



newsLIGHT

NEW PRODUCTS – NEW PROJECTS

newsLIGHT

EDITORIAL



Dear Customers,
Dear Readers,

As another "light year" draws to a close, the lighting sector awaits the future development of the industry with bated breath. The large number of light-themed trade fairs that were held around the world during the past year have shown that the success of LEDs is unstoppable and has prompted the lighting industry to fully focus on LED technology. However, a plethora of differing technical details and specifications has left customers feeling somewhat confused. To combat this, the plan is to create general conditions that will provide consumers with clear facts on which to base decisions specific to various application areas. In this regard, the following criteria frequently form topics of discussion: service life, light output, decrease in luminous flux, light colour, colour rendering properties and colour stability.

At Vossloh-Schwabe, we have made a lasting commitment to guaranteeing the highest possible quality for our LED components and systems, as shown by our LED products as well as matching drivers and light control devices for indoor and outdoor applications. We not only think in terms of systems, we also develop and produce them: fully coordinated LED systems with matching optics and thermal management solutions. Our commitment to top quality was further underscored in the spring of 2012 when our voluntary 5-year warranty was extended to cover all VS products and systems.

I hope to have peaked your interest in finding out more about our innovative products and associated projects on the following pages and equally hope you enjoy the read.

Yours,

A stylized, handwritten signature in black ink, appearing to be 'M. Yasufuku', written over a white background.

Masayuki Yasufuku
Managing Director

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TORRE AGBAR

SAVING ENERGY WITH NEW TECHNOLOGY



"Torre Agbar" Foyer

■ TORRE AGBAR

Soaring to a height of 142 metres and 34 storeys above the ground, the Torre Agbar (Catalan for Agbar Tower) is one of Catalonia's tallest buildings and provides 39,000 square metres of usable space. It is also the landmark of the so-called "22@Barcelona" district for technological innovation and development.

Designed by architect Jean Nouvel in cooperation with b720 Arquitectos, the tower's glittering 16,000 square metres of façade make the building look like a giant water fountain. The structure's outer aluminium shell, which resembles the scaly skin of a reptile, forms a single fluid, organic mass. The works of the Catalan architect Antoni Gaudí and the hills of Montserrat served as inspiration for the shape of the Torre Agbar.

The shimmering colours and dazzling blue of the tower, however, were inspired by the client of the construction project itself, Barcelona's water utility company, Grupo Agbar, which is short for **Ag**uas de **Bar**celona in Spanish, or Aigües de Barcelona in Catalan. The unique design of the tower's immediate surroundings makes the building look as though it were standing in the middle of a body of water.

The building mainly houses office space, a cafeteria and a multipurpose area. It was officially inaugurated by the King of Spain on 16 September 2005.

■ THE PROJECT

For Vossloh-Schwabe, the Torre Agbar project began in September 2011 when we were tasked with making necessary improvements to the lighting situation in the building's foyer with the aim of achieving higher light output at lower energy consumption. With this in mind, energy-efficient LED lighting in combination with DALI drivers and the Vossloh-Schwabe LiCS Indoor light management system were the obvious choice. In cooperation with our customer, Nexia, a project-specific luminaire based on the VS LED Shop module (3000 K) was then developed.

Subsequently we present the products in detail.





Vossloh-Schwabe and NEXIA components used in the project

LiCS Indoor

This generation of Vossloh-Schwabe light management equipment was designed for indoor use and combines the convenience of a light management system with the possibility of achieving substantial energy savings thanks to the targeted use of light – all of which made it perfect for the "Torre Agbar" project.

Light Controller LW

- 64 addresses/16 groups
- For installation in a distribution board
- Manual configuration using the rotary push key and display screen
- With EnOcean wireless remote control technology

VS MultiSensors (SM)

Specially developed with optimised dimensions for use with a VS Light Controller, VS MultiSensors monitor current lighting levels and detect movement. No external power source is required, as VS sensors are fully powered by the DALI bus.

LED spots in cooperation with NEXIA

LED Shop SMD Module

- High quality SMD technology
- Available in different CCT's
- Temperature fail-safe circuit
- Easy handling
- Resistant against shock and vibrations
- Integrated 12 V interface for active cooling element
- VDE approved (acc. to EN 62031)

Based on the VS LED Shop modules, NEXIA (www.nexiaillumination.com) developed the luminaires that now light up the foyer of the Torre Agbar.



