LED solutions

General Illumination
Perfect LED solutions for your luminaire
Müller retail chain
For further reference stories go to
www.tridonic.com/references
Focus on innovation
Efficient LED solutions

Segments

Retail
Hospitality

Office & Education
Industry

System components

LED module
LED Driver

Emergency
Controls

Information from page 6
Information from page 8

Information from page 10
Information from page 12

Information from page 16
Information from page 18

Information from page 22
Information from page 24
The simplicity of complex technology

Perfect light displays products to their best advantage, creates a pleasant atmosphere in which to shop or work and promotes motivation and concentration. But light can do even more than this.

LED technology opens up more possibilities
Energy and cost savings as a result of using LEDs are firmly anchored in the planning of lighting systems. Further development of LED systems now aims to offer customers products that on the one hand provide greater freedom of design and on the other feature, sophisticated technology – without being complicated to use.

Separation and integration
Design plays an important role in the manufacture of luminaires and in building architecture. Thanks to new technologies such as the DC String solution, the components can be separate from one another; in other words the power supply for multiple luminaires can run via a central AC/DC LED Driver. As in the case of Engine CLE AC, integration of the LED Driver in the LED module is becoming more and more crucial. These technological developments give luminaire manufacturers greater flexibility in terms of designing a harmonious ceiling that still allows for quick and simple installation and maintenance.

The age of networking
With its ready2mains and connecDIM technologies Tridonic is already meeting the requirements of the market for smart lighting, control and networking via the cloud. The lighting industry is currently going through a period of technological change in which lighting and IT are being combined and integrated. This opens up a large number of new possible applications for retail, building management and urban planning. To make this a reality a dense network is needed for the 50 billion connected devices estimated to be in use by 2020. This in turn places high demands on the network infrastructure and also represents an opportunity for the lighting industry. Light is everywhere, it will be networked in the future and will therefore, be able to play the central role of the network infrastructure as the ubiquitous, constant in what is known as the internet of things (IoT).
General Illumination

**LED system solutions at a glance**

Tridonic provides you with LED light sources and LED Drivers tailored to your individual requirements.

<table>
<thead>
<tr>
<th>ESSENCE</th>
<th>ADVANCED</th>
<th>EXCITE</th>
<th>PREMIUM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application-related specifi-</td>
<td>Easy to connect</td>
<td>Maximum flexibility that pays off</td>
<td>Maximum convenience for your application</td>
</tr>
<tr>
<td>cations</td>
<td>Highest efficiency</td>
<td>Fascinating lighting moods</td>
<td>Digital networking and control</td>
</tr>
<tr>
<td>Focus on core functions</td>
<td>Excellent quality of light for</td>
<td>For demanding lighting tasks</td>
<td>Adjustable colour temperature (Tunable White)</td>
</tr>
<tr>
<td>Proven Tridonic quality</td>
<td>sophisticated demands</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Quality of light</th>
<th>Module efficiency</th>
<th>LED Driver efficiency</th>
<th>Life-time</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tunable White</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dimming</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Backwards compatible</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Guarantee</td>
<td>3 years/5 years</td>
<td>5 years</td>
<td>5 years</td>
</tr>
</tbody>
</table>

The different product categories from the Tridonic portfolio can be combined in a variety of ways to meet your own specific requirements. For a better overview, the portfolio has been arranged in the following product categories:

**Office & Education and Retail & Hospitality**

<table>
<thead>
<tr>
<th>Quality of light</th>
<th>Module efficiency</th>
<th>LED Driver efficiency</th>
<th>Life-time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Backwards compatible</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Guarantee</td>
<td>3 years/5 years</td>
<td>5 years</td>
<td>5 years</td>
</tr>
</tbody>
</table>

**DALI ready2mains**
General Illumination

Retail
Bringing products to life

With modern illumination you can create a sales-boosting atmosphere, display products to their best advantage and direct the attention of your customers to the goods you want to promote.

LEDs are so versatile, they can provide accent lighting, create contrast and produce a light that will draw the eye to specific areas. Combined with unique technologies from Tridonic they create exceptional lighting solutions:

With **TUNABLE WHITE** you can individually adjust the colour temperatures and spectrums to provide the right ambience at the point of sale.

