EX-FLUORESCENT LIGHT FITTINGS

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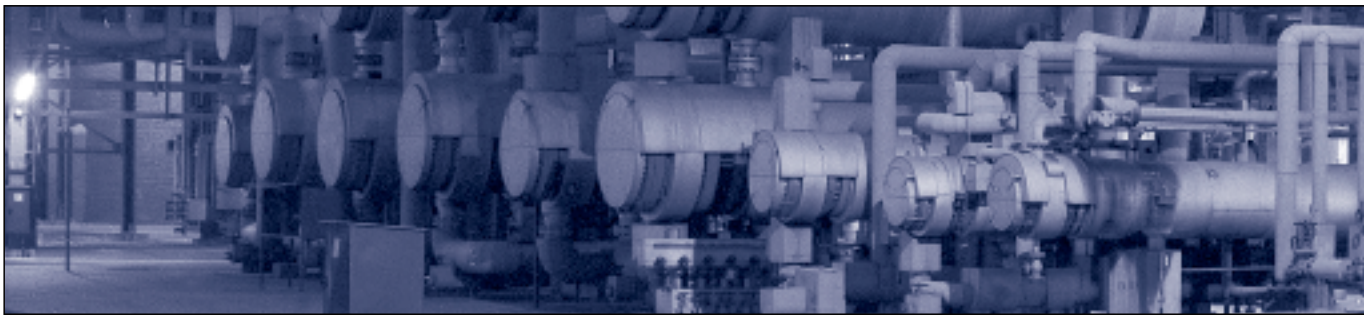
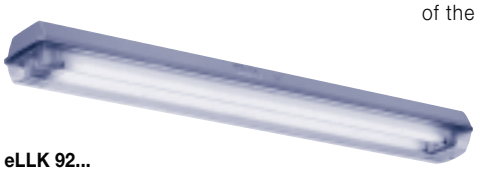


The best choice for an economical solution for the illumination of probable explosive environments is the fluorescent lamp.

The advantages of fluorescent lamps in light fittings:

- worldwide availability
- low cost
- very good colour reproduction
- immediate starting
- easy handling
- long service life with EVG-Technology
- immediate restart
- standardised disposal of the fluorescent lamps

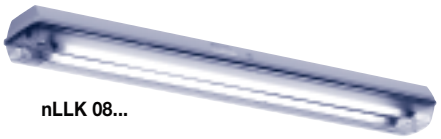


eLLK 92...

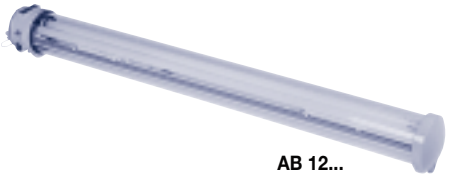
EVF...

Depending on the proposed usage there is a variety of groups to choose from:

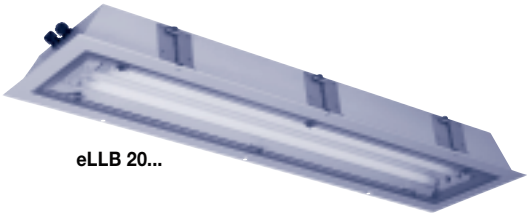
- eLLK/M 92...:
  Surface and pole mounted for use in the Zones 1, 2, 21 and 22
- nLLK 08...:
  Surface mounted for use in the Zones 2, 21 and 22
- eLLB 20 and RLF 250.....:
  Recessed ceiling mounting for use in the Zones 1, 2, 21 and 22
- AB 12.../EVF..:
  Flameproof surface mounted for use in the zones 12, 2 and 22



nLLK 08...



AB 12...



eLLB 20...

RLF 250...

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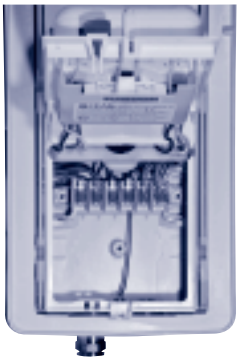
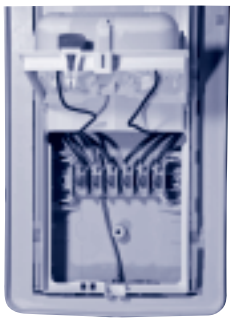
one sided through-wiring Type 1/6



Fluorescent light fittings of the series **eLLK 92... / nLLK 08...** are equipped with a single-end through-wiring **1/6** as standard. Here there are 2 cable entries M25 for cable sizes Ø 8-17 mm, where as one of these is fitted with a certified blanking plug (red) as a stopper.
The **2/6** version is fitted with a cable entry M25 for cable sizes Ø 8-17 mm and a certified blanking plug (red) as stopper on both ends. The mains terminal block has 6 clamps enabling wire of up to 2 x 6 mm² (solid) or 2 x 4 mm² (multi wire) to be connected. This allows for a comfortable and problem free wiring (L, L1, L2, L3, N and PE) and installation.
The **2/6** version is fitted with a second mains terminal block of 6 clamps on the opposite side. The required internal wiring of the light fitting has been rated for 16 A.
The standard screwable terminal block allows single sided connecting without having to bend the wire. Simply push the hinged cover shut and you already have protection against contact according to BGV A2.

