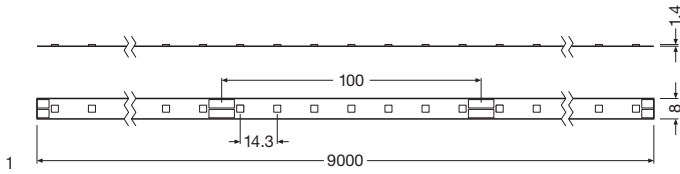
Product name	GTIN (EAN)	V	W/m	K		lm/m
LF1200-G3-820-09 [1]	**4052899953055**	24	10.6	2000	White	1000
LF1200-G3-824-09 [1]	**4052899953062**	24	10.6	2400	White	1200
LF1200-G3-827-09 [1]	**4052899953079**	24	8.9	2700	White	1200
LF1200-G3-830-09 [1]	**4052899953086**	24	8.9	3000	White	1200
LF1200-G3-840-09 [1]	**4052899953093**	24	8.1	4000	White	1200
LF1200-G3-850-09 [1]	**4052899953291**	24	8.1	5000	White	1200
LF1200-G3-865-09 [1]	**4052899953314**	24	8.1	6500	White	1200
LF1200-G3-927-09 [1]	**4052899953321**	24	10.6	2700	White	1100
LF1200-G3-930-09 [1]	**4052899953338**	24	10.6	3000	White	1200
LF1200-G3-940-09 [1]	**4052899953345**	24	10	4000	White	1200
LF1200-G3-SW30-09 [1]	**4052899964044**	24	10	3000	White	1200
LF1200-G3-SW40-09 [1]	**4052899964051**	24	10	4000	White	1200

Product name	°\	METER			No.
LF1200-G3-820-09 [1]	120	70	A+ [2]	8	1
LF1200-G3-824-09 [1]	120	70	A+ [2]	8	1
LF1200-G3-827-09 [1]	120	70	A++ [2]	8	1
LF1200-G3-830-09 [1]	120	70	A++ [2]	8	1
LF1200-G3-840-09 [1]	120	70	A++ [2]	8	1
LF1200-G3-850-09 [1]	120	70	A++ [2]	8	1
LF1200-G3-865-09 [1]	120	70	A++ [2]	8	1
LF1200-G3-927-09 [1]	120	70	A+ [2]	8	1
LF1200-G3-930-09 [1]	120	70	A+ [2]	8	1
LF1200-G3-940-09 [1]	120	70	A+ [2]	8	1
LF1200-G3-SW30-09 [1]	120	70	A+ [2]	8	1
LF1200-G3-SW40-09 [1]	120	70	A+ [2]	8	1

1) Modules perfectly matched to OSRAM OPTOTRONIC® LED drivers (see relevant table) / For current photometric data and important safety, installation and application information,
see www.osram.com/led-systems / All the technical parameters apply to the entire module. In view of the complex manufacturing process for light-emitting diodes, the typical values given above for
the technical LED parameters are merely statistical values that do not necessarily correspond to the actual technical parameters of an individual product; individual products may vary from the typical
values
2) Applicable on smallest operable unit

Product features[1]
— Flexible and cuttable LED strip
— Luminous flux: up to 1,200 lm/m
— Module efficacy: up to 152 lm/W
— Dimmable with PWM technology
— Fine White (3 SDCM)

Product benefits
— Large selection of light colors
— Great design freedom thanks to flexibility and cuttability of module
— Simple mounting and connection
— Toolless connection with the optional CONNECTsystem
— Easy mounting on many smooth surfaces thanks to self-adhesive tape at the back
— "Shop White" versions available for great color rendering without yellowing effect
— Extraordinary design and high quality materials
— Type of protection: IP00

Areas of application
— Architecture lighting
— Cove lighting
— Ceiling integration
— Wall integration

Equipment/Accessories
— Simplified connection with optional matching CONNECTsystem
— Quick installation with optional track system (OSRAM Flexessories®)
— Perfectly matched to OPTOTRONIC® 24 V electronic control gears

References/Links
System configurator tool is available online at www.osram.com/flex-configurator

LINEARlight FLEX® POWER Meat White
LED modules for professional and industrial applications
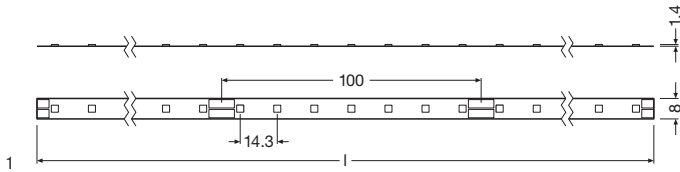
Product name	GTIN (EAN)	V	W/m	K		lm/m
LF1200-G3-MW-04 [1]	**4052899492103**	24	15	5200	White	1200
LF1200-G3-MWR-04 [1]	**4052899492165**	24	21.8	5300	White	1100
LF2000-G3-MW-03 [1]	**4052899492028**	24	26.5	5200	White	2000
LF2000-G3-MWR-03 [1]	**4052899492080**	24	28.9	5300	White	1450

Product name	°	l [mm]	METER			No.
LF1200-G3-MW-04 [1]	120	4500	70	A+ [2]	8	1
LF1200-G3-MWR-04 [1]	120	4500	70	B [2]	8	1
LF2000-G3-MW-03 [1]	120	3000	70	A [2]	8	1
LF2000-G3-MWR-03 [1]	120	3000	70	B [2]	8	1

1) Modules perfectly matched to OSRAM OPTOTRONIC® LED drivers (see relevant table) / For current photometric data and important safety, installation and application information, see www.osram.com/led-systems / All the technical parameters apply to the entire module. In view of the complex manufacturing process for light-emitting diodes, the typical values given above for the technical LED parameters are merely statistical values that do not necessarily correspond to the actual technical parameters of an individual product; individual products may vary from the typical values
2) Applicable on smallest operable unit

Product features [1]
— Flexible and cuttable LED strip
— Special white light optimized for red meats
— Fine White (3 SDCM)
— Available luminous flux: up to 2,000 lm/m

Product benefits
— Makes fresh foods more attractive
— Simple mounting and connection
— Toolless connection with the optional CONNECTsystem
— Easy mounting on many smooth surfaces thanks to self-adhesive tape at the back

Areas of application
— Fresh food counters
— Special purpose LED strip for fresh food counters lighting
— Suitable for red meat
— Not suitable for general lighting

Equipment/Accessories
— Simplified connection with optional matching CONNECTsystem
— Quick installation with optional track system (OSRAM Flexessories®)
— Perfectly matched to OPTOTRONIC® 24 V electronic control gears

References/Links
System configurator tool is available online at www.osram.com/flex-configurator

LINEARlight FLEX® POWER Veggie White
LED modules for professional and industrial applications
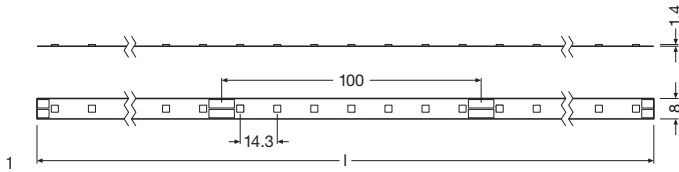
Product name	GTIN (EAN)	V	W/m	K		lm/m
LF1200-G3-VW30-04 [1]	**4052899492141**	24	16.3	3000	White	1150
LF1200-G3-VW40-04 [1]	**4052899492127**	24	15	4000	White	1200
LF2000-G3-VW30-03 [1]	**4052899492066**	24	28.9	3000	White	1800
LF2000-G3-VW40-03 [1]	**4052899492042**	24	26.5	4000	White	2000

Product name	°	l [mm]	METER			No.
LF1200-G3-VW30-04 [1]	120	4500	70	A [2]	8	1
LF1200-G3-VW40-04 [1]	120	4500	70	A+ [2]	8	1
LF2000-G3-VW30-03 [1]	120	3000	70	A [2]	8	1
LF2000-G3-VW40-03 [1]	120	3000	70	A [2]	8	1

1) Modules perfectly matched to OSRAM OPTOTRONIC® LED drivers (see relevant table) / For current photometric data and important safety, installation and application information, see www.osram.com/led-systems / All the technical parameters apply to the entire module. In view of the complex manufacturing process for light-emitting diodes, the typical values given above for the technical LED parameters are merely statistical values that do not necessarily correspond to the actual technical parameters of an individual product; individual products may vary from the typical values
2) Applicable on smallest operable unit

Product features [1]
— Flexible and cuttable LED strip
— Fine White (3 SDCM)
— Available luminous flux: up to 2,000 lm/m

Product benefits
— Makes fresh foods more attractive
— Prevents "yellowing" appearance of white-colored foods
— Simple mounting and connection
— Toolless connection with the optional CONNECTsystem
— Easy mounting on many smooth surfaces thanks to self-adhesive tape at the back

Areas of application
— Fresh food counters
— Special purpose LED strip for fresh food counters lighting
— Suitable for white meat, fish, cheese and vegetables
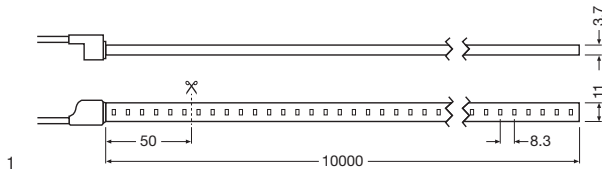— Not suitable for general lighting

Equipment/Accessories
— Simplified connection with optional matching CONNECTsystem
— Quick installation with optional track system (OSRAM Flexessories®)
— Perfectly matched to OPTOTRONIC® 24 V electronic control gears

References/Links
System configurator tool is available online at www.osram.com/flex-configurator

LINEARlight FLEX® ShortPitch
LED modules for professional and industrial applications
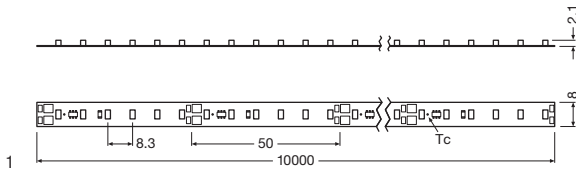
Product name	GTIN (EAN)	V	W/m	K		lm/m
LF800S-G3-824-10 [1]	4052899953109	24	8.9	2400	White	800
LF800S-G3-827-10 [1]	4052899953116	24	8.9	2700	White	800
LF800S-G3-830-10 [1]	4052899953123	24	8.3	3000	White	800
LF800S-G3-840-10 [1]	4052899953130	24	8.1	4000	White	850
LF800S-G3-850-10 [1]	4052899953147	24	8.6	5000	White	850
LF800S-G3-865-10 [1]	4052899953154	24	8.6	6500	White	850

Product name	∠°	METER			No.
LF800S-G3-824-10 [1]	120	120	A+ [2]	8	1
LF800S-G3-827-10 [1]	120	120	A+ [2]	8	1
LF800S-G3-830-10 [1]	120	120	A+ [2]	8	1
LF800S-G3-840-10 [1]	120	120	A+ [2]	8	1
LF800S-G3-850-10 [1]	120	120	A+ [2]	8	1
LF800S-G3-865-10 [1]	120	120	A+ [2]	8	1

1) Modules perfectly matched to OSRAM OPTOTRONIC® LED drivers (see relevant table) / For current photometric data and important safety, installation and application information,
see www.osram.com/led-systems / All the technical parameters apply to the entire module. In view of the complex manufacturing process for light-emitting diodes, the typical values given above for the technical LED parameters are merely statistical values that do not necessarily correspond to the actual technical parameters of an individual product; individual products may vary from the typical values
2) Applicable on smallest operable unit

Product features [1]
— Flexible and cuttable LED strip
— Luminous flux: up to 850 lm/m
— Module efficacy: up to 99 lm/W
— Dimmable with PWM technology
— Fine White

Product benefits
— Very small LED spacing
— Great design freedom thanks to flexibility and cuttability of module
— Simple mounting and connection
— Toolless connection with the optional SLIMCONNECT system G2
— Easy mounting on many smooth surfaces thanks to self-adhesive tape at the back

Areas of application
— Edge coupling
— Small coving
— Path lighting
— Contour accent lighting
— Signage
— Advertising and lettering

Equipment/Accessories
— Simplified connection with optional matching SLIMCONNECT system G2
— Quick installation with optional track system (OSRAM Flexessories®)
— Perfectly matched to OPTOTRONIC® 24 V electronic control gears

References/Links
System configurator tool is available online at www.osram.com/flex-configurator

LINEARlight FLEX® ADVANCED
LED modules for professional and industrial applications
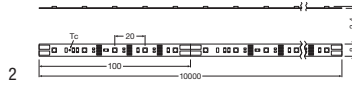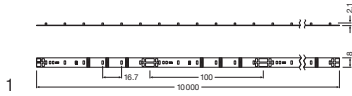
Product name	GTIN (EAN)	V	W/m	K		lm/m
LF06A-W3F-824 [1]	**4052899942783**	24	4.5	2400	White	380
LF06A-W3F-827 [1]	**4008321973986**	24	4.1	2700	White	370
LF06A-W3F-830 [1]	**4008321973993**	24	4.1	3000	White	370
LF06A-W3F-840 [1]	**4008321974006**	24	4.1	4000	White	400
LF06A-W3F-850 [1]	**4008321974013**	24	4.1	5000	White	400
LF06A-W3F-865 [1]	**4008321974020**	24	4.1	6500	White	400
LF05A2-B3 [1]	**4052899924123**	24	7.2	-	Blue	110

Product name	°	METER			No.
LF06A-W3F-824 [1]	120	60	A+ [2]	8	1
LF06A-W3F-827 [1]	120	60	A++ [2]	8	1
LF06A-W3F-830 [1]	120	60	A++ [2]	8	1
LF06A-W3F-840 [1]	120	60	A++ [2]	8	1
LF06A-W3F-850 [1]	120	60	A++ [2]	8	1
LF06A-W3F-865 [1]	120	60	A++ [2]	8	1
LF05A2-B3 [1]	120	50	–	8	2

1) Modules perfectly matched to OSRAM OPTOTRONIC® LED drivers (see relevant table) / For current photometric data and important safety, installation and application information, see www.osram.com/led-systems / All the technical parameters apply to the entire module. In view of the complex manufacturing process for light-emitting diodes, the typical values given above for the technical LED parameters are merely statistical values that do not necessarily correspond to the actual technical parameters of an individual product; individual products may vary from the typical values
2) Applicable on smallest operable unit

Product features [1]
— Flexible and cuttable LED strip
— Luminous flux: up to 400 lm/m
— Module efficacy: up to 88 lm/W
— Dimmable with PWM technology
— Fine White

Product benefits
— Very long for seamless bands of light
— Large selection of light colors
— Great design freedom thanks to flexibility and cuttability of module
— Simple mounting and connection
— Toolless connection with the optional CONNECTsystem
— Easy mounting on many smooth surfaces thanks to self-adhesive tape at the back

Areas of application
— Cove lighting
— Signage
— Advertising and lettering

Equipment/Accessories
— Simplified connection with optional matching CONNECTsystem
— Quick installation with optional track system (OSRAM Flexessories®)
— Perfectly matched to OPTOTRONIC® 24 V electronic control gears

References/Links
System configurator tool is available online at www.osram.com/flex-configurator

LINEARlight Colormix Flex
LED modules for professional and industrial applications
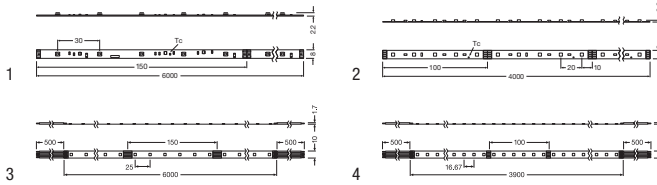
Product name	GTIN (EAN)	V	W/m RGB	W/m White	W/m	lm/m RGB	lm/m White
LF200C-G3-RGB-06 [1) 2)]	**4052899501997**	24	6.5	-	6.5	209	-
LF05CA2-RGB3 [1) 3)]	**4008321851536**	24	18	-	18	470	-
LF700RGBW-G1-822-06 [1) 4)]	**4052899525221**	24	6.5	4.2	10.7	297	360
LF700RGBW-G1-827-06 [1) 4)]	**4052899525269**	24	6.5	3.3	9.8	297	400
LF700RGBW-G1-830-06 [1) 4)]	**4052899525306**	24	6.5	3.3	9.8	297	400
LF700RGBW-G1-840-06 [1) 4)]	**4052899540668**	24	6.5	3.1	9.6	297	400
LF700RGBW-G1-865-06 [1) 4)]	**4052899525344**	24	6.5	3.1	9.6	297	400
LF1300RGBW-G1-822-04 [1) 4)]	**4052899525061**	24	11	9.4	19.9	493	720
LF1300RGBW-G1-827-04 [1) 4)]	**4052899525122**	24	11	6.9	17.9	493	800
LF1300RGBW-G1-830-04 [1) 4)]	**4052899525146**	24	11	6.9	17.9	493	800
LF1300RGBW-G1-840-04 [1) 4)]	**4052899540620**	24	11	6.4	17.4	493	800
LF1300RGBW-G1-865-04 [1) 4)]	**4052899525184**	24	11	6.4	17.4	493	800

Product name	lm/m	∠°	METER	⬛	⬛	No.
LF200C-G3-RGB-06 [1) 2)]	209	120	33	-	8	1
LF05CA2-RGB3 [1) 3)]	470	120	50	-	8	2
LF700RGBW-G1-822-06 [1) 4)]	657	120	80	A+ [5)]	8	3
LF700RGBW-G1-827-06 [1) 4)]	697	120	80	A++ [5)]	8	3
LF700RGBW-G1-830-06 [1) 4)]	697	120	80	A++ [5)]	8	3
LF700RGBW-G1-840-06 [3) 4)]	697	120	80	A++ [5)]	8	3
LF700RGBW-G1-865-06 [1) 4)]	697	120	80	A++ [5)]	8	3
LF1300RGBW-G1-822-04 [1) 4)]	1293	120	120	A+ [5)]	8	4
LF1300RGBW-G1-827-04 [1) 4)]	1293	120	120	A++ [5)]	8	4
LF1300RGBW-G1-830-04 [1) 4)]	1293	120	120	A++ [5)]	8	4
LF1300RGBW-G1-840-04 [1) 4)]	1293	120	120	A++ [5)]	8	4
LF1300RGBW-G1-865-04 [1) 4)]	1293	120	120	A++ [5)]	8	4

1) Modules perfectly matched to OSRAM OPTOTRONIC® LED drivers (see relevant table) / For current photometric data and important safety, installation and application information,
see www.osram.com/led-systems / All the technical parameters apply to the entire module. In view of the complex manufacturing process for light-emitting diodes, the typical values given above for
the technical LED parameters are merely statistical values that do not necessarily correspond to the actual technical parameters of an individual product; individual products may vary from the typical
values
2) Color binning / With RGB wavelengths: R/G/B 625/525/465 nm
3) Color binning / With RGB wavelengths: R/G/B 625/525/465 nm / White point binning
4) Full single bin on white and each color / With RGB wavelengths: R/G/B 622/534/485 nm
5) Applicable on smallest operable unit

Product features[1]
— Flexible and cuttable LED strip with inline multichip RGB LEDs
— RGBW: full single bin on each color and white

Product benefits
— Uniform color changing
— Great design freedom thanks to flexibility and cuttability of module
— Simple mounting and connection
— Type of protection: IP00
— Toolless connection with the optional CONNECTsystem for RGB
— Easy mounting on many smooth surfaces thanks to self-adhesive tape at the back

Areas of application
— Effect lighting in architecture
— Injection of light into displays and low-profile light guides
— Dynamic effects in public zones

Equipment/Accessories
— Simplified connection with optional matching CONNECTsystem for RGB
— Quick installation with optional track system (OSRAM Flexessories®)
— Perfectly matched to OPTOTRONIC® 24 V electronic control gears

References/Links
System configurator tool is available online at www.osram.com/flex-configurator

LINEARlight FLEX® Protect POWER 3000
LED modules for professional and industrial applications
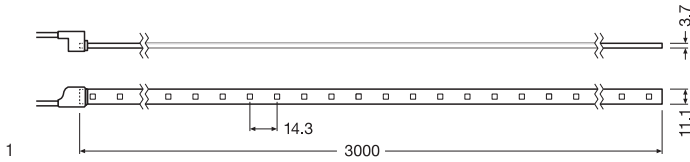
Product name	GTIN (EAN)	V	W/m	K		lm/m
LFP3000-G3-824-03 [1]	4052899481299	24	28.9	2400	White	2800
LFP3000-G3-827-03 [1]	4052899481312	24	28.9	2700	White	3000
LFP3000-G3-830-03 [1]	4052899481336	24	28.9	3000	White	3000
LFP3000-G3-840-03 [1]	4052899481350	24	23.7	4000	White	3000
LFP3000-G3-860-03 [1]	4052899481374	24	21.8	6000	White	2800
LFP3000-G3-930-03 [1]	4052899481398	24	28.9	3500	White	2850
LFP3000-G3-940-03 [1]	4052899481411	24	28.9	4000	White	3000
LFP3000-G3-860-03 [1]	4052899481435	24	26.5	6000	White	3000
LFP3000-G3-SW40 [1]	4052899501898	24	27.6	4300	White	3000

Product name	∠°	METER	A		No.
LFP3000-G3-824-03 [1]	120	70	A+ [2]	8	1
LFP3000-G3-827-03 [1]	120	70	A+ [2]	8	1
LFP3000-G3-830-03 [1]	120	70	A+ [2]	8	1
LFP3000-G3-840-03 [1]	120	70	A+ [2]	8	1
LFP3000-G3-860-03 [1]	120	70	A+ [2]	8	1
LFP3000-G3-930-03 [1]	120	70	A+ [2]	8	1
LFP3000-G3-940-03 [1]	120	70	A+ [2]	8	1
LFP3000-G3-860-03 [1]	120	70	A+ [2]	8	1
LFP3000-G3-SW40 [1]	120	70	A+ [2]	8	1

1) Modules perfectly matched to OSRAM OPTOTRONIC® LED drivers (see relevant table) / For current photometric data and important safety, installation and application information,
see www.osram.com/led-systems / All the technical parameters apply to the entire module. In view of the complex manufacturing process for light-emitting diodes, the typical values given above for
the technical LED parameters are merely statistical values that do not necessarily correspond to the actual technical parameters of an individual product; individual products may vary from the typical
values
2) Applicable on smallest operable unit

Product features[1]
— Flexible and cuttable LED strip
— Luminous flux: up to 3,000 lm/m
— Type of protection: IP67
— Dimmable with PWM technology
— Fine White (3.5 SDCM)

Product benefits
— High luminous flux
— Great design freedom thanks to flexibility and cuttability of module
— High-performance silicone for extremely long life and flexibility
— Simple connection thanks to premounted connectors
— Extraordinary design and high quality materials
— Toolless connection only if using the optional CONNECTsystem
— Easy mounting on many smooth surfaces thanks to self-adhesive tape at the back
— Outdoor use possible: UV and salt mist resistant (UV acc. to ISO 4892-2 – Method A, salt mist acc. to IEC 60068-2-52 severity 1)

Areas of application
— Facade accent lighting
— Ceiling integration
— Wall integration
— Cove lighting
— Machine lighting
— Path lighting
— Suitable for outdoor use

Equipment/Accessories
— Simplified connection with optional matching CONNECTsystem
— Quick installation with optional track system (OSRAM Flexessories®)
— Perfectly matched to OPTOTRONIC® 24 V electronic control gears

References/Links
System configurator tool is available online at www.osram.com/flex-configurator

LINEARlight FLEX® Protect POWER 2000
LED modules for professional and industrial applications
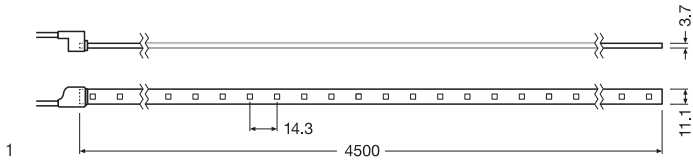
Product name	GTIN (EAN)	V	W/m	K		lm/m
LFP2000-G3-824-04 [1]	**4052899481138**	24	17.9	2400	White	1800
LFP2000-G3-827-04 [1]	**4052899481152**	24	17.9	2700	White	1900
LFP2000-G3-830-04 [1]	**4052899481176**	24	17.9	3000	White	1900
LFP2000-G3-840-04 [1]	**4052899481190**	24	15	4000	White	1900
LFP2000-G3-860-04 [1]	**4052899481213**	24	13.6	6000	White	1800
LFP2000-G3-930-04 [1]	**4052899481237**	24	17.9	3500	White	1800
LFP2000-G3-940-04 [1]	**4052899481251**	24	17.9	4000	White	1900
LFP2000-G3-960-04 [1]	**4052899481275**	24	16.3	6000	White	1900
LFP2000-G3-SW40 [1]	**4052899501911**	24	17.9	4300	White	1900

Product name	∡°	◎ METER	▣	▱	No.
LFP2000-G3-824-04 [1]	120	70	A+ [2]	8	1
LFP2000-G3-827-04 [1]	120	70	A+ [2]	8	1
LFP2000-G3-830-04 [1]	120	70	A+ [2]	8	1
LFP2000-G3-840-04 [1]	120	70	A+ [2]	8	1
LFP2000-G3-860-04 [1]	120	70	A+ [2]	8	1
LFP2000-G3-930-04 [1]	120	70	A+ [2]	8	1
LFP2000-G3-940-04 [1]	120	70	A+ [2]	8	1
LFP2000-G3-960-04 [1]	120	70	A+ [2]	8	1
LFP2000-G3-SW40 [1]	120	70	A+ [2]	8	1

1) Modules perfectly matched to OSRAM OPTOTRONIC® LED drivers (see relevant table) / For current photometric data and important safety, installation and application information,
see www.osram.com/led-systems / All the technical parameters apply to the entire module. In view of the complex manufacturing process for light-emitting diodes, the typical values given above for
the technical LED parameters are merely statistical values that do not necessarily correspond to the actual technical parameters of an individual product; individual products may vary from the typical
values
2) Applicable on smallest operable unit

Product features[1]
— Flexible and cuttable LED strip
— Luminous flux: up to 2,000 lm/m
— Type of protection: IP67
— Dimmable with PWM technology
— Fine White (3.5 SDCM)

Product benefits
— High luminous flux
— Great design freedom thanks to flexibility and cuttability of module
— High-performance silicone for extremely long life and flexibility
— Simple connection thanks to premounted connectors
— Extraordinary design and high quality materials
— Toolless connection only if using the optional CONNECTsystem
— Easy mounting on many smooth surfaces thanks to self-adhesive tape at the back
— Outdoor use possible: UV and salt mist resistant (UV acc. to ISO 4892-2 – Method A, salt mist acc. to IEC 60068-2-52 severity 1)

Areas of application
— Facade accent lighting
— Ceiling integration
— Wall integration
— Cove lighting
— Machine lighting
— Path lighting
— Suitable for outdoor use

Equipment/Accessories
— Simplified connection with optional matching CONNECTsystem
— Quick installation with optional track system (OSRAM Flexessories®)
— Perfectly matched to OPTOTRONIC® 24 V electronic control gears

References/Links
System configurator tool is available online at www.osram.com/flex-configurator

LINEARlight FLEX® Protect POWER 1200
LED modules for professional and industrial applications
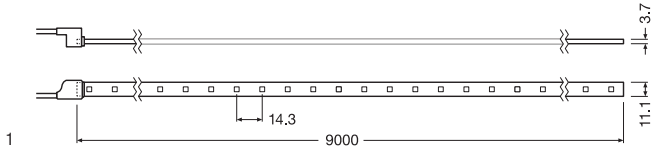
Product name	GTIN (EAN)	V	W/m	K		lm/m
LFP1200-G3-824-09 [1]	**4052899481640**	24	10.6	2400	White	1100
LFP1200-G3-827-09 [1]	**4052899481626**	24	10.6	2700	White	1150
LFP1200-G3-830-09 [1]	**4052899481664**	24	10.6	3000	White	1200
LFP1200-G3-840-09 [1]	**4052899481688**	24	8.9	4000	White	1200
LFP1200-G3-860-09 [1]	**4052899481701**	24	8.1	6000	White	1100
LFP1200-G3-930-09 [1]	**4052899481725**	24	10.6	3500	White	1100
LFP1200-G3-940-09 [1]	**4052899481749**	24	10.6	4000	White	1200
LFP1200-G3-960-09 [1]	**4052899481763**	24	10	6000	White	1200
LFP1200-G3-SW40 [1]	**4052899501935**	24	10.6	4301	White	1200

Product name	∠°	METER			No.
LFP1200-G3-824-09 [1]	120	70	A+ [2]	8	1
LFP1200-G3-827-09 [1]	120	70	A+ [2]	8	1
LFP1200-G3-830-09 [1]	120	70	A+ [2]	8	1
LFP1200-G3-840-09 [1]	120	70	A++ [2]	8	1
LFP1200-G3-860-09 [1]	120	70	A++ [2]	8	1
LFP1200-G3-930-09 [1]	120	70	A+ [2]	8	1
LFP1200-G3-940-09 [1]	120	70	A+ [2]	8	1
LFP1200-G3-960-09 [1]	120	70	A+ [2]	8	1
LFP1200-G3-SW40 [1]	120	70	A+ [2]	8	1

1) Modules perfectly matched to OSRAM OPTOTRONIC® LED drivers (see relevant table) / For current photometric data and important safety, installation and application information,
see www.osram.com/led-systems / All the technical parameters apply to the entire module. In view of the complex manufacturing process for light-emitting diodes, the typical values given above for the technical LED parameters are merely statistical values that do not necessarily correspond to the actual technical parameters of an individual product; individual products may vary from the typical values
2) Applicable on smallest operable unit

Product features[1]
— Flexible and cuttable LED strip
— Luminous flux: up to 1,200 lm/m
— Type of protection: IP67
— Dimmable with PWM technology
— Fine White (3.5 SDCM)

Product benefits
— High luminous flux
— Great design freedom thanks to flexibility and cuttability of module
— High-performance silicone for extremely long life and flexibility
— Simple connection thanks to premounted connectors
— Extraordinary design and high quality materials
— Toolless connection only if using the optional CONNECTsystem
— Easy mounting on many smooth surfaces thanks to self-adhesive tape at the back
— Outdoor use possible: UV and salt mist resistant (UV acc. to ISO 4892-2 – Method A, salt mist acc. to IEC 60068-2-52 severity 1)

Areas of application
— Facade accent lighting
— Ceiling integration
— Wall integration
— Cove lighting
— Machine lighting
— Path lighting
— Suitable for outdoor use

Equipment/Accessories
— Simplified connection with optional matching CONNECTsystem
— Quick installation with optional track system (OSRAM Flexessories®)
— Perfectly matched to OPTOTRONIC® 24 V electronic control gears

References/Links
System configurator tool is available online at www.osram.com/flex-configurator

LINEARlight FLEX® Protect POWER 800
LED modules for professional and industrial applications
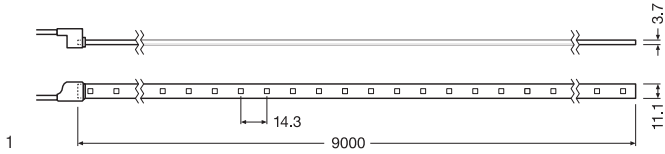
Product name	GTIN (EAN)	V	W/m	K		lm/m
LFP800-G3-824-09 [1]	4052899481565	24	7.6	2400	White	800
LFP800-G3-827-09 [1]	4052899481589	24	7.1	2700	White	800

Product name	°	METER			No.
LFP800-G3-824-09 [1]	120	70	A+ [2]	8	1
LFP800-G3-827-09 [1]	120	70	A++ [2]	8	1

1) Modules perfectly matched to OSRAM OPTOTRONIC® LED drivers (see relevant table) / For current photometric data and important safety, installation and application information, see www.osram.com/led-systems / All the technical parameters apply to the entire module. In view of the complex manufacturing process for light-emitting diodes, the typical values given above for the technical LED parameters are merely statistical values that do not necessarily correspond to the actual technical parameters of an individual product; individual products may vary from the typical values
2) Applicable on smallest operable unit

Product features [1]
— Flexible and cuttable LED strip
— Luminous flux: up to 800 lm/m
— Type of protection: IP67
— Dimmable with PWM technology
— Fine White (3.5 SDCM)

Product benefits
— High luminous flux
— Great design freedom thanks to flexibility and cuttability of module
— High-performance silicone for extremely long life and flexibility
— Simple connection thanks to premounted connectors
— Extraordinary design and high quality materials
— Toolless connection only if using the optional CONNECTsystem
— Easy mounting on many smooth surfaces thanks to self-adhesive tape at the back
— Outdoor use possible: UV and salt mist resistant (UV acc. to ISO 4892-2 – Method A, salt mist acc. to IEC 60068-2-52 severity 1)

Areas of application
— Facade accent lighting
— Ceiling integration
— Wall integration
— Cove lighting
— Machine lighting
— Path lighting
— Suitable for outdoor use

Equipment/Accessories
— Simplified connection with optional matching CONNECTsystem
— Quick installation with optional track system (OSRAM Flexessories®)
— Perfectly matched to OPTOTRONIC® 24 V electronic control gears

References/Links
System configurator tool is available online at www.osram.com/flex-configurator

LINEARlight FLEX® Protect ShortPitch
LED modules for professional and industrial applications

Product name	GTIN (EAN)	V	W/m	K		lm/m
LFP800S-G3-830-10 [1]	**4052899953352**	24	8.3	3000	White	760
LFP800S-G3-840-10 [1]	**4052899953369**	24	7.7	4000	White	760
LFP800S-G3-856-10 [1]	**4052899953376**	24	7.7	5600	White	810
LFP800S-G3-880-10 [1]	**4052899953383**	24	8.3	8000	White	810

Product name	∠°	METER	A+		No.
LFP800S-G3-830-10 [1]	120	120	A+	8	1
LFP800S-G3-840-10 [1]	120	120	A+	8	1
LFP800S-G3-856-10 [1]	120	120	A+	8	1
LFP800S-G3-880-10 [1]	120	120	A+	8	1

1) Modules perfectly matched to OSRAM OPTOTRONIC® LED drivers (see relevant table) / For current photometric data and important safety, installation and application information, see www.osram.com/led-systems / All the technical parameters apply to the entire module. In view of the complex manufacturing process for light-emitting diodes, the typical values given above for the technical LED parameters are merely statistical values that do not necessarily correspond to the actual technical parameters of an individual product; individual products may vary from the typical values

Product features [1]
— Flexible and cuttable LED strip
— Luminous flux: up to 810 lm/m
— Type of protection: IP67
— Dimmable with PWM technology
— Fine White (3.5 SDCM)

Product benefits
— Very small LED spacing
— Outdoor use possible: UV and salt mist resistant (UV acc. to ISO 4892-2 – Method A, salt mist acc. to IEC 60068-2-52 severity 1)
— Great design freedom thanks to flexibility and cuttability of module
— High-performance silicone for extremely long life and flexibility
— Simple connection thanks to premounted connectors
— Extraordinary design and high quality materials
— Easy mounting on many smooth surfaces thanks to self-adhesive tape at the back

Areas of application
— Suitable for outdoor use

Equipment/Accessories
— Simplified connection with optional matching CONNECTsystem
— Quick installation with optional track system (OSRAM Flexessories®)
— Perfectly matched to OPTOTRONIC® 24 V electronic control gears

References/Links
System configurator tool is available online at www.osram.com/flex-configurator

LINEARlight FLEX® Protect ADVANCED
LED modules for professional and industrial applications
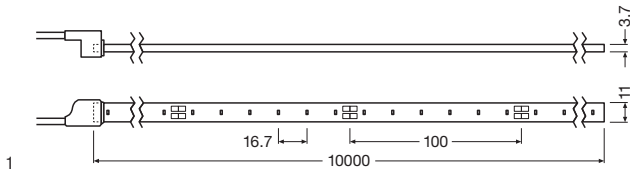
Product name	GTIN (EAN)	V	W/m	K		lm/m
LF06A-W3F-830-P [1]	**4008321789983**	24	4.2	3000	White	390
LF06A-W3F-840-P [1]	**4008321790125**	24	4.2	4000	White	390
LF06A-W3F-870-P [1]	**4008321790149**	24	4.2	7000	White	420

Product name	°△	METER			No.
LF06A-W3F-830-P [1]	120	60	A++ [2]	8	1
LF06A-W3F-840-P [1]	120	60	A++ [2]	8	1
LF06A-W3F-870-P [1]	120	60	A++ [2]	8	1

1) Modules perfectly matched to OSRAM OPTOTRONIC® LED drivers (see relevant table) / For current photometric data and important safety, installation and application information, see www.osram.com/led-systems / All the technical parameters apply to the entire module. In view of the complex manufacturing process for light-emitting diodes, the typical values given above for the technical LED parameters are merely statistical values that do not necessarily correspond to the actual technical parameters of an individual product; individual products may vary from the typical values
2) Applicable on smallest operable unit

Product features[1]
— Flexible and cuttable LED strip
— Luminous flux: up to 420 lm/m
— Type of protection: IP67
— Dimmable with PWM technology
— Fine White (3.5 SDCM)
— Salt mist proof

Product benefits
— Very long for seamless bands of light
— Great design freedom thanks to flexibility and cuttability of module
— High-performance silicone for extremely long life and flexibility
— Simple connection thanks to premounted connectors
— Extraordinary design and high quality materials
— Toolless connection with the optional CONNECTsystem
— Easy mounting on many smooth surfaces thanks to self-adhesive tape at the back

Areas of application
— Cove lighting
— Wall integration
— Hand rails and corridors
— Machine lighting
— Path lighting
— Signage
— Suitable for outdoor use

Equipment/Accessories
— Simplified connection with optional matching CONNECTsystem
— Quick installation with optional track system (OSRAM Flexessories®)
— Perfectly matched to OPTOTRONIC® 24 V electronic control gears

References/Links
System configurator tool is available online at www.osram.com/flex-configurator

LINEARlight FLEX® Protect ECO
LED modules for professional and industrial applications

1
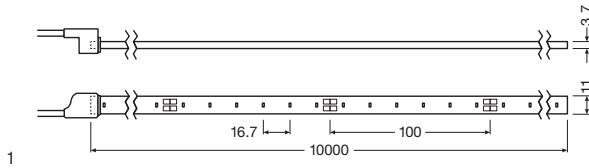
Product name	GTIN (EAN)	V	W/m	K		lm/m
LF06E-830-P [1]	**4052899475724**	24	2	3000	White	200
LF06E-840-P [1]	**4052899475809**	24	2	4000	White	200
LF06E-880-P [1]	**4052899475847**	24	2	8000	White	190

Product name	△	METER			No.
LF06E-830-P [1]	120	60	A++ [2]	8	1
LF06E-840-P [1]	120	60	A++ [2]	8	1
LF06E-880-P [1]	120	60	A++ [2]	8	1

1) Modules perfectly matched to OSRAM OPTOTRONIC® LED drivers (see relevant table) / For current photometric data and important safety, installation and application information, see www.osram.com/led-systems / All the technical parameters apply to the entire module. In view of the complex manufacturing process for light-emitting diodes, the typical values given above for the technical LED parameters are merely statistical values that do not necessarily correspond to the actual technical parameters of an individual product; individual products may vary from the typical values
2) Applicable on smallest operable unit

Product features [1]
— Flexible and cuttable LED strip
— Luminous flux: up to 200 lm/m
— Type of protection: IP67
— Dimmable with PWM technology
— Fine White (3.5 SDCM)
— Salt mist proof

Product benefits
— Large selection of light colors
— Great design freedom thanks to flexibility and cuttability of module
— High-performance silicone for extremely long life and flexibility
— Simple connection thanks to premounted connectors
— Extraordinary design and high quality materials
— Toolless connection with the optional CONNECTsystem
— Easy mounting on many smooth surfaces thanks to self-adhesive tape at the back

Areas of application
— Decorative applications
— Wall integration
— Backlighting of complex structures
— Path lighting
— Signage
— Suitable for outdoor use

Equipment/Accessories
— Simplified connection with optional matching CONNECTsystem
— Quick installation with optional track system (OSRAM Flexessories®)
— Perfectly matched to OPTOTRONIC® 24 V electronic control gears

References/Links
System configurator tool is available online at www.osram.com/flex-configurator

LINEARlight Colormix Flex Protect
LED modules for professional and industrial applications
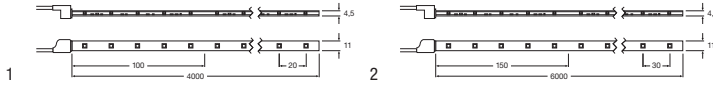
Product name	GTIN (EAN)	V	W/m	λ	
LF05CA-RGB3-P [1]	**4008321977205**	24	18	625 / 525 / 465	RGB
LFP200C-G3-RGB-06 [1]	**4052899501973**	24	6.5	625 / 525 / 465	RGB

Product name	lm/m	△	⊙ METER	⬛	💡 No.
LF05CA-RGB3-P [1]	435	120	50	8	1
LFP200C-G3-RGB-06 [1]	180	120	33	8	2

1) Modules perfectly matched to OSRAM OPTOTRONIC® LED drivers (see relevant table) / For current photometric data and important safety, installation and application information, see www.osram.com/led-systems / All the technical parameters apply to the entire module. In view of the complex manufacturing process for light-emitting diodes, the typical values given above for the technical LED parameters are merely statistical values that do not necessarily correspond to the actual technical parameters of an individual product; individual products may vary from the typical values

Product features[1]
— Flexible and cuttable LED strip with inline multichip RGB LEDs
— Type of protection: IP67
— Dimmable with PWM technology
— Salt mist proof

Product benefits
— Uniform color changing
— Great design freedom thanks to flexibility and cuttability of module
— High-performance silicone for extremely long life and flexibility
— Simple connection thanks to premounted connectors
— Extraordinary design and high quality materials
— Toolless connection with the optional CONNECTsystem
— Easy mounting on many smooth surfaces thanks to self-adhesive tape at the back

Areas of application
— Facade accent lighting
— Effect lighting in architecture
— Edge coupling
— Path lighting
— Suitable for outdoor use

Equipment/Accessories
— Simplified connection with optional matching CONNECTsystem
— Quick installation with optional track system (OSRAM Flexessories®)
— Perfectly matched to OPTOTRONIC® 24 V electronic control gears

References/Links
System configurator tool is available online at www.osram.com/flex-configurator

LINEARlight FLEX® DIFFUSE Top White
LED modules for professional and industrial applications
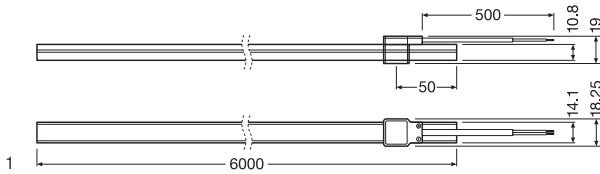
Product name	GTIN (EAN)	V	W/m	K		lm/m
LFD400T-G1-827-06 [1]	4052899953512	24	7.2	2700	White	490
LFD400T-G1-830-06 [1]	4052899953529	24	7.2	3000	White	490
LFD400T-G1-840-06 [1]	4052899953536	24	7.2	4000	White	480
LFD400T-G1-865-06 [1]	4052899953543	24	7.2	6500	White	460
LFD800T-G1-827-06 [1]	4052899499768	24	11.5	2700	White	750
LFD800T-G1-830-06 [1]	4052899499805	24	11.5	3000	White	750
LFD800T-G1-840-06 [1]	4052899499843	24	11.5	4000	White	720
LFD800T-G1-865-06 [1]	4052899499881	24	11.5	6500	White	660

Product name	°	METER			No.
LFD400T-G1-827-06 [1]	120	140	A+ [2]	6	1
LFD400T-G1-830-06 [1]	120	140	A+ [2]	6	1
LFD400T-G1-840-06 [1]	120	140	A+ [2]	6	1
LFD400T-G1-865-06 [1]	120	140	A+ [2]	6	1
LFD800T-G1-827-06 [1]	120	140	A [2]	6	1
LFD800T-G1-830-06 [1]	120	140	A [2]	6	1
LFD800T-G1-840-06 [1]	120	140	A [2]	6	1
LFD800T-G1-865-06 [1]	120	140	A [2]	6	1

1) Modules perfectly matched to OSRAM OPTOTRONIC® LED drivers (see relevant table) / For current photometric data and important safety, installation and application information, see www.osram.com/led-systems / All the technical parameters apply to the entire module.
In view of the complex manufacturing process for light-emitting diodes, the typical values given above for the technical LED parameters are merely statistical values that do not necessarily correspond to the actual technical parameters of an individual product; individual products may vary from the typical values
2) Applicable on smallest operable unit

Product features [1]
— Diffused light lines without visible spots
— Flexible and cuttable module to support design freedom
— Long operational length per single power feed possible (up to 6 m)
— Ideal for luminaire designs
— Extra strong self-adhesive back for easy mounting
— 24 V technology for easy dimensioning
— Recommended in system use with OPTOTRONIC®
— Increased reliability due to single-piece reel-to-reel technology
— Dimmable with PWM technology

Product benefits
— IP67 protection with high-performance silicone
— Outdoor use possible: UV and salt mist resistant (UV acc. to ISO 4892-2 - Method A, salt mist acc. to IEC 60068-2-52 severity 1)

Areas of application
— Individual and customized luminaires
— Organic-shaped luminaires
— Architectural integration – e.g. coves, walls
— Object integration – e.g. handrails
— Signage and illuminated advertising

References/Links
System configurator tool is available online at www.osram.com/flex-configurator

LINEARlight FLEX® DIFFUSE Top Monochrome
LED modules for professional and industrial applications
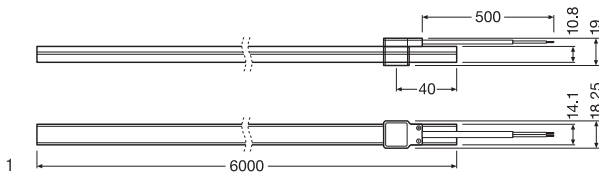
Product name	GTIN (EAN)	V	W/m	λ	
LFD400MT-G1-BL-06 [1]	**4052899953550**	24	12	457…467	Blue
LFD400MT-G1-GR-06 [1]	**4052899953567**	24	12	525…539	Green
LFD400MT-G1-GR-03 [1]	**4052899450851**	24	12	525…539	Green
LFD400MT-G1-RE-06 [1]	**4052899953574**	24	12	612…626	Red
LFD400MT-G1-YE-06 [1]	**4052899953581**	24	12	586…594	Yellow
LFD400MT-G1-OR-06 [1]	**4052899953598**	24	12	603…611	Orange

Product name	lm/m	∡°	METER		No.
LFD400MT-G1-BL-06 [1]	60	120	150	6	1
LFD400MT-G1-GR-06 [1]	285	120	150	6	1
LFD400MT-G1-GR-03 [1]	285	120	150	6	1
LFD400MT-G1-RE-06 [1]	320	120	150	6	1
LFD400MT-G1-YE-06 [1]	162	120	150	6	1
LFD400MT-G1-OR-06 [1]	175	120	150	6	1

1) Modules perfectly matched to OSRAM OPTOTRONIC® LED drivers (see relevant table) / For current photometric data and important safety, installation and application information, see www.osram.com/led-systems / All the technical parameters apply to the entire module. In view of the complex manufacturing process for light-emitting diodes, the typical values given above for the technical LED parameters are merely statistical values that do not necessarily correspond to the actual technical parameters of an individual product; individual products may vary from the typical values

Product features[1]
— Diffused light lines without visible spots
— Flexible and cuttable module to support design freedom
— Long operational length per single power feed possible (up to 6 m)
— Ideal for luminaire designs
— Extra strong self-adhesive back for easy mounting
— 24 V technology for easy dimensioning
— Recommended in system use with OPTOTRONIC®
— Increased reliability due to single-piece reel-to-reel technology
— Dimmable with PWM technology

Product benefits
— IP67 protection with high-performance silicone
— Outdoor use possible: UV and salt mist resistant (UV acc. to ISO 4892-2 - Method A, salt mist acc. to IEC 60068-2-52 severity 1)

Areas of application
— Individual and customized luminaires
— Organic-shaped luminaires
— Architectural integration – e.g. coves, walls
— Object integration – e.g. handrails
— Signage and illuminated advertising

References/Links
System configurator tool is available online at
www.osram.com/flex-configurator

LINEARlight FLEX® DIFFUSE Side White
LED modules for professional and industrial applications
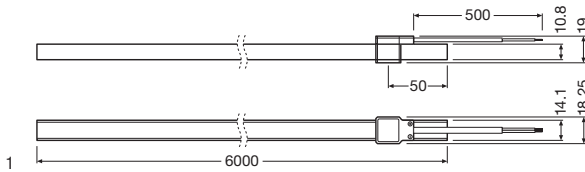
Product name	GTIN (EAN)	V	W/m	K		lm/m
LFD400S-G1-827-06 [1]	4052899953611	24	7.2	2700	White	410
LFD400S-G1-830-06 [1]	4052899953628	24	7.2	3000	White	410
LFD400S-G1-840-06 [1]	4052899953635	24	7.2	4000	White	410
LFD400S-G1-865-06 [1]	4052899953642	24	7.2	6500	White	350
LFD600S-G1-827-06 [1]	4052899499928	24	11.5	2700	White	600
LFD600S-G1-830-06 [1]	4052899499966	24	11.5	3000	White	600
LFD600S-G1-840-06 [1]	4052899500006	24	11.5	4000	White	600
LFD600S-G1-865-06 [1]	4052899500044	24	11.5	6500	White	530

Product name	°	METER			No.
LFD400S-G1-827-06 [1]	120	140	A+ [2]	6	1
LFD400S-G1-830-06 [1]	120	140	A+ [2]	6	1
LFD400S-G1-840-06 [1]	120	140	A+ [2]	6	1
LFD400S-G1-865-06 [1]	120	140	A [2]	6	1
LFD600S-G1-827-06 [1]	120	140	A [2]	6	1
LFD600S-G1-830-06 [1]	120	140	A [2]	6	1
LFD600S-G1-840-06 [1]	120	140	A [2]	6	1
LFD600S-G1-865-06 [1]	120	140	A [2]	6	1

1) Modules perfectly matched to OSRAM OPTOTRONIC® LED drivers (see relevant table) / For current photometric data and important safety, installation and application information,
see www.osram.com/led-systems / All the technical parameters apply to the entire module. In view of the complex manufacturing process for light-emitting diodes, the typical values given above for
the technical LED parameters are merely statistical values that do not necessarily correspond to the actual technical parameters of an individual product; individual products may vary from the typical
values
2) Applicable on smallest operable unit

Product features [1]
— Diffused light lines without visible spots
— Flexible and cuttable module to support design freedom
— Long operational length per single power feed possible (up to 6 m)
— Ideal for luminaire designs
— Extra strong self-adhesive back for easy mounting
— 24 V technology for easy dimensioning
— Recommended in system use with OPTOTRONIC®
— Increased reliability due to single-piece reel-to-reel technology
— Dimmable with PWM technology

Product benefits
— IP67 protection with high-performance silicone
— Outdoor use possible: UV and salt mist resistant
(UV acc. to ISO 4892-2 - Method A, salt mist acc. to IEC 60068-2-52 severity 1)

Areas of application
— Individual and customized luminaires
— Organic-shaped luminaires
— Architectural integration – e.g. coves, walls
— Object integration – e.g. handrails
— Signage and illuminated advertising

References/Links
System configurator tool is available online at www.osram.com/flex-configurator

LINEARlight FLEX® DIFFUSE Side Monochrome
LED modules for professional and industrial applications
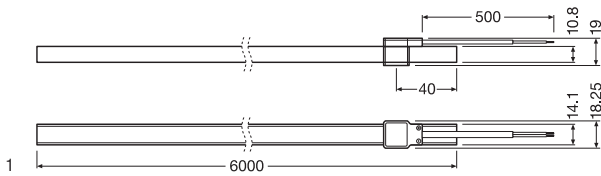
Product name	GTIN (EAN)	V	W/m	λ	
LFD400MS-G1-BL-06 [1]	**4052899953659**	24	12	457…467	Blue
LFD400MS-G1-GR-06 [1]	**4052899953666**	24	12	525…539	Green
LFD400MS-G1-RE-06 [1]	**4052899953673**	24	12	612…626	Red
LFD400MS-G1-YE-06 [1]	**4052899953680**	24	12	586…594	Yellow
LFD400MS-G1-OR-06 [1]	**4052899953697**	24	12	603…611	Orange
LFD400MS-G1-GR-03 [1]	**4052899450882**	24	12	525…539	Green

Product name	lm/m	°⟋\	METER		No.
LFD400MS-G1-BL-06 [1]	55	120	150	6	1
LFD400MS-G1-GR-06 [1]	260	120	150	6	1
LFD400MS-G1-RE-06 [1]	240	120	150	6	1
LFD400MS-G1-YE-06 [1]	150	120	150	6	1
LFD400MS-G1-OR-06 [1]	160	120	150	6	1
LFD400MS-G1-GR-03 [1]	260	120	150	6	1

1) Modules perfectly matched to OSRAM OPTOTRONIC® LED drivers (see relevant table) / For current photometric data and important safety, installation and application information, see www.osram.com/led-systems / All the technical parameters apply to the entire module. In view of the complex manufacturing process for light-emitting diodes, the typical values given above for the technical LED parameters are merely statistical values that do not necessarily correspond to the actual technical parameters of an individual product; individual products may vary from the typical values

Product features[1]
— Diffused light lines without visible spots
— Flexible and cuttable module to support design freedom
— Long operational length per single power feed possible (up to 6 m)
— Ideal for luminaire designs
— Extra strong self-adhesive back for easy mounting
— 24 V technology for easy dimensioning
— Recommended in system use with OPTOTRONIC®
— Increased reliability due to single-piece reel-to-reel technology
— Dimmable with PWM technology

Product benefits
— IP67 protection with high-performance silicone
— Outdoor use possible: UV and salt mist resistant (UV acc. to ISO 4892-2 - Method A, salt mist acc. to IEC 60068-2-52 severity 1)

Areas of application
— Individual and customized luminaires
— Organic-shaped luminaires
— Architectural integration – e.g. coves, walls
— Object integration – e.g. handrails
— Signage and illuminated advertising

References/Links
System configurator tool is available online at www.osram.com/flex-configurator

VALUE Flex® 1500
LED modules for semi-professional applications
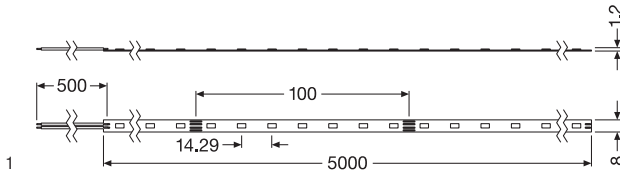
Product name	GTIN (EAN)	V	W/m	K		lm/m
VF1500-G3-827-05 [1]	**4052899526051**	24	11.5	2700	White	1445
VF1500-G3-830-05 [1]	**4052899526075**	24	11.5	3000	White	1520
VF1500-G3-840-05 [1]	**4052899526099**	24	11.5	4000	White	1600
VF1500-G3-865-05 [1]	**4052899526112**	24	11.5	6500	White	1600

Product name	lm	°∧	METER			No.
VF1500-G3-827-05 [1]	7225	120	70	A+ [2]	10	1
VF1500-G3-830-05 [1]	7600	120	70	A+ [2]	10	1
VF1500-G3-840-05 [1]	8000	120	70	A++ [2]	10	1
VF1500-G3-865-05 [1]	8000	120	70	A++ [2]	10	1

1) Modules perfectly matched to OSRAM OPTOTRONIC® LED drivers (see relevant table) / For current photometric data and important safety, installation and application information, see www.osram.com/led-systems / All the technical parameters apply to the entire module. In view of the complex manufacturing process for light-emitting diodes, the typical values given above for the technical LED parameters are merely statistical values that do not necessarily correspond to the actual technical parameters of an individual product; individual products may vary from the typical values
2) Applicable on smallest operable unit

Product features [1]
— Available with light color: Warm White, Cool White
— Luminous flux: up to 1,600 lm/m
— High color consistency: 4 SDCM
— Self-cooling
— Beam angle per module: 120°
— Dimmable with suitable OPTOTRONIC® LED drivers
— Type of protection: IP00

Product benefits
— Energy-saving low-power flexible LED strip
— Pre-wired LED strip, simple and quick plug-and-play installation
— Good light output due to homogeneous LED distance and high color consistency
— Easy mounting on many smooth surfaces thanks to self-adhesive tape at the back
— Easy installation with optional track system
— Easy to cut and reconnect to the reliable SLIMCONNECT system

Areas of application
— Hospitality
— Signage
— Architecture lighting
— Cove lighting
— General illumination
— Wall integration
— Display cabinet lighting

Equipment/Accessories
— SLIMCONNECT system FLEX connector
— Optional track system
— ELEMENT LED drivers
— OPTOTRONIC® LED drivers

VALUE Flex® 600
LED modules for semi-professional applications
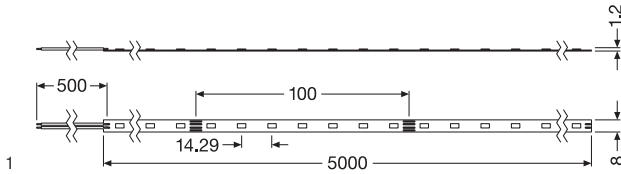
Product name	GTIN (EAN)	V	W/m	K		lm/m
VF600-G3-827-05 [1]	**4052899525979**	24	4.6	2700	White	620
VF600-G3-830-05 [1]	**4052899525993**	24	4.6	3000	White	655
VF600-G3-840-05 [1]	**4052899526013**	24	4.6	4000	White	690
VF600-G3-865-05 [1]	**4052899526037**	24	4.6	6500	White	690

Product name	lm	△°	METER			No.
VF600-G3-827-05 [1]	3100	120	70	A++ [2]	10	1
VF600-G3-830-05 [1]	3275	120	70	A++ [2]	10	1
VF600-G3-840-05 [1]	3450	120	70	A++ [2]	10	1
VF600-G3-865-05 [1]	3450	120	70	A++ [2]	10	1

1) Modules perfectly matched to OSRAM OPTOTRONIC® LED drivers (see relevant table) / For current photometric data and important safety, installation and application information, see www.osram.com/led-systems / All the technical parameters apply to the entire module. In view of the complex manufacturing process for light-emitting diodes, the typical values given above for the technical LED parameters are merely statistical values that do not necessarily correspond to the actual technical parameters of an individual product; individual products may vary from the typical values
2) Applicable on smallest operable unit

Product features [1]
— Available with light color: Warm White, Cool White
— Luminous flux: up to 690 lm/m
— High color consistency: 4 SDCM
— Self-cooling
— Beam angle per module: 120°
— Dimmable with suitable OPTOTRONIC® LED drivers
— Type of protection: IP00

Product benefits
— Energy-saving low-power flexible LED strip
— Pre-wired LED strip, simple and quick plug-and-play installation
— Good light output due to homogeneous LED distance and high color consistency
— Easy mounting on many smooth surfaces thanks to self-adhesive tape at the back
— Easy installation with optional track system
— Easy to cut and reconnect to the reliable SLIMCONNECT system

Areas of application
— Hospitality
— Display cabinet lighting
— Signage
— Architecture lighting
— Cove lighting
— Wall integration

Equipment/Accessories
— SLIMCONNECT system FLEX connector
— Optional track system
— ELEMENT LED drivers
— OPTOTRONIC® LED drivers

VALUE Flex® 300
LED modules for semi-professional applications
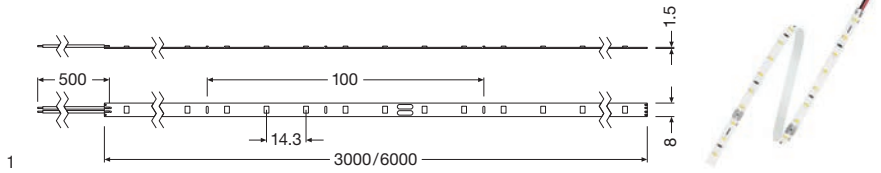
Product name	GTIN (EAN)	V	W/m	K		lm/m
VF300-G3-827-03 [1]	**4052899527874**	24	2	2700	White	280
VF300-G3-827-06 [1]	**4052899527959**	24	2	2700	White	280
VF300-G3-830-03 [1]	**4052899527898**	24	2	3000	White	295
VF300-G3-830-06 [1]	**4052899527973**	24	2	3000	White	295
VF300-G3-840-03 [1]	**4052899527911**	24	2	4000	White	310
VF300-G3-840-06 [1]	**4052899527997**	24	2	4000	White	310
VF300-G3-865-03 [1]	**4052899527935**	24	2	6500	White	310
VF300-G3-865-06 [1]	**4052899528017**	24	2	6500	White	310

Product name	lm	°⟋	METER			No.
VF300-G3-827-03 [1]	840	120	70	A++ [2]	10	1
VF300-G3-827-06 [1]	1680	120	70	A++ [2]	10	1
VF300-G3-830-03 [1]	885	120	70	A++ [2]	10	1
VF300-G3-830-06 [1]	1770	120	70	A++ [2]	10	1
VF300-G3-840-03 [1]	930	120	70	A++ [2]	10	1
VF300-G3-840-06 [1]	1860	120	70	A++ [2]	10	1
VF300-G3-865-03 [1]	930	120	70	A++ [2]	10	1
VF300-G3-865-06 [1]	1860	120	70	A++ [2]	10	1

1) Modules perfectly matched to OSRAM OPTOTRONIC® LED drivers (see relevant table) / For current photometric data and important safety, installation and application information,
see www.osram.com/led-systems / All the technical parameters apply to the entire module. In view of the complex manufacturing process for light-emitting diodes, the typical values given above for
the technical LED parameters are merely statistical values that do not necessarily correspond to the actual technical parameters of an individual product; individual products may vary from the typical
values
2) Applicable on smallest operable unit

Product features [1]
— Available with light color: Warm White, Cool White
— Luminous flux: up to 310 lm/m
— High color consistency: 4 SDCM
— Self-cooling
— Beam angle per module: 120°
— Dimmable with suitable OPTOTRONIC® LED drivers
— Type of protection: IP00

Product benefits
— Energy-saving low-power flexible LED strip
— Pre-wired LED strip, simple and quick plug-and-play installation
— Easy mounting on many smooth surfaces thanks to self-adhesive tape at the back
— Easy installation with optional track system
— Easy to cut and reconnect to the reliable SLIMCONNECT system

Areas of application
— Hospitality
— Under-cabinet lighting
— Shelf lighting
— Decorative lighting

Equipment/Accessories
— SLIMCONNECT system FLEX connector
— Optional track system
— ELEMENT LED drivers
— OPTOTRONIC® LED drivers

VALUE Flex® 1000
LED modules for semi-professional applications
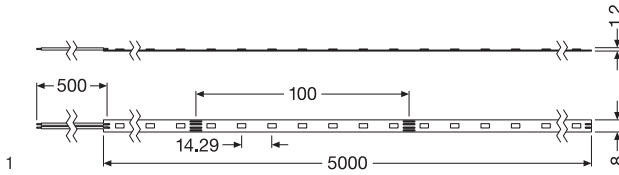
Product name	GTIN (EAN)	V	W/m	K		lm/m
VF1000-G3-827-05 [1]	**4052899525894**	24	7.6	2700	White	900
VF1000-G3-830-05 [1]	**4052899525917**	24	7.6	3000	White	950
VF1000-G3-840-05 [1]	**4052899525931**	24	7.6	4000	White	1000
VF1000-G3-865-05 [1]	**4052899525955**	24	7.6	6500	White	1000

Product name	lm	∧°	METER			No.
VF1000-G3-827-05 [1]	4500	120	70	A+ [2]	10	1
VF1000-G3-830-05 [1]	4750	120	70	A+ [2]	10	1
VF1000-G3-840-05 [1]	5000	120	70	A+ [2]	10	1
VF1000-G3-865-05 [1]	5000	120	70	A+ [2]	10	1

1) Modules perfectly matched to OSRAM OPTOTRONIC® LED drivers (see relevant table) / For current photometric data and important safety, installation and application information, see www.osram.com/led-systems / All the technical parameters apply to the entire module. In view of the complex manufacturing process for light-emitting diodes, the typical values given above for the technical LED parameters are merely statistical values that do not necessarily correspond to the actual technical parameters of an individual product; individual products may vary from the typical values
2) Applicable on smallest operable unit

Product features [1]
— Available with light color: Warm White, Cool White
— Luminous flux: up to 1,000 lm/m
— High color consistency: 4 SDCM
— Self-cooling
— Beam angle per module: 120°
— Dimmable with suitable OPTOTRONIC® LED drivers
— Type of protection: IP00

Product benefits
— Energy-saving low-power flexible LED strip
— Pre-wired LED strip, simple and quick plug-and-play installation
— Good light output due to homogeneous LED distance and high color consistency
— Easy mounting on many smooth surfaces thanks to self-adhesive tape at the back
— Easy installation with optional track system
— Easy to cut and reconnect to the reliable SLIMCONNECT system

Areas of application
— Hospitality
— Signage
— Architecture lighting
— Cove lighting
— General illumination
— Wall integration
— Display cabinet lighting

Equipment/Accessories
— SLIMCONNECT system FLEX connector
— Optional track system
— ELEMENT LED drivers
— OPTOTRONIC® LED drivers

VALUE Flex® 2000
LED modules for semi-professional applications
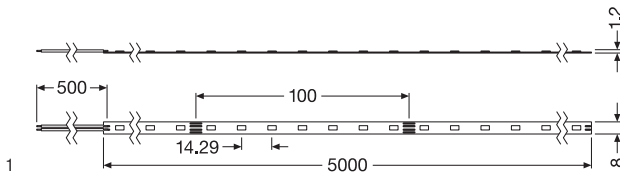
Product name	GTIN (EAN)	V	W/m	K		lm/m
VF2000-G3-827-05 [1]	**4052899528956**	24	14.4	2700	White	1800
VF2000-G3-830-05 [1]	**4052899528970**	24	14.4	3000	White	1900
VF2000-G3-840-05 [1]	**4052899528994**	24	14.4	4000	White	2000
VF2000-G3-865-05 [1]	**4052899529014**	24	14.4	6500	White	2000

Product name	lm	∧°	METER			No.
VF2000-G3-827-05 [1]	9000	120	70	A+ [2]	10	1
VF2000-G3-830-05 [1]	9500	120	70	A+ [2]	10	1
VF2000-G3-840-05 [1]	10000	120	70	A+ [2]	10	1
VF2000-G3-865-05 [1]	10000	120	70	A+ [2]	10	1

1) Modules perfectly matched to OSRAM OPTOTRONIC® LED drivers (see relevant table) / For current photometric data and important safety, installation and application information, see www.osram.com/led-systems / All the technical parameters apply to the entire module. In view of the complex manufacturing process for light-emitting diodes, the typical values given above for the technical LED parameters are merely statistical values that do not necessarily correspond to the actual technical parameters of an individual product; individual products may vary from the typical values
2) Applicable on smallest operable unit

Product features [1]
— Available with light color: Warm White, Cool White
— Luminous flux: up to 2,000 lm/m
— High color consistency: 4 SDCM
— Self-cooling
— Beam angle per module: 120°
— Dimmable with suitable OPTOTRONIC® LED drivers
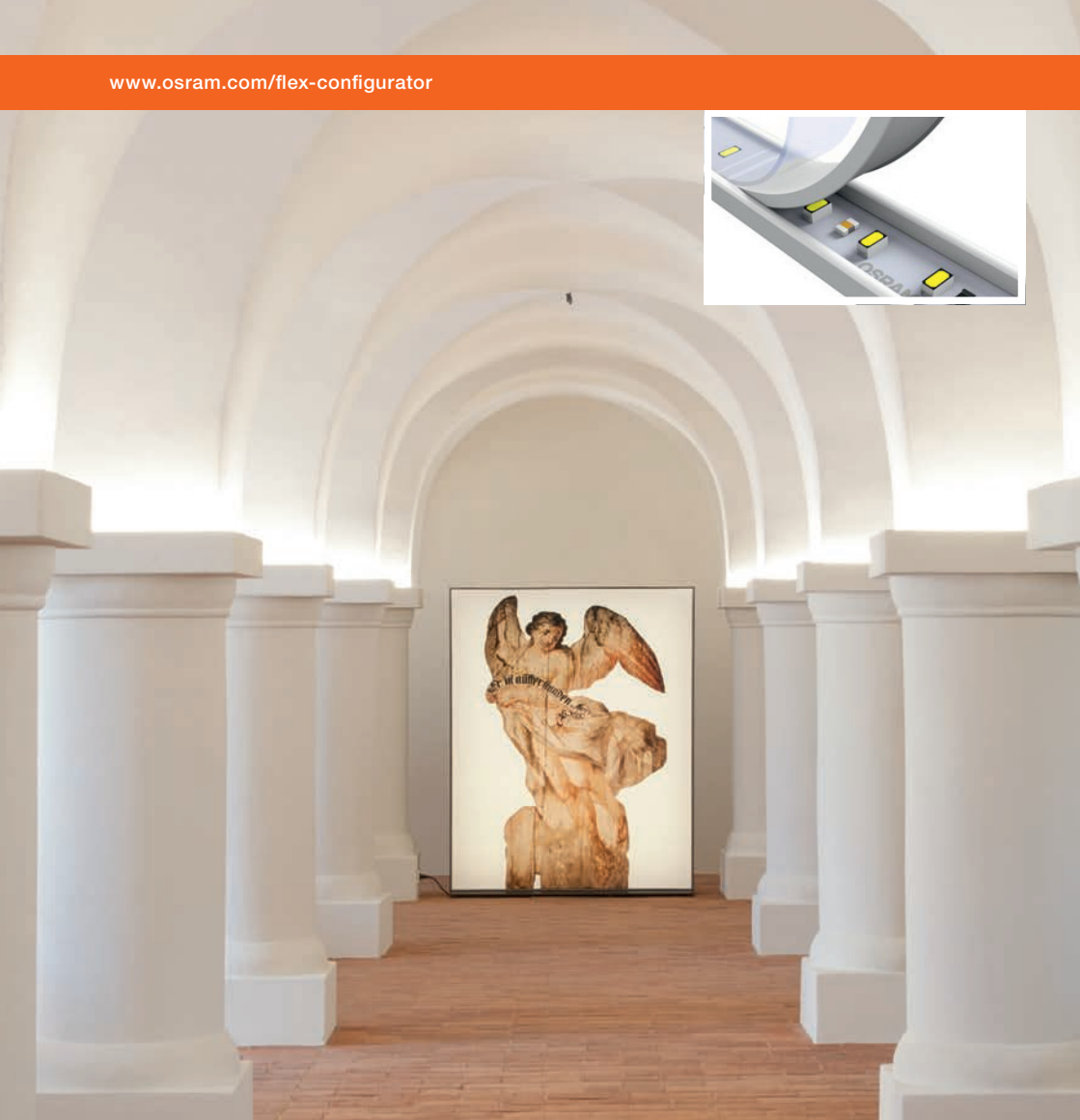— Type of protection: IP00

Product benefits
— Energy-saving low-power flexible LED strip
— Pre-wired LED strip, simple and quick plug-and-play installation
— Good light output due to homogeneous LED distance and high color consistency
— Easy mounting on many smooth surfaces thanks to self-adhesive tape at the back
— Easy installation with optional track system
— Easy to cut and reconnect to the reliable SLIMCONNECT system

Areas of application
— Hospitality
— Signage
— Architecture lighting
— Cove lighting
— General illumination
— Wall integration
— Display cabinet lighting

Equipment/Accessories
— SLIMCONNECT system FLEX connector
— Optional track system
— ELEMENT LED drivers
— OPTOTRONIC® LED drivers

VALUE Flex® 800S
LED modules for semi-professional applications
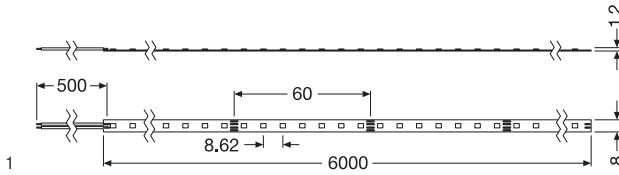
Product name	GTIN (EAN)	V	W/m	K		lm/m
VF800S-G3-827-06 [1]	**4052899526136**	24	6.4	2700	White	850
VF800S-G3-830-06 [1]	**4052899526150**	24	6.4	3000	White	890
VF800S-G3-840-06 [1]	**4052899526174**	24	6.4	4000	White	940
VF800S-G3-865-06 [1]	**4052899526198**	24	6.4	6500	White	940

Product name	lm	△°	◎ METER			No.
VF800S-G3-827-06 [1]	5100	120	116	A++ [2]	10	1
VF800S-G3-830-06 [1]	5340	120	116	A++ [2]	10	1
VF800S-G3-840-06 [1]	5640	120	116	A++ [2]	10	1
VF800S-G3-865-06 [1]	5640	120	116	A++ [2]	10	1

1) Modules perfectly matched to OSRAM OPTOTRONIC® LED drivers (see relevant table) / For current photometric data and important safety, installation and application information, see www.osram.com/led-systems / All the technical parameters apply to the entire module. In view of the complex manufacturing process for light-emitting diodes, the typical values given above for the technical LED parameters are merely statistical values that do not necessarily correspond to the actual technical parameters of an individual product; individual products may vary from the typical values
2) Applicable on smallest operable unit

Product features [1]
— Available with light color: Warm White, Cool White
— Luminous flux: up to 940 lm/m
— High color consistency: 4 SDCM
— Self-cooling
— Beam angle per module: 120°
— Dimmable with suitable OPTOTRONIC® control gears
— Type of protection: IP00

Product benefits
— Energy-saving low-power flexible LED strip
— Pre-wired LED strip, simple and quick plug-and-play installation
— Good light output due to homogeneous LED distance and high color consistency
— Easy mounting on many smooth surfaces thanks to self-adhesive tape at the back
— Easy installation with optional track system
— Easy to cut and reconnect to the reliable SLIMCONNECT system

Areas of application
— Hospitality
— Signage
— Architecture lighting
— Cove lighting
— General illumination
— Wall integration
— Display cabinet lighting

Equipment/Accessories
— SLIMCONNECT system FLEX connector
— Optional track system
— ELEMENT LED drivers
— OPTOTRONIC® LED drivers

VALUE Flex® 1200S
LED modules for semi-professional applications
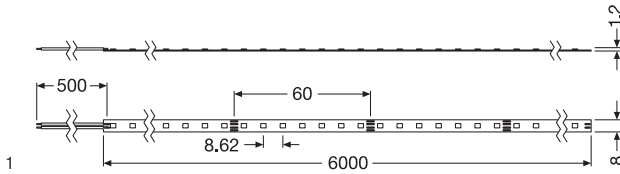
Product name	GTIN (EAN)	V	W/m	K		lm/m
VF1200S-G3-827-06 [1]	**4052899528796**	24	10	2700	White	1100
VF1200S-G3-830-06 [1]	**4052899528819**	24	10	3000	White	1150
VF1200S-G3-840-06 [1]	**4052899528833**	24	10	4000	White	1200
VF1200S-G3-865-06 [1]	**4052899528857**	24	10	6500	White	1200

Product name	lm	∠°	◎	A＋		No.
VF1200S-G3-827-06 [1]	6600	120	116	A+ [2]	10	1
VF1200S-G3-830-06 [1]	6900	120	116	A+ [2]	10	1
VF1200S-G3-840-06 [1]	7200	120	116	A+ [2]	10	1
VF1200S-G3-865-06 [1]	7200	120	116	A+ [2]	10	1

1) Modules perfectly matched to OSRAM OPTOTRONIC® LED drivers (see relevant table) / For current photometric data and important safety, installation and application information, see www.osram.com/led-systems / All the technical parameters apply to the entire module. In view of the complex manufacturing process for light-emitting diodes, the typical values given above for the technical LED parameters are merely statistical values that do not necessarily correspond to the actual technical parameters of an individual product; individual products may vary from the typical values
2) Applicable on smallest operable unit

Product features [1]
— Available with light color: Warm White, Cool White
— Luminous flux: up to 1,200 lm/m
— High color consistency: 4 SDCM
— Self-cooling
— Beam angle per module: 120°
— Dimmable with suitable OPTOTRONIC® LED drivers
— Type of protection: IP00

Product benefits
— Energy-saving low-power flexible LED strip
— Pre-wired LED strip, simple and quick plug-and-play installation
— Good light output due to homogeneous LED distance and high color consistency
— Easy mounting on many smooth surfaces thanks to self-adhesive tape at the back
— Easy installation with optional track system
— Easy to cut and reconnect to the reliable SLIMCONNECT system

Areas of application
— Hospitality
— Signage
— Architecture lighting
— Cove lighting
— General illumination
— Wall integration
— Display cabinet lighting

Equipment/Accessories
— SLIMCONNECT system FLEX connector
— Optional track system
— ELEMENT LED drivers
— OPTOTRONIC® LED drivers

VALUE Flex® 2400S
LED modules for semi-professional applications
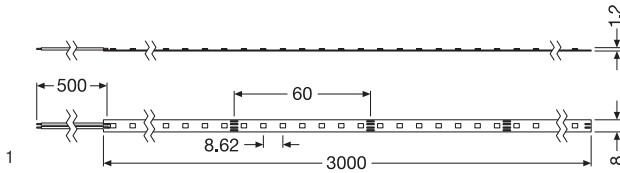
Product name	GTIN (EAN)	V	W/m	K		lm/m
VF2400S-G3-827-03 [1]	**4052899528871**	24	20	2700	White	2100
VF2400S-G3-830-03 [1]	**4052899528895**	24	20	3000	White	2200
VF2400S-G3-840-03 [1]	**4052899528918**	24	20	4000	White	2400
VF2400S-G3-865-03 [1]	**4052899528932**	24	20	6500	White	2400

Product name	lm	∧°	METER			No.
VF2400S-G3-827-03 [1]	6300	120	116	A+ [2]	10	1
VF2400S-G3-830-03 [1]	6600	120	116	A+ [2]	10	1
VF2400S-G3-840-03 [1]	7200	120	116	A+ [2]	10	1
VF2400S-G3-865-03 [1]	7200	120	116	A+ [2]	10	1

1) Modules perfectly matched to OSRAM OPTOTRONIC® LED drivers (see relevant table) / For current photometric data and important safety, installation and application information, see www.osram.com/led-systems / All the technical parameters apply to the entire module. In view of the complex manufacturing process for light-emitting diodes, the typical values given above for the technical LED parameters are merely statistical values that do not necessarily correspond to the actual technical parameters of an individual product; individual products may vary from the typical values
2) Applicable on smallest operable unit

Product features [1]
— Available with light color: Warm White, Cool White
— Luminous flux: up to 2,400 lm/m
— High color consistency: 4 SDCM
— Self-cooling
— Beam angle per module: 120°
— Dimmable with suitable OPTOTRONIC® LED drivers
— Type of protection: IP00

Product benefits
— Energy-saving low-power flexible LED strip
— Pre-wired LED strip, simple and quick plug-and-play installation
— Good light output due to homogeneous LED distance and high color consistency
— Easy mounting on many smooth surfaces thanks to self-adhesive tape at the back
— Easy installation with optional track system
— Easy to cut and reconnect to the reliable SLIMCONNECT system

Areas of application
— Hospitality
— Signage
— Architecture lighting
— Cove lighting
— General illumination
— Wall integration
— Display cabinet lighting

Equipment/Accessories
— SLIMCONNECT system FLEX connector
— Optional track system
— ELEMENT LED drivers
— OPTOTRONIC® LED drivers

VALUE Flex® Protect 1500
Linear LED modules for flexible and individualized lighting solutions
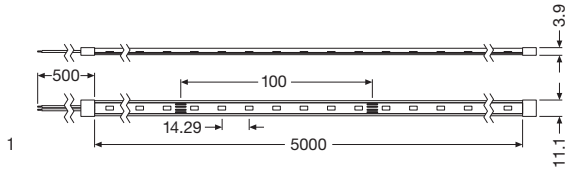
Product name	GTIN (EAN)	V	W/m	K		lm/m
VFP1500-G3-827-05 [1]	**4052899526372**	24	11.5	2700	White	1370
VFP1500-G3-830-05 [1]	**4052899526396**	24	11.5	3000	White	1445
VFP1500-G3-840-05 [1]	**4052899526419**	24	11.5	4000	White	1520
VFP1500-G3-865-05 [1]	**4052899526433**	24	11.5	6500	White	1520

Product name	lm	°/△	METER			No.
VFP1500-G3-827-05 [1]	6850	120	70	A+ [2]	10	1
VFP1500-G3-830-05 [1]	7225	120	70	A+ [2]	10	1
VFP1500-G3-840-05 [1]	7600	120	70	A+ [2]	10	1
VFP1500-G3-865-05 [1]	7600	120	70	A+ [2]	10	1

1) Modules perfectly matched to OSRAM OPTOTRONIC® LED drivers (see relevant table) / For current photometric data and important safety, installation and application information, see www.osram.com/led-systems / All the technical parameters apply to the entire module. In view of the complex manufacturing process for light-emitting diodes, the typical values given above for the technical LED parameters are merely statistical values that do not necessarily correspond to the actual technical parameters of an individual product; individual products may vary from the typical values
2) Applicable on smallest operable unit

Product features[1]
— Available with light color: Warm White, Cool White
— Luminous flux: up to 1,520 lm/m
— IP66 protection
— High color consistency: 4 SDCM
— Beam angle per module: 120°
— Dimmable with suitable OPTOTRONIC® LED drivers

Product benefits
— Energy-saving low-power flexible LED strip
— Pre-wired LED strip, simple and quick plug-and-play installation
— Good light output due to homogeneous LED distance and high color consistency
— Easy mounting on many smooth surfaces thanks to self-adhesive tape at the back
— Easy installation with optional track system
— Protection against the ingress of water according to IP66
— Multi-cuttable LED strip with SLIMCONNECT system G2

Areas of application
— Wet or damp areas
— General illumination
— Hospitality
— Display cabinet lighting
— Signage
— Architecture lighting
— Wall integration
— Suitable for outdoor use

Equipment/Accessories
— SLIMCONNECT system G2
— Optional track system
— ELEMENT LED drivers
— OPTOTRONIC® LED drivers

VALUE Flex® Protect 600
Linear LED modules for flexible and individualized lighting solutions
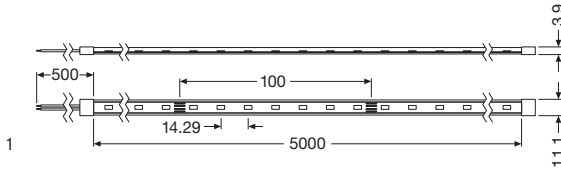
Product name	GTIN (EAN)	V	W/m	K		lm/m
VFP600-G3-827-05 [1]	**4052899526297**	24	4.6	2700	White	590
VFP600-G3-830-05 [1]	**4052899526310**	24	4.6	3000	White	620
VFP600-G3-840-05 [1]	**4052899526334**	24	4.6	4000	White	655
VFP600-G3-865-05 [1]	**4052899526358**	24	4.6	6500	White	655

Product name	lm	△°	METER			No.
VFP600-G3-827-05 [1]	2950	120	70	A++ [2]	10	1
VFP600-G3-830-05 [1]	3100	120	70	A++ [2]	10	1
VFP600-G3-840-05 [1]	3275	120	70	A++ [2]	10	1
VFP600-G3-865-05 [1]	3275	120	70	A++ [2]	10	1

1) Modules perfectly matched to OSRAM OPTOTRONIC® LED drivers (see relevant table) / For current photometric data and important safety, installation and application information,
see www.osram.com/led-systems / All the technical parameters apply to the entire module. In view of the complex manufacturing process for light-emitting diodes, the typical values given above for
the technical LED parameters are merely statistical values that do not necessarily correspond to the actual technical parameters of an individual product; individual products may vary from the typical
values
2) Applicable on smallest operable unit

Product features[1]
— Available with light color: Warm White, Cool White
— Luminous flux: up to 655 lm/m
— IP66 protection
— High color consistency: 4 SDCM
— Beam angle per module: 120°
— Dimmable with suitable OPTOTRONIC® LED drivers

Product benefits
— Energy-saving low-power flexible LED strip
— Pre-wired LED strip, simple and quick plug-and-play installation
— Good light output due to homogeneous LED distance and high color consistency
— Easy mounting on many smooth surfaces thanks to self-adhesive tape at the back
— Easy installation with optional track system
— Protection against the ingress of water according to IP66
— Multi-cuttable LED strip with SLIMCONNECT system G2

Areas of application
— Wet or damp areas
— Hospitality
— Display cabinet lighting
— Signage
— Architecture lighting
— Wall integration
— Suitable for outdoor use

Equipment/Accessories
— SLIMCONNECT system G2
— Optional track system
— ELEMENT LED drivers
— OPTOTRONIC® LED drivers

VALUE Flex® Protect 300
Linear LED modules for flexible and individualized lighting solutions

500 | 100 | 14.3 | 3000 / 6000 | 4.1 | 11.1

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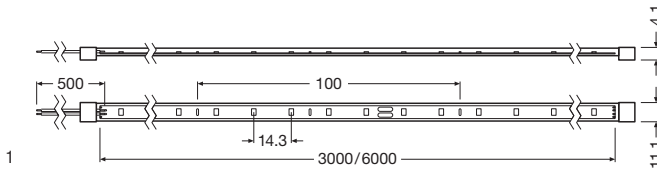
Product name	GTIN (EAN)	V	W/m	K		lm/m
VFP300-G3-827-03 [1]	**4052899528031**	24	2	2700	White	265
VFP300-G3-827-06 [1]	**4052899528116**	24	2	2700	White	265
VFP300-G3-830-03 [1]	**4052899528055**	24	2	3000	White	280
VFP300-G3-830-06 [1]	**4052899528130**	24	2	3000	White	280
VFP300-G3-840-03 [1]	**4052899528079**	24	2	4000	White	295
VFP300-G3-840-06 [1]	**4052899528154**	24	2	4000	White	295
VFP300-G3-865-03 [1]	**4052899528093**	24	2	6500	White	295
VFP300-G3-865-06 [1]	**4052899528178**	24	2	6500	White	295

Product name	lm	∕△°	METER			No.
VFP300-G3-827-03 [1]	795	120	70	A++ [2]	10	1
VFP300-G3-827-06 [1]	1590	120	70	A++ [2]	10	1
VFP300-G3-830-03 [1]	840	120	70	A++ [2]	10	1
VFP300-G3-830-06 [1]	1680	120	70	A++ [2]	10	1
VFP300-G3-840-03 [1]	885	120	70	A++ [2]	10	1
VFP300-G3-840-06 [1]	1770	120	70	A++ [2]	10	1
VFP300-G3-865-03 [1]	885	120	70	A++ [2]	10	1
VFP300-G3-865-06 [1]	1770	120	70	A++ [2]	10	1

1) Modules perfectly matched to OSRAM OPTOTRONIC® LED drivers (see relevant table) / For current photometric data and important safety, installation and application information,
see www.osram.com/led-systems / All the technical parameters apply to the entire module. In view of the complex manufacturing process for light-emitting diodes, the typical values given above for the technical LED parameters are merely statistical values that do not necessarily correspond to the actual technical parameters of an individual product; individual products may vary from the typical values
2) Applicable on smallest operable unit

Product features [1]
— Available with light color: Warm White, Cool White
— Luminous flux: up to 300 lm/m
— IP66 protection
— Self-cooling
— High color consistency: 4 SDCM
— Beam angle per module: 120°
— Dimmable with suitable OPTOTRONIC® LED drivers

Product benefits
— Energy-saving low-power flexible LED strip
— Pre-wired LED strip, simple and quick plug-and-play installation
— Easy mounting on many smooth surfaces thanks to self-adhesive tape at the back

— Easy installation with optional track system
— Protection against the ingress of water according to IP66
— Multi-cuttable LED strip with SLIMCONNECT system G2

Areas of application
— Wet or damp areas
— Path lighting
— Wall integration
— Decorative lighting

Equipment/Accessories
— SLIMCONNECT system G2
— Optional track system
— ELEMENT LED drivers
— OPTOTRONIC® LED drivers

VALUE Flex® Protect 1000
Linear LED modules for flexible and individualized lighting solutions

1
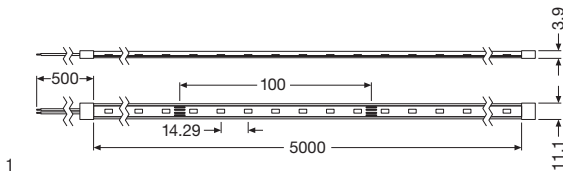
Product name	GTIN (EAN)	V	W/m	K		lm/m
VFP1000-G3-827-05 [1]	**4052899526211**	24	7.6	2700	White	850
VFP1000-G3-830-05 [1]	**4052899526235**	24	7.6	3000	White	900
VFP1000-G3-840-05 [1]	**4052899526259**	24	7.6	4000	White	950
VFP1000-G3-865-05 [1]	**4052899526273**	24	7.6	6500	White	950

Product name	lm	△°	METER			No.
VFP1000-G3-827-05 [1]	4250	120	70	A+ [2]	10	1
VFP1000-G3-830-05 [1]	4500	120	70	A+ [2]	10	1
VFP1000-G3-840-05 [1]	4750	120	70	A+ [2]	10	1
VFP1000-G3-865-05 [1]	4750	120	70	A+ [2]	10	1

1) Modules perfectly matched to OSRAM OPTOTRONIC® LED drivers (see relevant table) / For current photometric data and important safety, installation and application information, see www.osram.com/led-systems / All the technical parameters apply to the entire module. In view of the complex manufacturing process for light-emitting diodes, the typical values given above for the technical LED parameters are merely statistical values that do not necessarily correspond to the actual technical parameters of an individual product; individual products may vary from the typical values
2) Applicable on smallest operable unit

Product features [1]
— Available with light color: Warm White, Cool White
— Luminous flux: up to 950 lm/m
— IP66 protection
— High color consistency: 4 SDCM
— Beam angle per module: 120°
— Dimmable with suitable OPTOTRONIC® LED drivers

Product benefits
— Energy-saving low-power flexible LED strip
— Pre-wired LED strip, simple and quick plug-and-play installation
— Good light output due to homogeneous LED distance and high color consistency
— Easy mounting on many smooth surfaces thanks to self-adhesive tape at the back
— Easy installation with optional track system
— Protection against the ingress of water according to IP66
— Multi-cuttable LED strip with SLIMCONNECT system G2

Areas of application
— Wet or damp areas
— General illumination
— Hospitality
— Display cabinet lighting
— Signage
— Architecture lighting
— Wall integration
— Suitable for outdoor use

Equipment/Accessories
— SLIMCONNECT system G2
— Optional track system
— ELEMENT LED drivers
— OPTOTRONIC® LED drivers

VALUE Flex® Protect 2000
Linear LED modules for flexible and individualized lighting solutions

1
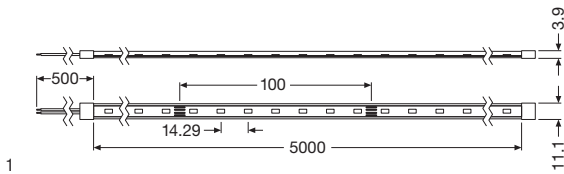
Product name	GTIN (EAN)	V	W/m	K		lm/m
VFP2000-G3-827-05 [1]	**4052899528468**	24	14.4	2700	White	1600
VFP2000-G3-830-05 [1]	**4052899528482**	24	14.4	3000	White	1700
VFP2000-G3-840-05 [1]	**4052899528505**	24	14.4	4000	White	1800
VFP2000-G3-865-05 [1]	**4052899528529**	24	14.4	6500	White	1800

Product name	lm	∠°	METER			No.
VFP2000-G3-827-05 [1]	8000	120	70	A+ [2]	10	1
VFP2000-G3-830-05 [1]	8500	120	70	A+ [2]	10	1
VFP2000-G3-840-05 [1]	9000	120	70	A+ [2]	10	1
VFP2000-G3-865-05 [1]	9000	120	70	A+ [2]	10	1

1) Modules perfectly matched to OSRAM OPTOTRONIC® LED drivers (see relevant table) / For current photometric data and important safety, installation and application information, see www.osram.com/led-systems / All the technical parameters apply to the entire module. In view of the complex manufacturing process for light-emitting diodes, the typical values given above for the technical LED parameters are merely statistical values that do not necessarily correspond to the actual technical parameters of an individual product; individual products may vary from the typical values
2) Applicable on smallest operable unit

Product features[1]
— Available with light color: Warm White, Cool White
— Luminous flux: up to 1,800 lm/m
— IP66 protection
— High color consistency: 4 SDCM
— Beam angle per module: 120°
— Dimmable with suitable OPTOTRONIC® LED drivers

Product benefits
— Energy-saving low-power flexible LED strip
— Pre-wired LED strip, simple and quick plug-and-play installation
— Good light output due to homogeneous LED distance and high color consistency
— Easy mounting on many smooth surfaces thanks to self-adhesive tape at the back
— Easy installation with optional track system
— Protection against the ingress of water according to IP66
— Multi-cuttable LED strip with SLIMCONNECT system G2

Areas of application
— Wet or damp areas
— General illumination
— Hospitality
— Display cabinet lighting
— Signage
— Architecture lighting
— Wall integration
— Suitable for outdoor use

Equipment/Accessories
— SLIMCONNECT system G2
— Optional track system
— ELEMENT LED drivers
— OPTOTRONIC® LED drivers

VALUE Flex® Protect 800S
Linear LED modules for flexible and individualized lighting solutions
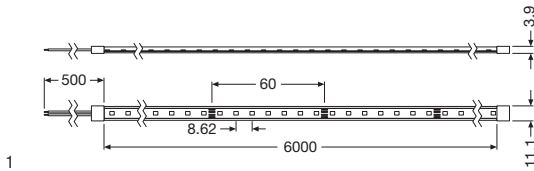
Product name	GTIN (EAN)	V	W/m	K		lm/m
VFP800S-G3-827-06 [1]	**4052899526457**	24	6.4	2700	White	805
VFP800S-G3-830-06 [1]	**4052899526471**	24	6.4	3000	White	850
VFP800S-G3-840-06 [1]	**4052899526495**	24	6.4	4000	White	890
VFP800S-G3-865-06 [1]	**4052899526518**	24	6.4	6500	White	890

Product name	lm	△°	METER			No.
VFP800S-G3-827-06 [1]	4830	120	116	A++ [2]	10	1
VFP800S-G3-830-06 [1]	5100	120	116	A++ [2]	10	1
VFP800S-G3-840-06 [1]	5340	120	116	A++ [2]	10	1
VFP800S-G3-865-06 [1]	5340	120	116	A++ [2]	10	1

1) Modules perfectly matched to OSRAM OPTOTRONIC® LED drivers (see relevant table) / For current photometric data and important safety, installation and application information,
see www.osram.com/led-systems / All the technical parameters apply to the entire module. In view of the complex manufacturing process for light-emitting diodes, the typical values given above for
the technical LED parameters are merely statistical values that do not necessarily correspond to the actual technical parameters of an individual product; individual products may vary from the typical
values
2) Applicable on smallest operable unit

Product features [1]
— Available with light color: Warm White, Cool White
— Luminous flux: up to 890 lm/m
— IP66 protection
— High color consistency: 4 SDCM
— Beam angle per module: 120°
— Dimmable with suitable OPTOTRONIC® LED drivers

Product benefits
— Energy-saving low-power flexible LED strip
— Pre-wired LED strip, simple and quick plug-and-play installation
— Good light output due to homogeneous LED distance and high color consistency
— Easy mounting on many smooth surfaces thanks to self-adhesive tape at the back
— Easy installation with optional track system
— Protection against the ingress of water according to IP66
— Multi-cuttable LED strip with SLIMCONNECT system G2

Areas of application
— Wet or damp areas
— General illumination
— Hospitality
— Display cabinet lighting
— Signage
— Architecture lighting
— Wall integration
— Suitable for outdoor use

Equipment/Accessories
— SLIMCONNECT system G2
— Optional track system
— ELEMENT LED drivers
— OPTOTRONIC® LED drivers

VALUE Flex® Protect 1200S
Linear LED modules for flexible and individualized lighting solutions
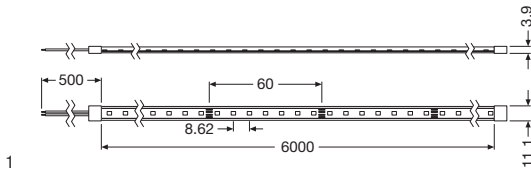
Product name	GTIN (EAN)	V	W/m	K		lm/m
VFP1200S-G3-827-06 [1]	**4052899528383**	24	10	2700	White	1100
VFP1200S-G3-830-06 [1]	**4052899528406**	24	10	3000	White	1150
VFP1200S-G3-840-06 [1]	**4052899528420**	24	10	4000	White	1200
VFP1200S-G3-865-06 [1]	**4052899528444**	24	10	6500	White	1200

Product name	lm	∧°	METER			No.
VFP1200S-G3-827-06 [1]	6600	120	116	A+ [2]	10	1
VFP1200S-G3-830-06 [1]	6900	120	116	A+ [2]	10	1
VFP1200S-G3-840-06 [1]	7200	120	116	A+ [2]	10	1
VFP1200S-G3-865-06 [1]	7200	120	116	A+ [2]	10	1

1) Modules perfectly matched to OSRAM OPTOTRONIC® LED drivers (see relevant table) / For current photometric data and important safety, installation and application information, see www.osram.com/led-systems / All the technical parameters apply to the entire module. In view of the complex manufacturing process for light-emitting diodes, the typical values given above for the technical LED parameters are merely statistical values that do not necessarily correspond to the actual technical parameters of an individual product; individual products may vary from the typical values
2) Applicable on smallest operable unit

Product features [1]
— Available with light color: Warm White, Cool White
— Luminous flux: up to 1,200 lm/m
— IP66 protection
— High color consistency: 4 SDCM
— Beam angle per module: 120°
— Dimmable with suitable OPTOTRONIC® LED drivers

Product benefits
— Energy-saving low-power flexible LED strip
— Pre-wired LED strip, simple and quick plug-and-play installation
— Good light output due to homogeneous LED distance and high color consistency
— Easy mounting on many smooth surfaces thanks to self-adhesive tape at the back
— Easy installation with optional track system
— Protection against the ingress of water according to IP66
— Multi-cuttable LED strip with SLIMCONNECT system G2

Areas of application
— Wet or damp areas
— General illumination
— Hospitality
— Display cabinet lighting
— Signage
— Architecture lighting
— Wall integration
— Suitable for outdoor use

Equipment/Accessories
— SLIMCONNECT system G2
— Optional track system
— ELEMENT LED drivers
— OPTOTRONIC® LED drivers

VALUE Flex® Protect 2400S
Linear LED modules for flexible and individualized lighting solutions
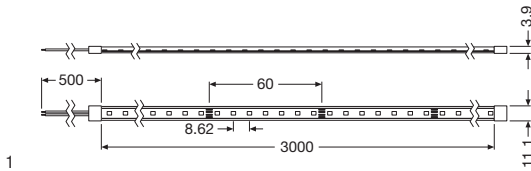
Product name	GTIN (EAN)	V	W/m	K		lm/m
VFP2400S-G3-827-03 [1]	**4052899528543**	24	20	2700	White	2100
VFP2400S-G3-830-03 [1]	**4052899528567**	24	20	3000	White	2200
VFP2400S-G3-840-03 [1]	**4052899528581**	24	20	4000	White	2300
VFP2400S-G3-865-03 [1]	**4052899528604**	24	20	6500	White	2300

Product name	lm	∧°	METER			No.
VFP2400S-G3-827-03 [1]	6300	120	116	A+ [2]	10	1
VFP2400S-G3-830-03 [1]	6600	120	116	A+ [2]	10	1
VFP2400S-G3-840-03 [1]	6900	120	116	A+ [2]	10	1
VFP2400S-G3-865-03 [1]	6900	120	116	A+ [2]	10	1

1) Modules perfectly matched to OSRAM OPTOTRONIC® LED drivers (see relevant table) / For current photometric data and important safety, installation and application information, see www.osram.com/led-systems / All the technical parameters apply to the entire module. In view of the complex manufacturing process for light-emitting diodes, the typical values given above for the technical LED parameters are merely statistical values that do not necessarily correspond to the actual technical parameters of an individual product; individual products may vary from the typical values
2) Applicable on smallest operable unit

Product features [1]
— Available with light color: Warm White, Cool White
— Luminous flux: up to 2,300 lm/m
— IP66 protection
— High color consistency: 4 SDCM
— Beam angle per module: 120°
— Dimmable with suitable OPTOTRONIC® LED drivers

Product benefits
— Energy-saving low-power flexible LED strip
— Pre-wired LED strip, simple and quick plug-and-play installation
— Good light output due to homogeneous LED distance and high color consistency
— Easy mounting on many smooth surfaces thanks to self-adhesive tape at the back
— Easy installation with optional track system
— Protection against the ingress of water according to IP66
— Multi-cuttable LED strip with SLIMCONNECT system G2

Areas of application
— Wet or damp areas
— General illumination
— Hospitality
— Display cabinet lighting
— Signage
— Architecture lighting
— Wall integration
— Suitable for outdoor use

Equipment/Accessories
— SLIMCONNECT system G2
— Optional track system
— ELEMENT LED drivers
— OPTOTRONIC® LED drivers

Light is flexibility

Build your Flex project with our **Flex Configurator tool**. Create your own system – with step-by-step support and the help of simple navigation. Start designing now!