**FOOD** colours have the unique effect of enhancing the appearance of crusty bakery products or fresh meat, fish.

With a colour rendering index CRI of 98, **ART** full-spectrum technology makes colours appear more vibrant than ever before.

The modern **FASHION** LED light, perfect for sparkling fashion wear, highlights the white tones in particular and also produces vibrant colours across the entire spectrum.

The **XD** versions (“Extreme Density”) offer very high luminous fluxes and a small LES. The narrow beam angle enables precise illumination of product displays in shops.

The **GLAS** versions also provide optimum protection against dust and contact.

Thanks to the high quality of light, the illuminated objects are shown in their natural colours. At the same time, LED solutions from Tridonic are completely sustainable. Operating and maintenance costs are kept to a minimum as a result of energy efficiency and longevity.
Suggested lighting schemes and components for the retail sectors

<table>
<thead>
<tr>
<th>ESSENCE</th>
<th>ADVANCED</th>
<th>EXCITE</th>
<th>PREMIUM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost-effective</td>
<td>Simplicity itself</td>
<td>Flexible</td>
<td>Convenient</td>
</tr>
</tbody>
</table>

### LED modules
- SLE
- SLA
- DLA
- DLE

### Luminaire types
- Spotlights
- Downlights

### System solution DC String
- Independent
- Linear Low Profile
- Fixed output/dimming Boards

### LED Drivers
- Independent
- Linear Low Profile
- Built-in
- Stretched Compact

### Emergency
- EM powerLED
- EM converterLED
- EM powerLED PRO C
- EM powerLED PRO SR

### Controls
- DALI x/e-touchPANEL 02
- connecDIM Gateway

---

Fascinating possibilities of smart connected lighting

Smart lighting in retail is about creating exciting in-store brand experiences that boost sales and customer loyalty. Yet smart connected lighting can do so much more… It can promote overall retail intelligence – going far beyond illumination – helping retailers to bridge the ever-growing gap between their offline and digital channels. In the future, engaging in real-time with customers in the shop, using a smart and connected lighting system, will enhance the customer buying experience whilst providing retailers with invaluable data on customer behaviour and preferences. Ultimately, it enables them to redefine customer service and distinguish themselves from competitors.
Lighting plays an important role in hotels, restaurants and leisure facilities. It contributes enormously to creating an atmosphere in which guests feel at home and want to return. Light demonstrates its emotional qualities, for example by contributing to a relaxing atmosphere. Lighting also helps people find their way along corridors, up and down staircases and in underground car parks. Extremely energy efficient LED systems such as the module LLE-FLEX continuous lighting strip can perform numerous different lighting tasks – from decorative indirect, cove, profile or accent lighting to direct general lighting with light lines.

Lights that can be dimmed to create appropriate lighting moods for different times of day have a particular attraction. LED solutions with switchDIM or phase dimmers have proved particularly successful here. Warm light colours (2,700 K) provide a comfortable and relaxing atmosphere, whilst individual surfaces are highlighted with saturated colours – as a proven means of conveying atmosphere or defining the appearance of rooms. All of these complex requirements are perfectly addressed by high-power Tridonic LED systems. In addition, maintenance costs are reduced thanks to a lifespan of 50,000 hours or more.
Suggested lighting schemes and components for the hospitality sector

<table>
<thead>
<tr>
<th>ESSENCE</th>
<th>ADVANCED</th>
<th>EXCITE</th>
<th>PREMIUM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost-effective</td>
<td>Simplicity itself</td>
<td>Flexible</td>
<td>Convenient</td>
</tr>
</tbody>
</table>

**LED modules**
- SLE
- SLE
- DLA
- SLA
- CLE/CLE Integrated
- LLE-FLEX

**LED Drivers**
- Independent
- Phase-cut
- Built-in
- Stretched Compact

**Luminaire types**
- Spotlights
- Downlights
- Decorative

**Emergency**
- EM powerLED
- EM converterLED
- IEM powerLED PRO C
- IEM powerLED PRO SR

**Controls**
- DALI x/e-touchPANEL 02
- connecDIM Gateway
- DALI MSensor 02

Fascinating possibilities of smart connected lighting

Smart Connected Lighting creates unprecedented experiences and offers optimum guest comfort in hotels, restaurants, and leisure facilities – helping hospitality managers boost customer satisfaction and loyalty. In addition to significant energy savings, promote low maintenance costs and impressive versatility, it creates high levels of operational and facility efficiency. In the future, it will also provide hospitality managers with a competitive edge by fundamentally redefining customer service.
Authentic human-centric lighting creates exciting and feel-good experiences and adapts to the changing expectations in our day-to-day lives.