PRODUCT UPDATE

PRODUCT INNOVATIONS AND MODIFICATIONS



■ LED SHOP LIGHTING NEWS

LUGA Shop LED Module Series

- Now also available with a very high colour rendering value of CRI > 90

LUGA LED "Food" Modules for Lighting Fresh Foodstuffs such as Fruit, Vegetables and Bread

- Very large colour rendering range
- Foodstuff-specific spectrum e.g. for fresh meat (with pink pigment content)



Team with matching compact LED drivers

- Standard and dimmable DALI versions
- 700 mA / 34 W and 40 W
- 1050 mA / 60 W

■ LED STREET LIGHTING NEWS

Streetlight FlatEmitter SMD 10,000 lm

For installation in outdoor luminaires as well as high-bay lighting

- Efficiency of up to 134 lm/W
- Temperature-protected PCB
- Surge protection up to 3 kV
- Thermal protection thanks to output reduction by switching off individual LEDs





Team with matching LED drivers

IP20 and IP67 versions

- Standard or dimmable 1–10 V models, e.g. as a stepped dimmer version
- Output = 150 W
- Power reduction: switch from 700 mA to 400 mA by connecting/disconnecting a phase



ME 2x2 Roadway Module

A smaller module is now also available to round off our range of rectangular and linear ME/S modules:

- 4 highly efficient high-power LEDs
- Compact dimensions: 60 x 65 mm
- Perfect for modular assembly of various luminaire types
- Available in three shades of white: 3000 K, 4000 K, 5000 K
- Optics for street lighting



INDUSTRIAL LED LIGHTING NEWS

Based on the LED Roadway series, this efficient module is ideal for lighting industrial, production and storage facilities, but also for sports facilities and petrol stations:

- Fitted with effective optics for homogeneous illumination of the space
- Linear and rectangular modules with an IP67 degree of protection
- Voltage-proof up to 4 kV

Cable holders on the back of the module ensure all leads can be neatly laid. The module can be mounted directly on the luminaire

casing, which then also acts as a heat sink. As neither a reflector nor a protective glass cover is needed, the module facilitates very compact luminaire designs that do not suffer with any loss of light output that a cover would otherwise cause.

Compact Module Version

- Built-in LED module with 4 LEDs
- Without moisture protection

The module is particularly suitable for luminaires with a casing that already includes protection (e.g. IP67).

The modular design of Vossloh-Schwabe's concept is of particular advantage since various lumen packages can be achieved by combining several LED modules. This in turn means that numerous different luminaires can be fitted with one and the same modular system for a wide variety of applications.

You can find more information on these products on pages 12 and 13.

Team with matching LED drivers

Vossloh-Schwabe's 700 mA and 1050 mA electronic constant current sources are ideal for use in high-bay lighting.

NEWS ON LED-BASED ARCHITECTURAL LIGHTING

High-power 24 V CA system

Even higher efficiency thanks to our long-established built-in high-power 24 V CA modules having been fitted with the latest generation of LED chips:

- Modification of the white and the RGB versions
- Circular design: with 3 or 10 high-power LEDs, particularly suitable for installation in spotlights
- Linear design: with 6 high-power LEDs for, e.g., wall washers and linear luminaires



In addition, suitable dimmable modules (DigiLED CA series) and optics attachments are also available for creating individual light solutions.

LEDLine Flex Professional

A flexible, extremely bendy, linear LED module that can be divided into segments of 100 mm.

Outdoor version

- Available in lengths of 200, 500 and 2000 mm
- Degree of protection: IP67

Team with matching LEDLine EDX – Electronic converters for voltage-operated LED modules

You can find more information on these products on pages 10 and 11.

■ NEWS ON LED-BASED OFFICE LIGHTING

Second-generation LED modules: LUGA Line HO

You can now choose the number of LEDs on the PCB:

- 24 LEDs operated at 350 mA or
- 48 LEDs operated at 350 mA, but also at either 500 mA or 700 mA

When operated at 350 mA, the light output of these LED modules is comparable to that of FH/HE T5 lamps. When a 48-LED module is operated at higher currents, a light output can even be attained that is on par with that of FQ/HO T5 lamps.

Advantages:

- Improved efficiency: now up to 124 lm/W ($t_c = 65\text{ °C}$) at unchanged module dimensions
- Long service life of 50,000 hours at a maximum 10% loss of light output (L90/B10)
- Low colour tolerance (3 McAdams) and optimum heat sink connection thanks to a ceramic PCB

LUGA Line Fix Mounting Kits

In addition to the option of purchasing individual LUGA Line modules, Vossloh-Schwabe also provides complete sets.