OSRAM

Light is OSRAM

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Accessories for flexible LED strips – Summary of portfolio

LINEARlight FLEX® & VALUE Flex® compatibility connectors

PRODUCT FAMILIES		CONNECTING SYSTEMS	
LINEARlight FLEX® ShortPitch LINEARlight FLEX® POWER LINEARlight FLEX® POWER Shop White LINEARlight FLEX® POWER Meat White LINEARlight FLEX® POWER Veggie White	+	FX-SC08-G2-CT2PF-0500 (2pin power feeder)	4052899464735
		FX-SC08-G2-CT2PF-1000 (2pin power feeder)	4052899464766
		FX-SC08-G2-CT4PJ (4pin Jumper)	4052899464858
		FX-SC08-G1-FW4P-LIN-0030 (extension wire 30 mm)	4008321875587
		FX-SC08-G1-FW4P-LIN-0150 (extension wire 150 mm)	4008321875563
		FX-SC08-G1-FW4P-LIN-0300 (extension wire 300 mm)	4052899469259
LINEARlight FLEX® ADVANCED LINEARlight FLEX® Monochrome	+	FX-SC08-G2-CT2PF-0500 (2pin power feeder)	4052899464735
		FX-SC08-G2-CT2PF-1000 (2pin power feeder)	4052899464766
		FX-SC08-G2-CT4PJ (4pin Jumper)	4052899464858
		FX-SC08-G1-FW4P-LIN-0030 (extension wire 30 mm)	4008321875587
		FX-SC08-G1-FW4P-LIN-0150 (extension wire 150 mm)	4008321875563
		FX-SC08-G1-FW4P-LIN-0300 (extension wire 300 mm)	4052899469259
	+	LF-2PIN FLEX (2pin power feeder)	4008321955326
		LF-CONN-10 FLEX (bridge 10 mm)	4008321955333
		LF-CONN-150 FLEX (bridge 150 mm)	4008321955340
		LF-2TERM FLEX (2pin terminal)	4008321955357
VALUE Flex® G3	+	FX-SC08-G2-CT2PF-0500 (2pin power feeder)	4052899464735
		FX-SC08-G2-CT2PF-1000 (2pin power feeder)	4052899464766
		FX-SC08-G2-CT4PJ (4pin Jumper)	4052899464858
LINEARlight FLEX® Tunable White LINEARlight FLEX® Tunable Warm White	+	FX-SC08-G2-CT4PJ (4pin Jumper)	4052899464858
		FX-SC08-G2-CT3PF-0500HF (3pin power feeder)	4052899482999
		FX-SC08-G2-CT3PFE-0500HF (3pin power feeder)	4052899483026
		FX-SC08-G1-FW4P-LIN-0030 (extension wire 30 mm)	4008321875587
		FX-SC08-G1-FW4P-LIN-0150 (extension wire 150 mm)	4008321875563
		FX-SC08-G1-FW4P-LIN-0300 (extension wire 300 mm)	4052899469259
LINEARlight Colormix Flex (LF05CA2)	+	FX-SC08-G2-CT4PF-0500 (4pin power feeder)	4052899464797
		FX-SC08-G2-CT4PF-1000 (4pin power feeder)	4052899464827
		FX-SC08-G1-FW4P-LIN-0030 (extension wire 30 mm)	4008321875587
		FX-SC08-G1-FW4P-LIN-0150 (extension wire 150 mm)	4008321875563
		FX-SC08-G1-FW4P-LIN-0300 (extension wire 300 mm)	4052899469259
LINEARlight Colormix Flex (LF05CE)	+	LF-4PIN FLEX (4pin power feeder)	4008321514585
		LF-CONN-10 FLEX (bridge 10 mm)	4008321955333
		LF-CONN-150 FLEX (bridge 150 mm)	4008321955340

LINEARlight FLEX® Protect & VALUE Flex® Protect

PRODUCT FAMILIES		CONNECTING SYSTEMS	
LINEARlight FLEX® Protect POWER	+	LF-ENDCAP IP67 LP (end cap IP67 LP)	4052899902565
LINEARlight FLEX® Protect ShortPitch		LF-2CONN IP67 LP (2pin jumper IP67 LP)	4052899125735
LINEARlight FLEX® Protect ADVANCED		LF-2PIN IP67 LP (2pin power feeder IP67 LP)	4052899125711
LINEARlight FLEX® Protect ECO			
VALUE Flex® Protect G3	+	FX-SC08-G2-C2PF-IP54-0500 (2pin power feeder with IP54 boot)	4052899464889
		FX-SC08-G2-CT4PJ (4pin Jumper)	4052899464858
		FX-SC08-G2-BTJ-IP54 (IP54 silicone boot for jumper)	4052899568853
LINEARlight FLEX® Protect	+	LF-ENDCAP-PROTECT (end cap IP67)	4008321977106
ADVANCED Monochrome		LF-CLIP FIXTURE PROTECT (mounting clip IP67)	4008321644749
LINEARlight FLEX® Protect		LF-2PIN-PROTECT (2pin power feeder IP67)	4008321977069
Monochrome		LF-2CONN-PROTECT (2pin jumper IP67)	4008321977083
LINEARlight Colormix Flex Protect	+	LF-ENDCAP-PROTECT (end cap IP67)	4008321977106
		LF-CLIP FIXTURE PROTECT (mounting clip IP67)	4008321644749
		LF-4PIN PROTECT (4pin power feeder IP67)	4008321977076
		LF-2CONN-PROTECT (2pin jumper IP67)	4008321977083
		LF-4CONN-PROTECT (4pin jumper IP67)	4008321977090

Accessories for flexible LED modules

1   2   3   4

5   6   7   8

SLIM TRACK System

Product name	GTIN (EAN)	h [mm]	l [mm]	b [mm]	📦	💡 No.
LF-LTS-2100	**4008321978981**	9	2100	15	40	1
LF-LTS-MB	**4008321979025**	4	35	16	280	2
LF-LTS-COVER-CLEAR	**4008321790187**	5	2100	18	40	3
LF-LTS-COVER-SHORTPITCH	**4008321790200**	10	2100	18	40	4
LF-LTS-COVER-DIFF	**4008321979001**	24	2100	18	40	5
LF-LTS-ENDCAP	**4052899387591**	8	20	20	160	6

VALUE TRACK System

Product name	GTIN (EAN)	h [mm]	l [mm]	b [mm]	📦	💡 No.
VF-TR1000	**4008321867636**	8	1000	23	20	7
VI-TR1000	**4008321893789**	2.5	1000	12	20	8

Accessories for flexible LED strips

1   2   3   4

5   6   7   8
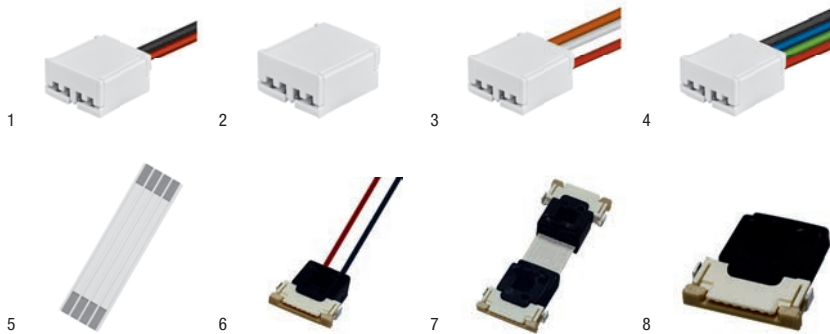
SLIMCONNECT system G2

Product name	GTIN (EAN)	h [mm]	l [mm]	b [mm]		No.
FX-SC08-G2-CT2PF-0500 (2pin)	**4052899464735**	5.9	510	9.2	280	1
FX-SC08-G2-CT2PF-1000 (2pin)	**4052899464766**	5.9	1010	9.2	280	1
FX-SC08-G2-CT4PJ (Jumper)	**4052899464858**	5.9	9	9.2	1250	2
FX-SC08-G2-CT3PF-0500HF (3pin)	**4052899482999**	5.9	510	9.2	280	3
FX-SC08-G2-CT3PFE-0500HF (3pin)	**4052899483026**	5.9	510	9.2	280	3
FX-SC08-G2-CT4PF-0500 (4pin)	**4052899464797**	5.9	510	9.2	280	4
FX-SC08-G2-CT4PF-1000 (4pin)	**4052899464827**	5.9	1010	9.2	280	4
FX-SC08-G1-FW4P-LIN-0030 (extension)	**4008321875587**	-	30	8	10000	5
FX-SC08-G1-FW4P-LIN-0150 (extension)	**4008321875563**	-	150	8	5000	5
FX-SC08-G1-FW4P-LIN-0300 (extension)	**4052899469259**	-	300	8	15000	5

SLIMCONNECT system Flex

Product name	GTIN (EAN)	h [mm]	l [mm]	b [mm]		No.
LF-2PIN FLEX	**4008321955326**	5.3	510	16.4	100	6
LF-4PIN FLEX	**4008321514585**	5.3	510	16.4	100	-
LF-CONN-10 FLEX	**4008321955333**	5.3	36.5	16.4	200	7
LF-CONN-150 FLEX	**4008321955340**	5.3	176.5	16.4	100	7
LF-2TERM FLEX	**4008321955357**	5.3	16.2	16.4	200	8

Accessories for flexible LED strips

1   2   3

4   5   6

SLIMCONNECT system G2 IP54

Product name	GTIN (EAN)	h [mm]	l [mm]	b [mm]		No.
FX-SC08-G2-C2PF-IP54-0500 (2pin with IP54 boot)	**4052899464889**	8.2	510	15.7	280	1
FX-SC08-G2-BTJ-IP54 (IP54 boot)	**4052899568853**	8.2	30	15.7	1250	2

CONNECTsystem FLEX IP67 LP (low profile)

Product name	GTIN (EAN)	h [mm]	l [mm]	b [mm]		No.
LF-ENDCAP IP67 LP	**4052899902565**	7	13.7	10	100	3
LF-2CONN IP67 LP	**4052899125735**	13.5	30	21	50	4
LF-2PIN IP67 LP	**4052899125711**	13.5	510	21	50	5

CONNECTsystem IP67

Product name	GTIN (EAN)	h [mm]	l [mm]	b [mm]		No.
LF-ENDCAP-PROTECT	**4008321977106**	8	13.7	10	100	3
LF-CLIP FIXTURE PROTECT	**4008321644749**	5.7	27	6	500	6
LF-2PIN-PROTECT	**4008321977069**	13.5	510	21	50	5
LF-4PIN PROTECT	**4008321977076**	13.5	510	21	50	5
LF-2CONN-PROTECT	**4008321977083**	13.5	30	21	50	4
LF-4CONN-PROTECT	**4008321977090**	13.5	30	21	50	4

Accessories for LINEARlight FLEX® DIFFUSE

1   2   3   4   5   6

7   8   9   10   11   12
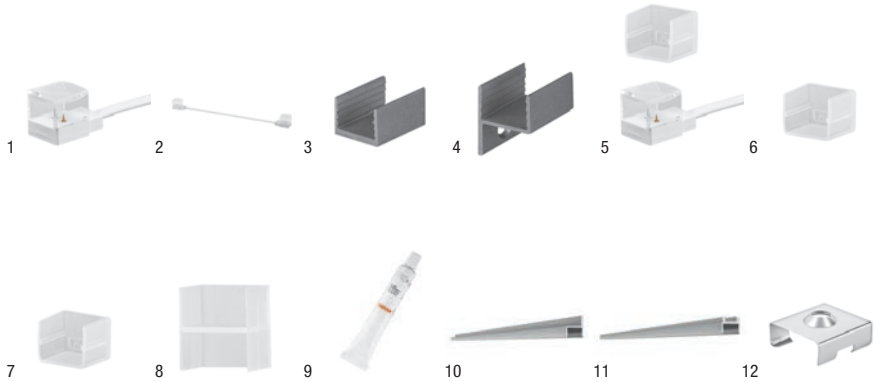
Accessories for top bending

Product name	GTIN (EAN)	h [mm]	l [mm]	b [mm]	📦	💡 No.
FX-DCS-G1-CM2PF-IP67-500-X5	4052899451971	30	260	150	10	1
FX-DCS-G1-CM2PJ-IP67-0190-X5	4052899452039	30	260	150	10	2
FX-LFDM-G1-BT-17H11	4052899452480	20	11	16.5	400	3
FX-LFDM-G1-BTL-17H11E9	4052899452510	20	19	16.5	400	4
FX-DCS-G1-CM2PF-IP67-TOPKIT5	4052899451995	30	260	150	10	5
FX-DCS-G1-CM2PJ-IP67-TOPKIT5	4052899452053	30	260	150	10	6
FX-DCS-G1-ECT-KIT20	4052899452107	30	100	100	10	7
FX-DCS-G1-EHT-KIT20	4052899452176	30	100	100	10	8
FX-DCS-G1-GL-25	4052899452244	30	100	150	20	9
FX-LFDM-G1-TTL-16H11W10-200 4X5	4052899544963	20.5	2000	16.2	20	10
FX-LFDM-G1-TT-16H16-200 4X5	4052899544949	15.5	2000	16.2	20	11
FX-QMS-G1-BMZI-DIV1	4052899446861	9.5	20	20	400	12

Accessories for LINEARlight FLEX® DIFFUSE

1   2   3   4   5   6

7   8   9   10   11
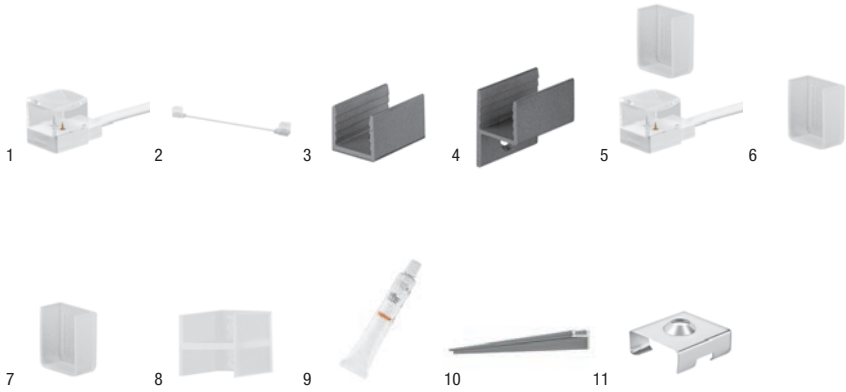
Accessories for side bending

Product name	GTIN (EAN)	h [mm]	l [mm]	b [mm]	📦	💡 No.
FX-DCS-G1-CM2PF-IP67-500-X5	**4052899451971**	30	260	150	10	1
FX-DCS-G1-CM2PJ-IP67-0190-X5	**4052899452039**	30	260	150	10	2
FX-LFDM-G1-BS-12H13	**4052899452541**	20	11.5	13	400	3
FX-LFDM-G1-BSL-12H13E9	**4052899452572**	20	20	13	400	4
FX-DCS-G1-CM2PF-IP67-SIDEKIT5	**4052899452015**	30	260	150	10	5
FX-DCS-G1-CM2PJ-IP67-SIDEKIT5	**4052899452077**	30	260	150	10	6
FX-DCS-G1-ECS-KIT20	**4052899452121**	30	100	100	10	7
FX-DCS-G1-EHS-KIT20	**4052899452206**	30	100	100	10	8
FX-DCS-G1-GL-25	**4052899452244**	30	100	150	20	9
FX-LFDM-G1-TS-16H16-200	**4052899544925**	16.5	2000	16.2	20	10
FX-QMS-G1-BMZI-DIV1	**4052899446861**	9.5	20	20	400	11

Complete every project with our Flexessories® range

Cover a wide range of applications with Flexessories®

Create tailored solutions with LINEARlight FLEX® LED modules for a great variety of different applications. Four different track systems (slim track, handrail track, wide track and edge lighting track) and further Flexessories® allow you to make your flexible LED solution complete and create a unique system that exactly meets your needs.

Do you know the OSRAM system guarantee?

We recommend always to use LED strips in combination with OSRAM OPTOTRONIC® constant-voltage LED drivers. With this system, we offer an extended system guarantee.

Guarantee conditions and details:
www.osram.com/system-guarantee
Dedicated Flex products website:
www.osram.com/flex

Flexessories®

	Edge lighting track
Aluminum track	for glass 8–10 mm thickness 5 **4052899448759**
Cover	
End cap	6 **4052899450080**
Mounting bracket	
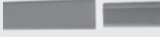
Edge lighting track system for glass

Description	Product name	GTIN (EAN)	h [mm]	l [mm]	b [mm]		No.
Track for edge lighting	FX-QME-G1-T810G12H25-300	**4052899448759**	12.4	3000	25	4	5
End cap for track	FX-QME-G1-EXGP-T810G12H25	**4052899450080**	8.5	25	10	400	6

Flexessories®

Slim track [1]			
Aluminum track			
1 standard **4052899448865**	2 3 mm wing **4052899448889**	3 12 mm height **4052899448964**	4 12 mm height 3 mm wing **4052899448988**
Cover			
8 frosted matte **4052899446991**	8 frosted matte **4052899446991**	8 frosted matte **4052899446991**	8 frosted matte **4052899446991**
		9 lens transparent **4052899447783**	
End cap			
10 **4052899449107**	11 **4052899449138**	12 **4052899449183**	13 **4052899449817**
Mounting bracket			
16 **4052899446861**		16 **4052899446861**	

1) For confined spaces

Slim track system

Description	Product name	GTIN (EAN)	h [mm]	l [mm]	b [mm]	📦	💡 No.
Slim track standard	FX-QMS-G1-TU15H6-300	**4052899448865**	6	3000	15.2	40	1
Slim track 3 mm wing	FX-QMS-G1-TU15H6W3-300	**4052899448889**	6	3000	22	40	2
Slim track 12 mm height	FX-QMS-G1-TU16H12-300	**4052899448964**	12	3000	16	20	3
Slim track 12 mm height 3 mm wing	FX-QMS-G1-TU16H12W3-300	**4052899448988**	12	3000	22	20	4
Slim track round	FX-QMS-G1-TR19H16-300	**4052899449008**	15.8	3000	18.5	20	5
Slim track adjustable light angle	FX-QMS-G1-TU16H12LS-300	**4052899449046**	12	3000	16	20	6
Slim track corner 45°	FX-QMS-G1-T45D19H19-300	**4052899448667**	19	3000	19	4	7
Slim track cover frosted matte	FX-QMS-G1-CFDB-300	**4052899446991**	4	3000	11	40	8
Slim track lens cover transparent	FX-QMS-G1-CLT-300	**4052899447783**	8	3000	16	40	9

Flexessories®

Slim track[1]		
round **4052899449008**	adjustable light angle **4052899449046**	corner 45° **4052899448667**
5	6	7
frosted matte **4052899446991**	frosted matte **4052899446991**	frosted matte **4052899446991**
8	8	8
	lens transparent **4052899447783**	
	9	
	12 **4052899449183**	14 **4052899450028**
	15 **4052899449879**	
16 **4052899446861**	16 **4052899446861**	17 **4052899446960**

1) For confined spaces

Slim track system

Description	Product name	GTIN (EAN)	h [mm]	l [mm]	b [mm]	📦	💡 No.
End cap for slim track standard	FX-QMS-G1-EFGP-TU15H6	**4052899449107**	6	15	9.5	400	10
End cap for slim track 3 mm wing	FX-QMS-G1-EFGP-TU15H6W3	**4052899449138**	6	22	19	400	11
End cap for slim track 12 mm height 3 mm wing	FX-QMS-G1-EFGP-TU16H12W3	**4052899449817**	12	22	19	400	13
End cap for slim track 12 mm height	FX-QMS-G1-EFGP-TU16H12LS	**4052899449183**	12	16	9.5	400	12
End cap for transparent lens cover	FX-QMS-G1-ELGP-TU16H12LS	**4052899449879**	9	16	18	400	15
End cap for slim track corner 45°	FX-QMS-G1-EFGP-T45D19H19	**4052899450028**	10	26	17.5	400	14
Mounting bracket	FX-QMS-G1-BMZI-DIV1	**4052899446861**	9.5	17	20	400	16
Mounting bracket for slim track corner 45°	FX-QMS-G1-BMZI-T45D19H19	**4052899446960**	9.5	20	20	400	17

Flexessories®

	Wide track[1]				
Aluminum track	corner 30° 1 **4052899448827**	5 mm wing 2 **4052899448773**	8 mm height 3 **4052899448643**	2 mm wing 4 **4052899448841**	25 mm height 5 **4052899448803**
Cover	flat frosted 6 **4052899447806**	flat frosted 6 **4052899447806**		flat frosted 6 **4052899447806**	flat frosted 6 **4052899447806**
	round frosted matte 7 **4052899447035**	round frosted matte 7 **4052899447035**	round frosted matte 7 **4052899447035**	round frosted matte 7 **4052899447035**	round frosted matte 7 **4052899447035**
End cap	for left side corner 9 **4052899450059**	10 **4052899450134**	11 **4052899450271**	12 **4052899450219**	13 **4052899450240**
	for right side corner 14 **4052899449909**				
Clip	15 **4052899446731**		15 **4052899446731**	15 **4052899446731**	15 **4052899446731**
Mounting profile			8 **4052899449060**	8 **4052899449060**	8 **4052899449060**
End cap for mounting profile			16 **4052899450165**	16 **4052899450165**	16 **4052899450165**
Springs for grooves		17 **4052899446786**	18 **4052899446830**		18 **4052899446830**

1) For the use of two modules

Flexessories®

Wide track system

Description	Product name	GTIN (EAN)	h [mm]	l [mm]	b [mm]		No.
Wide track corner 30°	FX-QMW-G1-TK30D46H27-300	4052899448827	26.7	3000	45.6	10	1
Wide track 5 mm wing	FX-QMW-G1-TU26H25W10-300	4052899448773	24	3000	46	4	2
Wide track 8 mm height	FX-QMW-G1-TU26H8-300	4052899448643	7.5	3000	26	20	3
Wide track 2 mm wing	FX-QMW-G1-TU26H25W2-300	4052899448841	25	3000	30	20	4
Wide track 25 mm height	FX-QMW-G1-TU26H25-300	4052899448803	24.5	3000	26	20	5
Wide track cover flat frosted	FX-QMW-G1-CFDB-300	4052899447806	4	3000	11	40	6
Wide track cover round frosted matte	FX-QMW-G1-CRD-300	4052899447035	20	3000	24	40	7
Mounting profile	FX-QMW-G1-P125C30-DIV1-300	4052899449060	28.5	3000	66	4	8
End cap for wide track corner 30° left side corner	FX-QMW-G1-EFGP-L-TK-30D46H27	4052899450059	8	45.6	26.7	400	9
End cap for wide track corner 30° right side corner	FX-QMW-G1-EFGP-R-TK-30D46H27	4052899449909	8	45.6	26.7	400	14
End cap for wide track 8 mm height	FX-QMW-G1-ERGP-TU26H8	4052899450271	12	26	25	400	11
End cap for wide track 5 mm wing	FX-QMW-G1-EFGP-TU26H25W10	4052899450134	16.5	46	24.5	400	10
End cap for wide track 2 mm wing	FX-QMW-G1-EFGP-TU26H25W2	4052899450219	12	30	24.5	400	12
End cap for wide track 25 mm height	FX-QMW-G1-EFGP-TU26H25	4052899450240	9.5	26	24.5	400	13
Mounting clip	FX-QMW-G1-XCLPL1-DIV1	4052899446731	6	9	6	400	15
End cap for mounting profile	FX-QMW-G1-EFGP-PC30	4052899450165	8.5	30	28.5	400	16
Spring for wide track 5 mm wing	FX-QMW-G1-SRME-DIV1	4052899446786	11	50	40	400	17
Spring for wide track 8 mm and 25 mm height	FX-QMW-G1-SMME-DIV1	4052899446830	14	66	33	400	18

LED modules for light advertising and backlighting – Summary of portfolio

LED modules for illuminated signage and backlighting

LED modules are becoming ever more popular for the backlighting of buildings, for example for illuminated signage. The advantages are obvious. Compared to traditional lighting solutions using neon or T5/T8 fluorescent lamps, LED modules have longer lifespans and thus less service intervals. Significant energy costs can be saved thanks to higher efficiency levels. With LEDs as point light sources combined with optics designed specifically for the application, highly homogeneous back-lighting is achieved, offering a new level of design freedom. Colored LED modules can also be integrated into the application to positively intensify perception of the backlight object or building.

With an efficient complete system, OSRAM is setting standards in modern illuminated advertising. The range of services includes:

— BackLED® and BoxLED® modules with robust designs including high IP protection
— Wide range of module sizes: XS, S, M, L, XL and DS (double-sided)
— Wide range of colors: 3,000 K, 4,000 K, 6,500 K, red, green, blue, RGBW and TW (Tunable White from 2,700 K to 6,500 K)
— Homogeneous illumination and backlighting using OSRAM Flat Ray or Square Lens technology
— Mounting profiles for simple and rapid installation

LED deSIGNer
The LED deSIGNer is an online planning tool that allows you to calculate the required number of components. The new software leads you step-by-step to an optimal system of LED modules, LED drivers and accessories. You can then use the evaluations for your customer propositions. Calculate with us: www.osram.com/led-designer.
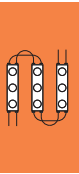
BackLED® S Plus G15
LED modules for light advertising and backlighting
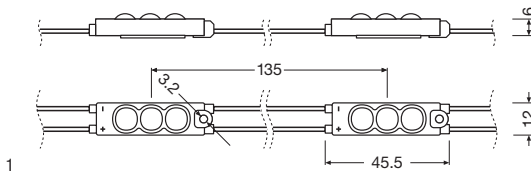
Product name	GTIN (EAN)	V	W CHAIN	W MODULE	λ		lm CHAIN
BA-S-PL BL D [1]	**4052899300675**	12	16.90	0.38	466	Blue	255
BA-S-PL GN D [1]	**4052899300651**	12	16.90	0.38	523	Green	1110
BA-S-PL RD D [1]	**4052899300637**	12	33.80	0.38	625	Red	1215

Product name	lm MODULE	°	◎	Modules/ Chain			No.
BA-S-PL BL D [1]	5.7	155	3	45	B	5	1
BA-S-PL GN D [1]	24.7	155	3	45	A+	5	1
BA-S-PL RD D [1]	13.5	155	3	90	B	5	1

1) Modules perfectly matched to OSRAM OPTOTRONIC® LED drivers (see relevant table) / For current photometric data and important safety, installation and application information, see www.osram.com/led-systems / All the technical parameters apply to the entire module. In view of the complex manufacturing process for light-emitting diodes, the typical values given above for the technical LED parameters are merely statistical values that do not necessarily correspond to the actual technical parameters of an individual product; individual products may vary from the typical values

5 Year
OSRAM Guarantee*

Square-Ray Technology

Product features[1]
— Connected with flexible cables
— Type of protection (modules): IP66
— Color rendering index R_a: > 80
— CE marked and UL listed

Product benefits
— Uniform illumination at high LED pitches thanks to Square Lens technology
— Modules are compatible with BackLED® mounting profile
— Significantly better application efficiency compared to systems without lenses
— Several options for quick and simple mounting: bolting or snap-in
— Excellent module efficacy
— Very long lifetime
— 5-year guarantee

Areas of application
— Signage and illuminated advertising
— Backlighting of small and/or flat channel letters
— Backlighting of single and double-sided light boxes
— Permanent outdoor use in enclosed light boxes or channel letters

Equipment/Accessories
— BackLED® mounting profile BA-SM-MP
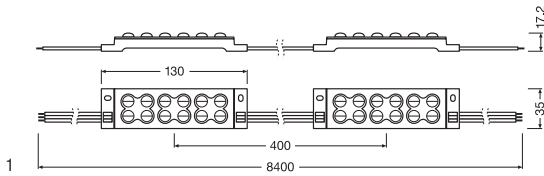— Several types of OPTOTRONIC® 12 V power supplies available

References/Links
For more information on the multi-level guarantee and the terms and conditions of the guarantee, visit www.osram.com/system-guarantee

BackLED® S Plus G3
LED modules for light advertising and backlighting
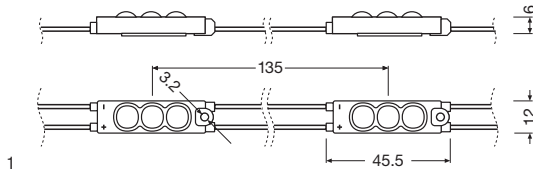
Product name	GTIN (EAN)	V	W CHAIN	W MODULE	K		lm CHAIN
BA-S-PL 830 G3 [1]	4052899504592	12	30	0.33	3000	White	3330
BA-S-PL 840 G3 [1]	4052899504615	12	30	0.33	4000	White	3510
BA-S-PL 865 G3 [1]	4052899504639	12	30	0.33	6500	White	3510

Product name	lm MODULE	△°	◎	Modules/Chain			No.
BA-S-PL 830 G3 [1]	37	155	3	90	B	5	1
BA-S-PL 840 G3 [1]	39	155	3	90	B	5	1
BA-S-PL 865 G3 [1]	39	155	3	90	B	5	1

1) Modules perfectly matched to OSRAM OPTOTRONIC® LED drivers (see relevant table) / For current photometric data and important safety, installation and application information, see www.osram.com/led-systems / All the technical parameters apply to the entire module. In view of the complex manufacturing process for light-emitting diodes, the typical values given above for the technical LED parameters are merely statistical values that do not necessarily correspond to the actual technical parameters of an individual product; individual products may vary from the typical values

Product features[1]
— Connected with flexible cables
— Type of protection (modules): IP66
— Color rendering index R_a: > 80
— CE marked and UL listed
— Lifetime (L70/B50): 50,000 h
— Module efficacy: up to 130 lm/W

Product benefits
— Uniform illumination at high LED pitches thanks to Square Lens technology
— Modules are compatible with BackLED® mounting profile
— Significantly better application efficiency compared to systems without lenses
— Several options for quick and simple mounting: bolting or snap-in
— Consistent white light (Standard Deviation of Color Matching SDCM: < 3)
— ENEC certified
— 5-year guarantee

Areas of application
— Signage and illuminated advertising
— Backlighting of small and/or flat channel letters
— Backlighting of single and double-sided light boxes
— Permanent outdoor use in enclosed light boxes or channel letters

Equipment/Accessories
— BackLED® mounting profile BA-SM-MP
— Several types of OPTOTRONIC® 12 V power supplies available

References/Links
For more information on the multi-level guarantee and the terms and conditions of the guarantee, visit www.osram.com/system-guarantee

BackLED® ECO M Plus
LED modules for light advertising and backlighting
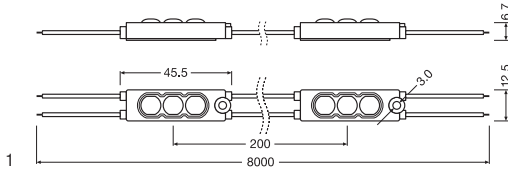
Product name	GTIN (EAN)	V	W CHAIN	W MODULE	K		lm CHAIN
BA-ECO-M-PL 865 [1]	4052899392465	12	28.80	0.72	6500	White	2880

Product name	lm MODULE	°	⊚	Modules/Chain			No.
BA-ECO-M-PL 865 [1]	72	155	3	40	A+	5	1

1) Modules perfectly matched to OSRAM OPTOTRONIC® LED drivers (see relevant table) / For current photometric data and important safety, installation and application information, see www.osram.com/led-systems / All the technical parameters apply to the entire module. In view of the complex manufacturing process for light-emitting diodes, the typical values given above for the technical LED parameters are merely statistical values that do not necessarily correspond to the actual technical parameters of an individual product; individual products may vary from the typical values

Product features [1]
— Chain of 40 LED modules with three LEDs each
— Connected with flexible cables
— Variable LED module distance of 120…200 mm
— Very homogeneous backlighting with installation depth of 60 mm
— Dimmable with OT DIM, OT DALI DIM, OT DALI DIM LI
— Lifetime (L70/B50): 30,000 h (temperature at T_c = 70 °C)
— Color rendering index R_a: > 80

Product benefits
— Type of protection IP64 thanks to full encapsulation of LED modules
— Illumination without hotspots with less modules, slim depths due to batwing optics
— Consistent white light (Standard Deviation of Color Matching SDCM: < 3)
— Completely molded housing protects PCB and LEDs
— Easier pre-mounting with double-sided tape with extra long foil
— 5-year guarantee

Areas of application
— Backlighting of medium-sized channel letters

Equipment/Accessories
— Optimized for operation with OPTOTRONIC® 12 V power supplies

References/Links
For more information on the multi-level guarantee and the terms and conditions of the guarantee, visit www.osram.com/system-guarantee

BackLED® M Plus G15
LED modules for light advertising and backlighting
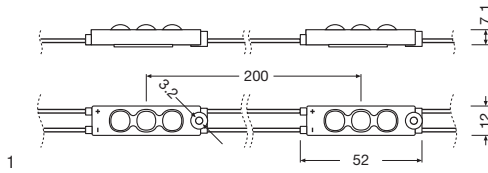
1

Product name	GTIN (EAN)	V	W CHAIN	W MODULE	K	λ		lm CHAIN
BA-M-PL-830 D [1]	4052899300538	12	30	0.75	3000	-	White	2600
BA-M-PL-840 D [1]	4052899300514	12	30	0.75	4000	-	White	2800
BA-M-PL 865 D [1]	4052899300491	12	30	0.75	6500	-	White	2800
BA-M-PL-RD D [1]	4052899300552	12	25	0.62	-	625	Red	907

Product name	lm MODULE	∠°	⊚	Modules/Chain	⬛	⬛	No.
BA-M-PL-830 D [1]	65	155	3	40	A	5	1
BA-M-PL-840 D [1]	70	155	3	40	A	5	1
BA-M-PL 865 D [1]	70	155	3	40	A	5	1
BA-M-PL-RD D [1]	22.7	155	3	40	B	5	1

1) Modules perfectly matched to OSRAM OPTOTRONIC® LED drivers (see relevant table) / For current photometric data and important safety, installation and application information, see www.osram.com/led-systems / All the technical parameters apply to the entire module. In view of the complex manufacturing process for light-emitting diodes, the typical values given above for the technical LED parameters are merely statistical values that do not necessarily correspond to the actual technical parameters of an individual product; individual products may vary from the typical values

Product features [1]
— Connected with flexible cables
— Type of protection (modules): IP66
— Color rendering index R_a: > 80
— CE marked and UL listed

Product benefits
— Uniform illumination at high LED pitches thanks to Square Lens technology
— Modules are compatible with BackLED® mounting profile
— Significantly better application efficiency compared to systems without lenses
— Several options for quick and simple mounting: bolting or snap-in
— Excellent module efficacy
— Very long lifetime
— 5-year guarantee

Areas of application
— Signage and illuminated advertising
— Backlighting of medium-sized channel letters
— Backlighting of single and double-sided light boxes
— Permanent outdoor use in enclosed light boxes or channel letters

Equipment/Accessories
— BackLED® mounting profile BA-SM-MP
— Several types of OPTOTRONIC® 12 V power supplies available

References/Links
For more information on the multi-level guarantee and the terms and conditions of the guarantee, visit www.osram.com/system-guarantee

BackLED® M Plus HO G1
LED modules for light advertising and backlighting
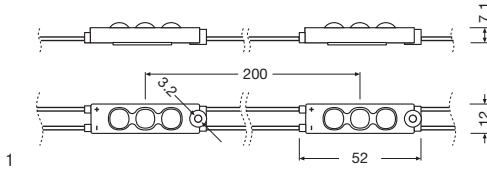
Product name	GTIN (EAN)	V	W CHAIN	W MODULE	K		lm CHAIN
BA-M-PL 830 HO [1]	**4052899504707**	12	34	0.85	3000	White	3440
BA-M-PL 840 HO [1]	**4052899504721**	12	34	0.85	4000	White	3600
BA-M-PL 865 HO [1]	**4052899504745**	12	34	0.85	6500	White	3600

Product name	lm MODULE	°△	◎	Modules/ Chain			No.
BA-M-PL 830 HO [1]	86	155	3	40	B	5	1
BA-M-PL 840 HO [1]	90	155	3	40	B	5	1
BA-M-PL 865 HO [1]	90	155	3	40	B	5	1

1) Modules perfectly matched to OSRAM OPTOTRONIC® LED drivers (see relevant table) / For current photometric data and important safety, installation and application information, see www.osram.com/led-systems / All the technical parameters apply to the entire module. In view of the complex manufacturing process for light-emitting diodes, the typical values given above for the technical LED parameters are merely statistical values that do not necessarily correspond to the actual technical parameters of an individual product; individual products may vary from the typical values

5 Year
OSRAM Guarantee*

Square-Ray Technology

Product features[1]
— Connected with flexible cables
— Type of protection (modules): IP66
— Color rendering index R_a: > 80
— CE marked and UL listed
— Lifetime (L70/B50): 50,000 h
— Module efficacy: up to 101 lm/W

Product benefits
— Uniform illumination at high LED pitches thanks to Square Lens technology
— Modules are compatible with BackLED® mounting profile
— Significantly better application efficiency compared to systems without lenses
— Several options for quick and simple mounting: bolting or snap-in
— Consistent white light (Standard Deviation of Color Matching SDCM: < 3)
— ENEC certified
— 5-year guarantee

Areas of application
— Signage and illuminated advertising
— Backlighting of small and/or flat channel letters
— Backlighting of single and double-sided light boxes
— Permanent outdoor use in enclosed light boxes or channel letters

Equipment/Accessories
— BackLED® mounting profile BA-SM-MP
— Several types of OPTOTRONIC® 12 V power supplies available

References/Links
For more information on the multi-level guarantee and the terms and conditions of the guarantee, visit www.osram.com/system-guarantee

BackLED® L Plus G3
LED modules for light advertising and backlighting
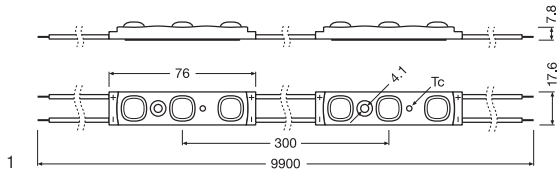
Product name	GTIN (EAN)	V	W CHAIN	W MODULE	K	
BA-L-PL 830 G3 [1]	4052899990463	12	46	1.31	3000	Warm white
BA-L-PL 840 G3 [1]	4052899990449	12	46	1.31	4000	White
BA-L-PL 865 G3 [1]	4052899990425	12	46	1.31	6500	White

Product name	lm CHAIN	lm MODULE	∠°	Modules/Chain			No.
BA-L-PL 830 G3 [1]	5400	150	155	36	A+	5	1
BA-L-PL 840 G3 [1]	5400	150	155	36	A+	5	1
BA-L-PL 865 G3 [1]	5400	150	155	36	A+	5	1

1) Modules perfectly matched to OSRAM OPTOTRONIC® LED drivers (see relevant table) / For current photometric data and important safety, installation and application information, see www.osram.com/led-systems / All the technical parameters apply to the entire module. In view of the complex manufacturing process for light-emitting diodes, the typical values given above for the technical LED parameters are merely statistical values that do not necessarily correspond to the actual technical parameters of an individual product; individual products may vary from the typical values / In development, data preliminary

Product features[1]
— Connected with flexible cables
— Type of protection (modules): IP66/IP68
— Color rendering index R_a: > 80
— Single bin LEDs for all CCTs
— Consistent white light: < 3 SDCM
— CE marked, ENEC certified; UL listed

Product benefits
— Uniform illumination at high LED pitches thanks to Flat Ray technology
— Click and Play: quick and easy click-in of the LED modules, no tools needed
— High module efficacy: up to 116 lm/W
— Dimming capability: 1…10 V, DALI and DMX methods
— Very long lifetime: up to 50,000 h (L70/B50)
— 5-year guarantee

Areas of application
— Signage and illuminated advertising
— Backlighting of single and double-sided light boxes
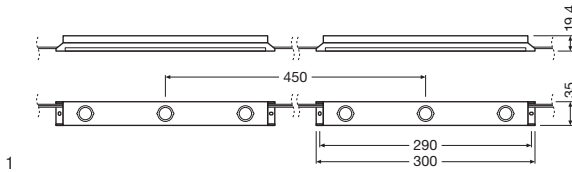— Permanent outdoor use in enclosed light boxes
— Decorative applications

Equipment/Accessories
— Mounting profile BA-MP
— Several types of OPTOTRONIC® 12 V LED drivers available

References/Links
For more information on the multi-level guarantee and the terms and conditions of the guarantee, visit www.osram.com/system-guarantee

BackLED® XL Plus G3
LED modules for light advertising and backlighting
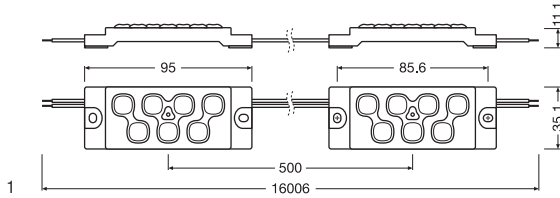
5 Year
OSRAM Guarantee*

Product name	GTIN (EAN)	V	W CHAIN	W MODULE	K	
BA-XL-PL 830 G3 [1]	4052899990524	24	70	2.2	3000	Warm white
BA-XL-PL 840 G3 [1]	4052899990500	24	70	2.2	4000	White
BA-XL-PL 865 G3 [1]	4052899990487	24	70	2.2	6500	White

Product name	lm CHAIN	lm MODULE	∠°	Modules/ Chain			No.
BA-XL-PL 830 G3 [1]	9600	300	155	32	A+	5	1
BA-XL-PL 840 G3 [1]	9600	300	155	32	A+	5	1
BA-XL-PL 865 G3 [1]	9600	300	155	32	A+	5	1

1) Modules perfectly matched to OSRAM OPTOTRONIC® LED drivers (see relevant table) / For current photometric data and important safety, installation and application information,
see www.osram.com/led-systems / All the technical parameters apply to the entire module. In view of the complex manufacturing process for light-emitting diodes, the typical values given above for
the technical LED parameters are merely statistical values that do not necessarily correspond to the actual technical parameters of an individual product; individual products may vary from the typical
values / In development, data preliminary

Product features[1]
— Connected with flexible cables
— Type of protection (modules): IP66 and IP68
— Color rendering index R_a: > 80
— Single bin LEDs for all CCTs
— Consistent white light: < 3 SDCM
— CE marked, ENEC certified; UL listed

Product benefits
— Uniform illumination at high LED pitches thanks to Flat Ray technology
— Click and Play: quick and easy click-in of the LED modules, no tools needed
— High module efficacy: up to 135 lm/W
— Dimming capability: 1…10 V, DALI and DMX methods
— Very long lifetime: up to 50,000 h (L70/B50)
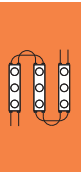— 5-year guarantee

Areas of application
— Signage and illuminated advertising
— Backlighting of single and double-sided light boxes
— Permanent outdoor use in enclosed light boxes
— Decorative applications

Equipment/Accessories
— Mounting profile BX-MP
— Several types of OPTOTRONIC® 24 V LED drivers available

References/Links
For more information on the multi-level guarantee and the terms and conditions of the guarantee, visit www.osram.com/system-guarantee

BackLED® DS Plus G3
LED modules for light advertising and backlighting
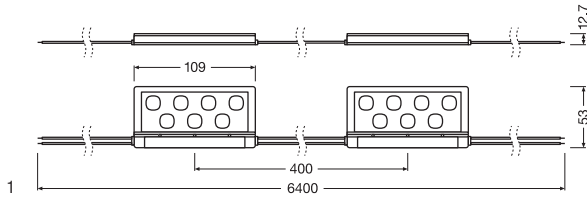
Product name	GTIN (EAN)	V	W CHAIN	W MODULE	K	
BA-DS-PL 865 G3 [1]	4052899990548	24	70	4.4	6500	Cool white

Product name	lm CHAIN	lm MODULE	°	Modules/ Chain	A+		No.
BA-DS-PL 865 G3 [1]	9600	600	155	16	A+	5	1

1) Modules perfectly matched to OSRAM OPTOTRONIC® LED drivers (see relevant table) / For current photometric data and important safety, installation and application information, see www.osram.com/led-systems / All the technical parameters apply to the entire module. In view of the complex manufacturing process for light-emitting diodes, the typical values given above for the technical LED parameters are merely statistical values that do not necessarily correspond to the actual technical parameters of an individual product; individual products may vary from the typical values / In development, data preliminary

Product features[1]
— Connected with flexible cables
— Type of protection (modules): IP66
— Color rendering index R_a: > 80
— Single bin LEDs for all CCTs
— Consistent white light: < 3 SDCM
— CE marked, ENEC certified; UL listed

Product benefits
— Uniform illumination at high LED pitches thanks to Flat Ray technology
— Modules compatible with the BackLED® DS mounting profile
— Click and Play: quick and easy click-in of the LED modules, no tools needed
— High module efficacy: up to 135 lm/W
— Dimming capability: 1…10 V, DALI and DMX methods
— Very long lifetime: up to 50,000 h (L70/B50)
— 5-year guarantee

Areas of application
— Signage and illuminated advertising
— Backlighting of double-sided light boxes and pylons
— Permanent outdoor use in enclosed light boxes

Equipment/Accessories
— Several types of OPTOTRONIC® 24 V LED drivers available
— BackLED® DS mounting profile BX-DS-MP
— BackLED® DS mounting brackets BX-DS-MB

References/Links
For more information on the multi-level guarantee and the terms and conditions of the guarantee, visit www.osram.com/system-guarantee
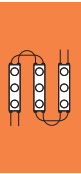
BackLED® RGBW Plus G2
LED modules for light advertising and backlighting
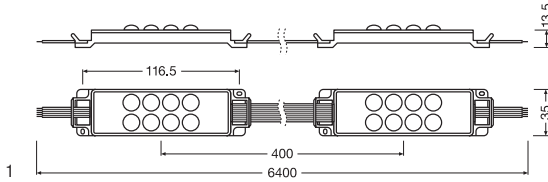
5 Year OSRAM Guarantee*	Product name	GTIN (EAN)	V	W CHAIN	W MODULE	λ		lm CHAIN
	BA-RGBW-PL G2 [1]	4052899452930	24	55.20	3.7	625 / 522	RGB, white	2310

Product name	lm MODULE	∡°		Modules/ Chain				No.
BA-RGBW-PL G2 [1]	154	150	8	15	B	5		1

[1] Modules perfectly matched to OSRAM OPTOTRONIC® LED drivers (see relevant table) / For current photometric data and important safety, installation and application information, see www.osram.com/led-systems / All the technical parameters apply to the entire module. In view of the complex manufacturing process for light-emitting diodes, the typical values given above for the technical LED parameters are merely statistical values that do not necessarily correspond to the actual technical parameters of an individual product; individual products may vary from the typical values

Product features [1]
— Connected with flexible cables
— Type of protection (modules): IP66/IP68
— Special robust encapsulation
— CE marked
— Dimmable by pulse width modulation (PWM)

Product benefits
— Simple fixing with M3 screws
— Broad color mixing palette (in connection with light management systems)
— Uniform backlighting of large surfaces thanks to extremely wide angle optics
— Simple connection with open cable ends
— Consistent white light (Standard Deviation of Color Matching SDCM: < 5)
— 5-year guarantee

Areas of application
— Dynamic color backlighting
— Dynamic mood lighting
— Spas
— Shops
— Restaurants
— Trade fair lighting
— Permanent outdoor use in enclosed light boxes or channel letters

Equipment/Accessories
— Several types of OPTOTRONIC® 24 V power supplies available
— BoxLED® mounting profile BX-MP

References/Links
For more information on the multi-level guarantee and the terms and conditions of the guarantee, visit www.osram.com/system-guarantee

BackLED® TW Plus G2
LED modules for light advertising and backlighting

Product name	GTIN (EAN)	V	W CHAIN	W MODULE	K		lm CHAIN
BA-TW-PL 827-865 G2 [1]	4052899452954	24	96	4.8	2700	White	9200

Product name	lm MODULE	∡°	⊚	Modules/Chain	♻ A+	📦	💡 No.
BA-TW-PL 827-865 G2 [1]	460	150	12	20	A+	5	1

1) Modules perfectly matched to OSRAM OPTOTRONIC® LED drivers (see relevant table) / For current photometric data and important safety, installation and application information, see www.osram.com/led-systems / All the technical parameters apply to the entire module. In view of the complex manufacturing process for light-emitting diodes, the typical values given above for the technical LED parameters are merely statistical values that do not necessarily correspond to the actual technical parameters of an individual product; individual products may vary from the typical values

Product features [1]
— Connected with flexible cables
— Type of protection (modules): IP66/IP68
— Light color: dynamic 2,700…6,500 K
— Special robust encapsulation
— CE marked

Product benefits
— Flexible programmable lighting moods in connection with light management systems
— Uniform backlighting of large surfaces thanks to extremely wide angle optics
— Simple fixing with M3 screws
— UV and IR-free light preserves exhibits
— Consistent white light (Standard Deviation of Color Matching SDCM: < 3)
— 5-year guarantee

Areas of application
— Daylight simulation
— Spas
— Shops
— Offices
— Museums, art galleries
— Permanent outdoor use in enclosed light boxes or channel letters

Equipment/Accessories
— Seven types of OPTOTRONIC® 24 V power supplies available
— BoxLED® mounting profile BX-MP

References/Links
For more information on the multi-level guarantee and the terms and conditions of the guarantee, visit www.osram.com/system-guarantee
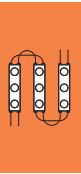
BlockLED ECO G1
LED modules for light advertising and backlighting
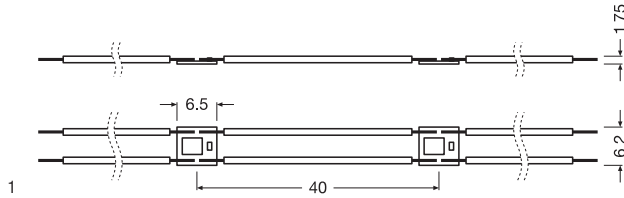
Product name	GTIN (EAN)	$\boxed{V}$	$\boxed{\underset{\text{CHAIN}}{W}}$	$\boxed{\underset{\text{MODULE}}{W}}$	$\boxed{K}$	$\boxed{\underset{\text{CHAIN}}{\text{lm}}}$
BlockLED ECO G1 840 [1]	**4052899990661**	12	40	0.21	4000	3820
BlockLED ECO G1 850 [1]	**4052899990685**	12	40	0.21	5000	3820
BlockLED ECO G1 865 [1]	**4052899990708**	12	40	0.21	6500	3820

Product name	$\boxed{\underset{\text{MODULE}}{\text{lm}}}$	Modules/ Chain	◉	$\boxed{\text{IP}}$	▣	▱	♡ No.
BlockLED ECO G1 840 [1]	24.8	154	1	IP20	A+	5	1
BlockLED ECO G1 850 [1]	24.8	154	1	IP20	A+	5	1
BlockLED ECO G1 865 [1]	24.8	154	1	IP20	A+	5	1

1) Modules perfectly matched to OSRAM OPTOTRONIC® LED drivers (see relevant table) / For current photometric data and important safety, installation and application information,
see www.osram.com/led-systems / All the technical parameters apply to the entire module. In view of the complex manufacturing process for light-emitting diodes, the typical values given above for
the technical LED parameters are merely statistical values that do not necessarily correspond to the actual technical parameters of an individual product; individual products may vary from the typical
values / In development, data preliminary

Product features[1]
— Connected with flexible single-wire cables
— Cuttable after each single module
— Type of protection: IP20
— Color rendering index R_a: > 80
— CE marked

Product benefits
— Single-wire enables dimensionally stable shapes and curves
— Fully flexible in all directions
— LED pitch adjustable as required
— Extra-small engineered modules avoid shades, delivering great light uniformity
— White-painted modules on both sides, ensuring optimal reflection
— Very long lifetime: up to 50,000 h (L70/B50)

Areas of application
— Permanent outdoor use in potted full-acrylic block letters
— Signage and illuminated advertising
— Illumination of front, side or back light emitting letters

Equipment/Accessories
— Several types of OPTOTRONIC® 12 V LED drivers available

References/Links
For more information on the multi-level guarantee and the terms and conditions of the guarantee, visit www.osram.com/system-guarantee

BoxLED® XS Plus G3
LED modules for light advertising and backlighting
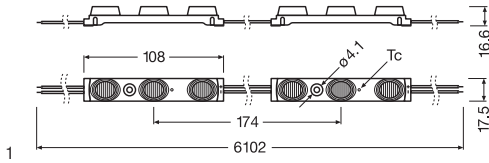
Product name	GTIN (EAN)	V	W CHAIN	W MODULE	K		lm CHAIN
BX-XS-PL 865 G3 [1]	**4052899989696**	12	42	1.31	6500	Cool white	4320
BX-XS-PL 840 G3 [1]	**4052899989719**	12	42	1.31	4000	Neutral white	4320
BX-XS-PL 830 G3 [1]	**4052899989733**	12	42	1.31	3000	Warm white	4320

Product name	lm MODULE	∆°	Modules/ Chain			No.
BX-XS-PL 865 G3 [1]	135	12 x 34	32	A+	5	1
BX-XS-PL 840 G3 [1]	135	12 x 34	32	A+	5	1
BX-XS-PL 830 G3 [1]	135	12 x 34	32	A+	5	1

1) Modules perfectly matched to OSRAM OPTOTRONIC® LED drivers (see relevant table) / For current photometric data and important safety, installation and application information, see www.osram.com/led-systems / All the technical parameters apply to the entire module. In view of the complex manufacturing process for light-emitting diodes, the typical values given above for the technical LED parameters are merely statistical values that do not necessarily correspond to the actual technical parameters of an individual product; individual products may vary from the typical values / In development, data preliminary

Product features[1]
— Connected with flexible cables
— Type of protection: IP66/IP68
— Single bin LEDs for all CCTs
— Consistent white light: < 3 SDCM
— CE marked, ENEC certified; UL listed

Product benefits
— Uniform illumination thanks to optimized lenses embedded on module body
— Click and Play: quick and easy click-in of the LED modules, no tools needed
— Dimming capability 1…10 V, DALI and DMX methods
— Very long lifetime: up to 50,000 h (L70/B50)
— 5-year guarantee

Areas of application
— Permanent outdoor use in enclosed light boxes
— Signage and illuminated advertising
— Illumination of single and double-sided light boxes
— Wallwashing, cove lighting

Equipment/Accessories
— Several types of OPTOTRONIC® 12 V LED drivers available
— Mounting profile BA-MP

References/Links
For more information on the multi-level guarantee and the terms and conditions of the guarantee, visit www.osram.com/system-guarantee

BoxLED® ECO M Plus G3
LED modules for light advertising and backlighting

110
25.1
35
300
1
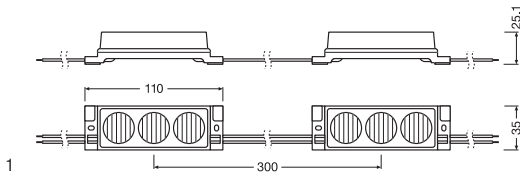
Product name	GTIN (EAN)	V	W CHAIN	W MODULE	K		lm CHAIN
BX-ECO-M-PL 830 [1]	**4052899947030**	24	99.80	3.1	3000	White	10474
BX-ECO-M-PL 840 [1]	**4052899947016**	24	99.80	3.1	4000	White	10474
BX-ECO-M-PL 865 [1]	**4052899946996**	24	99.80	3.1	6500	White	10094

Product name	lm MODULE	△°	⊚	Modules/ Chain			No.
BX-ECO-M-PL 830 [1]	327	12 x 60	6	32	A+	5	1
BX-ECO-M-PL 840 [1]	327	12 x 60	6	32	A+	5	1
BX-ECO-M-PL 865 [1]	315	12 x 60	6	32	A+	5	1

1) Modules perfectly matched to OSRAM OPTOTRONIC® LED drivers (see relevant table) / For current photometric data and important safety, installation and application information, see www.osram.com/led-systems / All the technical parameters apply to the entire module. In view of the complex manufacturing process for light-emitting diodes, the typical values given above for the technical LED parameters are merely statistical values that do not necessarily correspond to the actual technical parameters of an individual product; individual products may vary from the typical values

Product features [1]
— Chain of 32 linear LED modules
— Connected with flexible cables
— Type of protection (modules): IP66
— Fully integrated heat sink

Product benefits
— Modules are compatible with the BoxLED® mounting profile
— Uniform illumination thanks to optimized elliptical lenses
— Several options for quick and simple mounting: bolting or snap-in
— Excellent module efficacy
— Cost-effective solution with reliable performance
— 5-year guarantee

Areas of application
— Signage and illuminated advertising
— Illumination of single and double-sided light boxes
— Permanent outdoor use in enclosed light boxes

Equipment/Accessories
— Several types of OPTOTRONIC® 24 V power supplies available
— BoxLED® mounting profile BX-MP

References/Links
For more information on the multi-level guarantee and the terms and conditions of the guarantee, visit www.osram.com/system-guarantee

BoxLED® M Plus G3
LED modules for light advertising and backlighting
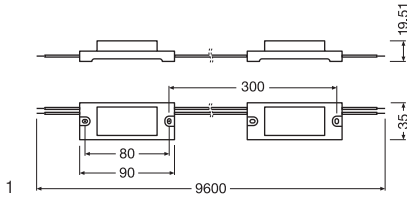
Product name	GTIN (EAN)	V	W CHAIN	W MODULE	K		lm CHAIN
BX-M-PL 865 [1]	4052899493193	24	96	3	3000	White	9760
BX-M-PL 840 [1]	4052899493179	24	96	3	4000	White	10200
BX-M-PL 830 [1]	4052899493155	24	96	3	6500	White	10200

Product name	lm MODULE	△°	◎	Modules/ Chain			No.
BX-M-PL 865 [1]	305	12 x 70	12	32	A	5	1
BX-M-PL 840 [1]	318.75	12 x 70	12	32	A	5	1
BX-M-PL 830 [1]	318.75	12 x 70	12	32	A	5	1

1) Modules perfectly matched to OSRAM OPTOTRONIC® LED drivers (see relevant table) / For current photometric data and important safety, installation and application information, see www.osram.com/led-systems / All the technical parameters apply to the entire module. In view of the complex manufacturing process for light-emitting diodes, the typical values given above for the technical LED parameters are merely statistical values that do not necessarily correspond to the actual technical parameters of an individual product; individual products may vary from the typical values

Product features[1]
— Chain of 32 linear LED modules
— Connected with flexible cables
— Maximum length of one chain: 9.60 m
— Type of protection (modules): IP66/IP68
— Fully integrated heat sink

Product benefits
— Modules are compatible with the BoxLED® mounting profile
— Uniform illumination thanks to optimized elliptical lenses
— Several options for quick and simple mounting: bolting or snap-in
— Excellent module efficacy
— Consistent white light (Standard Deviation of Color Matching SDCM: < 3)
— Very long lifetime
— ENEC certified
— 5-year guarantee

Areas of application
— Signage and illuminated advertising
— Illumination of single and double-sided light boxes
— Permanent outdoor use in enclosed light boxes

Equipment/Accessories
— Several types of OPTOTRONIC® 24 V power supplies available
— BoxLED® mounting profile BX-MP

References/Links
For more information on the multi-level guarantee and the terms and conditions of the guarantee, visit www.osram.com/system-guarantee

BoxLED® L Plus G15
LED modules for light advertising and backlighting

1

Product name	GTIN (EAN)	V	W CHAIN	W MODULE	K		lm CHAIN
BX-L-PL 830	4052899200517	12	60	7.5	3000	White	4350

Product name	lm MODULE	∠°	Modules/Chain			No.
BX-L-PL 830	505	15.0 x 53.5	8	A	5	1

1) Modules perfectly matched to OSRAM OPTOTRONIC® LED drivers (see relevant table) / For current photometric data and important safety, installation and application information, see www.osram.com/led-systems / All the technical parameters apply to the entire module. In view of the complex manufacturing process for light-emitting diodes, the typical values given above for the technical LED parameters are merely statistical values that do not necessarily correspond to the actual technical parameters of an individual product; individual products may vary from the typical values

5 Year
OSRAM Guarantee*

Product features[1]
— Connected with flexible cables
— Type of protection (modules): IP66
— CE marked

Product benefits
— Uniform illumination thanks to optimized elliptical lenses
— Click and Play: quick and easy click-in of the LED modules, no tools needed
— Excellent module efficacy
— Very long lifetime
— 5-year guarantee

Areas of application
— Permanent outdoor use in enclosed light boxes
— Signage and illuminated advertising
— Illumination of single and double-sided light boxes
— Wallwashing, cove lighting

Equipment/Accessories
— Several types of OPTOTRONIC® 12 V power supplies available
— BoxLED® mounting profile BX-MP

References/Links
For more information on the multi-level guarantee and the terms and conditions of the guarantee, visit www.osram.com/system-guarantee

BoxLED® L Plus G3
LED modules for light advertising and backlighting
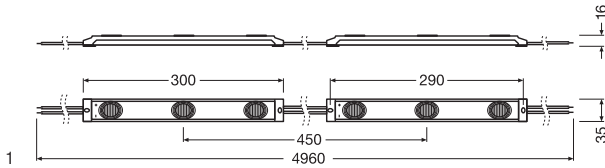
Product name	GTIN (EAN)	V	W CHAIN	W MODULE	K	
BX-L-PL 840 G3 [1]	4052899990760	12	60	6	4000	White
BX-L-PL 765 G3 [1]	4052899990623	12	60	6	6500	Cool white

Product name	lm CHAIN	lm MODULE	Modules/Chain			No.
BX-L-PL 840 G3 [1]	6500	650	10	A+	5	1
BX-L-PL 765 G3 [1]	6500	650	10	A+	5	1

1) Modules perfectly matched to OSRAM OPTOTRONIC® LED drivers (see relevant table) / For current photometric data and important safety, installation and application information, see www.osram.com/led-systems / All the technical parameters apply to the entire module. In view of the complex manufacturing process for light-emitting diodes, the typical values given above for the technical LED parameters are merely statistical values that do not necessarily correspond to the actual technical parameters of an individual product; individual products may vary from the typical values / In development, data preliminary

Product features[1]
— Connected with flexible cables
— Type of protection (modules): IP66/IP68
— Single bin LEDs for all CCTs
— Consistent white light: < 3 SDCM
— CE marked, ENEC certified; UL listed

Product benefits
— Uniform illumination thanks to optimized elliptical lenses
— Click and Play: quick and easy click-in of the LED modules, no tools needed
— Dimming capability: 1…10 V, DALI and DMX methods
— Very long lifetime: up to 50,000 h (L70/B50)
— 5-year guarantee

Areas of application
— Permanent outdoor use in enclosed light boxes
— Signage and illuminated advertising
— Illumination of single and double-sided light boxes
— Wallwashing, cove lighting

Equipment/Accessories
— Several types of OPTOTRONIC® 12 V LED drivers available
— Mounting profile BX-MP

References/Links
For more information on the multi-level guarantee and the terms and conditions of the guarantee, visit www.osram.com/system-guarantee

BoxLED® Indoor L Plus
LED modules for light advertising and backlighting

1
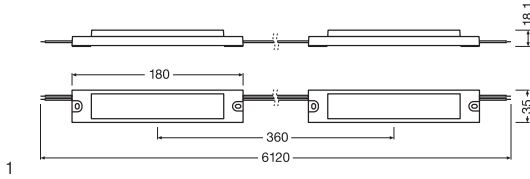
Product name	GTIN (EAN)	V	W CHAIN	W MODULE	K		lm CHAIN
BXI-L-PL 830 G1 [1]	4052899518230	24	96	6	3000	White	9600
BXI-L-PL 840 G1 [1]	4052899518216	24	96	6	4000	White	10200
BXI-L-PL 865 G1 [1]	4052899518193	24	96	6	6500	White	10200

Product name	lm MODULE	△°	⊚	Modules/ Chain			No.
BXI-L-PL 830 G1 [1]	600	12 x 70	24	16	A	5	1
BXI-L-PL 840 G1 [1]	638	12 x 70	24	16	A	5	1
BXI-L-PL 865 G1 [1]	638	12 x 70	24	16	A	5	1

1) Modules perfectly matched to OSRAM OPTOTRONIC® LED drivers (see relevant table) / For current photometric data and important safety, installation and application information,
see www.osram.com/led-systems / All the technical parameters apply to the entire module. In view of the complex manufacturing process for light-emitting diodes, the typical values given above for
the technical LED parameters are merely statistical values that do not necessarily correspond to the actual technical parameters of an individual product; individual products may vary from the typical
values

Product features[1]
— Chain of 16 linear LED modules for EU market
— Connected with flexible cables

Product benefits
— Modules are compatible with BackLED® mounting profile
— Uniform illumination thanks to optimized elliptical lenses
— Several options for quick and simple mounting: bolting or snap-in
— Very high module efficacy: up to 106 lm/W
— Consistent white light (Standard Deviation of Color Matching SDCM: < 3)
— Very long lifetime: up to 50,000 h (L70/B50)
— ENEC certified
— 5-year guarantee

Areas of application
— Signage and illuminated advertising
— Illumination of single and double-sided light boxes

Equipment/Accessories
— Several types of OPTOTRONIC® 24 V power supplies available

References/Links
For more information on the multi-level guarantee and the terms and conditions of the guarantee, visit www.osram.com/system-guarantee

Mounting profiles

Time and precision play an important role in light installations. Consequently, a quick mounting process, which is optimally supported by mounting profiles from OSRAM, is a proven means to reduce costs.

For installation, the LED modules are simply snapped into the profiles which are then bolted down with screws driven through pre-drilled mounting holes.

Thanks to the regular distances between the drill holes in the mounting profiles, the modules can be placed at even pitches without the need to measure. Within the profiles, however, they can be moved back and forth flexibly, as required.

The even arrangement of the modules therefore ensures a homogeneous illumination of the entire surface. Moreover, thanks to the strong aluminum profiles, the entire construction is very robust and maintenance-friendly.
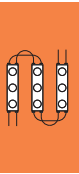
Functions of the mounting profiles

1) Side injection (single-sided and double-sided)

2) Backlighting (single-sided)

3) Backlighting (double-sided)*
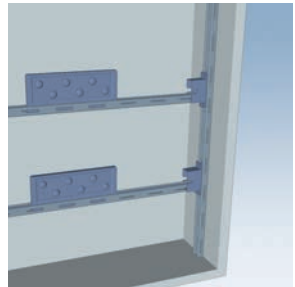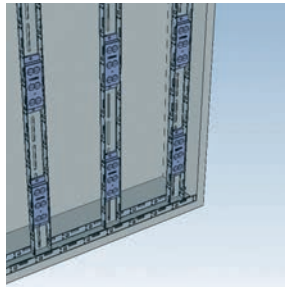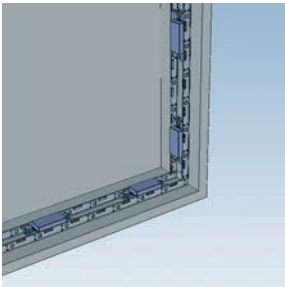
* Patent pending

Mounting profiles
Accessories for LED modules for advertising and backlighting

CLICK & PLAY
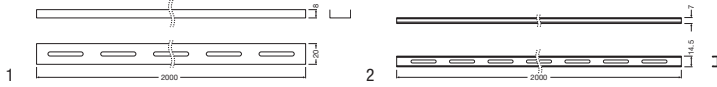
Product name	GTIN (EAN)	h [mm]	l [mm]	b [mm]		No.
BA-MP	4052899145863	8	2000	20	24	1
BA-SM-MP	4052899264540	7	2000	14.5	24	2

Product features
— Universally applicable mounting profile for single or double-sided light boxes
— Overall length: 2,000 mm

Product benefits
— Can be easily shortened to any length
— Quick and easy mounting of the profile with self-tapping screws or pop rivets
— Quick and simple snap-in fixing of the LED modules, no tools required
— Robust aluminum profile

Areas of application
— Advertising and lettering
— Backlighting of single and double-sided light boxes

Equipment/Accessories
— BA-MP suitable for BackLED® L, BoxLED® XS
— BA-SM-MP suitable for BackLED® S/M

Mounting profiles
Accessories for LED modules for advertising and backlighting
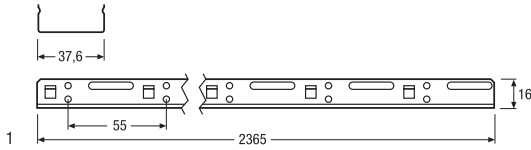
	Product name	GTIN (EAN)	h [mm]	l [mm]	b [mm]		No.
CLICK & PLAY	BX-MP	4008321981110	16	2365	37.6	24	1

Product features
— Universally applicable mounting profile for single or double-sided light boxes
— Overall length: 2,365 mm
— Integrated 55 mm mounting grid for simple positioning of the LED modules
— Integrated fixing option for cables

Product benefits
— Can be easily shortened to any length
— Quick and easy mounting of the profile with self-tapping screws or pop rivets
— Quick and simple snap-in fixing of the LED modules, no tools required
— Robust aluminum profile

Areas of application
— Advertising and lettering
— Backlighting of single and double-sided light boxes

Equipment/Accessories
— Suitable for BoxLED® M/Eco M/L Plus, BackLED® XL/RGBW/TW Plus
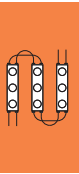
BackLED® DS Plus
Accessories for LED modules for advertising and backlighting

13.3

13

2000

1
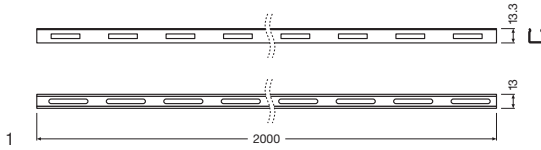
Product name	GTIN (EAN)	h [mm]	l [mm]	b [mm]		No.
BX-DS-MP	4008321880307	13.3	2000	13	24	1

CLICK & PLAY

Product features
— Universally applicable mounting profile for BackLED® DS Plus LED modules
— Overall length: 2,000 mm
— Integrated 50 mm mounting grid for simple positioning of the LED modules
— Integrated fixing option for cables

Product benefits
— Can be easily shortened to any length
— Quick and easy mounting of the profile with self-tapping screws or pop rivets
— Quick and simple snap-in fixing of the LED modules, no tools required
— Robust aluminum profile

Areas of application
— Signage and illuminated advertising
— Backlighting of double-sided light boxes and pylons
— Permanent outdoor use in enclosed light boxes

Equipment/Accessories
— Suitable for BackLED® DS Plus

BackLED® DS Plus
Accessories for LED modules for advertising and backlighting
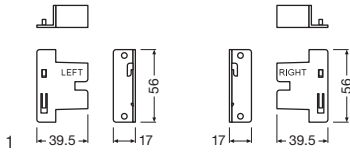
Product name	GTIN (EAN)	h [mm]	l [mm]	b [mm]		No.
BX-DS-MB	4008321872173	17	39.5	56	150	1

Product features
— Mounting brackets for BackLED® DS Plus mounting profile
— Shipping unit comprises equal quantity of left and right brackets

Product benefits
— Quick and simple snap-in fixing of the mounting profiles, no tools required
— Robust and corrosion-proof polycarbonate brackets

Areas of application
— Signage and illuminated advertising
— Backlighting of double-sided light boxes and pylons
— Permanent outdoor use in enclosed light boxes

Equipment/Accessories
— Suitable for BackLED® DS Plus
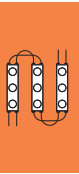
Control systems for Flex and signage modules

The OSRAM dynamic control system lets you create any possible comfortable ambiance whether you are working, meeting or relaxing. OSRAM offers several options to control the light in small and large projects – cabled and wireless.

Large projects (up to 255 light points)

Shopping mall

For large projects, we recommend solutions based on the DALI PROFESSIONAL Controller in combination with OTi DALI 1-4 CH and OTi DALI Tunable White. Manage the color change and tune the color temperature using the DALI PRO Control app.

DALI PRO CONT-4 controller   OTi DALI 80/220-240/24 1-4 CH   BackLED® Plus G15 RGBW

Medium-sized projects (up to 100 light points)

Hotel lobby

Our solution based on the OT Bluetooth Low Energy (BLE) minimizes the installation effort with a wireless system. It is intuitive to set up, along with the powerful control base from the app.

The Casambi solution is based on Bluetooth Low Energy, the state-of-the-art wireless technology and the only low-power wireless technology in all modern smartphones, tablets and even smart watches, making it the only mainstream and future-proof low-power radio technology in the world.

www.casambi.com

OT 50/220-240/24

OT Bluetooth Low Energy (BLE)

LINEARlight FLEX® POWER

Small projects (up to 25 light points)

Tunable White office solution

Our solution based on the DIM MCU TW and the OTi DALI TW is very convenient for single rooms with one single point of light control to tune the light temperature and intensity. It is easy to install and delivers a great result, giving you peace of mind.

DALI MCU

OTi DALI 80/220-240/24

LINEARlight FLEX® POWER Tunable White

Flex and Signage: constant-voltage compatibility

System matching instructions:

1. Constant-voltage LED drivers can be 12 V or 24 V.
2. Control the 12 V or 24 V voltage required from the light engine (LED strip/signage module).
3. Estimate the required length for the final installation of the LED strip or signage module.
4. Verify the required power consumption of the light engine* and select the appropriate driver. All drivers in the OPTOTRONIC® range with the "Smart Power Supply" function are designed to compensate for the extra power required during the warm-up of the LED modules up to 20 % of the nominal rated power to avoid flickering or any flux reduction. This intelligent control ensures constant light output for very low temperatures as well as high temperatures.

   Example:
   With 9 meters of LF1200-G3-827-09, a power consumption of 8.9 W/m → 80.1 W in 9 meters. The OPTOTRONIC® with "Smart Power Supply" will compensate for the extra 15 % power required during the light-on phase.

Connect the LED strips with proper connectors or solder cables.
Important:
Be aware of electrostatic discharge (ESD) and wear ESD protection.
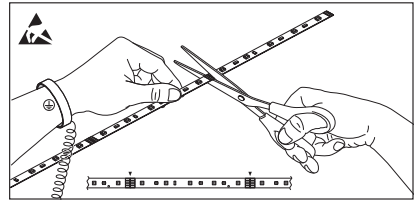
5. Connect the light engine to the drivers at 24 V (+) and 0 V (-).

* All values indicated on the datasheet (listed under each product on our website) refer to an ambient temperature of 20 °C. The power consumption of the light engine at a lower temperature is higher and has to be evaluated.
Contact flex-support@osram.com or signage-support@osram.com.

Other possible system applications:

or
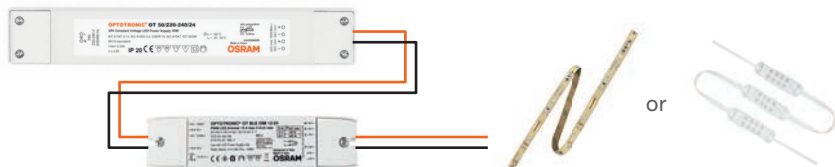
Driver compatibility list – Constant voltage

LINEARlight FLEX® DIFFUSE

Matching @ module T$_p$ rated — Single module

Module type	0 m 0.25	0.5	0.75	1 m 0.25	0.5	0.75	2 m 0.25	0.5	0.75	3 m 0.25	0.5	0.75	4 m 0.25	0.5	0.75	5 m 0.25	0.5	0.75
LFD800T/LFD600S-G1-8xx-06		OT 6/220-240/24																
LFD800T/LFD600S-G1-8xx-06	OT 20/220-240/24																	
LFD800T/LFD600S-G1-8xx-06	OT 30/220-240/24																	
LFD800T/LFD600S-G1-8xx-06	OT 50/220-240/24																	
LFD800T/LFD600S-G1-8xx-06	OT 50/220-240/24 P																	
LFD800T/LFD600S-G1-8xx-06	OT 75/220-240/24																	
LFD800T/LFD600S-G1-8xx-06	OT EASY 80/220-240/24 P																	
LFD800T/LFD600S-G1-8xx-06	OT 80/220-240/24 P / OT 80/220-240/24 DIM P																	
LFD800T/LFD600S-G1-8xx-06	OT 120/220-240/24 P / OT 120/220-240/24 DIM P																	
LFD800T/LFD600S-G1-8xx-06	OT 240/220-240/24 P / OT 240/220-240/24 DIM P																	
LFD800T/LFD600S-G1-8xx-06				OTi DALI 50/220-240-24														
LFD800T/LFD600S-G1-8xx-06												OTi DALI 80/220-240-24					
LFD800T/LFD600S-G1-8xx-06													OTi DALI 160/220-240-24				

Matching @ module T$_p$ rated — Single module

Module type	0 m 0.25	0.5	0.75	1 m 0.25	0.5	0.75	2 m 0.25	0.5	0.75	3 m 0.25	0.5	0.75	4 m 0.25	0.5	0.75	5 m 0.25	0.5	0.75
LFD400T/S-G1-8xx-06		OT 6/220-240/24																
LFD400MT/MS-G1-xx-06		OT 6/220-240/24																
LFD400T/S-G1-8xx-06	OT 20/220-240/2																	
LFD400MT/MS-G1-xx-06	OT 20/220-240/24																	
LFD400T/S-G1-8xx-06	OT 30/220-240/24																	
LFD400MT/MS-G1-xx-06	OT 30/220-240/24																	
LFD400T/S-G1-8xx-06	OT 50/220-240/24 / OT 50/220-240/24 P																	
LFD400MT/MS-G1-xx-06	OT 50/220-240/24 / OT 50/220-240/24 P																	
LFD400T/S-G1-8xx-06	OT 75/220…240/24 / OT 75/220…240/24 E																	
LFD400MT/MS-G1-xx-06	OT 75/220…240/24 / OT 75/220…240/24 E																	
LFD400T/S-G1-8xx-06	OT 80/220-240/24 P / OT 80/220-240/24 DIM P																	
LFD400MT/MS-G1-xx-06	OT 80/220-240/24 P / OT 80/220-240/24 DIM P																	
LFD400T/S-G1-8xx-06	OT 120/220-240/24 P / OT 120/220-240/24 DIM P																	
LFD400MT/MS-G1-xx-06	OT 120/220-240/24 P / OT 120/220-240/24 DIM P																	
LFD400T/S-G1-8xx-06	OT 240/220-240/24 P / OT 240/220-240/24 DIM P																	
LFD400MT/MS-G1-xx-06	OT 240/220-240/24 P / OT 240/220-240/24 DIM P																	
LFD400T/S-G1-8xx-06										OTi DALI 50/220-240-2								
LFD400MT/MS-G1-xx-06				OTi DALI 50/220-240-24														
LFD400T/S-G1-8xx-06														OTi DALI 80/220-240-24				
LFD400MT/MS-G1-xx-06									OTi DALI 80/220-240-24									
LFD400T/S-G1-8xx-06											OTi DALI 160/220-240-24							
LFD400MT/MS-G1-xx-06											OTi DALI 160/220-240-24							

LINEARlight FLEX® POWER

Matching @ module T$_p$ rated / Module type	Single module
	0 m – 8 m (0.25 / 0.5 / 0.75)
LF1200-G3-AAxxx-09	OT 6/220-240/24
LF1200-G3-AAxxx-09	OT 20/220-240/24
LF1200-G3-AAxxx-09	OT 30/220-240/24
LF1200-G3-AAxxx-09	OT 50/220-240/24 / OT 50/220-240/24 P
LF1200-G3-AAxxx-09	OT 75/220…240/24 / OT 75/220…240/24 E
LF1200-G3-AAxxx-09	OT 80/220-240/24 P / OT 80/220-240/24 DIM P
LF1200-G3-AAxxx-09	OT 120/220-240/24 P / OT 120/220-240/24 DIM P
LF1200-G3-AAxxx-09	OT 240/220-240/24 P / OT 240/220-240/24 DIM P
LF1200-G3-AAxxx-09	OTi DALI 50/220-240-24
LF1200-G3-AAxxx-09	OTi DALI 80/220-240-24
LF1200-G3-AAxxx-09	OTi DALI 160/220-240-24

Matching @ module T$_p$ rated / Module type	Single module
	0 m – 4 m (0.25 / 0.5 / 0.75)
LF2000-G3-AAxxx-04	OT 6/220-240/24
LF2000-G3-AAxxx-04	OT 20/220-240/24
LF2000-G3-AAxxx-04	OT 30/220-240/24
LF2000-G3-AAxxx-04	OT 50/220-240/24 / OT 50/220-240/24 P
LF2000-G3-AAxxx-04	OT 75/220-240/24 / OT 75/220-240/24 E
LF2000-G3-AAxxx-04	OT 80/220-240/24 P / OT 80/220-240/24 DIM P
LF2000-G3-AAxxx-04	OT 120/220-240/24 P / OT 120/220-240/24 DIM P
LF2000-G3-AAxxx-04	OT 240/220-240/24 P / OT 240/220-240/24 DIM P
LF2000-G3-AAxxx-04	OTi DALI 50/220-240-24
LF2000-G3-AAxxx-04	OTi DALI 80/220-240-24
LF2000-G3-AAxxx-04	OTi DALI 160/220-240-24

Matching @ module T$_p$ rated / Module type	Single module
	0 m – 2 m (0.25 / 0.5 / 0.75)
LF3000-G3-AAxxx-03	OT 6/220-240/24
LF3000-G3-AAxxx-03	OT 20/220-240/24
LF3000-G3-AAxxx-03	OT 30/220-240/24
LF3000-G3-AAxxx-03	OT 50/220-240/24 / OT 50/220-240/24 P
LF3000-G3-AAxxx-03	OT 75/220-240/24 / OT 75/220-240/24 E
LF3000-G3-AAxxx-03	OT 80/220-240/24 P / OT 80/220-240/24 DIM P
LF3000-G3-AAxxx-03	OT 120/220-240/24 P / OT 120/220-240/24 DIM P
LF3000-G3-AAxxx-03	OT 240/220-240/24 P / OT 240/220-240/24 DIM P
LF3000-G3-AAxxx-03	OTi DALI 50/220-240-24
LF3000-G3-AAxxx-03	OTi DALI 80/220-240-24
LF3000-G3-AAxxx-03	OTi DALI 160/220-240-24

LINEARlight FLEX® POWER

Matching @ module T_p rated	Single module
Module type	0 m … 1 m … 2 m (0.25 / 0.5 / 0.75)
LF4000-G3-8xx-03	OT 6/220-240/24
LF4000-G3-8xx-03	OT 20/220-240/24
LF4000-G3-8xx-03	OT 30/220-240/24
LF4000-G3-8xx-03	OT 50/220-240/24 / OT 50/220-240/24 P
LF4000-G3-8xx-03	OT 75/220…240/24 / OT 75/220…240/24 E
LF4000-G3-8xx-03	OT 80/220-240/24 P / OT 80/220-240/24 DIM P
LF4000-G3-8xx-03	OT 120/220-240/24 P / OT 120/220-240/24 DIM P
LF4000-G3-8xx-03	OT 240/220-240/24 P / OT 240/220-240/24 DIM P
LF4000-G3-8xx-03	OTi DALI 50/220-240-24
LF4000-G3-8xx-03	OTi DALI 80/220-240-24
LF4000-G3-8xx-03	OTi DALI 160/220-240-24

LINEARlight FLEX® Tunable White

Matching @ module T_p rated	Single module
Module type	0 m … 8 m (0.25 / 0.5 / 0.75)
LF1200TW-G3-827865-09	OTi DALI 50/220-240/24 TW
LF1200TW-G3-827865-09	OTi DALI 80/220-240/24 TW
LF1200TW-G3-827865-09	OTi DALI 160/220-240/24 TW

Matching @ module T_p rated	Single module
Module type	0 m … 4 m (0.25 / 0.5 / 0.75)
LF2000TW-G3-827865-04	OTi DALI 50/220-240/24 TW
LF2000TW-G3-827865-04	OTi DALI 80/220-240/24 TW
LF2000TW-G3-827865-04	OTi DALI 160/220-240/24 TW

Matching @ module T_p rated	Single module
Module type	0 m … 2 m (0.25 / 0.5 / 0.75)
LF3000TW-G3-827865-03	OTi DALI 50/220-240/24 TW
LF3000TW-G3-827865-03	OTi DALI 80/220-240/24 TW
LF3000TW-G3-827865-03	OTi DALI 80/220-240/24 TW

Matching @ module T_p rated	Single module
Module type	0 m … 1 m (0.25 / 0.5 / 0.75)
LF4000TW-G3-837865-02	OTi DALI 50/220-240/24 TW
LF4000TW-G3-837865-02	OTi DALI 80/220-240/24 TW
LF4000TW-G3-837865-02	OTi DALI 160/220-240/24 TW

LINEARlight FLEX® Protect POWER

Matching @ module T$_p$ rated — Single module

Module type	0m (0.25/0.5/0.75)	1m	2m	3m	4m	5m	6m	7m	8m
LFP800-G3-8xx-09	OT 6/220-240/24								
LFP800-G3-8xx-09	OT 20/220-240/24								
LFP800-G3-8xx-09	OT 30/220-240/24								
LFP800-G3-8xx-09	OT 50/220-240/24 / OT 50/220-240/24 P								
LFP800-G3-8xx-09	OT 75/220…240/24 / OT 75/220…240/24 E								
LFP800-G3-8xx-09	OT 80/220-240/24 P / OT 80/220-240/24 DIM P								
LFP800-G3-8xx-09	OT 120/220-240/24 P / OT 120/220-240/24 DIM P								
LFP800-G3-8xx-09	OT 240/220-240/24 P / OT 240/220-240/24 DIM P								
LFP800-G3-8xx-09	OTi DALI 50/220-240-24								
LFP800-G3-8xx-09	OTi DALI 80/220-240-24								
LFP800-G3-8xx-09	OTi DALI 160/220-240-24								

Matching @ module T$_p$ rated — Single module

Module type	0m (0.25/0.5/0.75)	1m	2m	3m	4m	5m	6m	7m	8m
LFP1200-G3-AAxxx-09	OT 6/220-240/24								
LFP1200-G3-AAxxx-09	OT 20/220-240/24								
LFP1200-G3-AAxxx-09	OT 30/220-240/24								
LFP1200-G3-AAxxx-09	OT 50/220-240/24 / OT 50/220-240/24 P								
LFP1200-G3-AAxxx-09	OT 75/220…240/24 / OT 75/220…240/24 E								
LFP1200-G3-AAxxx-09	OT 80/220-240/24 P / OT 80/220-240/24 DIM P								
LFP1200-G3-AAxxx-09	OT 120/220-240/24 P / OT 120/220-240/24 DIM P								
LFP1200-G3-AAxxx-09	OT 240/220-240/24 P / OT 240/220-240/24 DIM P								
LFP1200-G3-AAxxx-09	OTi DALI 50/220-240-24								
LFP1200-G3-AAxxx-09	OTi DALI 80/220-240-24								
LFP1200-G3-AAxxx-09	OTi DALI 160/220-240-24								

Matching @ module T$_p$ rated — Single module

Module type	0m (0.25/0.5/0.75)	1m	2m	3m	4m
LFP2000-G3-AAxxx-04	OT 6/220-240/24				
LFP2000-G3-AAxxx-04	OT 20/220-240/24				
LFP2000-G3-AAxxx-04	OT 30/220-240/24				
LFP2000-G3-AAxxx-04	OT 50/220-240/24 / OT 50/220-240/24 P				
LFP2000-G3-AAxxx-04	OT 75/220-240/24 / OT 75/220-240/24 E				
LFP2000-G3-AAxxx-04	OT 80/220-240/24 P / OT 80/220-240/24 DIM P				
LFP2000-G3-AAxxx-04	OT 120/220-240/24 P / OT 120/220-240/24 DIM P				
LFP2000-G3-AAxxx-04	OT 240/220-240/24 P / OT 240/220-240/24 DIM P				
LFP2000-G3-AAxxx-04	OTi DALI 50/220-240-24				
LFP2000-G3-AAxxx-04	OTi DALI 80/220-240-24				
LFP2000-G3-AAxxx-04	OTi DALI 160/220-240-24				

LINEARlight FLEX® Protect POWER

Module type	Single module — @ module T_p rated
LFP3000-G3-AAxxx-03	OT 6/220-240/24
LFP3000-G3-AAxxx-03	OT 20/220-240/24
LFP3000-G3-AAxxx-03	OT 30/220-240/24
LFP3000-G3-AAxxx-03	OT 50/220-240/24 / OT 50/220-240/24 P
LFP3000-G3-AAxxx-03	OT 75/220…240/24 / OT 75/220…240/24 E
LFP3000-G3-AAxxx-03	OT 80/220-240/24 P / OT 80/220-240/24 DIM P
LFP3000-G3-AAxxx-03	OT 120/220-240/24 P / OT 120/220-240/24 DIM P
LFP3000-G3-AAxxx-03	OT 240/220-240/24 P / OT 240/220-240/24 DIM P
LFP3000-G3-AAxxx-03	OTi DALI 50/220-240-24
LFP3000-G3-AAxxx-03	OTi DALI 80/220-240-24
LFP3000-G3-AAxxx-03	OTi DALI 160/220-240-24

Matching scale: 0 m (0.25, 0.5, 0.75), 1 m (0.25, 0.5, 0.75), 2 m (0.25, 0.5, 0.75)

LINEARlight FLEX® ShortPitch

Module type	Single module — @ module T_p rated
LF800S-G3-8xx-10	OT 6/220-240/24
LF800S-G3-8xx-10	OT 20/220-240/24
LF800S-G3-8xx-10	OT 30/220-240/24
LF800S-G3-8xx-10	OT 50/220-240/24 / OT 50/220-240/24 P
LF800S-G3-8xx-10	OT 75/220…240/24 / OT 75/220…240/24 E
LF800S-G3-8xx-10	OT 80/220-240/24 P / OT 80/220-240/24 DIM P
LF800S-G3-8xx-10	OT 120/220-240/24 P / OT 120/220-240/24 DIM P
LF800S-G3-8xx-10	OT 240/220-240/24 P / OT 240/220-240/24 DIM P
LF800S-G3-8xx-10	OTi DALI 50/220-240-24
LF800S-G3-8xx-10	OTi DALI 80/220-240-24
LF800S-G3-8xx-10	OTi DALI 160/220-240-24

Matching scale: 0 m, 1 m, 2 m, 3 m, 4 m, 5 m, 6 m, 7 m, 8 m, 9 m, 10 m (each 0.25, 0.5, 0.75)

LINEARlight Colormix Flex (Protect)

Matching @ module T_p rated	single module																	
	0 m			1 m			2 m			3 m			4 m			5 m		
Module type	0.25	0.5	0.75	0.25	0.5	0.75	0.25	0.5	0.75	0.25	0.5	0.75	0.25	0.5	0.75	0.25	0.5	0.75
LF200C-G3 / LFP200C-G3													OTi DALI 50/220-240-24					
LF200C-G3 / LFP200C-G3																OTi DALI 80/220-240-24		
LF200C-G3 / LFP200C-G3																OTi DALI 160/220-240-24		

Matching @ module T_p rated	single module											
	0 m			1 m			2 m			3 m		
Module type	0.25	0.5	0.75	0.25	0.5	0.75	0.25	0.5	0.75	0.25	0.5	0.75
LF05CA2-RGB3 / LF05CA-RGB-P				OTi DALI 50/220-240-24								
LF05CA2-RGB3 / LF05CA-RGB-P							OTi DALI 80/220-240-24					
LF05CA2-RGB3 / LF05CA-RGB-P										OTi DALI 160/220-240-24		

LINEARlight FLEX® (Protect) ADVANCED

Matching @ module T$_p$ rated — Single module

Module type	Driver (matching length across 0–9 m)
LF06A-W3F-830-P	OT 6/220-240/24
LF06A-W3F-830-P	OT 20/220-240/24
LF06A-W3F-830-P	OT 30/220-240/24
LF06A-W3F-830-P	OT 50/220-240/24 / OT 50/220-240/24 P
LF06A-W3F-830-P	OT 75/220…240/24 / OT 75/220…240/24 E
LF06A-W3F-830-P	OT 80/220-240/24 P / OT 80/220-240/24 DIM P
LF06A-W3F-830-P	OT 120/220-240/24 P / OT 120/220-240/24 DIM P
LF06A-W3F-830-P	OT 240/220-240/24 P / OT 240/220-240/24 DIM P
LF06A-W3F-830-P	OTi DALI 50/220-240-24
LF06A-W3F-830-P	OTi DALI 80/220-240-24
LF06A-W3F-830-P	OTi DALI 160/220-240-24

Matching @ module T$_p$ rated — Single module

Module type	Driver (matching length across 0–9 m)
LF06A-W3F-8xx	OT 6/220-240/24
LF06A-W3F-8xx	OT 20/220-240/24
LF06A-W3F-8xx	OT 30/220-240/24
LF06A-W3F-8xx	OT 50/220-240/24 / OT 50/220-240/24 P
LF06A-W3F-8xx	OT 75/220…240/24 / OT 75/220…240/24 E
LF06A-W3F-8xx	OT 80/220-240/24 P / OT 80/220-240/24 DIM P
LF06A-W3F-8xx	OT 120/220-240/24 P / OT 120/220-240/24 DIM P
LF06A-W3F-8xx	OT 240/220-240/24 P / OT 240/220-240/24 DIM P
LF06A-W3F-8xx	OTi DALI 50/220-240-24
LF06A-W3F-8xx	OTi DALI 80/220-240-24
LF06A-W3F-8xx	OTi DALI 160/220-240-24

Matching @ module T$_p$ rated — Single module

Module type	Driver (matching length across 0–9 m)
LF05A2-xx	OT 6/220-240/24
LF05A2-xx	OT 20/220-240/24
LF05A2-xx	OT 30/220-240/24
LF05A2-xx	OT 50/220-240/24 / OT 50/220-240/24 P
LF05A2-xx	OT 75/220…240/24 / OT 75/220…240/24 E
LF05A2-xx	OT 80/220-240/24 P / OT 80/220-240/24 DIM P
LF05A2-xx	OT 120/220-240/24 P / OT 120/220-240/24 DIM P
LF05A2-xx	OT 240/220-240/24 P / OT 240/220-240/24 DIM P
LF05A2-xx	OTi DALI 50/220-240-24
LF05A2-xx	OTi DALI 80/220-240-24
LF05A2-xx	OTi DALI 160/220-240-24

LINEARlight FLEX® Protect ECO

Matching @ module T_p rated — Single module (0 m – 9 m, subdivisions 0.25 / 0.5 / 0.75)

Module type	Driver	Approx. range
LF06E-W3F-830-P	OT 6/220-240/24	~0.5 – 2.5 m
LF06E-W3F-830-P	OT 20/220-240/24	0 – ~8.5 m
LF06E-W3F-830-P	OT 30/220-240/24	0 – 9 m
LF06E-W3F-830-P	OT 50/220-240/24 / OT 50/220-240/24 P	0 – 9 m
LF06E-W3F-830-P	OT 75/220…240/24 / OT 75/220…240/24 E	0 – 9 m
LF06E-W3F-830-P	OT 80/220-240/24 P / OT 80/220-240/24 DIM P	0 – 9 m
LF06E-W3F-830-P	OT 120/220-240/24 P / OT 120/220-240/24 DIM P	0 – 9 m
LF06E-W3F-830-P	OT 240/220-240/24 P / OT 240/220-240/24 DIM P	0 – 9 m
LF06E-W3F-830-P	OTi DALI 50/220-240-24	~6.75 – 9 m
LF06E-W3F-830-P	OTi DALI 80/220-240-24	~7.5 – 9 m
LF06E-W3F-830-P	OTi DALI 160/220-240-24	~7.5 – 9 m

Matching @ module T_p rated — Single module (0 m – 9 m)

Module type	Driver	Approx. range
LF200-G3-827-10	OT 6/220-240/24	~0.5 – 2.5 m
LF200-G3-827-10	OT 20/220-240/24	0 – 9 m
LF200-G3-827-10	OT 30/220-240/24	0 – 9 m
LF200-G3-827-10	OT 50/220-240/24 / OT 50/220-240/24 P	0 – 9 m
LF200-G3-827-10	OT 75/220…240/24 / OT 75/220…240/24 E	0 – 9 m
LF200-G3-827-10	OT 80/220-240/24 P / OT 80/220-240/24 DIM P	0 – 9 m
LF200-G3-827-10	OT 120/220-240/24 P / OT 120/220-240/24 DIM P	0 – 9 m
LF200-G3-827-10	OT 240/220-240/24 P / OT 240/220-240/24 DIM P	0 – 9 m
LF200-G3-827-10	OTi DALI 50/220-240-24	~7 – 9 m
LF200-G3-827-10	OTi DALI 80/220-240-24	~7.5 – 9 m
LF200-G3-827-10	OTi DALI 160/220-240-24	~7.5 – 9 m

LINEARlight FLEX® Monochrome

Matching @ module T_p rated — Single module (0 m – 9 m)

Module type	Driver	Approx. range
LF200M-G3-YE	OT 6/220-240/24	~0 – 1.5 m
LF200M-G3-YE	OT 20/220-240/24	0 – ~2.5 m
LF200M-G3-YE	OT 30/220-240/24	0 – ~3.75 m
LF200M-G3-YE	OT 50/220-240/24 / OT 50/220-240/24 P	0 – ~7.5 m
LF200M-G3-YE	OT 75/220…240/24 / OT 75/220…240/24 E	0 – 9 m
LF200M-G3-YE	OT 80/220-240/24 P / OT 80/220-240/24 DIM P	0 – 9 m
LF200M-G3-YE	OT 120/220-240/24 P / OT 120/220-240/24 DIM P	0 – 9 m
LF200M-G3-YE	OT 240/220-240/24 P / OT 240/220-240/24 DIM P	0 – 9 m
LF200M-G3-YE	OTi DALI 50/220-240-24	~3.75 – 9 m
LF200M-G3-YE	OTi DALI 80/220-240-24	~5.25 – 9 m
LF200M-G3-YE	OTi DALI 160/220-240-24	~7 – 9 m

Case study

Spectacular LED light ceiling design at the Rostocker Hof creates a welcoming retail environment with homogeneous illumination
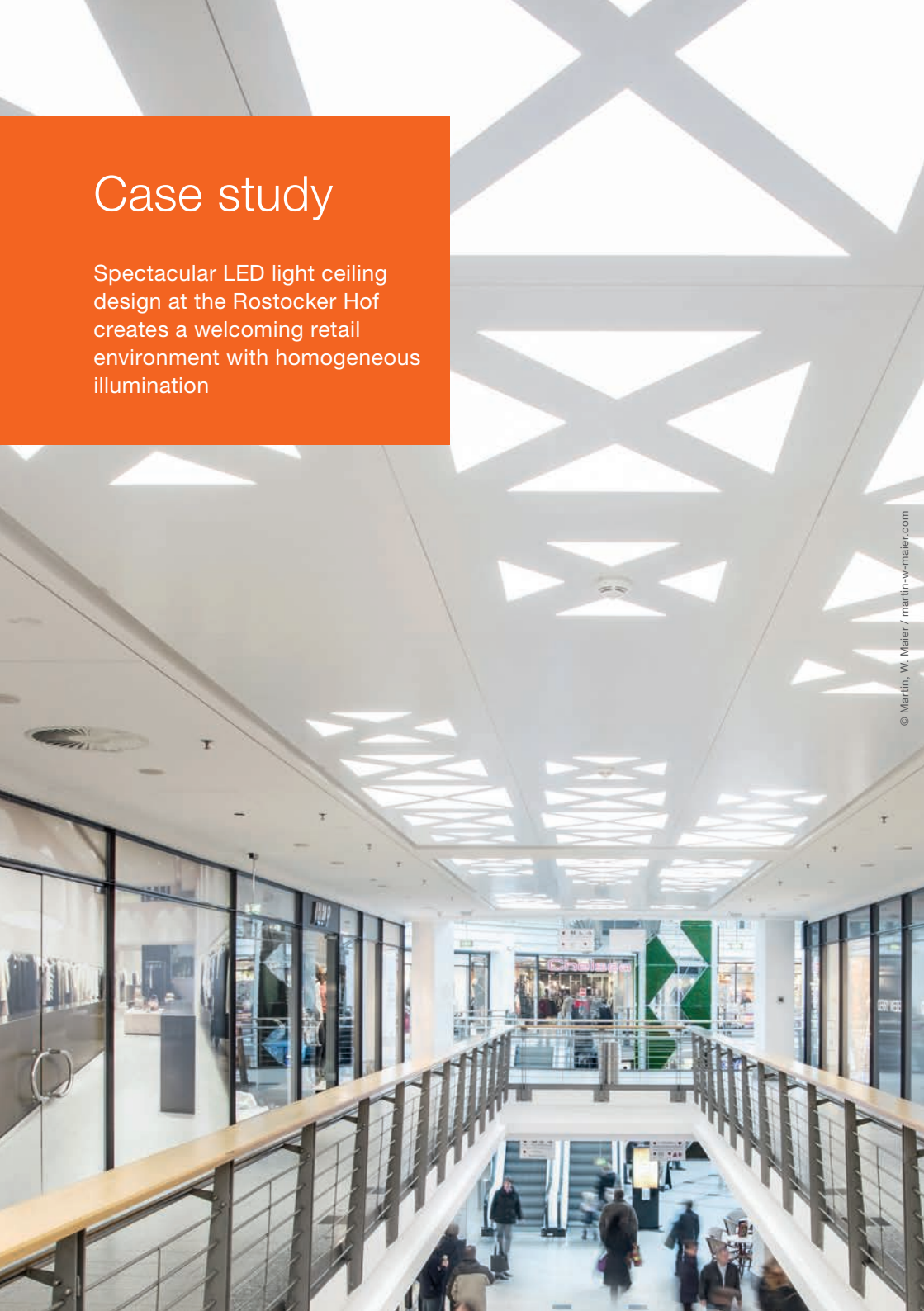
To mark its 20th anniversary, the Rostocker Hof shopping mall was redesigned by Mark Bendow Interior Environments, to enhance the entrance area and create a friendly atmosphere. The lighting design studio Konzeptlicht developed a spectacular 250-square-meter light ceiling system from specially designed panel luminaires, the difference was comparable to night and day. The BackLED® strip lighting and OPTOTRONIC® LED drivers were chosen to add the perfect light sources and control gears.

The light ceiling system from Konzeptlicht Lighting Solutions has a modular design and consists of light fields in four different sizes, a dummy cover, an equipment panel and a frame structure.

The innovative LED backlighting system with BackLED® lighting strips is characterized by particularly homogeneous illumination and uniform color effects while ensuring high module efficiency and economy. Another decisive factor for backlighting is the flexible adjustment of LED strips to objects with different shapes, sizes and materials. To adapt perfectly to the specified shape, the LEDs in the BackLED® family are attached on movable chains at equal intervals.

The constant-voltage OPTOTRONIC® LED drivers for 24 V LED modules for indoor and outdoor use are perfectly matched to the BackLED® family to achieve maximum efficiency, reliability and economy. Thanks to their robust design, they are also extremely durable, making them ideal for use in rooms with very high ceilings or open spaces such as the Rostocker Hof shopping mall.
www.osram.com/rostocker-hof

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中庭酒吧
ATRIUM BAR

LED drivers

OPTOTRONIC® LED drivers from OSRAM – reliable and interoperable systems for energy-efficient lighting design

Versatile LED drivers for different project needs

With a wide range of LED drivers, OSRAM provides you with individual LED solutions for your multifaceted professional and semiprofessional projects. All OSRAM LED drivers are known for their high performance and efficiency, giving you tremendous flexibility for the design of LED luminaires. No matter whether the job involves indoor or outdoor settings, round or linear luminaires, general or accent lighting – we can help you find the right OSRAM LED driver. The following chapter informs you about:

— Perfect combinations – systems with matching LED drivers and LED modules
— High quality and guarantee (please visit www.osram.com/system-guarantee for more details) – any LED driver that has failed because of a material or manufacturer's fault will be refunded
— OSRAM DALI technology (DALI-2, Constant Light Output (CLO), soft switch-off, Emergency Lighting (EL), Tunable White, Monitoring Data etc.), software and programming
— Design freedom and innovative housing designs
— Product families
  Features and segmentation of OSRAM LED driver families
  – Constant current, linear shape, indoor application
  – Constant current, compact shape, indoor application
  – Constant current, outdoor application
  – Constant voltage, indoor and outdoor application
— Useful installation and operating instructions (number of ECGs per circuit breaker, permitted number of switching cycles, lifetime of LED drivers and permitted temperatures etc.)
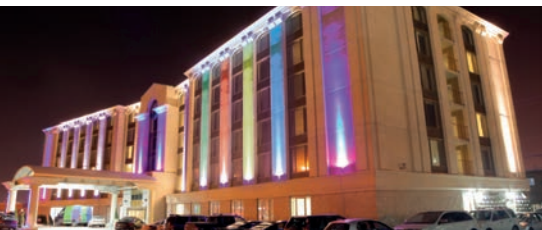
A perfect combination

Expect more than just components. Expect a perfectly matched system. As one of the world's leading suppliers in the lighting sector, OSRAM provides you with perfectly matched components: innovative LED drivers and LED modules.

Your benefits

— LED drivers and modules
   from a single source
— Maximum reliability in system operation
— Only one point of contact in all matters
   relating to lighting

Research and development

Providing today what tomorrow needs. Continuous research and development on all OSRAM products promises innovative and open systems with additional user benefits to fulfill the needs of future lighting systems.

Your benefits

— Compliance with current regulations
   and, in certain cases, conformity with
   planned regulations
— High energy efficiency in lighting
   solutions
— The use of standard protocols
   enhanced by globally unique features

— DALI-2 logo: High interoperability with
   DALI control devices and sensors from
   various manufacturers
— OSRAM's proven quality, technology
   and guarantee
— High quality of light
   (low light modulation, CLO)

Excellent experience with 1 billion installed ECGs

Only those supplying maximum quality earn your trust. With up to 100,000 hours at a maximum failure rate of 10 %, OSRAM offers an excellent lifetime performance in the market. Thanks to this excellent level of reliability, OSRAM ECGs are not only the choice of leading luminaire manufacturers but also of well-known major users across the world.

Due to their high performance, an increasing number of OPTOTRONIC® LED drivers are also being used in extreme temperature ranges and harsh environments.

Guarantee for up to 5 years*

Hundreds of thousands of customers place their trust in us, year after year. In return, we provide guarantees lasting many years. OSRAM LED drivers deliver maximum quality, enabling us to provide a full 3-year or 5-year guarantee depending on the respective LED driver family or LED modules and LMS components.

OSRAM's guarantees give you the level of safety you expect over a long period of time. And this is something you can rely on.

OSRAM's guarantees

System quality from a single source – the OSRAM service concept. You, as our customer, benefit from this passion. You can rely on our system guarantees for LED drivers, LED light sources (light engines and LED modules) and LMS components.

This means you only have a single contact person for your servicing needs. In the event of a defect, OSRAM will replace an item, free of charge, or issue a credit note for every product that demonstrably fails because of a material or manufacturing defect within the relevant guarantee period.

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* For conditions and details, go to www.osram.com/system-guarantee; see also page 3.05

3 Year

OSRAM Guarantee*

5 Year

OSRAM Guarantee*

LED drivers and LED light sources
(light engines and LED modules)
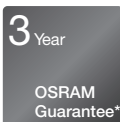
LED drivers and LED light sources
(light engines and LED modules)

Guarantee Level 1
OSRAM guarantee

Guarantee Level 2
OSRAM guarantee

OSRAM offers a full 3-year guarantee on products from the series:

OSRAM offers a full 5-year guarantee on products from the series:

Light engines and LED modules
VALUE Flex®
OPTOTRONIC® Semiprofessional
OTe …PC, ELEMENT, OT 9/200-240/350 DIM, OT 9/220-240/350,
OT 18/220-240/700DIM, OT 90/220-240/4X400, OTe 120

Light engines and LED modules
LINEARlight FLEX®
PrevaLED® COIN
BoxLED®, BackLED®
PrevaLED® Linear, PrevaLED® Area, PrevaLED® Bar, PrevaLED®
Core, PrevaLED® Cube, PrevaLED® Flat
OPTOTRONIC® Professional
OTi DALI …, OTi, OT FIT…, OT …P.. (except OT … PC),
OT …4DIMLT2 E, OT …/120-277/… 2DIMLT P, OT …/220-277/…P5,
OT 15/220-240/12, OT 18/220-240/450, OT 20/220-240/24, OT
50/220-240/24, OT 75/220-240/24, OT 75/220-240/24 E,
OTi DALI 50/24, OTi DALI 80/24, OTi DALI 160/24

The guarantee starts with commissioning of the corresponding
OSRAM LED drivers and/or OSRAM LED light sources and ends no
later than 42 months after the OSRAM product was manufactured.

The guarantee starts with commissioning of the corresponding
OSRAM LED drivers and/or OSRAM LED light sources as well as
OSRAM LMS components and ends no later than 66 months after
the OSRAM product was manufactured.

Registration is <u>not</u> required.
For <u>each</u> product from the above-specified series that fails due to a
material or manufacturing defect, a replacement or credit note will
be provided as part of the guarantee service.