With our smart and efficient LED lighting solutions, Tridonic provides a high quality response to the specific needs and requirements of workplaces and educational environments, such as easy maintenance, straightforward retrofitting of buildings and high levels of flexibility in office space organisation. Additionally, to meet the specific requirements of screen-based work, glare reduction of lighting is a must.

Controllable and dimmable white light is of particular importance in office spaces. With the Tridonic Tunable White portfolio for example, light can be flexibly and dynamically adjusted to the time of the day, thus helping boost user concentration and effectiveness.
### Suggested lighting schemes and components for office and education sectors

<table>
<thead>
<tr>
<th>ESSENCE</th>
<th>ADVANCED</th>
<th>EXCITE</th>
<th>PREMIUM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost-effective</td>
<td>Simplicity itself</td>
<td>Flexible</td>
<td>Convenient</td>
</tr>
</tbody>
</table>

#### LED modules
- **ESSENCE**
  - LLE
  - DLE
- **ADVANCED**
  - GLE
- **PREMIUM**
  - EXCITE lp

#### Luminaire types
- **Linear**
- **Downlights**
- **Wide Area**
- **Floor/Wall**
- **Free Standing**

#### LED Drivers
- **EM powerLED**
- **EM converterLED**
- **smartSWITCH 5DP 14f**
- **DALI MSensor 02**
- **connectDIM Gateway**
- **ready2mains Gateway**

#### Emergency
- **EM powerLED**
- **BASIC 80W**

#### Controls
- **connectDIM Gateway**
- **basicDIM ILD**
- **basicDIM DGC**

---

**Fascinating possibilities of smart connected lighting**

Smart connected lighting in office spaces makes employees more productive, better motivated, healthier and ultimately happier at work. Light changes the way we use and experience space and turns buildings and offices into more human-centric and efficient workplaces. Classrooms with smart lighting create an environment where students learn more quickly, remain more alert and feel safe and comfortable. Hence, it makes a huge contribution to people’s productivity and well-being.

Besides significant energy savings, low maintenance costs and safety benefits, smart connected lighting creates high levels of operational and facility efficiencies. In the future, new luminaire design and individualised lighting will help support flexible and new office architecture – reflecting an increased worker mobility, in addition to new teamwork and collaboration-based working models in open, smart office spaces.
LED solutions have the edge over conventional lighting in industrial settings because of their extreme reliability – even if operated round the clock – combined with high luminous flux.

The long life of LEDs is an important consideration in factories and warehouses for several reasons. Luminaires are often installed in locations that are difficult to access. Simple maintenance or relamping becomes a major exercise which may even halt production.

LEDs are shock-resistant and provide the basis for high-quality lighting even in harsh surroundings or hazardous areas. Tridonic LED solutions for industrial applications are also insensitive to vibrations, fluctuations in the mains voltage and high temperatures.

LED Driver from Tridonic for industrial applications has been designed to reduce stress on the components and lead to long life (thermal load/peak voltage).
Suggested lighting schemes and components for the industrial sector

<table>
<thead>
<tr>
<th>ESSENCE</th>
<th>ADVANCED</th>
<th>EXCITE</th>
<th>PREMIUM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost-effective</td>
<td>Simplicity itself</td>
<td>Flexible</td>
<td>Convenient</td>
</tr>
</tbody>
</table>

