EX 4.0

*THE NEXT LEVEL OF
EXPLOSION PROTECTION.*

THE STRONGEST LINK.

STAHL

STATE-OF-THE-ART LIGHTING SOLUTIONS FROM THE SAFETY EXPERTS

LED technology for a luminous outlook in hazardous areas

R. STAHL: LIGHTING THE WAY WITH APPROPRIATE EXPLOSION PROTECTION

Good visibility keeps you safe while working, which is all the more important in hazardous areas. In locations such as refineries, oil drilling platforms, chemical plants, clean rooms, machine building and systems engineering, it is highly essential to have clear vision. To achieve this, you need electric lighting. Conventional industrial light fittings, however, do not meet the strict safety requirements that apply to hazardous areas.

R. STAHL is one of the world's only specialist providers, making us your ideal partner for explosion-protected lighting solutions. We combine expertise and experience in a variety of explosion protection technologies to offer the perfect solution for your plant or factory.

With our vast and proven experience, we offer technically sound and commercially viable consultation to our customers on the lighting design based on their requirements. R. STAHL's factory sites in Weimar and Chennai are the two centres of excellence, where lighting technology for a vast array of different applications is designed, developed and produced. The sophisticated products available from our range comprises of the classic general lighting, pendant light fittings and floodlights, as well as signalling devices and emergency lighting, catering to a wide spectrum of industrial lighting needs in hazardous areas.

Our objective is to provide system engineers and operators with long-lasting solutions that can be used safely anywhere in the world under various operating conditions and require very little maintenance.

DALI: Digital light management in hazardous areas

DALI enables individual lights and entire lighting systems to be digitally networked, switched, controlled and monitored. R. STAHL solutions can be operated using a PC, smartphone or tablet, via an app or online.

Comprehensive light fitting portfolio – for all your requirements

The diversity of R. STAHL's product range ensures that we have the perfect solution for you, whatever your lighting needs are. We are competent to devise solutions for any industry, anywhere in the world!

The latest in LED technology – efficient, long-lasting solutions

Our extensive expertise in LED technology ensures that all avenues are open to you when it comes to state-of-the-art, energy-efficient lighting solutions that require minimal maintenance.

Lighting design – tailored, economic, approved solutions

By means of judicious lighting design, we ensure that both inside and outside spaces are illuminated in accordance with the relevant directives. This also includes escape route lighting.
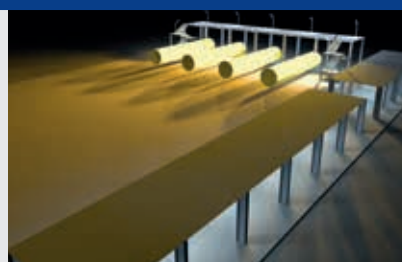
Emergency lighting systems – safety instead of darkness

R. STAHL manufactures self-contained light fittings and emergency luminaires that can be powered by our central battery system. Besides central batteries, we also supply group battery systems to power emergency lighting in accordance with the relevant standards.

SAFE, LONG-LASTING LIGHTING WITH LED TECHNOLOGY

The economic benefits coupled with technical advantages explain the ever-increasing popularity of LED technology. For example, the service life of LEDs is much longer than the service life of conventional light sources. And since we consider the service life of the light fittings by factors – that is to say, the LEDs in conjunction with the electronics and the complete mechanical structure – you save both time and money in terms of maintenance expenditure.

Additionally, our LED light fittings are incredibly robust and resistant to vibrations, and are designed to withstand extreme temperature conditions. These high-quality products easily cope with temperatures ranging from -55 °C to +60 °C, which makes them ideal for use in harsh industrial environments. Highly efficient light-emitting diodes provide excellent luminous efficacy: supplying up to 180 lm/W, the LED is nearly ten times as efficient as a halogen lamp. Besides efficiency, we also strive to achieve the best possible colour rendering. Our light fittings comply fully with the requirements set out in DIN EN 12464. The CRI (Colour Rendering Index) value of the products is generally 80 or more.

Apart from the CRI, the colour temperature for white light is also important. There is a choice of three basic colour temperatures for each of R. STAHL's light fittings. Ensuring optimal catering to the requirements of different regions, industries and applications. As well as the standard version in neutral white (5000 K), we also offer cold white (6500 K) and warm white (4000 K) versions.

CONTENTS

DALI – INTELLIGENT LIGHTING CONTROL

Thanks to LED technology and digitalisation, central intelligent lighting control has finally become standard in modern building management – but there's still a way to go in hazardous areas.

By integrating DALI into our LED light fitting range, R. STAHL has taken the next step along this path and become one of the first manufacturers to offer modern lighting management in hazardous areas.

DALI stands for Digital Addressable Lighting Interface. This name captures the enormous potential of this technology in a nutshell – DALI enables individual lights and entire lighting systems to be digitally networked, switched, controlled and monitored. As well as adjusting light to suit a range of ambient, weather or working conditions, this technology allows users to centrally identify, log and manage upcoming maintenance work, the temperature of the lights and a range of other parameters.

To do so, a central DALI Master in an external location controls all the lights that have been assigned to it and are equipped with a DALI interface. At the same time, DALI is suitable for use as a digital interface to additional electronic operating units such as sensors and switches, the data from which is transmitted using a DALI bus.