double sided through-wiring Type 2/6



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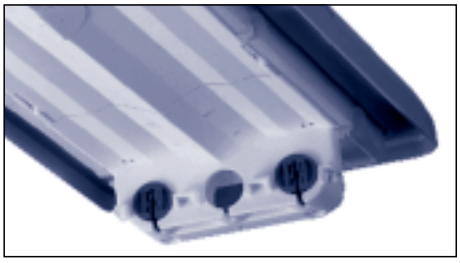
Technical Special Features on hand of the eLLK 92

The fluorescent lamp series eLLK 92..., eLLM 92..., nLLK 08... and in some parts the eLLB 20... have in their architecture, the same characteristics, which we show here on hand of the eLLK 92-Series.

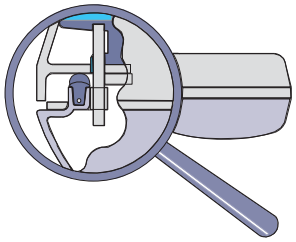
Materials

The eLLK 92 light fitting is made of highgrade plastics that, in addition to the excellent mechanical properties, also feature a high stability against many chemicals found in industrial plants. All the materials used for the light fitting



Combination of high resistant materials

provide are effectively protected against corrosion and have already been successfully tried and tested in chemical and off-shore installations.



Optimized Sealing system

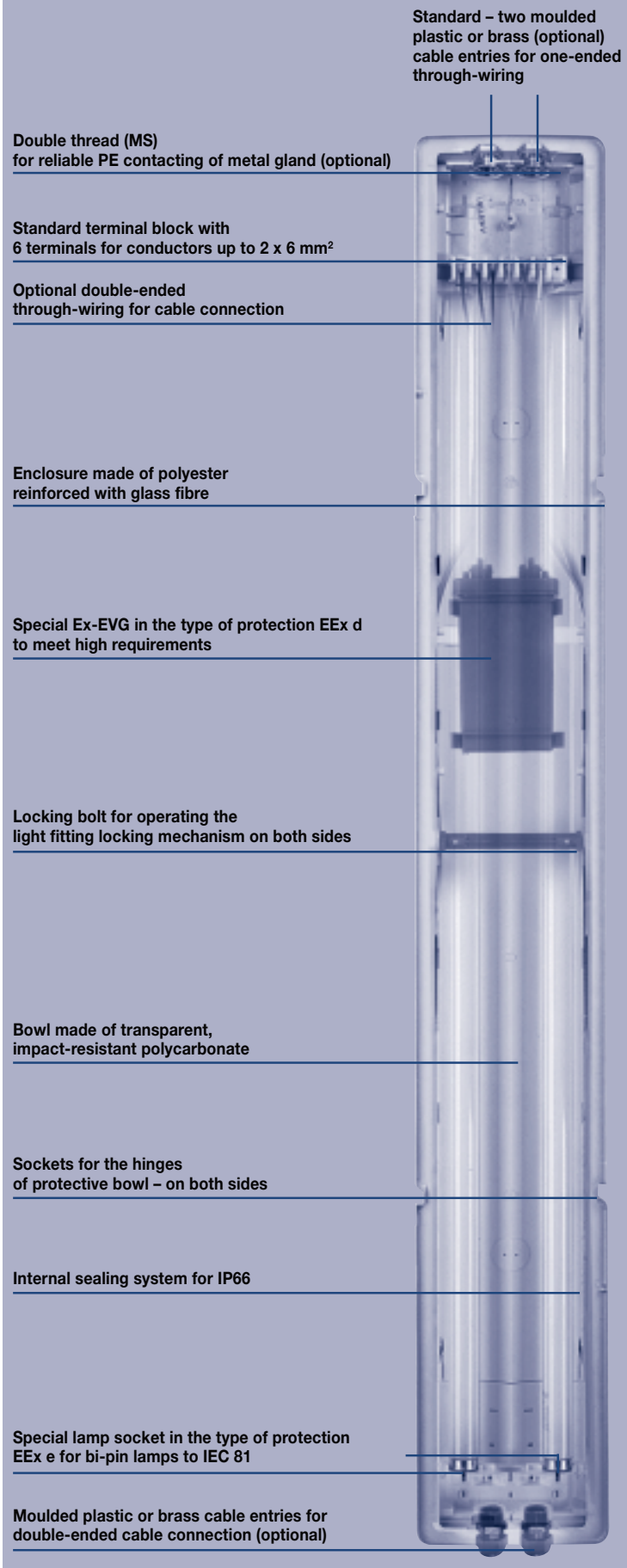
Sealing system

The bowl and the enclosure form a labyrinth, that protects the seal against jet water. The continuous seal is extremely elastic and, in conjunction with the locking mechanism, ensures that the light fitting is sealed tightly for a long time. As was also confirmed by an ERA test, this is the only way to reliably maintain the degree of protection IP66 for a longer period.

Aptitude tests

The eLLK 92 light fitting has already passed both tests with lateral thrusts due to wind up to 12 Bft and the ERA[1)] test specified for British off-shore installations. Here, for example, the sealing qualities and the resistance to vibration are tested.