**LED modules**

- LLE
- GLE
- CLE

**LED Drivers**

- Independent
- Linear Low Profile

**Luminaire types**

- Linear
- High Bay

**Emergency**

- EM powerLED
- EM powerLED PRO C
- EM powerLED BASIC 80W

**Controls**

- basicDIM ILD 16DPI 69f
- DALI MSensor 02
- connecDIM Gateway

**Fascinating possibilities of smart connected lighting**

Smart connected lighting turns factories into “smart factories”, offering valuable new insights on how industrial facilities are used and how they can improve productivity and efficiency. In addition to significant energy savings and low maintenance costs, industrial settings – such as warehouses, production facilities or cold stores – benefit from improved operational efficiency. In the future, data derived from smart and connected lighting systems will help improve the overall plant intelligence, whilst providing comprehensive information on how to optimise operational processes and increase plant productivity.
Sophisticated light
Keeping the details in mind and the system in sight

With technology rapidly evolving, we are always looking at new solutions for our existing products and also the creation of new lighting systems for the future. Our components make sure you can fully exploit light’s potential.

Keeping the details in mind and the system in sight
Perfect solutions are based on reliable components, each of which work with high precision and efficiency. From LED modules and LED Drivers to emergency lighting and lighting control systems, Tridonic offers you a comprehensive and diverse range of products on a one-stop-shop basis – to be individually combined and including complete solution packages for any application. We keep all your requirements – down to the smallest detail – in mind and the entire system in sight.
System components
Tridonic system components can be used either individually or in combination.

LED modules
Information from page 16

Ready2mains
Information from page 18

Tunable White
Information from page 16

Tunable White provides the option of dynamically setting the colour temperature of white light.

Solution packages
Perfectly matched components are available in the Tridonic solutions package sets. Individual preconfigured components can be used immediately without the need for complex configuration.

Emergency lighting units
Information from page 22

LED Drivers
Information from page 18

DC-String
DC-String provides miniaturisation of luminaires and tracks to achieve a harmonic and aesthetic ceiling.

Lighting control systems
Information from page 24

Ready2mains uses the mains cable to transmit information easily, reliably and professionally.

Tridonic system components can be used either individually or in combination.

Solution packages
Perfectly matched components are available in the Tridonic solutions package sets. Individual preconfigured components can be used immediately without the need for complex configuration.

DC-String
DC-String provides miniaturisation of luminaires and tracks to achieve a harmonic and aesthetic ceiling.

Ready2mains uses the mains cable to transmit information easily, reliably and professionally.

Tunable White
Tunable White provides the option of dynamically setting the colour temperature of white light.
General Illumination

Technology in detail
LED light is not always the same

Tridonic modules guarantee excellent colour rendering and imperceptible colour tolerances. They produce white light that truly deserves the description.

LED modules
Colour rendering index CRI

Tridonic LED modules offer a high colour rendering index of CRI 80 or CRI 90 and are available with different qualities of light. Our unique full-spectrum technology combines perfect colour recognition with a colour rendering index in which every individual CRI value is greater than 90. The Module SLE ART for example achieves a colour rendering index of up to CRI 98, ensuring that objects are shown in their best light.

Unique quality of light from SLE ART in figures

<table>
<thead>
<tr>
<th>Ri01</th>
<th>Ri02</th>
<th>Ri03</th>
<th>Ri04</th>
<th>Ri05</th>
<th>Ri06</th>
<th>Ri07</th>
<th>Ri08</th>
<th>Ri09</th>
<th>Ri10</th>
<th>Ri11</th>
<th>Ri12</th>
<th>Ri13</th>
<th>Ri14</th>
<th>Ri15</th>
<th>Ri16</th>
</tr>
</thead>
<tbody>
<tr>
<td>97</td>
<td>99</td>
<td>96</td>
<td>96</td>
<td>97</td>
<td>97</td>
<td>100</td>
<td>98</td>
<td>98</td>
<td>99</td>
<td>93</td>
<td>92</td>
<td>97</td>
<td>97</td>
<td>97</td>
<td>96</td>
</tr>
</tbody>
</table>

Light colour FOOD

LED modules designed specifically for FOOD applications display foods in the very best light – white elements remain white, colours are more true-to-life and perceived more intensely. Stronger brown tones for example make baked goods appear more crispy, the red of meats is emphasised to greater effect and fish looks freshly caught.

Light colour ART

The new LED module provides the quality of light needed for the display of high quality exponents, and the unique Tridonic full-spectrum technology enables outstanding colour rendering. The nominal value of all types in the SLE ART series achieves an impressive CRI of 98. In addition, you can depend on maximum colour constancy (MacAdam 2) for your application.