- Compatible with most standard devices on the market.
- Suitable for hazardous areas.
- Up to 64 DALI devices can be connected per master.
- Extremely safe.
- Significantly less costly and time-consuming thanks to longer service life.
- Less maintenance required.
- Comprehensive logging of lighting in hazardous areas.

DIGITAL LIGHT MANAGEMENT IN HAZARDOUS AREAS

DALI **D**igital **A**dressable **L**ighting **I**nterface
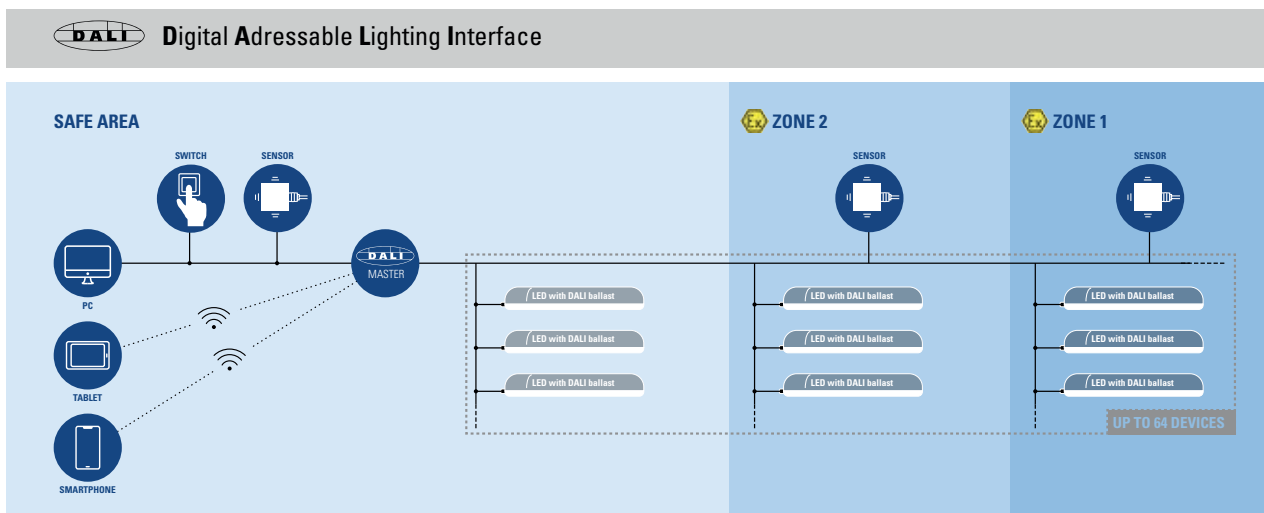
Compatible, established, future-proof

The DALI standard is used to safely control basic and standard functions. The current DALI2 standard is compatible with a number of software solutions from other providers, as well as representing a globally established standard.

Of course, DALI devices are compatible with LED light fittings from R. STAHL. As a result, lighting in hazardous areas has become digital, automated, future-oriented and modern.

Maximum mobility – device-independent

The DALI protocol controls and monitors your lighting in hazardous areas while remaining entirely location-independent and across all devices.

You can access and adjust all data and protocols related to your networked lighting at any time online using a web interface or using an app (iOS/Android).

On a PC, smartphone or tablet, using an app or online – DALI allows you to be independent, without restrictions on your time or location.

THE RIGHT COLOUR TEMPERATURE FOR EVERY APPLICATION

Yellow	Warm white	Neutral white		Cold white							

| 1000 | 2000 | 2000 | 4000 | 5000 | 6000 | 7000 | 8000 | 9000 | 10000 | 11000 | 12000 |

Colour temperature in kelvins
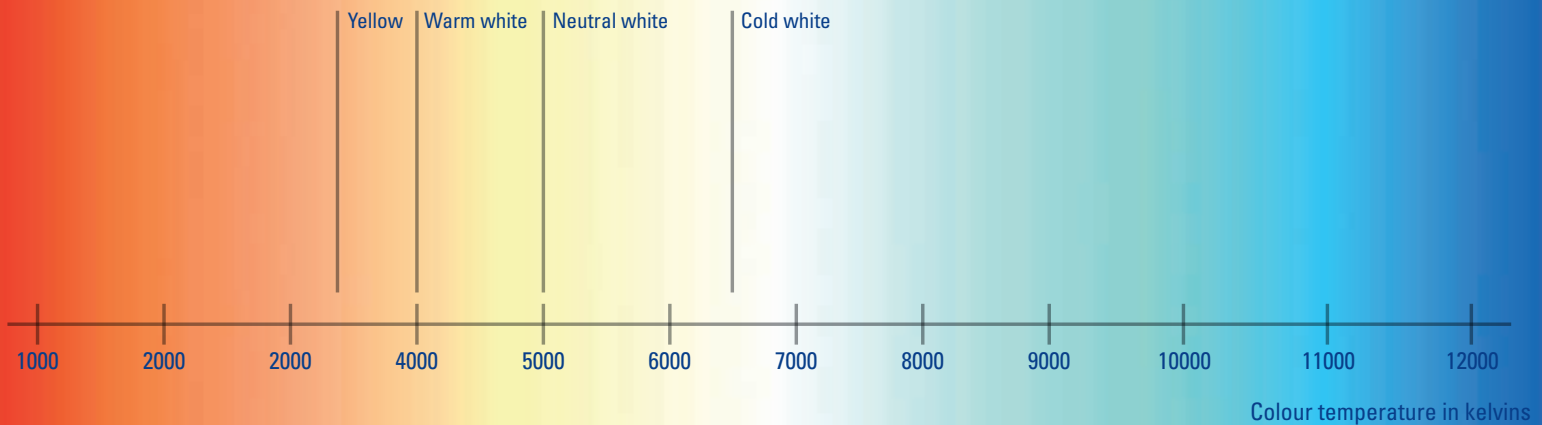
We are the only manufacturer on the market to offer our LED light fittings with neutral white light as standard and in alternative versions with warm white or cold white light colours.