Registration is <u>not</u> required.
For <u>each</u> product from the above-specified series that fails due to a
material or manufacturing defect, a replacement or credit note will
be provided as part of the guarantee service.

The full conditions and details of guarantee level 1 can be found on
the Internet at www.osram.com/system-guarantee

The full conditions and details of guarantee level 2 can be found on
the Internet at www.osram.com/system-guarantee

Your benefits

Registration is not required. For
each product from the above-specified
series that fails due to a material or
manufacturing defect, a replacement or
credit note will be provided as part of the
guarantee service*.

*For conditions and details, go to www.osram.com/system-guarantee

Intelligent DALI LED drivers from OSRAM

OSRAM has been developing DALI drivers for many years and was one of the first manufacturers to achieve the new DALI-2 certificate granted for DALI LED drivers. In numerous major DALI installations with over 10,000 devices, our DALI components are operating reliably. DALI is a well-established light control interface in the lighting industry, which covers all important light control functions and ensures high reliability.

Variety of DALI control options

Intelligent DALI drivers from OSRAM support different light control functions, from dimming of single luminaires to grouping of several luminaires to lighting scene setting. In addition, status information of the light source and the driver can be queried by the controller and transmitted to a light control system or to a building management system. Besides drivers and controllers, OSRAM also provides also a DALI analysis tool (DALI Wizard software plus DALI magic) to ensure easy commissioning in the field. In addition, OSRAM offers the DALI programming tool Tuner4TRONIC® for simple configuration of drivers in the production line.

OSRAM offers a complete set of DALI products, starting with drivers, followed by input devices (e.g. DALI dimmers) and sensors, up to control units, which underlines the high DALI system competence of OSRAM.

DALI Version-1

Prior to the introduction of the DALI-2 certification process by the Digital Illumination Interface Alliance (DiiA), DALI conformity was based on a self-declaration by the manufacturer, based on the DALI standards IEC 62386-101: Ed1 and IEC 62386-102: Ed1 (DALI Version-1). Due to the extensive experience of OSRAM regarding DALI-based light control systems, the device itself shows a high interoperability and reliability. This has been confirmed by many major projects.

DALI drivers, which are compatible with DALI Version-1, support stepless dimming, scene setting, grouping, status queries and addressing of each single luminaire. Up to 64 drivers can be connected to this bidirectional interface. Some sensors can be directly powered by the bus line, which simplifies the installation and cuts costs.

DALI-2

Together with the new DALI standard according to IEC 62386 (Edition 2), a manufacturer-independent certification process has been established by the Digital Illumination Interface Alliance (DiiA). The product certification by the DiiA ensures a significantly improved interoperability between the different manufacturers. With DALI-2, additional functionalities have been introduced compared to the existing

DALI system (Version-1) in the market. Moreover, the backwards compatibility to existing systems has been factored in. Only certified DALI-2 products are allowed to carry the DALI-2 certification mark issued by the DiiA.

With DALI-2, the following additional functionalities have been introduced (e.g.):
— Extended fade times
  (Fade-Time, Fade-Rate)
— Longer serial number and HW identification for improved device recognition
— Queries to identify which DALI functionalities are supported
— Sensors now have a separate address area, therefore all 64 addresses can be used for drivers. In addition, they can also send commands and, therefore, do not need to be queried continuously by the application control. This improves the payload of the DALI bus.

DALI-2-compatible drivers also support light control functions defined in DALI Version-1.

Extended OSRAM-specific add-on functions

Besides the standardized DALI functions, OSRAM devices also support optional add-on functionalities, which bring additional benefits for certain applications. These functions can be activated on demand by the Tuner4TRONIC® software.

Optional add-on dimming functionalities

Easy switching and dimming of up to 20 DALI drivers

In addition to the DALI feature, some OSRAM DALI LED drivers support Touch DIM® operation. With Touch DIM®, standard pushbuttons (suitable for mains power) can be used to switch and dim the lighting and save a desired brightness value. A maximum of up to 20 drivers is supported.

Efficient light control of a single luminaire with sensor

With this feature, LT2 digital sensors (e.g. LS/PD LT2 LI UF) can be directly connected to LED drivers via the LEDset interface without the need of an additional control unit. Dimming and switching as well as set point storage for daylight-dependent regulation can either be done via the sensor-integrated pushbutton or via the Touch DIM® interface of the driver.

Flexible lighting profiles for maximum convenience and security

The Corridor Function available for OSRAM DALI drivers allows configuration of a lighting profile over up to two levels. This defines the extent to which brightness values are retained when a person leaves the room. The brightness values and levels can be modified at any time using Tuner4TRONIC®. A typical area of application is the illumination of stairwells.

Dimming down to extremely low light levels

This feature allows dimming below 1 %, which enables steady dimming down to the final switch-off of the device. This feature is suitable for theaters, movie theaters or other special applications. For LED drivers with pure amplitude dimming, the minimal dimming value in percent is determined by the ratio of minimal output current to rated current.

Smooth continuous dimming down to off

As soon as the device receives a switch-off command by a control interface (e.g. Touch DIM® or DALI), this feature dims the device down to zero nearly logarithmically, and with pre-defined delay times. This function is supposed to simulate the behavior of traditional halogen lamps.

EL

Emergency Light:
optional DC voltage detection

In addition to DALI-compliant functions, such as system failure level (disconnecting the control line), OSRAM DALI LED drivers with this feature offer the automatic detection of DC voltage supply. When DC voltage is detected, a preprogrammed luminous flux level between 0 and 100 % is implemented.

Typically, the factory setting for indoor LED drivers is 15 %. This luminous flux value can be additionally protected from unintentional overwriting by setting a locking bit. The settings can be adjusted via the Tuner4TRONIC® software.

Tunable White

Well-being and good working conditions with Tunable White control

In combination with different white LEDs, this feature enables multi-channel DALI LED drivers (Device Type 8) to change the color temperature and brightness. This makes offering Human Centric Lighting possible, where the color temperature and brightness are adapted to the human circadian rhythm and well-being.

Optional add-on functionalities for light control system and service

Smart Grid

Optimization of the actual energy consumption

Drivers with this feature provide the actual input power consumption of the device. By using these data, it is possible to visualize the current power consumption of the lighting installation in a light management system, without the manual entry of dimming level/power consumption tables for every light point.

Monitoring Data

Data for predictive maintenance of luminaires and energy efficiency optimization

LED drivers with this feature offer additional operation and status information that exceeds what is currently offered by the DALI standard (such as energy consumption, power, operating time, overvoltage or undervoltage etc.). By using these data, it is possible to offer predictive maintenance and an overall better lighting service. Moreover, it makes the light management system intelligent. Monitoring Data is an enhancement of the "Smart Grid" feature. The data can also be visualized in the Tuner4TRONIC® software.

Luminaire info with electronic type label

To make light management systems intelligent in terms of service and predictive maintenance, they need basic information about the connected luminaire (model, power, service life etc.). During production, the luminaire manufacturer can store these data in the LED driver, and the light management system can recall these data in the installation.

Optional add-on functionalities for improved luminaire performance

Fast and simple programming without mains voltage

In combination with OSRAM Tuner4TRONIC® software, LED drivers with NFC technology allow fast and contactless programming without connecting mains voltage during and after the luminaire manufacturing process. In the field optionally with the T4T-F app, which runs on mobile devices with an integrated NFC reader (ISO 15693) e.g. for specific outdoor LED drivers.

Constant Lumen Function for improved maintenance cycles

To ensure the maintenance interval of the system, the light level must be achieved also at the end of the entire lifetime. Due to lumen depreciation of the light source over time, the system usually needs to be overpowered at the beginning, which leads to increased energy cost. This is not necessary thanks to the Constant Lumen Function, as the operating output is adjusted continuously to compensate for the lumen loss.

Improved light quality thanks to analog dimming

This feature allows purely analog dimming down to the minimal dimming value of the device. The analog dimming process achieves lower light modulation (flicker) and therefore better light quality.

Luminaire variety reduction with Tuning Factor

Within limits predefined by the luminaire manufacturer, this feature allows an adjustment of the amount of light in the field or in production. Thus, one luminaire can manage different lumen packages. If the feature is combined with LEDset2, other lumen packages can also be achieved which differ in terms of resistor coding.

LEDset

Simple current setting by resistor

LEDset2 is a multi-vendor LED module interface which allows to set the correct operating current for the LED module by resistor coding, without the necessity to reprogram the constant current LED driver, if an LED module has to be replaced by a newer generation. This ensures optimal efficacy and the right amount of light at all times.

Operating mA Current

Accurate current setting by software

This feature allows to set the operating current of a constant current LED driver with the Tuner4TRONIC® software. Compared to current setting by LEDset2 interface, a higher current accuracy can be achieved, and no resistor is necessary on the LED module, which reduces the effort within the luminaire (insulation, wiring etc.).

Driver Guard

Flexible thermo management, adapted to the luminaire

By default, the internal protection mechanisms of the LED driver are designed for maximum temperature, however, not for those of the luminaire. By means of this feature, you can adjust the temperature derating of the LED driver so that it not only matches the luminaire, but also leads to a higher reliability of the luminaire.

OEM Key

Protection against unintentional access to device settings

This feature enables luminaire manufacturers (OEMs) to safeguard certain predefined setting parameters in the LED driver against unintentional access and unauthorized users via Tuner4TRONIC® software. Drivers and luminaires need to be protected against unintentional access.

Configuration Lock

Intelligent access control management of device settings

This feature is an advancement of OEM Key, which allows controlling the access rights for individual features within the LED driver via Tuner4TRONIC® software and to assign different rights to the luminaire manufacturer, to the service team and to the general user. Assigning user rights also allows offering "light as a service" and still maintaining total control over who may change what within the device or luminaire.

Note: The exact operating modes of the individual additional functions can be found in the technical data sheets and application brochures for the respective devices.

Effective LED lighting for your success – OPTOTRONIC® LED drivers

Whether it's innovative or classic design, constant current or constant voltage, DALI or 1…10 V, indoor or outdoor lighting – we have the LED driver to meet your needs.

The diverse OPTOTRONIC® portfolio from OSRAM has the optimum solution for an extremely broad range of requirements, bringing you energy-saving LED applications with high light quality, long operating life and exceptional reliability.

Fully in line with your requirements: OSRAM OPTOTRONIC® Linear – constant current LED drivers
Our linear LED drivers are perfect for a wide range of luminaires and applications, especially in office, industrial and retail scenarios.

Greater design flexibility for compact luminaires: OSRAM OPTOTRONIC® constant current LED drivers
No compromise on performance, more options and greater flexibility – discover the new miniaturized LED drivers especially for shop and hospitality applications.

Smart efficiency modification: OSRAM OPTOTRONIC® constant voltage LED drivers
LED drivers with an output voltage of 12 V and 24 V are the perfect choice for implementing modular and flexibly scalable LED systems.

High level of functionality: OPTOTRONIC® Outdoor drivers
Particularly efficient and robust LED drivers for luminaires and lighting applications in outdoor areas.

OSRAM Digital Lighting Systems' wide range of products and services helps you give your customers what they want:

Design flexibility
Complete component portfolio, created with maximum compatibility and design freedom in mind, individual design-in support and customer-specific mass production

User friendliness
Simple selection, configuration, installation and use, reliable operations for the product's entire lifespan

Stability
Proven brand quality, long-life, efficient products, optimally coordinated systems

Planning security
Complexity and risk reduction, simple and efficient warehousing

OSRAM guarantee
Three or five years guarantee for our products and systems
(details and general requirements: www.osram.com/system-guarantee)

Details of all OPTOTRONIC®
LED drivers can be found at
www.osram.com/optotronic

OPTOTRONIC® Indoor LED drivers

The perfect choice for your lighting applications
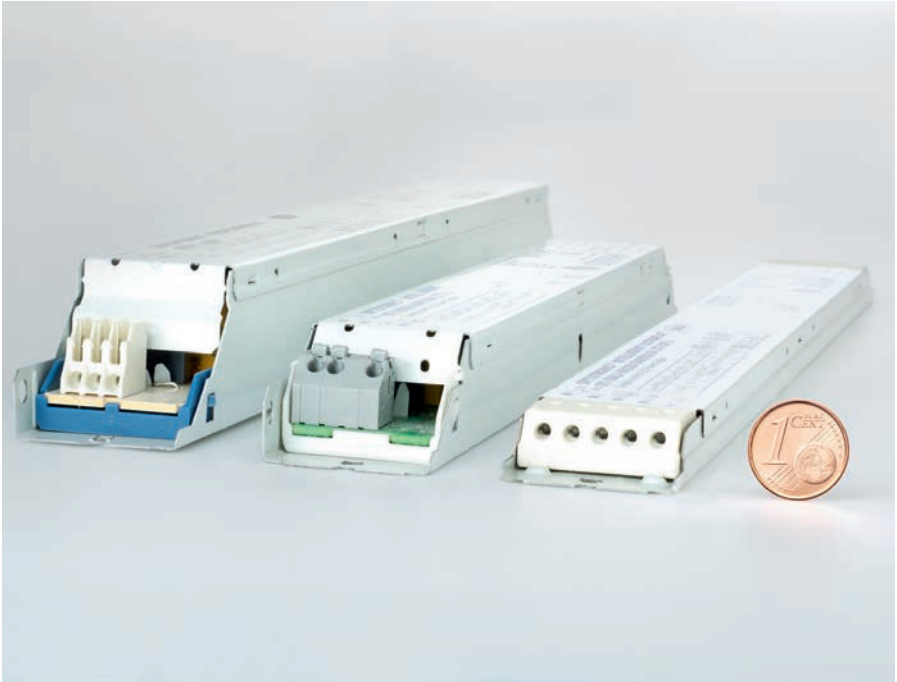
No matter if you are looking for linear office, educational-sector, industry, retail or hospitality lighting solutions, OSRAM offers the perfect choice of drivers. Cutting-edge design for ultra-flat luminaires, innovative service and maintenance functionalities or outstanding lighting quality and long lasting reliability are just some of the portfolio proof points. Dedicated software tools and programming interfaces such as NFC (near-field communication) add further value through higher programming speed.

1. The most important features of OPTOTRONIC® Linear constant current LED drivers:

— Cutting-edge housing design – UltraFlat family (driver and sensor) with only 11 mm housing height – all other drivers with dimensions of 30 x 21 mm
— Extremely long-lasting, highly efficient and brand-new industry (IND) driver family
— Tunable White/Human Centric Lighting (HCL) made easy with the all-new OTi DALI TW (Tunable White) product family
— Intelligent commissioning (all OPTOTRONIC® DALI) and predictive maintenance features (OPTOTRONIC® DALI IND) integrated
— NFC integrated in OPTOTRONIC® DALI as well as FIT drivers for speeding up the OEM production
— Innovative DEXAL™ (DX) technology for direct sensor connection
— Analog dimming available as standard in all OPTOTRONIC® DALI drivers
— All OPTOTRONIC® OTi DALI window drivers are fully programmable by DALI and/or NFC

— SELV and non-isolated versions available for maximal choice of module combinations
— Five OPTOTRONIC® DALI driver families:
  – OPTOTRONIC® Intelligent DALI UF, height: only 11 mm
  – OPTOTRONIC® Intelligent DALI NFC TW L, Tunable White driver
  – OPTOTRONIC® Intelligent DALI NFC IND L, industry driver
  – OPTOTRONIC® Intelligent DX L, DEXAL™ driver with sensor connection
  – OPTOTRONIC® Intelligent DALI L
— Five OPTOTRONIC® ON/OFF driver families:
  – OPTOTRONIC® FIT D IND NFC L, industry window driver with NFC
  – OPTOTRONIC® FIT D NFC L, window driver (NFC)
  – OPTOTRONIC® FIT D LT2 L, window driver (LEDset)
  – OPTOTRONIC® FIT D L with fixed output
  – OPTOTRONIC® FIT CS L G2 with DIP switch (4 currents)

OPTOTRONIC® Intelligent – DEXAL™

The programmable OSRAM OPTOTRONIC® LED driver with DEXAL™ technology (Data Exchange for Advanced Lighting) is a DALI-based intra-luminaire interface that enables bi-directional communications and supply current between the driver and luminaire-integrated components such as intelligent sensors and wireless modules.

This interface allows easy connection to different wireless-based building manage-ment systems. It provides exact luminaire-specific data, including diagnostics, to light management systems. Luminaire manufacturers can design smart luminaires and streamline the configuration process by leveraging DEXAL™ as a standard bi-directional communications interface.

Product benefits
— Versatile DEXAL™ window driver up to 50 W due to flexible output characteristic
— Integrated power supply over DALI Version-1 to power sensors and wireless modules
— Simplified luminaire design for different wireless lighting control systems and sensors
— Extended luminaire/driver data (power, energy, operating hours etc.) for analytics

Product features
— Input voltage: 120…277 V
— Available with an output current range
  of up to 1,400 mA
— Constant lumen function
— Overtemperature protection with
  external NTC
— End-of-life indication

Equipment/accessories
— OT Programmer hardware for
  configuration of DEXAL™ ECGs necessary
— Programmable via OT Programmer
  software

DEXAL™ video:
www.osram.com/dexal

The full DEXAL™ product portfolio is
available on page 3.28

DEXAL™ – Connecting Partners

OSRAM offers a partner program for
products working together with OSRAM
DEXAL™ LED drivers.
Please contact your OSRAM sales
representative for further information.

Works with
OSRAM
DEXAL™

OPTOTRONIC® Linear LED driver portfolio

	Dimmable DALI OPTOTRONIC® Intelligent Window drivers (non-isolated)	Dimmable DALI OPTOTRONIC® Intelligent TW Window drivers (non-isolated)	Dimmable DALI OPTOTRONIC® Intelligent IND Window drivers (non-isolated)
Product families	OTi DALI D UF L OTi DALI D L	OTi DALI NFC TW L	OTi DALI NFC IND L
Dimming			
Comfort dimming	1…100 % analog dimming	1…100 % analog dimming (AM/PWM selectable)	1…100 % analog dimming
Lowest dimming level	1 %	1 %	1 %
DALI DT (device type)	DT6	DT6/DT8 programmable	DT6
Touch DIM®/Touch DIM® Sensor	■	■	■
Corridor function	■	■	■
DC operation			
Emergency Lighting [1]	■	■	■
Fixed DC level			
Adjustable DC level	■ (by software)	■ (by software)	■ (by software)
Programming			
Programming interface	DALI and NFC	DALI and NFC	DALI and NFC
Easy commissioning	■	■	
Predictive maintenance			■
Output current			
Adjustable	■ (by software and/or resistor)	■ (by software)	■ (by software and/or resistor)
Ripple at 100 Hz [%]	< 1	< 1	< 1
Functions and performances			
Overtemperature protection	■	■	■
Energy efficiency	Up to 94 %	Up to 92 %	Up to 96 %
CLO	■	■	■
Stand-by losses [W]	< 0.25	< 0.2	< 0.2
Input voltage range [V]	220-240	220-240	220-240
Lifetime [h]	Up to 100000 @ T_c 65 °C [2]	Up to 100000 @ T_c 65 °C [2]	Up to 100000 @ T_c 75 °C [3]
T_a range [°C]	-25…+50	-25…+50	-40…+65
Suitable for luminaire class	I	I	I

1) In line with IEC 61347-2-13
2) Maximum failure rate of 10 %
3) Preliminary data
4) For output currents above 450 mA, for lower currents PWM dimming with 460 Hz
5) DX only
6) DEXAL™ < 0.5 W
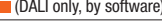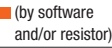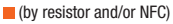
AM = Amplitude modulation
PWM = Pulse width modulation
DT6 = DALI Device Type 6
DT8 = DALI Device Type 8
CS = Current setting, flexible
CLO = Constant Lumen Output

Dimmable DALI OPTOTRONIC® Intelligent Window drivers (SELV)	Not dimmable OPTOTRONIC® FIT IND Window driver (non-isolated)	Not dimmable OPTOTRONIC® FIT Window driver (non-isolated)	Not dimmable OPTOTRONIC® FIT Fixed current (non-isolated)	Not dimmable OPTOTRONIC® FIT DIP switch (four selectable currents) (SELV)
OTi DX L OTi DALI L	OT FIT D IND L	OT FIT D NFC L OT FIT D LT2 L	OT FIT D L	OT FIT CS L G2
1…100 % analog dimming				
1 % DX [4]				
DT6				
■ (DALI only)				
■ (DALI only)				
■	■	■	■	■
	■	■	■	■
■ (DALI only, by software)				
DALI				
■				
■ [5]				
■ (by software and/or resistor)	■ (by resistor and/or NFC)	■ (by resistor or NFC)		■ (by DIP switch)
< 1	< 4	< 4	< 10	< 4
■	■	■	■	■
Up to 90 %	Up to 96 %	Up to 93 %	Up to 90 %	Up to 90 %
■	■			
< 0.3 [6]				
220-240	220-240	220-240	220-240	220-240
Up to 100000 @ T_c 65 °C [2]	Up to 100000 @ T_c 75 °C [3]	Up to 100000 @ T_c 65 °C [2]	Up to 100000 @ T_c 65 °C [2]	Up to 100000 @ T_c 65 °C [2]
-25…+50	-40…+65	-25…+50	-25…+50	-25…+50
I	I	I	I	I

The most important features of ELEMENT – linear constant current LED drivers

— ON/OFF non-isolated versions up to 60 W for basic lighting needs
— Efficiency up to 90 %
— < 30 % ripple current
— Up to 50.000 hour lifespan at T_c max

2. The most important features of OPTOTRONIC® Compact constant current LED drivers

— OPTOTRONIC® Intelligent DALI window drivers are based on a digital platform and are fully programmable
— LT2: Window driver with LEDset current setting
— NFC: Window driver with NFC current setting

— 3 ON/OFF driver families:
  - OPTOTRONIC® FIT CS with DIP-switch current-setting drivers
  - OPTOTRONIC® FIT LT2 S window drivers with small housing
  - OPTOTRONIC® FIT LT2 LP window drivers with low-profile housing
— OPTOTRONIC® ECO PC Dimmable via phase-cut (10–100 %, depending on dimmer)
— Many possible combinations with LED modules

OPTOTRONIC® Compact LED driver portfolio

	OTi DALI LT2 Dimmable (DALI): OPTOTRONIC® Intelligent DALI	OTi DALI NFC Dimmable (DALI): OPTOTRONIC® Intelligent DALI	OT FIT CS ON/OFF: Current setting via DIP switches	OT FIT LT2 S ON/OFF: Window drivers Small housing	OT FIT LT2 S ON/OFF: Window drivers Low-profile housing	OTe PC Dimmable (PC): OPTOTRONIC® ECO Phase-cut
Dimming						
Comfort dimming AM	■	■				
Lowest dimming level	1 %	1 %				10 %
Type of dimming	■ DALI DT6	■ DALI DT6				■ Trailing- or leading-edge phase control
Touch DIM®	■	■ [3]				
Corridor function	■	■ [3]				
DC operation						
Emergency lighting [1]	■	■			■	
Fixed DC level					■	
Adjustable DC level	■ (by software)	■ (by software)				
Output current						
Adjustable	■ (by software or resistor)	■ (by software, resistor or NFC [4])	■ (by DIP switches)	■ (by resistor)	■ (by resistor)	
Current tolerances [%]	3	3	7.5	5	5	10
Ripple at 100 Hz [%]	< 2	< 2	< 5	< 1	< 5	< 35
Functions and performances						
Overtemperature protection	■	■	■	■	■	■
Connectable during operation	■	■				
CLO	■	■				
Standby losses [W]	< 0.5	< 0.5				
Input voltage range [V]	220-240	220-240	220-240	220-240	220-240	220-240
Lifetime [h] [2]	Up to 100,000	Up to 100,000	Up to 50,000	Up to 100,000	Up to 100,000	Up to 50,000
T_a range [°C]	-20…+50	-20…+50	-20…+50	-20…+50	-20…+50	-20…+50
Suitable for protection class	I + II	I + II	I + II	I + II	I + II	I + II

1) In line with IEC 61347-2-13
2) Operation at max. T_c -10 K, maximum failure rate of 10 %

3) Except OTi DALI 10
4) OTi DALI 10 only software or NFC

AM = Amplitude modulation
PWM = Pulse-width modulation
DT6 = DALI Device Type 6

CS = Current setting, flexible
CLO = Constant Lumen Output

Ceiling installations with cable clamps

OPTOTRONIC® Compact from OSRAM for indoor use can easily be retrofitted with suitable cable clamps at any time. If an independent installation is required, the same driver can be used with the additional cable clamp. Simply order the appropriate cable clamp from OSRAM.

CABLE CLAMP A Style TL

CABLE CLAMP B Style TL

CABLE CLAMP B Style

CABLE CLAMP D Style

3. The most important features of ELEMENT – compact constant current LED drivers

— Simple, fixed current ON/OFF SELV driver family up to 44 W
— Suitable for LEDs with chip-on-board technology and discrete LEDs
— < 30 % ripple current
— Up to 30,000-hour lifespan at T_c max, with max 10 % failure rate
— Suitable for luminaire installation and separate mounting

ELEMENT LD 60/220…240/1A4

OPTOTRONIC® Intelligent UltraFlat
Linear / Area constant current LED drivers – Dimmable DALI
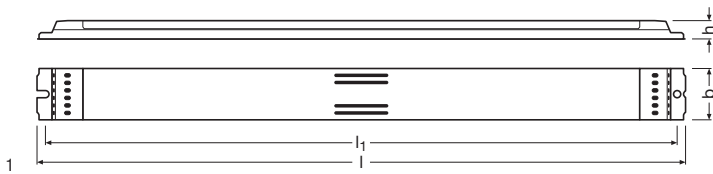
Product name	GTIN (EAN)	Hz	V_{IN}	V min.-max.	mA	V_{OUT}
OTi DALI 35/220…240/400 D LT2 UF L	**4052899957022**	0 / 50 / 60	198…264 [1]	176…276	DALI / NFC / LEDset / Programmable	54…240
OTi DALI 75/220…240/700 D LT2 UF L	**4052899957046**	0 / 50 / 60	198…264 [1]	176…276	DALI / NFC / LEDset / Programmable	54…240

Product name		I[mA]	Ripple 100Hz	W		I [mm]	b [mm]	h [mm]
OTi DALI 35/220…240/400 D LT2 UF L	DALI, NFC	75…400 [2]	< 1 %	4…38	Non-isolated	360	30	11
OTi DALI 75/220…240/700 D LT2 UF L	DALI, NFC	250…700 [2]	< 1 %	9.7…75	Non-isolated	360	30	11

Product name	l₁ [mm]	T_a		CONTROL	W		No.
OTi DALI 35/220…240/400 D LT2 UF L	350	-25…+60	Yes	DALI / Touch DIM / Touch DIM Sensor	1…100 %	20	1
OTi DALI 75/220…240/700 D LT2 UF L	350	-25…+50	Yes	DALI / Touch DIM / Touch DIM Sensor	1…100 %	20	1

1) Permitted voltage range
2) ±5%

Product features
— Line frequency: 0 Hz 50 Hz 60 Hz
— Versatile DALI window driver up to 75 W due to flexible output characteristic
— Supply voltage: 220…240 V
— Available with output current range: up to 700 mA
— Direct Ultraflat sensor connection via LEDset (LS/PD LT2 LI UF Sensor), see page 4.09
— Use with Ultraflat DALI sensor (LS/PD DALI LI UF Sensor), see page 4.64
— Constant Lumen Output (CLO)
— Non-isolated drivers
— DALI-2 certified (Part -101,-102 and -207)

Product benefits
— Ultra-flat housing (11 mm height) for innovative luminaire designs and applications
— LEDset interface for direct Ultraflat sensor connection (LS/PD LT2 LI UF sensor)
— Fully programmable via software (DALI Interface, NFC)
— Lifetime: up to 100,000 h (temperature at T_c = 65 °C, max. 10 % failure rate)
— High-quality dimming of 1…100 % by amplitude dimming
— High quality of light thanks to <1% output ripple current
— Very high efficiency
— Fulfill safety requirement due to overload, overtemperature, Hot Plug protection

Versatile scope of application due to OSRAM DALI Technology
— Easy to use in corridors and restrooms because of three-level Corridor function
— Touch DIM® application: easy to control via pushbutton or sensor
— Energy-efficient Touch DIM® operation due to automatic switch-off at sufficient residual light
— Suitable for emergency installations (acc. to EN 60598-2-22 and IEC 61347-2-13, appendix J) thanks to DC detection (0 Hz, pulsating DC), on/off switchable
— Feedback of power consumption and operating hours (Fit for SMART GRID)
— Suitable for buildings according to EPBD/BREEAM/LEED due to automatic Constant Lumen Output setting
— Luminaire information for easy maintenance

Areas of application
— Linear lighting for office, education, industry, storage areas and retail
— Installation in emergency lighting systems according to IEC 61347-2-13, appendix J
— Suitable for luminaires of protection class I

OPTOTRONIC® Intelligent
Linear / Area constant current LED drivers – Tunable White
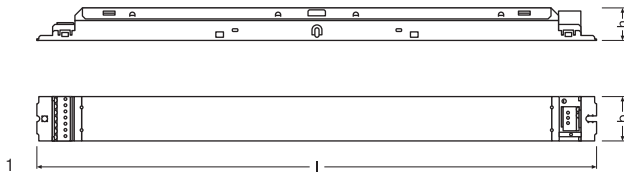
Product name	GTIN (EAN)	Hz	V_IN	V min.–max.	mA	V_OUT
OTi DALI 35/220...240/400 D NFC TW L[1]	**4052899990302**	0 / 50 / 60	198…264	176…276	DALI / NFC / Programmable	54…240
OTi DALI 75/220...240/700 D NFC TW L[1]	**4052899990326**	0 / 50 / 60	198…264	176…276	DALI / NFC / Programmable	54…240

Product name		I [mA]	Ripple 100 Hz	W		I [mm]	b [mm]	h [mm]
OTi DALI 35/220...240/400 D NFC TW L[1]	DALI, NFC	75…400	< 1 %	4…38	Non-isolated	360	30	21
OTi DALI 75/220...240/700 D NFC TW L[1]	DALI, NFC	125…700	< 1 %	8.1…75	Non-isolated	360	30	21

Product name	l₁ [mm]	T_a		CONTROL	W		No.
OTi DALI 35/220...240/400 D NFC TW L[1]	350	-25…+50	Yes	DALI / Touch DIM / Touch DIM Sensor	1…100 %	20	1
OTi DALI 75/220...240/700 D NFC TW L[1]	350	-25…+50	Yes	DALI / Touch DIM / Touch DIM Sensor	1…100 %	20	1

1) Preliminary data

Product features

— Line frequency: 0 Hz 50 Hz 60 Hz
— Versatile DALI window driver up to 75 W due to
  flexible output characteristic
— Supply voltage: 220…240 V
— Usable as DT6 (2-channel) or
  DT8 (Tunable White) driver
— Available with output current range: up to 700 mA
— Constant lumen function
— Integrated customizable thermal management
  (Driver Guard)
— Non-isolated drivers
— DALI-2 certified (Part -101,-102 and -207)

Product benefits

— Control of standard white or Tunable White light acc.
  to DALI device type 8 (DT8)
— TouchDIM® Tunable White integrated for use without
  additional LMS (within 2018)
— Fully programmable via software (DALI Interface, NFC)
— Lifetime: up to 100,000 h
  (temperature at T_c = 65 °C, max. 10 % failure rate)
— High-quality dimming of 1…100 %
  (amplitude and/or PWM selectable by software)
— High quality of light thanks to <1%
  output ripple current
— Very high efficiency
— Fulfill safety requirement due to overload,
  overtemperature, Hot Plug protection

Versatile scope of application due to OSRAM DALI Technology

— Easy to use in corridors and restrooms because of
  three-level Corridor function
— Touch DIM® application: easy to control via
  pushbutton or sensor
— Energy-efficient Touch DIM® operation due to
  automatic switch-off at sufficient residual light
— Suitable for emergency installations
  (acc. to EN 60598-2-22 and IEC 61347-2-13,
  appendix J) thanks to DC detection
  (0 Hz, pulsating DC), on/off switchable
— Feedback of power consumption and operating
  hours (Fit for SMART GRID)
— Suitable for buildings according to
  EPBD/BREEAM/LEED due to automatic
  Constant Lumen Output setting
— Luminaire information for easy maintenance

Areas of application

— For Tunable White as well as for 2-channel use
  (e.g. direct/indirect lighting)
— Perfect system match with PrevaLED® Linear
  Tunable White (see page 2.06)
— Linear lighting for office, education, industry, storage
  areas and retail
— Installation in emergency lighting systems according
  to IEC 61347-2-13, appendix J
— Suitable for installation in emergency lighting systems
  according to EN 60598-2-22
— Suitable for luminaires of protection class I

OPTOTRONIC® Intelligent
Linear / Area constant current LED drivers – Industry
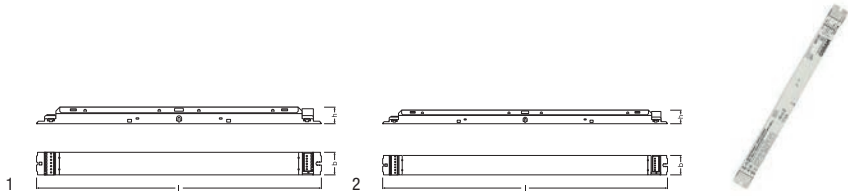
Product name	GTIN (EAN)	Hz	V_{IN}	V min-max	mA	V_{OUT}
OTi DALI 100/220…240/700 D NFC IND L [1]	**4052899559516**	0 / 50 / 60	198…264	176…276	DALI / NFC / LEDset / Programmable	64…300
OTi DALI 150/220…240/1A0 D NFC IND L [1]	**4052899559530**	0 / 50 / 60	198…264	176…276	DALI / NFC / LEDset / Programmable	64…300

Product name		I[mA]	Ripple 100Hz	W		I [mm]	b [mm]	h [mm]
OTi DALI 100/220…240/700 D NFC IND L [1]	DALI, NFC	125…700	< 1 %	28…100	Non-isolated	360	30	21
OTi DALI 150/220…240/1A0 D NFC IND L [1]	DALI, NFC	250…1000	< 1 %	43…150	Non-isolated	425	30	21

Product name	l₁ [mm]	T_a		CONTROL	W		No.
OTi DALI 100/220…240/700 D NFC IND L [1]	350	-40…+65	Yes	DALI / Touch DIM / Touch DIM Sensor	1…100 %	20	1
OTi DALI 150/220…240/1A0 D NFC IND L [1]	415	-40…+65	Yes	DALI / Touch DIM / Touch DIM Sensor	1…100 %	20	2

1) Preliminary data

Product features

— Line frequency: 0 Hz 50 Hz 60 Hz
— Versatile scope of application due to output power range of up to 150 W
— Supply voltage: 220…240 V
— Available with output current range: up to 1,000 mA
— Constant lumen function
— Integrated customizable thermal management (Driver Guard)
— Non-isolated drivers
— DALI-2 certified (Part -101,-102 and -207)

Product benefits

— Fully programmable via software (DALI Interface, NFC)
— Lifetime: up to 100,000 h (temperature at T_c = 75 °C, max. 10 % failure rate, preliminary data)
— High light quality: 1…100% amplitude dimming and <1% output ripple current
— Wide operating temperature range: -40…+65 °C
— High surge protection: up to 4 kV (L-N)/4 kV (L/N-PE)
— Integrated inrush current limiter
— Very high efficiency (up to 96 %)
— Fulfill safety requirement due to overload, overtemperature, Hot Plug protection

Versatile scope of application due to OSRAM DALI Technology

— Easy to use in corridors and restrooms because of three-level Corridor function
— Touch DIM® application: easy to control via pushbutton or sensor
— Energy-efficient Touch DIM® operation due to automatic switch-off at sufficient residual light
— Suitable for emergency installations (acc. to EN 60598-2-22 and IEC 61347-2-13, appendix J) thanks to DC detection (0 Hz, pulsating DC), on/off switchable
— Feedback of power consumption and operating hours (Fit for SMART GRID)
— Suitable for buildings according to EPBD/BREEAM/LEED due to automatic Constant Lumen Output setting
— Luminaire information for easy maintenance
— Advanced luminaire/driver data (power, energy, operating hours…) for analytics

Areas of application

— Linear lighting solutions for industry, storage areas and retail applications
— Installation in emergency lighting systems according to IEC 61347-2-13, appendix J
— Suitable for installation in emergency lighting systems according to EN 60598-2-22
— Suitable for luminaires of protection class I

OPTOTRONIC® Intelligent
Linear / Area constant current LED drivers – DEXAL™

1
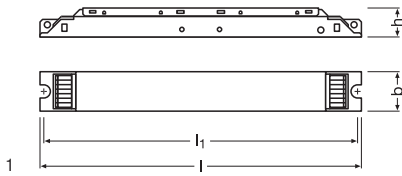
Product name	GTIN (EAN)	Hz	V_{IN}	mA	V_{OUT}	Prog+	I [mA]
OTi 30/120…277/1A0 DX L	**4052899345829**	50 / 60	108…305	Programmable	10…56	Prog+	150…1050
OTi 50/120…277/1A4 DX L	**4052899345836**	50 / 60	108…305	Programmable	10…56	Prog+	600…1400

Product name	Ripple 100Hz	W		l [mm]	b [mm]	h [mm]	l₁ [mm]
OTi 30/120…277/1A0 DX L	< 1 % [1]	10…30	SELV	360	30	25.4	350
OTi 50/120…277/1A4 DX L	< 1 % [1]	15…50	SELV	360	30	25.4	350

Product name	T_a		CONTROL	W		No.
OTi 30/120…277/1A0 DX L	-30…+50	Yes	DALI / DEXAL	1…100 %	20	1
OTi 50/120…277/1A4 DX L	-30…+50	Yes	DALI / DEXAL	1…100 %	20	1

1) For output currents above 450mA, for lower currents PWM dimming with 460 Hz

Product features
— Input voltage: 120…277 V
— UL Class 2 output, SELV
— Available with output current range: up to 1,400 mA
— Constant lumen function
— Overtemperature protection via external NTC
— End-of-life indication

Product benefits
— Versatile DEXAL™ LED driver up to 50 W due to flexible output characteristic
— Integrated DALI (Version-1) bus power supply for sensors and wireless radios
— Simplified luminaire design for wireless lighting control system and sensors
— Analytics possibility using luminaire data (power, energy, operating hours)

Areas of application
— Offices

Equipment/Accessories
— OT Programmer hardware for configuration of DEXAL™ ECGs necessary
— Programmable only via OT Programmer software

OPTOTRONIC® Intelligent
Linear / Area constant current LED drivers – Dimmable DALI
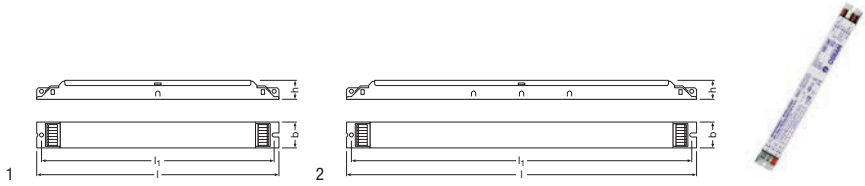
Product name	GTIN (EAN)	Hz	V_{IN}	V min-max	mA	V_{OUT}
OTi DALI 35/220…240/400 D LT2 L	4052899494220	0 / 50 / 60	198…264 [1]	176…276	DALI / LEDset / Programmable	54…240 [2]
OTi DALI 60/220…240/550 D LT2 L	4052899494206	0 / 50 / 60	198…264 [1]	176…276	DALI / LEDset / Programmable	54…240 [2]
OTi DALI 90/220…240/700 D LT2 L	4052899494244	0 / 50 / 60	198…264 [1]	176…276	DALI / LEDset / Programmable	54…240 [2]
OTi DALI 90/220…240/1A0 LT2 L	4052899494268	0 / 50 / 60	198…264 [1]	176…276	DALI / LEDset / Programmable	54…240 [2]
OTi DALI 35/220…240/700 LT2 L G2	4052899551763	0 / 50 / 60	198…264	220…240	DALI / LEDset / Programmable	15…54
OTi DALI 50/220…240/1A4 LT2 L G2	4052899551787	0 / 50 / 60	198…264	220…240	DALI / LEDset / Programmable	15…54
OTi DALI 80/220…240/1A6 LT2 L	4052899028074	0 / 50 / 60	198…264 [1]	176…276	DALI / LEDset / Programmable	20…54 [3]
OTi DALI 80/220…240/2A1 LT2 L	4052899028050	0 / 50 / 60	198…264 [1]	176…276	DALI / LEDset / Programmable	20…54 [3]

Product name		$I_{[mA]}$	Ripple 100Hz	W		$I_{[mm]}$	$b_{[mm]}$	$h_{[mm]}$
OTi DALI 35/220…240/400 D LT2 L	DALI	75…400	< 1 %	4…38	Non-isolated	280	30	21
OTi DALI 60/220…240/550 D LT2 L	DALI	120…550	< 1 %	6.4…60	Non-isolated	280	30	21
OTi DALI 90/220…240/700 D LT2 L	DALI	250…700	< 1 %	13.5…90	Non-isolated	280	30	21
OTi DALI 90/220…240/1A0 LT2 L	DALI	250…1000	< 1 %	13.5…90	Non-isolated	280	30	21
OTi DALI 35/220…240/700 LT2 L G2	DALI	200…700	< 1 %	4…37	SELV	360	30	21
OTi DALI 50/220…240/1A4 LT2 L G2	DALI	600…1400	< 1 %	12…50	SELV	360	30	21
OTi DALI 80/220…240/1A6 LT2 L	DALI	600…1550	< 1 %	32…80	SELV	360	30	21
OTi DALI 80/220…240/2A1 LT2 L	DALI	1000…2100	< 1 %	32…80	SELV	360	30	21

Product name	I₁ [mm]	Tₐ	⌒	CONTROL	W	⊡	☐ No.
OTi DALI 35/220…240/400 D LT2 L	270	-25…+60	Yes	DALI / Touch DIM / Touch DIM Sensor	1…100 % [4]	20	1
OTi DALI 60/220…240/550 D LT2 L	270	-25…+60	Yes	DALI / Touch DIM / Touch DIM Sensor	1…100 % [4]	20	1
OTi DALI 90/220…240/700 D LT2 L	270	-25…+50	Yes	DALI / Touch DIM / Touch DIM Sensor	1…100 % [4]	20	1
OTi DALI 90/220…240/1A0 LT2 L	270	-25…+50	Yes	DALI / Touch DIM / Touch DIM Sensor	1…100 % [4]	20	1
OTi DALI 35/220…240/700 LT2 L G2	350	-25…+50	Yes	DALI / Touch DIM / Touch DIM Sensor	1…100 %	20	2
OTi DALI 50/220…240/1A4 LT2 L G2	350	-25…+50	Yes	DALI / Touch DIM / Touch DIM Sensor	1…100 %	20	2
OTi DALI 80/220…240/1A6 LT2 L	350	-25…+50	Yes	DALI / Touch DIM / Touch DIM Sensor	1…100 % [4]	20	2
OTi DALI 80/220…240/2A1 LT2 L	350	-25…+45	Yes	DALI / Touch DIM / Touch DIM Sensor	1…100 % [4]	20	2

1) Permitted voltage range
2) Maximum 350 V
3) Maximum 60 V
4) For maximum nominal output current

Product features

— Line frequency: 0 Hz 50 Hz 60 Hz
— Versatile DALI window driver up to 90 W due to flexible output characteristic
— Supply voltage: 220…240 V
— Available with output current range: up to 2,100 mA
— Constant lumen function
— Integrated customizable thermal management (Driver Guard)
— SELV and non-isolated versions available
— DALI-2 certified (Part -101,-102 and -207)

Product benefits

— Fully programmable via software (DALI Interface)
— Flexible current setting (LEDset2)
— Lifetime: up to 100,000 h (temperature at T_c = 65 °C, max. 10 % failure rate)
— High-quality dimming of 1…100 % by amplitude dimming (except 80 W versions)
— High quality of light thanks to <1% output ripple current
— Very high efficiency
— Very low standby power consumption: < 0.15 W (SELV), < 0.25 W (non-isolated)
— Fulfill safety requirement due to overload, overtemperature, Hot Plug protection

Versatile scope of application due to OSRAM DALI Technology

— Easy to use in corridors and restrooms because of three-level Corridor function
— Touch DIM® application: easy to control via pushbutton or sensor
— Energy-efficient Touch DIM® operation due to automatic switch-off at sufficient residual light
— Suitable for emergency installations (acc. to EN 60598-2-22 and IEC 61347-2-13, appendix J) thanks to DC detection (0 Hz, pulsating DC), on/off switchable
— Feedback of power consumption and operating hours (Fit for SMART GRID)
— Suitable for buildings according to EPBD/BREEAM/LEED due to automatic Constant Lumen Output setting
— Luminaire information for easy maintenance

Areas of application

— Linear lighting for office, education, industry, storage areas and retail
— Installation in emergency lighting systems according to IEC 61347-2-13, appendix J
— Suitable for luminaires of protection class I

OPTOTRONIC® FIT IND NFC L

Linear / Area constant current LED drivers – Non-dimmable
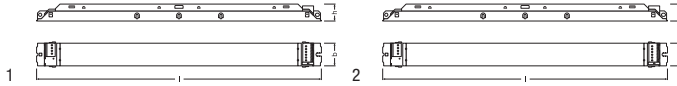
Product name	GTIN (EAN)	Hz	V_{IN}	V min.-max.	mA	V_{OUT}
OT FIT 100/220…240/700 D NFC IND L [1]	4052899990128	0 / 50 / 60	198…264	176…276	LEDset / NFC	64…340
OT FIT 150/220…240/1A0 D NFC IND L [1]	4052899990142	0 / 50 / 60	198…264	176…276	LEDset / NFC	64…340

Product name	I [mA]	Ripple 100 Hz	W		l [mm]	b [mm]	h [mm]
OT FIT 100/220…240/700 D NFC IND L [1]	125…700	< 1 %	28…100	Non-isolated	360	30	21
OT FIT 150/220…240/1A0 D NFC IND L [1]	250…1000	< 1 %	43…150	Non-isolated	425	30	21

Product name	l_1 [mm]	T_a		II / III	IP		No.
OT FIT 100/220…240/700 D NFC IND L [1]	350	-40…+65	No	I	IP20	20	1
OT FIT 150/220…240/1A0 D NFC IND L [1]	415	-40…+65	No	I	IP20	20	2

1) Preliminary data

Product features
— Line frequency: 0 Hz 50 Hz 60 Hz
— Versatile scope of application due to output power range of up to 150 W
— Supply voltage: 220…240 V
— Available with output current range: up to 1,000 mA
— Constant lumen function
— Non-isolated drivers

Product benefits
— Flexible and future-proof current setting via NFC (Near Field Communication)
— Lifetime: up to 100,000 h (temperature at T_c = 75 °C, max. 10 % failure rate, preliminary data)
— Wide operating temperature range: -40…+65 °C
— High quality of light thanks to <1% output ripple current
— High surge protection: up to 4 kV (L-N)/4 kV (L/N-PE)
— Very high efficiency (up to 96 %)
— Integrated inrush current limiter
— Fulfill safety requirement due to overload, overtemperature, Hot Plug protection

Areas of application
— Linear lighting solutions for industry, storage areas and retail applications
— Installation in emergency lighting systems according to IEC 61347-2-13, appendix J
— Suitable for installation in emergency lighting systems according to EN 60598-2-22
— Suitable for luminaires of protection class I

OPTOTRONIC® FIT NFC D L
Linear / Area constant current LED drivers – Non-dimmable
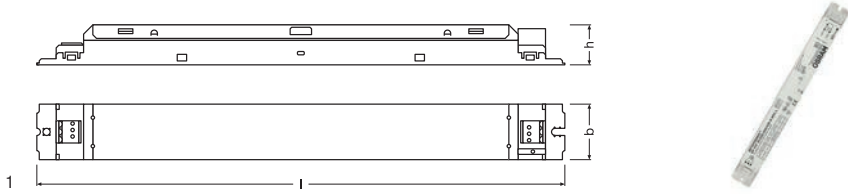
Product name	GTIN (EAN)	Hz	V_{IN}	V min.-max.	mA	V_{OUT}	I[mA]
OT FIT 35/220…240/350 D NFC L	**4052899990166**	0 / 50 / 60	198…264	176…276	NFC	54…216	75…350 [1]
OT FIT 75/220…240/550 D NFC L	**4052899990180**	0 / 50 / 60	198…264	176…276	NFC	54…216	125…550 [1]

Product name	Ripple 100 Hz	W		l [mm]	b [mm]	h [mm]	l1 [mm]
OT FIT 35/220…240/350 D NFC L	< 1 %	4.1…35	Non-isolated	280	30	21	270
OT FIT 75/220…240/550 D NFC L	< 1 %	6.8…75	Non-isolated	280	30	21	270

Product name	T_a		II / III	IP		No.
OT FIT 35/220…240/350 D NFC L	-25…+60	No	I	IP20	20	1
OT FIT 75/220…240/550 D NFC L	-25…+60	No	I	IP20	20	1

1) ±5%

Product features
— Line frequency: 0 Hz 50 Hz 60 Hz
— Versatile scope of application due to output power
   range of up to 75 W
— Supply voltage: 220…240 V
— Available with output current range: up to 550 mA
— Non-isolated drivers

Product benefits
— Flexible and future-proof current setting via NFC
   (Near Field Communication)
— Lifetime: up to 100,000 h
   (temperature at T_c = 65 °C, max. 10 % failure rate)
— High quality of light thanks to <1% output
   ripple current
— Very high efficiency
— Fulfill safety requirement due to overload,
   overtemperature, Hot Plug protection

Areas of application
— Linear lighting for office, education, industry,
   storage areas and retail
— Installation in emergency lighting systems according
   to IEC 61347-2-13, appendix J
— Suitable for installation in emergency lighting systems
   according to EN 60598-2-22
— Suitable for luminaires of protection class I

OPTOTRONIC® FIT D LT2 L
Linear / Area constant current LED drivers – Non-dimmable
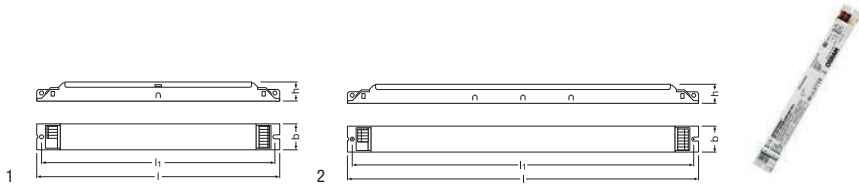
Product name	GTIN (EAN)	Hz	V_{IN}	V min.-max.	mA	V_{OUT}	I [mA]
OT FIT 25/220...240/300 D LT2 L	4052899990289	0 / 50 / 60	198…264	176…276	LEDset	60…216	35…300 [1]
OT FIT 35/220…240/350 D LT2 L	4052899478411	0 / 50 / 60	198…264	176…276	LEDset	54…216	65…350 [2]
OT FIT 75/220…240/550 D LT2 L	4052899478435	0 / 50 / 60	198…264	176…276	LEDset	54…216	125…550 [2]
OT FIT 120/220...240/750 D LT2 L	4052899497900	0 / 50 / 60	198…264	176…276	LEDset	54…216	250…700 [1]

Product name	Ripple 100 Hz	W		I [mm]	b [mm]	h [mm]	l₁ [mm]
OT FIT 25/220...240/300 D LT2 L	< 5 %	2…25	Non-isolated	280	30	21	270
OT FIT 35/220…240/350 D LT2 L	< 1 %	4.1…35	Non-isolated	280	30	21	270
OT FIT 75/220…240/550 D LT2 L	< 1 %	6.8…75	Non-isolated	280	30	21	270
OT FIT 120/220…240/750 D LT2 L	< 1 %	13.5…120	Non-isolated	360	30	21	350

Product name	T_a		II / III	IP		No.
OT FIT 25/220...240/300 D LT2 L	-25…+60	No	I	IP20	20	1
OT FIT 35/220…240/350 D LT2 L	-25…+60	No	I	IP20	20	1
OT FIT 75/220…240/550 D LT2 L	-25…+60	No	I	IP20	20	1
OT FIT 120/220...240/750 D LT2 L	-25…+60	No	I	IP20	20	2

1) ±5%
2) ±3%

Product features
— Line frequency: 0 Hz 50 Hz 60 Hz
— Versatile scope of application due to output power range of up to 120 W
— Supply voltage: 220…240 V
— Available with output current range: up to 750 mA
— Non-isolated drivers

Product benefits
— Flexible current setting (LEDset2)
— Lifetime: up to 100,000 h
  (temperature at T_c = 65 °C, max. 10 % failure rate)
— High quality of light thanks to low output ripple current
— Very high efficiency
— Fulfill safety requirement due to overload, overtemperature, Hot Plug protection

Areas of application
— Linear lighting for office, education, industry, storage areas and retail
— Installation in emergency lighting systems according to IEC 61347-2-13, appendix J
— Suitable for installation in emergency lighting systems according to EN 60598-2-22
— Suitable for luminaires of protection class I

OPTOTRONIC® FIT D L

Linear / Area constant current LED drivers – Non-dimmable
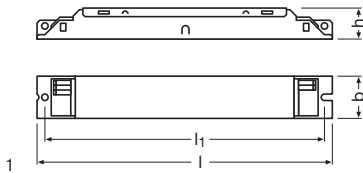
Product name	GTIN (EAN)	Hz	V_IN	V min.-max.	mA	V_OUT	I [mA]
OT FIT 30/220…240/125 D L	**4052899222557**	0 / 50 / 60	198…264 [1]	176…276	Fixed current	54…216	125 [2]
OT FIT 50/220…240/250 D L	**4052899222571**	0 / 50 / 60	198…264 [1]	176…276	Fixed current	54…216	250 [2]
OT FIT 50/220…240/300 D L	**4052899469884**	0 / 50 / 60	198…264 [1]	176…276	Fixed current	54…175	300 [3]
OT FIT 50/220…240/350 D L	**4052899222595**	0 / 50 / 60	198…264 [1]	176…276	Fixed current	54…150	350 [2]

Product name	Ripple 100 Hz	W		I [mm]	b [mm]	h [mm]	l₁ [mm]
OT FIT 30/220…240/125 D L	< 10 %	6.8…27 [4]	Non-isolated	210	30	21	200
OT FIT 50/220…240/250 D L	< 10 %	13.5…54 [5]	Non-isolated	210	30	21	200
OT FIT 50/220…240/300 D L	< 10 %	16.2…52.5	Non-isolated	210	30	21	200
OT FIT 50/220…240/350 D L	< 10 %	18.9…52.5	Non-isolated	210	30	21	200

Product name	Ta		II/III	IP		No.
OT FIT 30/220…240/125 D L	-15…+50	No	I	IP20	20	1
OT FIT 50/220…240/250 D L	-15…+50	No	I	IP20	20	1
OT FIT 50/220…240/300 D L	-15…+50	No	I	IP20	20	1
OT FIT 50/220…240/350 D L	-15…+50	No	I	IP20	20	1

1) Permitted voltage range
2) ±10%
3) ±5%
4) Partial load 7…27 W
5) Partial load 14…54 W

Product features
— Line frequency: 0 Hz 50 Hz 60 Hz
— Versatile scope of application due to output power range of up to 50 W
— Supply voltage: 220…240 V
— Available with output current range: up to 350 mA
— Non-isolated drivers

Product benefits
— Small housing design
— Fixed current
— Lifetime: up to 100,000 h
  (temperature at T_c = 65 °C, max. 10 % failure rate)
— High quality of light thanks to low output ripple current
— High efficiency
— Fulfill safety requirement due to overload, overtemperature, Hot Plug protection

Areas of application
— Linear lighting for office, education, industry, storage areas and retail
— Installation in emergency lighting systems according to IEC 61347-2-13, appendix J
— Suitable for installation in emergency lighting systems according to EN 60598-2-22
— Suitable for luminaires of protection class I

OPTOTRONIC® FIT CS L G2
Linear / Area constant current LED drivers – Non-dimmable
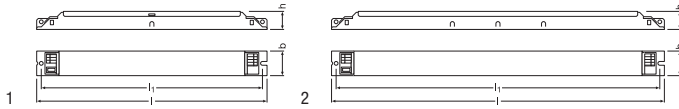
Product name	GTIN (EAN)	Hz	V_{IN}	V min.-max.	mA	V_{OUT}
OT FIT 35/220…240/700 CS L G2	**4052899522534**	0 / 50 / 60	198…264 [1]	176…276	DIP switch	27…51
OT FIT 55/220…240/1A0 CS L G2	**4052899522558**	0 / 50 / 60	198…264 [1]	176…276	DIP switch	27…51
OT FIT 75/220…240/1A4 CS L G2	**4052899522572**	0 / 50 / 60	198…264 [1]	176…276	DIP switch	27…51

Product name	I [mA]	Ripple 100 Hz	W	SELV	l [mm]	b [mm]	h [mm]
OT FIT 35/220…240/700 CS L G2	500 mA / 600 mA / 650 mA / 700	< 5 %	13.5…35.7	SELV	280	30	21
OT FIT 55/220…240/1A0 CS L G2	800 mA / 900 mA / 975 mA / 1050	< 5 %	21.6…53.6	SELV	280	30	21
OT FIT 75/220…240/1A4 CS L G2	1100 mA / 1200 mA / 1300 mA / 1400	< 5 %	29.7…71.4	SELV	360	30	21

Product name	l1 [mm]	T_a		II / III	IP		No.
OT FIT 35/220…240/700 CS L G2	279	-25…+50	No	I	IP20	20	1
OT FIT 55/220…240/1A0 CS L G2	279	-25…+50	No	I	IP20	20	1
OT FIT 75/220…240/1A4 CS L G2	359	-25…+50	No	I	IP20	20	2

1) Permitted voltage range

Product features
— Line frequency: 0 Hz 50 Hz 60 Hz
— Versatile scope of application due to output power range of up to 75 W
— Supply voltage: 220…240 V
— Available with output current range: up to 1,400 mA
— SELV system

Product benefits
— Flexible current setting (DIP switch – 4 currents)
— Lifetime: up to 100,000 h
  (temperature at T_c = 65 °C, max. 10 % failure rate)
— High efficiency
— High quality of light thanks to low output ripple current
— Fulfill safety requirement due to overload, overtemperature, Hot Plug protection

Areas of application
— Linear lighting for office, education, industry, storage areas and retail
— Installation in emergency lighting systems according to IEC 61347-2-13, appendix J
— Suitable for luminaires of protection class I

ELEMENT
Linear / Area constant current LED drivers – Non-dimmable
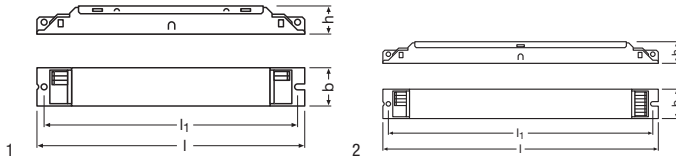
Product name	GTIN (EAN)	Hz	V$_{IN}$	mA	V$_{OUT}$	I$_{[mA]}$
ELEMENT 18/220…240/350 D CS L [1]	4052899553071	50 / 60	198…264	DIP switch	25…54	200 mA / 250 mA / 300 mA / 350 [5]
ELEMENT 40/220…240/350 D CS L [1]	4052899553095	50 / 60	198…264	DIP switch	80…160 V / 70…110 [2]	200 mA / 250 mA / 300 mA / 350 [5]
ELEMENT 60/220…240/350 D CS L [1]	4052899553118	50 / 60	198…264	DIP switch	100…200 V / 90…180 [2]	200 mA / 250 mA / 300 mA / 350 [5]
ELEMENT 35/220…240/800 CS L [1]	4052899553132	50 / 60	198…264	DIP switch	25…54 V / 25…51 [3]	500 mA / 600 mA / 700 mA / 800 [5]
ELEMENT 55/220…240/1200 CS L [1]	4052899553156	50 / 60	198…264	DIP switch	27…54 V / 27…51 [4]	920 mA / 1050 mA / 1075 mA / 1200 [5]

Product name	Ripple 100Hz	W	⊒⊏	I [mm]	b [mm]	h [mm]	l$_1$ [mm]
ELEMENT 18/220…240/350 D CS L [1]	< 30 %	18	Non-isolated	210	30	21	200
ELEMENT 40/220…240/350 D CS L [1]	< 30 %	40	Non-isolated	210	30	21	200
ELEMENT 60/220…240/350 D CS L [1]	< 30 %	60	Non-isolated	210	30	21	200
ELEMENT 35/220…240/800 CS L [1]	< 30 %	35	SELV	280	30	21	270
ELEMENT 55/220…240/1200 CS L [1]	< 30 %	55	SELV	280	30	21	270

Product name	T$_a$	◠	II/III	IP	▱	No.
ELEMENT 18/220…240/350 D CS L [1]	-20…+50	No	I	IP20	20	1
ELEMENT 40/220…240/350 D CS L [1]	-20…+50	No	I	IP20	20	1
ELEMENT 60/220…240/350 D CS L [1]	-20…+50	No	I	IP20	20	1
ELEMENT 35/220…240/800 CS L [1]	-20…+50	No	I	IP20	20	2
ELEMENT 55/220…240/1200 CS L [1]	-20…+50	No	I	IP20	20	2

1) Preliminary data
2) At 200/250mA / At 300/350mA
3) At 500/600mA / At 700/800mA
4) At 920/1050mA / At 1075/1200mA
5) ±5%

Product features
— Versatile scope of application due to output power range of up to 60 W
— Supply voltage: 220…240 V
— Available with output current range: up to 1,200 mA
— SELV and non-isolated versions available

Areas of application
— Linear lighting for office, education, industry, storage areas and retail
— Suitable for luminaires of protection class I

Product benefits
— Small housing design
— Flexible current setting (DIP switch – 4 currents)
— Lifetime: up to 50,000 h
  (temperature at T$_c$ = 65°C, max 10% failure rate)
— High efficiency
— Fulfill safety requirement due to overload, overtemperature, Hot Plug protection (no overload protection for ELEMENT 40/220…240/350 D CS L)

OPTOTRONIC® Intelligent
Compact constant current LED drivers – Dimmable DALI NFC
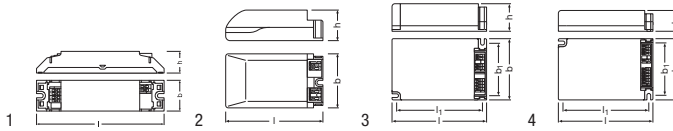
Product name	GTIN (EAN)	Hz	V_{IN}	V min–max.	V_{OUT}	I [mA]
OTi DALI 10/220…240/700 NFC	4052899562639	0 / 50 / 60	198…264	176…276	2.5…45	150…700
OTi DALI 15/220…240/1A0 LT2 NFC	4052899548190	0 / 50 / 60	198…264 [1]	176…264	7.5…54	150…1050
OTi DALI 25/220…240/700 LT2 NFC	4052899548213	0 / 50 / 60	198…264 [1]	176…276	12…54 [3]	180…700 [4]
OTi DALI 35/220…240/1A0 LT2 NFC	4052899548237	0 / 50 / 60	198…264 [1]	176…276	15…54 [3]	350…1050 [4]
OTi DALI 50/220…240/1A4 LT2F NFC	4052899548251	0 / 50 / 60	198…264 [1]	176…276	15…54 [3]	600…1400 [4]

Product name	Ripple 100 Hz	W	I [mm]	b [mm]	h [mm]	l1 [mm]	b1 [mm]	T_a	T_c
OTi DALI 10/220…240/700 NFC	< 1 % [6]	10	124	31	21	115	-	-20…+50	75 [2]
OTi DALI 15/220…240/1A0 LT2 NFC	2 % [6]	18	95	53	30	-	-	-20…+50	75 [2]
OTi DALI 25/220…240/700 LT2 NFC	1 % [6]	27 [7]	103	67	29.5	94	58	-20…+50	75 [2]
OTi DALI 35/220…240/1A0 LT2 NFC	2 % [6]	35 [8]	103	67	29.5	94	58	-20…+50	75 [2]
OTi DALI 50/220…240/1A4 LT2F NFC	2 % [6]	55 [9]	110	75	25	99	64	-20…+50	80 [2]

Product name		CONTROL	W	II / III		No.
OTi DALI 10/220…240/700 NFC	Yes	DALI	1…100 %	I / II	20	1
OTi DALI 15/220…240/1A0 LT2 NFC	Yes	DALI / Touch DIM / Touch DIM Sensor	1…100 % [5]	I / II	20	2
OTi DALI 25/220…240/700 LT2 NFC	Yes	DALI / Touch DIM / Touch DIM Sensor	1…100 % [5]	I / II	20	3
OTi DALI 35/220…240/1A0 LT2 NFC	Yes	DALI / Touch DIM / Touch DIM Sensor	1…100 % [5]	I / II	20	3
OTi DALI 50/220…240/1A4 LT2F NFC	Yes	DALI / Touch DIM / Touch DIM Sensor	1…100 % [5]	I / II	20	4

1) Permitted voltage range
2) Maximum at the T_c point
3) Maximum 60 V
4) ±5%
5) For maximum nominal output current
6) Ripple average at 100 Hz %
7) Partial load 7…27 W
8) Partial load 15…35 W
9) Partial load 22…55 W

Product features
— Supply voltage: 220…240 V
— Line frequency: 0 Hz 50 Hz 60 Hz
— Line voltage: 198…264 V
— Safety according to EN 61347-1, 61347-2-13, 62384
— RI suppression according to EN
  55015:2007+A1:2007/CDN
— Line harmonics according to EN 61000-3-2
— Immunity according to EN 61547
— Lifetime: up to 100,000 h
  (temperature at T_c = 65 °C, max. 10 % failure rate)
— Type of protection: IP20
— Independent connection via through-looping
  (except OTi DALI 15)

Product benefits
— Versatile DALI window driver due to flexible
  output characteristic
— Very high efficiency
— Protection of the system thanks to thermal
  management and Smart Control
— High-quality dimming of 1…100 % by
  amplitude dimming
— Soft switch-off function (OTi DALI 15)
— Easy and fast output current setting via NFC

Versatile scope of application due to OSRAM DALI Technology
— Easy to use in corridors and restrooms because of
  three-level Corridor function
— Touch DIM® application: easy to control via
  pushbutton or sensor
— Energy-efficient Touch DIM® operation due to
  automatic switch-off at sufficient residual light
— Suitable for emergency installations
  (acc. to EN 60598-2-22 and IEC 61347-2-13,
  appendix J) thanks to DC detection
  (0 Hz, pulsating DC), on/off switchable
— Feedback of power consumption and operating
  hours (Fit for SMART GRID)
— Suitable for buildings according to
  EPBD/BREEAM/LEED due to automatic
  Constant Lumen Output setting

Areas of application
— Installation in emergency lighting systems according
  to IEC 61347-2-13, appendix J
— For use in luminaires with flexible current setting
  (DALI, CLO, LEDset, NFC)
— Suitable for indoor SELV installations
— Suitable for luminaires of protection classes I and II
— Suitable for downlights, spotlights and LED panels
— Installation via Cable Clamp Kit possible
  (depending on version of product)

OPTOTRONIC® Intelligent G2
Compact constant current LED drivers – Dimmable DALI
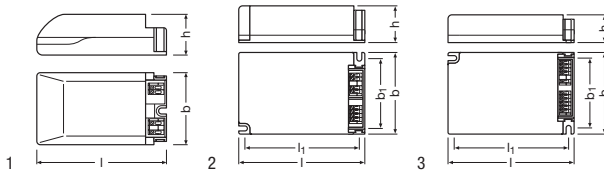
Product name	GTIN (EAN)	Hz	V_{IN}	$V_{min-max}$	V_{OUT}	I[mA]	Ripple 100Hz
OTi DALI 15/220…240/1A0 LT2	4052899324879	0 / 50 / 60	198…264 [1]	176…276	7.5…54 [3]	150…1050 [4]	< 2 % [6]
OTi DALI 25/220…240/700 LT2	4052899488144	0 / 50 / 60	198…264 [1]	176…276	12…54 [3]	180…700 [4]	< 1 % [6]
OTi DALI 35/220…240/1A0 LT2	4052899488168	0 / 50 / 60	198…264 [1]	176…276	15…54 [3]	350…1050 [4]	< 2 % [6]
OTi DALI 50/220…240/1A4 LT2 FAN	4052899488182	0 / 50 / 60	198…264 [1]	176…276	15…54 [3]	600…1400 [4]	< 2 % [6]

Product name	W	I [mm]	b [mm]	h [mm]	l₁ [mm]	b₁ [mm]	T_a
OTi DALI 15/220…240/1A0 LT2	18 [7]	95	53	30	-	-	-20…+50
OTi DALI 25/220…240/700 LT2	27 [8]	103	67	29.5	94	58	-20…+50
OTi DALI 35/220…240/1A0 LT2	35 [9]	103	67	29.5	94	58	-20…+50
OTi DALI 50/220…240/1A4 LT2 FAN	55 [10]	110	75	25	99	64	-20…+50

Product name	T_c		CONTROL	W	II / III		No.
OTi DALI 15/220…240/1A0 LT2	75 [2]	Yes	DALI / Touch DIM / Touch DIM Sensor	1…100 % [5]	I / II	20	1
OTi DALI 25/220…240/700 LT2	75 [2]	Yes	DALI / Touch DIM / Touch DIM Sensor	1…100 % [5]	I / II	20	2
OTi DALI 35/220…240/1A0 LT2	75 [2]	Yes	DALI / Touch DIM / Touch DIM Sensor	1…100 % [5]	I / II	20	2
OTi DALI 50/220…240/1A4 LT2 FAN	80 [2]	Yes	DALI / Touch DIM / Touch DIM Sensor	1…100 % [5]	I / II	20	3

1) Permitted voltage range
2) Maximum at the T_c point
3) Maximum 60 V
4) ±5%
5) For maximum nominal output current
6) Ripple average at 100 Hz %
7) Partial load 3…18 W
8) Partial load 7…27 W
9) Partial load 15…35 W
10) Partial load 22…55 W

Product features
— Supply voltage: 220…240 V
— Line frequency: 0 Hz 50 Hz 60 Hz
— Line voltage: 198…264 V
— Safety according to EN 61347-1, 61347-2-3,
  61347-2-13, 62384
— Prepared for DALI-2 certification
  (Part -101,-102 and -207)
— RI suppression according to EN
  55015:2007+A1:2007/CDN
— Line harmonics according to EN 61000-3-2
— Immunity according to EN 61547
— Lifetime: up to 100,000 h
  (temperature at T_c = 65 °C, max. 10 % failure rate)
— Type of protection: IP20
— Independent connection via through-looping
  (except OTi DALI 15)

Product benefits
— Versatile DALI window driver due to flexible
  output characteristic
— Very high efficiency
— Protection of the system thanks to thermal
  management and Smart Control
— High-quality dimming of 1…100 % by
  amplitude dimming
— Soft switch-off function (OTi DALI 15)

**Versatile scope of application due to
OSRAM DALI Technology**
— Easy to use in corridors and restrooms because of
  three-level Corridor function
— Touch DIM® application: easy to control via
  pushbutton or sensor
— Energy-efficient Touch DIM® operation due to
  automatic switch-off at sufficient residual light
— Suitable for emergency installations (acc. to
  EN 60598-2-22 and IEC 61347-2-13, appendix J)
  thanks to DC detection (0 Hz, pulsating DC), on/off
  switchable
— Feedback of power consumption and operating
  hours (Fit for SMART GRID)
— Suitable for buildings according to
  EPBD/BREEAM/LEED due to automatic
  Constant Lumen Output setting

Areas of application
— Installation in emergency lighting systems according
  to IEC 61347-2-13, appendix J
— Suitable for use in luminaires with flexible current
  setting (DALI, CLO, LEDset)
— Suitable for indoor SELV installations
— Suitable for luminaires of protection classes I and II
— Suitable for downlights, spotlights and LED panels
— Installation via Cable Clamp Kit possible
  (depending on version of product)

OPTOTRONIC® PC
Compact constant current LED drivers – Dimmable phase-cut
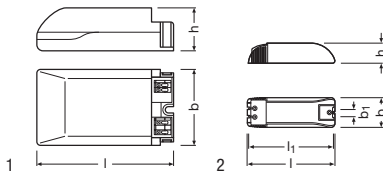
Product name	GTIN (EAN)	Hz	V_{IN}	V_{OUT}	$I_{[mA]}$	Ripple 100Hz	W	I [mm]	b [mm]
OTe 10/220…240/700 PC	**4052899105300**	50 / 60	198…264 [1]	7…14	700 [6]	35 % [8]	10 [9]	95	53
OTe 13/220…240/350 PC	**4052899105324**	50 / 60	198…264 [1]	18…38 [3]	350 [6]	25 % [8]	13 [10]	95	53
OTe 18/220…240/500 PC	**4052899105362**	50 / 60	198…264 [1]	18…36 [3]	500 [6]	< 35 % [8]	18 [11]	95	53
OTe 18/220…240/350 PC	**4052899105348**	50 / 60	198…264 [1]	27…54 [4]	350 [6]	< 35 % [8]	19 [12]	95	53
OTe 25/220…240/700 PC	**4052899105386**	50 / 60	198…264 [1]	18…36 [3]	700 [6]	< 35 % [8]	25 [13]	95	53
OTe 35/220…240/700 PC	**4008321825520**	50 / 60	195…264 [1]	27…50 [5]	700 [7]	< 35 % [8]	35 [14]	153	54

Product name	h [mm]	l1 [mm]	T_a	T_c	⌒	W	II / III	⬚	No.
OTe 10/220…240/700 PC	25	-	-20…+55	80 [2]	Yes	10…100 %	I / II	20	1
OTe 13/220…240/350 PC	25	-	-20…+55	85 [2]	Yes	10…100 %	I / II	20	1
OTe 18/220…240/500 PC	30	-	-20…+55	75 [2]	Yes	10…100 %	I / II	20	1
OTe 18/220…240/350 PC	30	-	-20…+50	75 [2]	Yes	10…100 %	I / II	20	1
OTe 25/220…240/700 PC	30	-	-20…+50	75 [2]	Yes	10…100 %	I / II	20	1
OTe 35/220…240/700 PC	36	146	-20…+45	75 [2]	Yes	10…100 %	I / II	10	2

1) Permitted voltage range
2) Maximum at the T_c point
3) Maximum <48 V
4) Maximum 60 V
5) Maximum <58 V
6) ±10%
7) ±5%
8) Typical
9) Partial load 5…10 W
10) Partial load 6.5…13.5 W
11) Partial load 9…18 W
12) Partial load 9.5…19 W
13) Partial load 12.5…25 W
14) Partial load 19…35 W

Product features
— Dimmable via leading edge/trailing edge
— Type of protection: IP20

Product benefits
— Compact housing for mounting in very tight spaces
— Compatible with the most common leading-edge and trailing-edge phase dimmers

Areas of application
— Optional cable clamp E-style for independent mounting
— Suitable for indoor installations
— Suitable for indoor SELV installations
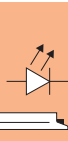
OPTOTRONIC® FIT LT2 LP

Compact constant current LED drivers – Non-dimmable

1
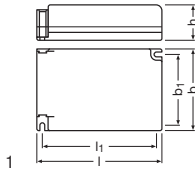
Product name	GTIN (EAN)	Hz	V_{IN}	V min-max.	V_{OUT}	I [mA]
OT FIT 15/220…240/500 LT2 LP	**4052899490673**	0 / 50 / 60	198…264	176…276	15…50	150…500
OT FIT 25/220…240/700 LT2 LP	**4052899490697**	0 / 50 / 60	198…264	176…276	15…50	300…700
OT FIT 40/220…240/1A0 LT2 LP	**4052899490734**	0 / 50 / 60	198…264	176…276	15…50	500…1050

Product name	Ripple 100Hz	W	I [mm]	b [mm]	h [mm]	l_1 [mm]	b_1 [mm]
OT FIT 15/220…240/500 LT2 LP	< 5 %	4.5…17.5	103	67	22.5	94	58
OT FIT 25/220…240/700 LT2 LP	< 5 %	8.0…26.5	103	67	22.5	94	58
OT FIT 40/220…240/1A0 LT2 LP	< 5 %	13…40	103	67	22.5	94	58

Product name	T_a	T_c		II / III		No.
OT FIT 15/220…240/500 LT2 LP	-20…+50	75	No	I / II	20	1
OT FIT 25/220…240/700 LT2 LP	-20…+50	75	No	I / II	20	1
OT FIT 40/220…240/1A0 LT2 LP	-20…+50	75	No	I / II	20	1

Product features

— Supply voltage: 220…240 V
— Line frequency: 0 Hz 50 Hz 60 Hz
— Line voltage: 198…264 V
— Safety according to EN 61347-1, 61347-2-13, 62384
— RI suppression according to EN 55015
— Line harmonics according to EN 61000-3-2
— Immunity according to EN 61547
— Lifetime: up to 100,000 h
  (temperature at T_c = 65 °C, max. 10 % failure rate)
— Independent connection via through-looping
  (depending on version of product)

Product benefits

— Versatile scope of application due to output power
  range of up to 40 W
— Fulfill safety requirement due to overload,
  overtemperature protection
— High efficiency
— Higher quality of light thanks to < 5 % output
  ripple current

Areas of application

— Installation in emergency lighting systems according
  to IEC 61347-2-13, appendix J
— Luminaires with flexible current setting (LEDset2)
— Suitable for indoor SELV installations
— Suitable for luminaires of protection classes I and II
— Suitable for downlights, spotlights and LED panels
— Independent mounting via Cable Clamp Kit possible

OPTOTRONIC® FIT LT2 S
Compact constant current LED drivers – Non-dimmable

1
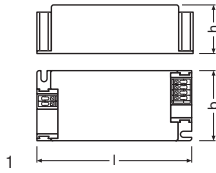
Product name	GTIN (EAN)	Hz	V$_{IN}$	V$_{OUT}$	I [mA]	Ripple 100 Hz
OT FIT 15/220…240/500 LT2 S	4052899956995	50 / 60	198…264	15…50	150…500	< 1 %
OT FIT 25/220…240/700 LT2 S	4052899957008	50 / 60	198…264	15…50	300…700	< 1 %
OT FIT 40/220…240/1A0 LT2 S	4052899957015	50 / 60	198…264	15…50	500…1050	< 1 %

Product name	W	l [mm]	b [mm]	h [mm]	l$_1$ [mm]	b$_1$ [mm]	T$_a$
OT FIT 15/220…240/500 LT2 S	4.5…17.5	97	43	29.5	88	34	-20…+50
OT FIT 25/220…240/700 LT2 S	8.0…26.5	97	43	29.5	88	34	-20…+50
OT FIT 40/220…240/1A0 LT2 S	13…40	97	43	29.5	88	34	-20…+40

Product name	T$_c$				No.
OT FIT 15/220…240/500 LT2 S	75	No	I / II	20	1
OT FIT 25/220…240/700 LT2 S	75	No	I / II	20	1
OT FIT 40/220…240/1A0 LT2 S	75	No	I / II	20	1

Product features
— Supply voltage: 220…240 V
— Line frequency: 50 Hz 60 Hz
— Line voltage: 198…264 V
— Safety according to EN 61347-1, 61347-2-13, 62384
— RI suppression according to EN 55015
— Line harmonics according to EN 61000-3-2
— Immunity according to EN 61547
— Lifetime: up to 100,000 h
  (temperature at T$_c$ = 65 °C, max. 10 % failure rate)
— Cable clamp kit for independent mounting

Product benefits
— Versatile scope of application due to output power range of up to 40 W
— Fulfill safety requirement due to overload, overtemperature protection
— High efficiency
— High quality of light thanks to < 1 % output ripple current
— Small housing for flexible luminaire designs

Areas of application
— Luminaires with flexible current setting (LEDset2)
— Suitable for indoor SELV installations
— Suitable for luminaires of protection classes I and II
— Suitable for downlights, spotlights and LED panels
— Independent mounting via Cable Clamp Kit possible

OPTOTRONIC® FIT CS

Compact constant current LED drivers – Non-dimmable

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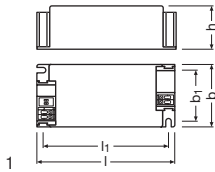
Product name	GTIN (EAN)	Hz	V_{IN}	V_{OUT}	$I_{[mA]}$
OT FIT 20/220…240/500 CS	**4052899435612**	50 / 60	198…264	25…42	250 / 350 / 450 / 500
OT FIT 30/220…240/700 CS	**4052899435636**	50 / 60	198…264	25…42	500 / 600 / 700 / 650
OT FIT 40/220…240/1A0 CS	**4052899435650**	50 / 60	198…264	25…42	800 / 900 / 1050 / 950

Product name	Ripple 100 Hz	W	l [mm]	b [mm]	h [mm]	l₁ [mm]	b₁ [mm]
OT FIT 20/220…240/500 CS	< 5 %	6.5…21	97	43	29.5	88	34
OT FIT 30/220…240/700 CS	< 5 %	11.5…29.4	97	43	29.5	88	34
OT FIT 40/220…240/1A0 CS	< 5 %	20…44	97	43	29.5	88	34

Product name	T_a	T_c				No.
OT FIT 20/220…240/500 CS	-20…+50	80	No	II	20	1
OT FIT 30/220…240/700 CS	-20…+50	80	No	II	20	1
OT FIT 40/220…240/1A0 CS	-20…+50	75	No	II	20	1

Product features
— Supply voltage: 220…240 V
— Line frequency: 50 Hz 60 Hz
— Line voltage: 198…264 V
— Safety according to EN 61347-1, 61347-2-13, 62384
— RI suppression according to EN 55015
— Line harmonics according to EN 61000-3-2
— Immunity according to EN 61547
— Lifetime: up to 50,000 h
  (temperature at T_c = 70 °C, max. 10 % failure rate)
— Cable clamp kit for independent mounting

Product benefits
— High quality of light thanks to low output
  ripple current
— High flexibility due to four different output currents
— Small housing for flexible luminaire designs
— High efficiency

Areas of application
— Suitable for downlights, spotlights and LED panels
— Suitable for luminaires of protection classes I and II

OPTOTRONIC® Cable Clamp
Driver accessories
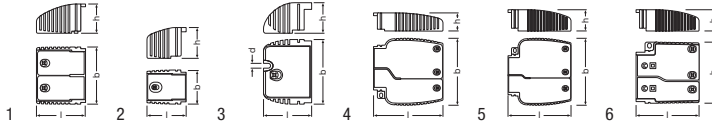
Product name	GTIN (EAN)	l [mm]	b [mm]	h [mm]	📦	💡 No.
OT CABLE CLAMP A-STYLE	**4052899089570**	35	65	25	20	1
OT CABLE CLAMP B-STYLE	**4052899077881**	49.2	57.7	29.5	20	1
OT CABLE CLAMP D-STYLE	**4052899077904**	38.5	33	29.5	40	2
OT CABLE CLAMP E-STYLE	**4052899167896**	38	53	25	20	3
OT CABLE CLAMP F-STYLE	**4052899325555**	38	53	30	20	3
OT CABLE CLAMP A-STYLE TL	**4052899325982**	90	92	25	20	4
OT CABLE CLAMP B-STYLE TL	**4052899948051**	90	92	29.5	20	5
OT CABLE CLAMP B-STYLE LP TL	**4052899530997**	50	67	22	20	6

Product features
— Easy-to-install and flexible cable clamps
— Separate cable clamps for primary and secondary side
— Pre-fixed, captive screws
— Through-looping (TL version)

Areas of application
— Downlights, flat luminaires
— Suitable for different cable types
— Suitable for indoor installations

Product benefits
— Simple and quick cable mounting
— Sufficient space for cable connection
— Cost-effective and space-saving solution (TL version)
— Free cable connection thanks to open flaps
— Immediate installation thanks to pre-assembled cable clamps

Summary of LED driver/cable clamp combinations

	Product name	GTIN (EAN)	OT Cable Clamp
DALI – SELV	OTi DALI 15/220-240/1A0 LT2 NFC	4052899324879	F-STYLE
	OTi DALI 25/220-240/700 LT2 NFC	4052899488144	B-STYLE, B-STYLE TL
	OTi DALI 35/220-240/1A0 LT2 NFC	4052899488168	B-STYLE, B-STYLE TL
	OTi DALI 50/220-240/1A4 LT2F NFC	4052899488182	A-STYLE, A-STYLE TL
	OTi DALI 15/220-240/1A0 LT2	4052899324879	F-STYLE
	OTi DALI 25/220-240/700 LT2	4052899488144	B-STYLE, B-STYLE TL
	OTi DALI 35/220-240/1A0 LT2	4052899488168	B-STYLE, B-STYLE TL
	OTi DALI 50/220-240/1A4 LT2 FAN	4052899488182	A-STYLE, A-STYLE TL
Phase-cut (PC) – SELV	OTE 10/220-240/700 PC	4052899105300	E-STYLE
	OTE 11/220-240/300 PC	4052899482937	E-STYLE
	OTE 13/220-240/350 PC	4052899105324	E-STYLE
	OTE 18/220-240/350 PC	4052899105348	E-STYLE
	OTE 18/220-240/500 PC	4052899105362	E-STYLE
	OTE 25/220-240/700 PC	4052899105386	E-STYLE
	OTE 35/220-240/700 PC	4008321825520	E-STYLE
OT FIT CS – SELV	OT FIT 20/220-240/500 CS	4052899435612	D-STYLE
	OT FIT 30/220-240/700 CS	4052899435636	D-STYLE
	OT FIT 40/220-240/1A0 CS	4052899435650	D-STYLE
OT FIT LT2 – SELV	OT FIT 15/220-240/500 LT2 S	4052899956995	D-STYLE
	OT FIT 25/220-240/700 LT2 S	4052899957008	D-STYLE
	OT FIT 40/220-240/1A0 LT2 S	4052899957015	D-STYLE
OT FIT LT2 LP – SELV	OT FIT 15/220-240/500 LT2 LP	4052899490673	B-STYLE LP TL
	OT FIT 25/220-240/700 LT2 LP	4052899490697	B-STYLE LP TL
	OT FIT 40/220-240/1A0 LT2 LP	4052899490734	B-STYLE LP TL

ELEMENT S
Compact constant current LED drivers – Non-dimmable
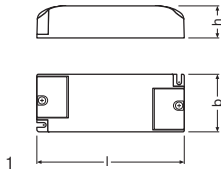
Product name	GTIN (EAN)	Hz	V_{IN}	V_{OUT}	$I_{[mA]}$	Ripple 100 Hz	W	l [mm]
ELEMENT 6/220…240/150 S	4052899552821	50 / 60	220…240	30…42	150[1]	< 30 %	6	115
ELEMENT 8/220…240/200 S	4052899552845	50 / 60	220…240	30…42	200[1]	< 30 %	8	115
ELEMENT 10/220…240/250 S	4052899552869	50 / 60	220…240	30…42	250[1]	< 30 %	10	115
ELEMENT 12/220…240/300 S	4052899552883	50 / 60	220…240	30…42	300[1]	< 30 %	12	115
ELEMENT 15/220…240/350 S	4052899552906	50 / 60	220…240	30…42	350[1]	< 30 %	15	115
ELEMENT 20/220…240/500 S	4052899552920	50 / 60	220…240	30…42	500[1]	< 30 %	20	115
ELEMENT 25/220…240/600 S	4052899552944	50 / 60	220…240	30…42	600[1]	< 30 %	25	115
ELEMENT 30/220…240/700 S	4052899552999	50 / 60	220…240	30…42	700[1]	< 30 %	30	115
ELEMENT 33/220…240/800 S	4052899553019	50 / 60	220…240	30…42	800[1]	< 30 %	33	115
ELEMENT 38/220…240/900 S	4052899553033	50 / 60	220…240	30…42	900[1]	< 30 %	38	115
ELEMENT 44/220…240/1050 S	4052899553057	50 / 60	220…240	30…42	1050[1]	< 30 %	44	115

Product name	b [mm]	h [mm]	T_a	◐	II / III	IP	🗆	No.
ELEMENT 6/220…240/150 S	45	25	-20…+50	No	I / II	IP20	50	1
ELEMENT 8/220…240/200 S	45	25	-20…+50	No	I / II	IP20	50	1
ELEMENT 10/220…240/250 S	45	25	-20…+50	No	I / II	IP20	50	1
ELEMENT 12/220…240/300 S	45	25	-20…+50	No	I / II	IP20	50	1
ELEMENT 15/220…240/350 S	45	25	-25…+50	No	I / II	IP20	50	1
ELEMENT 20/220…240/500 S	45	25	-20…+50	No	I / II	IP20	50	1
ELEMENT 25/220…240/600 S	45	25	-20…+50	No	I / II	IP20	50	1
ELEMENT 30/220…240/700 S	45	25	-20…+50	No	I / II	IP20	50	1
ELEMENT 33/220…240/800 S	45	25	-20…+50	No	I / II	IP20	50	1
ELEMENT 38/220…240/900 S	45	25	-20…+50	No	I / II	IP20	50	1
ELEMENT 44/220…240/1050 S	45	25	-20…+50	No	I / II	IP20	50	1

1) ±5%

Product features
— Available with wattages of up to 44 W
— Constant output current
— Integrated cable clamp for luminaire and independent installation
— Operated with safety extra-low voltage (SELV): < 60 V
— Reversible overtemperature, overload, short-circuit and open-circuit protection

Product benefits
— Compatible with LEDs with chip-on-board technology and discrete LEDs
— High efficiency
— Simple installation and wiring

Areas of application
— Spotlight and downlight installations for shops
— Recessed luminaires
— Suitable for luminaires of protection classes I and II
— Suitable for indoor SELV installations

OPTOTRONIC®
Constant voltage LED drivers 24 V with DALI
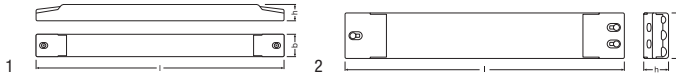
Product name	GTIN (EAN)	Hz	V_{IN}	V_{OUT}	W	l [mm]	b [mm]	h [mm]
OTi DALI 50/220…240/24 1…4 CH	4052899452916	0 / 50 / 60	198…264	24 [1]	50	346	32	22
OTi DALI 50/220…240/24 TW	4052899490772	0 / 50 / 60	198…264	24 [1]	50	346	32	22
OTi DALI 80/220…240/24 1…4 CH	4052899452893	0 / 50 / 60	198…264	24 [1]	80	346	32	22
OTi DALI 80/220…240/24 TW	4052899490758	0 / 50 / 60	198…264	24 [1]	80	346	32	22
OTi DALI 160/220…240/24 1-2 CH	4052899986305	0 / 50 / 60	198…264	24 [1]	160	300	50	35
OTi DALI 160/220…240/24 TW	4052899986312	0 / 50 / 60	198…264	24 [1]	160	300	50	35

Product name	T_a		W	II / III	IP		No.
OTi DALI 50/220…240/24 1…4 CH	-20…+45	Yes	0.1…100 %	I / II	IP20	20	1
OTi DALI 50/220…240/24 TW	-20…+45	Yes	0.1…100 %	I / II	IP20	20	1
OTi DALI 80/220…240/24 1…4 CH	-20…+45	Yes	0.1…100 %	I / II	IP20	20	1
OTi DALI 80/220…240/24 TW	-20…+45	Yes	0.1…100 %	I / II	IP20	20	1
OTi DALI 160/220…240/24 1-2 CH	-20…+45	Yes	0.1…100 %	I / II	IP20	20	2
OTi DALI 160/220…240/24 TW	-20…+45	Yes	0.1…100 %	I / II	IP20	20	2

1) DC voltage

Product features
— Dimmable via Touch DIM®
— LED driver whose output power can be shared arbitrarily among the 4 channels
— Dimming range: 0.1…100 %
— Line frequency: 0 Hz 50 Hz 60 Hz

Product benefits
— Intelligent power matching thanks to Smart Power Supply
— Slim form factor for mounting on the cove or in linear luminaires
— Minimized flicker thanks to high PWM frequency
— Suitable for installation in emergency lighting systems according to EN 60598-2-22
— Available as Tunable White version (DALI Device Type 8)
— DALI message detection "LED module failure"

Areas of application
— Cove lighting, wall washer, corridor, handrail
— Suitable for use in luminaires of protection class I and II

Equipment/Accessories
— Suitable for 24 V LED modules

OPTOTRONIC®
Constant voltage LED drivers 24 V with 1…10 V

Product name	GTIN (EAN)	Hz	V_{IN}	V_{OUT}	W	I [mm]	b [mm]	h [mm]	l_1 [mm]
OT 80/220…240/24 DIM P	**4008321981677**	50 / 60	198…264	24 [1]	80	250	50	34	241
OT 120/220…240/24 DIM P	**4008321981691**	50 / 60	198…264	24 [1]	120	250	60	39	241
OT 240/220…240/24 DIM P	**4008321981714**	50 / 60	198…264	24 [1]	240	250	80	39	241

Product name	b_1 [mm]	T_a	◯	W	II|III	IP	▱	No.
OT 80/220…240/24 DIM P	14	-25…+55	Yes	3…100 %	II	IP67	10	1
OT 120/220…240/24 DIM P	15	-25…+55	Yes	3…100 %	I	IP67	10	2
OT 240/220…240/24 DIM P	16	-25…+55	Yes	3…100 %	I	IP67	8	3

1) +1.0/-0.5 V

Product features
— Dimmable via fully isolated 1…10 V interface
— Driver with output power range of up to 240 W

Product benefits
— Versatile 1…10 V window driver up to 240 W due to
  flexible output characteristic
— Very high efficiency
— IP rating: IP67
— High surge protection:
  up to 3 kV (L-N)/6 kV (L/N-PE)

Areas of application
— Suitable for use in tight, flat luminaires or installation in
  suspended ceilings
— Suitable for indoor and outdoor SELV installations

OPTOTRONIC®
Constant voltage LED drivers 24 V

Product name	GTIN (EAN)	Hz	V$_{IN}$	V$_{OUT}$	W	l [mm]	b [mm]	h [mm]
OT 6/200…240/24 CE	**4008321113269**	50 / 60	180…264	24	6	51	50	22
OT 20/200…240/24	**4050300618111**	50 / 60	198…264	24	20	109	50	35
OT 30/220…240/24 P	**4052899043497**	50 / 60	198…264	24	30	220	40	22
OT 50/220…240/24	**4052899905566**	50 / 60	198…264	24	50	242	40	16
OT 50/220…240/24 P	**4052899043510**	50 / 60	198…264	24	50	220	40	22
OT 75/220…240/24	**4050300817477**	50 / 60	198…264	24	75	220	47	44
OT 75/220…240/24 E	**4008321362476**	50 / 60	198…264	24	75	241	43	30
OT 80/220…240/24 P	**4008321981684**	50 / 60	198…264	24	80	250	50	34
OT 120/220…240/24 P	**4008321981707**	50 / 60	198…264	24	120	250	60	39
OT 240/220…240/24 P	**4008321981721**	50 / 60	198…264	24	240	250	80	39

Product name	l$_1$ [mm]	T$_a$	⌒	II III	IP	⬚
OT 6/200…240/24 CE	-	-20…+50	Yes [1]	II	IP65	20
OT 20/200…240/24	-	-20…+45	Yes [1]	II	IP20	20
OT 30/220…240/24 P	213	-25…+55	Yes [1]	II	IP66	30
OT 50/220…240/24	-	-20…+45	Yes [1]	II	IP20	20
OT 50/220…240/24 P	213	-25…+55	Yes [1]	II	IP66	30
OT 75/220…240/24	180	-20…+50	Yes [1]	II	IP20	10
OT 75/220…240/24 E	227	-20…+60	Yes [1]	II	IP64	10
OT 80/220…240/24 P	241	-25…+55	Yes [1]	II	IP67	10
OT 120/220…240/24 P	241	-25…+55	Yes [1]	I	IP67	10
OT 240/220…240/24 P	241	-25…+55	Yes [1]	I	IP67	8

1) With OPTOTRONIC dimmers

Product benefits
— Versatile scope of application due to output power range of up to 240 W
— Very high efficiency
— Constant luminous flux for very low and high temperatures due to Smart Power Supply

Areas of application
— Suitable for indoor and outdoor SELV installations
— Outdoor applications only in suitable installations
— Suitable for use in tight, flat luminaires or installation in suspended ceilings

OPTOTRONIC®
Constant voltage LED drivers 12 V

Product name	GTIN (EAN)	Hz	V$_{IN}$	V$_{OUT}$	W	I [mm]	b [mm]
OT 15/220…240/12 P	**4052899905559**	50 / 60	198…264	12.5	15	237	20
OT 30/220…240/12 P	**4052899905542**	50 / 60	198…264	12.5	30	220	40
OTe 60/110…277/12 E	**4008321794338**	50 / 60	100…305	12.5	60	241	43
OT 60/220…240/12 P	**4008321790811**	50 / 60	198…264	12.5	60	180	50
OTe 120/110…277/12 E	**4008321821263**	50 / 60	100…305	12.5	120	258	51.2
OT 120/220…240/12 P	**4008321790835**	50 / 60	198…264	12.5	120	250	60

Product name	h [mm]	T$_a$	⌒	II / III	IP	▱
OT 15/220…240/12 P	22	-25…+55	Yes [1]	II	IP66	50
OT 30/220…240/12 P	22	-25…+55	Yes [1]	II	IP66	30
OTe 60/110…277/12 E	30	-25…+55	No	I	IP64	10
OT 60/220…240/12 P	34	-25…+55	Yes [1]	II	IP67	10
OTe 120/110…277/12 E	44.5	-25…+55	No	I	IP64	10
OT 120/220…240/12 P	39	-25…+55	Yes [1]	I	IP67	10

1) With OPTOTRONIC dimmers

Product benefits
— Versatile scope of application due to output power
   range of up to 120 W
— Very high efficiency
— IP rating: up to IP67
— High surge protection:
   up to 3 kV (L-N)/6 kV (L/N-PE)

Areas of application
— Suitable for indoor and outdoor installations
— Ideal for mounting in very tight spaces
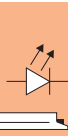
ELEMENT

Constant voltage LED drivers 24 V – Non-dimmable
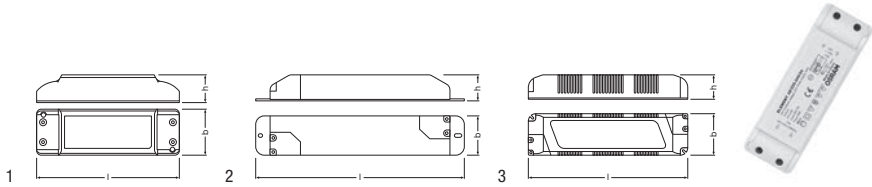
Product name	GTIN (EAN)	Hz	V_{IN}	V_{OUT}	W	⊒⊑	l [mm]	b [mm]
ELEMENT 30/220…240/24	**4052899463776**	50 / 60	198…264	24	30	SELV	140	45
ELEMENT 60/220…240/24	**4052899463790**	50 / 60	198…264	24	60	SELV	238.9	45.5
ELEMENT 90/220…240/24	**4052899463813**	50 / 60	198…264	24	90	SELV	230	60

Product name	h [mm]	T_a	⌒	II / III	IP	📦	No.
ELEMENT 30/220…240/24	27.5	-20…+45	No	II	IP20	20	1
ELEMENT 60/220…240/24	30	-20…+50	No	II	IP20	20	2
ELEMENT 90/220…240/24	35	-20…+50	No	II	IP20	20	3

Product features
— Lifetime: up to 50,000 h (temperature at t_c = 75 °C)
— Overtemperature protection
— Overload protection

Product benefits
— Large output power range: up to 90 W
— Compatible with OSRAM Flex® products
— Excellent price/performance ratio

Areas of application
— Suitable for luminaires of protection class II
— Decorative lighting in hospitality, restaurants and shops
— Shelf lighting for shops
— Cove lighting
— Under-cabinet lighting

OPTOTRONIC®
Constant voltage dimmers with Bluetooth

1
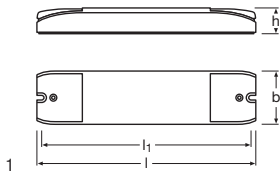
Product name	GTIN (EAN)	V_{OUT}	W	I [mm]	b [mm]	h [mm]	l₁ [mm]
OT BLE DIM	**4052899557833**	12…24	240	172	42	20	164

Product name	T_a	◯	W	II III	IP		No.
OT BLE DIM	-20…+45	Yes	0…100 %	III	IP20	20	1

Product features
— Wireless 4-channel dimmer, with a output voltage of 12 V and 24 V
— Control of LED loads of up to 240 W
— Wireless module based on Bluetooth Low Energy

Product benefits
— Control of white, Tunable White, RGB and RGBW LED modules
— Independent housing for ceiling installation
— Support of systems based on Casambi lighting control solutions
— Minimal installation effort
— Dry contacts for connection to any commercial pushbutton

Areas of application
— Suitable for indoor installations
— Shops and hospitality: retail, hotels, restaurants
— Museums
— Residential buildings

OPTOTRONIC®
Constant voltage dimmers with DALI

Product name	GTIN (EAN)	V_{OUT}	W	l [mm]	b [mm]	h [mm]	l₁ [mm]
OTi DALI DIM	**4008321061195**	10.5…24	120	172	42	20	164

Product name	T_a		W		IP		No.
OTi DALI DIM	-20…+50	Yes	0…100 %	II	IP20	20	1

Product features
— Intelligent digital dimmer (DALI) with constant output voltage
— Dimming range: 0…100 %
— Device fits also for special applications where dimming below 1 % is required

Product benefits
— Very precise dimming thanks to digital light control

Areas of application
— Suitable for indoor installations
— Separate installation (ceiling mounting)

OPTOTRONIC®
Constant voltage dimmers with DMX
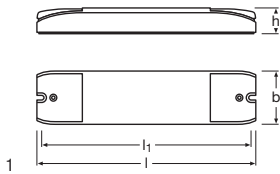
Product name	GTIN (EAN)	V_{OUT}	W	l [mm]	b [mm]	h [mm]	l₁ [mm]
OT DMX RGB DIM	**4008321160829**	10.5…24	144	172	42	20	164
OT DMX RGBW DIM	**4052899557949**	12…24	172	172	42	20	164

Product name	T_a		W	II III	IP		No.
OT DMX RGB DIM	-20…+50	Yes	0…100 %	III	IP20	20	1
OT DMX RGBW DIM	-20…+50	Yes	0…100 %	III	IP20	20	1

Product features
— Intelligent DMX dimmer with multi-channel topology and single control
— Automatic or manual addressing
— Device fits also for special applications where dimming below 1 % is required

Product benefits
— 3- and 4-channel DMX dimmer for RGB and RGBW LED modules
— Independent housing for ceiling installation
— High PWM frequency to optimize video recording

Areas of application
— Suitable for indoor installations
— Shops and hospitality: retail, hotels, restaurants
— Museums
— Residential buildings

OPTOTRONIC®
Constant voltage dimmers with 1…10 V
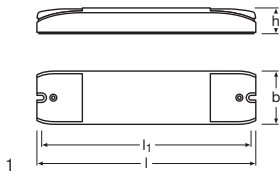
Product name	GTIN (EAN)	V_{OUT}	W	l [mm]	b [mm]	h [mm]	l₁ [mm]
OT DIM	4050300943459	10.5…24	120	172	42	20	164

Product name	T_a	⌒	W	II/III	IP		No.
OT DIM	-20…+50	Yes [1]	0…100 %	II	IP20	20	1

[1] 1 channel PWM output

Product features
— Intelligent analog dimmer (1…10 V) with constant output voltage
— Dimming range: 0…100 %
— Cable clamp housing for independent mounting
— Device fits also for special applications where dimming below 1 % is required

Product benefits
— 1...10V control port basic isolated

Areas of application
— Suitable for indoor SELV installations

OPTOTRONIC®
Outdoor LED drivers

OPTOTRONIC® LED drivers for outdoor applications

Long life, low maintenance and high efficiency are very important for outdoor applications. OPTOTRONIC® LED drivers for outdoor applications fulfill these expectations and use the advantages of LED-based light sources.

The high flexibility of these devices enables the optimal adaptation to required lighting conditions as well as the cost optimization of LED luminaire systems.

Significant energy savings as well as a reduction of CO_2 emissions can be achieved thanks to the integrated dimming functions (depending on the device family). Because of the large operating window (voltage/current) of these LED drivers, a wide range of LED modules are supported. The table on the next page can be used as a guide.

OSRAM sets new standards with integrated overvoltage protection for protection class I and II luminaires. The following constant current LED driver families are available for outdoor applications.