Mounting kit (280 mm):

- Basic holder with a mounted LUGA Line module
- Optionally with a transparent or opaque cover
- Made of special, heat-conductive plastic



A brief overview of the available variations follows below:

Mounting options

- Screws (Zhaga-conform using M4 screws)
- Adhesive (using the self-adhesive pad on the underside of the module)
- Clip on (thanks to fixing clips on the cover and additionally using the self-adhesive pad on the underside of the module)

Covers

- Without a cover
- With a transparent cover (approx. 3% decrease in luminous flux)
- With an opaque cover (approx. 10% decrease in luminous flux)

Light colours of the LUGA Line module

- 2700 K, 3000 K and 4000 K (3500 K, 5000 K and 6500 K are also available on request)

Twin Versions of the Mounting Kit

Twin versions of the LUGA mounting kit are also available.

You can choose between two options:

Two mounting kits plus a flexible connector: LUGA Line Fix 280 TWIN

- Facilitates individual arrangement of LED modules

Rigid version with a length of 560 mm: LUGA Line Fix 560

- Consists of a longer basic holder of 560 mm
- Fitted with two fully wired LUGA Line modules
- With an opaque or a transparent cover

With no more left to do than to connect the two cables to the driver, the kit also maximises ease of installation for the customer

LED Driver for the LUGA Line Series

Slim and linear LED constant current driver:

- Highly efficient
- Suitable for IP20 applications
- Suitable for outdoor areas (installation in an IP67 casing)



In the interest of facilitating simple and/or cost-effective luminaire design, VS provides both galvanically isolated (SELV) and non-galvanically isolated devices.

■ NEWS ON OVERVOLTAGE PROTECTION

Protection unit SP 230/10 K for electronic control gear

When using electronic components in a lighting system, it is often necessary to additionally protect such componentry against mains surges and overvoltages.

The SP 230/10 K protection unit reduces any overvoltage to a level that connected electronic components can withstand.



■ LED SPOT NEWS

Built-in LED spots: LUGA COB 900 and 1000

- Long service life (L90/B10)
- High-quality 40° reflector
- Aluminium heat sink for optimum heat dissipation

To ensure ease of installation, the spots are fitted with leads that can be delivered with or without plugs.

LUGA Spots 900

- Available in two shades of white (2700 K and 3000 K)
- CRI > 80 or > 90
- 350 mA or 500 mA operating current
- Max. luminous flux = 900 lumens

LUGA Spots 1000

- Additionally available with 4000 K
- CRI > 80
- 700 mA operating current
- Max. luminous flux = 1000 lumens



■ LED MODULES OPERATED WITH MAINS VOLTAGE

Slim-line luminaires often provide either no space or only very little for additional control gear. But redesigning a luminaire is time-consuming and expensive.

Vossloh-Schwabe is now making the change to LED technology easy, with its new 230 V LED modules.

- Dimmable, compact LED modules in circular or rectangular versions
- Designed for connection to 230 V
- Available in three output classes: 8 W, 12 W and 16 W
- Optionally available with or without a heat sink made of heat-conductive plastic
- Protective cover against electric shock
- Power factor > 0.9
- Available in different shades of white

8 W model with and without a heat sink:



12 W model with and without a heat sink:



Circular model:



LEDLine FLEX PROFESSIONAL

TOP QUALITY MEETS
OPTIMUM FLEXIBILITY



Our new "Professional" version of the already well-established flexible VS LEDLine Flex series provides customers with even more application options.

The basis for the module is a thin and bendy – now white – PCB which, in comparison to the predecessor version, is now fitted with more efficient SMD LEDs.

■ LEDLINE FLEX PROFESSIONAL – THE FLEXIBILITY OF LIGHT

Vossloh-Schwabe's new and highly efficient LEDLine Flex Professional module is not only perfect for indoor spaces and applications in protected outdoor areas, but is also vibration- and impact-proof.

Thanks to its highly flexible structure and slim dimensions, the module is ideal both for illuminating complex structures and for lighting projects in which a lack of space precludes the use of conventional light sources.

To ensure easy customisation, the module can be divided into segments of varying lengths – and without losing any module functions. In addition, the double-sided adhesive tape attached to the back of the PCB makes short work of installation.