No matter the colour temperature, all our light fittings achieve colour reproduction values above the threshold of CRI > 80 specified in DIN EN 12464. As a result, they enable the use of standard-compliant lighting even in interior lighting systems. The various colour temperatures in our range are available as required for different applications and in different operating locations. This is essential to ensure that applications, for example surface coating, are performed and assessed correctly.

As well as these three colour temperatures, R. STAHL also offers special solutions for additional applications – yellow (extremely warm white) is ideal for environmental protection and animal conservation, for instance, as many animals are less attracted to this light.

Yellow light (colour temperature < 2700 K) is also required in order to comply with the requirements of the IDA (International Dark-Sky Association). The stated goal here is to develop lights that produce absolutely no light emissions into the upper hemisphere, thereby reducing light pollution.

Yellow (from phosphor-converted to monochromatic yellow) is used for applications in pharmaceutical and photo laboratories.

- The higher the colour temperature, the colder the light seems.

- Colour reproduction values and (R_a) and Color Rendering Index (CRI) for lamps range from 20 to 100.

- The higher the CRI value, the better the colour rendering.

- For indoor working areas, the CRI value should be > 80.

- Corresponds to DIN EN 12464 and IDA requirements.

LED linear luminaire in warm white light colour (4000 K)

LED linear luminaire in neutral white light colour (5000 K)

LED linear luminaire in cold white light colour (6500 K)

LED linear luminaire in yellow light colour (< 3300 K)

Warm white: warm, cosy yellow

Typically, warmer colour temperatures are used indoors than outdoors. Warm white light colours are used in Scandinavian countries as well as in the food industry.

Neutral white: friendly and realistic

The standard colour temperature offered by R. STAHL is 5000 K. This colour temperature is universal and ideal for most regions and industries. This light colour is acceptable for use both indoors and outdoors.

Cold white: cool, stimulating blue

A cold white colour temperature makes it easier to detect small details or errors during quality inspections. Cold white lamps replicate natural daylight. This promotes concentration and is therefore ideal for work that requires high attention to detail.

Yellow: omits blue light components

Very warm white light is used in a number of ways: as an insect-friendly light colour for outdoor lighting, as an alternative to sodium vapour lamps, or as lighting in areas where no blue light is desired, such as the pharmaceutical and photo technology industries.

COMPLETE PORTFOLIO TO FULFIL ALL YOUR LIGHTING NEEDS

R. STAHL supplies explosion-protected lighting for almost any application, such as general lighting, pendant light fittings, floodlights, hand lamps and emergency luminaires. In addition to these standard solutions, we are also your contact partner for custom complete solutions in the field of lighting technology.

	GENERAL LIGHTING	PENDANT LIGHT FITTINGS	F
LED			
CONVENTIONAL			

LOODLIGHTS

HAND LAMPS

EMERGENCY LUMINAIRES

GENERAL LIGHTING AND EMERGENCY LIGHTING

Linear luminaire EXLUX series 6002/4

DALI   **LED**   **WebCode 6002D**

The EXLUX 6002 can be fitted to the ceiling, a pole or, alternatively, it can be suspended. It is suited to general indoor and outdoor lighting applications, as well as indoor and outdoor emergency lighting. The new generation of the EXLUX 6002 continues to offer its reliable interchangeability, which is still an advantage in terms of form, fit and function when compared to series with conventional technology. In addition, it also features further glare reduction for improved safety in any plant.

- Luminaire efficacy up to 165 lm/W.
- Easily interchangeable with 2 ft (857 mm) or 4 ft (1467 mm) version.
- Robust, long-lasting LED technology „Made by R. STAHL".

6950 lm | +60 °C | Zone 1/21
For LED Version. | 2910 lm | -40 °C | Zone 2/22

Emergency luminaire EXLUX series 6009/4

DALI   **LED**   **WebCode 6009D**

The new generation of the EXLUX 6009/4 emergency luminaire guarantees improved safety in any system. As well as the series' reliable interchangeability in form, fit and function, when compared to the EXLUX series with conventional technology, it also features further glare reduction.

- Luminaire efficacy up to 165 lm/W.
- Easily interchangeable with 2 ft (857 mm) or 4 ft (1467 mm) version.
- Robust, long-lasting LED technology „Made by R. STAHL".
- Rated operating time test.