[1)] ERA-Test= UK-test institute for offshore technology



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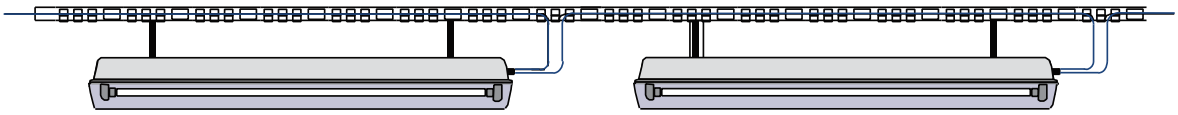

Cost reduction with single-end through-wiring

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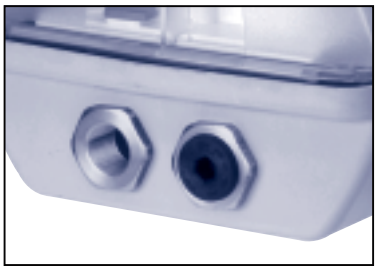
generously dimensioned terminal compartments

Plastic cable entries



Metal thread

Myer Hubs (for Conduit-System)

Standard version for two cables

The standard version of the eLLK 92 is designed for a single-ended through-wiring. According to the verdict in an independent expertise, together with the easily accessible terminal compartment, this connection method results in a time saving of up to 30% compared to conventional light fittings using the classical through-wiring method.

Installation of the eLLK 92/nLLK 08

Whether it is mounted on rails or suspended from the sealing, the lion's share of the overall costs is taken up by the installation and electrical connection of the light fitting. Here, due to the standardized fixing clearances and the generously dimensioned terminal compartments, the eLLK 92 provides a high saving potential. The terminal compartment can be opened without removing covers or reflectors, thus permitting the easy connection of cables.

Three ways – one solution

Depending on the type of installation, different cable entries could be required for the connection of the light fitting. Available for all types are the following:

- M25 x 1.5 Plastic cable entries
- M20 x 1.5 Earthed metal thread for metal cable entries
- non-metric threads, for example Myer Hubs 3/4" NPT-Thread

Lamp replacement made easy

Irrespective of how the light fitting is installed, the locking mechanism can be operated on either side – this means that there are no future surprises with

Easy lamp replacement

light fittings that were installed at a later point in time. The fact that the locking mechanism can be operated on both sides and that the protective bowl is hinged on both sides, means that there is plenty of scope for the arrangement of light fittings. The bowl can simply be swung open in the respective direction without tools – this is made possible by the hinge fasteners fitted on both sides of the light fitting housing. A quarter turn of the locking bolt and the bowl opens up downwards. The hinges on the cover are fixed in such a way that the replacement lamps can be safely deposited in the bowl, thus saving time when replacing lamps. The bowl cannot fall down, even in wind and rain.

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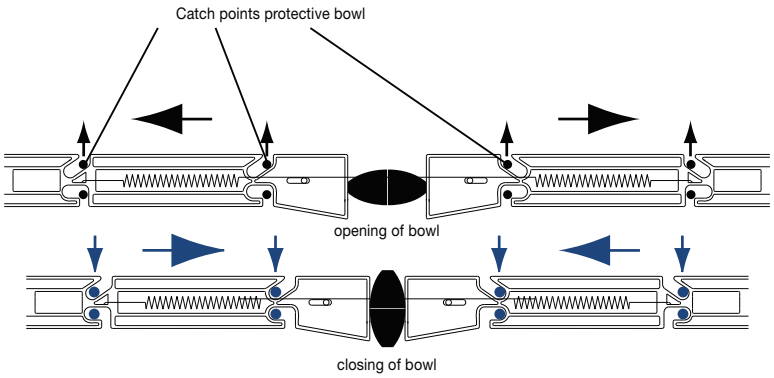

Closing system using the "strongbox principle" guarantees a correct sealing

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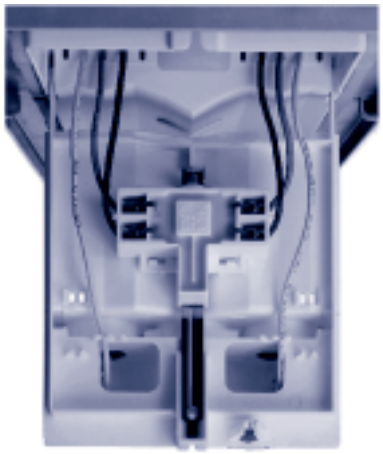
Locking mechanism

The housing and the protective bowl are securely locked by means of a locking mechanism according to the „strongbox principle" on both sides that features as many as 24 latch points . This new type of locking system features stainless steel springs that regulate the pressure applied to the seal, thus guaranteeing the tightness of the light fittings, even in the event of changes due to the ageing of the sealing material and variable climatic influences.



compulsory N/C contact safeguarded against contact

Double the safety is better

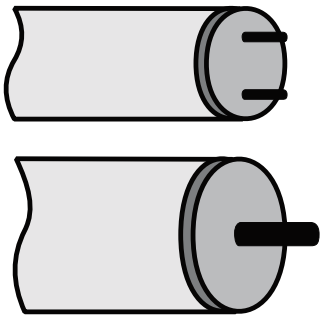
The regulations require the automatic disconnection of the supply voltage when the light fitting is opened.
The built-in compulsory NC contact is safeguarded against inadvertent operation and, as soon as the locking mechanism of the light fitting is operated, it de-energizes all parts that can be touched. A second interlock switch increases the safety level for the operator. Therefore, even if the lock of the light fitting is actuated while the protective bowl is still open, the switch cannot be operated, as, in this case, the circuit for the light fitting remains disconnected.