Light colour FASHION

The modern FASHION LED light is ideal for the sparkling display of fashion. The technology is the culmination of several years of intensive research targeted specifically at lighting in the retail sector. SLE FASHION generates brilliant colours with pleasant warm tones and high saturation and completely without UV light, in addition to intensive and friendly white tones thanks to the specific blue light component, for the display of goods in perfect, colour-true light.

Extra compact with high luminous fluxes and extra protection

The new XD version (Extreme Density) provides the basis for modules with extremely small LES diameters and very high luminous flux values for narrow beam angles and therefore even more precise merchandise illumination. Versions with a glass cover applied directly on the LES provides optimum protection against dust and contact. The glass cover also makes it easier to handle the module or spotlight.

Perfect quality of light for years

The technology used in the Tridonics products enables LEDs to offer optimum white light quality and colour location consistency in special light colours or colour temperatures which can be reproduced year upon year. In this way they achieve the smallest colour and luminous flux tolerances. Colour deviations in repeat orders are a thing of the past.

Tunable White

With Tunable White you can dynamically adapt the light of the LED modules in the white light range and set any colour temperature for spotlights between 2,700 K and 6,500 K with a CRI of > 90 and for linear and area lighting between 3,000 K and 6,000 K with a CRI of > 80. Tridonic modules guarantee consistently high colour rendering with no colour shift. Colour regulation can be controlled and dimmed with standard lighting management systems such as DALI.

Reliability

All Tridonic modules are subject to strict quality tests which go far beyond the requirements of the relevant standards and regulations. Amongst other things, LM 80 test reports are provided for the LED modules. In addition, Tridonic runs long-term tests on its products so that incredibly long lifecycles are guaranteed.

Zero binning and MacAdam 2 SCDM

Our LED module production process has been continually improved in past years and still requires no binning (grouping into fine gradations of colour tolerance classes). As a result of this, we are able to manufacture white LEDs with normal distribution in the MacAdam ellipse 2 range and along the Planckian curve. Observers are no longer able to perceive disturbing colour differences.

We automatically measure each module as a part of our LED end control process to ensure that all despatched products lie within stipulated specifications. This in turn guarantees us perfect reproducibility for white LEDs.
General Illumination

**LED Drivers for every need**
Versatile, extremely energy-efficient and practically maintenance-free

<table>
<thead>
<tr>
<th>Portfolio</th>
<th>ESSENCE</th>
<th>ADVANCED</th>
<th>EXCITE</th>
<th>PREMIUM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimming</td>
<td>Dimming interface</td>
<td>phase-cut up to 25 W(^1)</td>
<td>one4all, ready2mains</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dimming range (method)</td>
<td>100...10 % (AM)(^2)</td>
<td>100...1 % (AM)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>DALI DT6 / DSI / switchDIM / corridorFUNCTION</td>
<td>yes</td>
<td>yes</td>
<td></td>
</tr>
<tr>
<td>DC operation</td>
<td>Supporting EN 50172</td>
<td>yes</td>
<td>yes</td>
<td></td>
</tr>
<tr>
<td></td>
<td>DC level adjustable</td>
<td>yes</td>
<td>yes</td>
<td></td>
</tr>
<tr>
<td>Output current</td>
<td>Adjustable via resistor plug</td>
<td>yes (ADV Plug)</td>
<td>yes (I-Select 2)</td>
<td>yes (I-Select 2)</td>
</tr>
<tr>
<td></td>
<td>Adjustable via ready2mains</td>
<td>yes</td>
<td>yes</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Adjustable via DALI</td>
<td>yes</td>
<td>yes</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Current tolerances</td>
<td>± 7.5 %</td>
<td>± 7.5 %</td>
<td>± 5 %</td>
</tr>
<tr>
<td>Functions &amp; Performance</td>
<td>Configuration via ready2mains</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td></td>
<td>Constant light output over lifetime</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td></td>
<td>Intelligent Temperature Guard</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td></td>
<td>Standby losses</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td></td>
<td>Output current ripple (LF)</td>
<td>&gt;15 W ± 3 %</td>
<td>&gt;15 W ± 5 %</td>
<td>± 5 %</td>
</tr>
<tr>
<td></td>
<td>Operating temperature range</td>
<td>-20°C...+50°C(^3)</td>
<td>-20°C...+50°C(^3)</td>
<td>-25°C...+60°C(^3)</td>
</tr>
<tr>
<td></td>
<td>Lifetime up to</td>
<td>30,000 h/50,000 h(^4)</td>
<td>50,000 h</td>
<td>100,000 h</td>
</tr>
<tr>
<td></td>
<td>Guarantee</td>
<td>3 years/5 years(^5)</td>
<td>5 years</td>
<td>5 years</td>
</tr>
</tbody>
</table>