5910 lm | +55 °C | Zone 1/21
For LED Version. | 2910 lm | -30 °C | Zone 2/22

Tubular light fitting series 6036

LED   **WebCode 6036A**

The 6036 series compact LED tubular light fitting is ideal for general lighting applications and for use as machine lighting, even in relatively inaccessible places. The 6036 light fittings series has been optimised in a number of ways – the luminous flux is now approximately 25 % higher while the electric power consumption has remained the same. At the same time, their glare has been significantly reduced.

- IP66/IP67, IP68 rating.
- Resistant to vibrations, lightweight, robust (impact strength of IK10) and maintenance-free.
- The low inrush current means that a large number of light fittings can be connected to a single miniature circuit breaker (MCB).

5575 lm | +70 °C | Zone 1/21
*For LED Version. | 1396 lm | -55 °C | Zone 2/22

Linear luminaire for fluorescent lamps EXLUX series 6001 DALI WebCode 6001A

+60 °C Zone 1/21
-30 °C Zone 2/22

This light fitting is suitable for both standard lighting applications and emergency lighting applications in virtually any facility. With very little effort, using the accessories it can be fitted to the wall, ceiling or a pole or, alternatively, it can be suspended. The practical central lock has a safety switch that disconnects the power supply at all poles when the plastic enclosure is opened.

- 2 fluorescent lamps: 18 W, 36 W, 58 W.

- Ergonomically designed central lock and a circuit breaker that disconnects all phases.

- Incredibly low-maintenance, lightweight and robust (impact strength of IK10).

Emergency luminaire for fluorescent lamps EXLUX series 6009/5 DALI WebCode 6009A

+50 °C Zone 1/21
-30 °C Zone 2/22

This luminaire is designed to provide emergency lighting. It is lightweight and requires little maintenance. The battery in the external enclosure ensures that the emergency lighting lasts for 1.5 or 3 hours. An internal protective circuit provides full redundancy, should the lamp fail. When the central lock is opened, the luminaire is always disconnected from the power supply at all poles.

- 2 fluorescent lamps: 18 W, 36 W.

- Ergonomically designed central lock and a circuit breaker that disconnects all phases.

- Weekly functional test and annual light duration test of the emergency lighting.
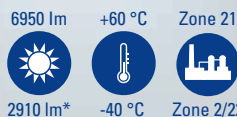
GENERAL LIGHTING AND EMERGENCY LIGHTING

Linear luminaire EXLUX series 6402/4

DALI **LED** **WebCode 6402C**

The universally usable light fittings from the EXLUX 6402/4 series offer higher luminaire efficacy and achieve outstanding values of up to 165 lm/W. Their low power consumption and significantly reduced glare offer even more user benefits.

- 1:1 interchangeability with conventional technology – even for 2 x 58 W version.
- Long-lasting, robust technology for Zone 21 and 2/22, low glare and high colour rendering for optimum working conditions.
- Quick and easy to install, with installation accessories.
- Lightweight yet robust, with an impact strength of IK10.
- With long-lasting, efficient LED technology (up to 115 lm/W).

6950 lm | +60 °C | Zone 21
For LED Version. | 2910 lm | -40 °C | Zone 2/22

Linear luminaire series L402/4

DALI **LED** **WebCode L402A**
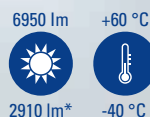
R. STAHL now offers industrial solutions for high-quality lighting in industrial plants that goes beyond hazardous areas. With the mechanical robustness that the company is known for, as well as high electrical and lighting efficacy, these lighting solutions are cost-effective.

- Extremely robust industrial lighting with IK10 and IP66/67 rating.
- High lighting efficacy of up to 165 lm/W with minimal glare.
- Thanks to long-lasting LED technology that can even withstand high ambient temperatures, this lighting incurs low costs over its entire life cycle.

6950 lm | +60 °C
For LED Version. | 2910 lm | -40 °C

Emergency luminaire EXLUX series 6409/4

DALI **LED** **WebCode 6409C**

The EXLUX 6409 series is designed to provide emergency lighting. It is lightweight and requires little maintenance. An external battery will power the emergency lighting for 1.5 or 3 hours. If one lamp is faulty, the luminaire switches to the working lamp. When the luminaire or battery case is opened, the battery circuit is disconnected. The robust plastic enclosure is easy to open thanks to the practical central lock.

- 2 fluorescent lamps: 18 W, 36 W.
- Ergonomically designed central lock.
- Weekly functional test and annual rated operating time test.

5910 lm | +60 °C | Zone 21
For LED Version. | 2910 lm | -30 °C | Zone 2/22

Linear luminaire for fluorescent lamps EXLUX series 6401

DALI | **WebCode 6401A**

+60 °C   Zone 21

-30 °C   Zone 2/22

The EXLUX 6401 series is suited to standard indoor and outdoor lighting applications, as well as indoor and outdoor emergency lighting. With very little effort, using the accessories it can be fitted to the wall, ceiling or a pole or, alternatively, it can be suspended. The practical central lock is available with an optional switching element that disconnects the power supply at all poles when the plastic enclosure is opened.