For further information, go to
www.osram.com/outdoordimming

	ON/OFF	ON/OFF	1DIM	2DIM	4DIM	4DIM
Product name	OT 700 P5	High Current	OT 1DIMLT2 E	OT 2DIMLT2 P	OT 4DIMLT2 E	OT 4DIMLT2 G2 E
Output power	17–250W	50–200W	2–165W	10–110W	6–165W	2–165W
Output current	700 mA	2100–5600 mA	70–1050 mA	105–800 mA 180–1250 mA/ 1400 mA	70–1050 mA	70–1050 mA
Isolation prim./sec.	Double	Double	Double	Double	Double	Double
Surge voltage strength						
L - N	6 kV	6 kV	6 kV	6 kV	6 kV	6 kV
L/N - Earth	6 kV	6 kV	10 kV	6 kV	8 kV	10 kV
Dimming functionality						
StepDIM	—	—	—	(●)[1]	●	●
AstroDIM	—	—	●	—	●	●
AstroDIM (incl. presence detection)	—	—	—	(●)[1]	●	●
MainsDIM	—	—	—	—	●	●
0-10V	—	—	—	●	—	—
DALI (Version-1)	—	—	—	—	●	—
DALI-2	—	—	—	—	—	●
CLO function [2] (constant lumen output)	—	—	●	●	●	●
Additional features						
Emergency Light [2]	—	—	—	—	●	●
Monitoring Data [2]	—	—	—	—	—	●
Luminaire Information [2]	—	—	—	—	—	●
Tuning Factor [2]	—	—	●	—	—	●
Driver Guard [2]	—	—	●	—	—	●
OEM Key [2]	—	—	—	—	●	—
Configuration Lock [2]	—	—	●	—	—	●
LED module interface						
LEDset2	—	—	●	●	●	●
Programming software						
Tuner4TRONIC®	—	—	●	●	●	●
Tuner4TRONIC® Field	—	—	●	—	—	●
Programming tool						
DALI magic	—	—	—	—	●	●
OT Programmer	—	—	—	●	—	—
NFC Programmer	—	—	●	—	—	●

1) With external relay
2) Feature summary on page 3.07 ff.

Control interfaces/dimming possibilities

Stand-alone control

AstroDIM

AstroDIM provides multi-stage night-time power reduction based on an internal timer referenced to the power ON/OFF time. There is no need for an external control infrastructure. The unit automatically performs a dimming profile based on the predefined scheduled reference to the midpoint, which is calculated based on the power ON/OFF times.

Presence-controlled

In this dimming mode, the light output can be adjusted to the activity around each light point with an additional external sensor powered by the mains, regardless of the actual dimming level of the AstroDIM mode.

Group control

StepDIM

The StepDIM (bi-power) mode allows switching between two output levels, the "normal" mode and the "reduced load" mode, by means of an additional switched phase. In the "reduced load" mode, the driver reduces the lighting level and therefore the energy consumption. The light levels can be preprogrammed flexibly.

MainsDIM

This feature is mainly used in combination with magnetic ballasts for outdoor applications. The light output is reduced by lowering the mains voltage. The reduction of the mains voltage is applied by a controller in the distribution cabinet.

Network control

DALI

In DALI mode, the driver can be integrated into a light management system such as the OSRAM Street Light Control system. The standardized DALI interface enables bi-directional communication between the driver and the light management system, which means that stepless dimming, status requests and addressing of each individual luminaire are possible. For additional information, please refer to pages 3.06 ff. and 4.60 ff.

0-10V

With a 0-10V interface, the driver can be integrated into a light management system such as the OSRAM Street Light Control system. This uni-directional interface allows adjusting the light output of the system.

Additional features

External temperature sensor

This feature allows the temperature protection of the LED module or the complete luminaire in hot ambient temperatures via an external sensor (e.g. NTC, negative temperature coefficient resistor). The derating can be modified via the Tuner4TRONIC® software.

Tuning Factor

Within limits predefined by the luminaire manufacturer, this feature allows an adjustment of the amount of light in the field or in production. Thus, one luminaire can manage different lumen packages. If the feature is combined with LEDset2, other lumen packages can also be achieved which differ in terms of resistor coding.

High overvoltage protection

With the OSRAM-developed EQUI connection, these drivers (depending on the OPTOTRONIC® family type) offer a high overvoltage protection up to 10kV in common mode (6kV in differential mode) for protection class I or II, protecting not only the LED driver, but also the connected module.

OPTOTRONIC® Outdoor
Constant current LED drivers – Non-dimmable

| 1 | 2 | 3 | 4 |
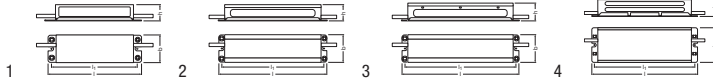
Product name	GTIN (EAN)	V_{IN}	W	V_{OUT}	$I_{[mA]}$	l [mm]	b [mm]	h [mm]
OT 50/120…277/700 P5	**4052899259003**	108…305 [1]	50 [2]	24…74	700 [6]	168	50	30
OT 100/120…277/700 P5	**4052899259065**	108…305 [1]	100 [3]	55…152	700 [6]	168	60	39
OT 180/120…277/700 P5	**4052899259027**	108…305 [1]	180 [4]	115…257	700 [6]	251	60	39
OT 250/120…277/700 P5	**4052899259041**	108…305 [1]	250 [5]	180…357	700 [6]	267	89	55

Product name	l₁ [mm]	T_a	⌒	II / III	IP	▱	No.
OT 50/120…277/700 P5	152	-40…+55	No	I	IP65	20	1
OT 100/120…277/700 P5	152	-40…+55	No	I	IP65	20	2
OT 180/120…277/700 P5	236.3	-40…+55	No	I	IP65	10	3
OT 250/120…277/700 P5	254.6	-40…+50	No	I	IP65	6	4

1) Permitted voltage range
2) Partial load 17…50 W
3) Partial load 39…100 W
4) Partial load 80…180 W
5) Partial load 125…250 W
6) ±5%

Product features
— Available with different wattages: 50 W, 100 W, 180 W, 250 W
— Input voltage: 120…277 V
— Output current: 700 mA
— Overtemperature protection

Product benefits
— High surge protection: up to 6 kV (L-N)/6 kV (L/N-PE)
— High efficiency
— Great flexibility due to wide operating temperature range of -40…50 °C or 55 °C
— IP rating: IP65

Areas of application
— Street and urban lighting
— Industry
— Suitable for luminaires of protection class I

OPTOTRONIC® Outdoor
High current LED drivers – Non-dimmable
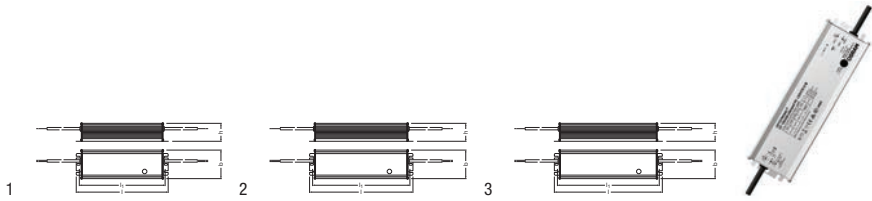
Product name	GTIN (EAN)	V_{IN}	W	V_{OUT}	I[mA]	l [mm]	b [mm]	h [mm]
OT 100/220…240/4A2 P5	**4052899410657**	198…264 [1]	100 [2]	24…48	2.1…4.2 [5]	212.5	68	42.5
OT 150/220…240/4A9 P5	**4052899410671**	198…264 [1]	150 [3]	30…60	2.45…4.9 [5]	242.5	68	42.5
OT 200/220…240/5A6 P5	**4052899410695**	198…264 [1]	200 [4]	35…70	2.8…5.6 [5]	252.5	68	42.5

Product name	l₁ [mm]	T_a	⌒	II/III	IP		No.
OT 100/220…240/4A2 P5	201.6	-40…+55	No	I	IP65	10	1
OT 150/220…240/4A9 P5	231.5	-40…+55	No	I	IP65	10	2
OT 200/220…240/5A6 P5	241.6	-40…+50	No	I	IP65	10	3

1) Permitted voltage range
2) Partial load 51…100 W
3) Partial load 74…150 W
4) Partial load 98…200 W
5) ±5%

Product features
— Overtemperature protection
— Available with different wattages: 100 W, 150 W, 200 W
— Line voltage: 220…240 V
— Current setting via potentiometer without programming

Product benefits
— High surge protection: up to 6 kV
— High efficiency
— Adjustable and wide output current range
— Constant current output
— Protection through double isolation between primary and secondary side (SELV)
— IP rating: IP65
— Long lifetime: up to 100,000 h

Areas of application
— Independent installation
— Street and urban lighting
— Industry
— Suitable for luminaires of protection class I

OPTOTRONIC® Outdoor
Constant current LED drivers with 1DIM/AstroDIM
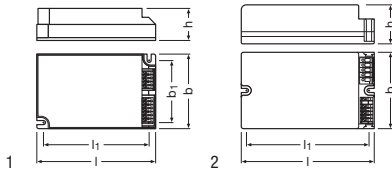
Product name	GTIN (EAN)	V_{IN}	W	V_{OUT}	I [mA]	l [mm]	b [mm]	h [mm]
OT 20/170…240/1A0 1DIMLT2 G1 CE	**4052899517400**	170…264	22	10…38	70…1050	123	79	33
OT 40/170…240/1A0 1DIMLT2 G1 CE	**4052899517424**	170…264	40	15…56	70…1050	123	79	33
OT 75/170…240/1A0 1DIMLT2 G1 CE	**4052899541092**	170…264	75	35…115	70…1050	133	77	40
OT 110/170...240/1A0 1DIMLT2 G1 CE [1]	**4052899541115**	170…264	110	80…220	70…1050	150	90	40

Product name	l₁ [mm]	b₁ [mm]	T_a	⊙	II/III	IP	▱	No.
OT 20/170…240/1A0 1DIMLT2 G1 CE	111	67	-40…+60	Yes	I / II	IP20	20	1
OT 40/170…240/1A0 1DIMLT2 G1 CE	111	67	-40…+60	Yes	I / II	IP20	20	1
OT 75/170...240/1A0 1DIMLT2 G1 CE	122.5	-	-40…+60	Yes	I / II	IP20	10	2
OT 110/170...240/1A0 1DIMLT2 G1 CE [1]	134	-	-40…+55	Yes	I / II	IP20	10	2

1) In development, data preliminary

Product features
— Supply voltage: 220…240 V
— Current output range: 70…1,050 mA
— Easy and fast wireless luminaire programming via NFC
— Flexible current setting with one additional wire (LEDset2)
— AstroDIM for autonomous dimming with five independent levels (astro, time mode)
— Standby power consumption: < 0.5 W
— Constant lumen function
— Overtemperature protection via external NTC
— Integrated customizable thermal management (Driver Guard)

Product benefits
— Easy and fast wireless luminaire programming
— Very high efficiency
— Optimized for AstroDIM operation
— Wide current output range: 200 mA…1050 mA
— High surge protection: up to 10 kV (in protection class I or II)
— Great flexibility due to wide operating temperature range of -40…55 °C or 60 °C
— Protection through double isolation between mains input and LED output

Areas of application
— Street and urban lighting
— Industry
— Suitable for outdoor applications in luminaires with IP > 65
— Suitable for use in outdoor luminaires of protection class I and II

OPTOTRONIC® Outdoor
Constant current LED drivers with 2DIM/0…10 V
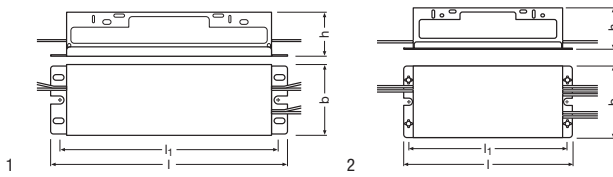
Product name	GTIN (EAN)	V_{IN}	W	V_{OUT}	I[mA]	l [mm]	b [mm]	h [mm]
OT 50/120…277/800 2DIMLT2 P [1]	**4052899173781**	108…305 [5]	50 [6]	30…115	105...800	168	50	30
OT 50/120…277/1A2 2DIMLT2 P [1]	**4052899173804**	108…305 [5]	50 [7]	20…55	180...1250	168	50	30
OT 100/120…277/800 2DIMLT2 P [1]	**4052899253414**	108…305 [5]	100 [8]	50…186	105...800	168	68	38
OT 110/120…277/1A4 2DIMLT2 P [1]	**4052899253438**	108…305 [5]	110 [9]	35…85	180...1400	168	68	38

Product name	l₁ [mm]	T_a	◠	II/III	IP	▱	No.
OT 50/120…277/800 2DIMLT2 P [1]	152	-40…+55 [2]	Yes	I / II	IP64	20	1
OT 50/120…277/1A2 2DIMLT2 P [1]	152	-40…+55 [2]	Yes	I / II	IP64	20	1
OT 100/120…277/800 2DIMLT2 P [1]	152	-40…+55 [3]	Yes	I / II	IP64	20	2
OT 110/120…277/1A4 2DIMLT2 P [1]	152	-40…+55 [4]	Yes	I / II	IP64	20	2

1) No on/off switching of lamps possible via 0…10 V interface
2) T_a(max) = 50 °C for input voltage 120/277 V_{AC}
3) T_a(max) = 45 °C for input voltage 120 V_{AC} / T_a(max) = 50 °C for input voltage 277 V_{AC}
4) T_a(max) = 40 °C for input voltage 120 V_{AC} / T_a(max) = 55 °C for input voltage 277 V_{AC}
5) Permitted voltage range
6) Partial load 11…50 W / Not dimmed
7) Partial load 12…50 W / Not dimmed
8) Partial load 45…100 W / Not dimmed
9) Partial load 45…110 W / Not dimmed

Product features
— Available with different wattages: 50 W, 100 W, 110 W
— Input voltage: 120…277 V
— Available with output current range: up to 1,400 mA
— Flexible current setting with one additional wire (LEDset2)
— AstroDIM for autonomous dimming with five independent levels (astro mode)
— Isolated 0…10 V interface for unidirectional telemanagement systems
— Constant lumen function
— Overtemperature protection with external NTC or LEDset2 interface

— Fast programming without mains voltage
— High efficiency
— Great flexibility due to wide operating temperature range of -40…55 °C
— Protection through double isolation between mains input and LED output
— IP rating: IP64

Areas of application
— Street and urban lighting
— Industry
— Suitable for luminaires of protection classes I and II

Equipment/Accessories
— OT Programmer hardware for configuration of 2DIM ECGs necessary
— Programmable via Tuner4TRONIC® software

Product benefits
— 2DIM functionality in one device (AstroDIM, 0…10 V)
— High surge protection: up to 6 kV (in protection class I or II)

OPTOTRONIC® Outdoor
Constant current LED drivers with 4DIM/DALI
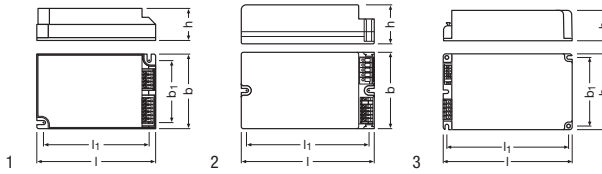
Product name	GTIN (EAN)	V_{IN}	W	V_{OUT}	$I_{[mA]}$	l [mm]	b [mm]	h [mm]
OT 40/120…277/1A0 4DIMLT2 E	**4052899925182**	108…305 [1]	40 [4]	15…56	70…1050	123	79	33
OT 60/170…240/1A0 4DIMLT2 E	**4052899925199**	170…264 [1]	60 [5]	30…115 [8]	70…1050	133	77	40
OT 90/170…240/1A0 4DIMLT2 E	**4052899925205**	170…264 [1]	90 [6]	57…186	70…1050	133	77	40
OT 165/170…240/1A0 4DIMLT2 E	**4052899925212**	170…264 [1]	165 [7]	95…285 [9]	120…1050	170	100	40

Product name	l_1 [mm]	b_1 [mm]	T_a	⊙	II/III	IP	🔲	No.
OT 40/120…277/1A0 4DIMLT2 E	111	67	-40…+60 [2]	Yes	I / II	IP20 [10]	20	1
OT 60/170…240/1A0 4DIMLT2 E	122.5	-	-40…+60 [3]	Yes	I / II	IP20 [10]	20	2
OT 90/170…240/1A0 4DIMLT2 E	122.5	-	-40…+55	Yes	I / II	IP20 [10]	20	2
OT 165/170…240/1A0 4DIMLT2 E	160	90	-30…+55	Yes	I / II	IP20 [10]	10	3

1) Permitted voltage range
2) T_a(max) = 55 °C for input voltage 120/277 V_{AC}
3) T_a(max) = 60 °C I_{out} ≤ 700 mA, T_a(max) = 55 °C I_{out} > 700 mA
4) Partial load 7…40 W / Not dimmed
5) Partial load 11…60 W / Not dimmed
6) Partial load 20…90 W / Not dimmed
7) Partial load 32…165 W / 150 W max. for output currents < 680 mA / Not dimmed
8) 35…115 V for output current >700 mA
9) 90…242 V for output current >680 mA
10) IP fixture rating > IP54

Product features
— Available with different wattages: 40 W, 60 W,
  90 W, 165 W
— Input voltage: 120…277 V (40 W), 220…240 V
  (60 W, 90 W, 165 W)
— Current output range: 70…1,050 mA
— Flexible current setting with one additional wire
  (LEDset2)
— AstroDIM for autonomous dimming with five
  independent levels (astro, time mode)
— Allows for energy saving in twilight phases
— MainsDIM function for dimming via reduction of line
  voltage amplitude
— Isolated DALI interface for bidirectional
  telemanagement systems
— Standby power consumption: < 0.5 W
— Constant lumen function
— Overtemperature protection via external NTC

Product benefits
— 4DIM functionality in one device
  (StepDIM, AstroDIM, MainsDIM, DALI)
— Very high efficiency
— High surge protection: up to 10 kV (1 pulse)/8 kV,
  in protection class I or II
— Low luminous efficacy tolerance through low output
  current tolerance of ± 3 %
— Great flexibility due to wide operating temperature
  range of -40…55 °C or 60 °C
— Protection through double isolation between mains
  input and LED output

Areas of application
— Street and urban lighting
— Industry
— Suitable for outdoor applications in luminaires
  with IP > 54
— Suitable for use in outdoor luminaires of protection
  class I and II

Equipment/Accessories
— DALI magic hardware for configuring
  4DIM ECGs necessary
— Programmable via Tuner4TRONIC® software

OPTOTRONIC® Outdoor
Constant current LED drivers with 4DIM/DALI and NFC
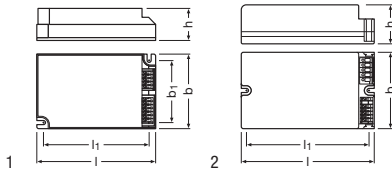
Product name	GTIN (EAN)	V$_{IN}$	W	V$_{OUT}$	I[mA]	l [mm]	b [mm]	h [mm]
OT 20/170…240/1A0 4DIMLT2 G2 CE	**4052899981928**	170…264	22	10…38	70…1050	123	79	33
OT 40/170…240/1A0 4DIMLT2 G2 CE	**4052899981935**	170…264	40	15…56	70…1050	123	79	33
OT 75/170…240/1A0 4DIMLT2 G2 CE [1]	**4052899981942**	170…264	75	35…115	70…1050	133	77	40
OT 110/170…240/800 4DIMLT2 G2 CE [1]	**4052899981959**	170…264	110	80…220	70…1050	150	90	40

Product name	l$_1$ [mm]	b$_1$ [mm]	T$_a$	⌒	II/III	IP	⊞	No.
OT 20/170…240/1A0 4DIMLT2 G2 CE	111	67	-40…+60	Yes	I / II	IP20	20	1
OT 40/170…240/1A0 4DIMLT2 G2 CE	111	67	-40…+60	Yes	I / II	IP20	20	1
OT 75/170…240/1A0 4DIMLT2 G2 CE [1]	122.5	-	-40…+60	Yes	I / II	IP20	10	2
OT 110/170…240/800 4DIMLT2 G2 CE [1]	134	-	-40…+55	Yes	I / II	IP20	10	2

1) In development, data preliminary

Product features
— Supply voltage: 220…240 V
— Current output range: 70…1,050 mA
— Easy and fast wireless luminaire programming via NFC
— Flexible current setting with one additional wire (LEDset2)
— AstroDIM for autonomous dimming with five independent levels (astro, time mode)
— Allows for energy saving in twilight phases
— MainsDIM function for dimming via reduction of line voltage amplitude
— Isolated DALI interface for bidirectional telemanagement systems
— Standby power consumption: < 0.5 W
— Constant lumen function
— Overtemperature protection via external NTC
— Integrated customizable thermal management (Driver Guard)

Product benefits
— 4DIM functionality in one device (StepDIM, AstroDIM, MainsDIM, DALI)
— Easy and fast wireless luminaire programming
— Very high efficiency
— Wide current output range: 200 mA…1050 mA
— High surge protection: up to 10 kV (in protection class I or II)
— Great flexibility due to wide operating temperature range of -40…55 °C or 60 °C
— Protection through double isolation between mains input and LED output

Areas of application
— Street and urban lighting
— Industry
— Suitable for outdoor applications in luminaires with IP > 54
— Suitable for use in outdoor luminaires of protection class I and II

Tuner4TRONIC®

The Tuner4TRONIC® (T4T) software suite allows luminaire manufacturers to program OSRAM drivers via DALI and/or NFC in a simple, fast and cost-effective way, speeding up the production process. This software for Windows consists of three main modules: T4T Development (T4T-D), T4T Production (T4T-P) and T4T Machine (T4T-M).

With T4T Development, drivers can be configured by setting each individual parameter such as output current, dimming levels, constant lumen output, operating modes and much more. With the Configuration Lock, drivers can be protected with a multi-level password system against unauthorized modification while service personnel can be given access to modify selected features. When the configuration is finished, the settings are exported as an encrypted read-only production file and sent to the assembly line.

T4T Production features a multilingual user interface and allows operators to load the encrypted production files intuitively to start the automatic programming for fast mass production. Rest assured, no driver configuration changes can be done at this stage.

DALI magic, OT Programmer or FEIG NFC readers can be used as hardware programming interfaces to program the drivers. The FEIG NFC readers allow an even quicker, wireless and mains-free programming process. The OT Programmer is used for non-DALI OT drivers with universal input voltage 120-277 VAC.

T4T Machine completes our unique software suite and consists of a DLL and a command line tool to provide integration into existing automated programming and testing stations in the factory line.

In addition, OSRAM offers custom integration into ERP systems as an add-on service to optimize the production process.

Tuner4TRONIC® for Windows can be downloaded from: www.osram.com/t4t

USB interfaces

DALI magic

OT Programmer

Wireless NFC interfaces

PRH101

CPR30

OT Programmer
OSRAM also offers programmable UL-certified LED drivers. These drivers can be programmed with the OT Programmer Windows software together with the OT Programmer programming interface (Prog+).

To download the OT Programmer software, please visit:
www.osram.com/otprogrammer

Tuner4TRONIC® Field app
The new T4T Field app makes the installation and maintenance of street light luminaires as easy as it gets by allowing the wireless programming of OSRAM outdoor OT 1DIM and OT 4DIM NFC LED drivers without the need for mains voltage. After entering the service password of the LED driver provided by the luminaire manufacturer, the user-friendly interface shows how to scan the LED driver's NFC tag with the smartphone's integrated antenna or the optional NFC Scanner (Bluetooth to NFC adapter) and adjust the luminaire settings.

With the T4T Field app, the luminaire settings can be easily adapted according to the specific needs and within a predefined range set by the luminaire manufacturer. Typical examples are the adjustment of light output depending on the required road class or changing the dimming times or levels to optimize energy savings. With the Tuner4TRONIC® Field app there is also the easy possibility to disable dimming functionality as it is requested for special applications such as roundabouts or pedestrian crossings.

Replacing a flexible LED luminaire with a new luminaire of the same type was never as easy as now! Using the copy-and-paste functionality of the T4T Field app, the settings of the original luminaire can be easily transferred to the new one in a matter of seconds.

The T4T Field app only supports LED drivers that have been protected with a Master key by the luminaire manufacturer to ensure that only authorized parameters can be modified and thus avoid unauthorized modifications.
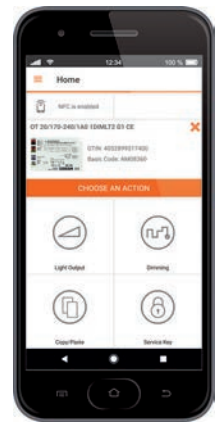
DALI magic
USB to DALI programming interface
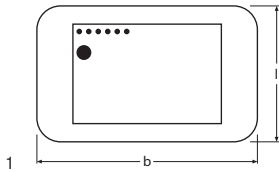
Product name	GTIN (EAN)	Hz	W SYSTEM	IP	COLOR	l [mm]
DALI magic	**4052899039551**	50 / 60	7	IP20	White	120

Product name	b [mm]	h [mm]	V		No.
DALI magic	76	28	100…240	1	1

Product features
— USB DALI converter for Tuner4TRONIC® and DALI Wizard software for Windows PC
— Pushbutton to test DALI dimming without the need of connection to a computer
— Powered by USB or by included universal power supply
— Integrated automatic DALI supply of up to 64 devices (up to 4 if powered by USB)

DALI Wizard software features (included)
— Intuitive configuration of up to 64 DALI electronic control gears
— Offline/online configuration of DALI installations
— "DALI Spy" functionality for recording DALI-line data flow

Tuner4TRONIC® software features
— Programming of OSRAM ECG
— Suitable for shop floor environments
— Performs fast manual and automatic programming
— Easily enables the use of the pre-parameterization service

Areas of application
— Configuration of DALI ECG functions
— Monitoring of DALI installations

Equipment/Accessories
— Universal power supply (100…240 V_{AC}, 5.9 V_{DC}, 1.15 A, EU plug)
— USB cable (male A to male B), 180 cm
— Bipolar plug for DALI connection

References/Links
Compatible software available at www.osram.com/ds-tools

Tuner4TRONIC® software available at www.osram.com/t4t

OT Programmer
USB programming interface
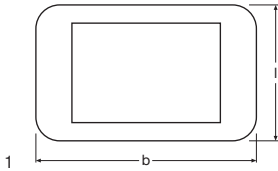
Product name	GTIN (EAN)	V	T$_a$	l [mm]	b [mm]	h [mm]	IP		No.
OT Programmer	**4052899209640**	5 [1]	0…+50	120	76	28	IP20	1	1

1) Supplied by USB

Product features
— Standard USB interface
— Very fast programming of single OPTOTRONIC® devices with the Prog +/- interface
— Programming without applying mains voltage to the driver
— Suitable only for non-DALI OPTOTRONIC® devices with the Prog +/- interface

Equipment/Accessories
— Programmable via Tuner4TRONIC® software

References/Links
Tuner4TRONIC® software available at www.osram.com/t4t

OT Programmer software available at www.osram.com/ds-tools

PRH101-USB
NFC programming interfaces
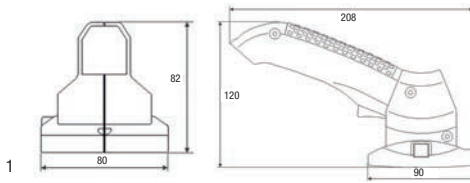
Product name	GTIN (EAN)	l [mm]	b [mm]	h [mm]	
PRH101-USB	**4055462165152**	230	80	100	1

Product features
— Standard USB interface
— Wireless programming of OPTOTRONIC® devices with the NFC interface
— Programming without applying mains voltage to the OPTOTRONIC® driver

Equipment/Accessories
— USB cable for connection to PC with Tuner4TRONIC® software

References/Links
Tuner4TRONIC® software available at www.osram.com/t4t

CPR30-USB
NFC programming interfaces
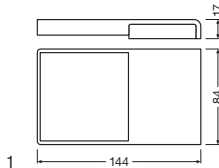
Product name	GTIN (EAN)	l [mm]	b [mm]	h [mm]		No.
CPR30-USB	**4055462165169**	144	84	17	1	1

Product features
— Standard USB interface
— Wireless programming of OPTOTRONIC® devices with the NFC interface
— Programming without applying mains voltage to the OPTOTRONIC® driver

Equipment/Accessories
— USB cable for connection to PC with Tuner4TRONIC® software

References/Links
Tuner4TRONIC® software available at www.osram.com/t4t

NFC Scanner
Bluetooth to NFC adapter for Tuner4TRONIC® Field

Product name	GTIN (EAN)	l [mm]	b [mm]	h [mm]	IP	
NFC Scanner	4055462203571	76	42	18	IP54	1

Product features
— Small and robust NFC antenna extension
— Provides NFC functionality to smartphones without
 NFC antenna using Bluetooth

Tuner4TRONIC® Field app features
— Wireless and mains voltage-free programming of
 OSRAM outdoor NFC LED drivers
— Adjustment of the light output and dimming levels
 of a luminaire
— Copy and paste luminaire settings from defective
 to replacement LED drivers
— Support of OSRAM's new generation of OT 1DIM and
 4DIM outdoor LED NFC drivers

Areas of application
— Wireless programming of LED drivers using the T4T
 Field software

Equipment/Accessories
— USB cable (Micro USB type B)

References/Links
Tuner4TRONIC® software available at
www.osram.com/t4t

Installation and operating instructions
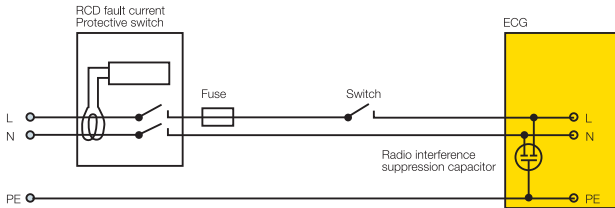
The following installation and operating instructions have been included to help you get the most out of your electronic control gears.

Requirements

The requirements to be met by lighting systems with electronic control gears fall into the following categories:
 1. Residual currents/residual current detector
 2. Capacity for automatic cutouts/switch-on currents
 3. ECGs in 3-phase operation
    (overvoltages/undervoltages/missing neutral conductor)
 4. LED drivers in emergency lighting systems
    (voltage ranges and switch-on times)
 5. Power factor/compensation
 6. Permissible cable lengths
 7. DALI ECGs with Touch DIM®/corridor function should
    not be operated on open DALI lines
 8. Permissible switching cycles for LED drivers
 9. Dimming operation
10. Luminaires with LED drivers
11. Ambient and control gear temperatures
12. LED drivers for outdoor luminaires
13. Wiring of LED drivers
14. Lifespan and reliability of LED drivers

For more detailed information, see the Technical Guides at
www.osram.com/ds-certificates

1. Residual currents/residual current detector

Problem

For LED drivers with protective earth (PE), both the high short-duration inrush current and the small leakage current from the interference suppression capacitors in the electronic control gears can trigger the residual current detector.

Solution

— Distribute luminaires across 3 phases and use 3-phase circuit breakers
— Use surge-current-resistant, short-delay circuit breakers
— If permissible, use 30 mA RCDs

2. Capacity for automatic cutouts

On switch-on at peak voltage, the storage capacitors of electronic control gears cause a high but very brief current pulse. OSRAM offers an inrush current limiter for some OPTOTRONIC® devices. The EBN-OS restricts the switch-on current, which means that a larger number of LED drivers can be connected to an automatic cutout.

When using the values given in the tables, please note the following:

— For LED driver operation, the load data relates to switching on at peak voltage
— If circuit breaker types have C characteristics, the number of permitted luminaires for LED driver operation can be increased by 70 % (as compared to B characteristics)
— Circuit breaker design:
The specified loading is for single-pole circuit breakers. When multi-pole circuit breakers (2-pole, 3-pole) are used, the number of permitted luminaires is reduced by 20 %.
— Circuit impedance:
The specified loading applies with reference to a line impedance of 800 mΩ (corresponding to a 15 m long cable with a diameter of 1.5 mm from the distribution board to the first luminaire and a further distance of 20 m to the middle of the circuit; at a line impedance of 400 mΩ, the permitted values are reduced by 10 %, and by 20 % with 200 mΩ)

Max. permissible number of LED drivers on type B or C automatic circuit breakers

Product family	I max [A_pk]	T_H [µs]	Max. permissible number of OTs on an automatic circuit breaker					
Type			B 6 A	C 6 A	B 10 A	C 10 A	B 13 A	C 13 A
OTi DALI Linear SELV								
OTi DALI 80/220-240/2A1 LT2 L	53	200			18	14	13	22
OTi DALI 80/220-240/1A6 LT2 L	53	200			12	14	13	22
OTi DALI 35/220-240/700 LT2 L G2			11	18	18	31	24	41
OTi DALI 50/220-240/1A4 LT2 L G2			7	12	12	21	16	27
OTi DALI Linear non-isolated								
OTi DALI 60/220-240/550 D LT2 L	53	300			8	14	13	22
OTi DALI 90/220-240/1A0 LT2 L	53	200			8	13	13	22
OTi DALI 35/220-240/400 D LT2 L			10	17	17	29	22	38
OTi DALI 35/220-240/400 D LT2 UF L			11	18	18	31	24	41
OTi DALI 75/220-240/400 D LT2 UF L			7	12	12	21	16	27
OT FIT Linear SELV G2								
OT FIT 35/220-240/700 CS L G2	< 16	100	12	21	21	35	27	46
OT FIT 55/220-240/1A0 CS L G2	20	200	9	15	15	26	20	34
OT FIT 75/220-240/1A4 CS L G2	40	200	4	8	8	13	10	17
OT FIT Linear non-isolated								
OT FIT 30/220-240/125 D L	Not relevant	Not applicable			35	59	56	95
OT FIT 50/220-240/250 D L	Not relevant	Not applicable			35	59	56	95
OT FIT 50/220-240/350 D L	Not relevant	Not applicable			35	59	56	95
OT FIT 50/220-240/300 D L	Inrush current limiter		21	21	35	35	45	45
OT FIT 25/220-240/300 D LT2 L	< 30	5	38	38	63	63	82	82
OT FIT 35/220-240/350 D LT2 L	30	145	4	7	7	12	9	16
OT FIT 75/220-240/550 D LT2 L	41	124	9	16	16	27	21	35
OT FIT 120/220-240/750 D LT2 L	70	146	4	8	8	13	10	17
OTi DALI Compact SELV NFC								
OTi DALI 15/220-240/1A0 LT2 G2	5	45	60	60	100	100	131	131
OTi DALI 25/220-40/700 LT2 G2	< 20	100	30	30	50	50	65	65
OTi DALI 35/220-40/1A0 LT2 G2	< 20	100	20	34	34	57	45	75
OTi DALI 50/220-40/1A4 LT2 FAN G2	30	200	7	12	12	21	16	27
OTi DALI 10/220-40/700 NFC			tbd	tbd	tbd	tbd	tbd	tbd
OTi DALI 15/220-40/1A0 LT2 NFC	5	45	60	60	100	100	131	131
OTi DALI 25/220-40/700 LT2 NFC	< 20	100	30	50	50	84	65	109
OTi DALI 35/220-40/1A0 LT2 NFC	< 20	100	20	34	34	57	45	75
OTi DALI 50/220-40/1A4 LT2F NFC	30	200	7	12	12	21	16	27
OT FIT Compact SELV								
OT FIT 15/220-240/500 LT2 LP	14	140	22	37	37	63	49	82
OT FIT 25/220-240/700 LT2 LP	15	210	9	16	16	27	21	35
OT FIT 40/220-240/1A0 LT2 LP	17	210	11	18	18	31	24	41
OT FIT 15/220-240/500 LT2 S	8		22	37	37	63	49	82
OT FIT 25/220-240/700 LT2 S	13		11	18	18	31	24	41
OT FIT 40/220-240/1A0 LT2 S	15		11	18	18	31	24	41
OT FIT 20/220-240/500 LT2 CS	< 16	100	19	31	31	52	41	68
OT FIT 30/220-240/700 LT2 CS	< 16	100	9	15	15	26	20	34
OT FIT 40/220-240/1A0 LT2 CS	< 16	100	9	15	15	26	20	34

Product family	I max [A$_{pk}$]	T$_H$ [µs]	Max. permissible number of OTs on an automatic circuit breaker					
Type **OT ECO PC Compact SELV**			B 6 A	C 6 A	B 10 A	C 10 A	B 13 A	C 13 A
OTe 10/220-240/700 PC	< 5	100			55	93	85	145
OTe 13/220-240/350 PC	< 5	100			55	93	85	145
OTe 18/220-240/350 PC	< 5	100			55	93	85	145
OTe 18/220-240/500 PC	< 5	100			55	93	85	145
OTe 25/220-240/700 PC	< 7	100			40	68	65	110
OTe 35/220-240/700 PC	< 10	250			30	51	50	85

If MCBs with a C characteristic are used, the number of permitted LED drivers can be increased by 70 %
Circuit impedance: The specified loading applies with reference to a line impedance of 800 mΩ (corresponding to a 15 m long cable with a diameter of 1.5 mm² from the distribution board to the first luminaire and a further distance of 20 m to the middle of the circuit; at a line impedance of 400 mΩ, the permitted values are reduced by 10 %, and by 20 % with a line impedance of 200 mΩ)

Product family	Max. permissible number of OTs on an automatic circuit breaker					
Type **OTi DALI Linear SELV**	B 16 A	C 16 A	B 20 A	C 20 A	B 25 A	C 25 A
OTi DALI 80/220-240/2A1 LT2 L	24	17	16	27	20	34
OTi DALI 80/220-240/1A6 LT2 L	16	17	16	27	20	34
OTi DALI 35/220-240/700 LT2 L G2	30	50	37	63	46	78
OTi DALI 50/220-240/1A4 LT2 L G2	20	33	25	42	31	51
OTi DALI Linear non-isolated						
OTi DALI 60/220-240/550 D LT2 L	10	17	16	27	20	34
OTi DALI 90/220-240/1A0 LT2 L	10	17	16	27	20	34
OTi DALI 35/220-240/400 D LT2 L	28	47	35	58	43	73
OTi DALI 35/220-240/400 D LT2 UF L	30	50	37	63	46	78
OTi DALI 75/220-240/400 D LT2 UF L	20	33	25	42	31	51
OT FIT Linear SELV G2						
OT FIT 35/220-240/700 CS L G2	34	57	42	71	53	89
OT FIT 55/220-240/1A0 CS L G2	25	42	31	52	39	65
OT FIT 75/220-240/1A4 CS L G2	13	21	16	27	20	32
OT FIT Linear non-isolated						
OT FIT 30/220-240/125 D L	45	77	70	118	87	148
OT FIT 50/220-240/250 D L	45	77	70	118	87	148
OT FIT 50/220-240/350 D L	45	77	70	118	87	148
OT FIT 50/220-240/300 D L	56	56	70	70	87	87
OT FIT 25/220-240/300 D LT2 L	100	100	125	125	156	156
OT FIT 35/220-240/350 D LT2 L	30	20	15	25	46	31
OT FIT 75/220-240/550 D LT2 L	26	43	32	54	40	67
OT FIT 120/220-240/750 D LT2 L	13	21	16	27	20	32
OTi DALI Compact SELV NFC						
OTi DALI 15/220-240/1A0 LT2 G2	160	160	200	200	250	250
OTi DALI 25/220-40/700 LT2 G2	80	80	100	100	125	125
OTi DALI 35/220-40/1A0 LT2 G2	55	92	68	115	85	143
OTi DALI 50/220-40/1A4 LT2 FAN G2	20	33	25	42	31	51
OTi DALI 10/220-40/700 NFC	tbd	tbd	tbd	tbd	tbd	tbd
OTi DALI 15/220-40/1A0 LT2 NFC	160	160	200	200	250	250
OTi DALI 25/220-40/700 LT2 NFC	80	134	100	168	125	209
OTi DALI 35/220-40/1A0 LT2 NFC	55	92	68	115	85	143
OTi DALI 50/220-40/1A4 LT2F NFC	20	33	25	42	31	51

Product family	Max. permissible number of OTs on an automatic circuit breaker					
Type	B 16 A	C 16 A	B 20 A	C 20 A	B 25 A	C 25 A
OT FIT Compact SELV						
OT FIT 15/220-240/500 LT2 LP	60	100	75	126	93	156
OT FIT 25/220-240/700 LT2 LP	26	43	32	54	46	78
OT FIT 40/220-240/1A0 LT2 LP	30	50	37	63	46	78
OT FIT 15/220-240/500 LT2 S	60	100	75	126	93	156
OT FIT 25/220-240/700 LT2 S	30	50	37	63	46	78
OT FIT 40/220-240/1A0 LT2 S	30	50	37	63	46	78
OT FIT 20/220-240/500 LT2 CS	50	84	62	105	78	131
OT FIT 30/220-240/700 LT2 CS	25	42	31	52	39	65
OT FIT 40/220-240/1A0 LT2 CS	25	42	31	52	39	65
OT ECO PC Compact SELV						
OTe 10/220-240/700 PC	69	117	106	181	132	226
OTe 13/220-240/350 PC	69	117	106	181	132	226
OTe 18/220-240/350 PC	69	117	106	181	132	226
OTe 18/220-240/500 PC	69	117	106	181	132	226
OTe 25/220-240/700 PC	52	89	81	137	101	171
OTe 35/220-240/700 PC	40	69	62	106	78	132

The circuit breaker's rated current may not be exceeded.
Installations of 1.5 mm² may be protected with a max. 16 A circuit breaker.

Maximum permissible number of OPTOTRONIC® LED drivers on an automatic circuit breaker

LED drivers	I_p [A]	T_H [µs] measured at 50 % Ipeak	Maximum no. of LED drivers on circuit breakers 10 A	16 A
OPTOTRONIC® constant voltage 12 V				
OT 15/12 P	20	170	32	51
OT 30/12 P	30	170	13	21
OT 60/12 P	35	170	11	17
OT 120/12 P	40	300	6	10
OTe 60/110-277/12 E	15	200	7	12
	40	200	7	12
OTe 120/110-277/12 E	60	250	3	6
	100	250	3	6
ELEMENT constant voltage				
Element 30/220-240/24	<8	100	17	28
Element 60/220-240/24	<23	1700	10	16
Element 90/220-240/24	<43	1900	6	11

LED driver	I_p [A]	T_H [µs] measured at 50 % Ipeak	Maximum no. of LED drivers on circuit breakers 10 A	16 A
OPTOTRONIC® constant voltage 24 V with DALI				
OTi DALI 50/220-240/24 1…4CH	43	160	9	15
OTi DALI 50/220-240/24 TW	43	160	9	15
OTi DALI 80/220-240/24 1…4CH	48	220	6	10
OTi DALI 80/220-240/24 TW	48	220	6	10
OTi DALI 160/220-240/24 1…2CH	69	280	tbd	tbd
OTi DALI 160/220-240/24 TW			tbd	tbd
OPTOTRONIC® constant voltage 24 V with 1…10 V				
OT 80/24 DIM P	35	360	7	10
OT 120/24 DIM P	60	250	6	10
OT 240/24 DIM P	70	250	5	8
OPTOTRONIC® constant voltage 24 V				
OT 6/200-240/24 CE	15	240	30	48
OT 20/120-240/24 S	45	150	7	11
OT 30/220-240/24 P	23	270	13	21
OT 50/220-240/24	45	80	12	19
OT 50/220-240/24 P	22	270	12	19
OT 75/220-240/24	41	200	7	12
OT 75/220-240/24 E	41	200	7	12
OT 80/220-240/24 P	35	360	7	10
OT 120/220-240/24 P	60	250	6	10
OT 240/220-240/24 P	70	250	5	8

1) On request or in data sheet

Max. permissible number of OTs on an EBN-OS inrush current limiter

Product family	GTIN (EAN)	Max. permissible number of OTs on an automatic circuit breaker	Max. permissible number of OTs on an EBN-OS inrush current limiter
		Type B 16 A	Type B 16 A
OTi DALI Linear non-isolated			
OTi DALI 60/220-240/550 D LT2 L	4052899188662	13	40
OTi DALI 90/220-240/1A0 LT2 L	4008321867568	13	40
OTi Linear non-isolated			
OTi 60/220-240/550 D LT2 L	4052899188419	13	40
OTi 90/220-240/1A0 D LT2 L	4052899188556	13	40
OTi DALI Compact SELV			
OTi DALI 50/220-240/1A4 LT2 FAN	4052899919433	20	50

EBN-OS inrush current limiter

Max. permissible number of LED drivers on type B or C automatic circuit breakers

Product family / Type	I max [A_{pk}]	T_H [µs]	Max. permissible number of OTs on an automatic circuit breaker						
			B10	C10	B16	B16 + EBN-0S	C16	B25	C25
OT 40/1A0 4DIMLT2 E	30	250	10	17	17	45	28	28	44
OT 60/1A0 4DIMLT2 E	55	230	7	12	12	30	20	20	32
OT 90/1A0 4DIMLT2 E	57	210	7	12	12	30	20	20	32
OT 165/1A0 4DIMLT2 E	62	330	4	8	8	15	14	14	21
OT 50/1A2 2DIMLT2 P	30	250	10	17	17	45	28	28	45
OT 50/800 2DIMLT2 P	30	250	10	17	17	45	28	28	45
OT 100/1A2 2DIMLT2 P	55	230	7	11	10	30	17	16	26
OT 110/800 2DIMLT2 P	55	230	7	11	10	30	17	16	26
OT 50/700 P 5	50	200	8	14	13	–	22	20	34
OT 100/700 P 5	100	200	4	7	7	–	12	12	19
OT 180/700 P 5	110	200	4	7	7	–	12	11	19
OT 240/700 P 5	65	200	6	10	9	–	15	15	23

Product family / Type	I max [A_{pk}]	T_H [µs]	Max. permissible number of OTs on an automatic circuit breaker											
			B6	C6	B10	C10	B13	C13	B16	C16	B20	C20	B25	C25
1DIM														
OT 20/170-240/1A0 1DIMLT2 G1 CE	<25	150	13	22	22	37	29	49	36	60	45	75	56	93
OT 40/170-240/1A0 1DIMLT2 G1 CE	<26	180	10	17	17	29	22	38	28	47	35	58	43	73
OT 75/170-240/1A0 1DIMLT2 G1 CE	54	190	4	7	7	12	9	16	12	20	15	25	18	31
OT 110/170-240/1A0 1DIMLT2 G1 CE	65	160	4	6	6	11	9	15	11	18	13	23	17	28
4DIM														
OT 20/170-240/1A0 4DIMLT2 G2 CE	<25	150	13	22	22	37	29	49	36	60	45	75	56	93
OT 40/170-240/1A0 4DIMLT2 G2 CE	<25	180	10	17	17	29	22	38	28	47	35	58	43	73
OT 75/170-240/1A0 4DIMLT2 G2 CE	54	190	4	7	7	12	9	16	12	20	15	25	18	31
OT 110/170-240/1A0 4DIMLT2 G2 CE	65	160	4	6	6	11	9	15	11	18	13	23	17	28

Circuit impedance: The specified loading applies with reference to a line impedance of 800 mΩ (corresponding to a 15 m long cable with a diameter of 1.5 mm² from the distribution board to the first luminaire and a further distance of 20 m to the middle of the circuit; at a line impedance of 400 mΩ, the permitted values are reduced by 10 %, and by 20 % with a line impedance of 200 mΩ).

3. ECGs in 3-phase operation

Overvoltage/undervoltage/no neutral conductor

1. Check whether the line voltage is within the application range of the ECG (AC/DC range from 198 V to 254 V for example).

2. The mains connection should only be made to the luminaire terminal. For luminaires or luminaire groups in 3-phase circuits.

3. Make absolutely sure that the neutral conductor is correctly connected to all luminaires and that it is making proper contact.

4. Cables should only be connected or disconnected when no voltage is present.

5. For 3 x 230/240 V supply networks in triangular circuit arrangements, protection by way of common disconnection of the phase conductor is necessary.

Important

— In new systems, the loads must not be connected when the insulation resistance is measured with 500 V DC, as, according to VDE 0100-600 Section 9, the test voltage is also applied between the neutral conductor (N) and all 3 external lines (L1, L2, L3). In existing systems, it is sufficient to conduct an insulation test between the external conductors (L1, L2, L3) and protective earth (PE) without discon-necting from the network. The neutral conductor (N) and protective earth (PE) must not be electrically connected in any way while this is being done. For this insulation measurement (500 V = to ⏚), the neutral conductor disconnection terminal may only be opened after the line voltage has been disconnected.

— Make sure that the N conductor is correctly connected before putting the equipment into operation.

— During operation of the lighting system, do not disconnect the N conductor under any circumstances.

The diagram above shows the wiring for luminaires or luminaire groups in 3-phase circuits and with a common neutral conductor. If the common neutral conductor is interrupted in a 3-phase star configuration and voltage is present, then luminaires or groups of luminaires may be exposed to unacceptably high voltages and the electronic control gears may be destroyed.

4. LED drivers in emergency lighting systems with DC voltage

Permitted battery voltage	Upper limit	Lower limit
OTi DALI [2]	276 V [1]	176 V
OTi [2]	276 V [1]	176 V
OT FIT [2]	276 V [1]	176 V

Switch-on times	**Maintained** Supply is switched from AC to DC	**Non-maintained** Emergency luminaires are switched on from cold
OTi DALI	0.2 s	0.3 s [3]/0.6 s [4]
OTi	< 0.5 s	< 0.5 s
OT FIT	< 0.5 s	< 0.5 s

1) DC voltage or pulsed DC voltage (>198 V necessary for switch-on)
2) OTi DALI and OTi drivers (not dimmable) can detect DC voltage and adjust to 15 % output current. Positive with regard to battery capacity.
   If higher output currents than 15 % (factory setting) are necessary for OTi DALI, these can be configured using DALI magic/Wizard or DALI magic/Tuner4TRONIC®.
3) Switch-on time (emergency lighting mode activated)
4) Switch-on time (at 230 V/50 Hz/full load in accordance with DALI standard) emergency lighting mode not activated

Please find conformity certificates with
central battery systems online (please
see the "Others" section):

EATON Conformity certificate
www.osram.com/ds-certificates

INOTEC Conformity certificate
www.osram.com/ds-certificates

5. Power factor/compensation

The power factor λ for an electrical load is the ratio of the effective power (P_{eff} = voltage x effective current) to the apparent power (P_{app} = voltage x current). This value is affected both by the phase displacement cos φ between the current and the voltage and by the current distortion ε.

$$\lambda = \frac{P_{eff}}{P_{app}} = \varepsilon \cdot \cos \varphi$$

However, distortion in the sine-wave current supply occurs during the operation of electronic control gears. Generally speaking, these distortions are classified by integer multiples of the line frequency (harmonics).

The harmonic content of the line current is strictly controlled by national and international standards (IEC 61000-3-2).

OSRAM LED drivers have integrated active electronic harmonic filters for this purpose, which ensure a value for ε of more than 0.95 and therefore a power factor λ greater than 0.9 (exceptions are indicated).

6. Permissible cable lengths
OPTOTRONIC®

The maximum cable length between OPTOTRONIC® and the LED module depends on the type of cable, the currents carried, compliance with radio interference limit values and how the cable is routed. The following maximum cable lengths can be used as guidelines:

Max. permissible cable length	LED driver family	Typical LED driver type
10 m	OPTOTRONIC® constant voltage: 12V and 24 V	e.g. OT…/12 P/ OT… 24 DIM (P), QTi DALI 75/24
2 m	OPTOTRONIC® constant current	e.g. OT…350…, OTi DALI…, OTe
2 m	OPTOTRONIC® OUTDOOR: constant current	OT 4DIM
10 m	OPTOTRONIC® OUTDOOR: constant current	OT 2DIM
10 m	OPTOTRONIC® OUTDOOR: constant current	OT … 700 P5
2 m	LEDset cables	

Cable routing

For reasons of interference suppression, the power cable should not be laid parallel to the casing and/or the secondary cable. This will avoid high-frequency coupling effects.

Measurement of secondary voltage

Standard multimeters with appropriate accuracy can be used.

7. DALI ECGs with Touch DIM®/corridor function should not be operated on open DALI lines

Due to an increasing number of questions about DALI installations where no DALI controller is (yet) connected, we recommend you short-circuit the (currently) open DALI lines in the sub-distribution cabinet to avoid unwanted switching/unsynchronized dimming.

Recommendation

In DALI installations where no DALI controller is (yet) connected, short-circuit the open DALI lines in the sub-distribution cabinet (also applies to installations where Touch DIM®/corridor mode operation is planned).

Reason

To avoid unwanted switching/unsynchronized dimming caused by electrical distortions/coupling into open DALI lines.

Technical background

Even low induced voltages can trigger the DALI Touch DIM® mode on the DALI input connector of the control gear and therefore cause different and unsynchronized dimming levels. This antenna effect depends on the length and location of the open DALI line. With open DALI lines of more than 10 m, we recommend short-circuiting the DALI line.

Reset in cases of error

If the DALI ECGs have already been triggered incorrectly, do the following:
1. Disconnect the mains power to the DALI ECGs and connect a DALI control unit (e.g. OSRAM DALI Repeater or OSRAM DALI MCU)
2. Reconnect the power: The DALI ECGs will detect the signal and switch back to DALI mode again

3. Interrupt the mains power again and disconnect the DALI control unit
4. Short-circuit the DALI line
5. Connect up the power again

Applies **only** to DALI ECGs with Touch DIM®/corridor function.

8. Permissible switching cycles for LED drivers

OPTOTRONIC® constant current LED drivers and OSRAM LED modules are designed for at least 100,000 switching cycles. For OSRAM systems used in high switching cycle applications, such as in car parks, corridors, elevators and logistics areas, this ensures reliable operation over a period of at least 5 years based on approximately 50 switching cycles per day (i.e. approx. 18,000 switching cycles per year).

No. of switching cycles	LED driver	Comment
> 1,000,000	DALI LED driver OTi DALI…	DALI driver in standby mode, switching via DALI commands
> 150,000	DALI LED driver OTi DALI… Window driver OTi…	Switching on the mains side of the LED driver ON/OFF
> 150,000	LED driver with three current settings or a fixed output current OT FIT	Switching on the mains side of the LED driver ON/OFF
> 100,000	OT ECO OTe…	Switching on the mains side of the LED driver ON/OFF

In-house tests at OSRAM have shown that even significantly higher switching cycles can be achieved without failure of an OSRAM LED driver or OSRAM LED module.

Another benefit of the LED light solution is the fact that – in contrast to fluorescent lamp solutions – no "burn-in" time is required: LED modules immediately achieve the full luminous flux.

For applications with particularly high switching cycle requirements, OSRAM recommends DALI LED drivers which are permanently operated in standby mode (permanent power supply voltage) and switched exclusively via DALI commands (DALI command 0 = 0 % luminous flux and DALI command 254 = 100 % luminous flux or any other luminous flux required). Since the DALI LED drivers remain in standby mode, ON/OFF switching on the primary side is no longer required. This ensures that inrush current peaks have no negative effect on the service life of either the DALI LED driver or the LED module. This operating mode enables more than 1,000,000 switching cycles.

Another user-friendly option for corridors and storage areas is to define a lower dimming setting of 5 to 10 % which provides orientation in the room. This means that the illumination level will only be increased when a person or a forklift truck enters the corridor or the storage area.

Possible DALI solution for applications in corridors: DALIeco with activated corridor function (2 changing lighting values)

9. Dimming operation
— OPTOTRONIC® provides the following interfaces for dimming: 1…10 V, DALI, phase-cut dimmer. The minimum dimming value depends on the type of device. Constant voltage LED drivers can be extended using appropriate DIM modules (page 3.51 ff.).

10. Luminaires with LED drivers
The following general points apply to luminaires with LED drivers:
— The temperature limits of the LED drivers regarding ambient temperature and measuring point temperature on the device must not be exceeded (see 11. Ambient and control gear temperatures).
— The maximum permissible radio interference suppression values (EN 55015) must not be exceeded. Make sure the protective conductor and the function earth are correctly connected. Running the lamp cables and protective conductor together (e.g. NYM cables) may lead to problems due to high-frequency interference.

11. Ambient and control gear temperatures
The temperature ranges specified for the relevant control gear must be maintained to enable the LED driver to operate reliably. Generally speaking, lower operating temperatures can extend the life of LED drivers. When LED drivers are built into luminaires, the measuring point temperature T_c on the casing is the crucial parameter. The maximum permissible value specified for the device must not be exceeded.

12. LED drivers for outdoor usage

Some constant current and constant voltage LED drivers of the OT 2DIM, OT 4DIM, OT…E and OT..P families have been especially designed for outdoor usage. These drivers are equipped against moisture (up to IP67), mains voltage peaks (up to 6 kV) and vibrations (wind load, railroad vehicles).

More information about ingress protection (IP) can be found in the technical application guide "IP codes in accordance with IEC 60529" at: www.osram.com/ds-tag-ip

For the technical data of these drivers, please check the technical descriptions for the Outdoor drivers earlier in this chapter (LED drivers).

13. Wiring of LED drivers

In general, connecting OPTOTRONIC® LED drivers on the secondary side is not permitted. In exceptional cases, parallel connection of OT 50/220-240/24 E and OT 75 220-230/24 E is possible. Moreover, series connection of OPTOTRONIC® LED drivers on the secondary side requires specific indication in the datasheet. Please also see the technical application guide "OPTOTRONIC® LED drivers for indoor applications."

14. Lifespan and reliability of LED drivers

The lifespan of OPTOTRONIC® LED drivers is dependent on the lifespan of the electrical components used and their individual electrical and thermal loads. Each OPTOTRONIC® LED driver is marked with a so-called T_c point. To ensure reliable operation, the temperature at the T_c point should not exceed the defined maximum temperature. This will also ensure that OPTOTRONIC® LED drivers typically achieve a rated life of up to 50,000 hours at a maximum failure rate of 10 %.

If you install an LED driver outside of a luminaire, please make sure that it is not located too close to a source of heat. Otherwise there is a risk of overheating. The exponential dependency between lifespan and temperature means that the life of an LED driver can be extended when it is always operated below the defined maximum temperature at the T_c point. As a rule of thumb, you can expect to double the lifespan of an OPTOTRONIC® LED driver if the temperature maintained at the T_c point is 10 °C lower than the maximum permissible temperature. The following graphic shows the typical lifespan of an OPTOTRONIC® LED driver at different T_c temperatures (with a nominal service life of 50,000 hours and a maximum T_c temperature of 75 °C).

Expected lifespan of an OPTOTRONIC® LED driver
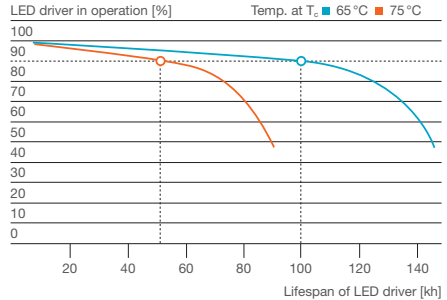
Special applications, such as operation in corrosive atmospheres, strong vibrations, impermissible voltage conditions etc., may necessitate further protective measures.

Case study

Control of 85,000 streetlights
delivers power savings of over
50 % and a high quality of light
across Milan
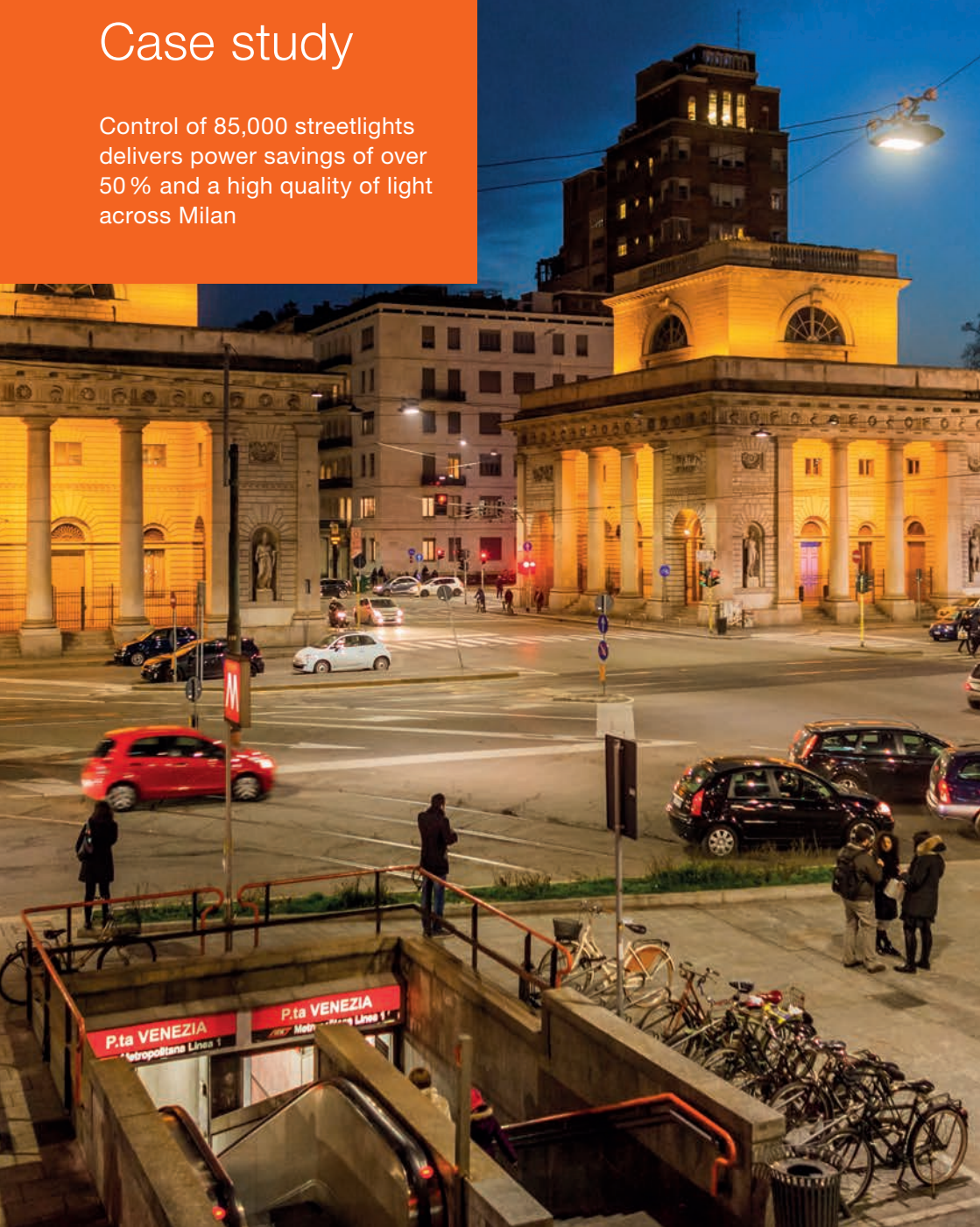
Milan appears in a new light – in every sense of the word: For the first time, an Italian metropolis has opted for a large-scale upgrade of its street lighting to LED lighting. There is much better light in the streets of the city thanks to the state-of-the-art luminaire design and considerable energy and maintenance savings.

85,000 of the 141,000 street lights replaced come from Italian luminaire manufacturer AEC Illuminazione and are controlled by OPTOTRONIC® 3DIM electronic control gears. When switched on, their brilliant light provides optimum visibility and at the same time high energy savings. The aim is to achieve power savings of more than 50 % through the switch to LED technology.

The OPTOTRONIC® 3DIM LED drivers ensure timed lighting control throughout the night, and optimum LED control, especially at high and low temperatures.

Among other things, the LED drivers feature three control and dimming options – from classic bi-phase dimming (StepDIM), or using the integrated astronomical clock (AstroDIM) to integration in digital tele-management systems via a DALI interface.

"There were many good reasons for choosing this OSRAM product. Reliable overvoltage protection, a large variety of functions and easy installation, just to name a few. And we are now also using the latest technology which is available at the moment as far as energy savings are concerned," says Alessandro Cini, CEO at AEC Illuminazione. Particularly noteworthy is the high surge (overvoltage) protection of the 3DIM DALI OPTOTRONIC® drivers (up to 6 kilovolts in protection classes I and II). The latest 4DIM DALI LED driver now protects from surges of up to 10 kilovolts (one pulse).
www.osram.com/milan-city

Light management systems

All under control with Light Management Systems

OSRAM light management systems (LMS)

The increasing demand for lighting solutions for more and more energy saving, flexibility and individual customization options has dramatically changed lighting requirements. Having the right light brings a greater sense of well-being, for example, and boosts motivation. Light management systems from OSRAM enable you to implement a diverse range of dynamic lighting solutions in a simple and efficient way – from simple dimming to daylight simulation.

OSRAM provides individual light management systems (LMS) for many different applications:
— Luminaire-integrated solutions for autonomous luminaires
— Room controllers for fast and easy installation in multiple rooms
— Flexible floor controllers for connected light in medium-sized installations
— Powerful building light management system with data analytics for big installations

Building light management system

ENCELIUM®

Floor controllers   **< 1,000**

KNX

DALI PROFESSIONAL

HubSense®

Room controllers   **< 50**

Stand-alone sensors

PCU/MCU

LUXeye®

Luminaire-integrated   **< 10**

DALIeco/DALIeco BT

DALI ACU BT

Touch DIM®
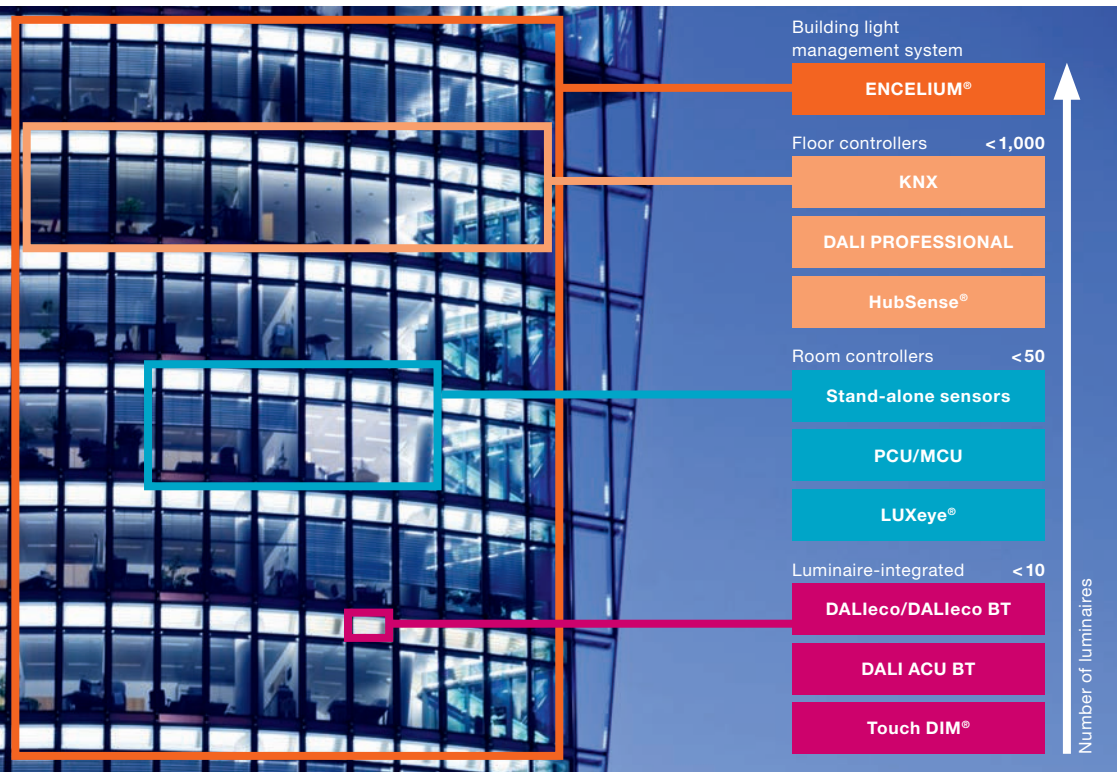
Number of luminaires

Product highlights

Bluetooth® enabled light controls

New generation of OSRAM light controls
with Bluetooth® interface

— **DALI ACU BT**
Easy-to-install light controller for
integration into luminaires and flush-
mounted boxes
— **DALIeco BT**
Multi-functional luminaire-integrated
light controller
— **LUXeye®**
Stand-alone ceiling-integrated light
controller

HubSense®

— Hybrid technology, design freedom
— Scalable for any building size
— Connected with data analytics
— Innovative and brandable user interface
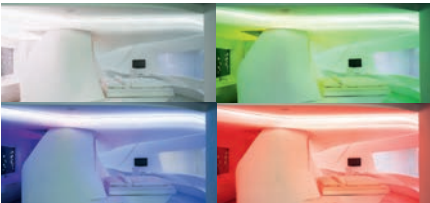
DALI PROFESSIONAL
Big feature update

— App interface/configurator
— Tunable White control
— Human Centric Lighting (HCL) functions
— Color control functions
— Controller interconnectivity

FXS system

— Wireless light control for 12 V and 24 V
LED modules
— Bluetooth® Low Energy (BLE) app by
Casambi
— Up to 240 W control in a four-channel
device: White, Tunable White, RGB,
RGBW

Touch DIM®

Lighting control without a controller and dimming without a control line

The Touch DIM® function in the DALI ECG family makes it possible to dim and switch the control gear directly with line voltage at the DALI control terminals. There is no longer any need for a separate controller as the ECG itself acts as the controller. By using DALI to 1…10 V converters, it is also possible to control 1…10 V ECGs via Touch DIM®. The Touch DIM® function is characterized in particular by protective soft starting, precise setting of the required light value, manual storage of the switch-on value by double-clicking or switching on at the last dimmer value and automatic restoration of the last state after a power failure.

In conjunction with Touch DIM® sensors, it is possible to provide daylight-dependent and presence-dependent lighting control, and with the 2-channel radio switch + associated radio receiver module, all Touch DIM® compatible electronic control gears can be controlled. Both radio components are absolutely maintenance-free. Up to 30 radio switches can be easily saved and deleted in each receiver module with one click. Thanks to innovative induction technology, batteries are not needed to power the transmitter module in the radio switch. For realization of large Touch DIM® installations or long line lengths, the usage of a DALI Repeater is recommended. Thereby, the signal of the pushbutton will be transformed into a DALI signal. In this way, the usage of pushbutton control is possible for all DALI products.

Applications
— Free-standing and other
   single luminaires
— Strip lighting
— Modernization of existing installations

TOUCH DIM

SENSOR
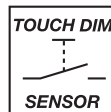
System overview

Touch DIM® (TD)

User interface

Radio push-button

Remote control

Standard pushbutton

TD WCU   TD RMC

enocean[2]

Luminaire installation sensors Touch DIM®

TD RC   LS/LI   LS/PD LI

Controller

ECG/ballast

TOUCH DIM

QTi DALI   HTi DALI   OTi DALI[1]

Light source

Presence detection

Daylight detection

1 Suitable power supply required
2 Batteryless radio standard
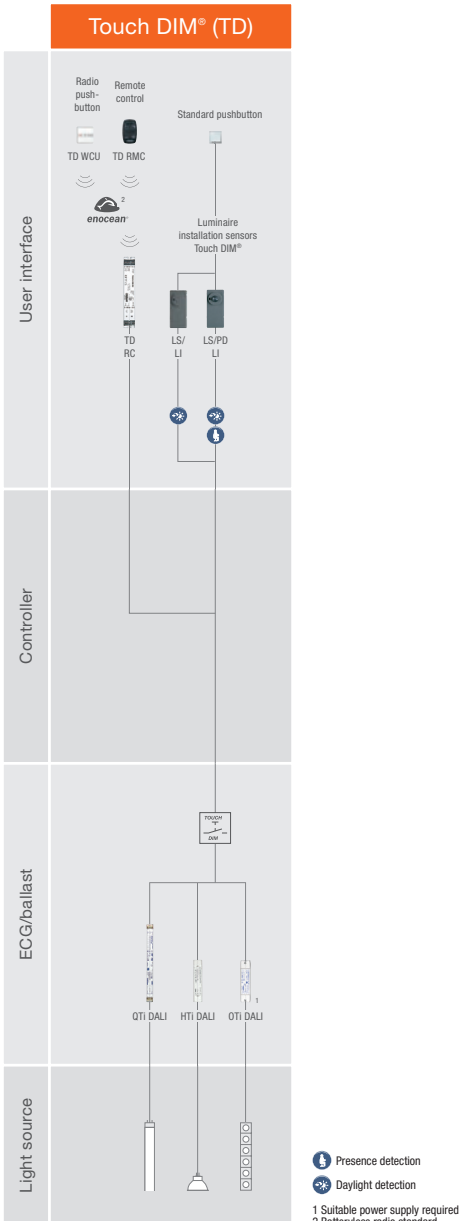
Touch DIM® WCU
User interfaces for light management systems
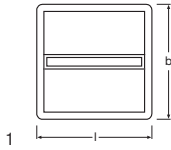
Product name	GTIN (EAN)	CONTROL	m	IP		COLOR
			30 1)	IP	Wall mounting	COLOR
TOUCH DIM WCU	**4008321032737**	Touch DIM	30 1)	IP20	Wall mounting	White

Product name	l [mm]	b [mm]	h [mm]		No.
TOUCH DIM WCU	80	80	20	20	1

1) Maximum / Valid inside

Product features
— Batteryless radio pushbutton for up to
  2 lighting groups
— Frequency band: 868.3 MHz
— Output power: 10 mW

Product benefits
— Dimming without control line by maintenance-free
  EnOcean radio technology
— Batteryless operation thanks to inductive
  power generation

Areas of application
— Wireless control in industry and office areas

Touch DIM® RMC
User interfaces for light management systems
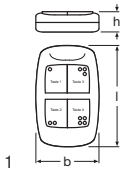
Product name	GTIN (EAN)	CONTROL	🔊 m	IP	COLOR
TOUCH DIM RMC	**4008321183033**	Touch DIM	30 [1]	IP20	Black

Product name	l [mm]	b [mm]	h [mm]	📦	No.
TOUCH DIM RMC	82	49	20	10	1

1) Maximum / Valid inside

Product features
— Batteryless radio remote control for up to
  4 lighting groups
— Frequency band: 868.3 MHz
— Output power: 10 mW

Product benefits
— Dimming without control line by maintenance-free
  EnOcean radio technology
— Batteryless operation thanks to inductive
  power generation

Areas of application
— Wireless control in industry and office areas

Touch DIM® RC
User interfaces for light management systems
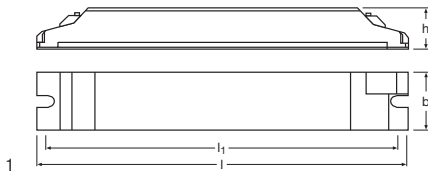
Product name	GTIN (EAN)	V	Hz	CONTROL	IP	🔧	Tₐ
TOUCH DIM RC	**4008321031938**	220…240	50…60	Touch DIM	IP20	Luminaire integration / Ceiling integration	0…+50

Product name	l [mm]	b [mm]	h [mm]	l₁ [mm]	📦	💡 No.
TOUCH DIM RC	189	30	21	180	25	1

Product features
— Radio receiver for batteryless EnOcean radio pushbuttons for 2 lighting groups
— Maximum power input: 1.5 W
— Frequency band: 868.3 MHz
— 2 floating semiconductor relay outputs max. 45 mA/240 V
— Up to 30 transmitters can be trained

Product benefits
— Dimming without control line by maintenance-free EnOcean radio technology

Areas of application
— Wireless control in industry and office areas
— Ceiling or independent installation via LMS CI BOX possible

Equipment/Accessories
— Suitable for up to 15 QTi DALI ECGs, OTi DALI ECGs or HTi transformers per output

LS/PD LT2 LI UF
Sensors for light management systems
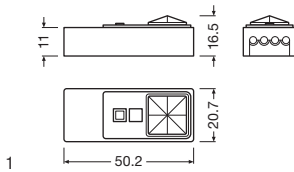
Product name	GTIN (EAN)	CONTROL	h/m	IP	Luminaire integration	COLOR
LS/PD LT2 LI UF	4052899984615	LEDset	4	IP20	Luminaire integration	White

Product name	l [mm]	b [mm]	h [mm]		No.
LS/PD LT2 LI UF	50.2	20.7	16.5	10	1

Product features
— Touch DIM® light and presence sensor for LEDset interface connection
— Can also be used purely as a light sensor or purely as a presence sensor

Product benefits
— A setpoint for daylight-dependent control can be stored by double-clicking
— Operated via standard switches or integrated pushbutton
— Extremely low profile
— Presence detection range can be restricted by snap-on shutters

Areas of application
— Single luminaires in office areas

Equipment/Accessories
— Suitable for up to 2 OTi DALI UltraFlat LED drivers

Touch DIM® LS LI
Light sensors for light management systems
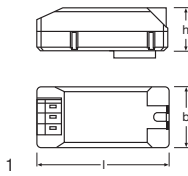
Product name	GTIN (EAN)	CONTROL	⌖ h m	Lx	IP	🔧
TOUCH DIM LS LI	**4008321023087**	Touch DIM	4	10…350 [1]	IP20	Luminaire integration

Product name	COLOR	l [mm]	b [mm]	h [mm]	📦	No.
TOUCH DIM LS LI	Anthracite	63	29	21	25	1

1) Approximately, measured at the sensor

Product features
— Touch DIM® light sensor
— Maximum signal line length: 10 m
— Maximum power input: 0.5 W

Product benefits
— A setpoint for daylight-dependent control can be stored by double-clicking
— Operated via standard switches

Areas of application
— Single luminaires in office areas

Equipment/Accessories
— Suitable for up to 4 QTi DALI ECGs or 4 HTi DALI transformers or 4 OTi DALI LED drivers

Touch DIM® LS/PD LI
Light and presence sensors for light management systems
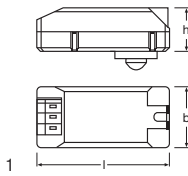
Product name	GTIN (EAN)	CONTROL	⌀ h m	°∠	Lx	No. of OUTPUTS	W SYSTEM	IP
TOUCH DIM LS/PD LI	4008321023025	Touch DIM	4	80 [1]	10…350 [2]	1	0.50	IP20

Product name		COLOR	l [mm]	b [mm]	h [mm]		No.
TOUCH DIM LS/PD LI	Luminaire integration	Anthracite	63	29	21	25	1

1) Approximately
2) Approximately, measured at the sensor

Product features
— Touch DIM® light and presence sensor
— Can also be operated purely as a presence sensor
— Maximum signal line length: 10 m
— Maximum power input: 0.5 W
— Delay time: 15 min

Product benefits
— A setpoint for daylight-dependent control can be stored by double-clicking
— Operated via standard switches

Areas of application
— Single luminaires in office areas

Equipment/Accessories
— Suitable for up to 4 QTi DALI ECGs or 4 HTi DALI transformers or 4 OTi DALI LED drivers

DALIeco

An intelligent and powerful light management system for lighting groups in small, medium-sized and large rooms

2 DALI channels, 1-click setup, selectable lighting modes and remote controllable extra functions – DALIeco offers a wide range of operation possibilities for intelligent energy saving solutions.

Flexible
The modular system is setting standards in terms of flexibility in planning and installing a cost-efficient light management system. The system components offer the possibility of direct luminaire integration as well as independent installation. Floor-standing luminaires, for example, can be connected wirelessly via the DALIeco Swarm Adapter, if required.

Powerful
Up to 32 DALI ECGs, 10 sensors and any number of pushbuttons can be connected to a DALIeco controller.

Intelligent
1-click setup enables fully automatic system calibration in accordance with the lighting regulations for workplaces.

Simple
Integration of extension sensors and additional pushbuttons via the DALI lines is simple and installation-friendly.

Convenient
With an intuitive PC software with visualization possibility, individual function profiles can be created, transmitted to the remote control via USB and stored at the push of a button.

Applications
— Offices: single and group workplaces
— Classrooms and training rooms
— Corridors and foyers
— Toilets and washrooms
— Factories and warehouses

The latest software can be found here:
www.osram.com/ds-tools

System overview

DALIeco

User interface

Remote controls

Standard pushbutton

USB

Master Remote

User Remote

IR

DALI LS/PD LI

DALIeco LS/PD LI

HF LS LI

Controller

Swarm Adapter

DALI PRO PB Coupler

DALIeco

Presence detection

Daylight detection
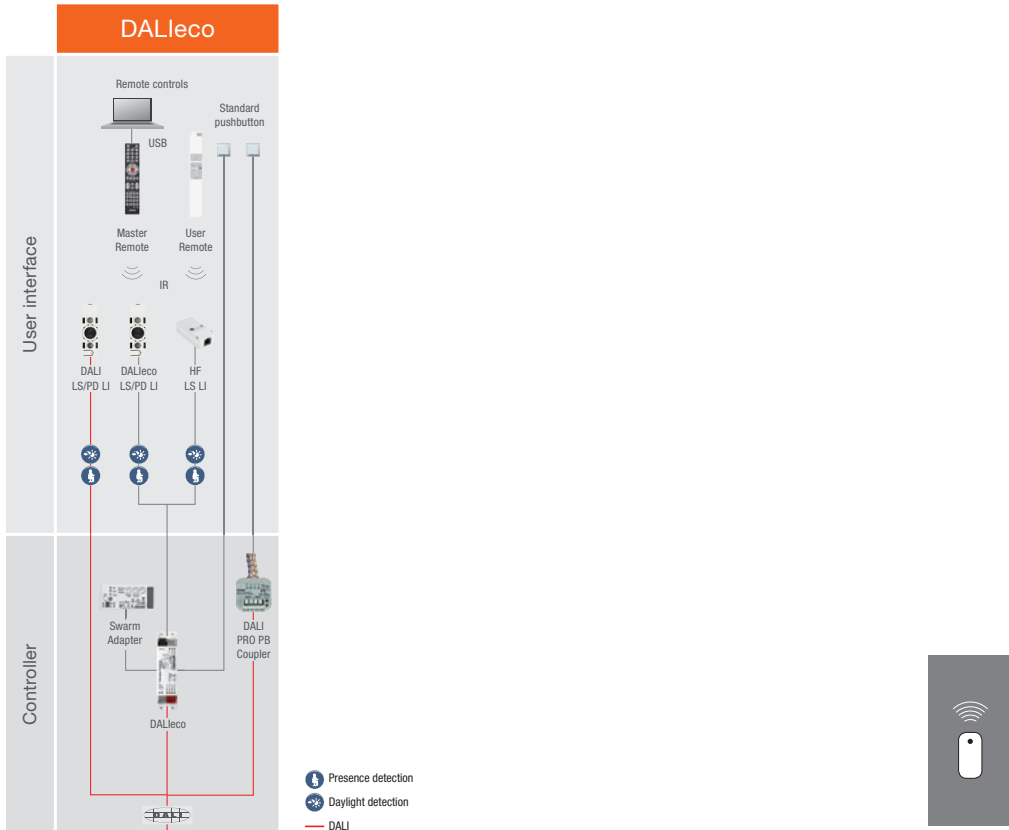
DALI

DALIeco Control
Control units for light management systems

Product name	GTIN (EAN)	V	Hz	CONTROL	No. of OUTPUTS	W SYSTEM	IP	
DALIECO CONTROL	4008321988645	230	50…60	DALI	2	4	IP20	Luminaire integration

Product name	T_a	l [mm]	b [mm]	h [mm]	l_1 [mm]		No.	
DALIECO CONTROL	-20…+50	118	30	21	110	25	1	

Product features
— 2 channel light control with DALI interface
— Daylight-dependent regulation and presence-dependent control of light
— 100 hours burn-in function for fluorescent lamps
— Operation via standard pushbutton or IR remote control
— Outputs with adjustable offset
— Outputs with electronical reversible overtemperature, short-circuit, overload protection
— Connection of up to 4 DALIeco LS/PD LI or 6 DALI LS/PD LI sensors
— Connection of up to 4 light and presence sensors via 4p4c plug system
— Individual adjustment of functional parameters via IR remote control
— Halogen-free polycarbonate plastic housing
— Sensor connection via polarity reversal protected 4p4c socket (RJ10)

Product benefits
— VDE/VDE EMC certified system
— Simplified startup thanks to predefined operation modes
— Automatic and manual setting of regulation set point

Areas of application
— Offices
— Classrooms
— Training rooms
— Corridors
— Ceiling or independent installation via ECO CI KIT possible

Equipment/Accessories
— Suitable for up to 32 electronic control gears

DALIeco Swarm Adapter
Radio adapter for DALIeco Control
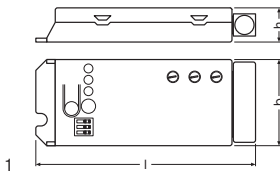
Product name	GTIN (EAN)	IP		Tₐ	l [mm]
DALIECO SWARM ADAPTER	4052899955646	IP20	Luminaire integration	0…+50	71

Product name	b [mm]	h [mm]		No.
DALIECO SWARM ADAPTER	30	11	45	1

Product features
— 868 MHz radio adapter for wireless synchronization of DALIeco control units
— Bidirectional transmission of motion signals and central on/off commands
— Digital radio coding of up to seven zones and seven group addresses
— Transmitter range: up to 50 m
— VDE certified system
— Direct connection and supply via DALIeco control unit

Product benefits
— Simple configuration via screwdriver

Areas of application
— Offices
— Corridors

DALIeco LS/PD LI NP
DALIeco light and presence sensors
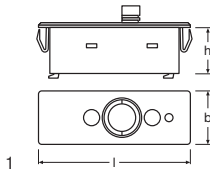
Product name	GTIN (EAN)	h m	[m]	°	Lx	IP	
DALIeco LS/PD LI NP	**4052899914636**	5	7	80 [1]	20…800	IP20	Luminaire integration

Product name	T_a	COLOR	l [mm]	b [mm]	h [mm]	No.	No.
DALIeco LS/PD LI NP	-20…+50	Gray	48	15	17	25	1

1) Approximately

Product features
— Light and presence sensor
— Presence detection via passive IR element
— Function indicator with two-color LED
— Integrated infrared remote control receiver
— Halogen-free polycarbonate plastic housing
— Connection via polarity reversal protected
  4p4c socket (RJ10)

Product benefits
— VDE/VDE EMC certified system
— V(λ) corrected light sensor element
— Individual activation/deactivation of light and presence
  sensor via remote control
— Presence detection angle adjustable between
  40…90° via integrated shutters

Areas of application
— Corridors
— Office luminaires
— Classrooms
— Ceiling installation via LS/PD CI KIT or
  LS/PD AP KIT possible
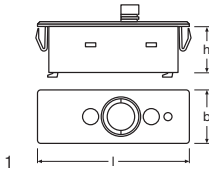
DALIeco LS/PD LI
Sensors for light management systems

Product name	GTIN (EAN)	⌂ h/m	[m]	∠°	Lx	IP	🔧
DALIeco LS/PD LI	**4008321988652**	5	7	80 [1]	20…800 [2]	IP20	Ceiling integration / Luminaire integration

Product name	T_a	COLOR	l [mm]	b [mm]	h [mm]	📦	No.
DALIeco LS/PD LI	-20…+50	Gray	48	15	17	25	1

1) Approximately
2) Approximately, measured at the sensor

Product features
— Light and presence sensor
— Presence detection via passive IR element
— Function indicator with two-color LED
— Integrated infrared remote control receiver
— Integrated pushbutton for automatic startup/ deactivation of infrared receiver
— Halogen-free polycarbonate plastic housing

Product benefits
— VDE/VDE EMC certified system
— V(λ) corrected light sensor element
— Individual activation/deactivation of light and presence sensor via remote control
— Presence detection angle adjustable between 40…90° via integrated shutters

Areas of application
— Office luminaires
— Ceiling installation via LS/PD CI KIT possible

User Remote
User interfaces for light management systems
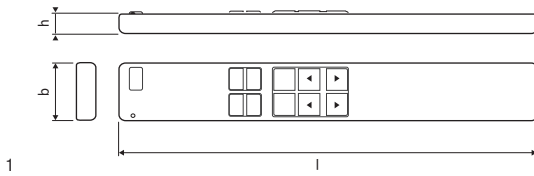
Product name	GTIN (EAN)	m	COLOR	l [mm]	b [mm]	h [mm]		No.
User Remote	4008321826435	10	White	230	33	10	10	1

Product features
— Remote control for the DALIeco light control system
— Digital IR transmission
— Independent dimming and switching of two light groups
— Central switching of two light groups
— Store and recall of four light scenes
— Temporary deactivation of presence detection (holiday function)
— Supply via two included button cells type CR2032

Product benefits
— Enables manual override via resume function
— Independent control of up to 15 systems thanks to adaptable IR coding

Areas of application
— Office luminaires
— Industry

DALIeco Remote PC KIT
User interfaces for light management systems
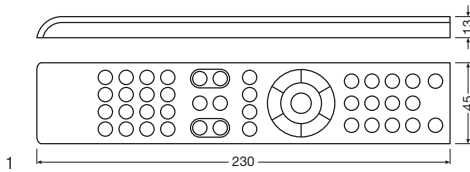
Product name	GTIN (EAN)	[m]	COLOR	l [mm]	b [mm]	h [mm]		No.
DALIECO Remote PC KIT	**4052899195967**	10	Black	230	45	13	10	1

Product features
— Remote control for configuration and startup of DALIeco light control system
— Digital IR transmission
— LED indicator for operation and programming mode and signal transmission
— Interface for PC connection
— Supply via two included button cells type CR2032

Product benefits
— Clearly structured and labeled control elements

Areas of application
— Offices
— Industry

Easy-to-use light management with Bluetooth® interface for smartphone control

DALI ACU BT and DALIeco BT

One DALI channel for controlling standard or Tunable White LED drivers or any other DALI ECG, plug-and-play start-up and comfortable smartphone control with a free-of-charge app. Modern, state-of-the-art control for professional lighting has never been easier.

Flexible
Following the successful OSRAM toolbox approach, installation and planning of these two energy-efficient systems is extremely flexible. Components can be mounted directly into the luminaire, a false ceiling (DALIeco BT) or directly behind a classic pushbutton in a flush-mounted device box (DALI ACU BT).

Powerful
Up to 32 ECGs, four light and motion sensors and an unlimited number of pushbuttons can be connected.

Intelligent
Automatic detection of connected devices and self-calibrating differentiation of natural daylight and artificial light facilitates dynamic light control and energy saving with the use of light sensors.

Expandable and installation-friendly
All components are simply interconnected via DALI. Sensors and pushbutton couplers are directly powered via DALI and do not need additional mains supply.

Easy light management
Intuitive user control of light levels and color temperatures, storage of individual scenes and manual override of automatic light control at any time via smartphone in combination with classic ON/OFF or dimming control by standard pushbuttons.

System overview

DALI ACU BT control/DALIeco BT control

Standard pushbutton

Standard pushbutton

Smartphone (Android or iOS)

DALI ACU BT control

Standard pushbutton

Standard pushbutton

DALI PRO PB Coupler

DALI LS/PD LI sensor

To DALI luminaires

DALIeco BT control

DALI LS/PD LI sensor

DALI PRO PB Coupler

DT6/DT8

DT6/DT8

—— DALI
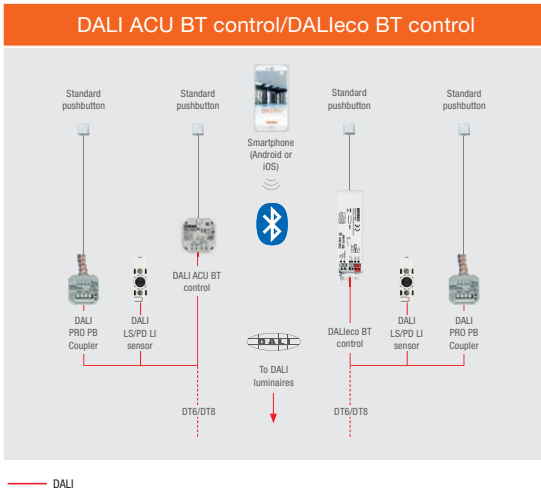
Applications

— Individual lighting and energy-saving light control at office workplaces
— Conference and meeting rooms
— Entrance areas
— Control of backlighting in signage or ambient lighting applications
— Presence-dependent lighting in corridors, staircases and sanitary rooms

For more details, go to
www.osram.com/btcontrol

DALIeco BT CONTROL
Control units for light management systems

Product name	GTIN (EAN)	V	Hz	CONTROL	No. of OUTPUTS	m	IP
DALIECO BT CONTROL	**4052899988781**	230	50 / 60	DALI	1	15	IP20

Product name		T$_a$	l [mm]	b [mm]	h [mm]		No.
DALIECO BT CONTROL	Luminaire integration / Independent mounting	-20…+60	108	31	21	25	1

Product features
— Light control with app connection via Bluetooth®
— One DALI broadcast output channel
— Daylight-dependent regulation and presence-dependent control of light
— Connection of up to 4 OSRAM DALI sensors
— Operation via standard pushbutton
— Outputs with electronical reversible overtemperature, short-circuit, overload protection
— Adjustment of all settings via smartphone

Product benefits
— Intuitive manual dimming, switching and changing of color temperature
— Simplified startup thanks to predefined operation modes
— Firmware update over-the-air via Bluetooth® possible

Areas of application
— Offices
— Meeting rooms
— Corridors

Equipment/Accessories
— Suitable for up to 32 electronic control gears
— Free app for iOS and Android available at the app store
— Ceiling or independent installation via ECO CI KIT possible

DALI ACU BT
Control units for light management systems

1
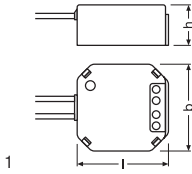
Product name	GTIN (EAN)	V	Hz	CONTROL	No. of OUTPUTS	IP	m
DALI ACU BT CON	**4052899544819**	220…240	50 / 60	DALI	1	IP20	15

Product name		T$_a$	l [mm]	b [mm]	h [mm]		No.
DALI ACU BT CON	Luminaire integration / Integrated in flush device box	-20…+60	49	48	22	60	1

Product features
— Light control with app connection via Bluetooth®
— One DALI broadcast output channel
— Operation via standard pushbutton
— Combinable with OSRAM DALI presence- and motion detectors
— Length of the DALI control cable: up to 300 m
— Length of the pushbutton cable: up to 50 m

Product benefits
— Control of standard white or Tunable White light acc. to DALI device type 8 (DT8)
— Intuitive manual dimming and switching
— Basic functionality without configuration thanks to applied pre-settings
— Integrated DALI supply
— Simple creation of scenes via app

Areas of application
— Offices
— Conference rooms
— Training rooms
— Shop lighting

Equipment/Accessories
— Suitable for up to 32 electronic control gears
— Free app for iOS and Android available at the app store

LUXeye® – the smart way of controlling light

LUXeye® from OSRAM is an innovative, easy and robust light management system that makes your light smart. It has never been easier to connect light with a smartphone.

Simplicity is the core of the system
LUXeye® is designed to adjust itself automatically and start operating immediately after mains switch-on.

General basic functions, such as light level and delay time, can be easily adjusted with a screwdriver. This quick and easy way of light management saves time and requires no extra commissioning tools.

For full flexibility, all functions can be modified with the LUXeye® app for customization and analysis. A smart device can adapt every parameter of each individual controller. An integrated wizard supports you on site.

LUXeye® can be controlled either via smart device or traditionally with a standard wall switch. It is more than just an energy-saving tool, it is also highly flexible and convenient because you can control your light wirelessly from your desk.

LUXeye® products make your light smart and are:
— Easy to install
— Easy to use
— Easy to maintain

The LUXeye® apps are available at the App Store or the Google Play Store. The app for controlling is called OSRAM BT Control and the app for commissioning is called OSRAM BT Config. Both apps have been opimized for smartphones using the operating systems iOS (version 8 or higher) and Android (version 4.4 or higher).

For more details, go to
www.osram.com/luxeye

LUXeye® Sense DALI BT
Light management systems

1

Product name	GTIN (EAN)	V	Hz	CONTROL	▲h m	◁°	Lx	IP	🔧
LUXeye Sense DALI BT	**4052899957411**	220…240	50…60	DALI	5	110	20…5000 [1]	IP20	Ceiling integration

Product name	T_a	COLOR	⌀ d [mm]	h [mm]	📦	No.
LUXeye Sense DALI BT	0…+55	White	95	81	12	1

1) Approximately, measured at the sensor

Product features
— One DALI broadcast output channel
— Daylight-dependent regulation and presence-dependent control of light
— Operation via standard pushbutton
— Outputs with electronical reversible short-circuit and overload protection
— Change of delay time with screwdriver directly at the sensor
— Change of lighting intensity with screwdriver directly at the sensor
— Halogen-free polycarbonate plastic housing
— Controller with integrated light and presence sensor, DALI output channel
— Presence detection via passive IR element
— Light control with app connection via Bluetooth®
— Light control via smartphone
— Adjustment of all settings via smartphone
— Function indicator with three-color LED
— Various shutters included for different detection areas

Product benefits
— Automatic start of light regulation after power-on (out of the box function)
— Basic functionality without configuration thanks to applied pre-settings
— Easy and fast customization of important parameters via screwdriver
— Predefined and customizable configurations for all applications
— Password protection for user app and configuration app access
— Easy report sharing via e-mail

Areas of application
— Offices
— Conference rooms
— Training rooms
— Surface mounting via LUXeye® Sense CM KIT

Equipment/Accessories
— Suitable for up to 20 electronic control gears
— Free app for iOS and Android

Wiring diagram

L
N
PE

Optional:
External pushbutton

LUXeye® Sense DALI BT
MASTER

Luminaire

Luminaire

DALI LS /PD CI
SLAVE
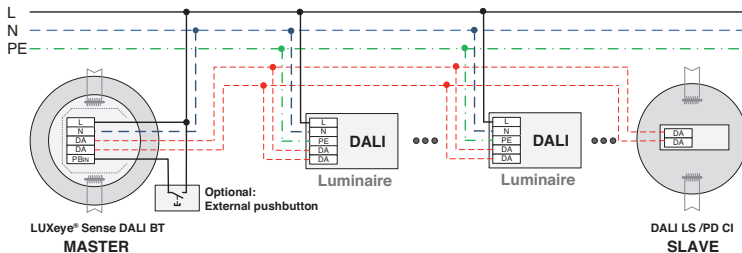
LUXeye® Sense 10A BT
Light management systems

1

Product name	GTIN (EAN)	V	Hz	$\overset{h}{\underset{m}{\text{A}}}$	°∠	Lx	Max Load[A]	IP	
LUXeye Sense 10A BT	4052899957428	220…240	50…60	5	110	20…5000 [1]	10	IP20	Ceiling integration

Product name	T_a	COLOR	d [mm]	h [mm]		No.
LUXeye Sense 10A BT	0…+55	White	95	81	12	1

1) Approximately, measured at the sensor

Product features
— 10 A output relay for ohmic, inductive and capacitive load
— Daylight-dependent switching and presence-dependent control of light
— Operation via standard pushbutton
— Outputs with electronical reversible short-circuit and overload protection
— Change of delay time with screwdriver directly at the sensor
— Change of switch-off level with screwdriver directly at the sensor
— Halogen-free polycarbonate plastic housing
— Controller with integrated light and presence sensor, relay, Bluetooth® interface
— Presence detection via passive IR element
— Light control via smartphone
— Adjustment of all settings via smartphone
— Function indicator with three-color LED
— Various shutters included for different detection areas

Product benefits
— Automatic start of light regulation after power-on (out of the box function)
— Basic functionality without configuration thanks to applied pre-settings
— Easy and fast customization of important parameters via screwdriver
— Predefined and customizable configurations for all applications
— Password protection for user app and configuration app access
— Easy report sharing via e-mail

Areas of application
— Offices
— Conference rooms
— Training rooms
— Surface mounting via LUXeye® Sense CM KIT

Equipment/Accessories
— Free app for iOS and Android
— Suitable for 10 A R/L/C load similar to 10 A fuse (B)

Wiring diagram
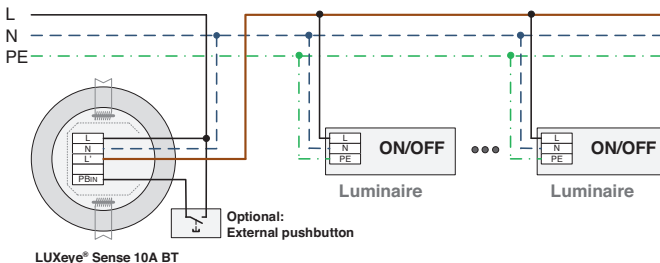
LUXeye® Sense 10A BT

LUXeye® Sense CM KIT
Light management systems
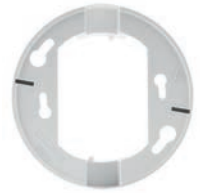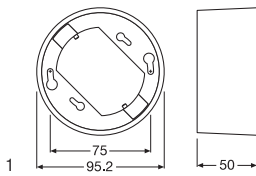
Produkt-bezeichnung	GTIN (EAN)	🔧		COLOR	⊘ d [mm]	h [mm]	▱	No.
LUXeye Sense CM KIT	**4052899988729**	On-top ceiling mounting		White	95.2	50	24	1

Product features
— Ceiling installation adapter

Areas of application
— Offices
— Conference rooms
— Training rooms

Equipment/Accessories
— Suitable for LUXeye® Sense DALI BT
  and LUXeye® Sense 10A BT

PCU/MCU

Simple manual dimming solutions

Installed in a flush-mounted box and connected to the AC power supply, a DALI PCU or DALI MCU can control up to 25 luminaires with the integrated DALI supply. Parallel connection enables the number of luminaires per group to be increased to 100 and up to four control points can be provided.

DALI PCUs or DALI MCUs connected to one another synchronize automatically; in other words, the control point can be changed at any time without the risk of side effects such as sudden changes in brightness. The DALI PCU allows controlling DALI control gears via standard pushbuttons, the digital rotary dimmer DALI MCU has tactile detents so brightness can be fine-tuned in individual steps as required.

In addition, the DALI MCU TW allows a manual control of the color temperature if connected to Tunable White luminaires equipped with LED drivers compliant with DALI device type 8 (DT8).

Thanks to its integrated switch, the analog DIM MCU rotary dimmer enables up to ten single-lamp 1…10 V ECGs or five 2-lamp 1…10 V ECGs to be controlled directly from one control point. If an external power relay is used, up to one hundred 1…10 V ECGs can be controlled.

The white cover can be removed from the DALI MCU, DALI MCU TW and from the DIM MCU and replaced with commercially available covers.

Applications
— Single luminaires
— Conference rooms
— Partitioned rooms
— Living rooms

PCU/MCU

DALI PCU DALI MCU DALI MCU TW DIM MCU

User interface

DT8

1…10 V DIM

—— DALI
—— 1…10 V DIM

DALI PCU
Light management systems
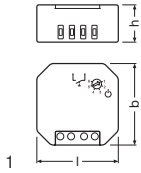
Product name	GTIN (EAN)	V	CONTROL	No. of OUTPUTS	W SYSTEM	IP	🔧
DALI PCU	**4052899955622**	230	DALI	1	2	IP20	Integrated in flush device box

Product name	T_a	l [mm]	b [mm]	h [mm]	📦	💡 No.
DALI PCU	0…+40	48	48	22	60	1

Product features
— Up to four DALI PCUs can be connected in parallel to set up multiple control points
— Automatic synchronization between the control points
— Combinable with standard presence and motion detectors with mains contact
— Behavior after power failure configurable
— Length of the DALI control cable: up to 300 m

Product benefits
— Intuitive manual dimming and switching
— Integrated DALI supply
— Individual setting of minimal brightness level

Areas of application
— Conference rooms
— Restaurants
— Shop lighting

Equipment/Accessories
— Suitable for up to 25 electronic control gears
— Flexible expansion via DALI repeaters or further DALI PCUs

DALI MCU
Light management systems
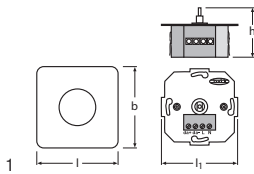
Product name	GTIN (EAN)	V	CONTROL	No. of OUTPUTS	W SYSTEM	IP	🔧	Tₐ
DALI MCU	**4008321189721**	230	DALI	1	2	IP20	Integrated in flush device box	0…+50

Product name	COLOR	l [mm]	b [mm]	h [mm]	l₁ [mm]	📦	💡 No.
DALI MCU	White	80	80	50	70	15	1

Product features
— Up to 4 DALI MCUs can be connected in parallel to set up multiple control points
— Automatic synchronization between the control points
— Cover and rotary switch in neutral white
— Length of the DALI control cable: up to 300 m

Product benefits
— Intuitive manual dimming and switching
— Individual setting of minimal brightness level

Areas of application
— Conference rooms
— Restaurants
— Shop lighting

Equipment/Accessories
— Suitable for up to 25 electronic control gears
— Flexible expansion via DALI repeaters or further DALI MCUs
— Cover and rotary knob included

DALI MCU Tunable White
Light management systems

Product name	GTIN (EAN)	V	CONTROL	No. of OUTPUTS	IP		Ta
DALI MCU TW	**4052899465916**	230	DALI	1	IP20	Integrated in flush device box	0…+50

Product name	COLOR	l [mm]	b [mm]	h [mm]		No.
DALI MCU TW	White	80	80	50	15	1

Product features
— Up to 4 DALI MCUs can be connected in parallel to set up multiple control points
— Automatic synchronization between the control points
— Cover and rotary switch in neutral white
— Length of the DALI control cable: up to 300 m

Product benefits
— Intuitive manual dimming, switching and changing of color temperature
— Individual setting of minimal brightness level
— Individual setting of color temperature range

Areas of application
— Conference rooms
— Restaurants
— Shop lighting
— Private homes

Equipment/Accessories
— Suitable for up to 25 electronic control gears
— Cover and rotary knob included

DIM MCU
Light management systems
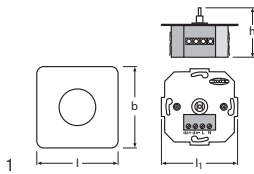
Product name	GTIN (EAN)	V	CONTROL	No. of OUTPUTS	Max Load [A]	IP		Ta
DIM MCU	**4050300347424**	230	1…10	1	6	IP20	Integrated in flush device box	0…+50

Product name	COLOR	l [mm]	b [mm]	h [mm]	l₁ [mm]		No.
DIM MCU	Cream white	80	80	40	70	100	1

Product features
— Switching load contact: 250 V/6 A
  (10 1-lamp or 5 2-lamp ECGs)
— Cover and rotary knob in cream white

Product benefits
— Intuitive manual dimming and switching
— Individual setting of minimal brightness level

Areas of application
— Conference rooms
— Restaurants
— Shop lighting

Equipment/Accessories
— Suitable for up to 50 electronic control gears
  (external load contact required)
— Flexible expansion via external load contact and via
  signal amplifier DIM SA
— Cover and rotary knob included

Stand-alone sensors

The latest state-of-the-art technology

Stand-alone sensors with integrated control for daylight-dependent and motion/ presence-dependent lighting provide the basis for energy saving. The incoming daylight is measured and, if necessary, supplemented with artificial light. The lighting system is only switched on if persons are present in the room. Using sensors can therefore achieve energy savings of up to 70 %.