\(^1\)Only for certain variants.
\(^2\)Varies with the selected output power. Detailed values according to data sheet.
ESSENCE – Attractive price in proven Tridonic quality

The Driver ESSENCE series provides the best compromise between an attractive price and qualified performance. With a focus on application-related functions, the LED Driver range offers the Tridonic proven quality and performance that ensures reliable operation of your LED module. Installation-friendly and flexible: the built-in, independent and stretched compact versions provide a 2.5 mm input terminal, whilst the Linear Low Profile version provides 45° terminal on both input and output side.

PREMIUM – Future-proof and reliable

Driver PREMIUM is a future-proof generation of LED Drivers characterised by highly advanced functionality, outstanding dimming behaviour and low standby power. Operating windows optimised for the intended applications ensure efficient operation of a wide range of LED modules, even across generations. Driver PREMIUM units are also the first LED Driver generation to feature ready2mains, the pioneering programmable mains interface.

EXCITE – Flexible configuration

Driver EXCITE devices feature the programmable ready2mains interface. At the same time, the cost-efficient LED Driver provides the benefits of fixed-output devices, including simple installation without additional cabling or DALI addressing.

ADVANCED – Reliable and straightforward

The Driver ADVANCED series offers the best compromise between attractive price and professional performance. While focusing on the core functionalities, the Driver ADVANCED series offers superior quality and performance ensuring a reliable operation of your LED module. On all Driver ADVANCED units Tridonic has reduced flicker to a level that is imperceptible to the human eye. Tridonic ensures a low level of flicker with a flicker index of ≤ 5% at low frequency.

ESSENCE – Attractive price in proven Tridonic quality

The Driver ESSENCE series provides the best compromise between an attractive price and qualified performance. With a focus on application-related functions, the LED Driver range offers the Tridonic proven quality and performance that ensures reliable operation of your LED module. Installation-friendly and flexible: the built-in, independent and stretched compact versions provide a 2.5 mm input terminal, whilst the Linear Low Profile version provides 45° terminal on both input and output side.
Dimmable luminaires are the most responsible way to reduce costs. They always provide the optimum amount of light, appropriate to the presence or absence of people and the amount of available daylight. Energy savings of up to 80 percent can be achieved.

**Dimming without flickering or colour shifts**
Depending on the application, dimming is a very good way to save energy and also create individual lighting moods. Dimming is not always the same – as the driver has a major effect on the quality of the dimmed light. Unstable colours and flickering light are the most common problems. For the best possible quality of light from 1 to 100 percent Tridonic uses pure amplitude dimming for silent, flickerfree operation.

**Constant Lumen Output (CLO)**
An LED loses brightness over the course of its life. CLO compensates for this loss and therefore provides a constant luminous flux. This is also an intelligent way of saving energy. Over dimensioning is no longer necessary – right from the start the amount of light available is exactly what is required.
So versatile, so effective

LED Drivers from Tridonic are suitable for general use and offer impressive functionality.
The operating current is one of the most important parameters for the efficient application-specific use of an LED module. Drivers offer three options for setting this current with a high degree of flexibility:

**one4all interface**
LED lighting with DALI, DSI, switchDIM or corridorFUNCTION: The digital one4all interface ensures proper operation and integration in various lighting control systems. In addition, all the parameters of driver PREMIUM can be configured for maximum effect. Free masterCONFIGURATOR software and an appropriate DALI interface support simple integration in any environment. The current can be adjusted in 1mA increments for individual matching to the required luminous fluxes.