- 2 fluorescent lamps: 18 W, 36 W, 58 W.

- Quick and easy to install, with universal installation accessories.

- Incredibly low-maintenance, lightweight and robust (impact strength of IK10).

Emergency luminaire for fluorescent lamps EXLUX series 6409/5

DALI | **WebCode 6409A**

+50 °C   Zone 21

-30 °C   Zone 2/22

The EXLUX 6409 series is designed to provide emergency lighting. It is lightweight and requires little maintenance. An external battery will power the emergency lighting for 1.5 or 3 hours. If one lamp is faulty, the luminaire switches to the working lamp. When the luminaire or battery case is opened, the battery circuit is disconnected. The robust plastic enclosure is easy to open thanks to the practical central lock.

- 2 fluorescent lamps: 18 W, 36 W.

- Ergonomically designed central lock.

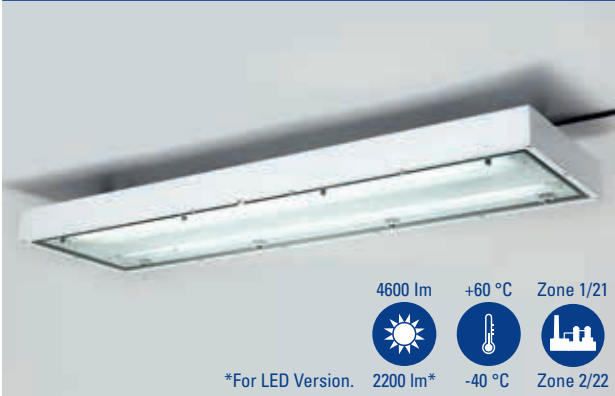- Weekly functional test and annual rated operating time test.

GENERAL LIGHTING AND EMERGENCY LIGHTING

Linear luminaire series 6012

LED   **WebCode 6012A/6012C**

The 6012 series luminaires are an excellent choice for illuminating spray booths, paint shops and clean rooms. Their suitability for these applications is owed to their extra-flat design, as they do not require a significant mounting depth. The LED technology boasts high luminous efficacy and longer service life.

- 2 or 4 fluorescent lamps: 18 W, 36 W, 58 W, or LEDs: 28 W, 52 W.

- Central lock for opening and closing the luminaire plus a safety switch that disconnects the power supply at all poles when the luminaire is opened.

- Enclosure made from powder-coated sheet steel or stainless steel.

	4600 lm	+60 °C	Zone 1/21
*For LED Version.	2200 lm*	-40 °C	Zone 2/22

Linear luminaire for fluorescent lamps series 6014/1

WebCode 6014B

The 6014 series linear luminaires have two or four fluorescent lamps and are often used for applications such as lighting spray booths and paint shops. You will find that their robust construction means that they require minimal maintenance. With the right accessories, these luminaires are easy to install in a wide variety of different ways in no time at all.

- 2 or 4 fluorescent lamps: 18 W, 36 W, 58 W.

- Central lock for opening and closing the luminaire plus a safety switch that disconnects the power supply at all poles when the luminaire is opened.

- Enclosure made from powder-coated sheet steel or stainless steel.

+60 °C	Zone 1/21
-35 °C	Zone 2/22

Emergency luminaire series 6018

WebCode 6018B

The 6018 series emergency luminaire with a variety of installation options can be used as safety lighting with emergency light function for up to 180 minutes of emergency lighting operation in environments such as spray booths, paint shops and clean rooms.

- 2 fluorescent lamps: 18 W, 36 W.

- Enclosure made from powder-coated sheet steel or stainless steel.

- Weekly functional test and annual light duration test of the emergency lighting.

+50 °C	Zone 1/21
-20 °C	Zone 2/22

Linear luminaire series 6412

LED **WebCode 6412B/6412C**

The 6412 series linear luminaires are ideal for applications such as lighting spray booths and paint shops. The extra-flat design of the powder-coated sheet steel or stainless-steel enclosure means that they do not require a significant mounting depth. They take no time at all and very little effort to fit, and can be configured as a recessed light or, alternatively, suspended. And thanks to the practical central lock, they are easy to open and close.

• Versions with fluorescent lamps or LEDs.

• Central lock.

• Extremely flat design for shallow mounting depths.

For LED Version. 5200 lm / 2400 lm +60 °C / -30 °C Zone 21 / Zone 2/22

Linear luminaire for fluorescent lamps series 6414/1

WebCode 6414B

The 6414 series linear luminaires have two or four fluorescent lamps and are often used for applications such as lighting spray booths and paint shops. You will find that their robust construction means that they require minimal maintenance. With the right accessories, these luminaires are easy to install in a wide variety of different ways in no time at all.

• 2 or 4 fluorescent lamps: 18 W, 36 W, 58 W.

• Central lock.

• Enclosure made from powder-coated sheet steel or stainless steel.

+55 °C / -30 °C Zone 21 / Zone 2/22

COMPACT LIGHT FITTINGS

Escape route sign luminaire series 6102

DALI   LED   **WebCode 6102A**

The 6102 LED light fitting is optimised as an escape route sign luminaire as per ISO 7010. This light fitting is available in a basic version, a DALI version, and a version with an address module for operation on central battery systems. Without the symbol display panel, the luminaire can also be used as a compact light fitting for illuminating specific areas, escape routes or danger zones.