Lamps

All the light fittings in the eLLK 92/ nLLK 08 /eLLB 20 and RLF 250.. series have been developed and certified for Ø 26 mm bi-pin fluorescent lamps with a G 13 lamp cap in accordance with:

IEC 60081 – page 22/20 (18 W)
IEC 60081 – page 24/20 (36 W)
IEC 60081 – page 21/22 (58 W)

This means that the lamps, that are available all over the world, can be used for both hazardous and non-hazardous areas. Not only does this simplify stock-keeping, but the operator also benefits from all the technical advantages in conjunction with EVG operation. Compared to the old Ø 38 mm single-pin fluorescent lamps, the luminous power of the system is increased by a factor of 2.2. Special thermo-lamps with 38 mm diameter can be used in all bi-pin lamp holder of CEAG fluorescent light fittings. This allows an economical use of fluorescent lamps even below ambient temperatures of –5°C



International Ø 26 mm bi-pin fluorescent lamp and the old Ø 38 mm single-pin fluorescent lamp

Lighting engineering

Due to the various fields of application light fittings are equipped with a large variety of lamps and reflectors.
The criteria for the selection of the types of lamps and reflectors are basically determined by the type of lighting required (illumination of surfaces or objects, etc.) and the economic efficiency.
When planning a lighting installation, the polar curves of the luminous intensity of the light fittings being used are required in order to calculate the illumination distribution.

CEAG products are constanly being advanced and tested in the company's own lighting laboratory

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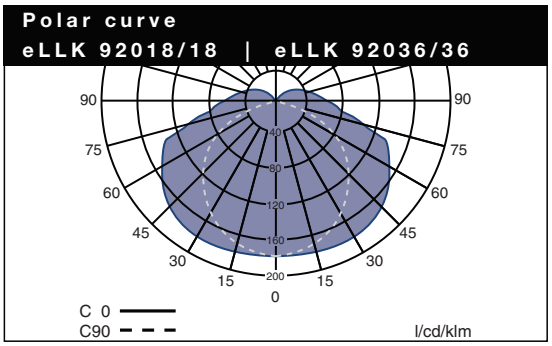
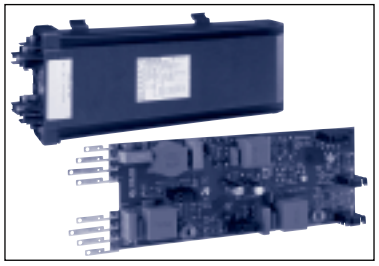


Polar curves

During the development phase the lighting properties of all explosion-protected light fittings are tested in the Cooper Crouse-Hinds GmbH lighting laboratory. In this way it is ensured that the reflectors, as well as the protective bowls for fluorescent light fittings are optimized down to the last detail. In the case of the light fittings eLLK 92.., nLLK 08.., eLLB 20 and RLF 250.. series of Cooper Crouse-Hinds GmbH has succeeded in optimizing both the illumination of surfaces with the largest possible light distribution and the illumination of objects with the highest possible axial light intensity. The polar curve of each light fitting can be found in the technical data and can be used together with the other lighting values to calculate the illuminance. All lighting design data can be downloaded from our Web page: www.ceag.de



Electronic ballasts (EVG)

Nowadays it is not possible to imagine modern light fittings for fluorescent lamps without the EVG technology. Features such as immediate starting, the absence of flickering during operation or the minimal heat rise are only possible with this technology. With the CEAG EVG technology, fluorescent light fittings for use in hazardous areas also provide decisive advantages:

- possibility of a lamp-sparing cold start
- use of bi-pin lamps, Ø 26 mm
- use with various mains voltages from 110 V up to 254 V ± 10 %
- Regulation of luminous flux with fluctuating mains voltage
- safe lamp ignition at low and high ambient temperatures
- longer service life for lamps
- AC/DC operation possible
- Standard dual channel ballast, that means on failure of one lamp the second lamp will continue in operation independent from the failed one.

EOL (END OF LIFE) – What is it?

As with all other lamps, the lifetime of every fluorescent lamp is limited. Users of all Ex fluorescent light fittings reported on some critical situations where, after being in operation for longer periods, they overheated or even caught fire. It is not possible to say for certain to what extent the EOL effects were the cause of this. At the request of the German Manufacturers Association the Phsyikalisch-Technische Bundesanstalt (PTB) in Braunschweig carried out an independent investigation of this phenomenon. The results of this latest investigation have been published and can be found on the Internet pages of the PTB.