OSRAM provides multiple different stand-alone sensors with integrated control functionality. The tables on pages 4.102 to 4.106 provide an overview of our stand-alone sensors by detection area, technology and mounting type.

HIGH BAY
Stand-alone motion sensors with switching contact
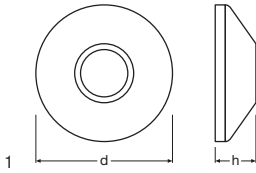
Product name	GTIN (EAN)	V	Hz	![A h/m]	![[m]]	![°]	Max Load [A]	W SYSTEM
HIGH BAY	4008321410078	120…277	50…60	13	18 [1)	100 [2)	5	0.60

Product name	IP	![tool]	COLOR	![d mm]	![h mm]	![box]	No.
HIGH BAY	IP20	On-top ceiling mounting	White	116	40	20	1

1) Maximum diameter
2) Approximately

Product features
— Motion sensor with switching contact
— 3 to 10 m: detection of motion by people
— 3 to 13 m: detection of vehicle movement
  (e.g. forklift truck)
— Adjustable switch-off delay: 30 s to 20 min
— Maximum power consumption
  in stand-by mode: 0.25 W

Product benefits
— Energy savings of up to 35 %
  (compared to manual switching)

Areas of application
— Suitable for high installation heights
— Industry
— Production halls

Equipment/Accessories
— Suitable for up to 15 electronic control gears
— Installation by means of mounting adapter possible

Wiring diagram

HIGH BAY
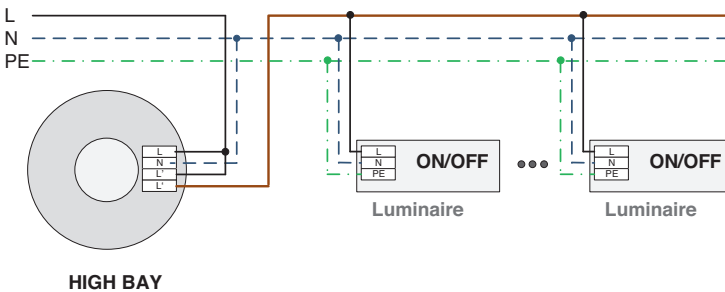
VISION
Stand-alone motion sensors with switching contact

Product name	GTIN (EAN)	V	Hz	⚡h/m	[m]	°∕	Max Load [A]	W SYSTEM
VISION	**4008321957047**	120…277	50…60	4.5	21 [1)	140 [2)	5	0.60

Product name	IP	🔧		COLOR	d [mm]	h [mm]		No.
VISION	IP20	On-top ceiling mounting		White	116	40	20	1

1) Maximum diameter
2) Approximately

Product features
— Motion sensor with switching contact
— Adjustable switch-off delay: 30 s to 20 min
— Maximum power consumption
  in stand-by mode: 0.25 W

Product benefits
— Energy savings of up to 35 %
  (compared to manual switching)

Areas of application
— Large areas
— Open-plan offices, corridors and storage rooms

Equipment/Accessories
— Suitable for up to 15 electronic control gears
— Installation by means of mounting adapter possible

Wiring diagram
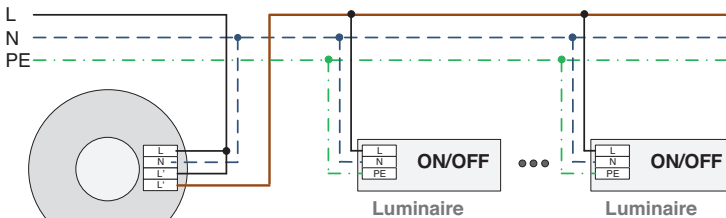
VISION

DUO
Stand-alone motion/daylight sensors with switching contact

Product name	GTIN (EAN)	V	Hz	A/m h	[m]	∠°	Lx	Max Load[A]
DUO	4008321496355	220…240	50…60	5	12 [1]	110 [2]	50…500 [2]	5

Product name	IP	🔧	COLOR	l [mm]	b [mm]	h [mm]	📦	No.
DUO	IP20	Luminaire integration / On-top ceiling mounting / Clip-on lamp	White	58	71	47	20	1

1) Maximum diameter
2) Approximately

Product features
— Light and presence sensor with switching contact
— Daylight detection
— Presence detection
— Combined daylight and presence detection
— All functions selectable via rotary switch
— Adjustable switch-off delay: 1…60 min
— Maximum power consumption
  in stand-by mode: 0.7 W

Product benefits
— Energy savings of up to 45 %
  (compared to manual switching)
— Multiple sensors can be networked

Areas of application
— Individual offices
— Open-plan offices
— Waiting rooms

Equipment/Accessories
— Suitable for up to 30 electronic control gears

Wiring diagram
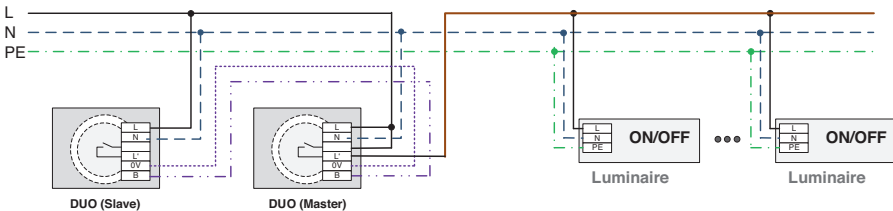
DIM MULTI
Stand-alone motion/daylight sensors with 1…10 V dimming interface

Product name	GTIN (EAN)	V	Hz	CONTROL	⛏h/m	[m]	∠°	Max Load[A]
DIM MULTI	4050300554471	220…240	50…60	1…10	5	12 [1]	110 [2]	5

Product name	IP	🔧	COLOR	l [mm]	b [mm]	h [mm]	📦	No.
DIM MULTI	IP20	Luminaire integration / On-top ceiling mounting / Clip-on lamp	White	58	71	42	20	1

1) Maximum diameter
2) Approximately

Product features
— 1…10 V light and presence sensor
— Combined daylight and presence detection
— All functions selectable via rotary switch
— Adjustable switch-off delay: 1…30 min

Product benefits
— Energy savings of up to 70 %
  (compared to CCG + T8 lamp, without sensors)
— Daylight-dependent control with automatic shutdown
  in adequate daylight
— Compensates for 100 % of the incoming daylight
— Multiple sensors can be networked

Areas of application
— Individual offices
— Open-plan offices
— Common areas

Equipment/Accessories
— Suitable for up to 30 electronic control gears

Wiring diagram

DIM PICO

Stand-alone daylight sensors with 1…10 V dimming interface
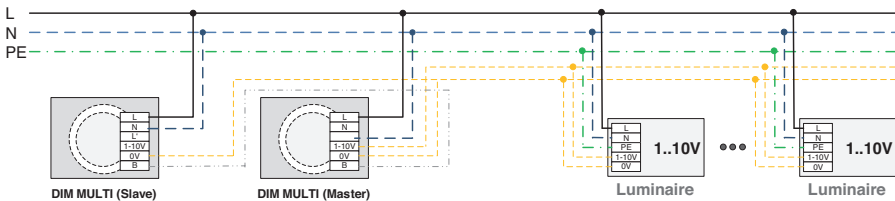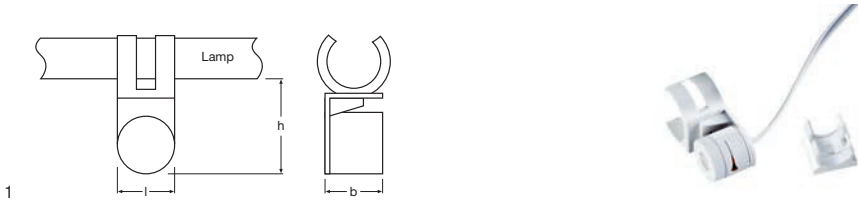
Product name	GTIN (EAN)	CONTROL	h m	°	IP	Luminaire integration / Clip-on lamp
DIM PICO	**4050300554457**	1…10	4	50 [1]	IP20	Luminaire integration / Clip-on lamp

Product name	COLOR	l [mm]	b [mm]	h [mm]		No.
DIM PICO	White	21	21	31	20	1

1) Approximately

Product features
— 1…10 V light sensor
— Simple clip-on installation for T8 and T5 lamps
— Cable length: 700 mm

Product benefits
— Energy savings of up to 30 %
  (compared to CCG + T8 lamp, without sensors)
— Compensates for 50 % of the incoming daylight
— Direct connection to the 1…10 V interface
— Simple setting of the set point via aperture

Areas of application
— Individual luminaires

Equipment/Accessories
— Suitable for up to 10 electronic control gears

DIM MICO
Stand-alone daylight sensors with 1…10 V dimming interface
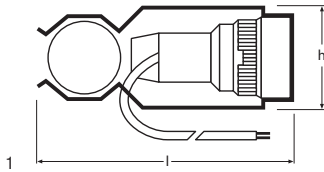
Product name	GTIN (EAN)	CONTROL	[icon] h/m	[icon] °	Lx	IP	[icon]
DIM MICO	4008321586056	1…10	8	80 [1]	20…800	IP20	Luminaire integration / Clip-on lamp

Product name	COLOR	l [mm]	b [mm]	h [mm]	[icon]	No.
DIM MICO	Gray	59	28	40	20	1

1) Approximately

Product features
— 1…10 V light sensor
— Simple clip-on installation for T8 and T5 lamps
— Cable length: 700 mm

Product benefits
— Energy savings of up to 40 %
  (compared to CCG + T8 lamp, without sensors)
— Compensates for 100 % of the incoming daylight
— Direct connection to the 1…10 V interface
— Simple setting of the set point via aperture

Areas of application
— Strip lighting in single and open-plan offices
— Strip lighting in factory halls

Equipment/Accessories
— Suitable for up to 100 electronic control gears
— Suitable for up to 16 signal amplifiers

HubSense®

The agile lighting control solution.

	HubSense®

User interfaces and sensors

Standard pushbutton

Sensor

LS/PD MULTI 3 sensors

CI

Commissioning app

HIGH BAY

VISION

EN-SCPPH-0450-ZB

EN-WS-SC3-ZB-WH

EN-WS-2B-ZB-WH

EN-WS-SC5-ZB-WH

DALI LS/PD CI

Luminaire installation/ clip-on sensor

EN-SCPPH-1500-ZB

EN-WS-ZC6-ZB-WH

EN-WS-ZC3-ZB-WH

User smartphone app

DALI LS/PD LI

HF LS LI

EN-SCPPH-HB-ZB

Controllers

DALI PRO PB Coupler

DALI PRO Sensor Coupler

Sensor Coupler HF LS LI

DALI HIGHBAY ADAPTER

Network switch

HubSense Manager Wired-DALI-4CH

HubSense Manager Wireless-ZB

Actuators

DALI SWITCH SO

Switching contact

DALI CON 1…10

1…10V DIM

ZigBee 2 DALI CON LI

- Presence detection
- Motion detection
- Daylight detection

——	DALI
——	1…10V DIM
——	Ethernet
——	Switching contact

The new HubSense® from OSRAM is a flexible, scalable and brandable lighting control system that fits to any building size. Thanks to the scalability of the system architecture and the lean portfolio, HubSense® provides the perfect control solution for new buildings or existing buildings undergoing renovation.

Flexibility is one of the key elements of a lighting control system. Being compatible with DALI and ZigBee, the de facto standards in the professional lighting control world, HubSense® now enables any type of application, no matter what constraints are found in the building layout.

The new commissioning software will drastically reduce the commissioning time thanks to the innovative commissioning experience. A project can be easily realized by adding preconfigured room profiles one after the other in the software. Proximity technology will help to address the devices installed, minimizing the time and the effort. An optional test procedure will then ensure that the system will work properly.

The different software packages of Basic and Advanced give multiple options to realize a project. Based on the project needs, the HubSense® can be flexibly adapted by choosing only the mandatory functionality in order to tailor the solution to expectations.

Any end user will be able to interact with his own environment by the simple touch of a finger. The HubSense® End User App will allow full control and personalization of the working environment, enhancing working life.
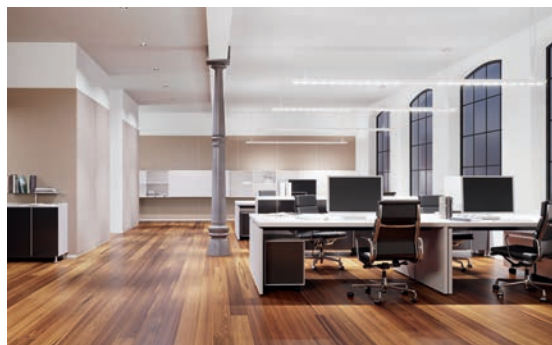
HubSense® Manager Wired-DALI-4CH
Controllers
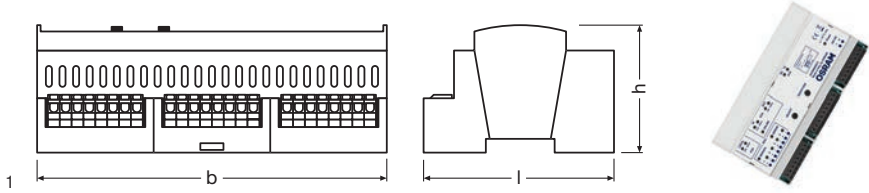
Product name	GTIN (EAN)	CONTROL	W SYSTEM	l [mm]	b [mm]	h [mm]	📦	No.
HubSense Manager Wired-DALI-4CH	**4052899989771**	DALI	22	160	90	63	10	1

Product features
— DALI controller connected via network
— Daylight-dependent regulation and presence-dependent control of light
— Intelligent scheduling, task-related lighting
— Preconfigured room lighting profiles

Product benefits
— Suitable for projects with up to 1,000 controllable light points
— Worldwide access and possibility of remote maintenance via Internet
— Initial software provided together with the hardware
— Upgradable software packages via licensing mechanism (see www.osram.com)

Areas of application
— Offices
— Healthcare
— Public buildings
— Educational sector

HubSense® Manager Wireless-ZB
Controllers
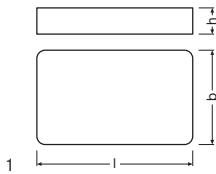
Product name	GTIN (EAN)	CONTROL	W SYSTEM	l [mm]	b [mm]	h [mm]		No.
HubSense Manager Wireless-ZB	**4052899989764**	ZigBee HA	4	72	20	118	10	1

Product features
— Connected via network, wireless controller
— Daylight-dependent regulation and presence-dependent control of light
— Intelligent scheduling, task-related lighting
— Preconfigured room lighting profiles

Product benefits
— Suitable for projects with up to 1,000 controllable light points
— Worldwide access and possibility of remote maintenance via Internet
— Initial software provided together with the hardware
— Upgradable software packages via licensing mechanism (see www.osram.com)

Areas of application
— Offices
— Healthcare
— Public buildings
— Educational sector

DALI PROFESSIONAL

A flexible light management system for large rooms
and multiroom solutions

The DALI PROFESSIONAL system with
its 4 DALI lines (256 DALI ECGs) is suitable
for complex applications in room and floor
control, daylight-dependent regulation,
RGB control, TW control and dynamic
lighting. With LAN interconnectivity, you
can connect up to 4 controllers, so in
total 1024 DALI ECGs can be controlled.

Configuration and setup are easy to
achieve with a Windows-based PC soft-
ware and a USB or LAN port. Plug-and-
play settings are preconfigured for instant
use without any setup.

The system is operated with standard
pushbuttons, which are connected to a
DALI PRO Pushbutton Coupler. Further-
more, the DALI PRO Sensor Coupler
integrates all light and occupancy sensors
from the LS/PD MULTI 3 family. In total, a
maximum of 50 couplers can be attached.
A smartphone app is available as an
attractive and functional input device.
Using the DALI HIGHBAY ADAPTER and
HIGH BAY sensor, daylight-dependent
light control and motion control is possible
up to an installation height of 13 m.

Applications
— Offices
— Retail outlets
— Storage areas
— Production and assembly facilities

The latest software can be found here:
www.osram.com/ds-tools

System overview

DALI PROFESSIONAL

User interface

Standard pushbutton

HIGH BAY

VISION

Ceiling installation sensor LS/PD MULTI 3

DALI LS/PD CI

Luminaire installation/ clip-on sensor

CI

DALI LS/PD LI

HF LS LI

Smartphone

Controller

DALI PRO PB Coupler

DALI PRO Sensor Coupler

Sensor Coupler HF LS LI

DALI HIGHBAY ADAPTER

Up to 4 controllers

WLAN Router

DALI PRO CONT-4 RTC

PC

Light source

Presence detection — LAN

Motion detection — DALI

Daylight detection

New: RGB sequencer

— Freely configurable color sequences for dynamic light with adjustable stopping times and cross-fading times
— Up to 100 sequences are programmable
— Up to 50 color scenes per sequence
— Easy color selection via color wheel

New: Time-of-day-dependent color temperature adjustment (Human Centric Lighting)

— Profiles with time-of-day-dependent light value and color temperature adjustment are freely configurable
— Integrated astro function with adjusted sunrise and sundown times for any time of the year
— Can be interrupted any time (starting triggers light and color temperature value according to the current time of day)
— Combinable with timer function and presence detector
— Up to 50 different scenes per profile
— Up to 100 profiles per project

New: App features at a glance

— Comfortable switching and dimming of illumination with status display
— Clearly arranged through grouping of rooms
— Access restriction with individual clearance of each control element per user
— Activate/override daylight control
— Selection of static lighting scenes and dynamic sequences
— Control element for colored light (RGB)
— Control element for color temperature adjustment (TW)

DALI Pro Control

DALI PRO CONT-4 RTC
Controllers for light management systems

Product name	GTIN (EAN)	V	Hz	CONTROL	No. of OUTPUTS	W SYSTEM	IP
DALI PRO Cont-4 RTC	4008321710871	100…240	50 / 60	DALI	4	20	IP20

Product name		T_a	l [mm]	b [mm]	h [mm]		No.
DALI PRO Cont-4 RTC	DIN rail mounting	0…+40	90	160	62	10	1

Product features
— Interconnection of up to 4 DALI PROFESSIONAL control units
— Configuration via LAN/WLAN/USB
— RGB color sequences
— Time-of-day-dependent color temperature adjustment (human centric lighting)
— Controller for 4 DALI lines
— Up to 50 pushbutton/sensor couplers can be integrated
— Integrated DALI supply
— 4 freely programmable switchover relays; load contact: 4 x 5 A
— Daylight-dependent and/or presence-dependent or manual control
— Up to 4 x 16 groups can be controlled
— Integrated clock for event control
— Weekly scheduler
— Connection via push-in terminals
— Control of lighting scenes and sequences (recall/store)
— Housing for series installation
— Length of the DALI control cable: up to 300 m

Product benefits
— Easy and intuitive control via app
— Control of up to 1024 DALI ECGs via LAN interconnectivity
— Plug and Play preconfigured for instant use without any startup procedure
— Mains voltage interruption buffer battery
— All the luminaires in the system can be dimmed or switched
— Simple creation of scenes and sequences
— Switching and dimming of up to 256 DALI ECGs per DALI PROFESSIONAL control unit
— A setpoint for daylight-dependent control can be stored by double-clicking
— Sensor integration in DALI
— Remote access/remote maintenance

Areas of application
— Room control, floor control, daylight-dependent control
— Connection of light and presence sensors in DALI systems
— Conference rooms
— Offices: Individual and group workplaces
— Production and assembly facilities
— Suitable for indoor applications
— Large luminaire groups
— Industry
— Corridors
— Strip lighting
— Logistics centers
— Classrooms
— Sports halls
— Training rooms

Equipment/Accessories
— Free smartphone app for iOS and Android
— Suitable for up to 256 electronic control gears with DALI interfaces
— Graphic configuration software with Windows user interface

References/Links
Configuration software available at
www.osram.com/ds-tools

OSRAM – your KNX lighting partner

Lighting represents one of the largest domains of KNX applications. For your projects, OSRAM offers a variety of solutions (source: BSRIA 2016).
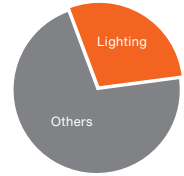
OSRAM delivers KNX lighting solutions for your needs

3 IoT-connected lighting

2 Smart lighting functionality

1 Cost-efficient lighting
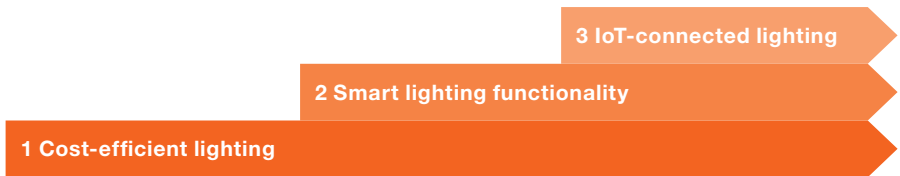
1 Use cost-efficient DALI devices in your project
— Fast integration of dimmable DALI devices and DALI sensors
— Luminaire information available via KNX (e.g. lamp status)

2 Use smart lighting in your KNX project to improve the light experience for you
— Control color and Tunable White DALI devices with KNX (e.g. HCL/TW with DT8)
— Retrieve real-time luminaire information in your KNX environment (e.g. operating hours, max. temperature power metering)
— Direct control lighting and more via smartphone/tablet

3 Connect your light to the Internet of Things (IoT)
— Light and KNX solutions will have connectivity to the cloud
— Cloud integration gives you, for example, the benefits of multi-building benchmarking, space optimization and further applications beyond lighting
— OSRAM will also be your partner for KNX IoT solutions, providing secure cloud access and further services

Connectivity is one of the key elements of smart building solutions

Visit us at Light & Building 2018 and online at www.osram.com/knx

OSRAM: Your lighting partner for more than 110 years

ENCELIUM®

The holistic light management system for intelligent buildings

ENCELIUM®

User interfaces and sensors

Polaris 3D®

Personal Control Software

Standard pushbutton

Sensor

LS/PD MULTI 3 sensors

CI

HIGH BAY

VISION

EN-SCPPH-0450-ZB

EN-WS-SC3-ZB-WH
EN-WS-2B-ZB-WH
EN-WS-SC5-ZB-WH

DALI LS/PD CI

Luminaire installation/ clip-on sensor

EN-SCPPH-1500-ZB

EN-WS-ZC6-ZB-WH
EN-WS-ZC3-ZB-WH

DALI LS/PD LI

HF LS LI

EN-SCPPH-HB-ZB

Controllers

DALI PRO PB Coupler

DALI PRO Sensor Coupler

Sensor Coupler HF LS LI

DALI HIGHBAY ADAPTER

Network switch

ECU DALI

EN-WM-ZB-P3D

SSU

BACnet, Internet

Actuators

DALI SWITCH SO

Switching contact

DALI CON 1…10
1…10 V DIM

ZigBee 2 DALI CON LI

Presence detection

Motion detection

Daylight detection

—— DALI

—— 1…10 V DIM

—— Ethernet

—— Switching contact

ENCELIUM® by OSRAM is a comprehensive light management system which facilitates energy saving in a very practical and versatile manner. The heart of the system, the innovative Polaris 3D™ software, permits remote access to provide comprehensive control of the entire lighting system.

Thanks to the scalability of the system architecture, ENCELIUM® can be used for buildings of any size and can easily be integrated in existing building management systems. In this way, you can change and optimize your lighting with just a few clicks of your mouse and you can prepare your building for the future.

Flexibility is one of the core characteristics of a light management system. Because it is compatible with DALI and ZigBee, and therefore with state-of-the-art lighting technologies, the ENCELIUM® system now allows any type of application no matter which constraints can be found in a project.

All ENCELIUM® light management components, including planning and commissioning, are constituents of the comprehensive OSRAM solution.

ENCELIUM® – more flexibility, more control and more energy savings.

Winner – Controls Product of the Year – ENCELIUM® Wireless

ECU DALI
Controllers
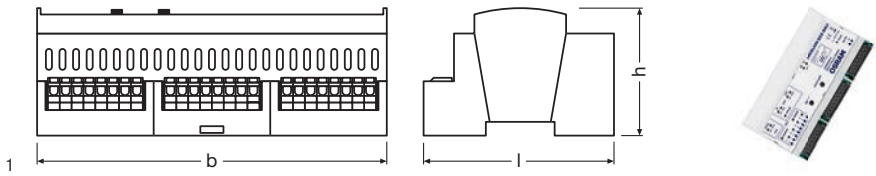
Product name	GTIN (EAN)	CONTROL	W SYSTEM	l [mm]	b [mm]	h [mm]		No.
DALI ECU	4052899016842	DALI	22	90	160	63	10	1

Product features
— Individual control
— Daylight-dependent regulation and presence-dependent control of light
— Intelligent scheduling, task-related lighting, variable load distribution
— Realtime light control, analysis of energy consumption and display of lamp failures

Product benefits
— Energy savings of up to 75 % (compared to CCG + T8 lamp without sensors)
— DALI-based light management system integrable into building management systems
— Worldwide web access and possibility of remote maintenance

Areas of application
— Offices
— Healthcare
— Public buildings
— Educational sector

EN-WM-ZB-P3D
Controllers
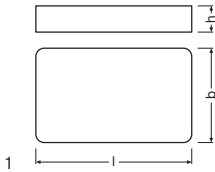
Product name	GTIN (EAN)	CONTROL	W SYSTEM	l [mm]	b [mm]	h [mm]		No.
EN-WM-ZB-P3D	4052899957336	ZigBee HA	4	118	72	20	10	1

Product features
— Individual control
— Daylight-dependent regulation and presence-dependent control of light
— Intelligent scheduling, task-related lighting, variable load distribution
— Realtime light control, analysis of energy consumption and display of lamp failures

Product benefits
— Energy savings of up to 75 % (compared to CCG + T8 lamp without sensors)
— ZigBee-based light management system for integration into building management systems
— Worldwide web access and possibility of remote maintenance

Areas of application
— Offices
— Healthcare
— Public buildings
— Educational sector

SSU Server
Controllers
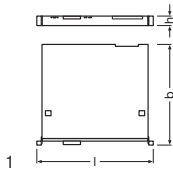
Product name	GTIN (EAN)	W SYSTEM	l [mm]	b [mm]	h [mm]	⊞	No.
EN-SSU-1U	4008321791535	250	395	483	43	1	1

Product features
— Individual control
— Daylight-dependent regulation and
  presence-dependent control of light
— Intelligent scheduling, task-related lighting, variable
  load distribution
— Realtime light control, analysis of energy consumption
  and display of lamp failures

Product benefits
— Energy savings of up to 75 %
  (compared to CCG + T8 lamp without sensors)
— DALI-based light management system integrable into
  building management systems
— Worldwide web access and possibility of remote
  maintenance

Areas of application
— Offices
— Healthcare
— Public buildings
— Educational sector

DALI components

Non-system-specific DALI components and sensors

DALI sensors and DALI couplers transmit information according to presence, movement and light value on the DALI line. With the DALI pushbutton coupler, the contact signal is transferred from conventional pushbuttons and switches to the DALI system. These devices can be used in many OSRAM control systems as well as in third-party manufacturers' systems. For details, please see the table with the supported systems below.

This results in a significant simplification of the installation as sensor signals on the DALI line are also transmitted and, therefore, no additional wiring is required. Particularly in case of strip lights that are electrically connected via mounting rail contacts, an optimum integration of the sensor system is possible via DALI without having to install an additional line with differing isolation requirements.

To check if an OSRAM DALI sensor or coupler can be used with a specific standard DALI control unit, please refer to the compatibility list of the respective manufacturer.

More information:
www.osram.com/lms

Additional non-system-specific components complement the DALI functionality:
— DALI REPEATER – System expansion without additional DALI address
— DALI CON 1…10 V – Integration of 1…10 V control gears into DALI
— DALI SWITCH – Integration of switchable devices into DALI

Manufacturer	Control system manager	Interface
OSRAM	DALIeco BT Control / DALIeco Control	DALI / BT
OSRAM	DALI ACU BT	DALI / BT
OSRAM	LUXeye® Sense DALI BT	DALI / BT
OSRAM	HubSense®	DALI / Ethernet
OSRAM	DALI PROFESSIONAL CONT-4 RTC	DALI / Ethernet
OSRAM	ENCELIUM® DALI ECU	DALI / Ethernet
TRAXON	e:cue ETH2DALI	DALI / DMX / Ethernet / e:net
SIEMENS	KNX/DALI Gateway Twin plus N141/21, plus N141/03	DALI / KNX
WAGO	DALI Multi Master Clamp 753-647	DALI / PROFIBUS / LON / KNX / MODBUS / Ethernet …
BECKHOFF	KL6821	DALI / KNX / LON / BACnet / Ethernet / DMX …
LOYTEC	LDALI CEA-709*	DALI / LON
LOYTEC	LDALI-ME204* / LDALI-E201-U*	DALI / BACnet

Information is subject to change. For details, please contact the respective manufacturer.   * DALI pushbutton coupler not compatible.

What is DALI and how does it work?

DALI – Digital Addressable Lighting Interface – is a (non-proprietary) interface standard for digital dimmable electronic drivers, offering greater functionality and greater ease of use. Per DALI line, up to 64 DALI drivers can be controlled with a high degree of flexibility via a two-wire control line individually or jointly and in up to 16 groups. The lighting is switched and dimmed via control line. In other words, there is no need for any relays.

DALI is the standard interface for professional lighting solutions. OSRAM offers a wide range of DALI drivers.

The DALI line is protected against polarity reversal and can be routed together with the power supply, for example, in a five-core sheathed cable. The control line simply has to be rated for line voltage (basic insulation). There is no need for a special cable.
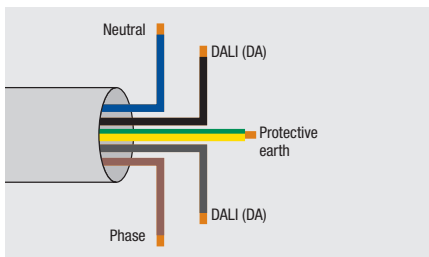
Requirements to be met by the DALI line

When choosing a cable, make sure that the voltage drop on the line does not exceed 2 V at 250 mA. The maximum permitted distance between the controller and the connected DALI driver is 300 m.

The following table is used as a basis for finding the cable cross-section.

Cable length:	< 100 m	100–150 m	100–300 m
Min. cable cross-section:	0.5 mm^2	0.75 mm^2	1.5 mm^2

DALI input devices (sensors/couplers)

OSRAM has a wide range of DALI input devices (sensors and couplers) for multiple application areas.
OSRAM DALI sensors are grouped by:
— Luminaire integration
— Ceiling mounting/integration

Simple planning

DALI is the main standard to dim luminaires. The same wiring can be used for OSRAM DALI sensors. OSRAM DALI sensors are compatible with all our DALI controllers which support light or motion detection. OSRAM DALI sensors can also be used with controllers of our partners.

DALI sensors are using different addresses to DALI drivers. Up to 64 addresses for input devices (sensors and couplers) per DALI line are possible.

Simple installation

All our sensors are protected against polarity reversal to minimize installation failures. The DALI cabling should be rated for line voltage (by DALI standard) so it can be routed together with line voltage (e.g. a five-core sheathed cable). There is no need for a special cable.

For an overview of the different OSRAM DALI sensors, see pages 4.102 ff.

DALI sensors for luminaire integration

DALI LS/PD LI
Very compact DALI light and presence detector with integrated shutter

LS/PD DALI LI UF
Ultraflat light and presence detector

Luminaire
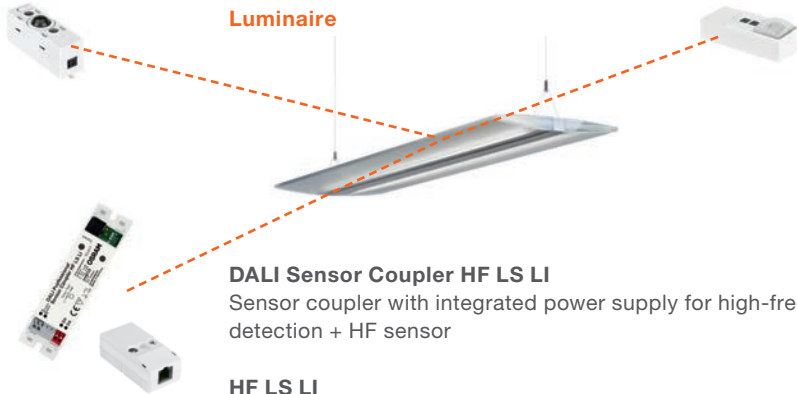
DALI Sensor Coupler HF LS LI
Sensor coupler with integrated power supply for high-frequency detection + HF sensor

HF LS LI
Light and presence detector with high-frequency detection technology, not susceptible to heat. Optimized for IP-rated luminaires.

DALI sensors for ceiling integration

DALI LS/PD CI
DALI light and presence detector for ceiling integration

DALI Sensor Coupler +
LS/PD Multi 3 CI + ECO CI KIT
Minaturized light and presence detector for ceiling integration

DALI sensors for ceiling/trunking system mounting

DALI HIGHBAY ADAPTER + HIGH BAY sensor

DALI light and presence detector for high mounting heights of up to 13 m.

DALI HIGHBAY ADAPTER + VISION sensor

DALI light and presence detector for wide detection areas.

Sensor couplers to integrate third-party sensors

DALI Sensor Coupler E + third-party sensor

Universal DALI interface for standard 230 V or 24 V motion detectors.
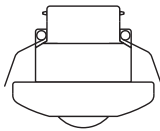
LS/PD DALI LI UF
Sensors for light management systems
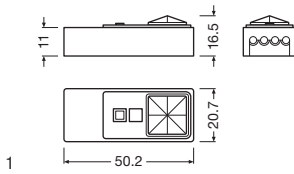
Product name	GTIN (EAN)	CONTROL	No. of OUTPUTS	IP		Ta
LS/PD DALI LI UF	**4052899984608**	DALI	2	IP20	Luminaire integration	0…+50

Product name	COLOR	l [mm]	b [mm]	h [mm]		No.
LS/PD DALI LI UF	White	50.2	20.7	16.5	10	1

Product features
— Direct connection to DALI
— Light and presence sensor for luminaire installation
— Presence detection via passive IR element
— Light sensor operating range: 10…1000 lx (measured at sensor)
— Function indication via integrated LED
— Mounting height: 2…4 m

Product benefits
— Extremely low profile
— Presence detection range can be restricted by snap-on shutters

Areas of application
— Installation in industry and office luminaires

DALI LS/PD LI
Sensors for light management systems

1

Product name	GTIN (EAN)	⌖ m..h/m	[m]	∠°	Lx	IP	🔧
DALI LS/PDLI	**4052899043954**	5	6	80	20…800	IP20	Ceiling integration / Luminaire integration

Product name	T_a	COLOR	l [mm]	b [mm]	h [mm]	📦	No.
DALI LS/PDLI	0…+50	Gray	48	15	17	25	1

Product features
— Direct connection to DALI
— Light and presence sensor for luminaire installation
— Presence detection via passive IR element
— Light sensor operating range: 20…800 lx (measured at sensor)
— Function indicator with two-color LED
— Mounting height: 2…5 m

Product benefits
— Small housing design
— Presence detection angle adjustable between 40…90° via integrated shutters
— Can be addressed via DALI
— Compact housing for luminaire installation
— Daylight-dependent control with automatic shutdown in adequate daylight
— Slim housing design and flexible mounting concept
— Power supply from DALI
— DALI-based light management system integrable into building management systems
— Multiple sensors can be networked
— Sensor integration in DALI

Areas of application
— Installation in industry and office luminaires
— Ceiling installation via LS/PD CI KIT or LS/PD AP KIT possible
— Classrooms
— Conference rooms
— Corridors
— Individual offices
— Suspended luminaires
— Suitable for indoor applications
— Open-plan offices

Equipment/Accessories
— Suitable for many OSRAM DALI control systems
— Attachable mounting frame for luminaire mounting from inside and outside

DALI LS/PD CI
Sensors for light management systems

1
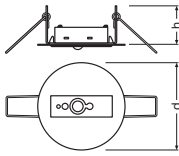
Product name	GTIN (EAN)	![height]	![m]	![angle]	Lx	IP	![tool]
DALI LS/PD CI	**4052899930292**	5	6	40…90	20…800	IP20	Ceiling integration

Product name	T_a	h [mm]	d [mm]	![box]	No.
DALI LS/PD CI	0…+50	55	80	10	1

Product features
— Mounting height: 2…5 m
— Presence detection via passive IR element
— Light sensor operating range: 20…800 lx (measured at sensor)
— Daylight-dependent regulation and presence-dependent control of light
— Direct connection to DALI
— Function indicator with two-color LED
— Ceiling installation adapter

Product benefits
— Can be addressed via DALI
— Daylight-dependent control with automatic shutdown in adequate daylight
— Multiple sensors can be networked
— Simple installation
— Sensor integration in DALI
— Power supply from DALI
— Presence detection angle adjustable between 40…90° via integrated shutters
— DALI-based light management system integrable into building management systems

Areas of application
— Classrooms
— Conference rooms
— Corridors
— Individual offices
— Open-plan offices
— Restaurants
— Shop lighting
— Suitable for indoor applications

Equipment/Accessories
— Suitable for many OSRAM DALI control systems

DALI HIGHBAY ADAPTER
Sensors for light management systems
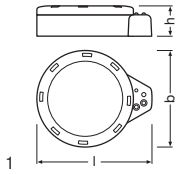
Product name	GTIN (EAN)	CONTROL	$\overset{h}{\underset{m}{\boxed{A}}}$	Lx	IP	
DALI HIGHBAY ADAPTER	**4008321774132**	DALI	13	20…800 [1]	IP20	On-top ceiling mounting

Product name	T_a	l [mm]	b [mm]	h [mm]		No.
DALI HIGHBAY ADAPTER	0…+50	139	118	37	20	1

1) Approximately, measured at the sensor

Product features
— DALI adapter for HIGH BAY and VISION sensors
— Direct connection to DALI
— Connection via push-in terminals
— Light sensor operating range: 20…800 lx (measured at sensor)
— Integrated light sensor
— Suitable for through-wiring
— Suitable for daylight-dependent control
— Light regulation for mounting heights of up to 13 m
— Power supply for coupler from DALI
— Integration into building management systems

Product benefits
— Sensor integration in DALI
— Embedding of HIGH BAY and VISION motion sensors into DALI
— Extended terminal section enables mains looping
— Daylight-dependent control with automatic shutdown in aquate daylight
— DALI-based light management system integrable into building management systems
— Flexible addressing via DALI

Areas of application
— Industry
— Production halls
— Sports halls
— Logistics centers
— Areas with high ceilings
— Connection of light and presence sensors in DALI systems
— Suitable for indoor installations
— Production and assembly facilities
— Open-plan offices, corridors and storage rooms
— Corridors
— Strip lighting in factory halls

Equipment/Accessories
— Blind cover included
— Suitable for many OSRAM DALI control systems

DALI PRO Sensor Coupler
Sensors for light management systems
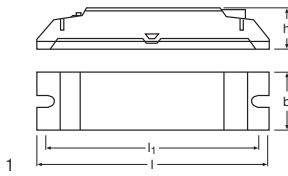
Product name	GTIN (EAN)	CONTROL	No. of OUTPUTS	IP	🔧	T$_a$
DALI PRO Sensor Coupler	**4008321379269**	DALI	1	IP20	Luminaire integration / Ceiling integration	0…+50

Product name	l [mm]	b [mm]	h [mm]	l$_1$ [mm]	📦	💡 No.
DALI PRO Sensor Coupler	118	30	21	110	25	1

Product benefits
— Power supply from DALI

Areas of application
— Connection of light and presence sensors
  in DALI systems
— Ceiling or independent installation via
  ECO CI KIT possible

Equipment/Accessories
— Suitable for all light and presence sensors from
  the MULTI 3 range
— Suitable for many OSRAM DALI control systems

LS/PD MULTI 3 CI
Sensors for light management systems

1
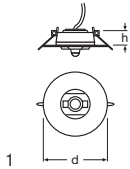
Product name	GTIN (EAN)	$\overset{\text{\tiny A}}{\underset{\text{m}}{\text{\tiny □}}}$ h	[m]	△°	Lx	IP	🔧
LS/PD MULTI 3 CI	**4008321916648**	4	6	80 [1]	20…600 [2]	IP20	On-top ceiling mounting / Ceiling integration

Product name	T_a	COLOR	h [mm]	d [mm]	📦	No.
LS/PD MULTI 3 CI	0…+50	White	25	50	10	1

1) Approximately
2) Approximately, measured at the sensor

Product features
— Ceiling installation sensor with moveable sensor head
— Connection via four-pole screw terminal or modular
  4c4p connector

Product benefits
— Particularly small construction

Areas of application
— Offices
— Corridors
— Classrooms
— Training rooms
— Stairways
— Sanitary areas

Equipment/Accessories
— Surface mounting in connection with SENSOR KIT
— Suitable for MULTIeco, DIM MULTIeco and
  DALI MULTIeco control units
— Suitable for DALI PROFESSIONAL Sensor Coupler

DALI Sensor Coupler HF LS LI
Sensors for light management systems
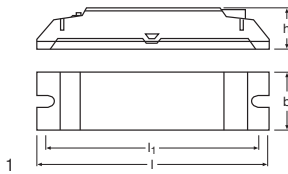
Product name	GTIN (EAN)	CONTROL	No. of OUTPUTS	IP	🔧	Tₐ
DALI Sensor Coupler HF LS LI	**4052899141728**	DALI	1	IP20	Luminaire integration / Ceiling integration	0…+50

Product name	l [mm]	b [mm]	h [mm]	l₁ [mm]	📦	💡 No.
DALI Sensor Coupler HF LS LI	118	30	21	110	25	1

Product features
— Mounting height: 2…13 m
— Combined daylight and motion detection
— Suitable for daylight-dependent control
— Presence detection via active radar sensor element
— Light sensor operating range: 20…800 lx
  (measured at sensor)

Product benefits
— Sensor integration in DALI
— Small housing design

Areas of application
— Connection of light and presence sensors
  in DALI systems
— Ceiling or independent installation via
  ECO CI KIT possible
— Luminaire and ceiling integration
— Installation in industry and office luminaires
— Installation in IP protected luminaires possible
— Areas with high ceilings

Equipment/Accessories
— Separate installation possible with ECO CI KIT
— Suitable for many OSRAM DALI control systems

HF LS LI
Control units for light management systems
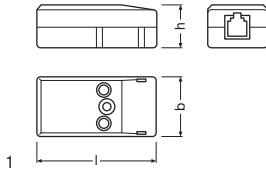
Product name	GTIN (EAN)			Lx	IP		Ta
HF LS LI	**4052899921481**	8	35…80	20…800 [1]	IP20	Luminaire attachment / Luminaire integration	-20…+50

Product name	COLOR	l [mm]	b [mm]	h [mm]		No.
HF LS LI	White	56	28	21	25	1

1) Approximately, measured at the sensor

Product features
— Light and presence sensor for luminaire installation or attachment
— Presence detection via active radar sensor element
— Function indicator with two-color LED
— Motion detection range adjustable
— Mounting height: 2…13 m
— Light sensor operating range: 20…800 lx (measured at sensor)
— Integrated infrared remote control receiver
— Connection via polarity reversal protected 4p4c socket (RJ10)

Product benefits
— Individual activation/deactivation of light and presence sensor via remote control
— V(λ) corrected light sensor element

Areas of application
— Installation in IP protected luminaires possible
— Corridor lighting control in logistics centers and factory halls
— Areas with high ceilings

Equipment/Accessories
— Suitable for DALIeco Control unit
— Suitable for DALI Sensor Coupler HF LS LI

DALI Sensor Coupler E
Sensors for light management systems

Product name	GTIN (EAN)	CONTROL	No. of OUTPUTS	IP		Ta
DALI Sensor Coupler E	4052899230491	DALI	1	IP20	Luminaire integration / Ceiling integration	-20…+50

Product name	l [mm]	b [mm]	h [mm]	l₁ [mm]		No.
DALI Sensor Coupler E	118	30	21	110	25	1

Product features
— Suitable for daylight-dependent control

Product benefits
— Small housing design

Areas of application
— Connection of light and presence sensors in DALI systems
— Ceiling or independent installation via ECO CI KIT possible
— Suitable for external light and presence sensors
— Installation in industry and office luminaires
— Corridors
— Warehouses

Equipment/Accessories
— Separate installation possible with ECO CI KIT
— Suitable for many OSRAM DALI control systems

DALI PRO PB Coupler
User interfaces for light management systems
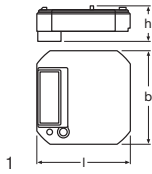
Product name	GTIN (EAN)	CONTROL	No. of OUTPUTS	IP	🔧	T_a
DALI PRO PB Coupler	4008321496461	DALI	1	IP20	Integrated in flush device box	0…+50

Product name	l [mm]	b [mm]	h [mm]	📦	💡 No.
DALI PRO PB Coupler	42	42	20	20	1

Product features
— DALI pushbutton coupler
— 4 floating inputs

Product benefits
— Power supply from DALI
— Standard pushbuttons/switches can be used

Areas of application
— Classrooms
— Conference rooms
— Suitable for installation in flush-type boxes
— Production and assembly facilities
— Individual offices

Equipment/Accessories
— Suitable for many OSRAM DALI control systems

DALI Switch SO
Actuators for light management systems

Product name	GTIN (EAN)	V	CONTROL	No. of OUTPUTS	Max Load [A]	IP	
DALI SWITCH SO	4008321533364	24	DALI	3	6	IP20	DIN rail mounting

Product name	T_a	l [mm]	b [mm]	h [mm]		No.
DALI SWITCH SO	0…+45	96	54	62	8	1

Product features
— DALI-controlled switch output for non-dimmable lamps, QT, OT, PT, HT control gears
— 3 independent relay contacts
— Load capacity of switching contact: 6 A ohmic load
— Supply voltage: 24 V DC
— Floating contacts

Product benefits
— Can be addressed via DALI

Areas of application
— Industry
— Suitable for use in combination with all POWERTRONIC® control gears

Equipment/Accessories
— Suitable for many OSRAM DALI control systems
— 24 V supply required (e.g. PS 30)

Power Supply PS 30
Power supplies
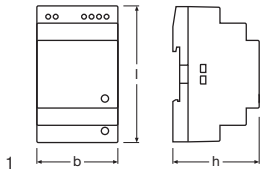
Product name	GTIN (EAN)	V	Hz	IP		Tₐ
POWER SUPPLY PS 30	**4052899553880**	100…240	50…60	IP20	DIN rail mounting	-20…+55

Product name	l [mm]	b [mm]	h [mm]		No.
POWER SUPPLY PS 30	90	36	58	200	1

Product features
— Output voltage: 24 V DC
— Output current: 1.3 A

Product benefits
— Large input voltage range

Areas of application
— Wide range of applications

DALI REP LI
Signal repeaters for LMS
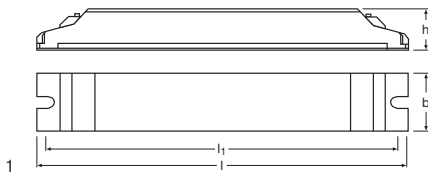
Product name	GTIN (EAN)	V	Hz	CONTROL	No. of OUTPUTS	W SYSTEM	IP	🔧
DALI REP LI	4008321292599	230	50 / 60	DALI	1	4	IP20	Luminaire integration

Product name	T_a	l [mm]	b [mm]	h [mm]	l_1 [mm]	📦	💡 No.
DALI REP LI	0…+50	189	30	21	180	25	1

Product features
— Expansion of DALI systems by
  64 DALI control gears each time
— Extends the DALI line by 300 m
— Touch DIM® control of 64 DALI control gears
— Maximum power input: 4 W

Product benefits
— The DALI control gears connected to the repeater
  operate as a group
— Can be addressed via DALI
— Cascadable

Areas of application
— Device for luminaire installation

Equipment/Accessories
— Independent installation in connection
  with LMS CI BOX

DALI REP SO
Signal repeaters for LMS

Product name	GTIN (EAN)	V	Hz	CONTROL	No. of OUTPUTS	W SYSTEM	IP
DALI REP SO	4008321301093	230	50 / 60	DALI	1	5	IP20

Product name		T_a	l [mm]	b [mm]	h [mm]		No.
DALI REP SO	DIN rail mounting	0…+50	96	72	62	16	1

Product features
— Expansion of DALI systems by
   64 DALI control gears each time
— Extends the DALI line by 300 m
— Touch DIM® control of 64 DALI control gears
— Maximum power consumption in
   standby mode: 1 W

Product benefits
— The DALI control gears connected to the repeater
   operate as a group
— Disconnection of ECG standby power via
   integrated load contact
— Can be addressed via DALI
— Cascadable

Areas of application
— Large luminaire groups

DALI CON 1…10 LI
Signal converters DALI to 1…10 V
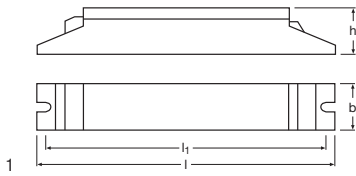
Product name	GTIN (EAN)	V	Hz	CONTROL	No. of OUTPUTS	Max Load [A]	IP	🔧
DALI CON LI	**4050300638973**	220…240	50…60	DALI / 1…10	1	5	IP20	Luminaire integration

Product name	T_a	l [mm]	b [mm]	h [mm]	l₁ [mm]	📦	💡 No.
DALI CON LI	0…+50	190	30	27	180	40	1

Product features
— Load capacity of the signal output: max. 100 mA
— 0…10 V max. 5 mA active
— Switchable characteristic: linear/logarithmic
— Touch DIM® control of 1…10 V ECGs

Product benefits
— Can be used purely as a switching actuator

Areas of application
— Device for luminaire installation

Equipment/Accessories
— Suitable for up to 100 electronic control gears
— Suitable for up to 33 signal amplifiers DIM SA

DALI CON 1…10 SO
Signal converters DALI to 1…10 V

Product name	GTIN (EAN)	V	Hz	CONTROL	No. of OUTPUTS	Max Load [A]	IP
DALI CON SO	**4050300639802**	220…240	50…60	DALI / 1…10	1	5	IP20

Product name	🔧	T_a	l [mm]	b [mm]	h [mm]	📦	No.
DALI CON SO	DIN rail mounting	0…+45	72	64	90	16	1

Product features
— Load capacity of the signal output: max. 100 mA
— 0…10 V max. 5 mA active
— Switchable characteristic: linear/logarithmic
— Load capacity of switching contact: 5 A
— Touch DIM® control of 1…10 V ECGs

Product benefits
— Flexible addressing via DALI
— Can be used purely as a switching actuator

Areas of application
— Common areas

Equipment/Accessories
— Suitable for up to 100 electronic control gears
— Suitable for up to 33 signal amplifiers DIM SA

DIM SA
Signal repeaters for LMS

Product name	GTIN (EAN)	V	Hz	CONTROL	No. of OUTPUTS	W SYSTEM	IP	
DIM SA	**4008321097095**	220…240	50…60	1…10	1	2	IP20	Luminaire integration

Product name	T_a	l [mm]	b [mm]	h [mm]	l₁ [mm]		No.
DIM SA	0…+50	189	30	30	180	40	1

Product features
— Signal amplifier for 1…10 V controllers and sensors
— Load capacity of the signal output: max. 100 mA

Product benefits
— Supports large luminaire groups and long control lines
— Cascadable

Areas of application
— Device for luminaire installation

Equipment/Accessories
— Suitable for up to 100 electronic control gears
— Suitable for up to 33 signal amplifiers DIM SA

Wireless components

ZigBee is the most popular industrial wireless mesh networking standard for connecting sensors and control systems in the professional lighting market. ZigBee is an open, global, packet-based protocol designed to provide an easy-to-use architecture for secure, reliable, low-power wireless networks. ZigBee is a low-data-rate wireless networking standard that can eliminate the costly and time-consuming wiring in professional control applications. All types of control equipment can be placed anywhere and still communicate with the rest of the system. It can also be moved, since the network doesn't care about the physical location of a sensor, wallswitch or actuator. The ZigBee standard enhances the IEEE 802.15.4 standard by providing a simple networking layer and standard application profiles that can be used to create interoperable multi-vendor consumer electronics solutions.

ZigBee is one of the most reliable global control/sensor network standards due to its scalability and flexibility. It has been designed to provide the following features:
— Low power consumption, simple to implement
— Batteries that last from many months to years
— Active (transmit/receive) or sleep statuses that simplify the communication between the nodes
— Mains-powered equipment with extremely low standby consumption

**Low total cost
(device, installation, maintenance)**
Low cost to the user means low device cost, low installation cost and low maintenance effort. ZigBee devices allow batteries to last up to years using primary cells without any chargers, which means low cost and easy installation. ZigBee's simplicity allows inherent configuration and redundancy of network devices and provides low maintenance.

High density of nodes per network
ZigBee's use of the IEEE 802.15.4 PHY and MAC allows networks to handle any number of devices. This attribute is critical for massive sensor arrays and control networks.

Wireless communication

All wireless communication systems have the following components: Transmitter, receiver, antennas, connection path between the transmitter and the receiver. In short, the transmitter feeds a signal of encoded data modulated into RF waves into the antenna. The antenna radiates the signal through the air where it is picked up by the antenna of the receiver. The receiver demodulates the RF waves back into the encoded data stream sent by the transmitter.

Wireless network topologies

This section discusses the network topologies supported by the IEEE 802.15.4 and ZigBee specifications. The topology of a network describes how the nodes are connected, either physically or logically. The physical topology is a geometrical shape resulting from the physical links from node to node, as shown in the figure below. The logical topology maps the flow of data between the nodes.

ZigBee network topology
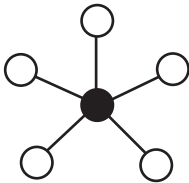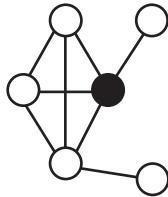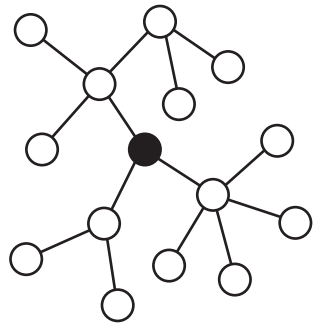
Star   Mesh   Cluster tree

IEEE 802.15.4 supports star and peer-to-peer topologies. The ZigBee specification supports star and two kinds of peer-to-peer topologies (mesh and cluster tree).

ZigBee-compliant devices are sometimes specified as supporting point-to-point and point-to-multipoint topologies.

All OSRAM wireless devices communicate together on a "mesh network." This means that all wireless nodes are interconnected together with more than one communication pathway connected to each node. Wireless control modules (actuators) work to extend the mesh network allowing communication to the wireless managers through them, while devices such as wireless sensors and wall stations are end devices and do not allow communication through them.

Wireless sensors

The wireless sensors are an integral part of the ENCELIUM® energy management system and of the HubSense® platform. Both offer passive infrared (PIR) occupancy sensing as well as daylight sensing. They are available for detection areas from 40 square meters (EN-SCPPH-0450-ZB – version with standard range) to 140 square meters (EN-SCPPH-1500-ZB – version with extended range) for standard installation heights and for detection areas of up to 260 square meters for high-bay installation with heights of up to 12 meters (HB – High Bay).

These award-winning wireless sensors are battery-powered and currently the smallest wireless presence sensors on the market. The sensors operate on a mesh network based on ZigBee standards. The sensors offer three tool-less mounting options for easy installation. They also offer options to mask parts of the detection area to maximize control flexibility. In combination with ENCELIUM® or the HubSense® platform, these sensors allow to gain considerable energy savings from presence detection as well as daylight harvesting. The software allows you to map the sensor to any zone and set the time-out to any level.

EN-SCPPH-0450-ZB

Sensors

1

Product name	GTIN (EAN)			Lx	IP		Ta
EN-SCPPH-0450-ZB	**4052899957343**	3.60	110	0…1000	IP20	On-top ceiling mounting	0…+40

Product name				
EN-SCPPH-0450-ZB	86	29	10	1

Product features

— Presence detection via passive IR element
— Light sensor operating range: 0…1,000 lx
— Daylight-dependent regulation and
  presence-dependent control of light
— Integrated ZigBee Home Automation connectivity
— Battery-powered

Product benefits

— Multiple sensors can be networked
— Simple installation

Areas of application

— Ceiling surface mounting

EN-SCPPH-1500-ZB
Sensors

1

Product name	GTIN (EAN)				
		⌐ h/m	∠°	Lx	IP
EN-SCPPH-1500-ZB	4052899989337	3	136	0…1000	IP20

Product name		Ta	⌀ d [mm]	↕ h [mm]		No.
EN-SCPPH-1500-ZB	On-top ceiling mounting	0…+40	86	29	10	1

Product features
— Presence detection via passive IR element
— Light sensor operating range: 0…1,000 lx
— Daylight-dependent regulation and presence-
  dependent control of light
— Integrated ZigBee Home Automation connectivity
— Battery-powered

Product benefits
— Multiple sensors can be networked
— Simple installation

Areas of application
— Ceiling surface mounting
— Wide range of applications
— Indoor parking areas

EN-SCPPH-HB-ZB
Sensors

1
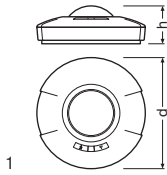
Product name	GTIN (EAN)	⌖ h/m	△°	Lx	IP
EN-SCPPH-HB-ZB	**4052899989344**	12	75	0…1000	IP20

Product name		Ta	⊘ d [mm]	↕ h [mm]	📦	💡 No.
EN-SCPPH-HB-ZB	On-top ceiling mounting	0…+40	86	29	10	1

Product features
— Presence detection via passive IR element
— Light sensor operating range: 0…1,000 lx
— Daylight-dependent regulation and presence-dependent control of light
— Integrated ZigBee Home Automation connectivity
— Battery-powered

Product benefits
— Multiple sensors can be networked
— Simple installation

Areas of application
— Ceiling surface mounting
— Suitable for high installation heights
— Warehouses

EN-WS-2B-ZB-WH
User interfaces
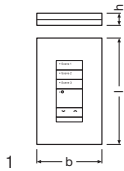
Product name	GTIN (EAN)	IP	🔧	Ta	l [mm]	b [mm]	h [mm]	📦	No.
EN-WS-2B-ZB-WH	4052899989290	IP20	Surface mounting	-10…+40	70	13	114	20	1

Product features
— Single-zone controller
— Standardized ZigBee Home Automation protocols for wireless communication
— Wireless technology
— Surface-mounted unit powered by four AAA alkaline batteries
— Lifetime of battery: up to 10 years

Product benefits
— Easy installation and versatile application
— No wiring required

Areas of application
— New installations or retrofit of existing installations

EN-WS-ZC3-ZB-WH
User interfaces
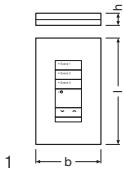
Product name	GTIN (EAN)	IP	[tool]	T_a	l [mm]	b [mm]	h [mm]	[box]	No.
EN-WS-ZC3-ZB-WH	4052899989306	IP20	Surface mounting	-10…+40	70	13	114	20	1

Product features
— 3-zone controller
— Standardized ZigBee Home Automation protocols for wireless communication
— Wireless technology
— Surface-mounted unit powered by four AAA alkaline batteries
— Lifetime of battery: up to 10 years

Product benefits
— Easy installation and versatile application
— No wiring required

Areas of application
— New installations or retrofit of existing installations

EN-WS-ZC6-ZB-WH
User interfaces

1
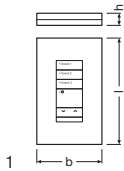
Product name	GTIN (EAN)	IP	🔧	T_a	l [mm]	b [mm]	h [mm]	📦	No.
EN-WS-ZC6-ZB-WH	4052899989320	IP20	Surface mounting	-10…+40	70	13	114	20	1

Product features
— 6-zone controller
— Standardized ZigBee Home Automation protocols for wireless communication
— Wireless technology
— Surface-mounted unit powered by four AAA alkaline batteries
— Lifetime of battery: up to 10 years

Product benefits
— Easy installation and versatile application
— No wiring required

Areas of application
— New installations or retrofit of existing installations

EN-WS-SC3-ZB-WH
User interfaces
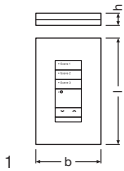
Product name	GTIN (EAN)	IP			T$_a$	l [mm]	b [mm]	h [mm]		No.
EN-WS-SC3-ZB-WH	4052899957367	IP20	Surface mounting		-10…+40	70	13	114	20	1

Product features
— Multi-scene control with switching and dimming options
— Standardized ZigBee Home Automation protocols for wireless communication
— Wireless technology
— Surface-mounted unit powered by four AAA alkaline batteries
— Lifetime of battery: up to 10 years

Product benefits
— Easy installation and versatile application
— No wiring required

Areas of application
— New installations or retrofit of existing installations

EN-WS-SC5-ZB-WH
User interfaces
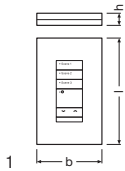
Product name	GTIN (EAN)	IP		T_a	l [mm]	b [mm]	h [mm]		No.
EN-WS-SC5-ZB-WH	4052899989313	IP20	Surface mounting	-10…+40	70	13	114	20	1

Product features
— 5-scene controller
— Standardized ZigBee Home Automation protocols for wireless communication
— Wireless technology
— Surface-mounted unit powered by four AAA alkaline batteries
— Lifetime of battery: up to 10 years

Product benefits
— Easy installation and versatile application
— No wiring required

Areas of application
— New installations or retrofit of existing installations

ZigBee DALI CON LI
Signal converters for LMS

Product name	GTIN (EAN)	V	Hz	CONTROL	No. of OUTPUTS	))) m	IP
ZIGBEE DALI CON LI	**4052899988804**	230	50 / 60	DALI	1	15	IP20

Product name	🔧	T$_a$	I [mm]	b [mm]	h [mm]	📦	No.
ZIGBEE DALI CON LI	Luminaire integration / Independent mounting	-20…+60	108	30	21	25	1

Product features
— Integrated ZigBee transceiver module
— DALI interface for addressed or broadcast operation
— OSRAM DALI light and presence sensor connectible
— Standard pushbutton interface
— Outputs with electronical reversible overtemperature, short-circuit, overload protection

Product benefits
— Bidirectional ZigBee – DALI communication
— Prepared for ZigBee 3.0 standard
— Firmware update over the air possible

Areas of application
— Offices
— Meeting rooms
— Training rooms
— Corridors

Equipment/Accessories
— Suitable for up to 8 DALI gears in broadcast mode
— Suitable for up to 2 DALI gears in addressed mode
— Ceiling or independent installation via ECO CI KIT possible

LMS components

OSRAM LMS accessory components

Expand, connect and install light management systems – all from a single source with non-system-specific components from OSRAM.

These accessories, perfectly matched to OSRAM products in terms of quality and compatibility, make installing and connecting innovative light management systems extremely simple. OSRAM rounds off its offering with non-system-specific components.

Accessories

Product reference	EAN10	VISION/ HIGH BAY	Touch DIM RC DALI REPEATER LI	DALI MULTIeco DIM MULTIeco MULTIeco DALIeco Control DALI Sensor Coupler LS/PD DALI Sensor Coupler HF DALI Sensor Coupler E	LS/PD MULTI 3 CI	DALIeco LS/PD LI DALIeco LS/PD LI NP DALI LS/PD LI
LMS CI BOX	4008321083692		■			
ECO CI KIT	4008321392091			■		
SENSOR KIT	4008321916662				■	
LS/PD CI KIT	4052899920293					■
LS/PD AP KIT	4052899173385					■
Mounting adapter	4008321480798	■				
DALI HIGHBAY ADAPTER	4008321774132	■				

Product reference	EAN10	HF LS LI	DALIeco Control	DALI MULTIeco DIM MULTIeco MULTIeco	DALI Sensor Coupler LS/PD DALI Sensor Coupler HF
Y-CONNECTOR	4050300803135		■	■	
Y-CONNECTOR SCREW	4008321916686		■	■	
CABLE 25CM	4008321660145	■	■	■	■
CABLE 50CM	4008321660152	■	■	■	■
CABLE 100CM	4008321660169	■	■	■	■
CABLE 200CM	4008321660190	■	■	■	■

Y-CONNECTOR
Branching for light management systems
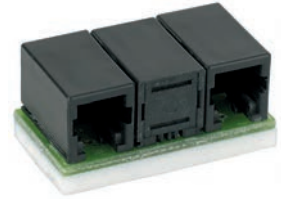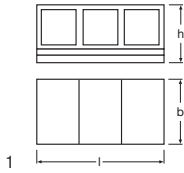
Product name	GTIN (EAN)	IP	l [mm]	b [mm]	h [mm]		No.
Y-CONNECTOR	4050300803135	IP20	34	18	16	25	1

Product features
— Passive distributor
— Connections: 3 x modular 4p4c socket
— Type of installation: Adhesive pad mounting
  on smooth surfaces

Product benefits
— For parallel connection of sensors to a MULTIeco,
  MULTI 3 or DALIeco system
— Enables synchronization and connection of multiple
  EASY system components

Areas of application
— Suitable for all OSRAM components with modular
  4p4c connector system

Equipment/Accessories
— 2 connecting cables included, modular
  4p4c connector on both ends, length 2.1 m

Y-CONNECTOR SCREW
Branching for light management systems
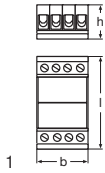
Product name	GTIN (EAN)	IP	l [mm]	b [mm]	h [mm]		No.
Y-CONNECTOR SCREW	**4008321916686**	IP20	40	20	16	25	1

Product features
— Passive distributor
— Connection via 2 x four-pole screw terminal or modular 2 x 4p4c connector
— Type of installation: Adhesive pad mounting on smooth surfaces

Product benefits
— For parallel connection of sensors to a MULTIeco, MULTI 3 or DALIeco system
— Enables synchronization and connection of multiple EASY system components

Areas of application
— Suitable for all OSRAM components with modular 4p4c connector system

Equipment/Accessories
— 2 connecting cables included, modular 4p4c connector on both ends, length 2.1 m

4p4c connection cables

Product name	GTIN (EAN)	l [mm]	
4P4C CONNECTION CABLE 25CM	4008321660145	250	50
4P4C CONNECTION CABLE 50CM	4008321660152	500	50
4P4C CONNECTION CABLE 100CM	4008321660169	1000	50
4P4C CONNECTION CABLE 200CM	4008321660190	2000	50

Product features
— Cable for modular 4p4c connection
— Pack contains 50 pieces

Areas of application
— Suitable for all OSRAM components with modular 4p4c connector system

Mounting adapters
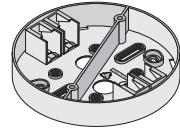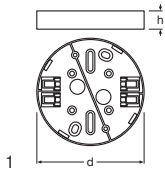
Product name	GTIN (EAN)		COLOR	d [mm]	h [mm]		No.
Mounting adapter	4008321480798	On-top ceiling mounting	White	116	19	20	1

Product features
— Two separate wiring areas for input and output side

Areas of application
— Adapter for surface-mounted sensor elements with 116 mm diameter

SENSOR KIT
Mounting adapters for surface mounting of LMS sensors
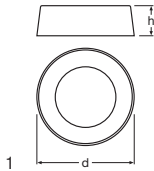
Product name	GTIN (EAN)		COLOR	d [mm]	h [mm]		No.
SENSOR KIT	4008321916662	On-top ceiling mounting	White	80	25	10	1

Product features
— Material: Plastic

Areas of application
— Adapter for surface-mounted sensor elements with 50 mm diameter

LS/PD AP KIT
Mounting kits

1
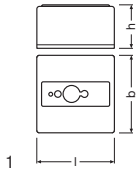
Product name	GTIN (EAN)	🔧	COLOR	l [mm]	b [mm]	h [mm]	📦	No.
LS/PD AP KIT	4052899173385	On-top ceiling mounting	White	65	65	34	10	10

Areas of application
— Offices
— Classrooms
— Conference rooms
— Corridors
— Stairways

Product features
— Ceiling installation adapter

Equipment/Accessories
— Suitable for DALIeco LS/PD LI, DALI LS/PD LI and LS/PD LI Analog sensors

LS/PD CI KIT
Mounting kits

1
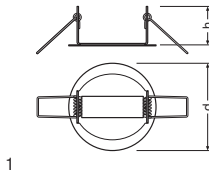
Product name	GTIN (EAN)	🔧	h [mm]	d [mm]	📦	No.
LS/PD CI KIT	4052899920293	Ceiling integration	36	80	10	1

Product features
— Ceiling installation adapter
— Adapter ring and spring holder made of metal

Product benefits
— Simple ceiling recessed mounting

Areas of application
— Offices
— Classrooms
— Conference rooms
— Corridors
— Stairways

Equipment/Accessories
— Suitable for DALIeco LS/PD LI, DALI LS/PD LI and LS/PD LI analog sensors

ECO CI KIT
Mounting kits for independent installation of LMS control units
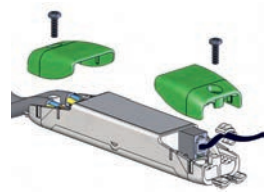
Product name	GTIN (EAN)		
ECO CI Kit	**4008321392091**	Ceiling integration	100

Product features
— Cable clamp kit for independent mounting

Areas of application
— OSRAM controllers with dimensions
   118 mm x 30 mm x 21 mm

LMS CI BOX
Mounting kits for independent installation of LMS control units

Product name	GTIN (EAN)		l [mm]	b [mm]	h [mm]		No.
LMS CI BOX	**4008321083692**	Ceiling integration	261	71	27	40	1

Product features
— Cable clamp housing for independent mounting

Areas of application
— OSRAM controllers with dimensions
   189 mm x 30 mm x 21 mm

OSRAM stand-alone sensors – Overview by detection area and technology

Sensor matrix (stand-alone/Touch DIM®)		Mounting type			Standard 360°	Standard 360°	Standard 360°
Detection areas		Luminaire-integrated	Ceiling-integrated	Ceiling-mounted	2.5 / 3.3 / 5.3	2.5 / 5.0 / 6.0	2.5 / 4.9 / 7.4
Mounting height					2 2.5 3 4 5	2 2.5 3 4 5	2 2.5 3 4
Presence					2.5 3.3 4 5 –	4 5.0 6 7 –	3.9 4.9 5.9 –
Motion					4.5 5.3 6 7 7	4.8 6.0 6 8 10	5.9 7.4 8.9 11.84
Vehicles					– – – – –	– – – – –	– – – –
Technology					PIR	PIR	PIR
Light sensor					20–800 lx @ sensor	20–800 lx @ sensor	20–800 lx @ sensor
DALI Controller + sensor							
LUXeye® Sense DALI BT +	4052899957411		■	■*			
* Ceiling mounting adapter							
LUXeye® Sense CM KIT	4052899988729						
DALI ACU BT CONTROL +	4052899544819	■					
DALI LS/PD LI	4052899043954						
DALIeco BT CONTROL +	4052899988781	■					
DALI LS/PD LI	4052899043954						
DALIeco Control +	4008321988645	■					
DALIeco LS/PD LI	4008321789310						
DALIeco Control +	4008321988645	■					
DALI Sensor Coupler HF LS LI	4052899141728						
Touch DIM®							
LS/PD LT2 LI UF	4052899 984615	■					
(only in combination with							
UltraFlat driver)							
Touch DIM® LS PD LI	4008321023025	■					
(only in combination with							
an OSRAM DALI driver in							
Touch DIM® mode)							
1…10 V sensors (ceiling-mounted)							
DIM MULTI	4050300554471		■				
ON/OFF sensors							
LUXeye® Sense 10A BT +	4052899957428		■	■*			
* Ceiling mounting adapter	4052899988729						
LUXeye® Sense CM KIT							
DUO sensor	4008321496355		■				
VISION sensor +	4008321956965		■				
Mounting adapter	4008321480798						
HIGH BAY sensor +	4008321410078		■				
Mounting adapter	4008321480798						
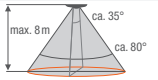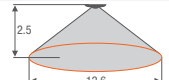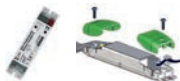
Squared	Elipsoid corridor shape	Wide range 360°	Highbay 360°	Page
2.5 · 3.7 · 5.0 · 5.0 · 3.7	max. 8 m · ca. 35° · ca. 80°	2.5 · 12.6	10.0 · 12.0	
2 · 2.5 · 3 · 4	4 · 6 · 8 · 10	2 · 2.5 · 3 · 4 · 4.5	4 · 6 · 8 · 10 · 13	
3 · 3.7 · 4.4 · –	– · – · – · –	– · – · – · – · –	– · – · – · – · –	
4 · 5.0 · 6 · 6.5	6.7 · 10 · 13.4 · –	12.6 · 15.7 · 19 · 21 · 21	10.0 · 12.0 · 12 · 12 · –	
– · – · – · –	6.7 · 10 · 13.4 · 16	– · – · – · – · –	10.0 · 12.0 · 12 · 12 · 18	
PIR	HF	PIR	PIR	
20 – 800 lx @ sensor	20 – 800 lx @ sensor	20 – 800 lx @ sensor	20 – 800 lx @ sensor	
				4.25
				4.27
				4.23 4.65
				4.22 4.65
				4.14 4.17
				4.14 4.70
				4.09
				4.11
				4.38
				4.26 4.27
				4.37
				4.36 4.98
				4.35 4.98
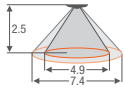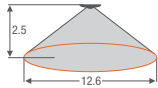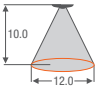
OSRAM DALI sensors – Overview by detection area and mounting type

Sensor matrix (DALI slaves)		Standard 360°					Squared			
Detection areas										
Mounting height		2	2.5	3	4	5	2	2.5	3	4
Presence		2.5	3.3	4	5	–	3	3.7	4.4	–
Motion		4.5	5.3	6	7	7	4	5.0	6	6.5
Vehicles		–	–	–	–	–	–	–	–	–
Technology		PIR					PIR			
Light sensor		20–800 lx @ sensor					20–800 lx @ sensor			
Luminaire-integrated										
DALI LS/PD LI	4052899043954									
LS/PD DALI LI UF	4052899984608									
HF LS LI sensor +	4052899921481									
DALI Sensor Coupler HF LS LI	4052899141728									
Ceiling-integrated										
DALI LS/PD CI	4052899930292									
LS/PD MULTI 3 CI sensor +	4008321916648									
DALI PRO Sensor Coupler +	4008321379269									
ECO CI KIT	4008321392091									
Ceiling-mounted										
DALI LS/PD LI +	4052899043954									
LS/PD AP KIT	4052899173385									
VISION sensor +	4008321957047									
DALI HIGHBAY ADAPTER	4008321774132									
HIGH BAY sensor +	4008321410078									
DALI HIGHBAY ADAPTER	4008321774132									
3rd-party sensor integration										
DALI Sensor Coupler E	4052899230491									
ECO CI KIT	4008321392091									

Elipsoid corridor shape				Wide range 360°					Highbay 360°					3rd party	Page
max. 8 m / ca. 35° / ca. 80°				2.5 / 12.6					10.0 / 12.0					H / B / A	
4	6	8	10	4	6	8	10	4.5	4	6	8	10	13	3rd-party sensor range	
–	–	–	–	–	–	–	–		–	–	–	–	–		
6.7	10	13.4	–	6.7	10	13.4	–	21	10.0	12.0	12	12	–		
6.7	10	13.4	16	6.7	10	13.4	16	–	10.0	12.0	12	12	18		
HF				PIR					PIR						
20–800 lx @ sensor				20–800 lx @ sensor					20–800 lx @ sensor						

				Page
				4.65
				4.64
				4.71 / 4.70
				4.66
				4.69 / 4.68 / 4.100
				4.65 / 4.99
				4.36 / 4.67
				4.35 / 4.67
				4.72 / 4.100

Sensor matrix	Standard 360°	Wide range 360°	Highbay 360°
Detection areas	2.5 / 4.9 / 7.4	2.5 / 12.6	10.0 / 12.0
Mounting height	3	3	15
Presence	6	8	–
Motion	9	15	12
Vehicles	– – – – –	– – – – –	– – 22 – –
Technology	PIR	PIR	PIR
Light sensor	0–1000 lx @ sensor	0–1000 lx @ sensor	0–1000 lx @ sensor
Ceiling-mounted			
EN-SCCPH-0450-ZB **4052899957343**			
EN-SCCPH-1500-ZB **4052899989337**			
EN-SCCPH-HB-ZB **4052899989344**			

Case study

In the new OSRAM factory
in Plovdiv, Bulgaria, LED
components manufactured
in-house provide contemporary
industrial lighting

Industrial lighting has to meet high demands: The quality of light must create a professional, safe and fatigue-free working environment for employees. User-friendly operation and demand-based control are also extremely important. Economic savings are also crucial, especially in production facilities, which often provide low natural daylight and where shifts are worked around the clock. The lighting needs to be energy-efficient, durable and robust to keep electricity, maintenance and downtime costs to a minimum.

Therefore, perfectly matched LED modules and drivers are used in the new plant. In production and in the warehouse, PrevaLED® Linear Slim LED modules ensure very homogeneous light in combination with OPTOTRONIC® Intelligent DALI 80 drivers. In the offices, the PrevaLED® Linear Value LED modules, which can be put together to create seamless strips of light and are controlled by OTi DALI 50, provide very uniform, shadow-free illumination. All PrevaLED® LED modules are much more durable, and, thanks to a luminous efficacy of up to 160 lm/W, significantly more efficient than conventional T5 and T8 fluorescent lamps. The Touch DIM® function of the DALI wide-range drivers reduces energy consumption even further. Not only does Touch DIM® allow simple control via pushbuttons and sensors, but also automatic shutdown if there is sufficient residual light. The lighting concept in the plant is completed by recessed LED luminaires with PrevaLED® Cube in combination with OT 20 DALI in the sanitary facilities, and the large OSRAM lettering on the roof of the plant, evenly backlit by BackLED XL Plus LED strips. www.osram.com/plovdiv-factory

Electronic control gears

Electronic control gears from OSRAM – for energy-efficient lighting

High reliability today and in the future

ECGs from OSRAM fulfill all requirements for the operation of conventional light sources (fluorescent, metal halide and low-voltage halogen lamps). In small or large projects, OSRAM ECGs save both time and money, offering high reliability even in thermally critical conditions. As standard, we also offer three-year and five-year guarantees, see next page.

Your benefits

— Compliance with current regulations and, in certain cases, conformity with planned regulations
— Very high energy efficiency in lighting solutions
— The use of standard protocols
— State-of-the-art technology
— OSRAM's proven quality, reliability and guarantee
— ECGs from a single source
— Maximum reliability in system operation
— Only one point of contact in all matters relating to lighting

New: ECG Replacement Finder

Replacing defective ballasts with modern ECGs from our extensive product portfolio has just become easier. Find your required device quickly and without effort, simply by searching and filtering with our new online tool – the ideal support during renovation, modernization or maintenance work, see next page.

www.osram.com/ecg-finder

National Stadium Warsaw

Philological Library

Quality as part of a system – from one source
OSRAM's guarantee for electronic control gears and
selected light sources – extract from guarantee terms and conditions

3 Year

OSRAM
Guarantee*

5 Year

OSRAM
Guarantee*
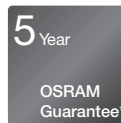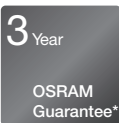
Electronic control gears	Electronic control gears
Guarantee Level 1 **OSRAM guarantee**	Guarantee Level 2 **OSRAM guarantee**
OSRAM offers a full 3-year guarantee on products from the series:	OSRAM offers a full 5-year guarantee on products from the series:
HALOTRONIC® PARROT	QUICKTRONIC® DALI dimmable QUICKTRONIC® 1…10 V dimmable QUICKTRONIC® INTELLIGENT QUICKTRONIC® PROFESSIONAL QUICKTRONIC® FIT POWERTRONIC® (PTi, PTo, PT-FIT) HALOTRONIC® PROFESSIONAL (HTi, HTL, HTM, HTN)
The guarantee starts with commissioning of the corresponding electronic control gears (ECGs) from OSRAM and ends no later than 42 months after the OSRAM product was manufactured.	The guarantee starts with commissioning of the corresponding electronic control gears (ECGs) from OSRAM and ends no later than 66 months after the OSRAM product was manufactured.
Registration is <u>not</u> required. For <u>each</u> product from the above-specified series that fails due to a material or manufacturing defect, a replacement or credit note will be provided as part of the guarantee service.	Registration is <u>not</u> required. For <u>each</u> product from the above-specified series that fails due to a material or manufacturing defect, a replacement or credit note will be provided as part of the guarantee service.
The full conditions and details of guarantee level 1 can be found on the Internet at www.osram.com/system-guarantee	The full conditions and details of guarantee level 2 can be found on the Internet at www.osram.com/system-guarantee

QUICKTRONIC®

QUICKTRONIC® INTELLIGENT dimmable QTi (DALI)…DIM

QTi dimmable – DALI or 1…10 V interface
The current generation of dimmable QUICKTRONIC® INTELLIGENT control gears with DALI (Digital Addressable Lighting Interface) or 1…10 V interface (QTi DALI/DIM):
— Automatic lamp detection by intelligent multilamp operation and use of a large number of different lamps
  → Flexible luminaires and reduction of number of ECG types

Highest level of energy efficiency. Particularly low standby consumption for OSRAM DALI ECGs.
— Energy Efficiency Index EEI = A1 BAT
— Very low standby consumption:
  – QTi DALI 1x, 2x: 0.2 W
    (AC and DC operation)
  – QTi DALI 3x, 4x: < 0.5 W
    (AC and DC operation)
— Switching and dimming has no influence on lamp lifespan
— Optimum preheating at any dimming setting
— Dimming range: 1…100 % luminous flux

Outstanding flexibility and quality. Amalgam and longlife lamps.
— Dimming to 1 % with T5/T5 CONSTANT, T5 Energy Saver and T5 XT Longlife lamps
— Large number of additional ECG/lamp combinations (OSRAM DULUX® L…HE, XT)
— Up to 100,000 h service life at $T_c = 65\,°C$, at max. 10 % failure
— Suitable for luminaires with protection class I

— Optimized lamp hot start within 0.5 s
— OSRAM CFL and T5 CONSTANT lamps: dimming in outdoor applications possible
— Maximum efficiency of OSRAM dimming ECGs of up to 94 % thanks to high-efficiency components and temperature-dependent cut-off. For dimmer settings > 80 % disconnection of electrode heating
  → Additional energy savings of up to 4 W (depending on type)

— Corridor function for direct connection of the ECG to standard motion sensors (or free configuration)

— Touch DIM® operation for up to 20 DALI ECGs

— Fit for SMART GRID for feedback of mains power input and lamp operating hours

— Fit for emergency function (configurable automatic detection of emergency light operation via ECG)

QTi DIM electronic control gears from OSRAM are renowned for their optimized system efficiency
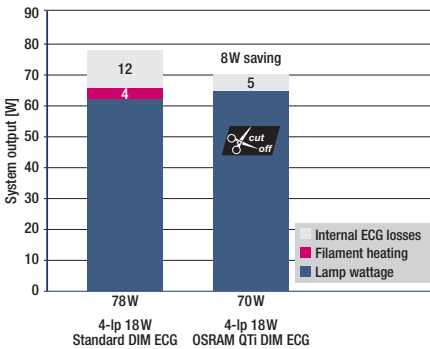
Values related to the same luminous flux (Ballast Lumen Factor (BLF)) for all QTi DIM = 1.0

Adjustment of the planning factor (0.8) thanks to the use of dimmable ECGs saves an additional 10 % in electricity costs
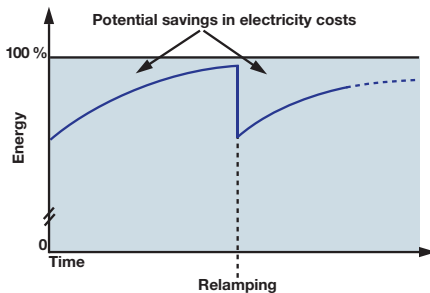
With a 2x HO 49 W luminaire, at an electricity price of 0.10 €/kWh, 20 € are additionally saved over its lamp lifespan merely with the planning factor adjustment (0.8): 10 % of 110 W x 18,000 h x 0.10 €/kWh = 20 €/luminaire in 4 years. This adjustment can be made via the building management system or a light sensor.

Temperature modification regulation with QTi DALI ECG
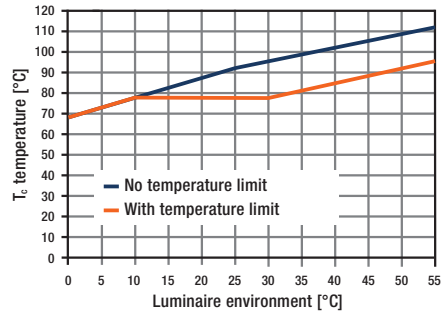
— Effective temperature protection via intelligent power reduction at high T_c temperatures
   → Simplifies safety accreditation for hot luminaires
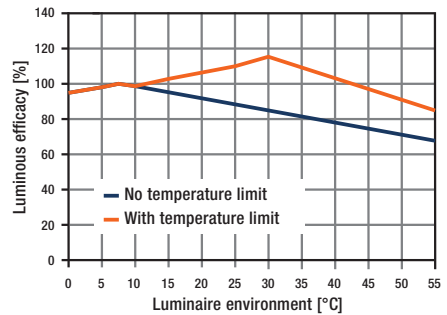
The benefits are a significant increase of luminous efficacy (lm/W) of hot luminaires and reduced thermal load for luminaire components

— End of Life (EoL) disconnection in line with Test 2 (asymmetric power test)
— DALI standard in accordance with IEC 60929 and IEC 62386

QTi DALI DIM – DALI or Touch DIM® in one unit

— Touch DIM® – dimming without dimmers via the direct connection of standard pushbuttons or standard motion sensors

L3
L2
L1
N
PE

Switch

DALI ECG
with Touch DIM® function

Lamp

DALI ECG
with Touch DIM® function

Lamp

DALI ECG
with Touch DIM® function

Lamp

Max. 25 m DALI line length
Max. 20 DALI ECGs

T PE N L1 L2 L3
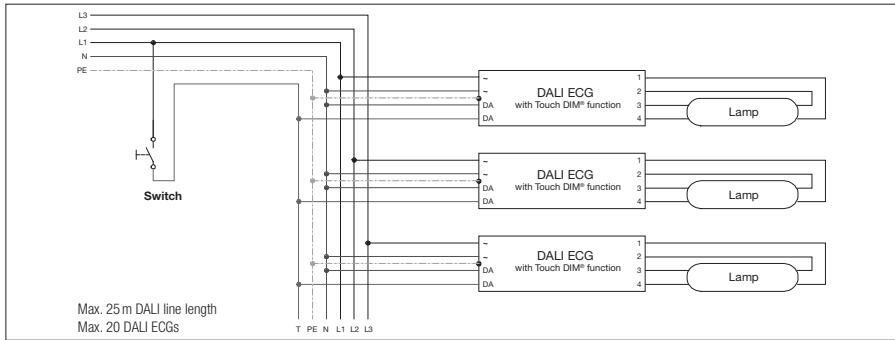
— Operation of up to 64 DALI ECGs via repeaters

Max. 100 m for open
DALI line

DALI repeater

Max. 300 m for open
DALI line

Up to 64 ECGs
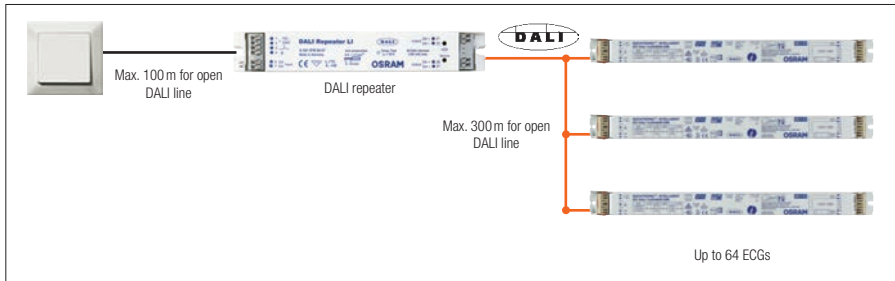
OSRAM always has the right control gear for you

For T5/⌀16 mm and T8/⌀26 mm fluorescent lamps

QUICKTRONIC® INTELLIGENT QTi

Thanks to intelligent lamp detection, over 50 % fewer ECG types and greater flexibility for lighting systems. Up to three lighting levels provided with only one luminaire.

— Up to 100,000 h lifespan*
— Suitable for luminaires with protection class I and II

QUICKTRONIC® PROFESSIONAL QTP5

— 2nd generation (GII) of the durable preheat start ECG (up to 100,000 h)*
— Also for protection class II luminaires

QUICKTRONIC® PROFESSIONAL QTP-OPTIMAL

— For T5, T8 and DULUX® lamps
— 3rd generation of the durable preheat start QTP ECG (up to 100,000 h)*
— Also for protection class II luminaires
— Only 4 ECG types instead of 16, giving greater flexibility in luminaire production and warehousing as well as simplified assembly due to uniform geometry and wiring

QUICKTRONIC® QTP-FC, QTP-M and QT-M

— The compact control units for filigree T5 ring lamps

* At 10 % failure and Tc max -10 °C, ** At 10 % failure

QUICKTRONIC® QT-FIT 5/8

— The reliable preheat start ECG (up to 50,000 h)**
— For T5 or T8 lamps
— Especially energy-saving together with motion sensors

QUICKTRONIC® QT-FIT8

— The reliable preheat start ECG (up to 50,000 h)**
— Especially energy-saving together with motion sensors

QUICKTRONIC® QTz8

— For T8 lamps
— Simple ECG for semi-professional applications

For compact fluorescent lamps

QUICKTRONIC® MULTIWATT-QTP-M and QT-M

The universal hot restrike ECGs for up to 18 different lamps (OSRAM DULUX® L, F, D/E, T/E, …) from 18 to 42 W

QUICKTRONIC® PROFESSIONAL QTP-DL

For OSRAM DULUX® L and F from 18 to 55 W and QTP-D/E, T/E for OSRAM DULUX® T/E, D/E and S/E from 9 to 42 W

QUICKTRONIC® ECONOMIC

The electronic alternative to the LLCG – for OSRAM DULUX® S/E, D/E, T/E, T5, T8 from 4 to 26 W

QUICKTRONIC® INTELLIGENT DALI DIM
ECG dimmable for T5/16 mm lamps
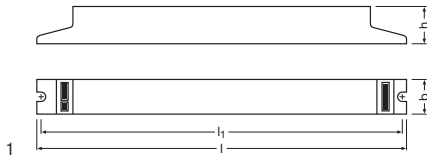
Product name	GTIN (EAN)	![lamp]	A	W SYSTEM	λ	Ta	V min-max
QTi DALI 1X14/24 DIM	4050300870380	1xHE 14	0.07	15	0.95	+10…+50	154…276
		1xHE 14 SLS	0.07	15	0.95	+15…+50	
		1xHO 24	0.11	25	0.98	+10…+50	
		1xHO 24 CONSTANT	0.11	25	0.98	+10…+50	
		1xFC 22	0.11	25	0.98	+10…+50	
		1xDL 24	0.11	25	0.98	+10…+50	
		1xDF 24	0.11	25	0.98	+10…+50	
QTi DALI 1X21/39 DIM	4050300870366	1xHE 21	0.11	23	0.95	+10…+50	154…276
		1xHE 21 SLS	0.11	23	0.96	+15…+50	
		1xHO 39	0.18	42	0.98	+10…+50	
		1xHO 39 SLS	0.18	41	0.98	+15…+50	
		1xHO 39 CONSTANT	0.18	42	0.98	+10…+50	
		1xFC 40	0.18	42	0.98	+10…+50	
		1xL 70	0.29	70	0.99	-10…+50	
		1xDL 22 HE	0.11	23	0.95	+10…+50	
		1xDL 40	0.18	42	0.98	+10…+50	
		1xDL 40 CONSTANT	0.18	42	0.98	+10…+50	
QTi DALI 1X28/54 DIM	4050300870809	1xHE 28	0.14	30	0.97	+10…+50	154…276
		1xHE 28 SLS	0.14	30	0.97	+15…+50	
		1xHO 50 ES	0.26	59	0.99	+10…+50	
		1xHO 54	0.26	59	0.99	+10…+50	
		1xHO 54 SLS	0.26	59	0.99	+15…+50	
		1xHO 54 CONSTANT	0.26	59	0.99	+10…+50	
		1xHO 54 XT	0.26	59	0.99	+10…+50	
		1xFC 55	0.26	59	0.99	+10…+50	
		1xDL 26 HE	0.14	30	0.97	+10…+50	
		1xDL 28 HE	0.14	30	0.97	+10…+50	
		1xDL 55	0.26	59	0.99	+10…+50	
		1xDL 55 CONSTANT	0.26	59	0.99	+10…+50	
		1xDL 55 XT	0.26	59	0.99	+10…+50	
QTi DALI 1X35/49/80 DIM	4050300870342	1xHE 35	0.17	38	0.95	+10…+50	154…276
		1xHE 35 XT	0.17	38	0.95	+10…+50	
		1xHO 45 ES	0.24	53	0.98	+10…+50	
		1xHO 49	0.24	53	0.98	+10…+50	
		1xHO 49 CONSTANT	0.24	53	0.98	+10…+50	
		1xHO 73 ES	0.39	88	0.99	+10…+50	
		1xHO 80	0.39	88	0.99	+10…+50	
		1xHO 80 CONSTANT	0.39	88	0.99	+10…+50	
		1xHO 80 XT	0.39	88	0.99	+10…+50	
		1xDL 80	0.40	88	0.99	+10…+50	
		1xDL 80 CONSTANT	0.40	88	0.99	+10…+50	

Product name	GTIN (EAN)	▪️⚫✦💡	A	W SYSTEM	λ	Ta	⏻V min.-max.
QTi DALI 2X14/24 DIM	**4050300870861**	2xHE 14	0.14	31	0.95	+10…+50	154…276
		2xHE 14 SLS	0.14	31	0.95	+15…+50	
		2xHO 24	0.22	49	0.98	+10…+50	
		2xHO 24 CONSTANT	0.22	49	0.98	+10…+50	
		2xFC 22	0.22	49	0.98	+10…+50	
		2xDL 24	0.22	49	0.98	+10…+50	
		2xDF 24	0.22	49	0.98	+10…+50	
QTi DALI 2X21/39 DIM	**4050300870489**	2xHE 21	0.21	45	0.95	+10…+50	154…276
		2xHE 21 SLS	0.21	45	0.96	+15…+50	
		2xHO 39	0.36	82	0.98	+10…+50	
		2xHO 39 SLS	0.36	82	0.98	+15…+50	
		2xHO 39 CONSTANT	0.36	82	0.98	+10…+50	
		2xFC 40	0.36	82	0.98	+10…+50	
		2xL 70	0.56	128	0.99	-10…+50	
		2xDL 22 HE	0.21	45	0.95	+10…+50	
		2xDL 40	0.36	82	0.97	+10…+50	
		2xDL 40 CONSTANT	0.36	82	0.97	+10…+50	
QTi DALI 2X28/54 DIM	**4050300870502**	2xHE 28	0.27	60	0.97	+10…+50	154…276
		2xHE 28 SLS	0.27	60	0.97	+15…+50	
		2xHO 50 ES	0.51	115	0.99	+10…+50	
		2xHO 54	0.51	115	0.99	+10…+50	
		2xHO 54 SLS	0.51	115	0.99	+15…+50	
		2xHO 54 CONSTANT	0.51	115	0.99	+10…+50	
		2xHO 54 XT	0.51	115	0.99	+10…+50	
		2xFC 55	0.51	115	0.99	+10…+50	
		2xDL 26 HE	0.27	60	0.97	+10…+50	
		2xDL 28 HE	0.27	60	0.97	+10…+50	
		2xDL 55	0.51	115	0.99	+10…+50	
		2xDL 55 CONSTANT	0.51	115	0.99	+10…+50	
		2xDL 55 XT	0.51	115	0.99	+10…+50	
QTi DALI 2X35/49 DIM	**4050300870465**	2xHE 35	0.33	75	0.98	+10…+50	154…276
		2xHE 35 XT	0.33	75	0.98	+10…+50	
		2xHO 49	0.45	104	0.99	+10…+50	
		2xHO 49 CONSTANT	0.45	104	0.99	+10…+50	
QTi DALI 2X35/49/80 DIM	**4050300870441**	2xHE 35	0.34	74	0.98	+10…+50	154…276
		2xHE 35 XT	0.34	74	0.98	+10…+50	
		2xHO 45 ES	0.45	101	0.97	+10…+50	
		2xHO 49	0.46	101	0.99	+10…+50	
		2xHO 49 CONSTANT	0.46	101	0.99	+10…+50	
		2xHO 73 ES	0.72	165	0.99	+10…+50	
		2xHO 80	0.74	165	0.99	+10…+50	
		2xHO 80 CONSTANT	0.74	165	0.99	+10…+50	
		2xHO 80 XT	0.74	165	0.99	+10…+50	
		2xDL 80	0.74	165	0.99	+10…+50	
		2xDL 80 CONSTANT	0.74	165	0.99	+10…+50	
QTi DALI 3X14/24 DIM	**4008321069955**	3xHE 14	0.20	45	0.97	+10…+50	154…276
		3xHO 24	0.32	73	0.99	+10…+50	
		3xHO 24 CONSTANT	0.32	73	0.99	+10…+50	
		3xFC 22	0.32	73	0.99	+10…+50	
		3xDL 24	0.32	73	0.99	+10…+50	
		3xDF 24	0.32	73	0.99	+10…+50	

Product name	GTIN (EAN)	![bulb]	A	W SYSTEM	λ	Ta	V min.-max.
QTi DALI 4X14/24 DIM	**4008321070036**	4xHE 14	0.27	60	0.97	+10…+50	154…276
		4xHO 24	0.43	98	0.99	+10…+50	
		4xHO 24 CONSTANT	0.43	98	0.99	+10…+50	
		4xFC 22	0.43	98	0.99	+10…+50	
		4xDL 24	0.43	98	0.99	+10…+50	
		4xDF 24	0.43	98	0.99	+10…+50	

Product name	kHz ECG	CONTROL	l [mm]	b [mm]	h [mm]	l1 [mm]	![box]	No.
QTi DALI 1X14/24 DIM	53…120	DALI / Touch DIM / Touch DIM Sensor	360	30	21	350	20	1
QTi DALI 1X21/39 DIM	44…120	DALI / Touch DIM / Touch DIM Sensor	360	30	21	350	20	1
QTi DALI 1X28/54 DIM	44…120	DALI / Touch DIM / Touch DIM Sensor	360	30	21	350	20	1
QTi DALI 1X35/49/80 DIM	44…120	DALI / Touch DIM / Touch DIM Sensor	360	30	21	350	20	1
QTi DALI 2X14/24 DIM	53…120	DALI / Touch DIM / Touch DIM Sensor	423	30	21	415	20	1
QTi DALI 2X21/39 DIM	44…120	DALI / Touch DIM / Touch DIM Sensor	423	30	21	415	20	1
QTi DALI 2X28/54 DIM	44…120	DALI / Touch DIM / Touch DIM Sensor	423	30	21	415	20	1
QTi DALI 2X35/49 DIM	44…120	DALI / Touch DIM / Touch DIM Sensor	423	30	21	415	20	1
QTi DALI 2X35/49/80 DIM	44…120	DALI / Touch DIM / Touch DIM Sensor	423	30	21	415	20	1
QTi DALI 3X14/24 DIM	40…100	DALI / Touch DIM / Touch DIM Sensor	360	40	21	350	20	1
QTi DALI 4X14/24 DIM	40…100	DALI / Touch DIM / Touch DIM Sensor	360	40	21	350	20	1

Product features
— Corridor function for direct connection of ECG to common motion sensor
— Corridor function with pre-programmed light program
— Touch DIM® function for free parameterization of light value and turn-on time
— Fit for SMART GRID for feedback of consumed mains power and lamp operating hours
— Fit for emergency function for automatic detection of emergency lighting by ECG
— Very low standby power consumption: < 0.2 W (A1 BAT)
— Lifetime: > 100,000 h (for T = 65 °C at T_c)
— Very high number of switching cycles: up to 300,000
— Dimming range: 1…100 % (3…100 % with compact fluorescent lamp)
— POWER2LAMP function for optimal matching of ECG power to lamp during lamp lifetime
— Line frequency: 0 Hz, 50…60 Hz, rectified AC

Product benefits
— Easy integration into luminaires thanks to same dimensions as DALI GI ECG
— Touch DIM® function for easy and inexpensive dimming of several ECGs
— Same luminous flux with direct and alternating current
— Dimming of amalgam lamps without flickering or reduced lifespan
— Automatic restart after lamp replacement

DALI product features
— Control via the DALI interface
— Compliance with DALI Version-1 and IEC 60929
— Control input protected against overvoltage and polarity reversal (OSRAM ECG)

Touch DIM® and Touch DIM® Sensor function
— Manual dimming without controller and with standard switches
— Including memory function (double-click) and soft start

Areas of application
— Suitable for use in emergency lighting systems according to EN 50172/DIN VDE 0108-100
— Installation in emergency lighting systems according to IEC 61347-2-3, appendix J
— Industry
— Open-plan offices, corridors and storage rooms
— Public buildings
— Sports halls and factories
— Strip lighting
— Shop lighting
— Suitable for luminaires of protection class I

QUICKTRONIC® INTELLIGENT DALI DIM
ECG dimmable for T8/26 mm lamps

Product name	GTIN (EAN)	![lamp]	A	W SYSTEM	λ	Ta	[V] min-max
QTi DALI 1X18 DIM	**4050300870403**	1xL 18	0.08	18	0.97	-20…+50	154…276
		1xL 18 XT	0.08	18	0.97	-20…+50	
		1xL 18 XXT	0.08	18	0.97	-20…+50	
		1xDL 18	0.08	18	0.97	+10…+50	
		1xDF 18	0.08	18	0.97	+10…+50	
QTi DALI 1X36 DIM	**4050300870427**	1xL 30	0.16	36	0.98	+10…+50	154…276
		1xL 32 C	0.16	36	0.98	+10…+50	
		1xL 36 -1	0.16	36	0.98	+10…+50	
		1xL 36 XT	0.16	36	0.98	+10…+50	
		1xL 36 XXT	0.16	36	0.98	-20…+50	
		1xL 36	0.16	36	0.98	-20…+50	
		1xL 38	0.16	36	0.98	+10…+50	
		1xDL 36	0.16	36	0.97	+10…+50	
		1xDL 36 XT	0.16	36	0.97	+10…+50	
		1xDF 36	0.16	36	0.97	+10…+50	
QTi DALI 1X58 DIM	**4050300870823**	1xL 58	0.25	56	0.99	+10…+50	154…276
		1xL 58 XT	0.25	56	0.99	-20…+50	
		1xL 58 XXT	0.25	56	0.99	-20…+50	
QTi DALI 2X18 DIM	**4050300870526**	2xL 18	0.16	37	0.97	-20…+50	154…276
		2xL 18 XT	0.16	37	0.97	-20…+50	
		2xL 18 XXT	0.16	37	0.97	-20…+50	
		2xDL 18	0.16	37	0.97	+10…+50	
		2xDF 18	0.16	37	0.97	+10…+50	
QTi DALI 2X36 DIM	**4050300870885**	2xL 30	0.31	69	0.98	+10…+50	154…276
		2xL 32 C	0.31	69	0.98	+10…+50	
		2xL 36 -1	0.31	69	0.98	+10…+50	
		2xL 36 XT	0.31	37	0.98	+10…+50	
		2xL 36 XXT	0.31	37	0.98	-20…+50	
		2xL 36	0.30	69	0.98	-20…+50	
		2xL 38	0.31	69	0.98	+10…+50	
		2xDL 36	0.31	69	0.98	+10…+50	
		2xDL 36 XT	0.31	69	0.98	+10…+50	
		2xDF 36	0.31	69	0.98	+10…+50	
QTi DALI 2X58 DIM	**4050300870847**	2xL 58	0.47	108	0.99	-20…+50	154…276
		2xL 58 XT	0.47	108	0.99	-20…+50	
		2xL 58 XXT	0.47	108	0.99	-20…+50	
QTi DALI 3X18 DIM	**4008321069979**	3xL 18	0.24	54	0.98	-20…+50	154…276
		3xL 18 XT	0.24	54	0.98	-20…+50	
		3xL 18 XXT	0.24	54	0.98	-20…+50	
		3xDL 18	0.24	54	0.98	+10…+50	
		3xDF 18	0.24	54	0.98	+10…+50	