• Can be used universally for both indoor and outdoor applications.

• Versatile: can be used to display the different signs and symbols in accordance with ISO 7010.

• When equipped with secondary optics, suitable for use as a compact light fitting.

775 lm   +60 °C   Zone 1/21

For LED Version.   490 lm   -40 °C   Zone 2/22

Escape route sign luminaire series 6109

DALI   LED   **WebCode 6109A**

The 6109 LED light fitting represents an optimised LED solution for escape route signage and escape route lighting. The hanging sign means that the light fitting does not need to be installed in as many locations as it can be read from both sides. As well as the standard version with an integrated battery, versions with DALI are also available.

• Single-supply escape route sign luminaire as per DIN EN 60598-2-22 with escape route sign as per ISO 7010.

• Integrated, automatic-start test functions for weekly test (functional test) and annual test (battery time test).

• Secondary optics for optimised escape route lighting and/or door area illumination.

775 lm   +60 °C   Zone 1/21

For LED Version.   490 lm   -30 °C   Zone 2/22

PENDANT LIGHT FITTINGS

9200 lm +70 °C Zone 1/21

For LED Version. 2200 lm -55 °C Zone 2/22

Multipurpose luminaire series 6050/6

DALI LED WebCode 6050C

The 6050/6 series multipurpose luminaire is the most reliable and flexible lighting solution owing to the innovative LED technology used. It can be used as a classic ceiling light fitting, pendant light fitting or a small flood light – along with the wide range of mounting accessories and light distribution curves available. Thanks to the optionally available satin-finished lens, you can use the luminaire as a glare-free ceiling light fitting at low mounting height.

With the range of various performance classes and the very high efficiency in terms of lighting technology, the luminaire provides the opportunity to replace conventional spotlights smoothly with a power output up to 500 W. The wide-beam light distribution prevents light pollution and ensures the optimum use of the radiated light on the useable surface. Moreover, the design of the luminaire enables the use in a high-stress environment. The IP68 degree of protection and the seawater-resistant aluminium make the luminaire ideal for installation offshore and on ships. The ambient temperature range up to +70 °C allows the lighting of areas which have a high thermal load due to the relevant process.

- Universal light fitting is a flexible solution, thanks to the range of power output classes available.

- Low-maintenance plus long service life owing to innovative chip-on-board LED technology.

- Can be installed directly on the ceiling, using ring eyes, pipe clamps or a pivoting mounting bracket.

Pendant light fitting series 6050

+50 °C   Zone 1/21

-60 °C   Zone 2/22

A variety of lamp types and power outputs, as well as additional reflectors, make the 6050 series pendant light fitting a versatile choice. The integrated terminal box is designed to "increased safety" standard and takes all the hard work out of connecting the electrics of the pendant light, which is housed in a flame-proof enclosure. The powder-coated enclosure is made from seawater-resistant aluminium.

- Low-maintenance plus long service life, thanks to gas discharge lamps.

- Mounted with ring eyes or pivoting mounting bracket.

Pendant light fitting series 6470/5

LED

8800 lm   +60 °C   Zone 21

For LED Version.   7148 lm   -40 °C   Zone 2/22

Different cover variants make the 6470/5 series LED pendant light fitting suitable for wall mounting, ceiling mounting, suspended mounting, or for pole mounting. The efficient LED technology allows the replacement of conventional lamps of up to 500 W. Optional reflectors enable different light distribution types to fulfil the lighting task.

- Versatile and quick to install.

- Can be configured with or without an internal reflector to adapt to your lighting needs.

- Low-maintenance due to long service life of up to 100,000 operating hours.

Pendant light fitting series 6470

+55 °C   Zone 21

-50 °C   Zone 2/22

The 6470 series pendant light fitting is a versatile choice for Zone 2. It can be suspended, wall-mounted and ceiling-mounted, or installed directly on a suitable surface. With the addition of special covers, it can also be fitted directly to poles and walls. The powder-coated enclosure is made from seawater-resistant aluminium.

- Lamp types: high-pressure sodium vapour lamps (HSE), metal halide lamps (HIE) and halogen lamps (QT).

- Enclosure made from seawater-resistant aluminium.

- Flexibility, thanks to a range of power output classes, additional reflectors and mounting versions.

22

FLOODLIGHTS

Floodlight series 6125

LED   **WebCode 6125A**

This floodlight is ideal for lighting up large areas from elevated positions. Three different light distribution types offer added versatility to fulfil your lighting needs. Producing a massive luminous flux of over 20,000 lm, this product is one of the top contenders when it comes to Zone 1 LED floodlights; applying the highly efficient optics, it can achieve luminous intensities that exceed those that are possible with HID technology.

- Low-maintenance due to long service life of up to 100,000 operating hours.
- Versatile thanks to the three different light distribution curves.
- Can be installed even in relatively inaccessible places.