Extract from this report:

„In the more recent past, luminaires used in conjunction with these fluorescent lamps have been found to fail as a result of local overheating of the lamp cap and the lamp socket. There are different kinds of faults that may have led to these failures. One possible explanation is the end-of-life effect (EOL) of the lamp, which will occur only in exceptional cases at the end of the lamp lifetime. It is for the time being not possible to reproduce this EOL effect in the laboratory in a conclusive manner, but it may be described as follows in qualitatively terms ...“

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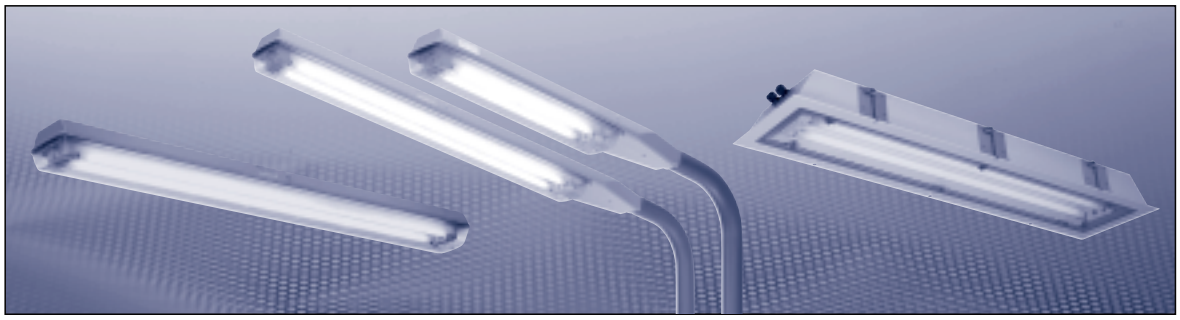

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The solution for Zone 1 applications – CEAG EVG 05

All the EVGs (electronic ballast's) supplied by CEAG since 1988 feature monitoring of the lamp circuit, detection of the rectifier effect, as well as a shutdown of the circuit in the event that the lamp does not strike. Therefore, the CEAG EVGs already ensured a high level of safety at the service life of the lamps long before the discussions on EOL ever started. The new CEAG EVG 05 also fulfils the relevant EOL requirements of the industrial standard IEC 61347-2-3 (§ 17.2 and 17.3), as well as those laid down in the latest draft of IEC 60079-7 Ed. 4 7/2006 (Electrical Apparatus in the type of protection Increased Safety), for luminaires for use in potentially explosive atmospheres Zone 1. Thus, the CEAG EVG 05, which is certified to: PTB 05 ATEX 2018 U, meets the latest findings and the newest standards.


Physikalisch-Technische Bundesanstalt

PTB

EG-Baumusterprüfbescheinigung

The advantages for you:

- Time-tested and reliable technology
- Latest lamp circuit monitoring as an additional safety factor
- Meets all requirements of the standard draft IEC 60079-7 for luminaires with fluorescent lamps in "Increased Safety" (EOL)
- EVG designed specially for rough operating conditions of Zone 1 – not just an encapsulated industrial EVG
- Thermally optimised circuitry for long service life, even in high ambient temperatures
- Wide input voltage range and DC operation for universal use
- Two separate lamp circuits (autarkic switching) provide more safety for your employees and installations
- Practically insensitive to network harmonics and over-voltage influences
- Isolation of one lamp circuit for use in emergency lighting installations (economic battery use)

Which protective circuits does the new EVG 05 have?

The standard DIN EN 61347-2-3 (VDE 0712-33), which was issued in February 2005, only stipulates a permanent monitoring of the lamp circuit for EOL effects for T4 and T5 lamps (16 mm and thinner). The draft version of the standard IEC 60079-7, which was derived from this standard, lays down the test requirements for Ex-e light fittings with cold start EVGs for T6 (26 mm) fluorescent lamps.
Unlike industrial luminaires with EVGs, Ex-e luminaires shall fulfil all of the relevant conditions of this standard.

The EVG 05 in practice: Explosion protected luminaires with trademark CEAG

All these functions are just one component in the extensive safety concept of the CEAG EVG 05. The use of high impact resistant plastic materials for the encapsulation in the type of protection EEx-de, as well as the additional unit fuses for the event that a fault occurs rounds off the whole package.

The new CEAG EVG 05 will become standard for our fluorescent light fittings series:
eLLK 92 .../.. , eLLM 92 .../.... NIB
as well as fort he recessed ceiling luminaires eLLB 20... and RLF 250...

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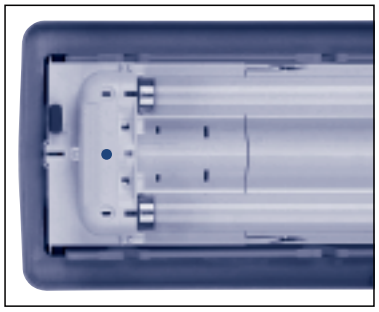
EVG-Capsulation

Robust technology for extreme applications

The operation of explosion-protected light fittings places high requirements on the reliability and durability of the circuits being used. In addition to temperature, moisture and mechanical stress, mains contamination or voltage peaks can affect the light fittings. Here the EVGs specially developed by Cooper Crouse-Hinds GmbH provide safe protection against harmful influences. Whereas conventional industrial EVGs are designed for an ambient temperature of the light fittings of up to + 30°C, the CEAG EVGs are designed for an ambient temperature of + 50°C. The large-scale printed wiring board layouts ensure an even heat distribution, through-connections and encapsulation of sensitive components provide mechanical protection. A hermetically sealed enclosure provides protection against undesirable substances that could cause damage to the PCB.