The module's long service life (up to 50,000 hours) and high efficiency as well as the durability of the outdoor version serve to substantially lower maintenance costs, decrease the carbon footprint and with that help to reduce global warming. Furthermore, as a totally UV- and IR-free light source, the LEDLine Flex Professional module is a perfect choice for lighting retail spaces and counters.

Typical Applications

- Contour lighting for indoor spaces
- Contour lighting in protected outdoor areas
- Architectural lighting in protected outdoor areas
- Path lighting in protected outdoor areas
- Lighted handrails
- Lighting for baths and kitchens
- Lighting for retail counter



LEDLine Flex Professional RGB



LEDLine Flex Professional White

■ **LIGHTING ADVANTAGES USING LEDLINE FLEX PROFESSIONAL**

- ➔ **Extremely flexible linear module**
- ➔ **Top-quality Nichia SMD LEDs**
- ➔ **Reverse-polarity protection**
- ➔ **Long service life up to 50,000 hours**
- ➔ **Self-adhesive backing**

■ **BINNING**

Permissible light colours are precisely stipulated by respective standards for many areas of application. Due to the manufacturing process of LEDs, individual LEDs of the same type and manufacturer can still display differences in colour temperature when subjected to direct comparison.

To ensure no such colour differences are visible in, for instance, retail settings, LEDLine Flex Professional modules have been binned to match the colour temperatures displayed by VS LUGA Shop modules.

This way, all LUGA LED modules can be combined easily with the LEDLine Flex Professional, without showing any obvious color differences.

■ **OUR QUALITY STANDARD**

Every single segment of the LEDLine Flex Professional module is fitted with a constant current source that ensures stabilised power is delivered to each individual LED. As a result, LEDLine Flex Professional delivers homogeneous light output along the entire length of the module.

Since the conventional resistor-based method of stabilising voltage in these segments results in a reduction in light output with increasing module length, the constant current solution found in the LEDLine Flex Professional module guarantees efficient operation regardless of the module length.

■ **THE SYSTEM SOLUTION**

LEDLine EDX – Electronic Converters for voltage-operated LED Modules

If LED modules are wired in parallel, a voltage-stabilising system must be used.

Advantages:

- Easy extensibility
- System safety thanks to low voltages



Vossloh-Schwabe's electronic converters are suitable for a broad range of voltages from 12 V to 24 V. For outdoor applications, VS also provides LED converters with an IP67 degree of protection.

LED INDUSTRIAL LIGHT

LIGHTING FOR INDUSTRIAL FACILITIES AND PETROL STATIONS



■ LIGHTING FOR PETROL STATIONS

When it comes to lighting for petrol stations, using modern LEDs helps to both reduce energy costs and considerably lower maintenance expense, while at the same time providing customers with sufficient light to refuel their cars.

When combined with a substantially lower failure rate and a long service life, high-quality lighting comes with huge savings potential, whether it is used at peak times or throughout the day. Making sure that customers and employees feel safe also plays a major role. Optimum lighting improves security and minimises the risk of hazardous situations, such as robberies.

■ INDUSTRIAL LIGHTING

Nowadays, lighting for industrial spaces can achieve much more than simply enabling workers to see. For instance, improving the wellbeing of employees by choosing the right colour and intensity of light in relation to the time of day will also substantially increase their productivity. Lighting that is individually adjusted to suit specific workplaces can even take the circadian rhythm into account.

In order to combat drowsiness in staff working night shifts, industrial spaces are illuminated with high-intensity light, e.g. 1,000 lx, which serves to reduce melatonin levels in the blood and thus largely prevents tiredness. On the other hand, an approximation to natural daylight can also be achieved by using warmer light colours in the mornings and evenings, but cooler colours during the day.

A further factor that can influence the wellbeing of employees is the physical behaviour of a lighting system. A problem frequently encountered with conventional control gear is flickering or fluctuating light, which can even be accompanied by an unpleasant humming noise in extreme cases. Modern LED lighting has made problematic behaviour of this kind a thing of the past.



LED Industrial Light SYM I



LED Industrial Light SYM I linear & 2x2

■ **THE LED MODULES**

The LED modules of the Industrial Light SYM I series are suitable for illuminating industrial, production, sports and storage facilities as well as for installation in floodlight systems.

The combination of a robust aluminium base and the IP67 degree of protection facilitates simple and modular luminaire design.

Both modules are available in cool white (5000 K), neutral white (4000 K) and warm white (3000 K).

In addition, power reduction can be achieved with the help of the VS ECXd700/150W LED driver via phase inversion.