**ready2mains interface**
Simple configuration, without any additional digital interface in the LED Driver. The ready2mains programmer communicates via the mains and therefore provides a simple means of configuring all LED Drivers with the ready2mains interface – including Driver EXCITE. The programmer is easy to operate and extremely versatile. It can be operated manually or with predefined scripts, alternatively it can be integrated in automated processes.

**I-SELECT 2 interface**
Perfect for manual configuration of a small number of devices. Resistance plugs defined with the required values are simply inserted in the appropriate terminals on Drivers EXCITE and PREMIUM. Tridonic offers plugs for the most common current values. The I-SELECT 2 interface also enables specific intermediate values to be used.
Systematic emergency lighting – by Tridonic
The right answer to any requirement

A system is only as good as the weakest link of its chain. This is why we consider emergency lighting as a functional unit – from emergency lighting LED Driver to battery, from optimal use of the light source to easy integration into the lighting management and building management systems.

High efficiency LED’s are now the number one choice for use in emergency lighting applications. They are perfect for impressively efficient and, at the same time simple, emergency lighting solutions. Future-oriented solutions with perfectly matched components are generated from the combination of Tridonic’s many years of experience in the field of LED Drivers and the company’s innovative LED light sources.
Universal solution for all LED modules

In the universal system, the LED modules that are also used for general lighting are switched by means of the emergency lighting control gear in case of an emergency.

This solution offers maximum flexibility: it is compatible with all LED modules and all LED gear components made by Tridonic and other manufacturers.

Combined solution for normal and emergency lighting operation

The combined emergency lighting LED Driver EM powerLED (80 W lp, 50 W/45 W C, SR) LED emergency lighting control units are the ideal solutions for a cost-optimised structure of the emergency lighting installation. They combine the LED Driver for mains operation (four channels) and the emergency lighting function (one channel) in one assembly.
General Illumination

Light at the right place, at the right time

We supply lighting management that provides a perfect combination of control system, sensors, control units and lamps. A complete Tridonic lighting solution system from a one-stop supplier, from the light source right through to the lighting management system.
Intelligent switching
SWITCH sensors for luminaire installation are the compact solution for the smart luminaire. They offer maximum convenience and optimum energy efficiency. The basic setting for the individually controlled luminaires is made directly on the sensor.

Light for every mood
An intelligent system solution like basicDIM features lighting control that takes into account the presence of users and ambient light. In addition to being suitable for master/slave luminaires, this efficient system wins out in particular thanks to software-free installation. Complex spatial solutions can be implemented quickly and straightforwardly.

Convenient light
Simple, uncomplicated and flexible; these are the attributes needed to ensure maximum convenience on every floor of a building, and they are also the characteristics exemplified by comfortDIM. This DALI-based lighting management system concentrates on straightforward design, easy installation and flexible configuring.

Innovative light
The lighting management solution connecDIM provides an excellent platform for smart, cost-effective and user-friendly control and lighting management from a few simple DALI devices up to a complex lighting system in a building and branches.
Close illumination

We attach great importance to a strong international presence – this allows us to stay sufficiently close to our customers.
Prepared for the Future
Our Activities and Locations

1,700
Around 1,700 employees throughout the world are committed to helping you with their know-how and creativity to create the perfect light.

7
There are seven research and development centres in which new LEDs and networked lighting technologies are being developed.

3
There are three things you can rely on: optimum product quality, decades of expertise and our committed and flexible support.

27
With 27 branches on five continents we are there for you wherever you are in the world.

2,700
That’s how many patents and inventions testify to Tridonic’s extraordinary powers of innovation.

Details
For further information, data sheets, product catalogues and ordering details, please go to www.tridonic.com
The Light
Into a networked future with light.

Tridonic is paving the way for networking. We will show you how you can develop smart luminaires based on our intelligent technologies, and improve your business at the same time. Our 1,700 experts are working on five continents to set new standards in intelligent networked lighting and exploit the opportunities that the Internet of Things offers for the lighting industry. In addition to our component solutions we offer a new LED system platform which can take far beyond mere illumination. We are taking light into a networked future. Come with us on this journey.