19,979 lm	+50 °C	Zone 1/21
For LED Version. 11,155 lm	-60 °C	Zone 2/22

Floodlight series 6525

LED   **WebCode 6525A**

The 6525 series LED floodlight is ideal for lighting up large areas from elevated positions. Its wide-beam light distribution makes it an excellent choice as a spotlight for lighting industrial buildings or as a high-bay light fitting; it can also be installed in relatively inaccessible places. The floodlight is generally designed with an enclosure and a bracket made from single-coated sheet steel.

- Can be used in Zone 21 and Zone 2/22.
- Low-maintenance due to long service life of up to 100,000 operating hours.
- Variant available with an enclosure and bracket made from double-coated 316L stainless steel.

21,026 lm	+60 °C	Zone 21
For LED Version. 11,155 lm	-50 °C	Zone 2/22

Floodlight series 6121

The 6121 series floodlight for conventional lamp technologies is ideal for lighting up large areas from elevated positions. Two different light distribution types offer added versatility to fulfil your lighting needs.

- For use in gas group IIC.

- Easy to install and maintain because of Ex e connection chamber.

- Optimised versions for all applications, including stainless-steel version for offshore and marine environments.

+60 °C   Zone 1/21

-60 °C   Zone 2/22

Floodlight series 6521

R. STAHL's compact floodlights are distinguished by their high performance, flexible installation options and ease of maintenance. They can be operated with halogen incandescent lamps, metal halide lamps or high-pressure sodium vapour lamps. The enclosure is available in coated sheet steel or V4A/V2A stainless steel. Owing to the Ex nA type of protection, some variants can be used without the need for restricted breathing testing.

- Modular design offers excellent flexibility when it comes to installation and makes maintenance easier.

- Wide- or narrow-beam reflectors.

- Ex nA variant for incredibly easy installation and low maintenance.

+55 °C   Zone 21

-50 °C   Zone 2/22

HAND LAMPS

Inspection light series 6149

LED WebCode 6149B

1396 lm +60 °C Zone 1/21

For LED Version. 600 lm -40 °C Zone 2/22

The 6149 series inspection light is a flexible solution that provides lighting exactly where you need it. The innovative design of the enclosure makes the light extremely slim and lightweight. Its lockable suspension hooks and practical anti-roll protection make it ideal for use in the workshop.

- Long-life, energy-saving, high-performance LEDs designed using innovative technology.
- Standard version with diffusor to limit glare.
- For 110–240 V AC/DC, 24–48 V AC/DC, or 12 V DC.

Portable lamp series 6148

LED WebCode 6148A

240 lm* +50 °C Zone 1/21

*For LED Version. -20 °C Zone 2/22

The ergonomic design of the 6148 series portable LED lamp allows you to operate this lamp with just one hand. Its brightness can be freely adjusted; alternatively, it can be set to flashing mode. The pivoting lamp head allows you to direct the light cone virtually anywhere. Coloured diffusing lenses are available as accessories, and transform your lamp into a portable Ex signal beacon. When connected to the charging unit, it has an emergency lighting function.

- Incredibly lightweight.
- Long battery runtime.
- Approved in accordance with the relevant firefighting standard.

Hand lamp series 6141/61
LED **WebCode 6141B**

The battery-powered 6141/61 series hand lamp is small enough to fit in your pocket, so that it is within easy reach whenever you need it. It features a push-button that enables you to switch the lamp on and off with one hand. This hand lamp boasts IP68 degree of protection, as well as ATEX and IECEx certification for use in hazardous areas.

- Uses alkaline batteries so the user is not restricted by power point location.
- Energy-saving LED technology.
- Watertight with IP68 rating (3 m, 30 min.).

For LED Version. | 50 lm / 20 lm | +40 °C / -20 °C | Zone 1 / Zone 2

Hand lamp series 6141/62
LED **WebCode 6141A**

The battery-powered 6141/62 series hand lamp is excellent for maintenance work and inspections. It uses energy-saving LEDs and features a push-button that enables you to switch the lamp on and off with one hand. This hand lamp boasts IP68 degree of protection, as well as ATEX and IECEx certification.

- Uses alkaline batteries so the user is not restricted by power point location.
- Watertight with IP68 rating (3 m, 30 min.).
- Accessories for signalling function and transportation.

For LED Version. | 50 lm / 20 lm | +40 °C / -20 °C | Zone 1/21 / Zone 2/22

EMERGENCY LIGHTING TECHNOLOGY

Central battery systems series 6950

Series 6950 central battery systems (CBS) power emergency lighting systems in hazardous atmospheres and in non-hazardous areas. The cabinets with an emergency power supply and control panel are installed in a non-hazardous area. With a CBS which functions as a central computer, 63 CBS sub-group control panels can be networked, each of which can actuate up to 60 final sub-circuits with over 600 luminaires.

The connected emergency and escape sign luminaires are monitored to measure current or could be addressed optionally. In addition, the system conducts automatic functional tests. All events are recorded in an electronic log. Error messages can be automatically e-mailed to defined lists of recipients and can be automatically forwarded.

- Programming, monitoring and maintenance are performed at a central point.

- Maintenance-free batteries have a shelf life of at least 10 years.

- Lighting and switching type can be programmed individually for different scenarios.