■ **LED INDUSTRIAL LIGHT SYM I**

Product Details:

- Degree of protection (in preparation): IP66/IP67/IK0X
- Highly efficient up to 116 lm/W
- Highly homogenous light
- Impact- and vibration-proof
- Surge protection: 4 kV
- VDE (in preparation): in acc. with EN 62031

Technical Details:

- 16 highly efficient high-power LEDs
- Pre-assembled connection leads: length 500 mm
- Designed for optimum thermal management
- ESD protection class 2

■ **LED INDUSTRIAL LIGHT SYM I 2X2**

Product Details:

- Highly efficient up to 116 lm/W
- VDE (in preparation) in acc. with EN 62031

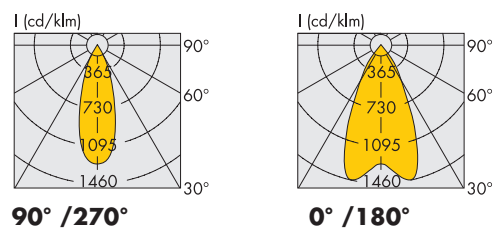
Technical Details:

- 4 highly efficient high-power LEDs
- Pre-assembled with two WAGO push-in terminals
- ESD protection class 2

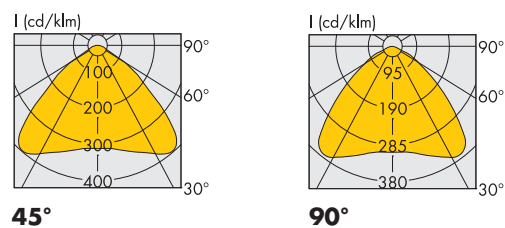
■ **THE OPTICS**

Optimised for use in industrial spaces with a ceiling height of 6 metres, the optics used with the modules guarantee optimum lighting at low glare given an installation ratio of 4:6 meters. There are currently two versions available:

LED Industrial Light SYM I – with a narrower radiation angle Optimised for high-bay lighting.



LED Industrial Light SYM II – with a wider radiation angle Optimised for low installation heights as found, for instance, at petrol stations.



instalight GLOW

TOP DESIGN: A GLOWING PROJECT



At this year's Light+Building, the company Insta presented its new corporate orientation with the new "Lightmen" division and its focus on functional designer luminaires for indoor use – as spearheaded by the new Glow luminaire for computer workplaces. This new outstanding luminaire series is characterised by its clear-cut yet subtle design, extremely high efficiency and consistently superior light quality.

The instalight Glow family is fitted with cutting-edge LED technology and light-guidance optics that were specifically developed for the instalight system. All of this makes these luminaires more than fit for today's office space – aesthetic, affective and functional.

■ THE PROJECT

After creating the luminaire concept for the new Instalight Glow series, Insta then went in search of a suitable systems supplier. The main requirement was to find a supplier that could deliver the entire spectrum of componentry: LED modules, optics and LED drivers.

No problem for us and Vossloh-Schwabe's competence and many years of experience were put at Insta's disposal throughout the entire design process, which resulted in the following system components:

- Two LED modules for the direct light component as well as one LED module for the indirect light component of the luminaire series.
- Optics for perfect light guidance
- Dimmable DALI LED drivers for efficient light management
- The droplet-shaped covers that give Instalight Glow their individual character
- A variety of connection elements and accessories to round off the sleek look of the luminaire series

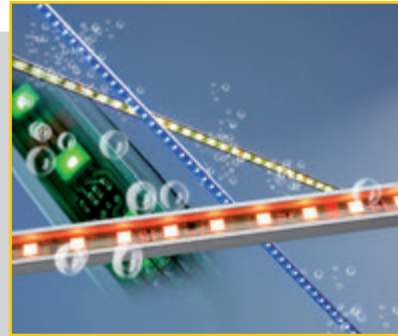
The result is a fascinating and evocative luminaire series that combines functional workplace lighting and user comfort with energy efficiency and top performance.

■ CONCLUSION

Regardless of whether our standard products are what your lighting project needs, or whether you task us to find a customised solution in cooperation with you – Vossloh-Schwabe is always the right partner for your projects.

THE FULLERTON BAY HOTEL

SINGAPORE



Since it opened its doors in 2010, The Fullerton Bay Hotel has made its mark as an excellent addition to Singapore's upscale hospitality industry. In giving the hotel its remarkable nighttime look, the façade lighting design was characterised by a concept of timeless elegance. As one of the main features of the illuminated façade, a series of glowing vertical light bands that project light out from the building's glass shell was created by the lighting designer Light Cibles.