EVG 05

Direct or alternating voltage?

Conventional ballasts only work with an alternating voltage and can only be used with group or central battery installations under certain conditions. Cooper Crouse-Hinds GmbH, as the leading manufacturer of emergency lighting installations, offers an explosion-protected ballast that can be operated with alternating and direct voltages.

Quality cannot be left to chance

Extensive testing and a highly automated production process are necessary to ensure a constant good quality. Cooper Crouse-Hinds GmbH has been manufacturing EVGs for more than 25 years and has the necessary know-how. In addition to the routine verifications and tests carried out on all apparatus, stress tests are carried out on individual batches to ensure safe findings with regard to component specifications.

Computer-aided final inspections

The uncompromising safety of the explosion-protected eLLK 92 light fittings is maintained throughout the various production stages and includes the final inspection. Each light fitting is tested in detail by a computer test program. All data relating to the manufacture and safety is stored and can still be called up years later. This is where the Cooper Crouse-Hinds GmbH quality assurance system, that is certified to ISO 9001:2000, clearly makes it mark.

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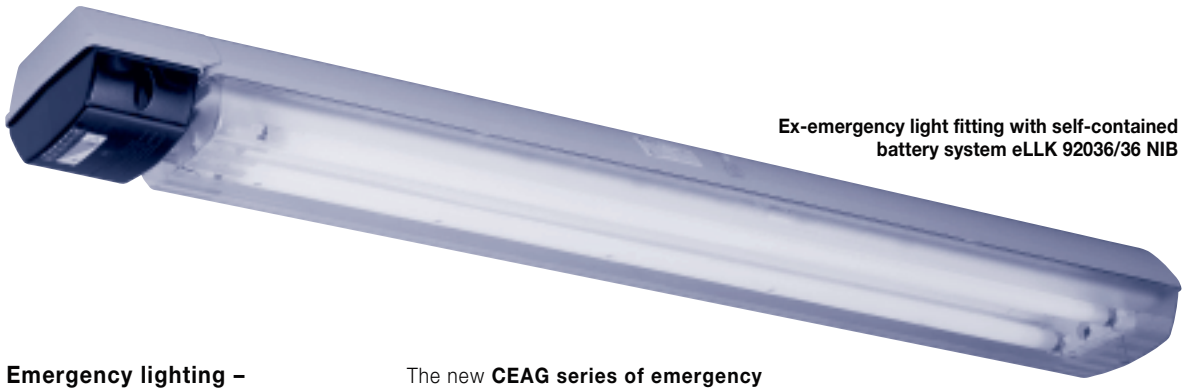

Ex-emergency light fitting with self-contained battery system eLLK 92036/36 NIB

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Emergency lighting – central or decentral

Appertaining to Emergency Lighting in hazardous explosive areas, their are two general philosophies. That of the supply assurance, the test and maintanance effort and that of the economic efficiency.

Emergency light fittings with a self-contained battery system

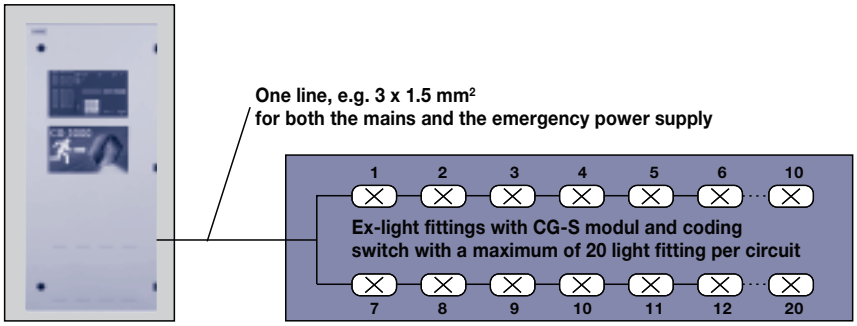
Emergency light fittings with self-contained battery systems provide the required Emergency lighting decentral, independant from central systems. That means the battery, the charger and the electronics are integrated in the light fitting. Taking the availability and the redundance into consideration, this system has with respect to the supply assurance in safety-engineering sensible areas a very high standard. Taking the economic efficiency into consideration, the required effort of testing, maintance and the environmental effect on the battery life span of eachself-contained battery system has to be taken into account. Taking the above into consideration it is without reason the best solution when emergency light fittings with a self-contained battery system are used in large and spacious explosion hazardous areas where the number of fittings to be used is limited.

The new **CEAG series of emergency light fittings with self-contained battery systems eLLK 92 NIB, eLLB 20... NIB** have all the necessary self-control features needed and does the required functionality and operating time tests automatically. Hereby the battery lifespan is optimized.