Group battery system

The compact, freely programmable, microprocessor-controlled group battery system defined in accordance with DIN VDE 0108-100 is suitable for individual and group monitoring of lighting within individual fire compartments.

- Can be configured to run for 1 or 3 hours.
- Emergency and escape sign luminaires are tested automatically.
- The result is recorded in the electronic log.

Address module

Virtually all of R. STAHL's light fittings are available with an address module. This provides the communication interface with the central battery system and enables application-specific control of the light fitting in line with the requirements of the system's safety concept. The address module allows the individual address to be set for every light fitting that has an address module.

- Versions available for Zone 1 and Zone 2.
- 2-digit address can be mechanically adjusted for Zone 2.
- Contactless electronic address adjustment and programming of LED light fittings for Zone 1 is possible.
- Communicates with central battery system (CBS).

LED LIGHT FITTINGS
FOR ALL YOUR REQUIREMENTS

R. STAHL is continually striving to develop sophisticated LED light fittings for all industry sectors and hazardous areas. Increasingly, the focus is on special production and application conditions that require lighting solutions with a modified colour spectrum. These include, for example, fields of application in the pharmaceutical industry and photographic development, where a high fraction of blue light can be detrimental to the quality of the products. We have developed LED light fittings that minimise the blue fraction by selectively converting the emission spectrum. LED solutions are twice as efficient as filtered fluorescent lamps.

We also offer special light fittings for identifying specific devices in industrial plants. For example, emergency safety showers and eye-wash stations are identified by means of a green light, while fire extinguishers are identified by means of a blue light.

R. STAHL also allows you to create custom signage or information displays for use in your facilities using "light fields". This enables you, for example, to signal processes and display process statuses. These light fields can optionally be designed to effectively "disappear", meaning that they will only be noticeable when they are switched on.

While working on developing our LED light fittings, we also take into consideration the environmental impact of the lighting. In outdoor facilities in particular, the light often shines into unused areas in which it is important that the natural behaviour of the animal and plant kingdoms should not be affected. Furthermore, R. STAHL ensures minimal light is discharged into the environment in order to avoid light pollution. Hence R. STAHL takes care to ensure that the light distribution of the light fittings has only a minimal luminous flux in the upper hemisphere.

Innovative LED light fittings protect both animals and the environment

R. STAHL supplies LED light fittings specially designed for outdoor usage – developed with a view to ensure that they have a minimum impact on our natural environment. To not affect the natural behaviour of turtles, yellow lighting is used, for instance.

Special lighting that shows you to safety

To ensure that help is at hand as quickly as possible in an emergency, people need a visual indicator that shows them clearly where to go. This is why we have included in our portfolio extra LED light fittings, which use designated colours to indicate the presence of different safety equipment.

Light fittings displaying specific warnings

Individual printed warnings allow important information to be conveyed within the facility. And because the light fittings are connected to a central battery system, you are 100 % safe even in the event of a malfunction.

LIGHTING DESIGN – TAILORED, ECONOMIC, APPROVED SOLUTIONS

Is it possible to "plan" illumination? Not only can it be done, it has to be done! This is particularly important when it comes to illuminating hazardous areas. Moreover, when lighting systems are installed or upgraded, this often involves several thousand light fittings – this means that any design errors will be costly.

Our professional lighting design service will devise the perfect lighting system for your needs. As a result, you get the total number of light fittings you require, considering the most effective installation position and orientation of the light fittings. It goes without saying that the lighting design process incorporates occupational health and safety and general safety considerations, in order to ensure that workplace directives are complied with at all times. The results of the lighting design process also have implications in terms of electrical wiring design.

We also work with the customer to establish the operating conditions and maintenance cycles, which allows us to calculate the overall costs. And to make sure that everything goes as per plan, we also help you with commissioning and maintaining your system. This means that with R. STAHL, you will always be on the bright – and safe – side.

Do you want to design your lighting system yourself? It is really easy to create a lighting design using our free software, ezyLum. Use it to import layouts, reproduce all possible building geometries, try out a large number of different lighting scenarios and then export your finished design.

All product information on r-stahl.com/luminaires

Lighting design with our local experts

Based on your specifications, we design the perfect lighting solution and optimise your lighting system using the parameters you provide.

Visualising the optimal lighting solution

We can record data for your lighting system in its current state and show you how it compares with your lighting system once it has been optimised.

Cost analysis

R. STAHL will determine the overall costs of investment, installation and the operation and maintenance for your lighting system. From this, we will be able to calculate the ROI and determine the total cost of the lighting system.
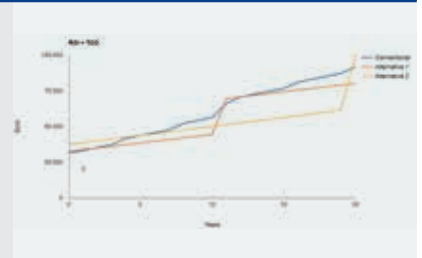
Commissioning and maintenance

With our assistance in commissioning your system, installation and positioning errors can be identified immediately. We take all required measurements of the lighting so that you can be confident that your lighting system complies with the relevant standards. With the central battery system, our engineers ensure that the safety system functions perfectly at all times.