Brice Schneider, the lighting designer in charge of the project, explained, "The main challenge was to create a fully consistent lighting effect which meant that the repetitive lighting details had to be perfectly coordinated and aligned with each other throughout the entire façade. Several design components such as glass type, glass finish, LED lighting and mounting details were developed in complete unison to create the elegant lighting effect that we wanted to achieve."

Vossloh-Schwabe's LEDLine Flex SMD High Brightness warm white built-in PCB lighting modules were selected by Light Cibles as the most suitable lighting product for the vertical lighting features running along the glass façade of The Fullerton Bay Hotel. With the hotel facing the bay and having to withstand harsh elements such as the corrosive salty ocean air, and tropical weather conditions, good encapsulation needed to be considered. In cooperation with Light Cibles, Vossloh-Schwabe then ingeniously customized its IP67-compliant encapsulation for LED frames destined for outdoor lighting projects. Drawing on in-house expertise in Germany, Vossloh-Schwabe achieved this task by using a high-quality polyurethane coating along with a stainless steel C channel profile. Light Cibles composed a façade design made up of no less than 200 pieces in varying profile lengths and wattages to illuminate an impressive 300-metre area of glass windows.

Project: The Fullerton Bay Hotel, Singapore
 Client: The Fullerton Heritage
 Architect: DP Architects
 Lighting Designer: Light Cibles
 Lighting Supplier: LuxLight
 Lighting Control: AiXZ International
 Lighting Manufacturer: Vossloh-Schwabe
 Photos: The Fullerton Bay Hotel Singapore & Brice Schneider, Light Cibles

LiCS OUTDOOR

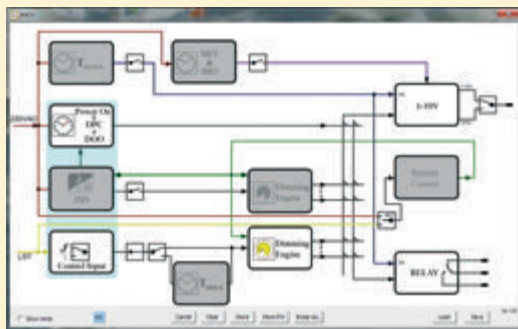
iMCU CONTROLLER AND HAND-HELD UNIT



Light Controller iMCU



Hand-held iCTI Unit



Example of the GUI



The intelligent Control Unit for Street Lighting

Control systems for street lighting initially started out by simply igniting only one lamp in two-lamp luminaires, but in recent years the market for bidirectional control systems has been growing. Many customers now require a system that is capable of delivering more than just night-time reduction – but without having to first invest heavily into a fully bidirectional control system.

The answer lay in developing an intelligent, independent and above all simple solution, namely our smartest control unit for street lighting yet. Although every detail is critical, the following points are examples of questions discussed with customers in the interest of precisely meeting market requirements:

- Control input? Yes, of course that's essential.
- Relay output? Yes, but if possible with a two-way contact.
- DALI? Yes, but if possible alongside 1–10 V and in a single device.
- What about dimming levels? How many do you really need? 10 should definitely be sufficient.
- Flexible parameter setting options? Yes, but these should be kept as simple as possible.
- Updatable with new functions at a later date? Yes, always a good idea.
- Standby consumption <0.5 W? Essential – the controller is meant to save energy, after all.
- Small casing? Indispensable for installation in decorative LED luminaires.

All of these requirements have now been integrated into a single intelligent hardware concept.

But how are data transferred to the controller? The concept is called iCTI, short for intelligent configuration tool interface. The tool is intended to be simple to use, capable of storing four different configurations and operable with protective gloves even at a temperature of 20 °C below zero.

If these four parameter-setting functions later turn out to be too few, a second of these inexpensive devices can simply be purchased to work alongside the first. The iCTI can load a parameter set in less than 5 seconds' time and complete an entire firmware update in under 30 seconds.

A GUI that illustrates the various functions is naturally a must, but in order to show how one function affects another, a clickable function diagram was also added. These pictorial graphics removed the need for any kind of help text.