Centrally controlled emergency lighting systems with CG-Modules

A centrally controlled emergency light system using the CEAG group supply and a central battery system is installed when a large number of emergency lights are conglomerated and can be used as a system emergency lighting. These battery systems are generally, not installed in the hazardous areas and therefore do not have to cope with the same environmental conditons as the light fittings themselves. This usually results in an extended life span of the batteries with a minimized maintanance effort. One must of course take into consideration that the cable laying from the central battery to each light fitting in the hazardous areas affords an increased effort.

CEAG emergency lighting supply unit for non-hazardous areas



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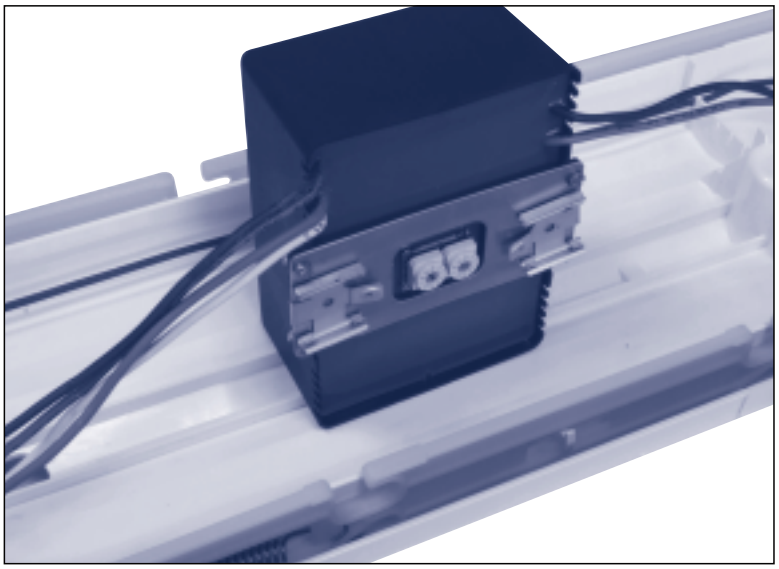

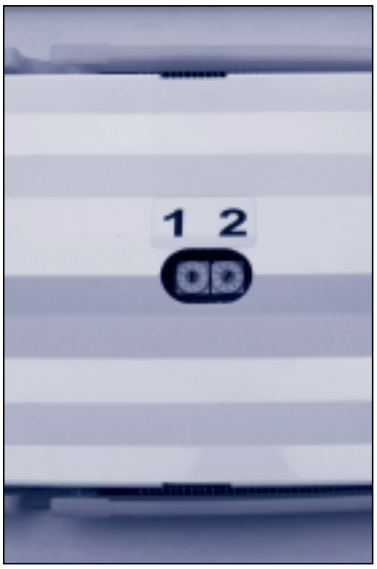

To be able to run on the CEAG emergency light fittings system we can provide the following light fitting series eLLK 92, nLLK 08 and eLLB 20 versions with **"CG-S Modules"**. This controlling module controls amongst other things the data exchange between the main emergency light apparatus and the individual light fittings per power supply cable and reports all functional errors.

In conjunction with the CG-S Modules, it is now possible to connect individually monitored emergency light fittings to a CEAG emergency lighting installation with monitoring system. Here it is now possible to integrate explosion-protected light fittings as system light fittings into the practical monitoring system of CEAG group or central battery installations.

This combination offers the following advantages:

- Automatic performance of the necessary function test with central record-keeping
- Enormous cost savings as manual testing is no longer necessary
- Two-lamp operation with mains supply, single lamp operation with emergency power supply, therefore cost saving for batteries and apparatus
- High degree of safety of emergency lighting due to constant display of availability
- Simplified installation:
  - mains and emergency power supply have a common connection
  - a separate data line is not required
  - a maximum of 20 light fittings can be connected to one circuit
  - automatic performance of the necessary function tests with central record-keeping

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E X - L I G H T F I T T I N G S