Product name	GTIN (EAN)	💡	A	W SYSTEM	λ	Tₐ	⊓V min-max
QTi DALI 4X18 DIM	**4008321070050**	4xL 18	0.31	69	0.98	-20…+50	154…276
		4xL 18 XT	0.31	69	0.98	-20…+50	
		4xL 18 XXT	0.31	69	0.98	-20…+50	
		4xDL 18	0.31	69	0.98	+10…+50	
		4xDF 18	0.31	69	0.98	+10…+50	

Product name	kHz ECG	CONTROL	l [mm]	b [mm]	h [mm]	l₁ [mm]	📦	💡 No.
QTi DALI 1X18 DIM	51…120	DALI / Touch DIM / Touch DIM Sensor	360	30	21	350	20	1
QTi DALI 1X36 DIM	48…120	DALI / Touch DIM / Touch DIM Sensor	360	30	21	350	20	1
QTi DALI 1X58 DIM	46…120	DALI / Touch DIM / Touch DIM Sensor	360	30	21	350	20	1
QTi DALI 2X18 DIM	51…120	DALI / Touch DIM / Touch DIM Sensor	423	30	21	415	20	1
QTi DALI 2X36 DIM	48…120	DALI / Touch DIM / Touch DIM Sensor	423	30	21	415	20	1
QTi DALI 2X58 DIM	46…120	DALI / Touch DIM / Touch DIM Sensor	423	30	21	415	20	1
QTi DALI 3X18 DIM	40…100	DALI / Touch DIM / Touch DIM Sensor	360	40	21	350	20	1
QTi DALI 4X18 DIM	40…100	DALI / Touch DIM / Touch DIM Sensor	360	40	21	350	20	1

Product features

— Corridor function for direct connection of ECG to common motion sensor
— Corridor function with pre-programmed light program
— Touch DIM® function for free parameterization of light value and turn-on time
— Fit for SMART GRID for feedback of consumed mains power and lamp operating hours
— Fit for emergency function for automatic detection of emergency lighting by ECG
— Very low standby power consumption: < 0.2 W (A1 BAT)
— Lifetime: > 100,000 h (for T = 65 °C at Tᴄ)
— Very high number of switching cycles: up to 300,000
— Dimming range: 1…100 % (3…100 % with compact fluorescent lamp)
— POWER2LAMP function for optimal matching of ECG power to lamp during lamp lifetime
— Line frequency: 0 Hz, 50…60 Hz, rectified AC

Product benefits

— Easy integration into luminaires thanks to same dimensions as DALI GI ECG
— Touch DIM® function for easy and inexpensive dimming of several ECGs

— Same luminous flux with direct and alternating current
— Dimming of amalgam lamps without flickering or reduced lifespan
— Automatic restart after lamp replacement

DALI product features

— Control via the DALI interface
— Compliance with DALI Version-1 and IEC 60929
— Control input protected against overvoltage and polarity reversal (OSRAM ECG)

Areas of application

— Suitable for use in emergency lighting systems according to EN 50172/DIN VDE 0108-100
— Installation in emergency lighting systems according to IEC 61347-2-3, appendix J
— Industry
— Open-plan offices, corridors and storage rooms
— Public buildings
— Sports halls and factories
— Strip lighting
— Suitable for luminaires of protection class I

QUICKTRONIC® INTELLIGENT DALI DIM
ECG dimmable for CFL
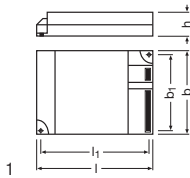
Product name	GTIN (EAN)	![lamp]	A	W SYSTEM	λ	Ta	V min...max.
QTi DALI-T/E 1x18…57 DIM [1]	4008321060808	1xDL 24	0.12	26	0.96	+10…+50	154…276
		1xDL 40	0.20	45	0.98	+10…+50	
		1xDD/E 18	0.09	20	0.95	+10…+50	
		1xDD/E 26	0.13	29	0.97	+10…+50	
		1xDT/E 18	0.09	20	0.95	+10…+50	
		1xDT/E 26	0.13	29	0.97	+10…+50	
		1xDT/E 26 CONSTANT	0.13	29	0.97	+10…+50	
		1xDT/E 32	0.16	36	0.98	+10…+50	
		1xDT/E 32 CONSTANT	0.16	36	0.98	+10…+50	
		1xDT/E 32 XT	0.16	36	0.98	+10…+50	
		1xDT/E 42	0.21	47	0.99	+10…+50	
		1xDT/E 42 CONSTANT	0.21	47	0.99	+10…+50	
		1xFC 22	0.12	26	0.96	+10…+50	
		1xFC 40	0.20	45	0.98	+10…+50	
QTi DALI-T/E 2X18…42 DIM [1]	4008321060822	2xDL 24	0.22	51	0.97	+10…+50	154…276
		2xDL 40	0.38	87	0.99	+10…+50	
		2xDD/E 18	0.17	38	0.95	+10…+50	
		2xDD/E 26	0.25	56	0.98	+10…+50	
		2xDT/E 18	0.17	38	0.95	+10…+50	
		2xDT/E 26	0.25	56	0.98	+10…+50	
		2xDT/E 26 CONSTANT	0.25	56	0.98	+10…+50	
		2xDT/E 32	0.30	69	0.99	+10…+50	
		2xDT/E 32 CONSTANT	0.30	69	0.99	+10…+50	
		2xDT/E 32 XT	0.30	69	0.99	+10…+50	
		2xDT/E 42	0.39	90	0.99	+10…+50	
		2xDT/E 42 CONSTANT	0.39	90	0.99	+10…+50	
		2xFC 22	0.22	51	0.97	+10…+50	
		2xFC 40	0.38	87	0.99	+10…+50	

Product name	kHz ECG	CONTROL	l [mm]	b [mm]	h [mm]	l1 [mm]	b1 [mm]	![box]	No.
QTi DALI-T/E 1x18…57 DIM [1]	42…130	DALI / Touch DIM / Touch DIM Sensor	123	79	33	129	67	20	1
QTi DALI-T/E 2X18…42 DIM [1]	42…130	DALI / Touch DIM / Touch DIM Sensor	123	79	33	129	67	20	1

1) Optional cable clamp, see page 5.61

Product features
— Corridor function for direct connection of ECG to common motion sensor
— Corridor function with pre-programmed light program
— Touch DIM® function for free parameterization of light value and turn-on time
— Fit for SMART GRID for feedback of consumed mains power and lamp operating hours
— Fit for emergency function for automatic detection of emergency lighting by ECG
— Very low standby power consumption: < 0.2 W (A1 BAT)
— Lifetime: > 100,000 h (for T = 65 °C at T_c)
— Very high number of switching cycles: up to 300,000
— Dimming range: 1…100 % (3…100 % with compact fluorescent lamp)
— POWER2LAMP function for optimal matching of ECG power to lamp during lamp lifetime
— Line frequency: 0 Hz, 50…60 Hz, rectified AC

Product benefits
— Easy integration into luminaires thanks to same dimensions as DALI GI ECG

DALI product features
— Control via the DALI interface
— Compliance with DALI Version-1 and IEC 60929
— Control input protected against overvoltage and polarity reversal (OSRAM ECG)

Touch DIM® and Touch DIM® Sensor function
— Manual dimming without controller and with standard switches
— Including memory function (double-click) and soft start

Areas of application
— Suitable for use in emergency lighting systems according to EN 50172/DIN VDE 0108-100
— Installation in emergency lighting systems according to IEC 61347-2-3, appendix J
— Open-plan offices, corridors and storage rooms
— Public buildings
— Suitable for luminaires of protection class I

QUICKTRONIC® INTELLIGENT DIM
ECG dimmable 1…10 V for T5/16 mm lamps
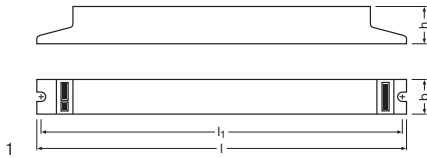
Product name	GTIN (EAN)	💡	A	W SYSTEM	λ	Ta	▯V min-max
QTi 1X14/24 DIM	**4050300870922**	1xHE 14	0.07	15	0.96	+10…+50	154…276
		1xHE 14 SLS	0.07	15	0.95	+15…+50	
		1xHO 24	0.11	26	0.98	+10…+50	
		1xHO 24 CONSTANT	0.11	26	0.98	+10…+50	
		1xFC 22	0.11	25	0.98	+10…+50	
		1xDL 24	0.11	25	0.98	+10…+50	
		1xDF 24	0.11	25	0.98	+10…+50	
QTi 1X21/39 DIM	**4050300870564**	1xHE 21	0.11	23	0.96	+10…+50	154…276
		1xHE 21 SLS	0.11	23	0.96	+15…+50	
		1xHO 39	0.18	42	0.98	+10…+50	
		1xHO 39 SLS	0.18	41	0.98	+15…+50	
		1xHO 39 CONSTANT	0.18	42	0.98	+10…+50	
		1xFC 40	0.18	42	0.98	+10…+50	
		1xDL 22 HE	0.11	23	0.95	-20…+50	
		1xDL 40 CONSTANT	0.18	42	0.98	+10…+50	
		1xDL 40	0.18	42	0.98	+10…+50	
QTi 1X28/54 DIM	**4050300870588**	1xHE 28	0.14	30	0.97	+10…+50	154…276
		1xHE 28 SLS	0.14	30	0.97	+15…+50	
		1xHO 50 ES	0.26	59	0.99	+10…+50	
		1xHO 54	0.26	59	0.99	+10…+50	
		1xHO 54 SLS	0.26	59	0.99	+15…+50	
		1xHO 54 XT	0.26	59	0.99	+10…+50	
		1xHO 54 CONSTANT	0.26	59	0.99	+10…+50	
		1xFC 55	0.26	59	0.99	+10…+50	
		1xDL 26 HE	0.14	30	0.97	-20…+50	
		1xDL 28 HE	0.14	30	0.97	+10…+50	
		1xDL 55	0.26	59	0.99	+10…+50	
		1xDL 55 XT	0.26	59	0.99	+10…+50	
		1xDL 55 CONSTANT	0.26	59	0.99	+10…+50	
QTi 1X35/49/80 DIM	**4050300870540**	1xHE 35	0.17	38	0.96	+10…+50	154…276
		1xHE 35 XT	0.17	38	0.96	+10…+50	
		1xHO 45 ES	0.24	53	0.98	+10…+50	
		1xHO 49	0.24	53	0.98	+10…+50	
		1xHO 49 CONSTANT	0.24	53	0.98	+10…+50	
		1xHO 73 ES	0.39	88	0.99	+10…+50	
		1xHO 80	0.39	88	0.99	+10…+50	
		1xHO 80 XT	0.39	88	0.99	+10…+50	
		1xHO 80 CONSTANT	0.39	88	0.99	+10…+50	
		1xDL 80	0.40	88	0.99	+10…+50	
		1xDL 80 CONSTANT	0.40	88	0.99	+10…+50	

Product name	GTIN (EAN)	![lamp]	A	W SYSTEM	λ	T$_a$	V min-max
QTi 2X14/24 DIM	**4050300870946**	2xHE 14	0.14	31	0.96	+10…+50	154…276
		2xHE 14 SLS	0.14	31	0.95	+15…+50	
		2xHO 24	0.22	50	0.96	+10…+50	
		2xHO 24 CONSTANT	0.22	50	0.96	+10…+50	
		2xFC 22	0.22	49	0.98	+10…+50	
		2xDL 24	0.22	49	0.98	+10…+50	
		2xDF 24	0.22	49	0.98	+10…+50	
QTi 2X21/39 DIM	**4050300870694**	2xHE 21	0.21	45	0.96	+10…+50	154…276
		2xHE 21 SLS	0.21	45	0.96	+15…+50	
		2xHO 39	0.36	82	0.96	+10…+50	
		2xHO 39 SLS	0.36	80	0.98	+15…+50	
		2xHO 39 CONSTANT	0.36	82	0.96	+10…+50	
		2xFC 40	0.36	82	0.98	+10…+50	
		2xDL 22 HE	0.21	45	0.95	-20…+50	
		2xDL 40	0.36	82	0.97	+10…+50	
		2xDL 40 CONSTANT	0.36	82	0.97	+10…+50	
QTi 2X28/54 DIM	4050300870717	2xHE 28	0.27	60	0.97	+10…+50	154…276
		2xHO 54	0.51	115	0.98	+10…+50	
		2xHO 54 CONSTANT	0.51	115	0.98	+10…+50	
		2xFC 55	0.51	115	0.99	+10…+50	
		2xDL 26 HE	0.27	60	0.97	-20…+50	
		2xDL 28 HE	0.27	60	0.97	+10…+50	
		2xDL 55	0.51	115	0.99	+10…+50	
		2xDL 55 CONSTANT	0.51	115	0.99	+10…+50	
QTi 2X35/49 DIM	4050300870670	2xHE 35	0.33	75	0.95	+10…+50	154…276
		2xHE 35 XT	0.33	75	0.95	+10…+50	
		2xHO 49	0.45	104	0.97	+10…+50	
		2xHO 49 CONSTANT	0.45	104	0.97	+10…+50	
QTi 2X35/49/80 DIM	4050300870984	2xHE 35	0.34	74	0.95	+10…+50	154…276
		2xHE 35 XT	0.34	74	0.95	+10…+50	
		2xHO 45 ES	0.45	101	0.97	+10…+50	
		2xHO 49	0.46	103	0.97	+10…+50	
		2xHO 49 CONSTANT	0.46	103	0.97	+10…+50	
		2xHO 73 ES	0.72	165	0.99	+10…+50	
		2xHO 80	0.74	165	0.99	+10…+50	
		2xHO 80 XT	0.74	165	0.99	+10…+50	
		2xHO 80 CONSTANT	0.74	165	0.99	+10…+50	
		2xDL 80	0.74	165	0.99	+10…+50	
		2xDL 80 CONSTANT	0.74	165	0.99	+10…+50	
QTi 3X14/24 DIM	4008321069719	3xHE 14	0.20	45	0.97	+10…+50	154…276
		3xHO 24	0.32	74	0.99	+10…+50	
		3xHO 24 CONSTANT	0.32	74	0.99	+10…+50	
		3xFC 22	0.32	73	0.99	+10…+50	
		3xDL 24	0.32	73	0.99	+10…+50	
		3xDF 24	0.32	74	0.99	+10…+50	
QTi 4X14/24 DIM	4008321069993	4xHE 14	0.27	60	0.97	+10…+50	154…276
		4xHO 24	0.43	98	0.99	+10…+50	
		4xHO 24 CONSTANT	0.43	98	0.99	+10…+50	
		4xFC 22	0.43	98	0.99	+10…+50	
		4xDL 24	0.43	98	0.99	+10…+50	
		4xDF 24	0.43	98	0.99	+10…+50	

Product name	kHz ECG	CONTROL	l [mm]	b [mm]	h [mm]	l₁ [mm]	📦	💡 No.
QTi 1X14/24 DIM	53…120	1…10V	360	30	21	350	20	1
QTi 1X21/39 DIM	44…120	1…10V	360	30	21	350	20	1
QTi 1X28/54 DIM	44…120	1…10V	360	30	21	350	20	1
QTi 1X35/49/80 DIM	44…120	1…10V	360	30	21	350	20	1
QTi 2X14/24 DIM	53…120	1…10V	423	30	21	415	20	1
QTi 2X21/39	44…120	1…10V	423	30	21	415	20	1
QTi 2X28/54 DIM	44…120	1…10V	423	30	21	415	20	1
QTi 2X35/49 DIM	44…120	1…10V	423	30	21	415	20	1
QTi 2X35/49/80 DIM	44…120	1…10V	423	30	21	415	20	1
QTi 3X14/24 DIM	40…100	1…10V	360	40	21	350	20	1
QTi 4X14/24 DIM	40…100	1…10V	360	40	21	350	20	1

Product features

— Control via 1…10V interface
— Supply voltage: 220…240V
— Line frequency: 0Hz 50Hz 60Hz
— Line voltage: 198…264V
— Dimming range: 1…100% luminous flux
— Lamp start: within 0.6 s
— Lifetime: > 100,000 h (for T = 65°C at T_c)
— Automatic shutdown of defective lamps and at end of life (EoL T.2)
— Energy Efficiency Index EEI: A1 BAT
— Overtemperature protection: Thermal management at high T_c temperatures
— Safety according to EN 61347-2-3
— Lamp operation according to EN 60929
— RI suppression according to EN 55015:2006+A1:2007+A2:2009/CISPR 15
— Line harmonics according to EN 61000-3-2
— Immunity according to EN 61547

Product benefits

— Same luminous flux with direct and alternating current
— Perfect lamp start for applications with motion sensors
— Dimming of amalgam lamps without flickering or reduced lifespan
— Very high efficiency thanks to cut-off technology
— Automatic restart after lamp replacement
— ECGs comply with MINERGIE standard due to very low standby consumption
— Configurable emergency power characteristics

Areas of application

— Suitable for emergency installations
— Industry
— Open-plan offices, corridors and storage rooms
— Public buildings
— Suitable for luminaires of protection class I

QUICKTRONIC® INTELLIGENT DIM
ECG dimmable 1…10 V for T8/26 mm lamps
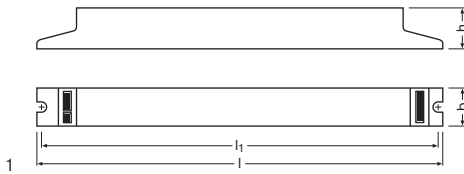
Product name	GTIN (EAN)	🔆	A	W SYSTEM	λ	Tₐ	🔋V min.-max.
QTi 3X18 DIM	**4008321069931**	3xL 18	0.24	54	0.98	-20…+50	154…276
		3xL 18 XT	0.24	54	0.98	-20…+50	
		3xL 18 XXT	0.24	54	0.98	-20…+50	
		3xDL 18	0.24	54	0.98	+10…+50	
		3xDF 18	0.24	54	0.98	+10…+50	
QTi 4X18 DIM	**4008321070012**	4xL 18	0.31	69	0.98	-20…+50	154…276
		4xL 18 XT	0.31	69	0.98	-20…+50	
		4xL 18 XXT	0.31	69	0.98	-20…+50	
		4xDL 18	0.31	69	0.98	+10…+50	
		4xDF 18	0.31	69	0.98	+10…+50	

Product name	kHz ECG	CONTROL	l [mm]	b [mm]	h [mm]	l₁ [mm]	📦	💡 No.
QTi 3X18 DIM	40…100	1…10 V	360	40	21	350	20	1
QTi 4X18 DIM	40…100	1…10 V	360	40	21	350	20	1

Product features
— Control via 1…10 V interface
— Supply voltage: 220…240 V
— Line frequency: 0 Hz 50 Hz 60 Hz
— Line voltage: 198…264 V
— Dimming range: 1…100 % luminous flux
— Lamp start: within 0.6 s
— Lifetime: > 100,000 h (for T = 65 °C at T_c)
— Automatic shutdown of defective lamps and at end of life (EoL T.2)
— Energy Efficiency Index EEI: A1 BAT
— Overtemperature protection: Thermal management at high T_c temperatures
— Safety according to EN 61347-2-3
— Lamp operation according to EN 60929
— RI suppression according to EN 55015:2006+A1:2007+A2:2009/CISPR 15
— Line harmonics according to EN 61000-3-2
— Immunity according to EN 61547

Product benefits
— Same luminous flux with direct and alternating current
— Perfect lamp start for applications with motion sensors
— Dimming of amalgam lamps without flickering or reduced lifespan
— Very high efficiency thanks to cut-off technology
— Automatic restart after lamp replacement
— ECGs comply with MINERGIE standard due to very low standby consumption
— Configurable emergency power characteristics
— Control via the 1…10 V interface

Areas of application
— Suitable for use in emergency lighting systems according to EN 50172/DIN VDE 0108-100
— Installation in emergency lighting systems according to IEC 61347-2-3, appendix J
— Industry
— Open-plan offices, corridors and storage rooms
— Public buildings
— Suitable for luminaires of protection class I

QUICKTRONIC® INTELLIGENT DIM
ECG dimmable 1…10V for CFL

Product name	GTIN (EAN)	![lamp]	A	W SYSTEM	λ	Tₐ	V min.-max.
QTi-T/E 1x18-57 DIM [1]	**4008321060860**	1xDD/E 18	0.09	20	0.95	+10…+50	154…276
		1xDD/E 26	0.13	29	0.97	+10…+50	
		1xDT/E 18	0.09	20	0.95	+10…+50	
		1xDT/E 26	0.13	29	0.97	+10…+50	
		1xDT/E 26 CONSTANT	0.13	29	0.97	+10…+50	
		1xDT/E 32	0.16	36	0.98	+10…+50	
		1xDT/E 32 CONSTANT	0.16	36	0.98	+10…+50	
		1xDT/E 32 XT	0.16	36	0.98	+10…+50	
		1xDT/E 42	0.21	47	0.99	+10…+50	
		1xDT/E 42 CONSTANT	0.21	47	0.99	+10…+50	
		1xFC 22	0.12	26	0.96	+10…+50	
		1xFC 40	0.20	45	0.98	+10…+50	
QTi-T/E 2x18-42 DIM [1]	**4008321060846**	2xDD/E 18	0.17	38	0.95	+10…+50	154…276
		2xDD/E 26	0.25	56	0.98	+10…+50	
		2xDT/E 18	0.17	38	0.95	+10…+50	
		2xDT/E 26	0.25	56	0.98	+10…+50	
		2xDT/E 26 CONSTANT	0.25	56	0.98	+10…+50	
		2xDT/E 32	0.30	69	0.99	+10…+50	
		2xDT/E 32 CONSTANT	0.30	69	0.99	+10…+50	
		2xDT/E 32 XT	0.30	69	0.99	+10…+50	
		2xDT/E 42	0.39	90	0.99	+10…+50	
		2xDT/E 42 CONSTANT	0.39	90	0.99	+10…+50	
		2xFC 22	0.22	51	0.97	+10…+50	
		2xFC 40	0.38	87	0.99	+10…+50	

Product name	kHz ECG	CONTROL	l [mm]	b [mm]	h [mm]	l₁ [mm]	b₁ [mm]	![box]	No.
QTi-T/E 1x18-57 DIM [1]	42…140	1…10V	123	79	33	111	67	20	1
QTi-T/E 2x18-42 DIM [1]	42…140	1…10V	123	79	33	111	67	20	1

1) Optional cable clamp, see page 5.61

Product features
— Control via 1…10 V interface
— Supply voltage: 220…240 V
— Line frequency: 0 Hz 50 Hz 60 Hz
— Line voltage: 198…264 V
— Dimming range: 3…100 % luminous flux
— Lamp start: within 0.6 s
— Lifetime: > 100,000 h (for T = 65 °C at T_c)
— Automatic shutdown of defective lamps and at end of life (EoL T.2)
— Energy Efficiency Index EEI: A1 BAT
— Overtemperature protection: Thermal management at high T_c temperatures
— Safety according to EN 61347-2-3
— Lamp operation according to EN 60929
— RI suppression according to EN 55015:2006+A1:2007+A2:2009/CISPR 15
— Line harmonics according to EN 61000-3-2
— Immunity according to EN 61547

Product benefits
— Same luminous flux with direct and alternating current
— Perfect lamp start for applications with motion sensors
— Dimming of amalgam lamps without flickering or reduced lifespan
— Very high efficiency thanks to cut-off technology
— Automatic restart after lamp replacement
— ECGs comply with MINERGIE standard due to very low standby consumption
— Configurable emergency power characteristics
— Control via the 1…10 V interface

Areas of application
— Suitable for use in emergency lighting systems according to EN 50172/DIN VDE 0108-100
— Industry
— Open-plan offices, corridors and storage rooms
— Public buildings
— Suitable for luminaires of protection class I

QUICKTRONIC® DIM
ECG dimmable 1…10 V for T8/26 mm lamps
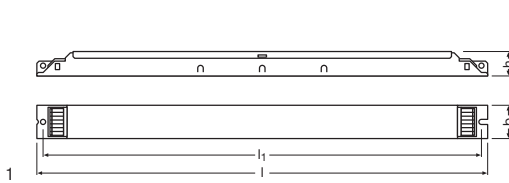
Product name	GTIN (EAN)	🔆	A	W SYSTEM	λ	Ta	ⓥ min.-max.
QT 1X18 DIM	4008321645647	1xL 18	0.08	19	0.97	-20…+60	154…276
		1xDL 18	0.08	19	0.97	+10…+60	
QT 1X36 DIM	4008321645623	1xL 36	0.16	36	0.97	-20…+60	154…276
		1xDL 36	0.16	36	0.97	+10…+60	
QT 1X58 DIM	4008321645609	1xL 58	0.25	56	0.98	-20…+60	154…276
QT 2X18 DIM	4008321645852	2xL 18	0.17	38	0.97	-20…+60	154…276
		2xDL 18	0.17	38	0.97	+10…+60	
QT 2X36 DIM	4008321645838	2xL 36	0.32	72	0.98	-20…+60	154…276
		2xDL 36	0.32	72	0.98	+10…+60	
QT 2X58 DIM	4008321645814	2xL 58	0.48	110	0.99	-20…+60	154…276

Product name	kHz ECG	CONTROL	l [mm]	b [mm]	h [mm]	l₁ [mm]	📦	💡 No.
QT 1X18 DIM	44…120	1…10V	360	30	21	350	20	1
QT 1X36 DIM	44…120	1…10V	360	30	21	350	20	1
QT 1X58 DIM	44…120	1…10V	360	30	21	350	20	1
QT 2X18 DIM	44…120	1…10V	423	30	21	415	20	1
QT 2X36 DIM	44…120	1…10V	423	30	21	415	20	1
QT 2X58 DIM	44…120	1…10V	423	30	21	415	20	1

Product features
— Control via 1…10 V interface
— Supply voltage: 220…240 V
— Line frequency: 0 Hz 50 Hz 60 Hz
— Line voltage: 198…264 V
— Dimming range: 1…100 % luminous flux
— Lamp start: within 0.6 s
— Lifetime: > 100,000 h (for T = 65 °C at T_c)
— Automatic shutdown of defective lamps and at end of life (EoL T.2)
— Energy Efficiency Index EEI: A1 BAT
— Power boost for stable lamp operation
— Overtemperature protection: Thermal management at high T_c temperatures
— Safety according to EN 61347-2-3

Product benefits
— Same luminous flux with direct and alternating current
— Perfect lamp start for applications with motion sensors
— Dimming of amalgam lamps without flickering or reduced lifespan
— Very high energy efficiency due to cut-off technology
— Automatic restart after lamp replacement
— ECGs comply with MINERGIE standard due to very low standby consumption

Areas of application
— Suitable for use in emergency lighting systems according to EN 50172/DIN VDE 0108-100
— Installation in emergency lighting systems according to IEC 61347-2-3, appendix J
— Industry
— Open-plan offices, corridors and storage rooms
— Public buildings
— Suitable for luminaires of protection class I

QUICKTRONIC® INTELLIGENT
ECG for T5/16 mm lamps
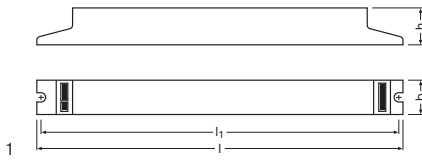
Product name	GTIN (EAN)	💡	A	W SYSTEM	λ	Tₐ
QTi 1X14/24/21/39 GII	**4008321383334**	1xHE 13 ES	0.07	15	0.91 c	-20…+50
		1xHE 14	0.08	16	0.92 c	-20…+50
		1xHE 14 SLS	0.08	16	0.92 c	-20…+50
		1xHE 19 ES	0.10	22	0.94 c	-20…+50
		1xHE 21	0.11	24	0.94 c	-20…+50
		1xHE 21 SLS	0.11	24	0.94 c	-20…+50
		1xHE 25 ES	0.13	29	0.95	-20…+50
		1xHE 28	0.15	33	0.99	-20…+50
		1xHE 32 ES	0.16	36	0.96	-20…+50
		1xHE 35	0.18	39	0.97	-20…+50
		1xHE 35 XT	0.18	39	0.97	-20…+50
		1xHO 24	0.12	26	0.96	-20…+50
		1xHO 24 SLS	0.12	26	0.96	-20…+50
		1xHO 24 CONSTANT	0.12	26	0.96	-20…+50
		1xHO 39	0.18	41	0.98	-20…+50
		1xHO 39 SLS	0.18	41	0.98	-20…+50
		1xHO 39 CONSTANT	0.18	41	0.98	-20…+50
		1xFC 22	0.15	25	0.94 c	-20…+50
		1xFC 40	0.19	43	0.96	-20…+50
		1xL 18	0.09	19	0.93 c	-20…+50
		1xL 18 XT	0.09	19	0.93 c	-20…+50
		1xL 18 XXT	0.09	19	0.93 c	-20…+50
		1xL 36	0.09	35	0.96	-20…+50
		1xL 36 XT	0.09	35	0.96	-20…+50
		1xL 36 XXT	0.09	35	0.96	-20…+50
		1xL 38	0.09	35	0.96	-20…+50
		1xDF 36	0.15	34	0.96	-20…+50
		1xDL 36	0.15	34	0.96	-20…+50
		1xDL 36 XT	0.15	34	0.96	-20…+50
		1xDL 40	0.19	44	0.98	-20…+50
		1xDL 40 CONSTANT	0.19	44	0.98	-20…+50
QTi 1X28/54/35/49 GII	**4008321383358**	1xHE 13 ES	0.07	15	0.91 c	-20…+50
		1xHE 14	0.08	16	0.93 c	-20…+50
		1xHE 19 ES	0.10	22	0.94 c	-20…+50
		1xHE 21	0.11	24	0.94 c	-20…+50
		1xHE 25 ES	0.13	29	0.95	-20…+50
		1xHE 28	0.15	32	0.95	-20…+50
		1xHE 28 SLS	0.15	32	0.95	-20…+50
		1xHE 32 ES	0.16	36	0.96	-20…+50
		1xHE 35	0.17	38	0.97	-20…+50
		1xHE 35 XT	0.17	38	0.97	-20…+50

Product name	GTIN (EAN)	💡	A	W SYSTEM	λ	Tₐ
		1xHO 45 ES	0.21	48	0.97	-20…+50
		1xHO 49	0.24	53	0.97	-20…+50
		1xHO 49 CONSTANT	0.24	53	0.97	-20…+50
		1xHO 50 ES	0.23	54	0.98	-20…+50
		1xHO 54	0.26	58	0.97	-20…+50
		1xHO 54 SLS	0.26	58	0.97	-20…+50
		1xHO 54 CONSTANT	0.26	58	0.97	-20…+50
		1xHO 54 XT	0.26	58	0.97	-20…+50
		1xL 58	0.24	55	0.99	-20…+50
		1xL 58 XT	0.24	55	0.99	-20…+50
		1xL 58 XXT	0.24	55	0.99	-20…+50
		1xDL 16 HE	0.08	18	0.96	-20…+50
		1xDL 22 HE	0.11	25	0.97	-20…+50
		1xDL 26 HE	0.13	30	0.97	-20…+50
		1xDL 28 HE	0.14	31	0.95	-20…+50
QTi 1X35/49/80 GII	**4008321383372**	1xHE 13 ES	0.07	15	0.91 c	-20…+50
		1xHE 14	0.08	16	0.93 c	-20…+50
		1xHE 19 ES	0.10	22	0.94 c	-20…+50
		1xHE 21	0.11	25	0.99	-20…+50
		1xHE 28	0.15	33	0.99	-20…+50
		1xHE 32 ES	0.16	36	0.96	-20…+50
		1xHE 35	0.17	38	0.97	-20…+50
		1xHE 35 XT	0.17	38	0.97	-20…+50
		1xHO 45 ES	0.21	48	0.97	-20…+50
		1xHO 49	0.24	53	0.97	-20…+50
		1xHO 49 CONSTANT	0.24	53	0.97	-20…+50
		1xHO 73 ES	0.34	79	0.98	-20…+50
		1xHO 80	0.38	85	0.98	-20…+50
		1xHO 80 CONSTANT	0.38	85	0.98	-20…+50
		1xHO 80 XT	0.38	85	0.98	-20…+50
		1xFC 55	0.26	59	0.99	-20…+50
		1xDL 26 HE	0.13	30	0.97	-20…+50
		1xDL 28 HE	0.14	31	0.95	-20…+50
		1xDL 55	0.26	59	0.99	-20…+50
		1xDL 55 CONSTANT	0.26	59	0.99	-20…+50
		1xDL 55 XT	0.26	59	0.99	-20…+50
		1xDL 80	0.38	85	0.98	-20…+50
		1xDL 80 CONSTANT	0.38	85	0.98	-20…+50
QTi 2X14/24/21/39 GII	**4008321383396**	2xHE 13 ES	0.125	29	0.95	-20…+50
		2xHE 14	0.15	31	0.95	-20…+50
		2xHE 14 SLS	0.15	31	0.95	-20…+50
		2xHE 19 ES	0.18	42	0.96	-20…+50
		2xHE 21	0.20	45	0.96	-20…+50
		2xHE 21 SLS	0.20	45	0.96	-20…+50
		2xHE 25 ES	0.26	56	0.96	-20…+50
		2xHE 28	0.29	63	0.99	-20…+50
		2xHE 32 ES	0.31	68	0.96	-20…+50
		2xHE 35	0.35	76	0.96	-20…+50
		2xHE 35 XT	0.35	76	0.96	-20…+50
		2xHO 24	0.23	50	0.96	-20…+50
		2xHO 24 SLS	0.23	50	0.96	-20…+50
		2xHO 24 CONSTANT	0.23	50	0.96	-20…+50

Product name	GTIN (EAN)	▪💡	A	W SYSTEM	λ	Tₐ
		2xHO 39	0.36	81	0.98	-20…+50
		2xHO 39 SLS	0.36	81	0.98	-20…+50
		2xHO 39 CONSTANT	0.36	81	0.98	-20…+50
		2xFC 22	0.21	49	0.96	-20…+50
		2xFC 40	0.36	88	0.99	-20…+50
		2xL 18	0.17	37	0.96	-20…+50
		2xL 18 XT	0.17	37	0.96	-20…+50
		2xL 18 XXT	0.17	37	0.96	-20…+50
		2xL 36	0.31	70	0.98	-20…+50
		2xL 36 XT	0.31	70	0.98	-20…+50
		2xL 36 XXT	0.31	70	0.98	-20…+50
		2xDL 28 HE	0.27	60	0.96	-20…+50
		2xDL 36	0.29	68	0.98	-20…+50
		2xDL 36 XT	0.29	68	0.98	-20…+50
		2xDL 40	0.37	86	0.98	-20…+50
		2xDL 40 CONSTANT	0.37	86	0.98	-20…+50
		2xDF 36	0.29	66	0.98	-20…+50
QTi 2X28/54/35/49 GII	4008321383419	2xHE 13 ES	0.125	29	0.95	-20…+50
		2xHE 14	0.15	32	0.93	-20…+50
		2xHE 19 ES	0.18	42	0.96	-20…+50
		2xHE 21	0.20	45	0.96	-20…+50
		2xHE 28	0.28	61	0.96	-20…+50
		2xHE 28 SLS	0.28	61	0.96	-20…+50
		2xHE 32 ES	0.31	68	0.96	-20…+50
		2xHE 35	0.35	76	0.96	-20…+50
		2xHE 35 XT	0.35	76	0.96	-20…+50
		2xHO 45 ES	0.42	98	0.95	-20…+50
		2xHO 49	0.46	105	0.98	-20…+50
		2xHO 49 CONSTANT	0.46	105	0.98	-20…+50
		2xHO 50 ES	0.46	108	0.99	-20…+50
		2xHO 54	0.51	115	0.98	-20…+50
		2xHO 54 SLS	0.51	115	0.98	-20…+50
		2xHO 54 CONSTANT	0.51	115	0.98	-20…+50
		2xHO 54 XT	0.51	115	0.98	-20…+50
		2xL 58	0.47	109	0.99	-20…+50
		2xL 58 XT	0.47	109	0.99	-20…+50
		2xL 58 XXT	0.47	109	0.99	-20…+50
		2xDL 16 HE	0.15	35	0.99	-20…+50
		2xDL 22 HE	0.21	49	0.99	-20…+50
		2xDL 26 HE	0.26	58	0.99	-20…+50
		2xDL 28 HE	0.27	60	0.96	-20…+50
QTi 2X35/49/80 GII	4008321658951	2xHE 13 ES	0.16	30	0.95	-20…+50
		2xHE 14	0.18	34	0.95	-20…+50
		2xHE 19 ES	0.21	43	0.96	-20…+50
		2xHE 21	0.23	49	0.96	-20…+50
		2xHE 25 ES	0.26	57	0.96	-20…+50
		2xHE 28	0.30	63	0.97	-20…+50
		2xHE 32 ES	0.33	70	0.97	-20…+50
		2xHE 35	0.36	77	0.98	-20…+50
		2xHE 35 XT	0.36	77	0.98	-20…+50
		2xHO 45 ES	0.43	95	0.99	-20…+50
		2xHO 49	0.45	105	0.99	-20…+50

Product name	GTIN (EAN)	💡	A	W SYSTEM	λ	Ta
		2xHO 49 CONSTANT	0.45	105	0.99	-20…+50
		2xHO 73 ES	0.66	155	0.99	-20…+50
		2xHO 80	0.70	167	0.99	-20…+50
		2xHO 80 CONSTANT	0.70	167	0.99	-20…+50
		2xHO 80 XT	0.70	167	0.99	-20…+50
		2xFC 55	0.53	119	0.98	-20…+50
		2xDL 26 HE	0.27	61	0.97	-20…+50
		2xDL 28 HE	0.27	59	0.96	-20…+50
		2xDL 55	0.53	119	0.98	-20…+50
		2xDL 55 CONSTANT	0.53	119	0.98	-20…+50
		2xDL 55 XT	0.53	119	0.98	-20…+50
		2xDL 80	0.70	167	0.99	-20…+50
		2xDL 80 CONSTANT	0.70	167	0.99	-20…+50

Product name	V min.-max.	kHz ECG	l [mm]	b [mm]	h [mm]	l1 [mm]	📦	💡 No.
QTi 1X14/24/21/39 GII	176…276	42…85	360	30	21	350	20	1
QTi 1X28/54/35/49 GII	176…276	42…85	360	30	21	350	20	1
QTi 1X35/49/80 GII	176…276	42…85	360	30	21	350	20	1
QTi 2X14/24/21/39 GII	176…276	42…85	360	30	21	350	20	1
QTi 2X28/54/35/49 GII	176…276	42…85	360	30	21	350	20	1
QTi 2X35/49/80 GII	176…276	45…70	425	30	21	415	20	1

Product features
— Supply voltage: 220…240 V
— Line voltage: 198…264 V
— Line frequency: 0 Hz 50 Hz 60 Hz
— Lamp start with optimum filament preheating
— Lifetime: > 100,000 h (for T = 65 °C at T_c)
— Energy Efficiency Index EEI: A2 BAT
— Automatic shutdown of defective lamps and at end of life (EoL T.2)
— Safety according to EN 61347-2-3
— Lamp operation according to EN 60929

Product benefits
— Long lamp life
— No adverse effect from frequent on/off switching
— Automatic restart after lamp replacement
— Perfect lamp start for applications with motion sensors
— VDE/VDE EMC certified system
— Very high energy efficiency due to cut-off technology

Areas of application
— Emergency lighting systems according to EN 50172/DIN VDE 0108-100
— Industry
— Open-plan offices, corridors and storage rooms
— Public buildings
— Sports halls and factories
— Strip lighting
— Suitable for emergency lighting (DC operation)
— Modernization of existing systems
— Suitable for luminaires of protection classes I and II

QUICKTRONIC® PROFESSIONAL
ECG for T5/16 mm lamps

Product name	GTIN (EAN)	💡	A	W SYSTEM	λ	T_a
QTP5 1X14…35	**4008321329035**	1xHE 13 ES	0.075	15	0.90 c	-20…+50
		1xHE 14	0.08	16	0.90 c	-20…+50
		1xHE 19 ES	0.10	22	0.95	-20…+50
		1xHE 21	0.11	24	0.95	-20…+50
		1xHE 25 ES	0.12	27	0.96	-20…+50
		1xHE 28	0.14	31	0.96	-20…+50
		1xHE 32 ES	0.15	34	0.97	-20…+50
		1xHE 35	0.17	38	0.97	-20…+50
		1xHE 35 XT	0.17	38	0.97	-20…+50
		1xDL 16 HE	0.08	18	0.92 c	-20…+50
		1xDL 22 HE	0.11	24	0.95	-20…+50
		1xDL 26 HE	0.13	29	0.95	-20…+50
		1xDL 28 HE	0.13	29	0.95	-20…+50
QTP5 1X49	**4008321329370**	1xHO 45 ES	0.22	49	0.95	-20…+50
		1xHO 49	0.24	53	0.95	-20…+50
		1xHO 49 CONSTANT	0.24	53	0.95	-20…+50
QTP5 1X80	**4008321329059**	1xHO 73 ES	0.35	79	0.98	-20…+50
		1xHO 80	0.38	86	0.98	-20…+50
		1xHO 80 CONSTANT	0.38	86	0.98	-20…+50
		1xHO 80 XT	0.38	86	0.98	-20…+50
		1xDL 80	0.38	86	0.98	-20…+50
		1xDL 80 CONSTANT	0.38	86	0.98	-20…+50
QTP5 2X14…35	**4008321329073**	2xHE 13 ES	0.13	28	0.95	-20…+50
		2xHE 14	0.14	30	0.98	-20…+50
		2xHE 19 ES	0.185	42	0.98	-20…+50
		2xHE 21	0.20	45	0.98	-20…+50
		2xHE 25 ES	0.24	54	0.98	-20…+50
		2xHE 28	0.26	60	0.98	-20…+50
		2xHE 32 ES	0.30	68	0.98	-20…+50
		2xHE 35	0.33	75	0.98	-20…+50
		2xHE 35 XT	0.33	75	0.98	-20…+50
		2xDL 16 HE	0.15	34	0.95	-20…+50
		2xDL 22 HE	0.21	48	0.96	-20…+50
		2xDL 26 HE	0.26	57	0.95	-20…+50
		2xDL 28 HE	0.26	56	0.98	-20…+50
QTP5 2X49	**4008321329431**	2xHO 45 ES	0.44	100	0.98	-20…+50
		2xHO 49	0.49	106	0.99	-20…+50
		2xHO 49 CONSTANT	0.49	106	0.99	-20…+50
QTP5 3X14,4X14	**4008321484598**	3xHE 14	0.28	48	0.95	-20…+50
		4xHE 14	0.22	63	0.97	-20…+50

Product name	$\boxed{}$V min.-max.	kHz ECG	l [mm]	b [mm]	h [mm]	l₁ [mm]		No.
QTP5 1X14…35	176…276	40…50	280	30	21	270	20	1
QTP5 1X49	176…276	40…50	280	30	21	270	20	1
QTP5 1X80	176…276	40…50	360	30	21	350	20	1
QTP5 2X14…35	176…276	40…50	360	30	21	350	20	1
QTP5 2X49	176…276	40…50	360	30	21	350	20	1
QTP5 3X14,4X14	176…276	40…50	280	40	21	270	20	1

Product features
— Supply voltage: 220…240 V
— Line voltage: 198…264 V
— Line frequency: 0 Hz 50 Hz 60 Hz
— Lamp start with optimum filament preheating
— Lifetime: up to 100,000 h (for T = 65 °C at T_c, max. 10 % failure rate)
— Energy Efficiency Index EEI: A2 BAT
— Automatic shutdown of defective lamps and at end of life (EoL T.2)
— Safety according to EN 61347-2-3
— Lamp operation according to EN 60929

Product benefits
— Long lamp life
— No adverse effect from frequent on/off switching
— Perfect lamp start for applications with motion sensors
— Automatic restart after lamp replacement
— VDE/VDE EMC certified system
— Very high energy efficiency due to cut-off technology

Areas of application
— Emergency lighting systems according to EN 50172/DIN VDE 0108-100
— Industry
— Open-plan offices, corridors and storage rooms
— Public buildings
— Sports halls and factories
— Strip lighting
— Suitable for emergency lighting (DC operation)
— Modernization of existing systems
— Suitable for luminaires of protection classes I and II

QUICKTRONIC® FQ®
ECG for T5/16 mm lamps
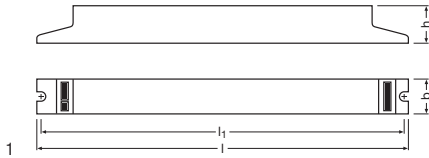
Product name	GTIN (EAN)	💡	A	W SYSTEM	λ	Ta
QT-FQ 2X80	4050300825564	2xHO 73 ES	0.71	162	0.99	-20…+50
		2xHO 80	0.76	175	0.98	-20…+50
		2xHO 80 CONSTANT	0.76	175	0.98	-20…+50
		2xHO 80 XT	0.76	175	0.98	-20…+50
		2xDL 55	0.59	122	0.99	-20…+50
		2xDL 55 CONSTANT	0.59	122	0.99	-20…+50
		2xDL 55 XT	0.59	122	0.99	-20…+50
		2xDL 80	0.76	175	0.99	-20…+50
		2xDL 80 CONSTANT	0.76	175	0.99	-20…+50

Product name	kHz ECG	l [mm]	b [mm]	h [mm]	l₁ [mm]	📦	💡 No.
QT-FQ 2X80	70…75	423	30	21	415	20	1

Product features
— Supply voltage: 220…240 V
— Line voltage: 198…264 V
— Line frequency: 50 Hz 60 Hz
— Lamp start with optimum filament preheating
— Lifetime: up to 100,000 h (for T = 65 °C at T_c, max. 10 % failure rate)
— Energy Efficiency Index EEI: A2
— Safety according to EN 61347-2-3
— Automatic shutdown of defective lamps and at end of life (EoL T.2)

Product benefits
— Long lamp life
— No adverse effect from frequent on/off switching
— Automatic restart after lamp replacement
— Perfect lamp start for applications with motion sensors
— VDE/VDE EMC certified system
— Very high energy efficiency due to cut-off technology

Areas of application
— Industry
— Open-plan offices, corridors and storage rooms
— Public buildings
— Sports halls and factories
— Strip lighting
— Modernization of existing systems

QUICKTRONIC® PROFESSIONAL OPTIMAL
ECG for CFL, T5/16 mm and T8/26 mm lamps
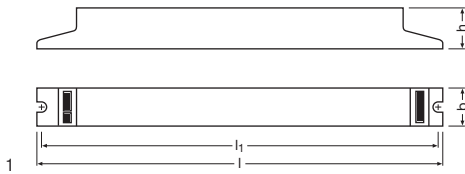
Product name	GTIN (EAN)	💡	A	W SYSTEM	λ	T_a
QTP-OPTIMAL 1x18…40	4008321873743	1xHO 24	0.13	28	0.98	-20…+50
		1xHO 24 CONSTANT	0.13	28	0.98	-20…+50
		1xHO 39	0.13	41	0.98	-20…+50
		1xHO 39 CONSTANT	0.13	41	0.98	-20…+50
		1xL 15	0.08	17	0.95	-20…+50
		1xL 16 ES	0.08	18	0.96	-20…+50
		1xL 18	0.10	20	0.95	-20…+50
		1xL 18 U	0.10	20	0.95	-20…+50
		1xL 18 XT	0.10	20	0.95	-20…+50
		1xL 18 XXT	0.10	20	0.95	-20…+50
		1xL 30	0.15	36	0.95	-20…+50
		1xL 32 ES	0.15	36	0.95	-20…+50
		1xL 36	0.16	36	0.98	-20…+50
		1xL 36 -1	0.16	36	0.98	-20…+50
		1xL 36 XT	0.16	36	0.98	-20…+50
		1xL 36 XXT	0.16	36	0.98	-20…+50
		1xDL 18	0.09	19	0.90 c	-20…+50
		1xDL 18 XT	0.09	19	0.90 c	-20…+50
		1xDL 24	0.12	27	0.95	-20…+50
		1xDL 24 XT	0.12	27	0.95	-20…+50
		1xDL 36	0.16	35	0.98	-20…+50
		1xDL 36 XT	0.16	35	0.98	-20…+50
		1xDL 40	0.20	44	0.98	-20…+50
		1xDL 40 CONSTANT	0.20	44	0.98	-20…+50
		1xDF 18	0.08	18	0.90 c	-20…+50
		1xDF 24	0.12	25	0.95	-20…+50
		1xDF 36	0.15	34	0.98	-20…+50
QTP-OPTIMAL 1X54…58	4008321873729	1xHO 50 ES	0.26	54	0.98	-20…+50
		1xHO 54	0.26	54	0.98	-20…+50
		1xHO 54 CONSTANT	0.26	54	0.98	-20…+50
		1xHO 54 XT	0.26	54	0.98	-20…+50
		1xL 58	0.25	54	0.98	-20…+50
		1xL 58 XT	0.25	54	0.98	-20…+50
		1xL 58 XXT	0.25	54	0.98	-20…+50
		1xDL 55	0.24	50	0.98	-20…+50
		1xDL 55 CONSTANT	0.21	50	0.98	-20…+50
		1xDL 55 XT	0.21	50	0.98	-20…+50
QTP-OPTIMAL 2X18…40	4008321873767	2xHO 24	0.24	52	0.98	-20…+50
		2xHO 24 CONSTANT	0.24	52	0.98	-20…+50
		2xHO 39	0.24	88	0.99	-20…+50
		2xHO 39 CONSTANT	0.24	88	0.98	-20…+50

Product name	GTIN (EAN)	🔆	A	W SYSTEM	λ	Tₐ
		2xL 15	0.15	31	0.95	-20…+50
		2xL 16 ES	0.15	33	0.95	-20…+50
		2xL 18	0.17	39	0.95	-20…+50
		2xL 18 U	0.17	39	0.95	-20…+50
		2xL 18 XT	0.17	39	0.95	-20…+50
		2xL 18 XXT	0.17	39	0.95	-20…+50
		2xL 30	0.28	63	0.98	-20…+50
		2xL 32 ES	0.28	71	0.98	-20…+50
		2xL 36	0.30	71	0.98	-20…+50
		2xL 36 -1	0.30	71	0.98	-20…+50
		2xL 36 XT	0.30	71	0.98	-20…+50
		2xL 36 XXT	0.30	71	0.98	-20…+50
		2xDL 18	0.16	36	0.95	-20…+50
		2xDL 18 XT	0.16	36	0.95	-20…+50
		2xDL 24	0.23	53	0.98	-20…+50
		2xDL 24 XT	0.23	53	0.98	-20…+50
		2xDL 36	0.30	70	0.98	-20…+50
		2xDL 36 XT	0.30	70	0.98	-20…+50
		2xDL 40	0.37	88	0.99	-20…+50
		2xDL 40 CONSTANT	0.37	88	0.99	-20…+50
		2xDF 18	0.16	33	0.95	-20…+50
		2xDF 24	0.23	50	0.98	-20…+50
		2xDF 36	0.30	67	0.98	-20…+50
QTP-OPTIMAL 2X54…58	**4008321880253**	2xHO 50 ES	0.46	107	0.99	-20…+50
		2xHO 54	0.52	120	0.99	-20…+50
		2xHO 54 CONSTANT	0.52	120	0.99	-20…+50
		2xHO 54 XT	0.52	120	0.99	-20…+50
		2xL 58	0.49	112	0.99	-20…+50
		2xL 58 XT	0.49	112	0.99	-20…+50
		2xL 58 XXT	0.49	112	0.99	-20…+50
		2xDL 55	0.48	110	0.99	-20…+50
		2xDL 55 CONSTANT	0.48	110	0.99	-20…+50
		2xDL 55 XT	0.48	110	0.99	-20…+50

Product name	V min.-max.	kHz ECG	I [mm]	b [mm]	h [mm]	l₁ [mm]	📦	💡 No.
QTP-OPTIMAL 1x18…40	176…276	40…50	280	30	21	270	20	1
QTP-OPTIMAL 1X54…58	176…276	40…50	280	30	21	270	20	1
QTP-OPTIMAL 2X18…40	176…276	40…50	360	30	21	350	20	1
QTP-OPTIMAL 2X54…58	176…276	40…50	360	30	21	350	20	1

Product features

— Supply voltage: 220…240 V
— Line voltage: 198…264 V
— Line frequency: 0 Hz 50 Hz 60 Hz
— Lamp start with optimum filament preheating
— Lifetime: up to 100,000 h (for T = 65 °C at T_c, max. 10 % failure rate)
— Energy Efficiency Index EEI: A2 BAT
— Automatic shutdown of defective lamps and at end of life (EoL T.2)
— Safety according to EN 61347-2-3
— Lamp operation according to EN 60929

Product benefits

— Long lamp life
— No adverse effect from frequent on/off switching

— Automatic restart after lamp replacement
— Perfect lamp start for applications with motion sensors
— VDE/VDE EMC certified system
— Very high energy efficiency due to cut-off technology

Areas of application

— Emergency lighting systems according to EN 50172/DIN VDE 0108-100
— Industry
— Open-plan offices, corridors and storage rooms
— Public buildings
— Sports halls and factories
— Strip lighting
— Suitable for emergency lighting (DC operation)
— Modernization of existing systems
— Suitable for luminaires of protection classes I and II

QUICKTRONIC® FIT 5
ECG for T5/16 mm lamps
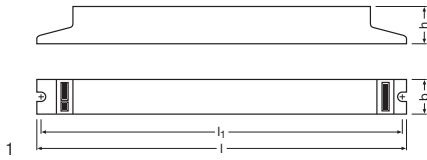
Product name	GTIN (EAN)	![lamp]	A	W SYSTEM	λ	Ta
QT-FIT5 1X14…35	**4008321971234**	1xHE 13 ES	0.07	15	0.95	-15…+50
		1xHE 14	0.08	16	0.95	-15…+50
		1xHE 19 ES	0.10	21	0.95	-15…+50
		1xHE 21	0.11	23	0.95	-15…+50
		1xHE 25 ES	0.12	28	0.96	-15…+50
		1xHE 28	0.14	31	0.96	-15…+50
		1xHE 32 ES	0.15	35	0.97	-15…+50
		1xHE 35	0.17	38	0.97	-15…+50
		1xHE 35 XT	0.17	38	0.97	-15…+50
QT-FIT5 2X14…35	**4008321971258**	2xHE 13 ES	0.13	29	0.95	-15…+50
		2xHE 14	0.14	32	0.98	-15…+50
		2xHE 19 ES	0.19	43	0.98	-15…+50
		2xHE 21	0.22	46	0.98	-15…+50
		2xHE 25 ES	0.25	56	0.98	-15…+50
		2xHE 28	0.26	63	0.98	-15…+50
		2xHE 32 ES	0.32	71	0.98	-15…+50
		2xHE 35	0.35	78	0.98	-15…+50
		2xHE 35 XT	0.35	78	0.98	-15…+50
QT-FIT5 3X14,4X14	**4008321971210**	3xHE 13 ES	0.19	43	0.98	-15…+50
		4xHE 13 ES	0.25	55	0.98	-15…+50
		3xHE 14	0.28	63	0.98	-15…+50
		4xHE 14	0.28	63	0.98	-15…+50
QT-FIT5 1X49	**4008321832139**	1xHO 45 ES	0.21	49	0.98	-15…+50
		1xHO 49	0.24	54	0.98	-15…+50
QT-FIT5 2X49	**4008321832153**	2xHO 45 ES	0.43	98	0.98	-15…+50
		2xHO 49	0.47	106	0.98	-15…+50

Product name	V min.-max.	kHz ECG	l [mm]	b [mm]	h [mm]	l1 [mm]	![box]	No.
QT-FIT5 1X14…35	185…264 [1]	40…50	280	30	21	270	20	1
QT-FIT5 2X14…35	198…264	40…50	280	30	21	270	20	1
QT-FIT5 3X14,4X14	185…264 [1]	40…50	280	40	21	270	20	1
QT-FIT5 1X49	186…276 [1]	40…50	280	30	21	270	20	1
QT-FIT5 2X49	185…264 [1]	40…50	280	30	21	270	20	1

1) Minimum voltage for lamp ignition: 198 V, 185…198 V for maximum 1 h

Product features
— Supply voltage: 220…240 V
— Line voltage: 198…264 V
— Line frequency: 50 Hz 60 Hz
— Lamp start with optimum filament preheating
— Energy Efficiency Index EEI: A2
— Automatic shutdown of defective lamps and at end of life (EoL T.2)
— Lamp operation according to EN 60929
— Safety according to EN 61347-2-3

Product benefits
— Long lamp life
— No adverse effect from frequent on/off switching
— Automatic restart after lamp replacement
— Perfect lamp start for applications with motion sensors
— VDE/VDE EMC certified system
— Very high energy efficiency due to cut-off technology

Areas of application
— Open-plan offices, corridors and storage rooms
— Public buildings
— Strip lighting
— Suitable for emergency lighting (DC operation)
— Suitable for luminaires of protection class I
— Modernization of existing systems

QUICKTRONIC® FIT 5/8

ECG for T5/16 mm and T8/26 mm lamps
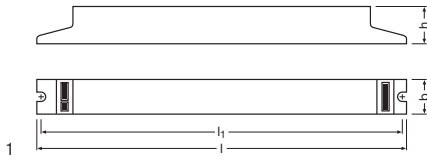
Product name	GTIN (EAN)	💡	A	W SYSTEM	λ	Tₐ
QT-FIT 5/8 1X18…39	**4008321873927**	1xHO 24	0.13	28	0.98	-15…+50
		1xHO 24 CONSTANT	0.13	28	0.98	-15…+50
		1xHO 39	0.19	42	0.98	-15…+50
		1xHO 39 CONSTANT	0.19	42	0.98	-15…+50
		1xL 16 ES	0.08	18	0.96	-15…+50
		1xL 18	0.10	21	0.95	-15…+50
		1xL 18 XT	0.10	21	0.95	-15…+50
		1xL 18 XXT	0.10	21	0.95	-15…+50
		1xL 30	0.15	33	0.98	-15…+50
		1xL 36	0.16	37	0.98	-15…+50
		1xL 36 XT	0.16	16	0.98	-15…+50
		1xL 36 XXT	0.16	37	0.98	-15…+50
QT-FIT 5/8 1X54…58	**4008321873828**	1xHO 50 ES	0.25	59	0.98	-15…+50
		1xHO 54	0.25	59	0.98	-15…+50
		1xHO 54 CONSTANT	0.25	59	0.98	-15…+50
		1xHO 54 XT	0.25	59	0.98	-15…+50
		1xL 58	0.24	54	0.98	-15…+50
		1xL 58 XT	0.24	54	0.98	-15…+50
		1xL 58 XXT	0.24	54	0.98	-15…+50
QT-FIT 5/8 2X18…39	**4008321873903**	2xHO 24	0.24	53	0.98	-15…+50
		2xHO 24 CONSTANT	0.24	53	0.98	-15…+50
		2xHO 39	0.36	80	0.98	-15…+50
		2xHO 39 CONSTANT	0.36	80	0.98	-15…+50
		2xL 16 ES	0.15	33	0.95	-15…+50
		2xL 18 XT	0.17	39	0.95	-15…+50
		2xL 18 XXT	0.17	39	0.95	-15…+50
		2xL 18	0.17	39	0.95	-15…+50
		2xL 30	0.27	63	0.98	+15…+50
		2xL 36	0.31	70	0.98	-15…+50
		2xL 36 XT	0.31	70	0.98	-15…+50
		2xL 36 XXT	0.31	70	0.98	-15…+50
QT-FIT 5/8 2X54…58	**4008321873842**	2xHO 50 ES	0.49	116	0.98	-15…+50
		2xHO 54	0.49	116	0.98	-15…+50
		2xHO 54 CONSTANT	0.49	116	0.98	-15…+50
		2xHO 54 XT	0.49	116	0.98	-15…+50
		2xL 58	0.48	107	0.98	-15…+50
		2xL 58 XT	0.48	107	0.98	-15…+50
		2xL 58 XXT	0.48	107	0.98	-15…+50

Product name	V min.-max.	kHz ECG	l [mm]	b [mm]	h [mm]	l1 [mm]		No.
QT-FIT 5/8 1X18…39	185…264[1]	40…50	280	30	21	270	20	1
QT-FIT 5/8 1X54…58	185…264[1]	40…50	280	30	21	270	20	1
QT-FIT 5/8 2X18…39	185…264[1]	40…50	280	30	21	270	20	1
QT-FIT 5/8 2X54…58	185…264[1]	40…50	280	30	21	270	20	1

1) Minimum voltage for lamp ignition: 198 V, 185…198 V for maximum 1 h

Product features
— Supply voltage: 220…240 V
— Line voltage: 198…264 V
— Line frequency: 50 Hz 60 Hz
— Lamp start with optimum filament preheating
— Energy Efficiency Index EEI: A2
— Automatic shutdown of defective lamps and at end of life (EoL T.2)
— Lamp operation according to EN 60929
— Safety according to EN 61347-2-3

Product benefits
— Long lamp life
— No adverse effect from frequent on/off switching
— Automatic restart after lamp replacement
— Perfect lamp start for applications with motion sensors
— VDE/VDE EMC certified system
— Very high energy efficiency due to cut-off technology

Areas of application
— Open-plan offices, corridors and storage rooms
— Public buildings
— Strip lighting
— Suitable for emergency lighting (DC operation)
— Suitable for luminaires of protection class I
— Modernization of existing systems

QUICKTRONIC® FIT 8
ECG for T8/26 mm lamps
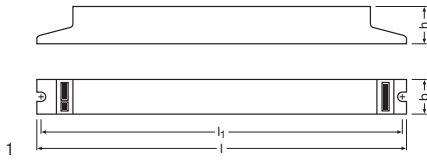
Product name	GTIN (EAN)	▣💡	A	W SYSTEM	λ	Ta
QT-FIT8 1X18	**4008321294180**	1xL 16 ES	0.08	17	0.90 c	+10…+50
		1xL 18	0.09	19	0.95	-15…+50
		1xL 18 XT	0.09	19	0.95	-15…+50
		1xL 18 XXT	0.09	19	0.95	-15…+50
QT-FIT8 1X36	**4008321294203**	1xL 32 ES	0.15	32	0.93 c	+10…+50
		1xL 36	0.16	36	0.96	-15…+50
		1xL 36 XT	0.16	36	0.96	-15…+50
QT-FIT8 1X58…70	**4008321294227**	1xL 51 ES	0.23	50	0.96	+10…+50
		1xL 58	0.24	54	0.96	-15…+50
		1xL 58 XT	0.16	36	0.96	-15…+50
		1xL 70	0.28	62	0.96	-15…+50
QT-FIT8 2X18	**4008321294241**	2xL 16 ES	0.14	32	0.97	+10…+50
		2xL 18	0.16	36	0.98	-15…+50
		2xL 18 XT	0.16	36	0.98	-15…+50
		2xL 18 XXT	0.16	36	0.98	-15…+50
QT-FIT8 2X36	**4008321294265**	2xL 32 ES	0.296	64	0.97	+10…+50
		2xL 36	0.32	71	0.98	-15…+50
		2xL 36 XT	0.32	71	0.98	-15…+50
QT-FIT8 2X58…70	**4052899151932**	2xL 51 ES	0.43	96	0.98	+10…+50
		2xL 58	0.48	109	0.98	-15…+50
		2xL 58 XT	0.32	71	0.98	-15…+50
		2xL 70	0.55	124	0.98	-15…+50
QT-FIT8 2X58	**4008321294289**	2xL 51 ES	0.43	96	0.98	+10…+50
		2xL 58	0.48	109	0.98	-15…+50
		2xL 58 XT	0.32	71	0.98	-15…+50
QT-FIT8 3X18,4X18	**4008321294302**	4xL 16 ES	0.28	21	0.98	+10…+50

Product name	▯V min.-max.	kHz ECG	l [mm]	b [mm]	h [mm]	l₁ [mm]	▱	💡 No.
QT-FIT8 1X18	185…264 [1]	40…50	280	30	28	270	20	1
QT-FIT8 1X36	185…264 [1]	40…50	280	30	28	270	20	1
QT-FIT8 1X58…70	185…264 [1]	40…50	280	30	28	270	20	1
QT-FIT8 2X18	185…264 [1]	40…50	360	30	28	350	20	1
QT-FIT8 2X36	185…264 [1]	40…50	360	30	28	350	20	1
QT-FIT8 2X58…70	185…264 [1]	40…50	360	30	28	350	20	1
QT-FIT8 2X58	185…264 [1]	40…50	360	30	28	350	20	1
QT-FIT8 3X18,4X18	185…264 [1]	40…50	280	40	28	270	20	1

1) Minimum voltage for lamp ignition: 198V, 185…198V for maximum 1 h

Product features
— Supply voltage: 220…240 V
— Line voltage: 198…264 V
— Line frequency: 50 Hz 60 Hz
— Lamp start with optimum filament preheating
— Energy Efficiency Index EEI: A2
— Automatic shutdown of defective lamps and at end of life (EoL T.2)
— Lamp operation according to EN 60929
— Safety according to EN 61347-2-3

Product benefits
— Long lamp life
— No adverse effect from frequent on/off switching
— Automatic restart after lamp replacement
— Perfect lamp start for applications with motion sensors
— VDE/VDE EMC certified system
— Very high energy efficiency due to cut-off technology

Areas of application
— Open-plan offices, corridors and storage rooms
— Public buildings
— Strip lighting
— Suitable for emergency lighting (DC operation)
— Suitable for luminaires of protection class I

QUICKTRONIC® QTz8
ECG for T8/26 mm lamps
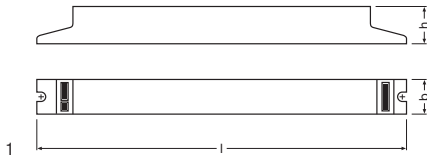
Product name	GTIN (EAN)	🔅	A	W SYSTEM	λ
QTz8 1X18	**4008321863263**	1xL 18	0.09	20	0.95
QTz8 1X36	**4008321863287**	1xL 36	0.16	36	0.96
QTz8 2X18	**4008321863300**	2xL 18	0.09	23	0.95
QTz8 2X36	**4008321863324**	2xL 36	0.32	71	0.98
QTz8 3X18	**4008321863348**	3xL 18	0.25	54	0.97
QTz8 4X18	**4008321863362**	4xL 18	0.25	54	0.97

Product name	T_a	kHz ECG	l [mm]	b [mm]	h [mm]	📦	🔅 No.
QTz8 1X18	-15…+50	30…45	150	40	28	20	1
QTz8 1X36	-15…+50	30…45	150	40	28	20	1
QTz8 2X18	-15…+50	30…45	150	40	28	20	1
QTz8 2X36	-15…+50	30…45	210	40	30	20	1
QTz8 3X18	-15…+50	30…45	210	40	30	20	1
QTz8 4X18	-15…+50	30…45	210	40	30	20	1

Product features
— Supply voltage: 220…240 V
— Line voltage: 198…264 V
— Line frequency: 50 Hz 60 Hz
— Energy Efficiency Index EEI: A2

Areas of application
— Public buildings
— Sports halls
— Strip lighting
— Suitable for luminaires of protection class I

Product benefits
— Compact housing
— Automatic restart after lamp replacement

QUICKTRONIC® PROFESSIONAL
ECG for DULUX® L and DULUX® F lamps
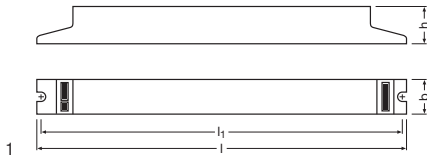
Product name	GTIN (EAN)	💡	A	W SYSTEM	λ	Ta
QTP-DL 1X18…24	**4008321117861**	1xDL 18	0.085	18	0.95	-20…+50
		1xDL 18 XT	0.085	18	0.95	-20…+50
		1xDL 24	0.115	26	0.95	-20…+50
		1xDL 24 XT	0.115	26	0.95	-20…+50
		1xDF 18	0.085	18	0.95	-20…+50
		1xDF 24	0.115	26	0.95	-20…+50
		1xL 15	0.08	17	0.95	-20…+50
		1xL 18	0.09	18	0.95	-20…+50
		1xL 18 XT	0.09	18	0.95	-20…+50
		1xL 18 XXT	0.09	18	0.95	-20…+50
QTP-DL 1X36…40	**4008321117908**	1xDL 36	0.17	35	0.99	-20…+50
		1xDL 36 XT	0.17	35	0.99	-20…+50
		1xDL 40	0.21	45	0.99	-20…+50
		1xDL 40 CONSTANT	0.21	45	0.99	-20…+50
		1xDF 36	0.17	35	0.99	-20…+50
		1xL 36	0.17	38	0.99	-20…+50
		1xL 36 -1	0.15	31	0.99	-20…+50
QTP-DL 2X18…24	**4008321117885**	2xDL 18	0.16	36	0.98	-20…+50
		2xDL 18 XT	0.16	36	0.98	-20…+50
		2xDL 24	0.22	49	0.98	-20…+50
		2xDL 24 XT	0.22	49	0.98	-20…+50
		2xDF 18	0.16	36	0.98	-20…+50
		2xDF 24	0.22	49	0.98	-20…+50
		2xL 15	0.15	32	0.98	-20…+50
		2xL 18	0.17	37	0.98	-20…+50
		2xL 18 XT	0.17	37	0.98	-20…+50
		2xL 18 XXT	0.17	37	0.98	-20…+50
QTP-DL 2X36…40	**4008321117922**	2xDL 36	0.33	68	0.99	-20…+50
		2xDL 36 XT	0.33	68	0.99	-20…+50
		2xDL 40	0.21	90	0.99	-20…+50
		2xDL 40 CONSTANT	0.21	90	0.99	-20…+50
		2xDF 36	0.33	68	0.99	-20…+50
		2xL 36	0.35	81	0.99	-20…+50
		2xL 36 -1	0.28	60	0.99	-20…+50
QTP-DL 1X55 GII	**4008321390158**	1xDL 55	0.26	59	0.99	-20…+50
		1xDL 55 CONSTANT	0.26	59	0.99	-20…+50
		1xDL 55 XT	0.26	59	0.99	-20…+50
QTP-DL 2X55 GII	**4008321390172**	2xDL 55	0.51	116	0.99	-20…+50
		2xDL 55 CONSTANT	0.51	116	0.99	-20…+50
		2xDL 55 XT	0.51	116	0.99	-20…+50

Product name	$\square$V min.-max.	kHz ECG	l [mm]	b [mm]	h [mm]	l₁ [mm]	📦	💡 No.
QTP-DL 1X18…24	176…276[1]	45…50	239	30	28	229	20	1
QTP-DL 1X36…40	154…276[1]	45…50	239	30	28	229	20	1
QTP-DL 2X18…24	154…276[1]	41…46	239	40	28	229	20	1
QTP-DL 2X36…40	154…276[1]	45…50	280	40	28	270	20	1
QTP-DL 1X55 GII	176…276[1]	40…50	280	30	21	270	20	1
QTP-DL 2X55 GII	176…276[1]	40…50	360	30	21	350	20	1

1) Minimum voltage for lamp ignition: 198 V

Product features
— Supply voltage: 220…240 V
— Line voltage: 198…264 V
— Line frequency: 0 Hz 50 Hz 60 Hz
— Lamp start with optimum filament preheating
— Energy Efficiency Index EEI: A2 BAT
— Automatic shutdown of defective lamps and at end of life (EoL T.2)
— Lamp operation according to EN 60929
— Safety according to EN 61347-2-3

Product benefits
— Long lamp life
— No adverse effect from frequent on/off switching
— Automatic restart after lamp replacement
— Perfect lamp start for applications with motion sensors
— VDE/VDE EMC certified system
— Very high energy efficiency due to cut-off technology

Areas of application
— Emergency lighting systems according to EN 50172/DIN VDE 0108-100
— Open-plan offices, corridors and storage rooms
— Public buildings
— Suitable for luminaires of protection classes I and II

QUICKTRONIC® PROFESSIONAL
ECG for T5/16 mm – circular lamps
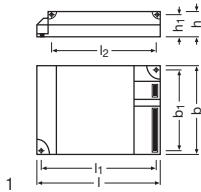
Product name	GTIN (EAN)	![lamp]	A	W SYSTEM	λ	Ta	☐V min.-max.
QTP-FC 1X55	4008321537041	1xDL 55 CONSTANT	0.26	59	0.98	-20…+50	176…276
		1xDL 55 XT	0.26	59	0.98	-20…+50	
		1xDL 55	0.26	59	0.98	-20…+50	
		1xFC 55	0.26	59	0.98	-20…+50	

Product name	kHz ECG	l [mm]	b [mm]	h [mm]	l1 [mm]	b1 [mm]	![pack]	No.
QTP-FC 1X55	40…50	103	67	31	94	67	20	1

Product features
— Supply voltage: 220…240 V
— Line voltage: 198…264 V
— Line frequency: 0 Hz 50 Hz 60 Hz
— Lamp start with optimum filament preheating
— Energy Efficiency Index EEI: A2 BAT
— Automatic shutdown of defective lamps and at end of life (EoL)
— Lamp operation according to EN 60929
— Safety according to EN 61347-2-3

Product benefits
— Long lamp life
— No adverse effect from frequent on/off switching
— Automatic restart after lamp replacement
— Perfect lamp start for applications with motion sensors
— Separate installations thanks to optional cable clamp for K2 and K3 casings
— VDE/VDE EMC certified system

Areas of application
— Emergency lighting systems according to EN 50172/DIN VDE 0108-100
— Open-plan offices, corridors and storage rooms
— Public buildings
— Suitable for luminaires of protection class I

QUICKTRONIC® MULTIWATT
ECG for CFL

1
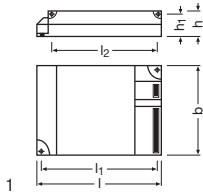
Product name	GTIN (EAN)	💡	A	W SYSTEM	λ	Tₐ
QT-M 2X26…42 S	**4008321110022**	2xDL 24	0.23	54	0.97	-20…+50
		2xDL 24 XT	0.23	54	0.97	-20…+50
		2xDL 36	0.30	70	0.97	-20…+50
		2xDL 36 XT	0.30	70	0.97	-20…+50
		2xDF 24	0.23	54	0.97	-20…+50
		2xDF 36	0.30	70	0.97	-20…+50
		2xDD/E 26	0.23	54	0.97	-20…+50
		2xDT/E 26	0.23	54	0.97	-20…+50
		2xDT/E 26 CONSTANT	0.23	54	0.97	-20…+50
		2xDT/E 32	0.30	70	0.97	-20…+50
		2xDT/E 32 XT	0.30	70	0.97	-20…+50
		2xDT/E 32 CONSTANT	0.30	70	0.97	-20…+50
		2xDT/E 42	0.39	92	0.97	-20…+50
		2xDT/E 42 CONSTANT	0.39	92	0.97	-20…+50
		2xHO 24	0.23	54	0.97	-20…+50
		2xHO 24 CONSTANT	0.23	54	0.97	-20…+50
		2xL 36	0.30	70	0.97	-20…+50
		2xFC 22	0.36	54	0.97	-20…+50
		2xFC 40	0.36	88	0.97	-20…+50
QTP-M 1X26…42 [1]	**4008321329134**	1xDL 18	0.09	18	0.88 c	-20…+50
		1xDL 18 XT	0.09	18	0.88 c	-20…+50
		1xDL 24	0.12	25	0.94 c	-20…+50
		1xDL 24 XT	0.12	25	0.94 c	-20…+50
		1xDL 36	0.16	35	0.97	-20…+50
		1xDL 36 XT	0.16	35	0.97	-20…+50
		1xDL 40	0.19	43	0.98	-20…+50
		1xDL 40 CONSTANT	0.19	43	0.98	-20…+50
		1xDF 18	0.09	19	0.88 c	-20…+50
		1xDF 24	0.12	25	0.94 c	-20…+50
		1xDF 36	0.16	35	0.96	-20…+50
		1xDD/E 26	0.12	27	0.95	-20…+50
		1xDD/E 26 XT	0.12	27	0.95	-20…+50
		1xDT/E 26	0.12	27	0.95	-20…+50
		1xDT/E 26 CONSTANT	0.12	27	0.95	-20…+50
		1xDT/E 32	0.16	35	0.97	-20…+50
		1xDT/E 32 CONSTANT	0.16	35	0.97	-20…+50
		1xDT/E 32 XT	0.16	35	0.97	-20…+50
		1xDT/E 42	0.20	46	0.97	-20…+50
		1xDT/E 42 CONSTANT	0.20	46	0.97	-20…+50
		1xHO 24	0.12	25	0.95	-20…+50
		1xHO 24 CONSTANT	0.12	25	0.95	-20…+50

Product name	GTIN (EAN)	▪💡	A	W SYSTEM	λ	Ta
		1xHO 39	0.18	41	0.97	-20…+50
		1xHO 39 CONSTANT	0.18	41	0.97	-20…+50
		1xFC 22	0.12	25	0.94 c	-20…+50
		1xFC 40	0.19	43	0.97	-20…+50
		1xL 18	0.10	19	0.88 c	-20…+50
		1xL 18 XT	0.10	19	0.88 c	-20…+50
		1xL 18 XXT	0.10	19	0.88 c	-20…+50
		1xL 36	0.16	35	0.97	-20…+50
QTP-M 2X26…32 [1]	4008321329158	2xDL 18	0.16	36	0.95	-20…+50
		2xDL 18 XT	0.16	36	0.95	-20…+50
		2xDL 24	0.22	48	0.97	-20…+50
		2xDL 24 XT	0.22	48	0.97	-20…+50
		2xDL 36	0.30	68	0.97	-20…+50
		2xDL 36 XT	0.30	68	0.97	-20…+50
		2xDF 18	0.16	36	0.95	-20…+50
		2xDF 24	0.21	48	0.97	-20…+50
		2xDF 36	0.30	68	0.97	-20…+50
		2xDT/E 26	0.24	53	0.97	-20…+50
		2xDT/E 26 CONSTANT	0.24	53	0.97	-20…+50
		2xDT/E 32	0.30	68	0.97	-20…+50
		2xDT/E 32 CONSTANT	0.30	68	0.97	-20…+50
		2xDT/E 32 XT	0.30	68	0.97	-20…+50
		1xDT/E 42	0.20	46	0.97	-20…+50
		1xDT/E 42 CONSTANT	0.20	46	0.97	-20…+50
		2xDD/E 26	0.24	53	0.97	-20…+50
		2xDD/E 26 XT	0.24	53	0.97	-20…+50
		2xHO 24	0.23	49	0.97	-20…+50
		2xHO 24 CONSTANT	0.23	49	0.97	-20…+50
		2xFC 22	0.22	49	0.97	-20…+50
		2xFC 22+40	0.30	67	0.97	-20…+50
		2xL 18	0.17	36	0.95	-20…+50
		2xL 18 XT	0.17	36	0.95	-20…+50
		2xL 18 XXT	0.17	36	0.95	-20…+50

Product name	V min.-max.	kHz ECG	l [mm]	b [mm]	h [mm]	l1 [mm]	📦	💡 No.
QT-M 2X26…42 S	176…254 [2]	45 [3]	123	79	33	111	20	1
QTP-M 1X26…42 [1]	176…276	47 [3]	103	67	31	94	20	1
QTP-M 2X26…32 [1]	176…276	45 [3]	123	79	33	111	20	1

1) Optional cable clamp, see page 5.61
2) Minimum voltage for lamp ignition: 198 V
3) Approximately

Product features

— Supply voltage: 220…240 V
— Line voltage: 198…264 V
— Line frequency: 0 Hz 50 Hz 60 Hz
— Lamp start with optimum filament preheating
— Energy Efficiency Index EEI: A2
— Automatic shutdown of defective lamps and at end of life (EoL T.2)
— Lamp operation according to EN 60929
— Safety according to EN 61347-2-3

Areas of application

— Emergency lighting systems according to EN 50172/DIN VDE 0108-100
— Public buildings
— Sports halls and factories

Product benefits

— Long lamp life
— No adverse effect from frequent on/off switching
— Automatic restart after lamp replacement
— Perfect lamp start for applications with motion sensors
— Separate installations thanks to optional cable clamp for K2 and K3 casings
— VDE/VDE EMC certified system
— Suitable for luminaires of protection class I

QUICKTRONIC® ECONOMIC
ECG for CFL
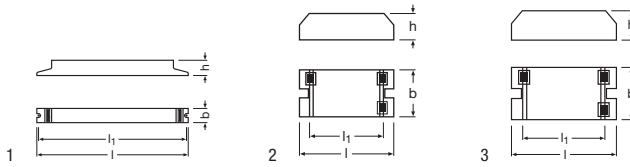
Product name	GTIN (EAN)	💡	A	W SYSTEM	λ	Ta
QT-ECO 1X4…16 L	**4050300660370**	1xDS/E 7	0.06	9	0.60 c	-15…+50
		1xDS/E 9	0.07	10	0.60 c	-15…+50
		1xDS/E 11	0.09	13	0.60 c	-15…+50
		1xDD/E 10	0.08	12	0.60 c	-15…+50
		1xDD/E 13	0.10	14	0.60 c	-15…+50
		1xDT/E 13	0.10	14	0.60 c	-15…+50
		1xHE 14	0.10	15	0.60 c	-15…+50
		1xL 10	0.10	12	0.60 c	-15…+50
		1xL 13 BASIC	0.08	15	0.60 c	-15…+50
		1xL 16	0.11	16	0.60 c	-15…+50
		1xL 4 BASIC	0.05	7	0.60 c	-15…+50
		1xL 6 BASIC	0.06	9	0.60 c	-15…+50
		1xL 8 BASIC	0.07	11	0.60 c	-15…+50
QT-ECO 1X4…16 S	**4050300638584**	1xDS/E 7	0.06	9	0.60 c	-15…+50
		1xDS/E 9	0.07	10	0.60 c	-15…+50
		1xDS/E 11	0.09	13	0.60 c	-15…+50
		1xDD/E 10	0.08	12	0.60 c	-15…+50
		1xDD/E 13	0.10	14	0.60 c	-15…+50
		1xDT/E 13	0.10	14	0.60 c	-15…+50
		1xHE 14	0.10	15	0.60 c	-15…+50
		1xL 10	0.10	12	0.60 c	-15…+50
		1xL 13 BASIC	0.08	15	0.60 c	-15…+50
		1xL 16	0.11	16	0.60 c	-15…+50
		1xL 4 BASIC	0.05	7	0.60 c	-15…+50
		1xL 6 BASIC	0.06	9	0.60 c	-15…+50
		1xL 8 BASIC	0.07	11	0.60 c	-15…+50
QT-ECO 1X18…24 L	**4050300660417**	1xDL 18	0.13	18	0.92 c	-15…+50
		1xDL 24	0.16	23	0.60 c	-15…+50
		1xDF 18	0.13	18	0.60 c	-15…+50
		1xDF 24	0.16	23	0.60 c	-15…+50
		1xHO 24	0.15	20	0.60 c	-15…+50
		1xL 15	0.13	17	0.60 c	-15…+50
		1xL 18	0.14	19	0.60 c	-15…+50
		1xL 18 U	0.14	20	0.60 c	-15…+50
		1xL 22 C	0.14	20	0.60 c	-15…+50
		1xFC 22	0.16	23	0.60 c	-15…+50
QT-ECO 1X18…21 S	**4050300794907**	1xDD/E 18	0.14	19	0.60 c	-15…+50
		1xDT/E 18	0.14	19	0.60 c	-15…+50
		1xHE 21	0.17	23	0.60 c	-15…+50
QT-ECO 1X18…24 S	**4050300638560**	1xDL 18	0.13	18	0.92 c	-15…+50
		1xDL 24	0.16	23	0.60 c	-15…+50

Product name	GTIN (EAN)	[lamp]	A	W SYSTEM	λ	Ta
		1xDF 18	0.13	18	0.60 c	-15…+50
		1xDF 24	0.16	23	0.60 c	-15…+50
		1xHO 24	0.15	20	0.60 c	-15…+50
		1xL 15	0.13	17	0.60 c	-15…+50
		1xL 18	0.14	19	0.60 c	-15…+50
		1xL 18 U	0.14	20	0.60 c	-15…+50
		1xL 22 C	0.14	20	0.60 c	-15…+50
		1xFC 22	0.16	23	0.60 c	-15…+50
QT-ECO 1X26 S	**4008321065971**	1xDD/E 26	0.18	24	0.60 c	-15…+50
		1xDD/E 26 XT	0.18	24	0.60 c	-15…+50
		1xDT/E 26	0.18	24	0.60 c	-15…+50
QT-ECO 2X5…11 S	**4050300821504**	2xDS/E 7	0.11	15	0.60 c	-15…+50
		2xDS/E 9	0.13	18	0.60 c	-15…+50
		2xDS/E 11	0.16	24	0.60 c	-15…+50
		2xDD/E 10	0.14	20	0.60 c	-15…+50
		2xL 6 BASIC	0.11	15	0.60 c	-15…+50
		2xL 8 BASIC	0.13	18	0.60 c	-15…+50
		2xL 10	0.14	20	0.60 c	-15…+50

Product name	V min.-max.	kHz ECG	l [mm]	b [mm]	h [mm]	l₁ [mm]	[pack]	No.
QT-ECO 1X4…16 L	176…254	35…45[1]	150	22	22	140	50	1
QT-ECO 1X4…16 S	176…254	35…45[1]	80	40	22	72	50	2
QT-ECO 1X18…24 L	176…254	35…45[1]	150	22	22	140	50	1
QT-ECO 1X18…21 S	176…254	35…45	80	40	22	72	50	2
QT-ECO 1X18…24 S	176…254	35…45[1]	80	40	22	72	50	2
QT-ECO 1X26 S	176…254	35…45	80	40	22	72	50	2
QT-ECO 2X5…11 S	176…254	35…45	80	40	22	72	50	3

1) Approximately

Product features
— Supply voltage: 220…240 V
— Line voltage: 198…264 V
— Line frequency: 50 Hz 60 Hz
— Energy Efficiency Index EEI:
  A2/A3 (depending on lamp)
— Automatic shutdown of defective lamps and at end
  of life (EoL)

Product benefits
— Compact housing
— Automatic restart after lamp replacement

Areas of application
— Public buildings

QUICKTRONIC® PROFESSIONAL
ECG for CFL

1
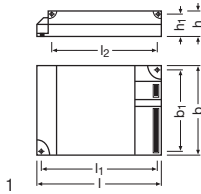
Product name	GTIN (EAN)	![lamp]	A	W SYSTEM	λ	Ta	V min.-max.
QTP-D/E 1X10…13 [1]	**4008321181572**	1xDS/E 9	0.05	10	0.92 c	-20…+50	176…276 [3]
		1xDS/E 11	0.06	14	0.95	-20…+50	
		1xDD/E 10	0.05	12	0.95	-20…+50	
		1xDD/E 13	0.07	15	0.95	-20…+50	
		1xDT/E 13	0.07	15	0.95	-20…+50	
QTP-D/E 2X10…13 [1]	**4008321181596**	2xDS/E 9	0.09	18	0.92 c	-20…+50	176…276 [3]
		2xDS/E 11	0.12	28	0.95	-20…+50	
		2xDD/E 10	0.09	21	0.95	-20…+50	
		2xDD/E 13	0.13	29	0.95	-20…+50	
		2xDT/E 13	0.13	29	0.95	-20…+50	
QTP-T/E 1x18,2x18	**4008321537065**	1xDD/E 18, DT/E 18	0.09	19	0.90 c	-20…+50	176…264
		2xDD/E 18, DT/E 18	0.16	36	0.98	-20…+50	
QTP-T/E 1X26…42,2X26 [1]	**4008321537089**	1xDD/E 26	0.13	28	0.95	-20…+50	176…264
		2xDD/E 26	0.24	54	0.98	-20…+50	
		1xDT/E 32	0.15	35	0.95	-20…+50	
		2xDT/E 26	0.24	54	0.98	-20…+50	
		1xDT/E 42	0.20	45	0.95	-20…+50	

Product name	kHZ ECG	l [mm]	b [mm]	h [mm]	l1 [mm]	b1 [mm]	![pack]	![lamp] No.
QTP-D/E 1X10…13 [1]	44 [2]	93	58	29	84	48	20	1
QTP-D/E 2X10…13 [1]	44 [2]	123	79	33	111	67	20	1
QTP-T/E 1x18,2x18	40…50	103	67	31	94	57	20	1
QTP-T/E 1X26…42,2X26 [1]	40…50	103	67	31	94	57	20	1

1) Optional cable clamp, see page 5.61
2) Approximately
3) Minimum voltage for lamp ignition: 198 V

Product features
— Supply voltage: 220…240 V
— Line voltage: 198…264 V
— Line frequency: 0 Hz 50 Hz 60 Hz
— Lamp start with optimum filament preheating
— Energy Efficiency Index EEI: A2
— Automatic shutdown of defective lamps and at end of life (EoL T.2)
— Lamp operation according to EN 60929
— Safety according to EN 61347-2-3

Product benefits
— Long lamp life
— No adverse effect from frequent on/off switching
— Automatic restart after lamp replacement
— Perfect lamp start for applications with motion sensors
— Separate installations thanks to optional cable clamp for K2 and K3 casings
— VDE/VDE EMC certified system

Areas of application
— Emergency lighting systems according to EN 50172/DIN VDE 0108-100
— Public buildings
— Sports halls and factories
— Suitable for luminaires of protection class I

POWERTRONIC®

Electronic control gears for optimum operation of HCI®, HQI®
and NAV® lamps

POWERTRONIC® ECGs have a wide
variety of uses. Their low weight and small
volume increase the scope for luminaire
design and system planning.

POWERTRONIC® ECGs make the eco-
nomical light from metal halide lamps
even more comfortable and reliable by
constantly monitoring lamp starts and
lamp operation and by reliably disconnecting
the lamps when appropriate.

POWERTRONIC® ECGs can be used in the
following applications:

For outdoor lighting:

3DIM DALI StepDIM AstroDIM

PTo 3DIM: Robust HID ECG – lightning-
proof to 10 kV, vibration-tested (EN 60598),
approved for luminaires with protection
classes I and II, 3 control options:
— DALI-1 control or
— StepDIM (2-step switching) or
— AstroDIM (dimming via integrated timer
  control)

For indoor lighting, with strain relief for
separate mounting:
PTi I: Reliable technology for long system life
PT-FIT I: For standard applications

For luminaire installation:
PTi S: Reliable technology for long system life
PT-FIT S: For standard applications

Accessories
EBN-OS inrush current limiter for more
installation flexibility

Areas of application
— Retail spaces/store windows
— Foyers/entrance halls
— Production facilities/industrial plants
— Public buildings
— Art galleries/museums/exhibition spaces
— Streets/parks/outdoor facilities (PTo)

Comfort
— Flicker-free light
— Greater color stability and less scatter
  in the color locus
— No flashing of old or faulty lamps

Improved cost efficiency with POWERTRONIC® ECGs compared to standard control gears
— Energy efficiency class A2
— Up to 15 % higher system efficiency
— Up to 20 % better luminous flux mainte-
  nance and less scatter of luminous flux
— Up to 30 % longer lamp life

Safety
— Reliable switch-off of aging or faulty
  lamps for greater system safety and
  reliability
— Integrated ignition time restriction
  prevents attempts to ignite faulty or old
  lamps, thus preventing lamp cycling
  and radio interference

Guarantee
OSRAM provides customers with its long-
running 5-year guarantee for PT ECGs.*

* For conditions and details, go to
www.osram.com/cb/services/guarantees/multilevel-guarantees/index.jsp

POWERTRONIC® OUTDOOR PTo
ECG for HID lamps, for outdoor lighting
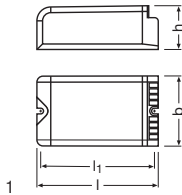
Product name	GTIN (EAN)	W	A [1]	kV START	CONTROL	W	Ta	Tc
PTo 35/220…240	4008321956323	39	0.20 [1]	4.5 kVp	-	-	-25…+60	75
PTo 50/220…240 3DIM	4008321956347	50	0.26 [1]	4.5 kVp	DALI / StepDIM / AstroDIM	60…100 %	-25…+55	75
PTo 70/220…240 3DIM	4008321959355	73	0.35 [1]	4.5 kVp	DALI / StepDIM / AstroDIM	60…100 %	-25…+55	75
PTo 100/220…240 3DIM	4008321956361	100	0.48 [1]	4.5 kVp	DALI / StepDIM / AstroDIM	60…100 %	-25…+55	75
PTo 150/220…240 3DIM	4008321956385	147	0.71 [1]	4.5 kVp	DALI / StepDIM / AstroDIM	60…100 %	-25…+55	85
PTo 250/220…240 3DIM	4008321863669	250	1.17 [1]	4.5 kVp	DALI / StepDIM / AstroDIM	60…100 %	-25…+55	85

Product name	I_{max}	l [mm]	b [mm]	h [mm]	l_1 [mm]		No.
PTo 35/220…240	1.5	133	77	48	123	20	1
PTo 50/220…240 3DIM	1.5	133	77	48	123	20	1
PTo 70/220…240 3DIM	1.5	133	77	48	123	20	1
PTo 100/220…240 3DIM	1.5	158	94	43	148	10	1
PTo 150/220…240 3DIM	1.5	158	94	43	148	10	1
PTo 250/220…240 3DIM	1.5	170	90	60	160	10	1

1) At 230V_{AC}

Product features
— 3DIM functionality (StepDIM/AstroDIM/DALI)
— Energy Efficiency Index EEI: A2
— Lightning protection: up to 10 kV
— Supply voltage: 220…240 V
— Line frequency: 50…60 Hz
— Line harmonics according to EN 61000-3-2
— Immunity according to EN 61547
— RI suppression according to EN 55015
— Safety according to EN 61347-2-12
— Luminous flux factor 1 compared with CCG operation
— Not suitable for DC operation

Product benefits
— Energy savings of up to 30 % (compared to CCG operation) thanks to 3DIM (except PTo 35)
— High surge protection: up to 3 kV (L-N)/4 kV (L/N-PE)
— Automatic safety shutdown of lamps in the event of a defect or at end of life (EoL)
— Excellent thermal behavior for very high limit temperatures T_c and T_a

Areas of application
— Suitable for luminaires of protection classes I and II
— Suitable for outdoor applications in luminaires with IP > 54

POWERTRONIC® INTELLIGENT PTi S
ECG for HID lamps, for installation in luminaires
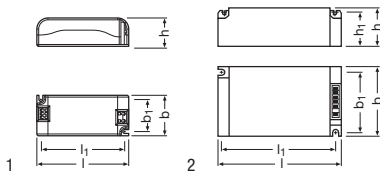
Product name	GTIN (EAN)	W	A	kV START	kHz ECG	Ta	Tc	max.
PTi 35/220…240 S	**4008321073112**	39	0.19 [1]	4.5 kVp	0.200…0.240	-25…+65	85	1.5
PTi 35/220…240 S MINI	**4008321955906**	39	0.19 [1]	3.0 kVp	0.100…0.120	-25…+50	80	0.5
PTi 70/220…240 S	**4008321049629**	73	0.36 [1]	4.5 kVp	0.200…0.240	-25…+55	85	1.5
PTi 150/220…240 S	**4008321188090**	147	0.72 [1]	4.5 kVp	0.165	-25…+55	85	1.5

Product name	l [mm]	b [mm]	h [mm]	l₁ [mm]	b₁ [mm]		No.
PTi 35/220…240 S	110	75	30	99	64	20	2
PTi 35/220…240 S MINI	97	43	30	88	34	20	1
PTi 70/220…240 S	110	75	30	99	64	20	2
PTi 150/220…240 S	150	85	31	139	74	20	2

1) At 230V_{AC}

Product features
— Energy Efficiency Index EEI: A2
— Supply voltage: 220…240 V
— Line frequency: 50…60 Hz
— RI suppression according to EN 55015/CISPR 15
— Safety according to EN 61347-2-12
— Line harmonics according to EN 61000-3-2
— Immunity according to EN 61547

Product benefits
— Long reliable life at maximum permitted temperatures
— Compact dimensions and low weight for small luminaire designs
— Excellent thermal behavior for very high limit temperatures T_c and T_a
— Automatic safety shutdown of lamps in the event of a defect or at end of life (EoL)

Areas of application
— Shop lighting
— Health and fitness areas
  (in luminaires with protection class IP66 or higher)
— Effect and accent lighting

POWERTRONIC® INTELLIGENT PTi I
ECG for HID lamps, with cable clamp
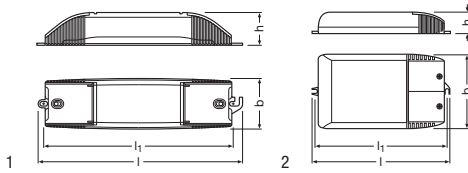
Product name	GTIN (EAN)	W	A	kV START	kHz ECG	T_a	T_c
PTi 20/220…240 I	**4008321404763**	20	0.11 [1]	3.0 kVp	0.100…0.120	-25…+60	75
PTi 35/220…240 I	**4008321099488**	39	0.19 [1]	4.5 kVp	0.200…0.240	-25…+65	80
PTi 70/220…240 I	**4008321099501**	73	0.36 [1]	4.5 kVp	0.200…0.240	-25…+50	80
PTi 150/220…240 I	**4008321915535**	147	0.72 [1]	4.5 kVp	0.165	-25…+50	75

Product name	max.	l [mm]	b [mm]	h [mm]	l_1 [mm]		No.
PTi 20/220…240 I	1.5	204	50	32	187	20	1
PTi 35/220…240 I	1.5	171	83	32	163	20	2
PTi 70/220…240 I	1.5	171	83	32	163	20	2
PTi 150/220…240 I	1.5	212	93	33	203	20	2

1) At 230V_{AC}

Product features
— Energy Efficiency Index EEI: A2
— Supply voltage: 220…240 V
— Line frequency: 50…60 Hz
— RI suppression according to EN 55015/CISPR 15
— Safety according to EN 61347-2-12
— Line harmonics according to EN 61000-3-2
— Immunity according to EN 61547

Product benefits
— Extended terminal section enables mains looping
— Screw-down cable clamps for reliable strain relief
— Long reliable life at maximum permitted temperatures
— Automatic safety shutdown of lamps in the event of a defect or at end of life (EoL)

Areas of application
— Shop lighting
— Health and fitness areas
  (in luminaires with protection class IP66 or higher)
— Effect and accent lighting

POWERTRONIC® PT-FIT S
ECG for HID lamps, for installation in luminaires

Product name	GTIN (EAN)	W	A	kV START	kHz ECG	Ta	Tc	max
PT-FIT 35/220…240 S	**4008321386625**	39	0.19 [1]	4.5 kVp	0.200…0.240	-15…+65	85	1.5
PT-FIT 70/220…240 S	**4008321386649**	73	0.36 [1]	4.5 kVp	0.200…0.240	-15…+55	85	1.5

Product name	l [mm]	b [mm]	h [mm]	l1 [mm]	b1 [mm]		No.
PT-FIT 35/220…240 S	110	75	30	99	64	20	1
PT-FIT 70/220…240 S	110	75	30	99	64	20	1

1) At 230V_{AC}

Product features
— Energy Efficiency Index EEI: A2
— Supply voltage: 220…240 V
— Line frequency: 50…60 Hz
— RI suppression according to EN 55015/CISPR 15
— Safety according to EN 61347-2-12
— Line harmonics according to EN 61000-3-2
— Immunity according to EN 61547

Product benefits
— Optimized cost/benefit factor
— Compact dimensions and low weight for small
luminaire designs
— Automatic safety shutdown of lamps in the event of a
defect or at end of life (EoL)

Areas of application
— Shop lighting
— Health and fitness areas
(in luminaires with protection class IP66 or higher)
— Effect and accent lighting

POWERTRONIC® PT-FIT I
ECG for HID lamps, with cable clamp

1
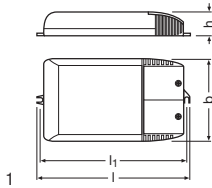
Product name	GTIN (EAN)	W	A	kV START	kHz ECG	T$_a$	T$_c$
PT-FIT 35/220…240 I	**4008321377661**	39	0.19 [1]	4.5 kVp	0.200…0.240	-15…+60	75
PT-FIT 70/220…240 I	**4008321377685**	73	0.36 [1]	4.5 kVp	0.200…0.240	-15…+45	75

Product name	max.	l [mm]	b [mm]	h [mm]	l$_1$ [mm]		No.
PT-FIT 35/220…240 I	1.5	172	83	33	163	20	1
PT-FIT 70/220…240 I	1.5	172	83	33	163	20	1

1) At 230V$_{AC}$

Product features
— Energy Efficiency Index EEI: A2
— Supply voltage: 220…240 V
— Line frequency: 50…60 Hz
— RI suppression according to EN 55015/CISPR 15
— Safety according to EN 61347-2-12
— Line harmonics according to EN 61000-3-2
— Immunity according to EN 61547

Product benefits
— ECG with ergonomic strain relief for correct installation in suspended ceilings
— Optimized cost/benefit factor
— Automatic safety shutdown of lamps in the event of a defect or at end of life (EoL)

Areas of application
— Shop lighting
— Health and fitness areas
  (in luminaires with protection class IP66 or higher)
— Effect and accent lighting

EBN-OS
Inrush current limiter for POWERTRONIC® ECG

Product name	GTIN (EAN)	W SYSTEM	Ta	l [mm]	b [mm]	h [mm]	
EBN-OS	4006584548019	0.6	-10…+40	58	18	88	100

Product features
— Retrofit for DIN rail according to
  DIN EN 60417 (formerly DIN EN 50022)
— Operating frequency: 50…60 Hz
— Maximum continuous load: 16 A
— Limitation time: 70 ms
— Number of switching cycles: up to 10,000

Product benefits
— Increases maximum number of ECGs per automatic
  cutout by factor 2.5
— Flexible use depending on the size of the installation
— Simple installation

Areas of application
— Suitable for use in combination with all
  POWERTRONIC® control gears and selected
  OPTOTRONIC® LED drivers

HALOTRONIC®

Electronic transformers and dimmers for optimum operation of low-voltage halogen lamps

HALOTRONIC® is primarily intended for:
— Recessed ceiling luminaires with strain relief
— Display spots
— Domestic luminaires (integrated and surface-mounted furniture luminaires)

Versions

HTi DALI 105 DIM can be integrated into DALI lighting systems and are also dimmable via pushbutton with Touch DIM®. Daylight/motion-dependent operation is possible with the DALIeco or DALI PROFESSIONAL system. Suitable for use in emergency power installations.

HALOTRONIC® LONG (HTL) is available in 105 W and 225 W versions for convenient separate mounting:
— 2 terminal pairs on the primary side for looping from unit to unit
— 3 large terminal pairs on the secondary side for connecting up to 3 luminaires in parallel

Featuring long lifespans with simultaneously high thermal load capacity, suitable for use in emergency power installations.

HALOTRONIC® MOUSE® HTM is available in three wattages as a compact standard unit with strain relief for shallow suspended ceilings. The electronic transformer from OSRAM – successfully used in millions of applications.

HALOTRONIC® NANO (HTN) in combination with miniaturized low-voltage halogen lamps is ideal for particularly tight spaces. Excellent thermal behavior despite the extremely small size.

ET-PARROT® is a cost-effective alternative to conventional transformers in the 70–105 W range.

Prescribed dimmer for HALOTRONIC®

HTL 105/230-240	Lc
HTL 225/230-240	Lc
HTM 70/230-240	Lc
HTM 105/230-240	Lc
HTM 150/230-240	Lc
HTN 75/230-240 I	c
ET-PARROT® 70/220-240 I	Lc
ET-PARROT® 105/220-240 I	Lc

c With trailing-edge phase dimmer
Lc With trailing-edge phase dimmer or leading-edge phase dimmer for inductive loads

Dimmers for ohmic loads are not suitable.

HTi DALI 315 DIM as a trailing-edge phase dimmer enables all listed electronic transformers to be integrated into a DALI system and can alternatively be operated by pushbutton. Daylight/motion-dependent operation is possible with the DALIeco or DALI PROFESSIONAL system. Also suitable for high-voltage lamps and high-voltage LED lamps.