LiCS INDOOR

LIGHT CONTROLLER S, XS

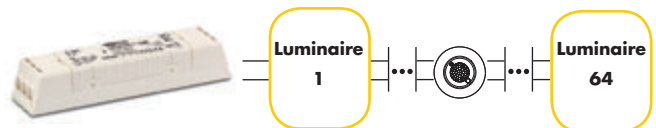


■ LIGHT CONTROLLER S

The Light Controller S is designed for independent operation (e.g. in false ceilings). In accordance with the DALI standard, up to 64 ballasts can be connected. In addition, up to 16 VS MultiSensors can be integrated at the DALI bus. The following functions can be selected using the dip switch on the Light Controller S:

- Push function
- ON/OFF function
- Automatic and semi-automatic motion detection
- Constant light setting
- Stairwell function (timer function)

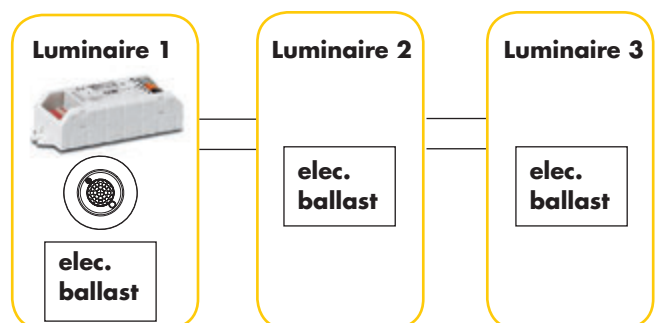
One-Room Solution



■ LIGHT CONTROLLER XS

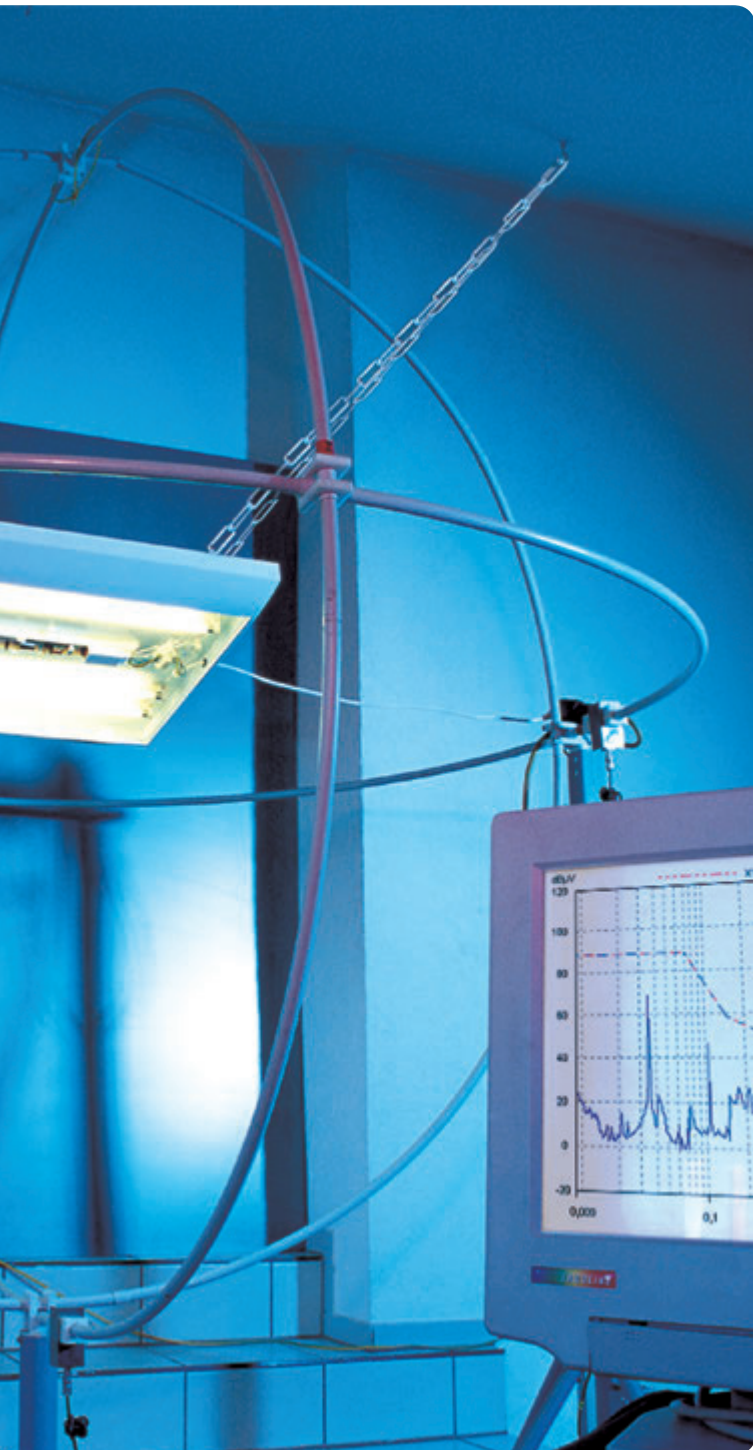
The Light Controller XS was designed for space-saving installation in luminaires. For example, 3 ballasts and one sensor can be integrated on the DALI bus or, alternatively, the unit can be used to control 10 ballasts without sensors. The following functions can be selected using the dip switch on the Light Controller XS:

- Push function
- ON/OFF function
- Automatic and semi-automatic motion detection
- Constant light setting



INTRODUCING

THE EMC LAB IN URBACH



The term electromagnetic compatibility not only covers the emission of interference, but also immunity against such interference and any irregularities in mains current and/or voltage. To ensure interference-free simultaneous use of various electrical and electronic devices, it is therefore necessary to remain within limit values with regard to the emission of interference as well as to satisfy minimum requirements for protection against interference. Compliance with prescribed protection targets forms the basis for the simultaneous operation of equipment without causing interference.

Proof of electromagnetic compatibility is furnished by application of European EMC standards and compliance with limit values for lighting.

Electronic ballasts made by Vossloh-Schwabe are developed in line with the provisions of the 2004/108/EC standard. When using electronic ballasts made by Vossloh-Schwabe, luminaire manufacturers can therefore rest assured that all statutory provisions have been met. The EMC quality of VS control gear is further underpinned by the VDE EMC label, which is issued by the VDE's Testing and Certification Institute in Offenbach. This ensures that compliance of control gear with EMC standards is documented by an independent institute. As a result, luminaire manufacturers can benefit from these tests when it comes to obtaining certification for their products. In this way, luminaire manufacturers are given a simple and inexpensive means of having the electromagnetic compatibility of luminaires certified by national and international test centres.

In addition, the Vossloh-Schwabe EMC Lab – which has been certified by the Testing and Certification Institute of the VDE – also engages in the joint development of technical solutions with the aim of minimising costs and manufacturing expenditure. Collaboration of this kind can, especially today in the light of new energy-consumption directives for control gear, help to reduce costs all round.

STANDARDISATION AND TECHNOLOGY NEWS

The Connected Lighting Alliance

■ NEW GLOBAL ALLIANCE TO PROMOTE AND SUPPORT THE DEVELOPMENT OF LIGHTING CONTROL SYSTEMS BASED ON WIRELESS TECHNOLOGY

On 30 August 2012, the foundation of a new consortium of globally operating companies of the lighting sector was announced. Going by the name of The Connected Lighting Alliance, the consortium pursues the goal of promoting and facilitating the use of open standards to develop wireless lighting control systems. Furthermore, the alliance has set itself the aim of achieving the greatest possible compatibility among products manufactured by member companies. The founding members of the alliance are GE Lighting, Lutron, Osram, Panasonic, Philips and Toshiba. Work will initially focus on light control technology for end users. The Connected Lighting Alliance is an open consortium and its members welcome all companies interested in working towards achieving the objectives of this interest group.

The Connected Lighting Alliance intends to facilitate the global introduction and expansion of wireless-based lighting control systems in the interest of promoting inter-product compatibility. Consumers are frustrated with and confused by the multitude of incompatible transmission systems that are currently available. Cooperation with authorities and standardisation organisations further aids the development of robust, wireless and eco-friendly light control systems. The ultimate goal of this collaboration is to make lighting products and systems based on wireless technology completely interoperable and easy to use.

Further information is available at
www.theconnectedlightingalliance.org



Whenever an electric light goes on around the world, Vossloh-Schwabe is likely to have made a key contribution to ensuring that everything works at the flick of a switch.

Headquartered in Germany, Vossloh-Schwabe has been a member of the global Panasonic group since 2002 and counts as a technology leader within the lighting sector. Top-quality, high-performance products form the basis of the company's success.

Whether cost-effective standard components or tailor-made product developments are needed, Vossloh-Schwabe can satisfy even the most diverse market and customer requirements. Vossloh-Schwabe's extensive product portfolio covers all lighting components: electronic and magnetic ballasts, lampholders, state-of-the-art control systems (LiCS) as well as LED systems with matching control gear units and OLEDs.



A member of the Panasonic group **Panasonic**

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