Application
— Accent lighting
— Decorative lighting
— Foyers/reception areas
— Hallways/corridors
— Stores and exhibition spaces
— Single offices and conference rooms
— Domestic areas

Comfort
— Weighing around 80 % less and taking up 40 % less space than standard transformers, HALOTRONIC® electronic transformers give much greater scope for planning halogen-based lighting systems
— All devices have secure strain relief and fixing options
— Dimmable
— Electronically reversible cutout protects against short-circuits, overloads and overtemperature

Economy
— Protective lamp operation throughout the entire partial-load range for long lamp life
— No additional fusing measures required for ready-to-connect device
— Approx. 60 % lower power loss compared to standard transformers
— Energy efficiency ≥ 91 % in compliance with ErP directive 2012/1194/EC

Safety
— All transformers are VDE/IMQ-tested
— Suitable for mounting on wooden surfaces
— All transformers have $\overline{\underline{\mathbb{V}}}\,\overline{\underline{\mathbb{V}}}$
— Suitable without additional measures for luminaires with protection classes II and III and for luminaires with $\underline{\mathbb{V}}$ and $\underline{\mathbb{V}}\,\underline{\mathbb{V}}$ or $\overline{\mathbb{V}}$ and $\overline{\mathbb{V}}\,\overline{\mathbb{V}}$ designation
— Complies with international, European and German standards for safety and EMC

Guarantee
OSRAM provides customers with unique guarantees (for guarantee details, see page 5.03)*:
— 5-year guarantee for OSRAM HALOTRONIC® PROFESSIONAL electronic transformers
— 5-year guarantee for OSRAM HALOTRONIC® DIMMER in connection with HALOTRONIC® transformers
— 3-year guarantee for OSRAM HALOTRONIC® PARROT electronic transformers

* For conditions and details, go to www.osram.com/cb/services/guarantees/multilevel-guarantees/index.jsp

HALOTRONIC® HTi
Dimmable electronic transformers for low-voltage halogen lamps
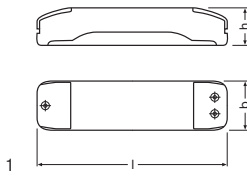
Product name	GTIN (EAN)	W	A	⬚V min.-max.	λ	kHz ECG	V OUT
HTi DALI 105/230…240 DIM	**4008321420633**	35…105	0.45	176…275	0.95 [1]	40 [2]	11.6V / 11.4 [3]

Product name	V	T a	l [mm]	b [mm]	h [mm]	🗄	💡 No.
HTi DALI 105/230…240 DIM	230…240	-20…+50	170	44	34	10	1

1) Minimum
2) Approximately
3) 105W / 35W

Product features
— DALI transformer for low-voltage halogen lamps
— Electrical isolation between the primary side and the secondary side
— Short-circuit protection, overload protection, overtemperature protection: electronically reversible
— Energy efficiency: ≥ 91 % (according to ErP regulation 2012/1194/EC)
— Device fits also for special applications where dimming below 1 % is required

Product benefits
— Very low power consumption thanks to high efficiency
— Through-wiring possible on the primary side
— Large temperature range
— Protective operation throughout the entire partial-load range for long lamp life

Areas of application
— Effect and accent lighting
— Living rooms
— Object lighting
— Conference rooms
— Restaurants
— Recessed and surface-mounted ceiling luminaires
— Shop lighting
— Event rooms

HALOTRONIC® PROFESSIONAL HTL
Electronic transformers for low-voltage halogen lamps
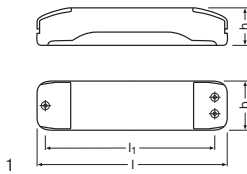
Product name	GTIN (EAN)	W	A	V	λ	kHz ECG	V_OUT
HTL 105/230…240	**4008321927019**	35…105	0.44 [1]	230…240	0.95 [2]	40 [3]	11.6V / 11.3 [4]
HTL 225/230…240	**4008321927026**	50…225	0.90 [1]	230…240	0.95 [2]	50 [3]	11.6V / 11.7 [5]

Product name	T_a	l [mm]	b [mm]	h [mm]	l₁ [mm]		No.
HTL 105/230…240	-20…+50	170	44	34	140	10	1
HTL 225/230…240	-20…+50	170	44	34	140	10	1

1) Effectively
2) Minimum
3) Approximately
4) 105 W / 35 W
5) 225 W / 50 W

Product features
— Line frequency: 50…60 Hz
— RI suppression according to
  EN 55015 (A1:2007)/CISPR 15
— Line harmonics according to EN 61000-3-2
— Immunity according to EN 61547
— Safety according to EN 61347
— Short-circuit protection, overload protection,
  overtemperature protection: electronically reversible
— Electrical isolation between the primary side and the
  secondary side
— Energy efficiency: ≥ 91 % (according to ErP regulation
  2012/1194/EC)

Product benefits
— Dimmable on the leading edge and trailing edge
— Very low power loss thanks to high efficacy
— Through-wiring possible on the primary side
— Large temperature range
— Protective operation throughout the entire
  partial-load range for long lamp life
— High efficiency and reliability

Areas of application
— Effect and accent lighting
— Living rooms
— Object lighting
— Conference rooms
— Restaurants
— Recessed and surface-mounted furniture luminaires
— Shop lighting
— Event rooms

HALOTRONIC® COMPACT – HTM, HTN
Electronic transformers for low-voltage halogen lamps
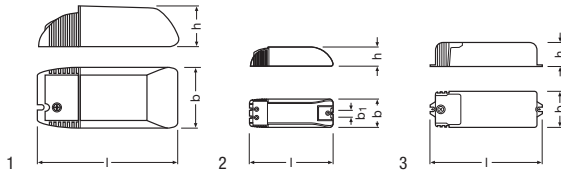
Product name	GTIN (EAN)	W	A	V	λ	kHz ECG	V$_{OUT}$	CONTROL
HTM 70/230…240	**4050300442310**	20…70	0.27 [1]	230…240	0.99	52 [3]	11.2V / 11.2 [4]	Trailing- or leading-edge phase control for inductive load dimmers
HTM 105/230…240	**4050300442334**	35…105	0.41 [1]	230…240	0.99	43 [3]	11.3V / 11.4 [5]	Trailing- or leading-edge phase control for inductive load dimmers
HTM 150/230…240	**4050300581415**	50…150	0.57 [1]	230…240	0.99	40 [3]	11.4V / 11.5 [6]	Trailing- or leading-edge phase control for inductive load dimmers
HTN 75/230…240 I	**4008321073037**	20…75	0.32 [1]	230…240	0.95 [2]	50 [3]	11.5V / 11.7 [7]	Trailing-edge phase control

Product name	T$_a$	l [mm]	b [mm]	h [mm]	b₁ [mm]	📦	💡 No.
HTM 70/230…240	0…+50	108	52	33	-	20	1
HTM 105/230…240	0…+45	108	52	33	-	20	1
HTM 150/230…240	0…+45	153	54	36	15	10	2
HTN 75/230…240 I	0…+50	104	33	22	-	20	3

1) Effectively
2) Minimum
3) Approximately
4) 70 W / 20 W
5) 105 W / 35 W
6) 150 W / 50 W
7) 75 W / 20 W

Product features
— Line frequency: 50…60 Hz
— RI suppression according to EN 55015 (A1:2007)/CISPR 15
— Line harmonics according to EN 61000-3-2
— Immunity according to EN 61547
— Safety according to EN 61347
— Short-circuit protection, overload protection, overtemperature protection: electronically reversible
— Electrical isolation between the primary side and the secondary side
— Energy efficiency: ≥ 91 % (according to ErP regulation 2012/1194/EC)

Product benefits
— Dimmable on the leading edge (except HTN) and trailing edge
— Very low power loss thanks to high efficacy
— Strain relief suitable for different cable types (HTM)
— Suitable for space-critical installation thanks to compact functional design
— Extremely compact transformer for highly space-critical installation conditions (HTN)
— Protective operation throughout the entire partial-load range for long lamp life

Areas of application
— Effect and accent lighting
— Living rooms
— Object lighting
— Conference rooms
— Restaurants
— Recessed and surface-mounted furniture luminaires
— Shop lighting
— Event rooms

ET-PARROT®

Electronic transformers for low-voltage halogen lamps

1
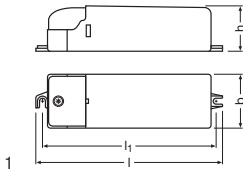
Product name	GTIN (EAN)	W	A	V	λ	kHz ECG	V_{OUT}	CONTROL
ET-PARROT 70/220…240 I	4008321111593	20…70	0.30 [1]	220…240	0.95 [2]	50 [3]	11.9V / 12 [4]	Trailing- or leading-edge phase control for inductive load dimmers
ET-PARROT 105/220…240 I	4008321111579	35…105	0.45 [1]	220…240	0.95 [2]	40 [3]	11.9V / 12 [5]	Trailing- or leading-edge phase control for inductive load dimmers

Product name	T_a	l [mm]	b [mm]	h [mm]	l₁ [mm]		No.
ET-PARROT 70/220…240 I	0…+45	128	38	31	119	50	1
ET-PARROT 105/220…240 I	0…+40	128	38	31	119	50	1

1) Effectively
2) Minimum
3) Approximately
4) 70 W / 20 W
5) 105 W / 35 W

Product features
— Line frequency: 50…60 Hz
— RI suppression according to EN 55015 (A1:2007)/CISPR 15
— Line harmonics according to EN 61000-3-2
— Immunity according to EN 61547
— Energy efficiency: ≥ 91 % (according to ErP regulation 2012/1194/EC)
— Safety according to EN 61347
— Short-circuit protection, overload protection, overtemperature protection: electronically reversible
— Electrical isolation between the primary side and the secondary side

Product benefits
— Dimmable on the leading edge and trailing edge
— Very low power loss thanks to high efficacy
— Protective operation throughout the entire partial-load range for long lamp life

Areas of application
— Effect and accent lighting
— Living rooms
— Object lighting
— Conference rooms
— Restaurants
— Recessed and surface-mounted furniture luminaires
— Shop lighting
— Event rooms

HALOTRONIC®
Dimmer modules
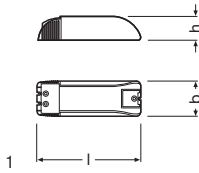
Product name	GTIN (EAN)	W	V	CONTROL	T$_a$	I [mm]
HTi DALI 315 DIM	**4008321957344**	20…315 [1]	220…240	DALI / Touch DIM	0…+45	153

Product name	b [mm]	h [mm]	Hz	W		No.
HTi DALI 315 DIM	54	36	50	0.1…100 % [2]	25	1

1) 3…200 VA LED lamp power
2) Depends on the lamp type (please see www.osram.com/dim)

Product features
— DALI trailing-edge phase dimmer
— Dimming of high-voltage halogen and incandescent lamps
— Dimming of many common dimmable line-voltage LED lamps
— Dimming of electronic transformers
— Standby power consumption: < 0.5 W
— DALI/Touch DIM® control signal
— Short-circuit protection, overload protection, overtemperature protection: electronically reversible
— RI suppression according to EN 55015 (A1:2007)
— Line harmonics according to EN 61000-3-2
— Safety according to EN 61347
— Immunity according to EN 61547
— Device fits also for special applications where dimming below 1 % is required

Equipment/Accessories
— Suitable for all OSRAM HALOTRONIC® and ET-PARROT® ECGs
— Suitable for all dimmable OSRAM line-voltage LED lamps

ECG mountings – cable clamps
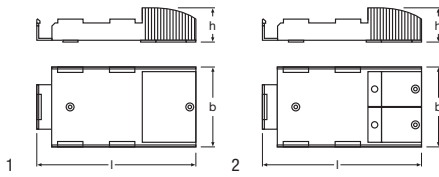
Product name	GTIN (EAN)	l [mm]	b [mm]	h [mm]		No.
CABLE CLAMP K2	**4008321190727**	147	71	33	10	1
CABLE CLAMP QT-K3	**4008321190741**	168	84	37	10	1

Product features
— Suitable for various cable types with outer diameters of min. 7 mm to max. 11 mm

Product benefits
— Separate installations thanks to optional cable clamp for K2 and K3 casings

Areas of application
— Suitable for indoor installations

Summary of lamp/ECG combinations

HE 14 W

Lamp	lp	ECG type	EAN	LxWxH [mm]	System wattage [W]	Lamp luminous flux [lm]
HE 14 W	1	QTi DALI 1x14/24 DIM	4050300870380	360x30x21	15.4	1x1200
HE 14 W	2	QTi DALI 2x14/24 DIM	4050300870861	423x30x21	30.6	2x1200
HE 14 W	3	QTi DALI 3x14/24 DIM	4008321069955	360x40x21	45.3	3x1200
HE 14 W	4	QTi DALI 4x14/24 DIM	4008321070036	360x40x21	60.4	4x1200
HE 14 W	1	QTi 1x14/24 DIM	4050300870922	360x30x21	15.4	1x1200
HE 14 W	2	QTi 2x14/24 DIM	4050300870946	423x30x21	30.6	2x1200
HE 14 W	3	QTi 3x14/24 DIM	4008321069719	360x40x21	45.3	3x1200
HE 14 W	4	QTi 4x14/24 DIM	4008321069993	360x40x21	60.4	4x1200
HE 14 W	1	QTi 1x14/24/21/39 GII	4008321383334	360x30x21	16	1x1200
HE 14 W	1	QTi 1x28/54/35/49 GII	4008321383358	360x30x21	16	1x1275
HE 14 W	1	QTi 1x35/49/80 GII	4008321383372	360x30x21	16	1x1275
HE 14 W	2	QTi 2x14/24/21/39 GII	4008321383396	360x30x21	31	2x1200
HE 14 W	2	QTi 2x28/54/35/49 GII	4008321383419	360x30x21	32	2x1275
HE 14 W	2	QTi 2x35/49/80 GII	4008321658951	424x30x21	34	2x1250
HE 14 W	1	QTP5 1x14-35	4008321329035	280x30x21	16	1x1200
HE 14 W	2	QTP5 2x14-35	4008321329073	360x30x21	30	2x1200
HE 14 W	3	QTP5 3x14, (4x14)	4008321484598	280x40x21	48	3x1200
HE 14 W	4	QTP5 (3x14), 4x14	4008321484598	280x40x21	63	4x1200
HE 14 W	1	QT-FIT 5 1x14-35	4008321971234	280x30x21	16	1x1200
HE 14 W	2	QT-FIT 5 2x14-35	4008321971258	280x30x21	32	2x1200
HE 14 W	4	QT-FIT 5 3x14, 4x14	4052899927049	280x40x21	63	4x1200
HE 14 W	1	QTz5 1x14	4052899019225	275x20x21	15	1x1150
HE 14 W	2	QTz5 2x14	4052899019164	275x33x21	32	2x1200
HE 14 W	3	QTz5 3x14	4052899019447	275x33x21	49	3x1200
HE 14 W	1	QT-ECO 1x4-16/220-240 S	4050300638584	80x40x22	15	1x1150
HE 14 W	1	QT-ECO 1x4-16/220-240 L	4050300660370	150x22x22	15	1x1150

HE 14 W SLS

Lamp	lp	ECG type	EAN	LxWxH [mm]	System wattage [W]	Lamp luminous flux [lm]
HE 14 W SLS	1	QTi DALI 1x14/24 DIM	4050300870380	360x30x21	15.4	1x1200
HE 14 W SLS	2	QTi DALI 2x14/24 DIM	4050300870861	423x30x21	30.6	2x1200
HE 14 W SLS	1	QTi 1x14/24 DIM	4050300870922	360x30x21	15.4	1x1200
HE 14 W SLS	2	QTi 2x14/24 DIM	4050300870946	423x30x21	30.6	2x1200
HE 14 W SLS	1	QTi 1x14/24/21/39 GII	4008321383334	360x30x21	16	1x1200
HE 14 W SLS	2	QTi 2x14/24/21/39 GII	4008321383396	360x30x21	31	2x1200

Summary of lamp/ECG combinations

HE 21 W

Lamp	lp	ECG type	EAN	LxWxH [mm]	System wattage [W]	Lamp luminous flux [lm]
HE 21 W	1	QTi DALI 1x21/39 DIM	4050300870366	360x30x21	23.1	1x1900
HE 21 W	2	QTi DALI 2x21/39 DIM	4050300870489	423x30x21	45	2x1900
HE 21 W	1	QTi 1x21/39 DIM	4050300870564	360x30x21	23.1	1x1900
HE 21 W	2	QTi 2x21/39 DIM	4050300870694	423x30x21	45	2x1900
HE 21 W	1	QTi 1x14/24/21/39 GII	4008321383334	360x30x21	24	1x1900
HE 21 W	1	QTi 1x28/54/35/49 GII	4008321383358	360x30x21	24	1x1900
HE 21 W	1	QTi 1x35/49/80 GII	4008321383372	360x30x21	25	1x1900
HE 21 W	2	QTi 2x14/24/21/39 GII	4008321383396	360x30x21	45	2x1900
HE 21 W	2	QTi 2x28/54/35/49 GII	4008321383419	360x30x21	45	2x1900
HE 21 W	2	QTi 2x35/49/80 GII	4008321658951	424x30x21	49	2x2000
HE 21 W	1	QTP5 1x14-35	4008321329035	280x30x21	24	1x1900
HE 21 W	2	QTP5 2x14-35	4008321329073	280x30x21	45	2x1900
HE 21 W	1	QT-FIT 5 1x14-35	4052899927025	280x30x21	23	1x1900
HE 21 W	2	QT-FIT 5 2x14-35	4008321971258	280x30x21	46	2x1900
HE 21 W	1	QTz5 1x21	4052899019126	275x20x21	23	1x1800
HE 21 W	1	QT-ECO 1x18-21/220-240 S	4050300794907	80x40x22	23	1x1800

HE 21 W SLS

Lamp	lp	ECG type	EAN	LxWxH [mm]	System wattage [W]	Lamp luminous flux [lm]
HE 21 W SLS	1	QTi DALI 1x21/39 DIM	4050300870366	360x30x21	23.1	1x1900
HE 21 W SLS	2	QTi DALI 2x21/39 DIM	4050300870489	423x30x21	45	2x1900
HE 21 W SLS	1	QTi 1x21/39 DIM	4050300870564	360x30x21	23.1	1x1900
HE 21 W SLS	2	QTi 2x21/39 DIM	4050300870694	423x30x21	45	2x1900
HE 21 W SLS	1	QTi 1x14/24/21/39 GII	4008321383334	360x30x21	24	1x1900
HE 21 W SLS	2	QTi 2x14/24/21/39 GII	4008321383396	360x30x21	45	2x1900

HE 28 W

Lamp	lp	ECG type	EAN	LxWxH [mm]	System wattage [W]	Lamp luminous flux [lm]
HE 28 W	1	QTi DALI 1x28/54 DIM	4050300870809	360x30x21	30.1	1x2600
HE 28 W	2	QTi DALI 2x28/54 DIM	4050300870502	423x30x21	60.2	2x2600
HE 28 W	1	QTi 1x28/54 DIM	4050300870588	360x30x21	30.1	1x2600
HE 28 W	2	QTi 2x28/54 DIM	4050300870717	423x30x21	60.2	2x2600
HE 28 W	1	QT 1x28 DIM	4008321640390	360x30x21	30.8	1x2600
HE 28 W	2	QT 2x28 DIM	4008321640499	423x30x21	59.8	2x2600
HE 28 W	1	QTi 1x14/24/21/39 GII	4008321383334	360x30x21	33	1x2700
HE 28 W	1	QTi 1x28/54/35/49 GII	4008321383358	360x30x21	32	1x2600
HE 28 W	1	QTi 1x35/49/80 GII	4008321383372	360x30x21	33	1x2700
HE 28 W	2	QTi 2x14/24/21/39 GII	4008321383396	360x30x21	63	2x2650
HE 28 W	2	QTi 2x28/54/35/49 GII	4008321383419	360x30x21	61	2x2600
HE 28 W	2	QTi 2x35/49/80 GII	4008321658951	424x30x21	63	2x2650
HE 28 W	1	QTP5 1x14-35	4008321329035	280x30x21	31	1x2600
HE 28 W	2	QTP5 2x14-35	4008321329073	360x30x21	60	2x2600
HE 28 W	1	QT-FIT 5 1x14-35	4008321971234	280x30x21	31	1x2600
HE 28 W	2	QT-FIT 5 2x14-35	4052899927032	280x30x21	63	2x2600
HE 28 W	1	QTz5 1x28	4052899019263	275x20x21	31	1x2600
HE 28 W	2	QTz5 2x28	4052899019188	275x33x21	63	2x2600

Summary of lamp/ECG combinations

HE 28 W SLS

Lamp	lp	ECG type	EAN	LxWxH [mm]	System wattage [W]	Lamp luminous flux [lm]
HE 28 W SLS	1	QTi DALI 1x28/54 DIM	4050300870809	360x30x21	30.1	1x2600
HE 28 W SLS	2	QTi DALI 2x28/54 DIM	4050300870502	423x30x21	60.2	2x2600
HE 28 W SLS	1	QT 1x28 DIM	4008321640390	360x30x21	30.8	1x2600
HE 28 W SLS	2	QT 2x28 DIM	4008321640499	423x30x21	59.8	2x2600
HE 28 W SLS	1	QTi 1x28/54 DIM	4050300870588	360x30x21	30.1	1x2600
HE 28 W SLS	1	QTi 1x28/54/35/49 GII	4008321383358	360x30x21	32	1x2600
HE 28 W SLS	2	QTi 2x28/54/35/49 GII	4008321383419	360x30x21	61	2x2600

HE 35 W

Lamp	lp	ECG type	EAN	LxWxH [mm]	System wattage [W]	Lamp luminous flux [lm]
HE 35 W	1	QTi DALI 1x35/49/80 DIM	4050300870342	360x30x21	37.8	1x3300
HE 35 W	2	QTi DALI 2x35/49 DIM	4050300870465	423x30x21	74.5	2x3300
HE 35 W	2	QTi DALI 2x35/49/80 DIM	4050300870441	423x30x21	74	2x3300
HE 35 W	1	QTi 1x35/49/80 DIM	4050300870540	360x30x21	37.8	1x3300
HE 35 W	2	QTi 2x35/49 DIM	4050300870670	423x30x21	74.5	2x3300
HE 35 W	2	QTi 2x35/49/80 DIM	4050300870984	423x30x21	74	2x3300
HE 35 W	1	QT 1x35 DIM	4008321640376	360x30x21	38.6	1x3300
HE 35 W	2	QT 2x35 DIM	4008321640475	423x30x21	77.3	2x3150
HE 35 W	1	QTi 1x14/24/21/39 GII	4008321383334	360x30x21	39	1x3300
HE 35 W	1	QTi 1x28/54/35/49 GII	4008321383358	360x30x21	38	1x3300
HE 35 W	1	QTi 1x35/49/80 GII	4008321383372	360x30x21	38	1x3300
HE 35 W	2	QTi 2x14/24/21/39 GII	4008321383396	360x30x21	76	2x3300
HE 35 W	2	QTi 2x28/54/35/49 GII	4008321383419	360x30x21	76	2x3300
HE 35 W	2	QTi 2x35/49/80 GII	4008321658951	424x30x21	77	2x3400
HE 35 W	1	QTP5 1x14-35	4008321329035	280x30x21	38	1x3300
HE 35 W	2	QTP5 2x14-35	4008321329073	360x30x21	75	2x3300
HE 35 W	1	QT-FIT 5 1x14-35	4052899927025	280x30x21	38	1x3320
HE 35 W	2	QT-FIT 5 2x14-35	4008321971258	280x30x21	78	2x3300

HE 13 W ES

Lamp	lp	ECG type	EAN	LxWxH [mm]	System wattage [W]	Lamp luminous flux [lm]
HE 13 W ES	1	QTi 1x14/24/21/39 GII	4008321383334	360x30x21	15	1x1150
HE 13 W ES	1	QTi 1x28/54/35/49 GII	4008321383358	360x30x21	15	1x1150
HE 13 W ES	1	QTi 1x35/49/80 GII	4008321383372	360x30x21	15	1x1150
HE 13 W ES	2	QTi 2x14/24/21/39 GII	4008321383396	360x30x21	29	2x1150
HE 13 W ES	2	QTi 2x28/54/35/49 GII	4008321383419	360x30x21	29	2x1150
HE 13 W ES	2	QTi 2x35/49/80 GII	4008321658951	424x30x21	30	2x1150
HE 13 W ES	1	QTP5 1x14-35	4008321329035	280x30x21	15	1x1150
HE 13 W ES	2	QTP5 2x14-35	4008321329073	360x30x21	28	2x1350
HE 13 W ES	1	QT-FIT 5 1x14-35	4008321971234	280x30x21	15	1x1150
HE 13 W ES	2	QT-FIT 5 2x14-35	4008321971258	280x30x21	29	2x1150
HE 13 W ES	3	QT-FIT 5 3x14, 4x14	4052899927049	280x40x21	43	3x1150
HE 13 W ES	4	QT-FIT 5 3x14, 4x14	4052899927049	280x40x21	55	4x1150

Summary of lamp/ECG combinations

HE 19 W ES

Lamp	lp	ECG type	EAN	LxWxH [mm]	System wattage [W]	Lamp luminous flux [lm]
HE 19 W ES	1	QTi 1x14/24/21/39 GII	4008321383334	360x30x21	22	1x1800
HE 19 W ES	1	QTi 1x28/54/35/49 GII	4008321383358	360x30x21	22	1x1800
HE 19 W ES	1	QTi 1x35/49/80 GII	4008321383372	360x30x21	22	1x1800
HE 19 W ES	2	QTi 2x14/24/21/39 GII	4008321383396	360x30x21	42	2x1800
HE 19 W ES	2	QTi 2x28/54/35/49 GII	4008321383419	360x30x21	42	2x1800
HE 19 W ES	2	QTi 2x35/49/80 GII	4008321658951	424x30x21	43	2x1800
HE 19 W ES	1	QTP5 1x14-35	4008321329035	280x30x21	22	1x1800
HE 19 W ES	2	QTP5 2x14-35	4008321329073	360x30x21	42	2x1800
HE 19 W ES	1	QT-FIT 5 1x14-35	4052899927025	280x30x21	21	1x1800
HE 19 W ES	2	QT-FIT 5 2x14-35	4008321971258	280x30x21	43	2x1800

HE 25 W ES

Lamp	lp	ECG type	EAN	LxWxH [mm]	System wattage [W]	Lamp luminous flux [lm]
HE 25 W ES	1	QT 1x28 DIM	4008321640390	360x30x21	30.8	1x2500
HE 25 W ES	2	QT 2x28 DIM	4008321640499	423x30x21	59.8	2x2500
HE 25 W ES	1	QTi 1x14/24/21/39 GII	4008321383334	360x30x21	29	1x2500
HE 25 W ES	1	QTi 1x28/54/35/49 GII	4008321383358	360x30x21	29	1x2500
HE 25 W ES	2	QTi 2x14/24/21/39 GII	4008321383396	360x30x21	56	2x2500
HE 25 W ES	2	QTi 2x35/49/80 GII	4008321658951	424x30x21	57	2x2500
HE 25 W ES	1	QTP5 1x14-35	4008321329035	280x30x21	27	1x2450
HE 25 W ES	2	QTP5 2x14-35	4008321329073	360x30x21	54	2x2450
HE 25 W ES	1	QT-FIT 5 1x14-35	4008321971234	280x30x21	28	1x2450
HE 25 W ES	2	QT-FIT 5 2x14-35	4052899927032	280x30x21	56	2x2450

HE 32 W ES

Lamp	lp	ECG type	EAN	LxWxH [mm]	System wattage [W]	Lamp luminous flux [lm]
HE 32 W ES	1	QT 1x35 DIM	4008321640376	360x30x21	38.6	1x3150
HE 32 W ES	2	QT 2x35 DIM	4008321640475	423x30x21	77.3	2x3150
HE 32 W ES	1	QTi 1x14/24/21/39 GII	4008321383334	360x30x21	36	1x3150
HE 32 W ES	1	QTi 1x28/54/35/49 GII	4008321383358	360x30x21	36	1x3150
HE 32 W ES	1	QTi 1x35/49/80 GII	4008321383372	360x30x21	36	1x3150
HE 32 W ES	2	QTi 2x14/24/21/39 GII	4008321383396	360x30x21	68	2x3150
HE 32 W ES	2	QTi 2x28/54/35/49 GII	4008321383419	360x30x21	68	2x3150
HE 32 W ES	2	QTi 2x35/49/80 GII	4008321658951	424x30x21	70	2x3150
HE 32 W ES	1	QTP5 1x14-35	4008321329035	280x30x21	34	1x3100
HE 32 W ES	2	QTP5 2x14-35	4008321329073	360x30x21	68	2x3100
HE 32 W ES	1	QT-FIT 5 1x14-35	4008321971234	280x30x21	35	1x3100
HE 32 W ES	2	QT-FIT 5 2x14-35	4008321971258	280x30x21	71	2x3100

Summary of lamp/ECG combinations

HE 35 W XT

Lamp	lp	ECG type	EAN	LxWxH [mm]	System wattage [W]	Lamp luminous flux [lm]
HE 35 W XT	1	QTi DALI 1x35/49/80 DIM	4050300870342	360x30x21	37.8	1x3300
HE 35 W XT	2	QTi DALI 2x35/49 DIM	4050300870465	423x30x21	74.5	2x3300
HE 35 W XT	2	QTi DALI 2x35/49/80 DIM	4050300870441	423x30x21	74	2x3300
HE 35 W XT	1	QTi 1x35/49/80 DIM	4050300870540	360x30x21	37.8	1x3300
HE 35 W XT	2	QTi 2x35/49 DIM	4050300870670	423x30x21	74.5	2x3300
HE 35 W XT	2	QTi 2x35/49/80 DIM	4050300870984	423x30x21	74	2x3300
HE 35 W XT	1	QTi 1x14/24/21/39 GII	4008321383334	360x30x21	39	1x3300
HE 35 W XT	1	QTi 1x28/54/35/49 GII	4008321383358	360x30x21	38	1x3300
HE 35 W XT	1	QTi 1x35/49/80 GII	4008321383372	360x30x21	38	1x3300
HE 35 W XT	2	QTi 2x14/24/21/39 GII	4008321383396	360x30x21	76	2x3300
HE 35 W XT	2	QTi 2x28/54/35/49 GII	4008321383419	360x30x21	76	2x3300
HE 35 W XT	2	QTi 2x35/49/80 GII	4008321658951	424x30x21	77	2x3400
HE 35 W XT	1	QTP5 1x14-35	4008321329035	280x30x21	38	1x3300
HE 35 W XT	2	QTP5 2x14-35	4008321329073	360x30x21	75	2x3300
HE 35 W XT	1	QT-FIT 5 1x14-35	4008321971234	280x30x21	38	1x3320
HE 35 W XT	2	QT-FIT 5 2x14-35	4052899927032	280x30x21	78	2x3300

HO 24 W

Lamp	lp	ECG type	EAN	LxWxH [mm]	System wattage [W]	Lamp luminous flux [lm]
HO 24 W	1	QTi DALI 1x14/24 DIM	4050300870380	360x30x21	25.3	1x1750
HO 24 W	2	QTi DALI 2x14/24 DIM	4050300870861	423x30x21	49.3	2x1750
HO 24 W	3	QTi DALI 3x14/24 DIM	4008321069955	360x40x21	73.4	3x1750
HO 24 W	4	QTi DALI 4x14/24 DIM	4008321070036	360x40x21	97.6	4x1750
HO 24 W	1	QTi 1x14/24 DIM	4050300870922	360x30x21	26	1x1750
HO 24 W	2	QTi 2x14/24 DIM	4050300870946	423x30x21	50	2x1750
HO 24 W	3	QTi 3x14/24 DIM	4008321069719	360x40x21	74	3x1750
HO 24 W	4	QTi 4x14/24 DIM	4008321069993	360x40x21	98	4x1750
HO 24 W	1	QTi 1x14/24/21/39 GII	4008321383334	360x30x21	26	1x1750
HO 24 W	2	QTi 2x14/24/21/39 GII	4008321383396	360x30x21	50	2x1750
HO 24 W	1	QTP5 1x24-39	4008321329110	280x30x21	26	1x1750
HO 24 W	2	QTP5 2x24-39	4008321329417	360x30x21	49	2x1750
HO 24 W	1	QTP-OPTIMAL 1x18-40	4008321873743	280x30x21	28	1x1750
HO 24 W	2	QTP-OPTIMAL 2x18-40	4008321873767	360x30x21	52	2x1750
HO 24 W	1	QT-FIT 5/8 1x18-39	4052899141704	280x30x21	28	1x1750
HO 24 W	2	QT-FIT 5/8 2x18-39	4052899927018	280x30x21	53	2x1750
HO 24 W	1	QTP-M 1x26-42	4008321329134	103x67x31	25	1x1750
HO 24 W	2	QTP-M 2x26-32	4008321329158	123x79x33	49	2x1750
HO 24 W	2	QT-M 2x26-42/220-240 S	4008321110022	123x79x33	54	2x1750
HO 24 W	1	QT-ECO 1x18-24/220-240 S	4050300638560	80x40x22	20	1x1600
HO 24 W	1	QT-ECO 1x18-24/220-240 L	4050300660417	150x22x22	20	1x1600

Summary of lamp/ECG combinations

HO 24 W SLS

Lamp	lp	ECG type	EAN	LxWxH [mm]	System wattage [W]	Lamp luminous flux [lm]
HO 24 W SLS	1	QTi 1x14/24/21/39 GII	4008321383334	360x30x21	26	1x1750
HO 24 W SLS	2	QTi 2x14/24/21/39 GII	4008321383396	360x30x21	50	2x1750

HO 24 W CONSTANT

Lamp	lp	ECG type	EAN	LxWxH [mm]	System wattage [W]	Lamp luminous flux [lm]
HO 24 W CONSTANT	1	QTi DALI 1x14/24 DIM	4050300870380	360x30x21	25.3	1x1900
HO 24 W CONSTANT	2	QTi DALI 2x14/24 DIM	4050300870861	423x30x21	49.3	2x1900
HO 24 W CONSTANT	3	QTi DALI 3x14/24 DIM	4008321069955	360x40x21	73.4	3x1900
HO 24 W CONSTANT	4	QTi DALI 4x14/24 DIM	4008321070036	360x40x21	97.6	4x1900
HO 24 W CONSTANT	1	QTi 1x14/24 DIM	4050300870922	360x30x21	26	1x1900
HO 24 W CONSTANT	2	QTi 2x14/24 DIM	4050300870946	423x30x21	50	2x1900
HO 24 W CONSTANT	3	QTi 3x14/24 DIM	4008321069719	360x40x21	74	3x1900
HO 24 W CONSTANT	4	QTi 4x14/24 DIM	4008321069993	360x40x21	98	4x1900
HO 24 W CONSTANT	1	QTi 1x14/24/21/39 GII	4008321383334	360x30x21	26	1x1900
HO 24 W CONSTANT	2	QTi 2x14/24/21/39 GII	4008321383396	360x30x21	50	2x1900
HO 24 W CONSTANT	1	QTP5 1x24-39	4008321329110	280x30x21	26	1x1900
HO 24 W CONSTANT	2	QTP5 2x24-39	4008321329417	360x30x21	49	2x1900
HO 24 W CONSTANT	1	QTP-OPTIMAL 1x18-40	4008321873743	280x30x21	28	1x1900
HO 24 W CONSTANT	2	QTP-OPTIMAL 2x18-40	4008321873767	360x30x21	52	2x1900
HO 24 W CONSTANT	1	QT-FIT 5/8 1x18-39	4008321873927	280x30x21	28	1x1900
HO 24 W CONSTANT	2	QT-FIT 5/8 2x18-39	4008321873903	280x30x21	53	2x1900
HO 24 W CONSTANT	1	QTP-M 1x26-42	4008321329134	103x67x31	25	1x1900
HO 24 W CONSTANT	2	QTP-M 2x26-32	4008321329158	123x79x33	49	2x1900
HO 24 W CONSTANT	2	QT-M 2x26-42/220-240 S	4008321110022	123x79x33	54	2x1900

HO 39 W

Lamp	lp	ECG type	EAN	LxWxH [mm]	System wattage [W]	Lamp luminous flux [lm]
HO 39 W	1	QTi DALI 1x21/39 DIM	4050300870366	360x30x21	41.8	1x3100
HO 39 W	2	QTi DALI 2x21/39 DIM	4050300870489	423x30x21	82	2x3100
HO 39 W	1	QTi 1x21/39 DIM	4050300870564	360x30x21	41.8	1x3100
HO 39 W	2	QTi 2x21/39 DIM	4050300870694	423x30x21	82	2x3100
HO 39 W	1	QTi 1x14/24/21/39 GII	4008321383334	360x30x21	41	1x3100
HO 39 W	2	QTi 2x14/24/21/39 GII	4008321383396	360x30x21	81	2x3100
HO 39 W	1	QTP-OPTIMAL 1x18-40	4008321873743	280x30x21	41	1x3100
HO 39 W	2	QTP-OPTIMAL 2x18-40	4008321873767	360x30x21	88	2x3100
HO 39 W	1	QT-FIT 5/8 1x18-39	4052899141704	280x30x21	42	1x3100
HO 39 W	2	QT-FIT 5/8 2x18-39	4008321873903	280x30x21	80	2x3100
HO 39 W	1	QTP-M 1x26-42	4008321329134	103x67x31	41	1x3100

Summary of lamp/ECG combinations

HO 39 W SLS

Lamp	lp	ECG type	EAN	LxWxH [mm]	System wattage [W]	Lamp luminous flux [lm]
HO 39 W SLS	1	QTi DALI 1x21/39 DIM	4050300870366	360x30x21	40.8	1x3100
HO 39 W SLS	2	QTi DALI 2x21/39 DIM	4050300870489	423x30x21	82	2x3100
HO 39 W SLS	1	QTi 1x21/39 DIM	4050300870564	360x30x21	40.8	1x3100
HO 39 W SLS	2	QTi 2x21/39 DIM	4050300870694	423x30x21	80	2x3100
HO 39 W SLS	1	QTi 1x14/24/21/39 GII	4008321383334	360x30x21	41	1x3100
HO 39 W SLS	2	QTi 2x14/24/21/39 GII	4008321383396	360x30x21	81	2x3100

HO 39 W CONSTANT

Lamp	lp	ECG type	EAN	LxWxH [mm]	System wattage [W]	Lamp luminous flux [lm]
HO 39 W CONSTANT	1	QTi DALI 1x21/39 DIM	4050300870366	360x30x21	41.8	1x3400
HO 39 W CONSTANT	2	QTi DALI 2x21/39 DIM	4050300870489	423x30x21	82	2x3400
HO 39 W CONSTANT	1	QTi 1x21/39 DIM	4050300870564	360x30x21	41.8	1x3400
HO 39 W CONSTANT	2	QTi 2x21/39 DIM	4050300870694	423x30x21	82	2x3400
HO 39 W CONSTANT	1	QTi 1x14/24/21/39 GII	4008321383334	360x30x21	41	1x3300
HO 39 W CONSTANT	2	QTi 2x14/24/21/39 GII	4008321383396	360x30x21	81	2x3400
HO 39 W CONSTANT	1	QTP5 1x24-39	4008321329110	280x30x21	41	1x3300
HO 39 W CONSTANT	2	QTP5 2x24-39	4008321329417	360x30x21	82	2x3400
HO 39 W CONSTANT	1	QTP-OPTIMAL 1x18-40	4008321873743	280x30x21	41	1x3400
HO 39 W CONSTANT	2	QTP-OPTIMAL 2x18-40	4008321873767	360x30x21	88	2x3400
HO 39 W CONSTANT	1	QT-FIT 5/8 1x18-39	4008321873927	280x30x21	42	1x3400
HO 39 W CONSTANT	2	QT-FIT 5/8 2x18-39	4052899927018	280x30x21	80	2x3400
HO 39 W CONSTANT	1	QTP-M 1x26-42	4008321329134	103x67x31	41	1x3300

HO 49 W

Lamp	lp	ECG type	EAN	LxWxH [mm]	System wattage [W]	Lamp luminous flux [lm]
HO 49 W	1	QTi DALI 1x35/49/80 DIM	4050300870342	360x30x21	53.4	1x4300
HO 49 W	2	QTi DALI 2x35/49 DIM	4050300870465	423x30x21	103.6	2x4300
HO 49 W	2	QTi DALI 2x35/49/80 DIM	4050300870441	423x30x21	101	2x4300
HO 49 W	1	QTi 1x35/49/80 DIM	4050300870540	360x30x21	53.4	1x4300
HO 49 W	1	QT 1x49 DIM	4008321640352	360x30x21	52.3	1x4300
HO 49 W	2	QTi 2x35/49 DIM	4050300870670	423x30x21	103.6	2x4300
HO 49 W	2	QTi 2x35/49/80 DIM	4050300870984	423x30x21	103	2x4300
HO 49 W	2	QT 2x49 DIM	4008321640451	423x30x21	103.9	2x4300
HO 49 W	1	QTi 1x28/54/35/49 GII	4008321383358	360x30x21	53	1x4300
HO 49 W	1	QTi 1x35/49/80 GII	4008321383372	360x30x21	53	1x4300
HO 49 W	2	QTi 2x28/54/35/49 GII	4008321383419	360x30x21	105	2x4300
HO 49 W	2	QTi 2x35/49/80 GII	4008321658951	424x30x21	105	2x4300
HO 49 W	1	QTP5 1x49	4008321329370	280x30x21	53	1x4300
HO 49 W	2	QTP5 2x49	4008321329431	360x30x21	106	2x4300
HO 49 W	1	QTP5 1x49	4008321329370	280x30x21	53	1x4300
HO 49 W	2	QTP5 2x49	4008321329431	360x30x21	106	2x4300
HO 49 W	1	QT-FIT 5 1x49	4008321832139	280x30x21	54	1x4300
HO 49 W	2	QT-FIT 5 2x49	4052899927070	280x30x21	106	2x4300

Summary of lamp/ECG combinations

HO 49 W CONSTANT

Lamp	lp	ECG type	EAN	LxWxH [mm]	System wattage [W]	Lamp luminous flux [lm]
HO 49 W CONSTANT	1	QTi DALI 1x35/49/80 DIM	4050300870342	360x30x21	53.4	1x4450
HO 49 W CONSTANT	2	QTi DALI 2x35/49 DIM	4050300870465	423x30x21	103.6	2x4450
HO 49 W CONSTANT	2	QTi DALI 2x35/49/80 DIM	4050300870441	423x30x21	101	2x4450
HO 49 W CONSTANT	1	QTi 1x35/49/80 DIM	4050300870540	360x30x21	53.4	1x4450
HO 49 W CONSTANT	2	QTi 2x35/49 DIM	4050300870670	423x30x21	103.6	2x4450
HO 49 W CONSTANT	2	QTi 2x35/49/80 DIM	4050300870984	423x30x21	103	2x4450
HO 49 W CONSTANT	1	QT 1x49 DIM	4008321640352	360x30x21	52.3	1x4300
HO 49 W CONSTANT	2	QT 2x49 DIM	4008321640451	423x30x21	103.9	2x4300
HO 49 W CONSTANT	1	QTi 1x28/54/35/49 GII	4008321383358	360x30x21	53	1x4450
HO 49 W CONSTANT	1	QTi 1x35/49/80 GII	4008321383372	360x30x21	53	1x4450
HO 49 W CONSTANT	2	QTi 2x28/54/35/49 GII	4008321383419	360x30x21	105	2x4450
HO 49 W CONSTANT	2	QTi 2x35/49/80 GII	4008321658951	424x30x21	105	2x4450
HO 49 W CONSTANT	1	QTP5 1x49	4008321329370	280x30x21	53	1x4450
HO 49 W CONSTANT	2	QTP5 2x49	4008321329431	360x30x21	106	2x4450

HO 49 W XT

Lamp	lp	ECG type	EAN	LxWxH [mm]	System wattage [W]	Lamp luminous flux [lm]
HO 49 W XT	1	QT 1x49 DIM	4008321640352	360x30x21	52.3	1x4300
HO 49 W XT	2	QT 2x49 DIM	4008321640451	423x30x21	103.9	2x4300

HO 54 W

Lamp	lp	ECG type	EAN	LxWxH [mm]	System wattage [W]	Lamp luminous flux [lm]
HO 54 W	1	QTi DALI 1x28/54 DIM	4050300870809	360x30x21	58.8	1x4450
HO 54 W	2	QTi DALI 2x28/54 DIM	4050300870502	423x30x21	115	2x4450
HO 54 W	1	QTi 1x28/54 DIM	4050300870588	360x30x21	58.8	1x4450
HO 54 W	2	QTi 2x28/54 DIM	4050300870717	423x30x21	115	2x4450
HO 54 W	1	QT 1x54 DIM	4008321640338	360x30x21	58.1	1x4450
HO 54 W	2	QT 2x54 DIM	4008321640437	423x30x21	115.9	2x4450
HO 54 W	1	QTi 1x28/54/35/49 GII	4008321383358	360x30x21	58	1x4450
HO 54 W	2	QTi 2x28/54/35/49 GII	4008321383419	360x30x21	115	2x4450
HO 54 W	1	QTP5 1x54	4008321329394	280x30x21	59	1x4450
HO 54 W	2	QTP5 2x54	4008321329097	360x30x21	115	2x4450
HO 54 W	1	QTP-OPTIMAL 1x54-58	4008321873729	280x30x21	54	1x4450
HO 54 W	2	QTP-OPTIMAL 2x54-58	4008321880253	360x30x21	120	2x4450
HO 54 W	1	QT-FIT 5/8 1x54-58	4008321873828	280x30x21	59	1x4450
HO 54 W	2	QT-FIT 5/8 2x54-58	4008321873842	280x30x21	116	2x4450

Summary of lamp/ECG combinations

HO 54 W SLS

Lamp	lp	ECG type	EAN	LxWxH [mm]	System wattage [W]	Lamp luminous flux [lm]
HO 54 W SLS	1	QTi DALI 1x28/54 DIM	4050300870809	360x30x21	58.8	1x4450
HO 54 W SLS	2	QTi DALI 2x28/54 DIM	4050300870502	423x30x21	115	2x4450
HO 54 W SLS	1	QTi 1x28/54 DIM	4050300870588	360x30x21	58.8	1x4450
HO 54 W SLS	1	QT 1x54 DIM	4008321640338	360x30x21	58.1	1x4450
HO 54 W SLS	2	QT 2x54 DIM	4008321640437	423x30x21	115.9	2x4450
HO 54 W SLS	1	QTi 1x28/54/35/49 GII	4008321383358	360x30x21	58	1x4450
HO 54 W SLS	2	QTi 2x28/54/35/49 GII	4008321383419	360x30x21	115	2x4450

HO 54 W CONSTANT

Lamp	lp	ECG type	EAN	LxWxH [mm]	System wattage [W]	Lamp luminous flux [lm]
HO 54 W CONSTANT	1	QTi DALI 1x28/54 DIM	4050300870809	360x30x21	58.8	1x4850
HO 54 W CONSTANT	2	QTi DALI 2x28/54 DIM	4050300870502	423x30x21	115	2x4850
HO 54 W CONSTANT	1	QTi 1x28/54 DIM	4050300870588	360x30x21	58.8	1x4850
HO 54 W CONSTANT	2	QTi 2x28/54 DIM	4050300870717	423x30x21	115	2x4850
HO 54 W CONSTANT	1	QT 1x54 DIM	4008321640338	360x30x21	58.1	1x4450
HO 54 W CONSTANT	2	QT 2x54 DIM	4008321640437	423x30x21	115.9	2x4450
HO 54 W CONSTANT	1	QTi 1x28/54/35/49 GII	4008321383358	360x30x21	58	1x4850
HO 54 W CONSTANT	2	QTi 2x28/54/35/49 GII	4008321383419	360x30x21	115	2x4850
HO 54 W CONSTANT	1	QTP5 1x54	4008321329394	280x30x21	59	1x4850
HO 54 W CONSTANT	2	QTP5 2x54	4008321329097	360x30x21	115	2x4850
HO 54 W CONSTANT	1	QTP-OPTIMAL 1x54-58	4008321873729	280x30x21	54	1x4450
HO 54 W CONSTANT	2	QTP-OPTIMAL 2x54-58	4008321880253	360x30x21	120	2x4450
HO 54 W CONSTANT	1	QT-FIT 5/8 1x54-58	4008321873828	280x30x21	59	1x4450
HO 54 W CONSTANT	2	QT-FIT 5/8 2x54-58	4008321873842	280x30x21	116	2x4450

HO 54 W XT

Lamp	lp	ECG type	EAN	LxWxH [mm]	System wattage [W]	Lamp luminous flux [lm]
HO 54 W XT	1	QTi DALI 1x28/54 DIM	4050300870809	360x30x21	58.8	1x4450
HO 54 W XT	2	QTi DALI 2x28/54 DIM	4050300870502	423x30x21	115	2x4450
HO 54 W XT	1	QTi 1x28/54 DIM	4050300870588	360x30x21	58.8	1x4450
HO 54 W XT	1	QT 1x54 DIM	4008321640338	360x30x21	58.1	1x4450
HO 54 W XT	2	QT 2x54 DIM	4008321640437	423x30x21	115.9	2x4450
HO 54 W XT	1	QTi 1x28/54/35/49 GII	4008321383358	360x30x21	58	1x4450
HO 54 W XT	2	QTi 2x28/54/35/49 GII	4008321383419	360x30x21	115	2x4450
HO 54 W XT	1	QTP5 1x54	4008321329394	280x30x21	59	1x4450
HO 54 W XT	2	QTP5 2x54	4008321329097	360x30x21	115	2x4450
HO 54 W XT	1	QTP-OPTIMAL 1x54-58	4008321873729	280x30x21	54	1x4450
HO 54 W XT	2	QTP-OPTIMAL 2x54-58	4008321880253	360x30x21	120	2x4450
HO 54 W XT	1	QT-FIT 5/8 1x54-58	4052899927063	280x30x21	59	1x4450
HO 54 W XT	2	QT-FIT 5/8 2x54-58	4008321873842	280x30x21	116	2x4450

Summary of lamp/ECG combinations

HO 80 W

Lamp	lp	ECG type	EAN	LxWxH [mm]	System wattage [W]	Lamp luminous flux [lm]
HO 80 W	1	QTi DALI 1x35/49/80 DIM	4050300870342	360x30x21	88.1	1x6150
HO 80 W	2	QTi DALI 2x35/49/80 DIM	4050300870441	423x30x21	165	2x6150
HO 80 W	1	QTi 1x35/49/80 DIM	4050300870540	360x30x21	88.1	1x6150
HO 80 W	2	QTi 2x35/49/80 DIM	4050300870984	423x30x21	165	2x6150
HO 80 W	1	QT 1x80 DIM	4008321640314	360x30x21	82	1x6150
HO 80 W	2	QT 2x80 DIM	4008321640413	423x30x21	163.2	2x6150
HO 80 W	1	QTi 1x35/49/80 GII	4008321383372	360x30x21	85	1x6150
HO 80 W	2	QTi 2x35/49/80 GII	4008321658951	424x30x21	167	2x6150
HO 80 W	1	QTP5 1x80	4008321329059	360x30x21	86	1x6150
HO 80 W	2	QT-FQ 2x80	4050300825564	424x30x21	175	2x6300

HO 80 W CONSTANT

Lamp	lp	ECG type	EAN	LxWxH [mm]	System wattage [W]	Lamp luminous flux [lm]
HO 80 W CONSTANT	1	QTi DALI 1x35/49/80 DIM	4050300870342	360x30x21	88.1	1x6800
HO 80 W CONSTANT	2	QTi DALI 2x35/49/80 DIM	4050300870441	423x30x21	165	2x6800
HO 80 W CONSTANT	1	QTi 1x35/49/80 DIM	4050300870540	360x30x21	88.1	1x6800
HO 80 W CONSTANT	2	QTi 2x35/49/80 DIM	4050300870984	423x30x21	165	2x6800
HO 80 W CONSTANT	1	QT 1x80 DIM	4008321640314	360x30x21	82	1x6150
HO 80 W CONSTANT	2	QT 2x80 DIM	4008321640413	423x30x21	163.2	2x6150
HO 80 W CONSTANT	1	QTi 1x35/49/80 GII	4008321383372	360x30x21	85	1x6800
HO 80 W CONSTANT	2	QTi 2x35/49/80 GII	4008321658951	424x30x21	167	2x6800
HO 80 W CONSTANT	1	QTP5 1x80	4008321329059	360x30x21	86	1x6800
HO 80 W CONSTANT	2	QT-FQ 2x80	4050300825564	424x30x21	175	2x6800

HO 80 W XT

Lamp	lp	ECG type	EAN	LxWxH [mm]	System wattage [W]	Lamp luminous flux [lm]
HO 80 W XT	1	QTi DALI 1x35/49/80 DIM	4050300870342	360x30x21	88.1	1x6150
HO 80 W XT	2	QTi DALI 2x35/49/80 DIM	4050300870441	423x30x21	165	2x6150
HO 80 W XT	1	QTi 1x35/49/80 DIM	4050300870540	360x30x21	88.1	1x6150
HO 80 W XT	2	QTi 2x35/49/80 DIM	4050300870984	423x30x21	165	2x6150
HO 80 W XT	1	QT 1x80 DIM	4008321640314	360x30x21	82	1x6150
HO 80 W XT	2	QT 2x80 DIM	4008321640413	423x30x21	163.2	2x6150
HO 80 W XT	1	QTi 1x35/49/80 GII	4008321383372	360x30x21	85	1x6150
HO 80 W XT	2	QTi 2x35/49/80 GII	4008321658951	424x30x21	167	2x6150
HO 80 W XT	1	QTP5 1x80	4008321329059	360x30x21	86	1x6150
HO 80 W XT	2	QT-FQ 2x80	4050300825564	424x30x21	175	2x6300

Summary of lamp/ECG combinations

HO 45 W ES

Lamp	lp	ECG type	EAN	LxWxH [mm]	System wattage [W]	Lamp luminous flux [lm]
HO 45 W ES	1	QTi DALI 1x35/49/80 DIM	4050300870342	360x30x21	53.4	1x4600
HO 45 W ES	2	QTi DALI 2x35/49/80 DIM	4050300870441	423x30x21	101	2x4600
HO 45 W ES	1	QTi 1x35/49/80 DIM	4050300870540	360x30x21	53.4	1x4600
HO 45 W ES	2	QTi 2x35/49/80 DIM	4050300870984	423x30x21	101	2x4600
HO 45 W ES	1	QT 1x49 DIM	4008321640352	360x30x21	52.3	1x4300
HO 45 W ES	2	QT 2x49 DIM	4008321640451	423x30x21	103.9	2x4300
HO 45 W ES	1	QTi 1x28/54/35/49 GII	4008321383358	360x30x21	48	1x4300
HO 45 W ES	1	QTi 1x35/49/80 GII	4008321383372	360x30x21	48	1x4300
HO 45 W ES	2	QTi 2x28/54/35/49 GII	4008321383419	360x30x21	98	2x4300
HO 45 W ES	2	QTi 2x35/49/80 GII	4008321658951	424x30x21	95	2x4300
HO 45 W ES	1	QTP5 1x49	4008321329370	280x30x21	49	1x4300
HO 45 W ES	2	QTP5 2x49	4008321329431	360x30x21	100	2x4300
HO 45 W ES	1	QT-FIT 5 1x49	4008321832139	280x30x21	49	1x4300
HO 45 W ES	2	QT-FIT 5 2x49	4052899927070	280x30x21	98	2x4300

HO 50 W ES

Lamp	lp	ECG type	EAN	LxWxH [mm]	System wattage [W]	Lamp luminous flux [lm]
HO 50 W ES	1	QTi DALI 1x28/54 DIM	4050300870809	360x30x21	59	1x4800
HO 50 W ES	2	QTi DALI 2x28/54 DIM	4050300870502	423x30x21	115	2x4800
HO 50 W ES	1	QTi 1x28/54 DIM	4050300870588	360x30x21	59	1x4800
HO 50 W ES	1	QTi 1x28/54/35/49 GII	4008321383358	360x30x21	54	1x4450
HO 50 W ES	2	QTi 2x28/54/35/49 GII	4008321383419	360x30x21	108	2x4450
HO 50 W ES	1	QTP5 1x54	4008321329394	280x30x21	54	1x4450
HO 50 W ES	2	QTP5 2x54	4008321329097	360x30x21	108	2x4450
HO 50 W ES	1	QTP-OPTIMAL 1x54-58	4008321873729	280x30x21	54	1x4450
HO 50 W ES	2	QTP-OPTIMAL 2x54-58	4008321880253	360x30x21	107	2x4450
HO 50 W ES	1	QT-FIT 5/8 1x54-58	4008321873828	280x30x21	59	1x4450
HO 50 W ES	2	QT-FIT 5/8 2x54-58	4052899927087	280x30x21	116	2x4450

HO 73 W ES

Lamp	lp	ECG type	EAN	LxWxH [mm]	System wattage [W]	Lamp luminous flux [lm]
HO 73 W ES	1	QTi DALI 1x35/49/80 DIM	4050300870342	360x30x21	88	1x6650
HO 73 W ES	2	QTi DALI 2x35/49/80 DIM	4050300870441	423x30x21	165	2x6400
HO 73 W ES	1	QTi 1x35/49/80 DIM	4050300870540	360x30x21	88	1x6650
HO 73 W ES	2	QTi 2x35/49/80 DIM	4050300870984	423x30x21	165	2x6400
HO 73 W ES	1	QT 1x80 DIM	4008321640314	360x30x21	82	1x6150
HO 73 W ES	2	QT 2x80 DIM	4008321640413	423x30x21	163.2	2x6150
HO 73 W ES	1	QTi 1x35/49/80 GII	4008321383372	360x30x21	79	1x6150
HO 73 W ES	2	QTi 2x35/49/80 GII	4008321658951	424x30x21	155	2x6150
HO 73 W ES	1	QTP5 1x80	4008321329059	360x30x21	79	1x6150
HO 73 W ES	2	QT-FQ 2x80	4050300825564	424x30x21	162	2x6150

Summary of lamp/ECG combinations

FC 22 W

Lamp	lp	ECG type	EAN	LxWxH [mm]	System wattage [W]	Lamp luminous flux [lm]
FC 22 W	1	QTi DALI 1x14/24 DIM	4050300870380	360x30x21	25	1x1750
FC 22 W	2	QTi DALI 2x14/24 DIM	4050300870861	423x30x21	49	2x1750
FC 22 W	3	QTi DALI 3x14/24 DIM	4008321069955	360x40x21	73	3x1750
FC 22 W	4	QTi DALI 4x14/24 DIM	4008321070036	360x40x21	98	4x1750
FC 22 W	1	QTi DALI-T/E 1x18-57 DIM	4008321060808	123x79x33	26	1x1800
FC 22 W	2	QTi DALI-T/E 2x18-42 DIM	4008321060822	123x79x33	51	2x1800
FC 22 W	1	QTi 1x14/24 DIM	4050300870922	360x30x21	25	1x1750
FC 22 W	2	QTi 2x14/24 DIM	4050300870946	423x30x21	49	2x1750
FC 22 W	3	QTi 3x14/24 DIM	4008321069719	360x40x21	73	3x1750
FC 22 W	4	QTi 4x14/24 DIM	4008321069993	360x40x21	98	4x1750
FC 22 W	1	QTi-T/E 1x18-57 DIM	4008321060860	123x79x33	26	1x1750
FC 22 W	2	QTi-T/E 2x18-42 DIM	4008321060846	123x79x33	51	2x1750
FC 22 W	1	QTi 1x14/24/21/39 GII	4008321383334	360x30x21	25	1x1800
FC 22 W	2	QTi 2x14/24/21/39 GII	4008321383396	360x30x21	49	2x1800
FC 22 W	1	QTP-M 1x26-42	4008321329134	103x67x31	25	1x1800
FC 22 W	2	QTP-M 2x26-32	4008321329158	123x79x33	49	2x1800
FC 22 W	2	QT-M 2x26-42/220-240 S	4008321110022	123x79x33	54	2x1600
FC 22 W	1	QT-ECO 1x18-24/220-240 S	4050300638560	80x40x22	22.5	1x1650
FC 22 W	1	QT-ECO 1x18-24/220-240 L	4050300660417	150x22x22	22.5	1x1650

FC 22 + 40 W

Lamp	lp	ECG type	EAN	LxWxH [mm]	System wattage [W]	Lamp luminous flux [lm]
FC 22 + 40 W	2	QTi DALI-T/E 2x18-42 DIM	4008321060822	123x79x33	70	2x5000
FC 22 + 40 W	2	QTi-T/E 2x18-42 DIM	4008321060846	123x79x33	70	2x5000
FC 22 + 40 W	2	QTP-M 2x26-32	4008321329158	123x79x33	67	2x5000
FC 22 + 40 W	2	QT-M 2x26-42/220-240 S	4008321110022	123x79x33	70	2x5000

FC 40 W

Lamp	lp	ECG type	EAN	LxWxH [mm]	System wattage [W]	Lamp luminous flux [lm]
FC 40 W	1	QTi DALI 1x21/39 DIM	4050300870366	360x30x21	42	1x3100
FC 40 W	2	QTi DALI 2x21/39 DIM	4050300870489	423x30x21	82	2x3100
FC 40 W	1	QTi DALI-T/E 1x18-57 DIM	4008321060808	123x79x33	45	1x3200
FC 40 W	2	QTi DALI-T/E 2x18-42 DIM	4008321060822	123x79x33	87	2x3200
FC 40 W	1	QTi 1x21/39 DIM	4050300870564	360x30x21	42	1x3100
FC 40 W	2	QTi 2x21/39 DIM	4050300870694	423x30x21	82	2x3100
FC 40 W	1	QTi-T/E 1x18-57 DIM	4008321060860	123x79x33	45	1x3200
FC 40 W	2	QTi-T/E 2x18-42 DIM	4008321060846	123x79x33	87	2x3200
FC 40 W	1	QTi 1x14/24/21/39 GII	4008321383334	360x30x21	43	1x3200
FC 40 W	2	QTi 2x14/24/21/39 GII	4008321383396	360x30x21	88	2x3200
FC 40 W	1	QTP-M 1x26-42	4008321329134	103x67x31	43	1x3200
FC 40 W	2	QT-M 2x26-42/220-240 S	4008321110022	123x79x33	88	2x3200

Summary of lamp/ECG combinations

FC 55 W

Lamp	lp	ECG type	EAN	LxWxH [mm]	System wattage [W]	Lamp luminous flux [lm]
FC 55 W	1	QTi DALI 1x28/54 DIM	**4050300870809**	360x30x21	59	1x4450
FC 55 W	2	QTi DALI 2x28/54 DIM	**4050300870502**	423x30x21	115	2x4450
FC 55 W	1	QTi 1x28/54 DIM	**4050300870588**	360x30x21	59	1x4450
FC 55 W	2	QTi 2x28/54 DIM	**4050300870717**	423x30x21	115	2x4450
FC 55 W	1	QTi 1x35/49/80 GII	**4008321383372**	360x30x21	59	1x4200
FC 55 W	2	QTi 2x35/49/80 GII	**4008321658951**	424x30x21	119	2x4200
FC 55 W	1	QTP-FC 1x55	**4008321537041**	103x67x31	59	1x4200

L 4 W

Lamp	lp	ECG type	EAN	LxWxH [mm]	System wattage [W]	Lamp luminous flux [lm]
L 4 W BASIC	1	QT-ECO 1x4-16/220-240 S	**4050300638584**	80x40x22	6.5	1x120
L 4 W BASIC	1	QT-ECO 1x4-16/220-240 L	**4050300660370**	150x22x22	6.5	1x120

L 6 W

Lamp	lp	ECG type	EAN	LxWxH [mm]	System wattage [W]	Lamp luminous flux [lm]
L 6 W BASIC	1	QT-ECO 1x4-16/220-240 S	**4050300638584**	80x40x22	8.5	1x270
L 6 W BASIC	1	QT-ECO 1x4-16/220-240 L	**4050300660370**	150x22x22	8.5	1x270
L 6 W BASIC	2	QT-ECO 2x5-11/220-240 S	**4050300821504**	80x40x22	14.5	2x280

L 8 W

Lamp	lp	ECG type	EAN	LxWxH [mm]	System wattage [W]	Lamp luminous flux [lm]
L 8 W BASIC	1	QT-ECO 1x4-16/220-240 S	**4050300638584**	80x40x22	10.5	1x450
L 8 W BASIC	1	QT-ECO 1x4-16/220-240 L	**4050300660370**	150x22x22	10.5	1x450
L 8 W BASIC	2	QT-ECO 2x5-11/220-240 S	**4050300821504**	80x40x22	17.5	2x450

Summary of lamp/ECG combinations

L 10 W

Lamp	lp	ECG type	EAN	LxWxH [mm]	System wattage [W]	Lamp luminous flux [lm]
L 10 W	1	QT-ECO 1x4-16/220-240 S	4050300638584	80x40x22	12	1x650
L 10 W	1	QT-ECO 1x4-16/220-240 L	4050300660370	150x22x22	12	1x650
L 10 W	2	QT-ECO 2x5-11/220-240 S	4050300821504	80x40x22	20	2x600

L 13 W

Lamp	lp	ECG type	EAN	LxWxH [mm]	System wattage [W]	Lamp luminous flux [lm]
L 13 W BASIC	1	QT-ECO 1x4-16/220-240 S	4050300638584	80x40x22	15	1x950
L 13 W BASIC	1	QT-ECO 1x4-16/220-240 L	4050300660370	150x22x22	15	1x950

L 15 W

Lamp	lp	ECG type	EAN	LxWxH [mm]	System wattage [W]	Lamp luminous flux [lm]
L 15 W	1	QTP-OPTIMAL 1x18-40	4008321873743	280x30x21	17	1x950
L 15 W	2	QTP-OPTIMAL 2x18-40	4008321873767	360x30x21	31	2x950
L 15 W	1	QTP-DL 1x18-24	4008321117861	239x30x28	17	1x950
L 15 W	2	QTP-DL 2x18-24	4008321117885	239x40x28	32	2x950
L 15 W	1	QT-ECO 1x18-24/220-240 S	4050300638560	80x40x22	17	1x950
L 15 W	1	QT-ECO 1x18-24/220-240 L	4050300660417	150x22x22	17	1x950

L 16 W

Lamp	lp	ECG type	EAN	LxWxH [mm]	System wattage [W]	Lamp luminous flux [lm]
L 16 W	1	QT-ECO 1x4-16/220-240 S	4050300638584	80x40x22	16	1x1100
L 16 W	1	QT-ECO 1x4-16/220-240 L	4050300660370	150x22x22	16	1x1100

Summary of lamp/ECG combinations

L 18 W

Lamp	lp	ECG type	EAN	LxWxH [mm]	System wattage [W]	Lamp luminous flux [lm]
L 18 W	1	QTi DALI 1x18 DIM	4050300870403	360x30x21	18.3	1x1350
L 18 W	2	QTi DALI 2x18 DIM	4050300870526	423x30x21	36.5	2x1350
L 18 W	3	QTi DALI 3x18 DIM	4008321069979	360x40x21	53.6	3x1350
L 18 W	4	QTi DALI 4x18 DIM	4008321070050	360x40x21	69.3	4x1350
L 18 W	1	QTi 1x18 DIM	4050300870601	360x30x21	19	1x1350
L 18 W	2	QTi 2x18 DIM	4050300870960	423x30x21	37	2x1350
L 18 W	3	QTi 3x18 DIM	4008321069931	360x40x21	53.6	3x1350
L 18 W	4	QTi 4x18 DIM	4008321070012	360x40x21	69.3	4x1350
L 18 W	1	QT 1x18 DIM	4008321645647	360x30x21	18.9	1x1350
L 18 W	2	QT 2x18 DIM	4008321645852	423x30x21	37.7	2x1350
L 18 W	1	QTi 1x14/24/21/39 GII	4008321383334	360x30x21	19	1x1350
L 18 W	2	QTi 2x14/24/21/39 GII	4008321383396	360x30x21	37	2x1350
L 18 W	1	QTP8 1x18	4008321131584	360x30x30	18	1x1350
L 18 W	2	QTP8 2x18	4008321131607	423x30x30	35	2x1350
L 18 W	3	QTP8 3x18, (4x18)	4008321131706	423x40x30	56	3x1300
L 18 W	4	QTP8 (3x18), 4x18	4008321131706	423x40x30	73	4x1300
L 18 W	1	QTP-OPTIMAL 1x18-40	4008321873743	280x30x21	20	1x1350
L 18 W	2	QTP-OPTIMAL 2x18-40	4008321873767	360x30x21	39	2x1350
L 18 W	1	QT-FIT 5/8 1x18-39	4008321873927	280x30x21	21	1x1350
L 18 W	2	QT-FIT 5/8 2x18-39	4052899927018	280x30x21	39	2x1350
L 18 W	1	QT-FIT8 1x18	4052899926950	280x30x28	19	1x1350
L 18 W	2	QT-FIT8 2x18	4052899926981	360x30x28	36	2x1350
L 18 W	3	QT-FIT8 3x18, (4x18)	4008321691415	280x40x28	54	3x1350
L 18 W	4	QT-FIT8 (3x18), 4x18	4008321691415	280x40x28	74	4x1350
L 18 W	1	QTz8 1x18	4008321863263	150x40x28	20	1x1350
L 18 W	2	QTz8 2x18	4008321863300	150x40x28	23	2x1350
L 18 W	3	QTz8 3x18	4008321863348	210x40x30	54	3x1350
L 18 W	4	QTz8 4x18	4008321863362	210x40x30	54	4x1350
L 18 W	1	QTP-DL 1x18-24	4008321117861	239x30x28	18	1x1300
L 18 W	2	QTP-DL 2x18-24	4008321117885	239x40x28	37	2x1300
L 18 W	1	QTP-M 1x26-42	4008321329134	103x67x31	19	1x1350
L 18 W	2	QTP-M 2x26-32	4008321329158	123x79x33	36	2x1350
L 18 W	1	QT-ECO 1x18-24/220-240 S	4050300638560	80x40x22	19	1x1250
L 18 W	1	QT-ECO 1x18-24/220-240 L	4050300660417	150x22x22	19	1x1250

L 18 W U

Lamp	lp	ECG type	EAN	LxWxH [mm]	System wattage [W]	Lamp luminous flux [lm]
L 18 W U	1	QTP8 1x18	4008321131584	360x30x30	21	1x1100
L 18 W U	1	QTP-OPTIMAL 1x18-40	4008321873743	280x30x21	20	1x1100
L 18 W U	2	QTP-OPTIMAL 2x18-40	4008321873767	360x30x21	39	2x1100
L 18 W U	1	QT-ECO 1x18-24/220-240 S	4050300638560	80x40x22	19.5	1x1100
L 18 W U	1	QT-ECO 1x18-24/220-240 L	4050300660417	150x22x22	19.5	1x1100

Summary of lamp/ECG combinations

L 18 W XT

Lamp	lp	ECG type	EAN	LxWxH [mm]	System wattage [W]	Lamp luminous flux [lm]
L 18 W XT	1	QTi DALI 1x18 DIM	4050300870403	360x30x21	18.3	1x1350
L 18 W XT	2	QTi DALI 2x18 DIM	4050300870526	423x30x21	36.5	2x1350
L 18 W XT	3	QTi DALI 3x18 DIM	4008321069979	360x40x21	53.6	3x1350
L 18 W XT	4	QTi DALI 4x18 DIM	4008321070050	360x40x21	69.3	4x1350
L 18 W XT	1	QTi 1x18 DIM	4050300870601	360x30x21	19	1x1350
L 18 W XT	2	QTi 2x18 DIM	4050300870960	423x30x21	37	2x1350
L 18 W XT	3	QTi 3x18 DIM	4008321069931	360x40x21	53.6	3x1350
L 18 W XT	4	QTi 4x18 DIM	4008321070012	360x40x21	69.3	4x1350
L 18 W XT	1	QTi 1x14/24/21/39 GII	4008321383334	360x30x21	19	1x1350
L 18 W XT	2	QTi 2x14/24/21/39 GII	4008321383396	360x30x21	37	2x1350
L 18 W XT	1	QTP8 1x18	4008321131584	360x30x30	18	1x1350
L 18 W XT	2	QTP8 2x18	4008321131607	423x30x30	35	2x1350
L 18 W XT	3	QTP8 3x18, (4x18)	4008321131706	423x40x30	56	3x1300
L 18 W XT	4	QTP8 (3x18), 4x18	4008321131706	423x40x30	73	4x1300
L 18 W XT	1	QTP-OPTIMAL 1x18-40	4008321873743	280x30x21	20	1x1350
L 18 W XT	2	QTP-OPTIMAL 2x18-40	4008321873767	360x30x21	39	2x1350
L 18 W XT	1	QT-FIT 5/8 1x18-39	4008321873927	280x30x21	21	1x1350
L 18 W XT	2	QT-FIT 5/8 2x18-39	4052899927018	280x30x21	39	2x1350
L 18 W XT	1	QT-FIT8 1x18	4052899926950	280x30x28	19	1x1350
L 18 W XT	2	QT-FIT8 2x18	4052899926981	360x30x28	36	2x1350
L 18 W XT	3	QT-FIT8 3x18, (4x18)	4008321691415	280x40x28	54	3x1350
L 18 W XT	4	QT-FIT8 (3x18), 4x18	4008321691415	280x40x28	74	4x1350
L 18 W XT	1	QTP-DL 1x18-24	4008321117861	239x30x28	18	1x1300
L 18 W XT	2	QTP-DL 2x18-24	4008321117885	239x40x28	37	2x1300
L 18 W XT	1	QTP-M 1x26-42	4008321329134	103x67x31	19	1x1350
L 18 W XT	2	QTP-M 2x26-32	4008321329158	123x79x33	36	2x1350

Summary of lamp/ECG combinations

L 18 W XXT

Lamp	lp	ECG type	EAN	LxWxH [mm]	System wattage [W]	Lamp luminous flux [lm]
L 18 W XXT	1	QTi DALI 1x18 DIM	4050300870403	360x30x21	18.3	1x1350
L 18 W XXT	2	QTi DALI 2x18 DIM	4050300870526	423x30x21	36.5	2x1350
L 18 W XXT	3	QTi DALI 3x18 DIM	4008321069979	360x40x21	53.6	3x1350
L 18 W XXT	4	QTi DALI 4x18 DIM	4008321070050	360x40x21	69.3	4x1350
L 18 W XXT	1	QTi 1x18 DIM	4050300870601	360x30x21	19	1x1350
L 18 W XXT	2	QTi 2x18 DIM	4050300870960	423x30x21	37	2x1350
L 18 W XXT	3	QTi 3x18 DIM	4008321069931	360x40x21	53.6	3x1350
L 18 W XXT	4	QTi 4x18 DIM	4008321070012	360x40x21	69.3	4x1350
L 18 W XXT	1	QTi 1x14/24/21/39 GII	4008321383334	360x30x21	19	1x1350
L 18 W XXT	2	QTi 2x14/24/21/39 GII	4008321383396	360x30x21	37	2x1350
L 18 W XXT	1	QTP8 1x18	4008321131584	360x30x30	18	1x1350
L 18 W XXT	2	QTP8 2x18	4008321131607	423x30x30	35	2x1350
L 18 W XXT	3	QTP8 3x18, 4x18	4008321131706	423x40x30	56	3x1300
L 18 W XXT	4	QTP8 3x18, 4x18	4008321131706	423x40x30	73	4x1300
L 18 W XXT	1	QTP-OPTIMAL 1x18-40	4008321873743	280x30x21	20	1x1350
L 18 W XXT	2	QTP-OPTIMAL 2x18-40	4008321873767	360x30x21	39	2x1350
L 18 W XXT	1	QT-FIT 5/8 1x18-39	4052899141704	280x30x21	21	1x1350
L 18 W XXT	2	QT-FIT 5/8 2x18-39	4052899927018	280x30x21	39	2x1350
L 18 W XXT	1	QT-FIT8 1x18	4052899926950	280x30x28	19	1x1350
L 18 W XXT	2	QT-FIT8 2x18	4052899926981	360x30x28	36	2x1350
L 18 W XXT	3	QT-FIT8 3x18, (4x18)	4008321691415	280x40x28	54	3x1350
L 18 W XXT	4	QT-FIT8 (3x18), 4x18	4008321691415	280x40x28	74	4x1350
L 18 W XXT	1	QTP-DL 1x18-24	4008321117861	239x30x28	18	1x1300
L 18 W XXT	2	QTP-DL 2x18-24	4008321117885	239x40x28	37	2x1300
L 18 W XXT	1	QTP-M 1x26-42	4008321329134	103x67x31	19	1x1350
L 18 W XXT	2	QTP-M 2x26-32	4008321329158	123x79x33	36	2x1350

L 30 W

Lamp	lp	ECG type	EAN	LxWxH [mm]	System wattage [W]	Lamp luminous flux [lm]
L 30 W	1	QTi DALI 1x36 DIM	4050300870427	360x30x21	36	1x2250
L 30 W	2	QTi DALI 2x36 DIM	4050300870885	423x30x21	69	2x2250
L 30 W	1	QTi 1x36 DIM	4050300870625	360x30x21	36	1x2250
L 30 W	2	QTi 2x36 DIM	4050300870755	423x30x21	69	2x2250
L 30 W	1	QTP5 1x24-39	4008321329110	280x30x21	33	1x3000
L 30 W	2	QTP5 2x24-39	4008321329417	360x30x21	62	2x2850
L 30 W	1	QTP-OPTIMAL 1x18-40	4008321873743	280x30x21	36	1x2850
L 30 W	2	QTP-OPTIMAL 2x18-40	4008321873767	360x30x21	63	2x2850
L 30 W	1	QT-FIT 5/8 1x18-39	4008321873927	280x30x21	33	1x2350
L 30 W	2	QT-FIT 5/8 2x18-39	4052899927018	280x30x21	63	2x2350

Summary of lamp/ECG combinations

L 36 W

Lamp	Ip	ECG type	EAN	LxWxH [mm]	System wattage [W]	Lamp luminous flux [lm]
L 36 W	1	QTi DALI 1x36 DIM	4050300870427	360x30x21	36	1x2700
L 36 W	2	QTi DALI 2x36 DIM	4050300870885	423x30x21	69	2x2700
L 36 W	1	QTi 1x36 DIM	4050300870625	360x30x21	36	1x3350
L 36 W	2	QTi 2x36 DIM	4050300870755	423x30x21	69	2x3350
L 36 W	1	QT 1x36 DIM	4008321645623	360x30x21	36	1x3350
L 36 W	2	QT 2x36 DIM	4008321645838	423x30x21	72.4	2x3350
L 36 W	1	QTi 1x14/24/21/39 GII	4008321383334	360x30x21	35	1x3350
L 36 W	2	QTi 2x14/24/21/39 GII	4008321383396	360x30x21	70	2x3200
L 36 W	1	QTP5 1x24-39	4008321329110	280x30x21	36	1x3200
L 36 W	2	QTP5 2x24-39	4008321329417	360x30x21	70	2x3200
L 36 W	1	QTP8 1x36	4008321131621	360x30x30	35	1x3200
L 36 W	2	QTP8 2x36	4008321131645	423x30x30	72	2x3200
L 36 W	1	QTP-OPTIMAL 1x18-40	4008321873743	280x30x21	36	1x3200
L 36 W	2	QTP-OPTIMAL 2x18-40	4008321873767	360x30x21	71	2x3200
L 36 W	1	QT-FIT 5/8 1x18-39	4008321873927	280x30x21	37	1x3200
L 36 W	2	QT-FIT 5/8 2x18-39	4008321873903	280x30x21	70	2x3200
L 36 W	1	QT-FIT8 1x36	4052899926967	280x30x28	36	1x3200
L 36 W	2	QT-FIT8 2x36	4052899926998	360x30x28	71	2x3200
L 36 W	1	QTz8 1x36	4008321863287	150x40x28	36	1x3200
L 36 W	2	QTz8 2x36	4008321863324	210x40x30	71	2x3200
L 36 W	1	QTP-DL 1x36-40	4008321117908	239x30x28	38	1x3400
L 36 W	2	QTP-DL 2x36-40	4008321117922	280x40x28	80.5	2x3400
L 36 W	1	QTP-M 1x26-42	4008321329134	103x67x31	35	1x3350
L 36 W	2	QT-M 2x26-42/220-240 S	4008321110022	123x79x33	70	2x3200

L 36 W -1

Lamp	Ip	ECG type	EAN	LxWxH [mm]	System wattage [W]	Lamp luminous flux [lm]
L 36 W -1	1	QTi DALI 1x36 DIM	4050300870427	360x30x21	36	1x2700
L 36 W -1	2	QTi DALI 2x36 DIM	4050300870885	423x30x21	69	2x2700
L 36 W -1	1	QTi 1x36 DIM	4050300870625	360x30x21	36	1x2700
L 36 W -1	2	QTi 2x36 DIM	4050300870755	423x30x21	69	2x2700
L 36 W -1	1	QTP8 1x58	4008321131669	360x30x30	40	1x3100
L 36 W -1	2	QTP8 2x58	4008321131683	423x30x30	83	2x3100
L 36 W -1	1	QTP-OPTIMAL 1x18-40	4008321873743	280x30x21	36	1x3100
L 36 W -1	2	QTP-OPTIMAL 2x18-40	4008321873767	360x30x21	71	2x3100
L 36 W -1	1	QTP-DL 1x36-40	4008321117908	239x30x28	31	1x2875
L 36 W -1	2	QTP-DL 2x36-40	4008321117922	280x40x28	60	2x2900

Summary of lamp/ECG combinations

L 36 W XT

Lamp	lp	ECG type	EAN	LxWxH [mm]	System wattage [W]	Lamp luminous flux [lm]
L 36 W XT	1	QTi DALI 1x36 DIM	4050300870427	360x30x21	36	1x3300
L 36 W XT	2	QTi DALI 2x36 DIM	4050300870885	423x30x21	37	2x3300
L 36 W XT	1	QTi 1x36 DIM	4050300870625	360x30x21	36	1x3300
L 36 W XT	2	QTi 2x36 DIM	4050300870755	423x30x21	37	2x3300
L 36 W XT	1	QTi 1x14/24/21/39 GII	4008321383334	360x30x21	35	1x3200
L 36 W XT	2	QTi 2x14/24/21/39 GII	4008321383396	360x30x21	70	2x3200
L 36 W XT	1	QTP8 1x36	4008321131621	360x30x30	35	1x3200
L 36 W XT	2	QTP8 2x36	4008321131645	423x30x30	72	2x3200
L 36 W XT	1	QTP-OPTIMAL 1x18-40	4008321873743	280x30x21	36	1x3200
L 36 W XT	2	QTP-OPTIMAL 2x18-40	4008321873767	360x30x21	71	2x3200
L 36 W XT	1	QT-FIT 5/8 1x18-39	4008321873927	280x30x21	16	1x3200
L 36 W XT	2	QT-FIT 5/8 2x18-39	4008321873903	280x30x21	70	2x3200
L 36 W XT	1	QT-FIT8 1x36	4008321294203	280x30x28	36	1x3200
L 36 W XT	2	QT-FIT8 2x36	4052899926998	360x30x28	71	2x3200

L 36 W XXT

Lamp	lp	ECG type	EAN	LxWxH [mm]	System wattage [W]	Lamp luminous flux [lm]
L 36 W XXT	1	QTi DALI 1x36 DIM	4050300870427	360x30x21	36	1x3300
L 36 W XXT	2	QTi DALI 2x36 DIM	4050300870885	423x30x21	37	2x3300
L 36 W XXT	1	QTi 1x36 DIM	4050300870625	360x30x21	36	1x3300
L 36 W XXT	2	QTi 2x36 DIM	4050300870755	423x30x21	37	2x3300
L 36 W XXT	1	QTi 1x14/24/21/39 GII	4008321383334	360x30x21	35	1x3200
L 36 W XXT	2	QTi 2x14/24/21/39 GII	4008321383396	360x30x21	70	2x3200
L 36 W XXT	1	QTP8 1x36	4008321131621	360x30x30	35	1x3200
L 36 W XXT	2	QTP8 2x36	4008321131645	423x30x30	72	2x3200
L 36 W XXT	1	QTP-OPTIMAL 1x18-40	4008321873743	280x30x21	36	1x3200
L 36 W XXT	2	QTP-OPTIMAL 2x18-40	4008321873767	360x30x21	71	2x3200
L 36 W XXT	1	QT-FIT 5/8 1x18-39	4008321873927	280x30x21	37	1x3200
L 36 W XXT	2	QT-FIT 5/8 2x18-39	4008321873903	280x30x21	70	2x3200

L 38 W

Lamp	lp	ECG type	EAN	LxWxH [mm]	System wattage [W]	Lamp luminous flux [lm]
L 38 W	1	QTi DALI 1x36 DIM	4050300870427	360x30x21	36	1x3300
L 38 W	2	QTi DALI 2x36 DIM	4050300870885	423x30x21	69	2x3300
L 38 W	1	QTi 1x36 DIM	4050300870625	360x30x21	36	1x3300
L 38 W	2	QTi 2x36 DIM	4050300870755	423x30x21	69	2x3350
L 38 W	1	QTi 1x14/24/21/39 GII	4008321383334	360x30x21	35	1x3300
L 38 W	1	QTP8 1x36	4008321131621	360x30x30	35	1x3200
L 38 W	2	QTP8 2x36	4008321131645	423x30x30	70	2x3200

Summary of lamp/ECG combinations

L 58 W

Lamp	lp	ECG type	EAN	LxWxH [mm]	System wattage [W]	Lamp luminous flux [lm]
L 58 W	1	QTi DALI 1x58 DIM	4050300870823	360x30x21	56	1x5000
L 58 W	2	QTi DALI 2x58 DIM	4050300870847	423x30x21	108	2x5000
L 58 W	2	QTi 2x58 DIM	4050300870731	423x30x21	108	2x5000
L 58 W	1	QT 1x58 DIM	4008321645609	360x30x21	55.7	1x5000
L 58 W	2	QT 2x58 DIM	4008321645814	423x30x21	110	2x5000
L 58 W	1	QTi 1x28/54/35/49 GII	4008321383358	360x30x21	55	1x5000
L 58 W	2	QTi 2x28/54/35/49 GII	4008321383419	360x30x21	109	2x5000
L 58 W	1	QTP5 1x54	4008321329394	280x30x21	55	1x5000
L 58 W	2	QTP5 2x54	4008321329097	360x30x21	109	2x5000
L 58 W	1	QTP8 1x58	4008321131669	360x30x30	55	1x5000
L 58 W	2	QTP8 2x58	4008321131683	423x30x30	110	2x5000
L 58 W	1	QTP-OPTIMAL 1x54-58	4008321873729	280x30x21	54	1x5000
L 58 W	2	QTP-OPTIMAL 2x54-58	4008321880253	360x30x21	112	2x5000
L 58 W	1	QT-FIT 5/8 1x54-58	4008321873828	280x30x21	54	1x5000
L 58 W	2	QT-FIT 5/8 2x54-58	4052899927087	280x30x21	107	2x5000
L 58 W	1	QT-FIT8 1x58-70	4008321294227	280x30x28	54	1x5000
L 58 W	2	QT-FIT8 2x58	4008321294289	360x30x28	109	2x5000
L 58 W	2	QT-FIT8 2x58-70	4052899151932	360x30x28	109	2x5000

L 58 W XT

Lamp	lp	ECG type	EAN	LxWxH [mm]	System wattage [W]	Lamp luminous flux [lm]
L 58 W XT	1	QTi DALI 1x58 DIM	4050300870823	360x30x21	56	1x5000
L 58 W XT	2	QTi DALI 2x58 DIM	4050300870847	423x30x21	108	2x5000
L 58 W XT	2	QTi 2x58 DIM	4050300870731	423x30x21	108	2x5000
L 58 W XT	1	QTi 1x28/54/35/49 GII	4008321383358	360x30x21	55	1x5000
L 58 W XT	2	QTi 2x28/54/35/49 GII	4008321383419	360x30x21	109	2x5000
L 58 W XT	1	QTP8 1x36	4008321131621	360x30x30	55	1x5000
L 58 W XT	2	QTP8 2x36	4008321131645	423x30x30	110	2x5000
L 58 W XT	1	QTP-OPTIMAL 1x54-58	4008321873729	280x30x21	54	1x5000
L 58 W XT	2	QTP-OPTIMAL 2x54-58	4008321880253	360x30x21	112	2x5000
L 58 W XT	1	QT-FIT 5/8 1x54-58	4008321873828	280x30x21	54	1x5000
L 58 W XT	2	QT-FIT 5/8 2x54-58	4008321873842	280x30x21	107	2x5000
L 58 W XT	1	QT-FIT8 1x58-70	4008321294227	280x30x28	54	1x5000
L 58 W XT	2	QT-FIT8 2x58	4008321294289	360x30x28	109	2x5000
L 58 W XT	2	QT-FIT8 2x58-70	4052899151932	360x30x28	109	2x5000

Summary of lamp/ECG combinations

L 58 W XXT

Lamp	lp	ECG type	EAN	LxWxH [mm]	System wattage [W]	Lamp luminous flux [lm]
L 58 W XXT	1	QTi DALI 1x58 DIM	4050300870823	360x30x21	56	1x5000
L 58 W XXT	2	QTi DALI 2x58 DIM	4050300870847	423x30x21	108	2x5000
L 58 W XXT	2	QTi 2x58 DIM	4050300870731	423X30X21	108	2x5000
L 58 W XXT	1	QTi 1x28/54/35/49 GII	4008321383358	360x30x21	55	1x5000
L 58 W XXT	2	QTi 2x28/54/35/49 GII	4008321383419	360x30x21	109	2x5000
L 58 W XXT	1	QTP8 1x36	4008321131621	360x30x30	55	1x5000
L 58 W XXT	2	QTP8 2x36	4008321131645	423x30x30	110	2x5000
L 58 W XXT	1	QTP-OPTIMAL 1x54-58	4008321873729	280x30x21	54	1x5000
L 58 W XXT	2	QTP-OPTIMAL 2x54-58	4008321880253	360x30x21	112	2x5000
L 58 W XXT	1	QT-FIT 5/8 1x54-58	4052899927063	280x30x21	54	1x5000
L 58 W XXT	2	QT-FIT 5/8 2x54-58	4052899927087	280x30x21	107	2x5000

L 70 W

Lamp	lp	ECG type	EAN	LxWxH [mm]	System wattage [W]	Lamp luminous flux [lm]
L 70 W	1	QTi DALI 1x21/39 DIM	4050300870366	360x30x21	70	1x6200
L 70 W	2	QTi DALI 2x21/39 DIM	4050300870489	423x30x21	128	2x6200
L 70 W	1	QTi 1x21/39 DIM	4050300870564	360x30x21	65.5	1x6200
L 70 W	2	QTi 2x21/39 DIM	4050300870694	423x30x21	128	2x6200
L 70 W	1	QT-FIT8 1x58-70	4052899926974	280x30x28	62	1x5900
L 70 W	2	QT-FIT8 2x58-70	4052899151932	360x30x28	124	2x5900

L 16 W ES

Lamp	lp	ECG type	EAN	LxWxH [mm]	System wattage [W]	Lamp luminous flux [lm]
L 16 W ES	1	QTP-OPTIMAL 1x18-40	4008321873743	280x30x21	18	1x1100
L 16 W ES	2	QTP-OPTIMAL 2x18-40	4008321873767	360x30x21	33	2x1100
L 16 W ES	1	QT-FIT 5/8 1x18-39	4052899141704	280x30x21	18	1x1100
L 16 W ES	2	QT-FIT 5/8 2x18-39	4008321873903	280x30x21	33	2x1100
L 16 W ES	1	QT-FIT8 1x18	4008321294180	280x30x28	17.2	1x1100
L 16 W ES	2	QT-FIT8 2x18	4008321294241	360x30x28	32.4	2x1100
L 16 W ES	3	QT-FIT8 3x18, (4x18)	4008321691415	280x40x28	47.1	3x1100
L 16 W ES	4	QT-FIT8 (3x18), 4x18	4008321691415	280x40x28	21.2	4x1100

L 32 W ES

Lamp	lp	ECG type	EAN	LxWxH [mm]	System wattage [W]	Lamp luminous flux [lm]
L 32 W ES	1	QTP-OPTIMAL 1x18-40	4008321873743	280x30x21	36	1x2500
L 32 W ES	2	QTP-OPTIMAL 2x18-40	4008321873767	360x30x21	71	2x2500
L 32 W ES	1	QT-FIT8 1x36	4008321294203	280x30x28	32	1x2500
L 32 W ES	2	QT-FIT8 2x36	4008321294265	360x30x28	64	2x2500

Summary of lamp/ECG combinations

L 51 W ES

Lamp	lp	ECG type	EAN	LxWxH [mm]	System wattage [W]	Lamp luminous flux [lm]
L 51 W ES	1	QT-FIT8 1x58-70	4008321294227	280x30x28	50	1x4200
L 51 W ES	2	QT-FIT8 2x58	4008321294289	360x30x28	96	2x4200
L 51 W ES	2	QT-FIT8 2x58-70	4052899151932	360x30x28	96	2x4200

L 22 W C

Lamp	lp	ECG type	EAN	LxWxH [mm]	System wattage [W]	Lamp luminous flux [lm]
L 22 W C	1	QT-ECO 1x18-24/220-240 S	4050300638560	80x40x22	20	1x1250
L 22 W C	1	QT-ECO 1x18-24/220-240 L	4050300660417	150x22x22	20	1x1250

L 32 W C

Lamp	lp	ECG type	EAN	LxWxH [mm]	System wattage [W]	Lamp luminous flux [lm]
L 32 W C	1	QTi DALI 1x36 DIM	4050300870427	360x30x21	36	1x2300
L 32 W C	2	QTi DALI 2x36 DIM	4050300870885	423x30x21	69	2x2300
L 32 W C	1	QTi 1x36 DIM	4050300870625	360x30x21	36	1x2300
L 32 W C	2	QTi 2x36 DIM	4050300870755	423x30x21	69	2x2300
L 32 W C	1	QTP8 1x36	4008321131621	360x30x30	34	1x2050

DULUX L 18 W

Lamp	lp	ECG type	EAN	LxWxH [mm]	System wattage [W]	Lamp luminous flux [lm]
DULUX L 18 W	1	QTi DALI 1x18 DIM	4050300870403	360x30x21	18	1x1200
DULUX L 18 W	2	QTi DALI 2x18 DIM	4050300870526	423x30x21	37	2x1200
DULUX L 18 W	3	QTi DALI 3x18 DIM	4008321069979	360x40x21	53.6	3x1200
DULUX L 18 W	4	QTi DALI 4x18 DIM	4008321070050	360x40x21	69.3	4x1200
DULUX L 18 W	1	QTi 1x18 DIM	4050300870601	360x30x21	19	1x1200
DULUX L 18 W	2	QTi 2x18 DIM	4050300870960	423x30x21	37	2x1200
DULUX L 18 W	3	QTi 3x18 DIM	4008321069931	360x40x21	53.6	3x1200
DULUX L 18 W	4	QTi 4x18 DIM	4008321070012	360x40x21	69.3	4x1200
DULUX L 18 W	1	QT 1x18 DIM	4008321645647	360x30x21	18.9	1x1350
DULUX L 18 W	2	QT 2x18 DIM	4008321645852	423x30x21	37.7	2x1350
DULUX L 18 W	1	QTP-OPTIMAL 1x18-40	4008321873743	280x30x21	19	1x1150
DULUX L 18 W	2	QTP-OPTIMAL 2x18-40	4008321873767	360x30x21	36	2x1150
DULUX L 18 W	1	QTP-DL 1x18-24	4008321117861	239x30x28	18	1x1200
DULUX L 18 W	2	QTP-DL 2x18-24	4008321117885	239x40x28	36	2x1200
DULUX L 18 W	1	QTP-M 1x26-42	4008321329134	103x67x31	18	1x1150
DULUX L 18 W	2	QTP-M 2x26-32	4008321329158	123x79x33	36	2x1150
DULUX L 18 W	1	QT-ECO 1x18-24/220-240 S	4050300638560	80x40x22	18	1x1200
DULUX L 18 W	1	QT-ECO 1x18-24/220-240 L	4050300660417	150x22x22	18	1x1200

Summary of lamp/ECG combinations

DULUX L 18 W XT

Lamp	lp	ECG type	EAN	LxWxH [mm]	System wattage [W]	Lamp luminous flux [lm]
DULUX L 18 W XT	1	QTP-OPTIMAL 1x18-40	4008321873743	280x30x21	19	1x1150
DULUX L 18 W XT	2	QTP-OPTIMAL 2x18-40	4008321873767	360x30x21	36	2x1150
DULUX L 18 W XT	1	QTP-DL 1x18-24	4008321117861	239x30x28	18	1x1200
DULUX L 18 W XT	2	QTP-DL 2x18-24	4008321117885	239x40x28	36	2x1200
DULUX L 18 W XT	1	QTP-M 1x26-42	4008321329134	103x67x31	18	1x1150
DULUX L 18 W XT	2	QTP-M 2x26-32	4008321329158	123x79x33	36	2x1150

DULUX L 24 W

Lamp	lp	ECG type	EAN	LxWxH [mm]	System wattage [W]	Lamp luminous flux [lm]
DULUX L 24 W	1	QTi DALI 1x14/24 DIM	4050300870380	360x30x21	25	1x1600
DULUX L 24 W	2	QTi DALI 2x14/24 DIM	4050300870861	423x30x21	49	2x1800
DULUX L 24 W	3	QTi DALI 3x14/24 DIM	4008321069955	360x40x21	73	3x1800
DULUX L 24 W	4	QTi DALI 4x14/24 DIM	4008321070036	360x40x21	98	4x1800
DULUX L 24 W	1	QTi DALI-T/E 1x18-57 DIM	4008321060808	123x79x33	26	1x1200
DULUX L 24 W	2	QTi DALI-T/E 2x18-42 DIM	4008321060822	123x79x33	51	2x1200
DULUX L 24 W	1	QTi 1x14/24 DIM	4050300870922	360x30x21	25	1x1800
DULUX L 24 W	2	QTi 2x14/24 DIM	4050300870946	423x30x21	49	2x1800
DULUX L 24 W	3	QTi 3x14/24 DIM	4008321069719	360x40x21	73	3x1800
DULUX L 24 W	4	QTi 4x14/24 DIM	4008321069993	360x40x21	98	4x1800
DULUX L 24 W	1	QTP-OPTIMAL 1x18-40	4008321873743	280x30x21	27	1x1750
DULUX L 24 W	2	QTP-OPTIMAL 2x18-40	4008321873767	360x30x21	53	2x1750
DULUX L 24 W	1	QTP-DL 1x18-24	4008321117861	239x30x28	26	1x1800
DULUX L 24 W	2	QTP-DL 2x18-24	4008321117885	239x40x28	49	2x1800
DULUX L 24 W	1	QTP-M 1x26-42	4008321329134	103x67x31	25	1x1750
DULUX L 24 W	2	QTP-M 2x26-32	4008321329158	123x79x33	48	2x1750
DULUX L 24 W	2	QT-M 2x26-42/220-240 S	4008321110022	123x79x33	54	2x1750
DULUX L 24 W	1	QT-ECO 1x18-24/220-240 S	4050300638560	80x40x22	22.5	1x1600
DULUX L 24 W	1	QT-ECO 1x18-24/220-240 L	4050300660417	150x22x22	22.5	1x1600

Summary of lamp/ECG combinations

DULUX L 24 W XT

Lamp	lp	ECG type	EAN	LxWxH [mm]	System wattage [W]	Lamp luminous flux [lm]
DULUX L 24 W XT	1	QTP-OPTIMAL 1x18-40	**4008321873743**	280x30x21	27	1x1750
DULUX L 24 W XT	2	QTP-OPTIMAL 2x18-40	**4008321873767**	360x30x21	53	2x1750
DULUX L 24 W XT	1	QTP-DL 1x18-24	**4008321117861**	239x30x28	26	1x1800
DULUX L 24 W XT	2	QTP-DL 2x18-24	**4008321117885**	239x40x28	49	2x1800
DULUX L 24 W XT	1	QTP-M 1x26-42	**4008321329134**	103x67x31	25	1x1750
DULUX L 24 W XT	2	QTP-M 2x26-32	**4008321329158**	123x79x33	48	2x1750
DULUX L 24 W XT	2	QT-M 2x26-42/220-240 S	**4008321110022**	123x79x33	54	2x1750

DULUX L 36 W

Lamp	lp	ECG type	EAN	LxWxH [mm]	System wattage [W]	Lamp luminous flux [lm]
DULUX L 36 W	1	QTi DALI 1x36 DIM	**4050300870427**	360x30x21	36	1x2900
DULUX L 36 W	2	QTi DALI 2x36 DIM	**4050300870885**	423x30x21	69	2x2900
DULUX L 36 W	1	QTi 1x36 DIM	**4050300870625**	360x30x21	36	1x2900
DULUX L 36 W	2	QTi 2x36 DIM	**4050300870755**	432x30c21	69	2x2900
DULUX L 36 W	1	QT 1x36 DIM	**4008321645623**	360x30x21	36	1x3350
DULUX L 36 W	2	QT 2x36 DIM	**4008321645838**	423x30x21	72.4	2x3350
DULUX L 36 W	1	QTi 1x14/24/21/39 GII	**4008321383334**	360x30x21	34	1x2750
DULUX L 36 W	2	QTi 2x14/24/21/39 GII	**4008321383396**	360x30x21	68	2x2800
DULUX L 36 W	1	QTP-OPTIMAL 1x18-40	**4008321873743**	280x30x21	35	1x2800
DULUX L 36 W	2	QTP-OPTIMAL 2x18-40	**4008321873767**	360x30x21	70	2x2800
DULUX L 36 W	1	QTP-DL 1x36-40	**4008321117908**	239x30x28	35	1x2900
DULUX L 36 W	2	QTP-DL 2x36-40	**4008321117922**	280x40x28	68	2x2900
DULUX L 36 W	1	QTP-M 1x26-42	**4008321329134**	103x67x31	35	1x2800
DULUX L 36 W	2	QTP-M 2x26-32	**4008321329158**	123x79x33	68	2x2800
DULUX L 36 W	2	QT-M 2x26-42/220-240 S	**4008321110022**	123x79x33	70	2x2800

Summary of lamp/ECG combinations

DULUX L 36 W XT

Lamp	lp	ECG type	EAN	LxWxH [mm]	System wattage [W]	Lamp luminous flux [lm]
DULUX L 36 W XT	1	QTi DALI 1x36 DIM	4050300870427	360x30x21	36	1x2900
DULUX L 36 W XT	2	QTi DALI 2x36 DIM	4050300870885	423x30x21	69	2x2900
DULUX L 36 W XT	1	QTi 1x36 DIM	4050300870625	360x30x21	36	1x2900
DULUX L 36 W XT	2	QTi 2x36 DIM	4050300870755	423x30x21	69	2x2900
DULUX L 36 W XT	1	QTi 1x14/24/21/39 GII	4008321383334	360x30x21	34	1x2750
DULUX L 36 W XT	2	QTi 2x14/24/21/39 GII	4008321383396	360x30x21	68	2x2800
DULUX L 36 W XT	1	QTP-OPTIMAL 1x18-40	4008321873743	280x30x21	35	1x2800
DULUX L 36 W XT	2	QTP-OPTIMAL 2x18-40	4008321873767	360x30x21	70	2x2800
DULUX L 36 W XT	1	QTP-DL 1x36-40	4008321117908	239x30x28	35	1x2900
DULUX L 36 W XT	2	QTP-DL 2x36-40	4008321117922	280x40x28	68	2x2900
DULUX L 36 W XT	1	QTP-M 1x26-42	4008321329134	103x67x31	35	1x2800
DULUX L 36 W XT	2	QTP-M 2x26-32	4008321329158	123x79x33	68	2x2800
DULUX L 36 W XT	2	QT-M 2x26-42/220-240 S	4008321110022	123x79x33	70	2x2800

DULUX L 40 W

Lamp	lp	ECG type	EAN	LxWxH [mm]	System wattage [W]	Lamp luminous flux [lm]
DULUX L 40 W	1	QTi DALI 1x21/39 DIM	4050300870366	360x30x21	41.8	1x3500
DULUX L 40 W	2	QTi DALI 2x21/39 DIM	4050300870489	423x30x21	82	2x3500
DULUX L 40 W	1	QTi DALI-T/E 1x18-57 DIM	4008321060808	123x79x33	45	1x3500
DULUX L 40 W	2	QTi DALI-T/E 2x18-42 DIM	4008321060822	123x79x33	87	2x3500
DULUX L 40 W	1	QTi 1x21/39 DIM	4050300870564	360x30x21	41.8	1x3500
DULUX L 40 W	2	QTi 2x21/39 DIM	4050300870694	423x30x21	82	2x3500
DULUX L 40 W	1	QTi 1x14/24/21/39 GII	4008321383334	360x30x21	44	1x3500
DULUX L 40 W	2	QTi 2x14/24/21/39 GII	4008321383396	360x30x21	86	2x3500
DULUX L 40 W	1	QTP-OPTIMAL 1x18-40	4008321873743	280x30x21	44	1x3500
DULUX L 40 W	2	QTP-OPTIMAL 2x18-40	4008321873767	360x30x21	88	2x3500
DULUX L 40 W	1	QTP-DL 1x36-40	4008321117908	239x30x28	45	1x3600
DULUX L 40 W	2	QTP-DL 2x36-40	4008321117922	280x40x28	90	2x3650
DULUX L 40 W	1	QTP-M 1x26-42	4008321329134	103x67x31	43	1x3500

DULUX L 40 W CONSTANT

Lamp	lp	ECG type	EAN	LxWxH [mm]	System wattage [W]	Lamp luminous flux [lm]
DULUX L 40 W CONSTANT	1	QTi DALI 1x21/39 DIM	4050300870366	360x30x21	41.8	1x3500
DULUX L 40 W CONSTANT	2	QTi DALI 2x21/39 DIM	4050300870489	423x30x21	82	2x3500
DULUX L 40 W CONSTANT	1	QTi 1x21/39 DIM	4050300870564	360x30x21	41.8	1x3500
DULUX L 40 W CONSTANT	2	QTi 2x21/39 DIM	4050300870694	423x30x21	82	2x3500
DULUX L 40 W CONSTANT	1	QTi 1x14/24/21/39 GII	4008321383334	360x30x21	44	1x3500
DULUX L 40 W CONSTANT	2	QTi 2x14/24/21/39 GII	4008321383396	360x30x21	86	2x3500
DULUX L 40 W CONSTANT	1	QTP-OPTIMAL 1x18-40	4008321873743	280x30x21	44	1x3500
DULUX L 40 W CONSTANT	2	QTP-OPTIMAL 2x18-40	4008321873767	360x30x21	88	2x3500
DULUX L 40 W CONSTANT	1	QTP-DL 1x36-40	4008321117908	239x30x28	45	1x3600
DULUX L 40 W CONSTANT	2	QTP-DL 2x36-40	4008321117922	280x40x28	90	2x3650
DULUX L 40 W CONSTANT	1	QTP-M 1x26-42	4008321329134	103x67x31	43	1x3500

Summary of lamp/ECG combinations

DULUX L 55 W

Lamp	lp	ECG type	EAN	LxWxH [mm]	System wattage [W]	Lamp luminous flux [lm]
DULUX L 55 W	1	QTi DALI 1x28/54 DIM	4050300870809	360x30x21	59	1x4800
DULUX L 55 W	2	QTi DALI 2x28/54 DIM	4050300870502	423x30x21	115	2x4800
DULUX L 55 W	1	QTi 1x28/54 DIM	4050300870588	360x30x21	59	1x4800
DULUX L 55 W	2	QTi 2x28/54 DIM	4050300870717	423x30x21	115	2x4800
DULUX L 55 W	1	QTi 1x35/49/80 GII	4008321383372	360x30x21	59	1x4800
DULUX L 55 W	2	QTi 2x35/49/80 GII	4008321658951	424x30x21	119	2x4800
DULUX L 55 W	1	QTP5 1x54	4008321329394	280x30x21	55	1x4500
DULUX L 55 W	2	QTP5 2x54	4008321329097	360x30x21	107	2x4500
DULUX L 55 W	2	QT-FQ 2x80	4050300825564	424x30x21	122	2x4800
DULUX L 55 W	1	QTP-OPTIMAL 1x54-58	4008321873729	280x30x21	50	1x4800
DULUX L 55 W	2	QTP-OPTIMAL 2x54-58	4008321880253	360x30x21	110	2x4800
DULUX L 55 W	1	QTP-DL 1x55 GII	4008321390158	280x30x21	59	1x4800
DULUX L 55 W	2	QTP-DL 2x55 GII	4008321390172	360x30x21	116	2x4800
DULUX L 55 W	1	QTP-FC 1x55	4008321537041	103x67x31	59	1x4800

DULUX L 55 W CONSTANT

Lamp	lp	ECG type	EAN	LxWxH [mm]	System wattage [W]	Lamp luminous flux [lm]
DULUX L 55 W CONSTANT	1	QTi DALI 1x28/54 DIM	4050300870809	360x30x21	59	1x4800
DULUX L 55 W CONSTANT	2	QTi DALI 2x28/54 DIM	4050300870502	423x30x21	115	2x4800
DULUX L 55 W CONSTANT	1	QTi 1x28/54 DIM	4050300870588	360x30x21	59	1x4800
DULUX L 55 W CONSTANT	2	QTi 2x28/54 DIM	4050300870717	423x30x21	115	2x4800
DULUX L 55 W CONSTANT	1	QTi 1x35/49/80 GII	4008321383372	360x30x21	59	1x4800
DULUX L 55 W CONSTANT	2	QTi 2x35/49/80 GII	4008321658951	424x30x21	119	2x4800
DULUX L 55 W CONSTANT	1	QTP5 1x54	4008321329394	280x30x21	55	1x4500
DULUX L 55 W CONSTANT	2	QTP5 2x54	4008321329097	360x30x21	107	2x4500
DULUX L 55 W CONSTANT	2	QT-FQ 2x80	4050300825564	424x30x21	122	2x4800
DULUX L 55 W CONSTANT	1	QTP-OPTIMAL 1x54-58	4008321873729	280x30x21	50	1x4800
DULUX L 55 W CONSTANT	2	QTP-OPTIMAL 2x54-58	4008321880253	360x30x21	110	2x4800
DULUX L 55 W CONSTANT	1	QTP-DL 1x55 GII	4008321390158	280x30x21	59	1x4800
DULUX L 55 W CONSTANT	2	QTP-DL 2x55 GII	4008321390172	360x30x21	116	2x4800
DULUX L 55 W CONSTANT	1	QTP-FC 1x55	4008321537041	103x67x31	59	1x4800

Summary of lamp/ECG combinations

DULUX L 55 W XT

Lamp	lp	ECG type	EAN	LxWxH [mm]	System wattage [W]	Lamp luminous flux [lm]
DULUX L 55 W XT	1	QTi DALI 1x28/54 DIM	4050300870809	360x30x21	59	1x4800
DULUX L 55 W XT	2	QTi DALI 2x28/54 DIM	4050300870502	423x30x21	115	2x4800
DULUX L 55 W XT	1	QTi 1x28/54 DIM	4050300870588	360x30x21	59	1x4800
DULUX L 55 W XT	1	QTi 1x35/49/80 GII	4008321383372	360x30x21	59	1x4800
DULUX L 55 W XT	2	QTi 2x35/49/80 GII	4008321658951	424x30x21	119	2x4800
DULUX L 55 W XT	1	QTP5 1x54	4008321329394	280x30x21	55	1x4500
DULUX L 55 W XT	2	QTP5 2x54	4008321329097	360x30x21	107	2x4500
DULUX L 55 W XT	2	QT-FQ 2x80	4050300825564	424x30x21	122	2x4800
DULUX L 55 W XT	1	QTP-OPTIMAL 1x54-58	4008321873729	280x30x21	50	1x4800
DULUX L 55 W XT	2	QTP-OPTIMAL 2x54-58	4008321880253	360x30x21	110	2x4800
DULUX L 55 W XT	1	QTP-DL 1x55 GII	4008321390158	280x30x21	59	1x4800
DULUX L 55 W XT	2	QTP-DL 2x55 GII	4008321390172	360x30x21	116	2x4800
DULUX L 55 W XT	1	QTP-FC 1x55	4008321537041	103x67x31	59	1x4800

DULUX L 80 W

Lamp	lp	ECG type	EAN	LxWxH [mm]	System wattage [W]	Lamp luminous flux [lm]
DULUX L 80 W	1	QTi DALI 1x35/49/80 DIM	4050300870342	360x30x21	88	1x6000
DULUX L 80 W	2	QTi DALI 2x35/49/80 DIM	4050300870441	423x30x21	165	2x6000
DULUX L 80 W	1	QTi 1x35/49/80 DIM	4050300870540	360x30x21	88	1x6000
DULUX L 80 W	2	QTi 2x35/49/80 DIM	4050300870984	423x30x21	165	2x6000
DULUX L 80 W	1	QT 1x80 DIM	4008321640314	360x30x21	82	1x6150
DULUX L 80 W	2	QT 2x80 DIM	4008321640413	423x30x21	163.2	2x6150
DULUX L 80 W	1	QTi 1x35/49/80 GII	4008321383372	360x30x21	85	1x6000
DULUX L 80 W	2	QTi 2x35/49/80 GII	4008321658951	424x30x21	167	2x6000
DULUX L 80 W	1	QTP5 1x80	4008321329059	360x30x21	86	1x6000
DULUX L 80 W	2	QT-FQ 2x80	4050300825564	424x30x21	175	2x6150

Summary of lamp/ECG combinations

DULUX L 80 W CONSTANT

Lamp	lp	ECG type	EAN	LxWxH [mm]	System wattage [W]	Lamp luminous flux [lm]
DULUX L 80 W CONSTANT	1	QTi DALI 1x35/49/80 DIM	4050300870342	360x30x21	88	1x6000
DULUX L 80 W CONSTANT	2	QTi DALI 2x35/49/80 DIM	4050300870441	423x30x21	165	2x6000
DULUX L 80 W CONSTANT	1	QTi 1x35/49/80 DIM	4050300870540	360x30x21	88	1x6000
DULUX L 80 W CONSTANT	2	QTi 2x35/49/80 DIM	4050300870984	423x30x21	165	2x6000
DULUX L 80 W CONSTANT	1	QT 1x80 DIM	4008321640314	360x30x21	82	1x6150
DULUX L 80 W CONSTANT	2	QT 2x80 DIM	4008321640413	423x30x21	163.2	2x6150
DULUX L 80 W CONSTANT	1	QTi 1x35/49/80 GII	4008321383372	360x30x21	85	1x6000
DULUX L 80 W CONSTANT	2	QTi 2x35/49/80 GII	4008321658951	424x30x21	167	2x6000
DULUX L 80 W CONSTANT	1	QTP5 1x80	4008321329059	360x30x21	86	1x6000
DULUX L 80 W CONSTANT	2	QT-FQ 2x80	4050300825564	424x30x21	175	2x6150

DULUX L 16 W HE

Lamp	lp	ECG type	EAN	LxWxH [mm]	System wattage [W]	Lamp luminous flux [lm]
DULUX L 16 W HE	1	QTi 1x28/54/35/49 GII	4008321383358	360x30x21	18	1x1500
DULUX L 16 W HE	2	QTi 2x28/54/35/49 GII	4008321383419	360x30x21	35	2x1500
DULUX L 16 W HE	1	QTP5 1x14-35	4008321329035	280x30x21	17.5	1x1500
DULUX L 16 W HE	2	QTP5 2x14-35	4008321329073	360x30x21	34	2x1500

DULUX L 22 W HE

Lamp	lp	ECG type	EAN	LxWxH [mm]	System wattage [W]	Lamp luminous flux [lm]
DULUX L 22 W HE	1	QTi DALI 1x21/39 DIM	4050300870366	360x30x21	23.1	1x2000
DULUX L 22 W HE	2	QTi DALI 2x21/39 DIM	4050300870489	423x30x21	45	2x2000
DULUX L 22 W HE	1	QTi 1x21/39 DIM	4050300870564	360x30x21	23.1	1x2000
DULUX L 22 W HE	2	QTi 2x21/39 DIM	4050300870694	423x30x21	45	2x2000
DULUX L 22 W HE	1	QTi 1x28/54/35/49 GII	4008321383358	360x30x21	25	1x2200
DULUX L 22 W HE	2	QTi 2x28/54/35/49 GII	4008321383419	360x30x21	49	2x2200
DULUX L 22 W HE	2	QTP5 2x14-35	4008321329073	360x30x21	48	2x2055
DULUX L 22 W HE	1	QTP5 1x14-35	4008321329035	280x30x21	24	1x2055

Summary of lamp/ECG combinations

DULUX L 26 W HE

Lamp	lp	ECG type	EAN	LxWxH [mm]	System wattage [W]	Lamp luminous flux [lm]
DULUX L 26 W HE	1	QTi DALI 1x28/54 DIM	4050300870809	360x30x21	30.1	1x2700
DULUX L 26 W HE	2	QTi DALI 2x28/54 DIM	4050300870502	423x30x21	60.2	2x2700
DULUX L 26 W HE	1	QTi 1x28/54 DIM	4050300870588	360x30x21	30.1	1x2700
DULUX L 26 W HE	2	QTi 2x28/54 DIM	4050300870717	423x30x21	60.2	2x2700
DULUX L 26 W HE	1	QT 1x28 DIM	4008321640390	360x30x21	30.8	1x2600
DULUX L 26 W HE	2	QT 2x28 DIM	4008321640499	423x30x21	59.8	2x2600
DULUX L 26 W HE	1	QTi 1x28/54/35/49 GII	4008321383358	360x30x21	30	1x2600
DULUX L 26 W HE	1	QTi 1x35/49/80 GII	4008321383372	360x30x21	30	1x2600
DULUX L 26 W HE	2	QTi 2x28/54/35/49 GII	4008321383419	360x30x21	58	2x2600
DULUX L 26 W HE	2	QTi 2x35/49/80 GII	4008321658951	424x30x21	61	2x2700
DULUX L 26 W HE	1	QTP5 1x14-35	4008321329035	280x30x21	29	1x2470
DULUX L 26 W HE	2	QTP5 2x14-35	4008321329073	360x30x21	57	2x2470

DULUX L 28 W HE

Lamp	lp	ECG type	EAN	LxWxH [mm]	System wattage [W]	Lamp luminous flux [lm]
DULUX L 28 W HE	1	QTi DALI 1x28/54 DIM	4050300870809	360x30x21	30.1	1x2700
DULUX L 28 W HE	2	QTi DALI 2x28/54 DIM	4050300870502	423x30x21	60.2	2x2700
DULUX L 28 W HE	1	QTi 1x28/54 DIM	4050300870588	360x30x21	30.1	1x2800
DULUX L 28 W HE	2	QTi 2x28/54 DIM	4050300870717	423x30x21	60.2	2x2800
DULUX L 28 W HE	1	QT 1x28 DIM	4008321640390	360x30x21	30.8	1x2600
DULUX L 28 W HE	2	QT 2x28 DIM	4008321640499	423x30x21	59.8	2x2600
DULUX L 28 W HE	1	QTi 1x28/54/35/49 GII	4008321383358	360x30x21	31	1x2700
DULUX L 28 W HE	1	QTi 1x35/49/80 GII	4008321383372	360x30x21	31	1x2700
DULUX L 28 W HE	2	QTi 2x14/24/21/39 GII	4008321383396	360x30x21	60	2x2750
DULUX L 28 W HE	2	QTi 2x28/54/35/49 GII	4008321383419	360x30x21	60	2x2700
DULUX L 28 W HE	2	QTi 2x35/49/80 GII	4008321658951	424x30x21	59	2x2650
DULUX L 28 W HE	1	QTP5 1x14-35	4008321329035	280x30x21	28.5	1x2550
DULUX L 28 W HE	2	QTP5 2x14-35	4008321329073	360x30x21	56	2x2525

Summary of lamp/ECG combinations

DULUX F 18 W

Lamp	lp	ECG type	EAN	LxWxH [mm]	System wattage [W]	Lamp luminous flux [lm]
DULUX F 18 W	1	QTi DALI 1x18 DIM	4050300870403	360x30x21	18	1x1100
DULUX F 18 W	2	QTi DALI 2x18 DIM	4050300870526	423x30x21	37	2x1100
DULUX F 18 W	3	QTi DALI 3x18 DIM	4008321069979	360x40x21	53.6	3x1100
DULUX F 18 W	4	QTi DALI 4x18 DIM	4008321070050	360x40x21	69.3	4x1100
DULUX F 18 W	1	QTi 1x18 DIM	4050300870601	360x30x21	18	1x1100
DULUX F 18 W	2	QTi 2x18 DIM	4050300870960	423x30x21	37	2x1100
DULUX F 18 W	3	QTi 3x18 DIM	4008321069931	360x40x21	53.6	3x1100
DULUX F 18 W	4	QTi 4x18 DIM	4008321070012	360x40x21	69.3	4x1100
DULUX F 18 W	1	QTP-OPTIMAL 1x18-40	4008321873743	280x30x21	18	1x1050
DULUX F 18 W	2	QTP-OPTIMAL 2x18-40	4008321873767	360x30x21	33	2x1050
DULUX F 18 W	1	QTP-DL 1x18-24	4008321117861	239x30x28	18	1x1100
DULUX F 18 W	2	QTP-DL 2x18-24	4008321117885	239x40x28	36	2x1100
DULUX F 18 W	1	QTP-M 1x26-42	4008321329134	103x67x31	19	1x1050
DULUX F 18 W	2	QTP-M 2x26-32	4008321329158	123x79x33	36	2x1050
DULUX F 18 W	1	QT-ECO 1x18-24/220-240 S	4050300638560	80x40x22	18	1x1000
DULUX F 18 W	1	QT-ECO 1x18-24/220-240 L	4050300660417	150x22x22	18	1x1000

DULUX F 24 W

Lamp	lp	ECG type	EAN	LxWxH [mm]	System wattage [W]	Lamp luminous flux [lm]
DULUX F 24 W	1	QTi DALI 1x14/24 DIM	4050300870380	360x30x21	25	1x1700
DULUX F 24 W	2	QTi DALI 2x14/24 DIM	4050300870861	423x30x21	49	2x1700
DULUX F 24 W	3	QTi DALI 3x14/24 DIM	4008321069955	360x40x21	73.4	3x1700
DULUX F 24 W	4	QTi DALI 4x14/24 DIM	4008321070036	360x40x21	97.6	4x1700
DULUX F 24 W	1	QTi 1x14/24 DIM	4050300870922	360x30x21	25	1x1700
DULUX F 24 W	2	QTi 2x14/24 DIM	4050300870946	423x30x21	49	2x1700
DULUX F 24 W	3	QTi 3x14/24 DIM	4008321069719	360x40x21	74	3x1700
DULUX F 24 W	4	QTi 4x14/24 DIM	4008321069993	360x40x21	97.6	4x1800
DULUX F 24 W	1	QTP-OPTIMAL 1x18-40	4008321873743	280x30x21	25	1x1650
DULUX F 24 W	2	QTP-OPTIMAL 2x18-40	4008321873767	360x30x21	50	2x1650
DULUX F 24 W	1	QTP-DL 1x18-24	4008321117861	239x30x28	26	1x1700
DULUX F 24 W	2	QTP-DL 2x18-24	4008321117885	239x40x28	49	2x1700
DULUX F 24 W	1	QTP-M 1x26-42	4008321329134	103x67x31	25	1x1650
DULUX F 24 W	2	QTP-M 2x26-32	4008321329158	123x79x33	48	2x1650
DULUX F 24 W	2	QT-M 2x26-42/220-240 S	4008321110022	123x79x33	54	2x1700
DULUX F 24 W	1	QT-ECO 1x18-24/220-240 S	4050300638560	80x40x22	22.5	1x1500
DULUX F 24 W	1	QT-ECO 1x18-24/220-240 L	4050300660417	150x22x22	22.5	1x1500

Summary of lamp/ECG combinations

DULUX F 36 W

Lamp	lp	ECG type	EAN	LxWxH [mm]	System wattage [W]	Lamp luminous flux [lm]
DULUX F 36 W	1	QTi DALI 1x36 DIM	**4050300870427**	360x30x21	36	1x2900
DULUX F 36 W	2	QTi DALI 2x36 DIM	**4050300870885**	423x30x21	69	2x2900
DULUX F 36 W	1	QTi 1x36 DIM	**4050300870625**	360x30x21	36	1x2900
DULUX F 36 W	2	QTi 2x36 DIM	**4050300870755**	423x30x21	69	2x2900
DULUX F 36 W	1	QTi 1x14/24/21/39 GII	**4008321383334**	360x30x21	34	1x2750
DULUX F 36 W	2	QTi 2x14/24/21/39 GII	**4008321383396**	360x30x21	66	2x2800
DULUX F 36 W	1	QTP-OPTIMAL 1x18-40	**4008321873743**	280x30x21	34	1x2700
DULUX F 36 W	2	QTP-OPTIMAL 2x18-40	**4008321873767**	360x30x21	67	2x2700
DULUX F 36 W	1	QTP-DL 1x36-40	**4008321117908**	239x30x28	35	1x2800
DULUX F 36 W	2	QTP-DL 2x36-40	**4008321117922**	280x40x28	68	2x2800
DULUX F 36 W	1	QTP-M 1x26-42	**4008321329134**	103x67x31	35	1x2700
DULUX F 36 W	2	QTP-M 2x26-32	**4008321329158**	123x79x33	68	2x2700
DULUX F 36 W	2	QT-M 2x26-42/220-240 S	**4008321110022**	123x79x33	70	2x2700

DULUX S/E 7 W

Lamp	lp	ECG type	EAN	LxWxH [mm]	System wattage [W]	Lamp luminous flux [lm]
DULUX S/E 7 W	1	QT-ECO 1x4-16/220-240 S	**4050300638584**	80x40x22	9	1x400
DULUX S/E 7 W	1	QT-ECO 1x4-16/220-240 L	**4050300660370**	150x22x22	9	1x400
DULUX S/E 7 W	2	QT-ECO 2x5-11/220-240 S	**4050300821504**	80x40x22	15	2x400

DULUX S/E 9 W

Lamp	lp	ECG type	EAN	LxWxH [mm]	System wattage [W]	Lamp luminous flux [lm]
DULUX S/E 9 W	1	QTP-D/E 1x10-13	**4008321181572**	93x58x29	9.5	1x600
DULUX S/E 9 W	2	QTP-D/E 2x10-13	**4008321181596**	123x79x33	18	2x600
DULUX S/E 9 W	1	QT-ECO 1x4-16/220-240 S	**4050300638584**	80x40x22	10	1x600
DULUX S/E 9 W	1	QT-ECO 1x4-16/220-240 L	**4050300660370**	150x22x22	10	1x600
DULUX S/E 9 W	2	QT-ECO 2x5-11/220-240 S	**4050300821504**	80x40x22	18	2x550

DULUX S/E 11 W

Lamp	lp	ECG type	EAN	LxWxH [mm]	System wattage [W]	Lamp luminous flux [lm]
DULUX S/E 11 W	1	QTP-D/E 1x10-13	**4008321181572**	93x58x29	14	1x900
DULUX S/E 11 W	2	QTP-D/E 2x10-13	**4008321181596**	123x79x33	28	2x950
DULUX S/E 11 W	1	QT-ECO 1x4-16/220-240 S	**4050300638584**	80x40x22	13	1x900
DULUX S/E 11 W	1	QT-ECO 1x4-16/220-240 L	**4050300660370**	150x22x22	13	1x900
DULUX S/E 11 W	2	QT-ECO 2x5-11/220-240 S	**4050300821504**	80x40x22	24	2x700

Summary of lamp/ECG combinations

DULUX D/E 10 W

Lamp	lp	ECG type	EAN	LxWxH [mm]	System wattage [W]	Lamp luminous flux [lm]
DULUX D/E 10 W	1	QTP-D/E 1x10-13	**4008321181572**	93x58x29	12	1x600
DULUX D/E 10 W	2	QTP-D/E 2x10-13	**4008321181596**	123x79x33	21	2x600
DULUX D/E 10 W	1	QT-ECO 1x4-16/220-240 S	**4050300638584**	80x40x22	11.5	1x600
DULUX D/E 10 W	1	QT-ECO 1x4-16/220-240 L	**4050300660370**	150x22x22	11.5	1x600
DULUX D/E 10 W	2	QT-ECO 2x5-11/220-240 S	**4050300821504**	80x40x22	20	2x600

DULUX D/E 13 W

Lamp	lp	ECG type	EAN	LxWxH [mm]	System wattage [W]	Lamp luminous flux [lm]
DULUX D/E 13 W	1	QTP-D/E 1x10-13	**4008321181572**	93x58x29	15	1x900
DULUX D/E 13 W	2	QTP-D/E 2x10-13	**4008321181596**	123x79x33	29	2x900
DULUX D/E 13 W	1	QT-ECO 1x4-16/220-240 S	**4050300638584**	80x40x22	14	1x850
DULUX D/E 13 W	1	QT-ECO 1x4-16/220-240 L	**4050300660370**	150x22x22	14	1x850

DULUX D/E 18 W

Lamp	lp	ECG type	EAN	LxWxH [mm]	System wattage [W]	Lamp luminous flux [lm]
DULUX D/E 18 W	1	QTi DALI-T/E 1x18-57 DIM	**4008321060808**	123x79x33	20	1x1200
DULUX D/E 18 W	2	QTi DALI-T/E 2x18-42 DIM	**4008321060822**	123x79x33	38	2x1200
DULUX D/E 18 W	1	QTi-T/E 1x18-57 DIM	**4008321060860**	123x79x33	20	1x1200
DULUX D/E 18 W	2	QTi-T/E 2x18-42 DIM	**4008321060846**	123x79x33	38	2x1200
DULUX D/E 18 W	1	QTP-T/E 1X18, (2X18)	**4008321537065**	103x67x31	19	1x1200
DULUX D/E 18 W	2	QTP-T/E (1X18), 2X18	**4008321537065**	103x67x31	36	2x1200
DULUX D/E 18 W	1	QT-ECO 1x18-21/220-240 S	**4050300794907**	80x40x22	19	1x1150

DULUX D/E 26 W

Lamp	lp	ECG type	EAN	LxWxH [mm]	System wattage [W]	Lamp luminous flux [lm]
DULUX D/E 26 W	1	QTi DALI-T/E 1x18-57 DIM	**4008321060808**	123x79x33	29	1x1800
DULUX D/E 26 W	2	QTi DALI-T/E 2x18-42 DIM	**4008321060822**	123x79x33	56	2x1800
DULUX D/E 26 W	1	QTi-T/E 1x18-57 DIM	**4008321060860**	123x79x33	29	1x1800
DULUX D/E 26 W	2	QTi-T/E 2x18-42 DIM	**4008321060846**	123x79x33	56	2x1800
DULUX D/E 26 W	1	QTP-T/E 1x26-42, (2x26)	**4008321537089**	103x67x31	28	1x1750
DULUX D/E 26 W	2	QTP-T/E (1x26-42), 2x26	**4008321537089**	103x67x31	54	2x1750
DULUX D/E 26 W	1	QTP-M 1x26-42	**4008321329134**	103x67x31	27	1x1750
DULUX D/E 26 W	2	QTP-M 2x26-32	**4008321329158**	123x79x33	53	2x1750
DULUX D/E 26 W	2	QT-M 2x26-42/220-240 S	**4008321110022**	123x79x33	54	2x1800
DULUX D/E 26 W	1	QT-ECO 1x26/220-240 S	**4008321065971**	80x40x22	23.5	1x1600

Summary of lamp/ECG combinations

DULUX D/E 26 W XT

Lamp	lp	ECG type	EAN	LxWxH [mm]	System wattage [W]	Lamp luminous flux [lm]
DULUX D/E 26 W XT	1	QTP-T/E 1x26-42, (2x26)	4008321537089	103x67x31	28	1x1750
DULUX D/E 26 W XT	2	QTP-T/E (1x26-42), 2x26	4008321537089	103x67x31	54	2x1750
DULUX D/E 26 W XT	1	QTP-M 1x26-42	4008321329134	103x67x31	27	1x1750
DULUX D/E 26 W XT	2	QTP-M 2x26-32	4008321329158	123x79x33	53	2x1750
DULUX D/E 26 W XT	1	QT-ECO 1x26/220-240 S	4008321065971	80x40x22	23.5	1x1600

DULUX T/E 13 W

Lamp	lp	ECG type	EAN	LxWxH [mm]	System wattage [W]	Lamp luminous flux [lm]
DULUX T/E 13 W	1	QTP-D/E 1x10-13	4008321181572	93x58x29	15	1x900
DULUX T/E 13 W	2	QTP-D/E 2x10-13	4008321181596	123x79x33	29	2x900
DULUX T/E 13 W	1	QT-ECO 1x4-16/220-240 S	4050300638584	80x40x22	14	1x800
DULUX T/E 13 W	1	QT-ECO 1x4-16/220-240 L	4050300660370	150x22x22	14	1x800

DULUX T/E 18 W

Lamp	lp	ECG type	EAN	LxWxH [mm]	System wattage [W]	Lamp luminous flux [lm]
DULUX T/E 18 W	1	QTi DALI-T/E 1x18-57 DIM	4008321060808	123x79x33	20	1x1200
DULUX T/E 18 W	2	QTi DALI-T/E 2x18-42 DIM	4008321060822	123x79x33	38	2x1200
DULUX T/E 18 W	1	QTi-T/E 1x18-57 DIM	4008321060860	123x79x33	20	1x1200
DULUX T/E 18 W	2	QTi-T/E 2x18-42 DIM	4008321060846	123x79x33	38	2x1200
DULUX T/E 18 W	1	QTP-T/E 1X18, (2X18)	4008321537065	103x67x31	19	1x1200
DULUX T/E 18 W	2	QTP-T/E (1X18), 2X18	4008321537065	103x67x31	36	2x1200
DULUX T/E 18 W	1	QT-ECO 1x18-21/220-240 S	4050300794907	80x40x22	19	1x1150

DULUX T/E 26 W

Lamp	lp	ECG type	EAN	LxWxH [mm]	System wattage [W]	Lamp luminous flux [lm]
DULUX T/E 26 W	1	QTi DALI-T/E 1x18-57 DIM	4008321060808	123x79x33	29	1x1800
DULUX T/E 26 W	2	QTi DALI-T/E 2x18-42 DIM	4008321060822	123x79x33	56	2x1800
DULUX T/E 26 W	1	QTi-T/E 1x18-57 DIM	4008321060860	123x79x33	29	1x1800
DULUX T/E 26 W	2	QTi-T/E 2x18-42 DIM	4008321060846	123x79x33	56	2x1800
DULUX T/E 26 W	1	QTP-T/E 1x26-42, (2x26)	4008321537089	103x67x31	28	1x1750
DULUX T/E 26 W	2	QTP-T/E (1x26-42), 2x26	4008321537089	103x67x31	54	2x1750
DULUX T/E 26 W	1	QTP-M 1x26-42	4008321329134	103x67x31	27	1x1750
DULUX T/E 26 W	2	QTP-M 2x26-32	4008321329158	123x79x33	53	2x1750
DULUX T/E 26 W	2	QT-M 2x26-42/220-240 S	4008321110022	123x79x33	54	2x1800
DULUX T/E 26 W	1	QT-ECO 1x26/220-240 S	4008321065971	80x40x22	23.5	1x1600

Summary of lamp/ECG combinations

DULUX T/E 26 W CONSTANT

Lamp	lp	ECG type	EAN	LxWxH [mm]	System wattage [W]	Lamp luminous flux [lm]
DULUX T/E 26 W CONSTANT	1	QTi DALI-T/E 1x18-57 DIM	4008321060808	123x79x33	29	1x1800
DULUX T/E 26 W CONSTANT	2	QTi DALI-T/E 2x18-42 DIM	4008321060822	123x79x33	56	2x1800
DULUX T/E 26 W CONSTANT	1	QTi-T/E 1x18-57 DIM	4008321060860	123x79x33	29	1x1800
DULUX T/E 26 W CONSTANT	2	QTi-T/E 2x18-42 DIM	4008321060846	123x79x33	56	2x1800
DULUX T/E 26 W CONSTANT	1	QTP-T/E 1x26-42, (2x26)	4008321537089	103x67x31	28	1x1750
DULUX T/E 26 W CONSTANT	2	QTP-T/E (1x26-42), 2x26	4008321537089	103x67x31	54	2x1750
DULUX T/E 26 W CONSTANT	1	QTP-M 1x26-42	4008321329134	103x67x31	27	1x1750
DULUX T/E 26 W CONSTANT	2	QTP-M 2x26-32	4008321329158	123x79x33	53	2x1750
DULUX T/E 26 W CONSTANT	2	QT-M 2x26-42/220-240 S	4008321110022	123x79x33	54	2x1800

DULUX T/E 32 W

Lamp	lp	ECG type	EAN	LxWxH [mm]	System wattage [W]	Lamp luminous flux [lm]
DULUX T/E 32 W	1	QTi DALI-T/E 1x18-57 DIM	4008321060808	123x79x33	36	1x2400
DULUX T/E 32 W	2	QTi DALI-T/E 2x18-42 DIM	4008321060822	123x79x33	69	2x2400
DULUX T/E 32 W	1	QTi-T/E 1x18-57 DIM	4008321060860	123x79x33	36	1x2400
DULUX T/E 32 W	2	QTi-T/E 2x18-42 DIM	4008321060846	123x79x33	69	2x2400
DULUX T/E 32 W	1	QTP-T/E 1x26-42, (2x26)	4008321537089	103x67x31	35	1x2400
DULUX T/E 32 W	1	QTP-M 1x26-42	4008321329134	103x67x31	35	1x2400
DULUX T/E 32 W	2	QTP-M 2x26-32	4008321329158	123x79x33	68	2x2400
DULUX T/E 32 W	2	QT-M 2x26-42/220-240 S	4008321110022	123x79x33	70	2x2400

DULUX T/E 32 W CONSTANT

Lamp	lp	ECG type	EAN	LxWxH [mm]	System wattage [W]	Lamp luminous flux [lm]
DULUX T/E 32 W CONSTANT	1	QTi DALI-T/E 1x18-57 DIM	4008321060808	123x79x33	36	1x2400
DULUX T/E 32 W CONSTANT	2	QTi DALI-T/E 2x18-42 DIM	4008321060822	123x79x33	69	2x2400
DULUX T/E 32 W CONSTANT	1	QTi-T/E 1x18-57 DIM	4008321060860	123x79x33	36	1x2400
DULUX T/E 32 W CONSTANT	2	QTi-T/E 2x18-42 DIM	4008321060846	123x79x33	69	2x2400
DULUX T/E 32 W CONSTANT	1	QTP-T/E 1x26-42, (2x26)	4008321537089	103x67x31	35	1x2400
DULUX T/E 32 W CONSTANT	1	QTP-M 1x26-42	4008321329134	103x67x31	35	1x2400
DULUX T/E 32 W CONSTANT	2	QTP-M 2x26-32	4008321329158	123x79x33	68	2x2400
DULUX T/E 32 W CONSTANT	2	QT-M 2x26-42/220-240 S	4008321110022	123x79x33	70	2x2400

Summary of lamp/ECG combinations

DULUX T/E 32 W XT

Lamp	lp	ECG type	EAN	LxWxH [mm]	System wattage [W]	Lamp luminous flux [lm]
DULUX T/E 32 W XT	1	QTi DALI-T/E 1x18-57 DIM	**4008321060808**	123x79x33	36	1x2400
DULUX T/E 32 W XT	2	QTi DALI-T/E 2x18-42 DIM	**4008321060822**	123x79x33	69	2x2400
DULUX T/E 32 W XT	1	QTi-T/E 1x18-57 DIM	**4008321060860**	123x79x33	36	1x2400
DULUX T/E 32 W XT	2	QTi-T/E 2x18-42 DIM	**4008321060846**	123x79x33	69	2x2400
DULUX T/E 32 W XT	1	QTP-T/E 1x26-42, (2x26)	**4008321537089**	103x67x31	35	1x2400
DULUX T/E 32 W XT	1	QTP-M 1x26-42	**4008321329134**	103x67x31	35	1x2400
DULUX T/E 32 W XT	2	QTP-M 2x26-32	**4008321329158**	123x79x33	68	2x2400
DULUX T/E 32 W XT	2	QT-M 2x26-42/220-240 S	**4008321110022**	123x79x33	70	2x2400

DULUX T/E 42 W

Lamp	lp	ECG type	EAN	LxWxH [mm]	System wattage [W]	Lamp luminous flux [lm]
DULUX T/E 42 W	1	QTi DALI-T/E 1x18-57 DIM	**4008321060808**	123x79x33	47	1x3200
DULUX T/E 42 W	2	QTi DALI-T/E 2x18-42 DIM	**4008321060822**	123x79x33	90	2x3200
DULUX T/E 42 W	1	QTi-T/E 1x18-57 DIM	**4008321060860**	123x79x33	47	1x3200
DULUX T/E 42 W	2	QTi-T/E 2x18-42 DIM	**4008321060846**	123x79x33	90	2x3200
DULUX T/E 42 W	1	QTP-T/E 1x26-42, (2x26)	**4008321537089**	103x67x31	45	1x3200
DULUX T/E 42 W	1	QTP-M 1x26-42	**4008321329134**	103x67x31	46	1x3200
DULUX T/E 42 W	1	QTP-M 2x26-32	**4008321329158**	123x79x33	46	1x3200
DULUX T/E 42 W	2	QT-M 2x26-42/220-240 S	**4008321110022**	123x79x33	92	2x3200

DULUX T/E 42 W CONSTANT

Lamp	lp	ECG type	EAN	LxWxH [mm]	System wattage [W]	Lamp luminous flux [lm]
DULUX T/E 42 W CONSTANT	1	QTi DALI-T/E 1x18-57 DIM	**4008321060808**	123x79x33	47	1x3200
DULUX T/E 42 W CONSTANT	2	QTi DALI-T/E 2x18-42 DIM	**4008321060822**	123x79x33	90	2x3200
DULUX T/E 42 W CONSTANT	1	QTi-T/E 1x18-57 DIM	**4008321060860**	123x79x33	47	1x3200
DULUX T/E 42 W CONSTANT	2	QTi-T/E 2x18-42 DIM	**4008321060846**	123x79x33	90	2x3200
DULUX T/E 42 W CONSTANT	1	QTP-T/E 1x26-42, (2x26)	**4008321537089**	103x67x31	45	1x3200
DULUX T/E 42 W CONSTANT	1	QTP-M 1x26-42	**4008321329134**	103x67x31	46	1x3200
DULUX T/E 42 W CONSTANT	1	QTP-M 2x26-32	**4008321329158**	123x79x33	46	1x3200
DULUX T/E 42 W CONSTANT	2	QT-M 2x26-42/220-240 S	**4008321110022**	123x79x33	92	2x3200

Summary of lamp/ECG combinations

POWERTRONIC®

Lamp	lp	ECG type	EAN	LxWxH [mm]	System wattage with ECG [W]
HCI-E/P, HCI-T, HCI-ET, HCI-TT	1	PTo 35/220-240	**4008321956323**	133x77x48	43
NAV-T, NAV-T, HCI-TT, HCI-E/P, HCI-T, HCI-ET	1	PTo 50/220-240 3DIM	**4008321956347**	133x77x48	55
NAV-E, NAV-T, NAV-TS, HCI-T, HCI-TT, HCI-E/P, HCI-TS, HQI-T, HCI-ET, HQI-TS Excellence, HQI-E	1	PTo 70/220-240 3DIM	**4008321959355**	133x77x48	80
NAV-E, NAV-T, HCI-TT, HCI-E/P	1	PTo 100/220-240 3DIM	**4008321956361**	158x94x42	109
NAV-E, NAV-T, NAV-TS, HCI-TT, HCI-E/P, HCI-TS, HQI-T, HQI-TS Excellence, HQI-E	1	PTo 150/220-240 3DIM	**4008321956385**	158x94x42	160
NAV-E, NAV-T, NAV-TS, HCI-TT, HCI-TM, HQI-TS, HQI-E/P, HQI-T, HQI-E	1	PTo 250/220-240 3DIM	**4008321863669**	190x70x60	270
HCI-TF, HCI-TC	1	PTi 20/220-240 I	**4008321404763**	204x50x32	23
HCI-T, HCI-E/P, HCI-TC, HCI-TF, HCI-PAR	1	PTi 35/220-240 S	**4008321073112**	110x75x30	43
	1	PTi 35/220-240 I	**4008321099488**	171x83x32	43
	1	PTi 35/220-240 S MINI	**4008321955906**	97x43x30	43
	1	PT-FIT 35/220-240 S	**4008321386625**	110x75x30	43
	1	PT-FIT 35/220-240 I	**4008321377661**	171x83x32	43
HCI-T, HCI-TC, HCI-E/P	1	PTi 50/220-240 S	**4008321955852**	110x75x30	55
	1	PT-FIT 50 220-240 S	**4008321648693**	110x75x30	55
HCI-T, HCI-TC, HCI-TS, HCI-E/P, HCI-PAR, HQI-T, HQI-TS Excellence, HQI-E	1	PTi 70/220-240 S	**4008321049629**	110x75x30	80
	1	PTi 70/220-240 I	**4008321099501**	171x83x32	80
	1	PT-FIT 70/220-240 S	**4008321386649**	110x75x30	80
	1	PT-FIT 70/220-240 I	**4008321377685**	171x83x32	80
HCI-T, HCI-TS, HCI-E/P, HQI-T, HQI-TS Excellence, HQI-E, HQI-R	1	PTi 150/220-240 S	**4008321188090**	150x85x31	160
	1	PTi 150/220-240 I	**4008321915535**	212x93x33	160

HALOTRONIC®

Lamp	ECG type	EAN	LxWxH [mm]	System wattage [W]	Load range [W]	Dimmer
Low-voltage halogen	HTi DALI 105/230-240 DIM	**4008321420633**	170x44x34	111	35–105	
	HTL 105/230-240	**4008321927019**	170x44x34	111	35–105	⌐◻ LC
	HTL 225/230-240	**4008321927026**	170x44x34	234	50–225	⌐◻ LC
	HTM 70/230-240	**4050300442310**	108x52x33	74	20–70	⌐◻ LC
	HTM 105/230-240	**4050300442334**	108x52x33	111	35–105	⌐◻ LC
	HTM 150/230-240	**4050300581415**	153x54x36	157	50–150	⌐◻ LC
	HTN 75/230-240 I	**4008321073037**	104x33x22	79	20–75	⌐◻
	ET-PARROT 70/220-240 I	**4008321111593**	128x38x31	74	20–70	⌐◻ LC
	ET-PARROT 105/220-240 I	**4008321111579**	128x38x31	111	35–105	⌐◻ LC

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Installation and operating instructions

1. Residual currents/residual current detector

Problem

For ECGs with protective earth (PE), both the high short-duration inrush current and the small leakage current from the interference suppression capacitors in the ECGs can trigger the residual current detector.

Solution

— Distribute luminaires across 3 phases and use 3-phase circuit breakers
— Use surge-current-resistant, short-delay circuit breakers
— If permissible, use 30 mA RCDs

2. Capacity for automatic cutouts

In a choke/starter circuit, lamps ignite at staggered intervals; in an ECG circuit, all the fluorescent lamps ignite simultaneously. On switch-on at peak voltage, the storage capacitors of electronic control gears cause a high but very brief current pulse. In this case, the simultaneous charging of these capacitors in ECG operation can mean a higher system switch-on current than with a choke/starter circuit. This reduces the maximum number of luminaires permitted per automatic line protection unit (see tables on the following pages).

For example, the maximum number of luminaires permitted on a 10 A automatic system is reduced from 15 luminaires with 2 x 58 W lamps with conventional control gear in a twin circuit to 8 luminaires in an ECG circuit. In the case of PTo, the maximum permitted number of luminaires on a 10 A cutout is reduced to 7 PTo 50 W. OSRAM offers an EBN inrush current limiter for POWERTRONIC® devices. The EBN-OS restricts the switch-on current, which means that a larger number of ECGs can be connected to an automatic cutout (see table on page 5.103).

When using the values given in the tables, please note the following:

— In ECG operation, the load data relates to switching on at peak voltage
— Circuit breaker type and characteristics: The specified load from fluorescent lamps and the associated control gears applies to circuit breakers of Type 5 SL and 5 SX with B characteristics. If the above circuit breaker types with C characteristics are used, the number of permitted luminaires for ECG operation can be increased by 70 % (please observe VDE-0100-410 in particular)
— Circuit breaker design: The specified loading is for single-pole circuit breakers. When multi-pole circuit breakers (2-pole, 3-pole) are used, the number of permitted luminaires is reduced by 20 %.
— Lamp switch-on: The specified load applies:
    – To the joint, group-wise starting of the relevant number of luminaires in "choke operation"
    – To the maximum permissible number of luminaires switched together (with one switching operation) in ECG operation
— Circuit impedance: The specified load applies with reference to a line impedance of 800 mΩ (corresponding to a 15 m long cable with a diameter of 1.5 mm from the distribution board to the first luminaire and a further distance of 20 m to the middle of the circuit; at a line impedance of 400 mΩ, the permitted values are reduced by 10 %, and by 20 % at a line impedance of 200 mΩ)

Inrush currents for ECGs measured at $U_N = 230V_{AC}$

ECG	I_p [A]	T_H [µs]	Maximum no. of ECGs on circuit breakers 10 A	16 A
QUICKTRONIC® INTELLIGENT DIMMABLE (DALI/1…10 V DIM) for T5 and T8 fluorescent lamps				
QTi (DALI) 1x14/24 DIM	25	175	17	28
QTi (DALI) 1x18 DIM	25	175	17	28
QTi (DALI) 1x21/39 DIM	25	175	17	28
QTi (DALI) 1x28/54 DIM	25	175	17	28
QTi (DALI) 1x35/49/80 DIM	30	225	12	19
QTi (DALI) 1x36 DIM	25	175	17	28
QTi (DALI) 1x58 DIM	28	225	17	28
QTi (DALI) 2x14/24 DIM	35	180	12	19
QTi (DALI) 2x18 DIM	35	180	12	19
QTi (DALI) 2x21/39 DIM	45	205	8	13
QTi (DALI) 2x28/54 DIM	45	205	8	13
QTi (DALI) 2x35/49 DIM	45	205	8	13
QTi (DALI) 2x36 DIM	45	205	8	13
QTi (DALI) 2x58 DIM	45	205	8	13
QTi (DALI) 2x35/49/80 DIM	60	230	5	9
QTi (DALI) 3x14/24 DIM	35	180	12	19
QTi (DALI) 4x14/24 DIM	45	205	8	13
QTi (DALI) 3x18 DIM	25	175	17	28
QTi (DALI) 4x18 DIM	35	180	12	19
QUICKTRONIC® INTELLIGENT QTi				
QTi 1x14/24/21/39 GII	24	230	17	28
QTi 1x28/54/35/49 GII	24	230	17	28
QTi 1x35/49/80 GII	53	190	8	13
QTi 2x14/24/21/39 GII	53	190	8	13
QTi 2x28/54/35/49 GII	53	190	8	13
QTi 2x35/49/80 GII	39	230	5	9
QUICKTRONIC® for T5(HO), T8 and DULUX® lamps				
QTP5 1x14-35	24	230	17	28
QTP-OPTIMAL 1x18-40	24	230	17	28
QTP5 1x49	24	230	17	28
QTP-OPTIMAL 1x54-58	37	200	12	19
QTP5 1x80	40	200	12	19
QTP5 2x14-35	40	200	12	19
QTP-OPTIMAL 2x18-40	37	200	12	19
QTP5 2x49	53	190	8	13
QTP-OPTIMAL 2x54-58	57	150	8	13
QTP5 3x14, 4x14	40	200	12	19
QT-FQ 2x80	39	230	5	9

ECG	I_p [A]	T_H [µs]	Maximum no. of ECGs on circuit breakers 10 A	16 A
QUICKTRONIC® QT-FIT5 for T5 fluorescent lamps				
QT-FIT5 1x14-35	24	230	17	28
QT-FIT5 2x14-35	40	200	12	19
QT-FIT5 3x14, 4x14	40	200	12	19
QT-FIT5 1x49	24	230	17	28
QT-FIT5 2x49	53	200	8	13
QUICKTRONIC® QT-FIT5/8 for T5 and T8 fluorescent lamps				
QT-FIT5/8 1x18-39	24	230	17	28
QT-FIT5/8 2x18-39	40	200	12	19
QT-FIT5/8 1x54-58	24	230	17	28
QT-FIT5/8 2x54-58	53	200	8	13
QUICKTRONIC® QT-FIT8 for T8 fluorescent lamps				
QT-FIT8 1x18	15	200	17	28
QT-FIT8 1x36	15	200	17	28
QT-FIT8 1x58-70	15	200	17	28
QT-FIT8 2x18	15	200	8	13
QT-FIT8 2x36	28	230	8	13
QT-FIT8 2x58-70	28	230	8	13
QT-FIT8 3x18, 4x18	28	230	8	13
QUICKTRONIC® QTz5 for T5 fluorescent lamps				
QTz5 1x14	20	100	34	56
QTz5 1x21	20	100	34	56
QTz5 1x28	20	100	34	56
QTz5 2x14	20	100	34	56
QTz5 2x28	23	170	15	25
QTz5 3x14	23	170	15	25
QUICKTRONIC® QTz8 for T8 fluorescent lamps				
QTz8 1x18	20	130	34	56
QTz8 1x36	20	130	34	56
QTz8 2x18	20	130	34	56
QTz8 2x36	23	250	15	25
QTz8 3x18	23	250	15	25
QTz8 4x18	23	250	15	25

Inrush currents for ECGs measured at $U_N = 230 V_{AC}$

ECG	I_p [A]	T_H [µs]	Maximum no. of ECGs on circuit breakers 10 A	16 A
QUICKTRONIC® DIMMABLE with 1…10 V interface for T5, T8 and DULUX® L fluorescent lamps				
QT 1x28 DIM	17	170	25	41
QT 1x35 DIM	17	170	25	41
QT 1x49 DIM	24	175	17	28
QT 1x54 DIM	24	175	17	28
QT 1x80 DIM	28	225	12	19
QT 2x28 DIM	24	175	17	28
QT 2x35 DIM	28	225	12	19
QT 2x49 DIM	45	205	8	13
QT 2x54 DIM	45	205	8	13
QT 2x80 DIM	60	230	5	9
QT 1x18 DIM	17	170	25	41
QT 1x36 DIM	17	170	25	41
QT 1x58 DIM	24	175	17	28
QT 2x18 DIM	17	170	25	41
QT 2x36 DIM	28	225	12	19
QT 2x58 DIM	45	205	8	13

ECG	I_p [A]	T_H [µs]	Maximum no. of ECGs on circuit breakers 10 A	16 A
QUICKTRONIC® PROFESSIONAL for FC (T5) ring lamps				
QTP-FC 1x55	25	250	11	19
QUICKTRONIC® for OSRAM DULUX® L				
QTP-DL 1x18-24	13	320	17	28
QTP-DL 1x36-40	13	320	17	28
QTP-DL 1x55 Gen II	24	230	17	28
QTP-DL 2x18-24	13	320	17	28
QTP-DL 2x36-42	23	250	12	19
QTP-DL 2x55 Gen II	28	230	8	13
QUICKTRONIC® DALI and QUICKTRONIC® DIMMABLE with 1…10 V interface for T/E compact fluorescent lamps				
QTi (DALI)-T/E 1x18-57 DIM	30	225	12	19
QTi (DALI)-T/E 2x18-42 DIM	45	205	8	13

Inrush currents for ECGs measured at U_N = 230V_{AC}

ECG	I_p [A]	T_H [µs]	Maximum no. of ECGs on circuit breakers 10 A	16 A
QUICKTRONIC® MULTIWATT QT-M				
QTP-M 1x26-42 S	15	200	17	28
QTP-M 2x26-32 S	25	250	11	19
QT-M 2x26-42/220-240 S	28	230	8	13
QUICKTRONIC® for OSRAM DULUX® D/E and T/E				
QTP-D/E 1x10-13	7	150	25	41
QTP-D/E 2x10-13	20	200	17	28
QTP-T/E 1x18, 2x18	20	200	17	28
QTP-T/E 1x26-42, 2x26	20	200	17	28
QUICKTRONIC® ECONOMIC				
QT-ECO 1x4-16/220-240	10	75	68	112
QT-ECO 1x18-21/220-240	13	100	36	59
QT-ECO 1x18-24/220-240	13	100	36	59
QT-ECO 1x26/220-240	14	120	30	50
QT-ECO 2x5-11/220-240	12	100	51	84

Maximum permissible number of HALOTRONIC® units on an automatic circuit breaker

Circuit breaker	Trip characteristic B 10	B 16
HALOTRONIC®		
HTi DALI 105	23	38
HTL 105	23	38
HTL 225	11	18
HTM 70	37	59
HTM 105	23	38
HTM 150	16	26
ET-PARROT 70	37	59
ET-PARROT 105	23	38

ECG	I_p [A]	T_H [µs]	Maximum no. of ECGs on circuit breakers 10 A	16 A
DULUXTRONIC® for OSRAM DULUX® S/E, D/E, T/E with integrated lampholder				
DT-S/E 5-11/220-240	6.2	110	33	52
DT-D/E 10-13/220-240	8	120	22	35
DT-T/E 18/230-240	3.5	590	15	25
POWERTRONIC®				
PTo 35/220-240	35	350	7	13
PTo 50/220-240 3DIM	35	350	7	13
PTo 70/220-240 3DIM	35	350	7	13
PTo 100/220-240 3DIM	60	250	4	7
PTo 150/220-240 3DIM	70	250	4	7
PTo 250/220-240 3DIM	4	6000	7	11
PTi 20/220-240 I	12	210	22	33
PTi 35/220-240 S MINI	20	170	17	28
PTi 35/220-240 S/I	30	150	15	26
PTi 50/220-240 S	45	250	7	13
PTi 70/220-240 S/I	45	250	7	13
PTi 150/220-240 S/I	70	250	4	7
PT-FIT 35/220-240 S/I	30	150	15	26
PT-FIT 50/220-240 S	45	250	7	13
PT-FIT 70/220-240 S/I	45	250	7	13

With use of EBN-OS, the number of POWERTRONIC® ECGs per circuit breaker can be increased significantly. See also page 5.100.

ECG type	No. **without** EBN-OS on 1 16 A circuit breaker, type B	Approx. no. **with** EBN-OS on 1 16 A circuit breaker, type B
PTi 20/220-240	33	82
PTi 35/220-240 MINI	28	70
PTi 35/220-240	26	65
PTi 50/220-240	13	32
PTi 70/220-240	13	32
PTi 150/220-240	7	17
PT-FIT 35/220-240	26	65
PT-FIT 50/220-240	13	32
PT-FIT 70/220-240	13	32

3. ECGs in 3-phase operation

Overvoltage/undervoltage/no neutral conductor

1. Check whether the line voltage is within the application range of the ECG (AC/DC range from 198 V to 254 V for example).

2. The mains connection should only be made to the fixture terminal. For luminaires or luminaire groups in 3-phase circuits.

3. Make absolutely sure that the neutral conductor is correctly connected to all ECG luminaires and that it is making proper contact.

4. Cables should only be connected or disconnected when no voltage is present.

5. For 3 x 230/240 V supply networks in triangular circuit arrangements, protection by way of common disconnection of the phase conductor is necessary.

Important

— In new systems, the loads must not be connected when the insulation resistance is measured with 500 V DC, as, according to VDE 0100-600 Section 9, the test voltage is also applied between the neutral conductor (N) and all 3 external lines (L1, L2, L3). In existing systems, it is sufficient to conduct an insulation test between the external conductors (L1, L2, L3) and protective earth (PE) without disconnecting from the network. The neutral conductor (N) and protective earth (PE) must not be electrically connected in any way while this is being done. For this insulation measurement (500 V = to ⏚), the neutral conductor disconnection terminal may only be opened after the line voltage has been disconnected.
— Make sure that the N conductor is correctly connected before putting the equipment into operation.
— During operation of the lighting system, do not disconnect the N conductor under any circumstances.

The diagram above shows the wiring for luminaires or luminaire groups in 3-phase circuits and with a common neutral conductor. If the common neutral conductor is interrupted in a 3-phase star configuration and voltage is present, then luminaires or groups of luminaires operated with electronic control gear may be exposed to unacceptably high voltages and the ECG itself may be destroyed.

4. ECGs in emergency lighting systems with DC voltage

Permitted battery voltage	Upper limit	Lower limit[1]
QUICKTRONIC INTELLIGENT DALI…DIM	276 V	154 V
QUICKTRONIC INTELLIGENT DIM	276 V	154 V
QUICKTRONIC INTELLIGENT GII	276 V	176 V
QUICKTRONIC QT … DIM (1…10V) T5 u.T8	276 V	154 V
QUICKTRONIC PROFESSIONAL T5	276 V	176 V
QUICKTRONIC PROFESSIONAL OPTIMAL T5 T8	276 V	176 V
QUICKTRONIC PROFESSIONAL DL	276 V	176 V
QUICKTRONIC PROFESSIONAL (D/E, T/E)	276 V	176 V
QUICKTRONIC FIT T5	264 V	185 V
QUICKTRONIC FIT QT-FIT5/8	264 V	185 V
QUICKTRONIC FIT T8	264 V	185 V
QUICKTRONIC POPULAR QTz5	Not permitted for DC operation	
QUICKTRONIC POPULAR QTz8	Not permitted for DC operation	
QUICKTRONIC PROFESSIONAL MULTIWATT	264 V	176 V
QUICKTRONIC ECONOMIC	254 V	176 V
POWERTRONIC [2]	Not permitted for DC operation	
HALOTRONIC	Not permitted for DC operation	

Switch-on times	Maintained Supply is switched from AC to DC	Non-maintained Emergency luminaires are switched on from cold
QUICKTRONIC INTELLIGENT DALI…DIM	< 0.6 s	< 0.6 s
QUICKTRONIC INTELLIGENT DIM	< 0.6 s	< 0.6 s
QUICKTRONIC INTELLIGENT GII	< 0.3 s	< 1 s
QUICKTRONIC QT … DIM (1…10V) T5 and T8	< 0.6 s	< 0.6 s
QUICKTRONIC INTELLIGENT T5	< 0.3 s	< 1 s
QUICKTRONIC PROFESSIONAL OPTIMAL T5 T8	< 0.5 s	< 1.5 s
QUICKTRONIC PROFESSIONAL DL	< 1.0 s	< 1 s
QUICKTRONIC PROFESSIONAL DL55 GII	< 0.3 s	< 1 s
QUICKTRONIC PROFESSIONAL D/E	< 1 s	< 1 s
QUICKTRONIC PROFESSIONAL T/E	< 0.3 s	< 1 s
QUICKTRONIC FIT T5	< 0.5 s	< 1 s
QUICKTRONIC FIT QT-FIT5/8	< 0.5 s	< 1 s
QUICKTRONIC FIT T8	< 0.5 s	< 1 s
QUICKTRONIC POPULAR QTz5	–	–
QUICKTRONIC POPULAR QTz8	–	–
QUICKTRONIC PROFESSIONAL MULTIWATT	< 0.5 s	< 1 s
QUICKTRONIC ECONOMIC	< 0.5 s	< 2 s
POWERTRONIC [2]	–	–
HALOTRONIC	–	–

1) The lamps must be ignited at over 198 V however
2) If POWERTRONIC® is switched on from cold, it takes 1 to 2 minutes for the lamp to reach 70 % of the luminous flux

5. Power factor/compensation

The power factor λ for an electrical load is the ratio of the effective power (P_{eff} = voltage x effective current) to the apparent power (P_{app} = voltage x current). This value is affected both by the phase displacement cos φ between the current and the voltage and by the current distortion ε.

$$\lambda = \frac{P_{eff}}{P_{app}} = \varepsilon \cdot \cos \varphi$$

In contrast to CCGs (inductive, 50 Hz), there is hardly any phase displacement (cos φ = 0.95) with ECGs (high frequency), so compensation is not required.

However, distortion in the sine-wave current supply occurs during the operation of electronic control gears. Generally speaking, these distortions are classified by integer multiples of the line frequency (harmonics).

The harmonic content of the line current is strictly controlled by national and international standards (IEC 61000-3-2).

OSRAM ECGs have integrated active electronic harmonic filters for this purpose, which ensure a value for ε of more than 0.95 and therefore a power factor λ greater than 0.9 (exceptions are indicated).

6. Permissible cable lengths
QUICKTRONIC®

When ECGs are used in luminaires, the cables, if correctly routed within the luminaires, produce little interference. When ECGs are used in Master/Slave circuits, the maximum permissible cable length between the ECG and the lamp must not be exceeded. For more detailed information, see the technical application guides at www.osram.com/oem-download

POWERTRONIC®

The maximum cable lengths between the lamp and POWERTRONIC® depend on the type of cable and how it is routed. The following maximum cable lengths can be used as guidelines:

	Max. cable length for AC operation
PTo 35/220-240	1.5 m
PTo 50/220-240 3DIM	1.5 m
PTo 70/220-240 3DIM	1.5 m
PTo 100/220-240 3DIM	1.5 m
PTo 150/220-240 3DIM	1.5 m
PTo 250/220-240 3DIM	1.5 m
PTi 20/220-240 I	1.5 m
PTi 35/220-240 S MINI	0.5 m
PTi 35/220-240 S/I	1.5 m
PTi 50/220-240 S	1.5 m
PTi 70/220-240 S/I	1.5 m
PTi 150/220-240 S/I	1.5 m
PT-FIT 35/220-240 S/I	1.5 m
PT-FIT 50/220-240 S	1.5 m
PT-FIT 70/220-240 S/I	1.5 m

HALOTRONIC®

The maximum 12 V cable length must be less than 2 m to comply with radio interference limit values. This means that luminaires can be installed within a radius of 4 m around HALOTRONIC®. The recommended minimum cross-section is 1 mm^2.

Cable routing

The supply cable should not be routed alongside the HALOTRONIC® casing nor alongside the high-frequency 12 V secondary cable. This avoids high-frequency interference on the supply cable.

Instruments for measuring secondary voltage

An instrument for measuring the secondary voltage must be a true RMS meter and have a bandwidth greater than or equal to 250 kHz (-3 dB). Any other instrument will give false readings.

7. DALI ECGs with Touch DIM®/corridor function should not be operated on open DALI lines

Due to an increasing number of questions about DALI installations where no DALI controller is (yet) connected, we recommend you short-circuit the (currently) open DALI lines in the sub-distribution cabinet to avoid unwanted switching/unsynchronized dimming.

Recommendation

In DALI installations where no DALI controller is (yet) connected, short-circuit the open DALI lines in the sub-distribution cabinet (also applies to installations where Touch DIM®/corridor mode operation is planned).

Reason

To avoid unwanted switching/unsynchronized dimming caused by electrical distortions/coupling into open DALI lines.

Technical background

Even low induced voltages can trigger the DALI Touch DIM® mode on the DALI input connector of the electronic control gear and therefore cause different and unsynchronized dimming levels. This antenna effect is dependent on the length and location of the open DALI line. With open DALI lines of more than 10 m, we recommend short-circuiting the DALI line.

Reset in cases of error

If the DALI ECGs have already been triggered incorrectly, do the following:
1. Disconnect the mains power to the DALI ECGs and connect a DALI control unit (e.g. OSRAM DALI Repeater or OSRAM DALI MCU)
2. Reconnect the power: The DALI ECGs will detect the signal and switch back to DALI mode again
3. Interrupt the mains power again and disconnect the DALI control unit
4. Short-circuit the DALI line
5. Connect up the power again

Applies **only** to DALI ECGs with Touch DIM®/corridor function.

8. Faults in infrared control/transmission systems

Fluorescent lamps have an emission in the wavelength range which is also used for infrared transmission and which can be affected by the lamp. Since the IR receivers used are largely non-selective, interference may occur in the IR system. The operating frequency of the ECGs is between 20 and 120 kHz. The light emitted from the fluorescent lamp is modulated at twice the operating frequency. Interference is produced by signals in the same frequency range.

Exception: Interference is not expected with POWERTRONIC® and HALOTRONIC®.

IR remote control
Systems operating at a sufficiently high carrier frequency (400 to 1,500 kHz) are unlikely to suffer interference.

Sound transmission
Up to now, the carrier signal frequency for sound transmission has been 95 kHz and higher, which has led to serious disturbance from the 3rd, 5th and 7th harmonics of the ECG operating frequency (20 to 120 kHz in normal operation and up to 100 kHz with dimming). Headphone manufacturers have adopted higher frequencies such as 2.3 MHz and 2.8 MHz. Simultaneous interpreting systems also operate in the 95 kHz to 250 kHz range, so it is best not to use the first six transmission channels, particularly channel 1, of the 32 available channels since these are likewise affected by the harmonics of the basic ECG frequencies.

High-frequency ripple control
The carrier frequencies used are around 120 kHz. Transmission can be adversely affected by radio interference suppression capacitors, which are included in all ECGs and other electronic loads, such as the power supplies of PCs.

Paging systems
Generally, only HF paging systems (operating in the MHz range) should be used. If inductive paging systems are used (25 to 40 kHz), reliable operation is not possible.

Electronic merchandise security systems
In many shops nowadays, merchandise such as DVDs, hi-fi equipment and clothing is protected against theft by electronic security systems.

These systems typically operate with resonance frequencies in the kHz range (e.g. a pulse is emitted which causes an amorphous metal in the security tag to resonate; one of the largest suppliers uses a security system that operates at 58 kHz).

In unfavorable conditions, these systems may suffer from interference if the operating frequency is between 30 kHz and 150 kHz. Such interference can be eliminated by increasing the distance between the luminaire and the transmitting/receiving system and by using luminaires with metallic louvers.

9. Dimming mode

— QUICKTRONIC® units that can be dimmed have the letters …DIM in their references. They are dimmed via the 1…10 V interface (QTi-…DIM) or via the DALI interface (QTi DALI … DIM) or via Touch DIM® (also with QTi DALI … DIM), see page 5.04 ff. For special technical data, such as wiring and associated control components, please refer to the technical guide for QUICKTRONIC® DALI/DIM. Allow new lamps to burn in for 100 hours at 100 % luminous flux since only after this time will they exhibit stable values. A Master/Slave circuit (one ECG for two separate luminaires with wiring) is not permitted for dimmable ECGs.

— POWERTRONIC® PTo 3DIM units enable metal halide lamps with ceramic burners and also sodium vapor lamps to be dimmed. Dimming is performed via the DALI interface, StepDIM 2-stage phase control or autonomously via the internal AstroDIM control system of the ECG. Details on dimming HID lamps can be found in "Technical information on power reduction for high-intensity discharge lamps" (www.osram.com).

— HALOTRONIC® can be controlled with various dimmers (see page 5.54) or dimmer modules (see page 5.60). Since the interface between the dimmer and the electronic transformer is not standardized, there may be malfunctions in individual cases.

10. Luminaires with ECGs

The following general points apply to luminaires with electronic control gears:

— The temperature limits of the ECGs regarding ambient temperature and measuring point temperature on the ECG must not be exceeded (see 11. Ambient and ECG temperatures).

— The maximum permissible radio interference suppression values (EN 55015) must not be exceeded. Make sure the protective conductor and the function earth are correctly connected. Running the lamp cables and the protective conductor together (e.g. NYM cables) may lead to problems due to high-frequency interference.

— After being installed or replaced, the lamps must be burned in at full load for 100 hours to stabilize the discharge process.

11. Ambient and ECG temperatures

The temperature ranges specified for the relevant control gear must be maintained to enable the ECG to operate reliably. Generally speaking, lower operating temperatures can extend the life of ECGs. When ECGs are built into luminaires, the measuring point temperature T_c on the casing is the crucial parameter. The maximum permissible value specified for the ECG concerned must not be exceeded.

12. ECGs for outdoor luminaires

ECGs for high-intensity discharge lamps (PTo) have been designed specifically for outdoor applications. They are specially equipped for such applications; for example, they are protected against moisture, AC voltage peaks and vibrations (wind load, rail vehicles).

When using ECGs in outdoor luminaires, it must be remembered that the ECG may be exposed to humidity.
1. For luminaires of protection class 5 (protected against water jets, IP65 for example), standard ECGs can be used since moisture cannot penetrate this type of luminaire, so there is little chance of ECG corrosion. In individual cases, the use of supplementary protective measures must be considered.
2. For luminaires of protection class 3 (protected against splash water, IP43 for example), it is likely that water droplets will penetrate and thus cause corrosion and failure of unprotected standard ECGs. In cases of doubt (e.g. bollard luminaires, outdoor displays), additional protective measures should be taken.

13. Wiring of ECGs

Parallel connection of HALOTRONIC® is not permitted on the secondary side. Lamp-side switching or dimming is not permitted.

14. Lifespan and reliability of ECGs

The failure rate of electronic components depends not only on the component specification and quality but also very considerably on the operating temperature. OSRAM ECGs are designed so that, at the maximum permissible ECG temperature (T_c max.), a failure rate of fewer than 2 per thousand ECGs per 1,000 hours of operation can be expected. This corresponds to an ECG life of up to 50,000 hours at an ECG failure rate percentage of 10 %.
In practice, it can be assumed that, at a temperature 10 °C less than the maximum permitted temperature (T_c), the life of an ECG is doubled.
The following have different lifespans:
1. Up to 30,000 hours for QUICKTRONIC® QT-ECO, HTM MOUSE® and HTN at a failure rate of 10 %
2. Up to 60,000 hours for POWERTRONIC® PTo at a failure rate of 8 %; up to 50,000 hours for POWERTRONIC® PTi at a failure rate of 10 %; up to 30,000 hours for POWERTRONIC® PT-FIT at a failure rate of 10 %

Special applications, such as operation in corrosive atmospheres, strong vibrations, impermissible voltage conditions etc., may necessitate further protection measures.

Functional ECGs

10 °C lower measuring point temperatures almost double the lifetime of the ECG [2]

[%]   ■ 90 °C [1]   ☐ 75 °C   ☐ 65 °C   ■ 50 °C measuring point temperature T_c

10 % failure after 50,000 hours

Operating hours [thsd]
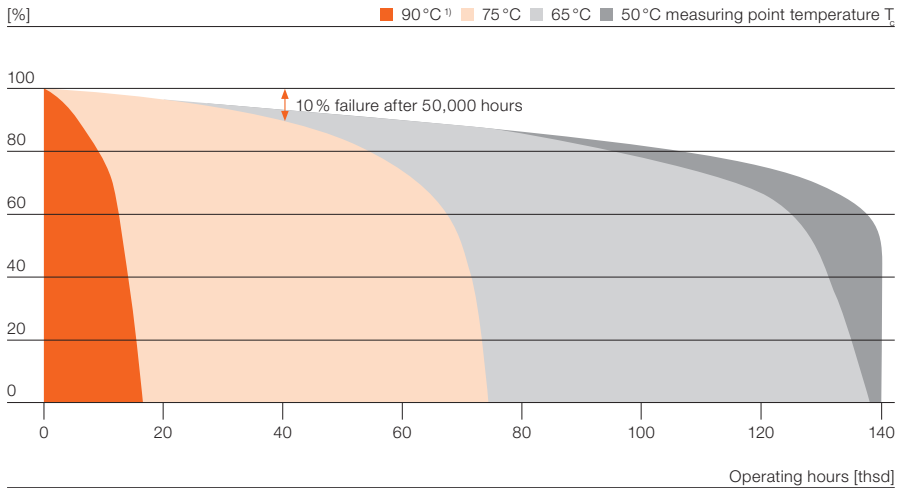
1) If the maximum permissible temperature at the T_c point is exceeded,
   the failure rate may increase dramatically.
2) For detailed information, please refer to the product data sheet.

Wiring diagrams for dimmable (DALI) ECGs

QTi DALI 1x14/24 DIM
QTi DALI 1x21/39 DIM
QTi DALI 1x28/54 DIM
QTi DALI 1x35/49/80 DIM
QTi DALI 1x18 DIM
QTi DALI 1x36 DIM
QTi DALI 1x58 DIM

QTi DALI 2x14/24 DIM
QTi DALI 2x21/39 DIM
QTi DALI 2x28/54 DIM
QTi DALI 2x35/49 DIM
QTi DALI 2x35/49/80 DIM
QTi DALI 2x18 DIM
QTi DALI 2x36 DIM
QTi DALI 2x58 DIM

QTi DALI 3x14/24 DIM
QTi DALI 3x18 DIM

QTi DALI 4x14/24 DIM
QTi DALI 4x18 DIM

QTi DALI-T/E 1x18-57 DIM

QTi DALI-T/E 2x18-42 DIM

Wiring diagrams for dimmable (DALI) ECGs

QTi 1x14/24 DIM
QTi 1x21/39 DIM
QTi 1x28/54 DIM
QTi 1x35/49/80 DIM
QTi 1x18 DIM
QTi 1x36 DIM
QTi 1x58 DIM

Wiring diagrams for dimmable (1…10V) ECGs

QTi 2x14/24 DIM
QTi 2x21/39 DIM
QTi 2x28/54 DIM
QTi 2x35/49 DIM
QTi 2x35/49/80 DIM
QTi 2x18 DIM
QTi 2x36 DIM
QTi 2x58 DIM

QTi 3x14/24 DIM
QTi 3x18 DIM

QTi 4x14/24 DIM
QTi 4x18 DIM

QTi-T/E 1x18-57 DIM

QTi-T/E 2x18-42 DIM

Wiring diagrams for dimmable (1…10 V) ECGs

QT 1x28 DIM
QT 1x35 DIM
QT 1x49 DIM
QT 1x54 DIM
QT 1x80 DIM
QT 1x18 DIM
QT 1x36 DIM
QT 1x58 DIM

QT 2x28 DIM
QT 2x35 DIM
QT 2x49 DIM
QT 2x54 DIM
QT 2x80 DIM
QT 2x18 DIM
QT 2x36 DIM
QT 2x58 DIM

Wiring diagrams for non-dimmable (T5) ECGs

QTi 1x14/24/21/39 GII
QTi 1x28/54/35/49 GII
QTi 1x35/49/80 GII

QTi 2x14/24/21/39 GII
QTi 2x28/54/35/49 GII
QTi 2x35/49/80 GII

QTP5 1x14-35
QTP5 1x49
QTP5 1x80

QTP5 2x14-35
QTP5 2x49

Wiring diagrams for non-dimmable (T5) ECGs

QTP5 3x14 GII, 4x14 GII

QTP-OPTIMAL 1x18-40
QTP-OPTIMAL 1x54-58

QTP-OPTIMAL 2x18-40
QTP-OPTIMAL 2x54-58

QT-FQ 2x80

QTP-FC 1x55

QT-FIT5 1x14-35
QT-FIT5 1x49

QT-FIT5 2x14-35
QT-FIT5 2x49

QT-FIT5 3x14, 4x14

Wiring diagrams for non-dimmable (T5) ECGs

QUICKTRONIC® fit T5/T8
QT-FIT 5/8 1x54-58

1 ~
2
3 ~
220...240V

lamp	U_N[V]	I_N[A]	f_N[Hz]	λ	t_c [°C]
1xT5 HO54W 1xT8 L58W	220...240	0.26 0.24	50/60	0.98	-15...50

$t_c = 75°C$
U-OUT=330V
leads max.2m • 21
• 22
L leads max.1m • 23
• 24

QT-FIT5/8 1x18-39
QT-FIT5/8 1x54-58

QUICKTRONIC® fit T5/T8
QT-FIT 5/8 2x54-58

1 ~
2
3 ~
220...240V

lamp	U_N[V]	I_N[A]	f_N[Hz]	λ	t_c [°C]
2xT5 HO54W 2xT8 L58W	220...240	0.48	50/60	0.98	-15...50

U-OUT=430V
leads max.2m • 21
• 22
L leads max.1m • 23
• 24
L leads max.2m • 25
• 26

QT-FIT5/8 2x18-39
QT-FIT5/8 2x54-58

QTz5 1x14/220-240

1 L
2 N
3 G

T5 lamp	U_N[V]	f_N[Hz]	I_N[A]	λ	t_c[°C]
1xHF14W	220...240	50/60	0.08	0.98	0...+50

Leads 21, 22 max.1m
L • 21
• 22
• 23
U-OUT=380 V • 24
Leads 23, 24 max.2m

QTz5 1x14/220-240
QTz5 1x21/220-240
QTz5 1x28/220-240

QTz5 2x28/220-240

1 L
2 N
3 G

T5 lamp	U_N[V]	f_N[Hz]	I_N[A]	λ	t_c[°C]
2xHF28W	220...240	50/60	0.29	0.98	0...+50

Leads 24, 22, 23 max.2m
U-OUT=380 V • 21
• 22
• 23
L • 24
• 25
L • 26
• 27
Leads 24, 25, 26, 27 max.1m

QTz5 2x14/220-240
QTz5 2x28/220-240

QTz5 3x14/220-240

1 L
2 N
3 G

T5 lamp	U_N[V]	f_N[Hz]	I_N[A]	λ	t_c[°C]
3xHF14W	220...240	50/60	0.21	0.98	0...+50

Leads 21, 22, 23, 24 max.1m
L • 21
• 22
• 23
• 24
L • 25
• 26
L • 27
• 28
Leads 25, 26, 27, 28 max.2m

QTz5 3x14/220-240

Wiring diagrams for non-dimmable (T8) ECGs

QUICKTRONIC® fit T8
QT- FIT8 1x36

1 ~
2
3 ~
220...240V

lamp	U_N[V]	I_N [A]	f_N[Hz]	λ	t_c [°C]
1xL36W	220...240	0.17	50...60	0.96	-15...40

U-OUT = 430V
leads max.2m • 21
• 22
L leads max.1m • 23
• 24
$t_c = 70°C$

QT-FIT8 1x18
QT-FIT8 1x36
QT-FIT8 1x58-70

QUICKTRONIC® fit T8
QT- FIT8 2x36

1 ~
2
3 ~
220...240V

lamp	U_N[V]	I_N [A]	f_N[Hz]	λ	t_c [°C]
2xL36W	220...240	0.33	50...60	0.96	-15...50

L leads max.2m • 21
• 22
$t_c = 70°C$ leads max.1,5m • 23
• 24
L leads max.2m • 25
• 26

QT-FIT8 2x18
QT-FIT8 2x36
QT-FIT8 2x58-70

Wiring diagrams for non-dimmable (T8) ECGs

QUICKTRONIC® fit T8
QT-FIT8 3x18, 4x18

QT-FIT8 3x18, 4x18

lamp	UN [V]	IN [A]	fN [Hz]	λ	ta [°C]
3xL18W	220...240	0.24	50...60	0.98	-15...70
4xL18W	220...240	0.31	50...60	0.98	-15...70

tc = 70°C
U-OUT = 430V

QUICKTRONIC® T8
QTz8 1x18/220-240

QTz8 1x18
QTz8 1x36

T8 lamp	UN [V]	fN [Hz]	IN [A]	λ	ta [°C]
1xL18W	220...240	50/60	0.09	0.98	-15...50

Leads 21, 22 max. 1m
U-OUT = 380V
Leads 23, 24 max. 2m

QUICKTRONIC® T8
QTz8 2x36/220-240

QTz8 2x18
QTz8 2x36

T8 lamp	UN [V]	fN [Hz]	IN [A]	λ	ta [°C]
2xL36W	220...240	50/60	0.32	0.98	-15...50

Leads 21, 22, 23, 24 max. 1m
U-OUT = 380V
Leads 25, 26 max. 2m

QUICKTRONIC® T8
QTz8 3x18/220-240

QTz8 3x18

T8 lamp	UN [V]	fN [Hz]	IN [A]	λ	ta [°C]
3xL18W	220...240	50/60	0.25	0.98	-15...50

Leads 21, 22, 23, 24 max. 1m
U-OUT = 380V
Leads 25, 26, 27, 28 max. 2m

QUICKTRONIC® T8
QTz8 4x18/220-240

QTz8 4x18

T8 lamp	UN [V]	fN [Hz]	IN [A]	λ	ta [°C]
4xL18W	220...240	50/60	0.34	0.95	-15...50

Leads 20, 21, 22, 23 max. 1m
U-OUT = 380V
Leads 24, 25, 26, 27, 28, 29 max. 2m

Wiring diagrams for non-dimmable (CFL) ECGs

QUICKTRONIC® PROFESSIONAL
QTP-DL 1x36-40

QTP-DL 1x18-24
QTP-DL 1x36-40

lamp	UN [V]	IN [A]	fN [Hz]	λ	ta [°C]
1xDL36W		0.17		0.99	
1xDL40W	220...240	0.21	0; 50...60	0.99	-20...50
1xDF36W		0.17		0.99	

U-OUT=330V
leads max. 1m
leads max. 2m

QUICKTRONIC® PROFESSIONAL
QTP-DL 1x55 GII

QTP-DL 1x55 GII

lamp	UN [V]	IN [A]	fN [Hz]	λ	ta [°C]
1xDL55W	220...240	0.26	0; 50...60	0.99	-20...50

220...240V
U-OUT=330V
leads max. 2m
leads max. 1m

Wiring diagrams for non-dimmable (CFL) ECGs

QTP-DL 2x18-24
QTP-DL 2x36-40

QTP-DL 2x55 GII

QTP-M 1x26-42

QTP-M 2x26-32

QTP-T/E 1x26-42, 2x26
QTP-T/E 1x18, 2x18

QTP-D/E 1x10-13

Wiring diagrams for non-dimmable (CFL) ECGs

QUICKTRONIC® QTP-D/E 2x10-13

lamp	I_n [A]	λ	lamp	I_n [A]	λ
2xT/E13W	0.13	0.95	2xS/E11W	0.12	0.95
2xD/E13W	0.13	0.95	2xS/E9W	0.09	0.92C
2xD/E10W	0.10	0.95			

220...240V

U-OUT = 330V

leads 21 to 24 max. 2m
leads 25,26 max. 1m

21 22 23 24 25 26

QTP-D/E 2x10-13

QUICKTRONIC® MULTIWATT QT-M 2x26-42/220-240 S

Lamp	I_N(A)	Lamp	I_N(A)	Lamp	I_N(A)
D/E 26W	0.23	L 36W	0.30	DL 24W	0.23
T/E 26W	0.23	FC 22W	0.23	DF 24W	0.23
T/E 32W	0.30	FC 22W+40W	0.30	DL 36W	0.30
T/E 42 W	0.39	FC 40W	0.38	DF 36W	0.30
		HO 24W	0.23		

220...240V

1 2 3 4 5 6 7

U-OUT= 430V

QT-M 2x26-42/220-240 S

QUICKTRONIC® ECONOMIC QT-ECO 1x18-21/220-240 S

Lamp	I_N(A)	Lamp	I_N(A)
D/E 18W	0.14	FH 21W	0.17
T/E 18W	0.14	2D 21W	0.17

1 2 3 4

U-OUT=250V

QT-ECO 1x18-21/220-240 S
QT-ECO 1x18-24/220-240 L
QT-ECO 1x18-24/220-240 S
QT-ECO 1x26/220-240 S
QT-ECO 1x4-16/220-240 L
QT-ECO 1x4-16/220-240 S

QUICKTRONIC® ECONOMIC QT-ECO 2x5-11/220-240 S

Lamp	I_N(A)	Lamp	I_N(A)	Lamp	I_N(A)
S/E 5W	0.10	S/E 11W	0.16	L 8W	0.12
S/E 7W	0.11	D/E 10W	0.14	L 10W	0.14
S/E 9W	0.13	L 6W	0.11		

1 2 3 4 5 6

U-OUT=330V

QT-ECO 2x5-11/220-240 S

Case study

Individual lighting and control solutions promote employee well-being

Siemens headquarters – Munich, Germany

The completely redesigned Siemens headquarters in Munich offer an inspiring working environment with variable space and usage concepts on a floor area of 45,000 square meters.

The high requirements placed on lighting in terms of energy efficiency and flexibility provide ideal conditions in all parts of the building; with individual lighting concepts optimizing visibility and promoting the well-being of approximately 1,200 employees.

All LED luminaires are equipped with DALI LED drivers for maximum energy savings and can be controlled and monitored via the central building control system. With the help of daylight and presence sensors in the building, the lights can be used and dimmed based on demand, thereby saving even more energy.

In the meeting rooms of the historic Palais Ludwig Ferdinand, LINEARlight FLEX® LED modules create special visual accents. The flexible LED modules provide indirect lighting in the coves surrounding the central meeting rooms.
www.osram.com/siemens-hq

Index and general information

Glossary of the most important lighting terms

As with any technical or scientific discipline, lighting technology has its own special terms and concepts for defining the characteristics of light sources and fixtures and for standardizing the units of measurement.

The most important terms are described here.

Luminous flux Φ
Unit of measurement: lumen [lm]

Luminous flux Φ is all the radiated power emitted by a light source evaluated with the spectral sensitivity of the eye and the photometric radiation equivalent k_m.

Luminous intensity I
Unit of measurement: candela [cd]

Generally speaking, a light source emits its luminous flux Φ in different directions and at different intensities.

Luminous intensity is the luminous flux radiated in a particular direction (solid angle Ω).

Illuminance E
Unit of measurement: lux [lx]

Illuminance E is the ratio between the luminous flux and the area being illuminated.

An illuminance of 1 lx occurs when a luminous flux of 1 lm is evenly distributed over an area of 1 m^2.

Luminance L
Unit of measurement:
candela per square meter [cd/m^2]

The luminance L of a light source or an illuminated area is a measure of the impression of brightness.

Luminous efficacy η
Unit of measurement:
lumen per watt [lm/W]

Luminous efficacy η indicates the efficiency with which the electrical power consumed is converted into light.

Light and radiation

Light is taken to mean the electromagnetic radiation that the human eye perceives as brightness, in other words that part of the spectrum that can be seen. This is the radiation between 380 and 780 nm, a tiny fraction of the known spectrum of electromagnetic radiation.
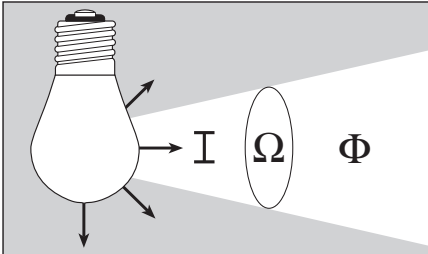
Luminous intensity I is a measure of the luminous flux Φ emitted in a solid angle Ω.
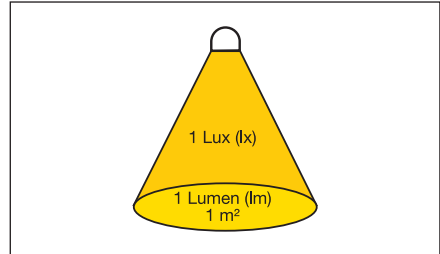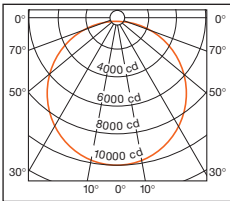
Illuminance E

Polar diagram
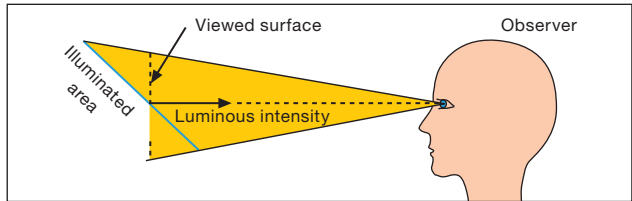
Luminance L

The most important photometric formulae:

Luminous intensity [cd]	I	$\dfrac{\text{Luminous flux [lm]}}{\text{Solid angle } \Omega \text{ [sr]}}$	Luminance [cd/m²]	L	$\dfrac{\text{Luminous intensity [cd]}}{\text{Viewed luminous area [m²]}}$
Illuminance [lx]	E	$\dfrac{\text{Luminous flux falling on area [lm]}}{\text{Illuminated area [m²]}}$	Luminous efficacy [lm/W]	η	$\dfrac{\text{Generated luminous flux [lm]}}{\text{Electrical power consumed [W]}}$

Color temperature

Unit of measurement: Kelvin [K]

The color temperature of a light source is defined in comparison with a "black body radiator" and plotted on what is known as the "Planckian curve". The higher the temperature of this "black body radiator", the greater the blue component in the spectrum and the smaller the red component. A light source with a warm white light, for example, has a color temperature of 2,700 K, whereas a daylight light source has a color temperature of 6,000 K.

Light color

The light color of a light source can be neatly defined in terms of color temperature. There are three main categories here:
Warm White < 3,300 K
Cool White 3,300–5,300 K
Daylight > 5,300 K
Despite having the same light color, light sources may have very different color rendering properties owing to the spectral composition of their light.

Color rendering

As a rule, artificial light should enable the human eye to perceive colors correctly, as it would in natural daylight. Obviously, this depends to some extent on the location and purpose for which light is required.

The criterion here is the color rendering property of a light source. This is expressed as a "general color rendering index" (R_a).

The color rendering index is a measure of the correspondence between the color of an object (its "self-luminous color") and its appearance under a reference light source. To determine the R_a values, eight test colors defined in accordance with DIN 6169 are illuminated with the reference light source and the light source under test. The smaller the discrepancy, the better the color rendering property of the lamp being tested.

A light source with an R_a value of 100 displays all colors exactly as they appear under the reference light source. The lower the R_a value, the worse the colors are rendered.

Luminaire efficiency

Luminaire efficiency (also known as light output ratio) is an important criterion in gauging the energy efficiency of a luminaire. This is the ratio between the luminous flux emitted by the luminaire and the luminous flux of the light source installed in the luminaire.

Average life

The average life of a light source is an average of the lives of individual lamps operated under standard conditions (50 % failure = average rated life).

Service life

Service life is a simple practical measure of the economical life of a light source. It is the number of hours of operation after which the system luminous flux (i.e. the product of the relative luminous flux and the relative proportion of light sources still in operation) is around 80 % of the initial value.

Chromaticity diagram acc. to DIN 5033
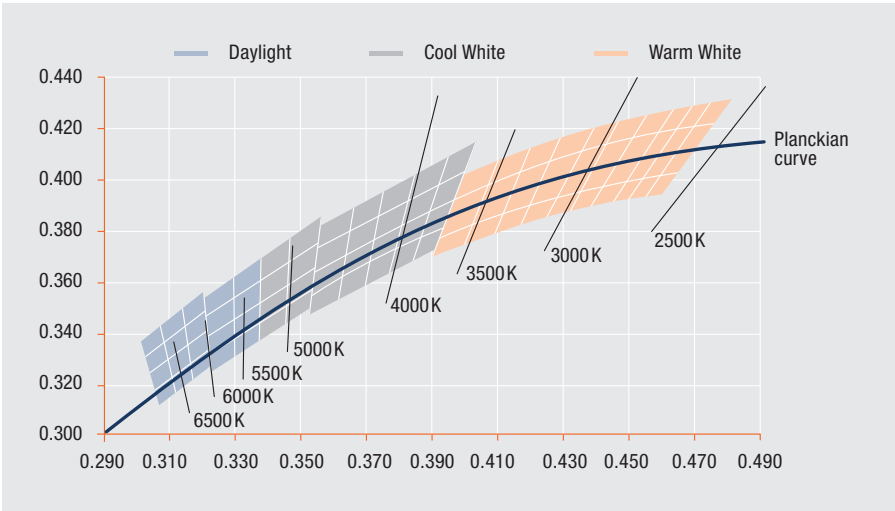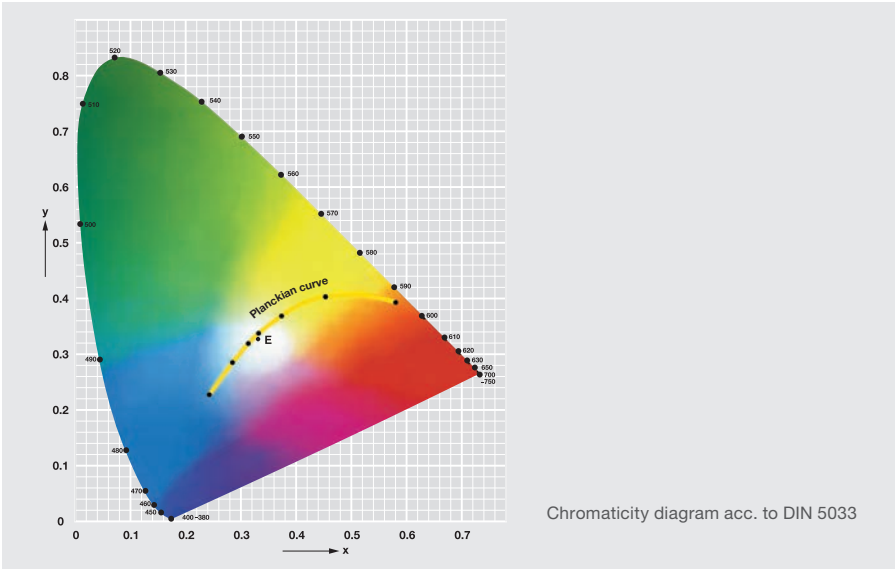
Extract from the chromaticity diagram showing the Planckian curve

Alphanumeric product references

Product name	GTIN (EAN)	Page
OTi DALI 75/220…240/700 D LT2 UF L	4052899957046	3.22
OTi DALI 75/220…240/700 D NFC TW L	4052899990326	3.24
OTi DALI 80/220…240/1A6 LT2 L	4052899028074	3.29
OTi DALI 80/220…240/24 1…4 CH	4052899452893	3.48
OTi DALI 80/220…240/24 TW	4052899490758	3.48
OTi DALI 80/220…240/2A1 LT2 L	4052899028050	3.29
OTi DALI 90/220…240/1A0 LT2 L	4052899494268	3.29
OTi DALI 90/220…240/700 D LT2 L	4052899494244	3.29
OTi DALI DIM	4008321061195	3.54

P

Product name	GTIN (EAN)	Page
PL-AR-G4 2500-830	4052899529359	2.21
PL-AR-G4 2500-840	4052899529373	2.21
PL-CN 111AC-1200-830 24 G1	4052899165533	2.50
PL-CN 111AC-1200-830 40 G1	4052899165618	2.50
PL-CN 111AC-1200-840 24 G1	4052899165557	2.50
PL-CN 111AC-1200-840 40 G1	4052899165632	2.50
PL-CN 111AC-1800-830 24 G1	4052899165571	2.50
PL-CN 111AC-1800-830 40 G1	4052899165656	2.50
PL-CN 111AC-1800-840 24 G1	4052899165595	2.50
PL-CN 111AC-1800-840 40 G1	4052899165670	2.50
PL-CN 50AC-650-830-24-G1	4052899276727	2.49
PL-CN 50AC-650-830-40-G1	4052899276765	2.49
PL-CN 50AC-650-840-24-G1	4052899276741	2.49
PL-CN 50AC-650-840-40-G1	4052899276789	2.49
PL-CN 50AC-800-830-24-G1	4052899276604	2.49
PL-CN 50AC-800-830-40-G1	4052899276642	2.49
PL-CN 50AC-800-830-60-G1	4052899276680	2.49
PL-CN 50AC-800-840-24-G1	4052899276628	2.49
PL-CN 50AC-800-840-40-G1	4052899276666	2.49
PL-CN 50AC-800-840-60-G1	4052899276703	2.49
PL-CN111-1500-927-24D-G2	4052899323735	2.47
PL-CN111-1500-927-40D-G2	4052899323834	2.47
PL-CN111-1500-930-24D-G2	4052899323797	2.47
PL-CN111-1500-930-40D-G2	4052899323858	2.47
PL-CN111-1500-940-24D-G2	4052899323810	2.47
PL-CN111-1500-940-40D-G2	4052899323872	2.47
PL-CN111-2400-827-24D-G2	4052899323896	2.47
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PL-CN111-2400-830-24D-G2	4052899323919	2.47
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PL-CORE AC-2000-840	4052899952782	2.38
PL-CORE AC-800-827	4052899952751	2.38
PL-CORE AC-800-830	4052899952768	2.38
PL-CORE-G7 1000-827 L10 H1	4052899533929	2.33
PL-CORE-G7 1000-830 L10 H1	4052899533943	2.33
PL-CORE-G7 1000-835 L10 H1	4052899533967	2.33
PL-CORE-G7 1000-840 L10 H1	4052899533981	2.33
PL-CORE-G7 1000-927 L10 H1	4052899534001	2.33
PL-CORE-G7 1000-930 L10 H1	4052899534049	2.33
PL-CORE-G7 1000-935 L10 H1	4052899534063	2.33
PL-CORE-G7 1000-940 L10 H1	4052899534100	2.33
PL-CORE-G7 2000-827 L10 H1	4052899534124	2.33
PL-CORE-G7 2000-827 L15 H1	4052899534308	2.31
PL-CORE-G7 2000-830 L10 H1	4052899534148	2.33
PL-CORE-G7 2000-830 L15 H1	4052899534322	2.31
PL-CORE-G7 2000-835 L10 H1	4052899534186	2.33
PL-CORE-G7 2000-835 L15 H1	4052899534346	2.31
PL-CORE-G7 2000-840 L10 H1	4052899534209	2.33
PL-CORE-G7 2000-840 L15 H1	4052899534360	2.31
PL-CORE-G7 2000-927 L10 H1	4052899534223	2.33
PL-CORE-G7 2000-927 L10 H1	4052899534247	2.33
PL-CORE-G7 2000-927 L15 H1	4052899534384	2.31

Digital Systems Light Catalog 2018/2019

Index of product names

Simple and correct disposal of lighting products

EU directive 2012/19/EU on waste electrical and electronic equipment (WEEE) relates, among other things, to luminaires, discharge lamps and LED lamps.

Starters, control gears and light-emitting diodes are classed as luminaire components and as such are part of the luminaire disposal process.

All OSRAM products that need to be disposed of under the WEEE directive are labeled with the symbol shown here.

All manufacturers, importers and initial distributors must register with their relevant national authority. Products from non-registered manufacturers may no longer be marketed.

There are individual regulations governing the disposal of lighting products in the member states of the EU and also in Norway and Switzerland. For more information, please contact your local OSRAM office.

The primary objectives of the WEEE directive are to reduce the load on the environment, safeguard valuable resources and protect the environment and public health.

All consumers (commercial and domestic) are obliged to return old affected lighting products for separate disposal. Collection points have been set up for this.

The latest information from OSRAM can be found on our Sustainability pages: www.osram-group.com/en/sustainability/environmental/recycling or at any relevant national authorities.

General notes
Standard packs

General

All OSRAM articles are GTIN (EAN) coded in their various packaging formats. The GTIN (EAN) numbers listed in this catalog normally relate to the smallest packaging unit unless otherwise indicated.

Technical data is in accordance with EN European Standard and IEC (International Electrotechnical Commission).

Unless otherwise indicated, all products are designed for a mains voltage of 220–240 V.

For CE labeling, see notes on the following page.

Sales and shipments are based on the OSRAM Conditions of Supply and Payment valid on the contract date.

Technical data and dimensions are subject to the customary small tolerances.

Subject to technical modification and availability of supplies. The information in this catalog supersedes information in previous catalogs.
® = Registered trademark

Standard packs

There is a surcharge on order quantities different from the standard pack quantities listed in this catalog because standard packs have to be broken open.

There are considerable advantages in ordering original cartons/standard packs:
— Prompt delivery
— No surcharges
— Simple cost-saving handling on receipt
— No time-consuming checks when the goods arrive
— Exact contents description on each stacked carton
— No danger of mistaking one type of lamp for another
— Reduced risk of losses in transit
— Reduced risk of breakage

Types not listed

Available on request.
Surcharge for special designs and functions.

Registered trademarks

BackLED	DRAGONpuck	HALOTRONIC MOUSE	OPTOTRONIC
BoxLED	EINSTONE	HTM	OUT KIT
COINlight	ENCELIUM	HubSense	PrevaLED
DRAGONchain	ET-PARROT	LINEARlight FLEX	QUICKTRONIC
DRAGONeye	HALOTRONIC	LUXeye	Touch DIM

C E labeling for lighting products

Products that fall under the scope of the European directives on low voltage (LVD), electromagnetic compatibility (EMC), radio equipment (RED), restriction of certain hazardous substances (RoHS) and the eco-design of energy-related products (ErP and its applicable implementation measures) must carry the CE label to be sold within the EU. The CE label indicates compliance with the essential requirements of these regulations and ordinances. All relevant OSRAM products for sale on the EU market meet the requirements of the applicable European directives and therefore carry the CE label.

Notes on CE labeling:

1. CE labeling as a requirement for marketing products in Europe
Some EU Regulations ("CE Regulations") require CE marking of products. In this case, the CE label is a prerequisite for sales within the EU and must therefore be applied before a product can be marketed. By applying the CE label to their products, manufacturers and importers confirm that their products comply with the "essential requirements" of all applicable CE Regulations and that they meet the stated objectives of these directives (electromagnetic compatibility, for example). In many cases, compliance with these "essential requirements" is demonstrated by complying with the relevant harmonized European standards (EN). However, from a legal perspective, a manufacturer may also choose a different pathway to demonstrate compliance and rather use his own technical expertise than applying harmonized standards, for example in case of new technologies when harmonized standards simply do not (yet) exist.

2. The CE label is an administrative mark
The CE label is an administrative mark addressed to the EU customs and market authorities. The CE label indicates to them that at the time of its marketing the labeled product complies with the European directives that (a) apply to the product and (b) require a CE label.

3. CE labeling for inspection
Consumers do not have the right to inspect the CE declarations of the manufacturers. There is one exception, however: For radio products, the CE declaration must be made available with the product, either in printed form or via a download link.

The right to request and inspect CE declarations is reserved exclusively for those market authorities responsible for checking that electrical and electronic products comply with statutory requirements. In Germany, for example, these are the Bundesnetzagentur (Federal Network Agency, responsible in connection with the EMC directive and the RED directive), the Gewerbeaufsichtsämter (Trade Supervision Offices, responsible in connection with the low-voltage directive), the relevant authorities and the Bundesanstalt für Materialforschung und -prüfung (Federal Agency for Material Research and Testing) as the commissioned agency (in connection with the ErP directive).

4. The CE label is not a seal of quality or an approval mark
CE labeling relates solely to compliance with the statutory "essential requirements" contained in certain directives and ordinances. It is therefore not an indicator of the quality of the product. The product features required in the ordinances for implementing the ErP directive are verified by the manufacturers by means of type testing and confirmed with the CE label. As an administrative label required by law, the CE label should not be confused with the approval marks (such as ENEC and VDE marks) issued by independent inspectorates. These inspectorates do not check if a product legitimately carries the CE label.
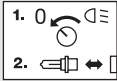
Symbols on our packaging
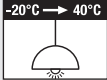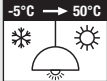
OSRAM has always focused not only on high product quality but also on the health of the consumers of its products. The European regulations on product safety create the same conditions in all EU member states and standardize the safety requirements relating to products. The regulations promise greater transparency for the consumer. To meet our obligations arising from these regulations and to inform our customers as well as to visualize product features in a way that can be quickly grasped, we provide information about our products on the products themselves, on the packaging and on the leaflets enclosed with the products. Because there are so many different languages in the EU, we use pictograms.

OSRAM uses the following symbols:

	Open packaging, read instructions
	Read the enclosed leaflet before use
	Keep away from children
	Do not throw away with household waste
	Use indoors only
	Disconnect the power supply before relamping
	Disconnect electronic control gear from the power supply before maintenance work
	Switch off headlights before replacing lamp
	Can be operated in unshielded luminaires
	Operate only in shielded luminaires
	Limited dimmability
	Lamp cannot be dimmed
	Caution: hot
	Wear suitable protective gloves when fitting or removing

	Wear suitable goggles when fitting or removing			Dangerous voltage
	Protect against splashes			Special lamps, not suitable for general lighting in households
	Restriction on burning position: p = horizontal, h = hanging, s = standing, 15 = ±15°			Caution! Hot surface
	Must be installed and maintained only by qualified electricians			See further information on the inside
	IR radiation			Suitable indoor ambient temperature
	High levels of UV radiation			Suitable outdoor ambient temperature
	UVA-A radiation			Not suitable for accent lighting
	Germicidal lamp			Do not use tools
	Radiation hazard: Do not look into the light source			Do not open product
	Operate only with control gear			Intended application: entertainment
	Ignition procedure for lamps with built-in ignition			Intended application: medical devices
	Ignition procedure for lamps with external igniter			Intended application: industry

Symbols in the tables

W	Power in W
W SYSTEM	System wattage in W
W CHAIN	Wattage of chain in W
W MODULE	Module wattage in W
W/m	Nominal wattage per meter in W
W/m White	Wattage per meter White
W/m RGB	Wattage per meter RGB
⊙	Dimmable
W	Dimming range
AC/DC	Type of current
V	Voltage in V
V$_{IN}$	Input voltage in V
V$_{OUT}$	Output voltage in V
V min.-max.	DC voltage in V
kV START	Ignition voltage in kV
A	Current in A
I[mA]	Rated current in mA
mA	Current Set

Hz	Operating frequency in Hz
kHz ECG	Operating frequency in kHz
K	Color temperature in K
	Light color
COLOR	Color
R$_a$	Color rendering index
lm	Luminous flux in lm
lm CHAIN	Luminous flux of chain
lm MODULE	Luminous flux of module
lm/m	Luminous flux per meter
lm/m White	Luminous flux per meter White
lm/m RGB	Luminous flux per meter RGB
lm/W	Luminous efficacy
cd	Luminous intensity in cd
λ	Power factor/wavelength
d [mm]	Diameter d in mm
LES ⊘	Diameter light emitting surface
l [mm]	Length l in mm

l$_1$ [mm]	Length l$_1$ in mm
b [mm]	Width b in mm
b$_1$ [mm]	Hole spacing b$_1$ in mm
h [mm]	Height h in mm
h m	Maximum installation height in m
°	Beam angle in °
t [h]	Average period of use/life
Ripple 100 Hz	Output ripple at 100 Hz
	Programming interface
	Galvanic isolation
II III	Protection class
IP	Type of protection
CONTROL	Control
No. of OUTPUTS	Number of control outputs
T$_a$	Ambient temperature range in °C
T$_c$	Max. operating temperature at the T$_c$ point in °C
	Energy efficiency class
Initial SDCM	Initial standard deviation of color matching

No. of LEDs per module

Number of LEDs per meter

Number of LED modules per chain

For lamp/LED module

Maximum cable length – system in m

Detection area

Working range of light sensor in Lx

Maximum load contact in A

Type of installation

Transmitter range in m

Battery

Max. TX power

Advertising interval

Antenna type

Multi services support

Standard pack in pcs.

Fig. no.

Glossary

AM	Amplitude Modulation
CCG	Conventional Control Gear
CFL	Compact Fluorescent Lamp
CLO	Constant Lumen Output
CS	Current Setting
DA	DALI
DALI	Digital Addressable Lighting Interface
DT6	DALI Device Type 6
ECG	Electronic Control Gear
EEI	Energy Efficiency Index
FAN	12V auxiliary output for active cooling (fan)
HPS	High Pressure Sodium lamp
L	Linear
LH	Lamp High
LL	Lamp Low
LT2	LEDset2
PWM	Pulse Width Modulation
RI	Radio Interference
S	Luminaire integration
SD	StepDIM

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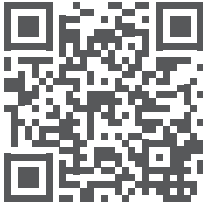
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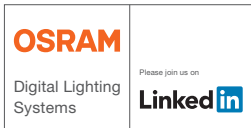Phone: +90 212 703 43 00
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