eLLK 92... 18 W - 58 W
All plastic design for Zone 1 and 21

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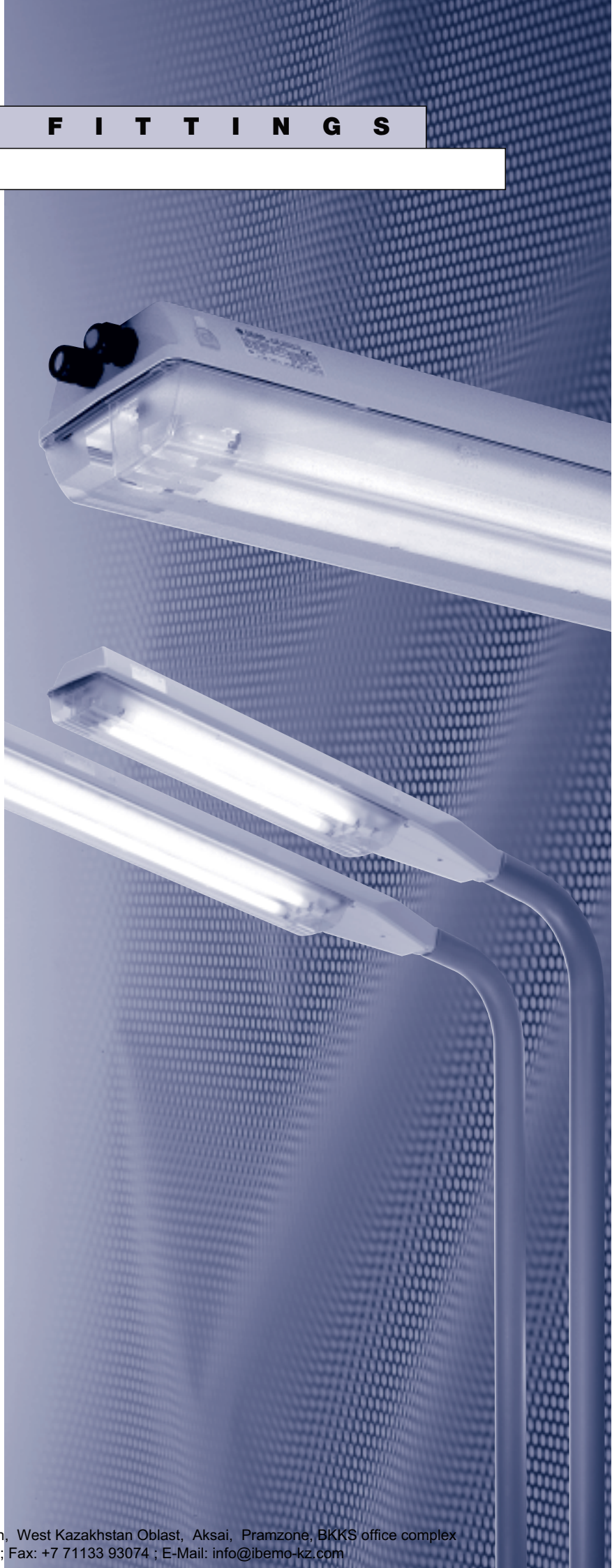
The eLLK 92 Ex-protected light fittings for bi-pin fluorescent lamps are fitted with an electronic ballast and conform to the ATEX Directive 94/9/EG. The modern economical ballast EVG 05 according to the latest standards (IEC 60079-7: 2006) allows a safe and economical operation of bi-pin fluorescent lamps G13 according to IEC 60081. Lamps reaching its end of life will be monitored and securely switched off (EOL-effect). The high input voltage range allows international use. Due to the standard dual channel architecture (with double lamp fittings) if one fluorescent lamp fails, the other fluorescent lamp will independently stay in operation. The standard single-sided through-wiring in connection with the variety of possibilities offers a cost efficient installation. Double-sided lock with 10, 20 or 24 latch points allows the protective bowl to be hingeable on both sides meaning the fitting can be mounted without having to pay attention to which side is the right side. Automatic switch built as a safety disconnector according to EN 60947 (IEC 664) with an automatic switch ensuring the disconnection of all exposed components when the fitting is opened. The optional CG-S module represents an optimum solution for the individual monitoring of light fittings connected to CEAG emergency battery systems.



- **Standard dual channel ballast**
- **Double-sided safety lock**
- **Safety locking system due to an integrated forced isolating switch**
- **Safety standard IP66**
- **Connection to CEAG emergency light monitoring systems possible**
- **International Approvals**

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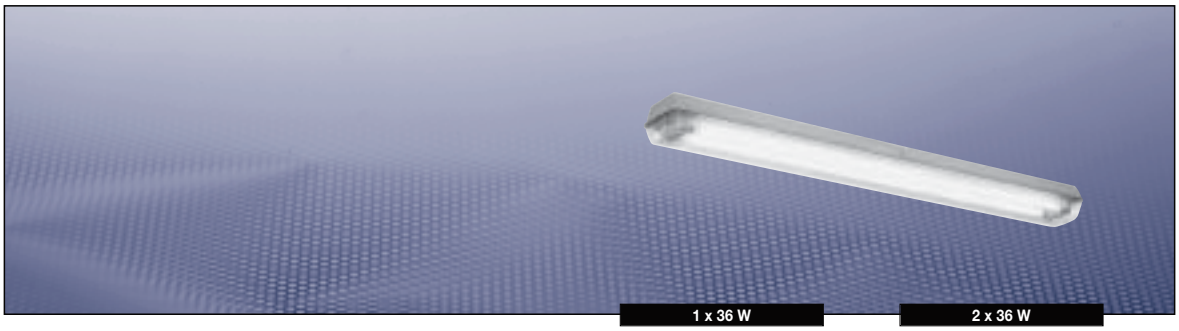

Technical data

eLLK 92018/18 | eLLK 92036 / eLLK 92036/36 | eLLK 92058 / eLLK 92058/58	
Marking to 94/9/EC	Ex II 2 G EEx ed IIC T4 / EEx edm ib IIC T4 (CG-S variant) Ex II 2 D IP66 T80 °C
EC-Type Examination Certificate	PTB 96 ATEX 2144
IECEx-Certificate of Conformity	PTB-04.0001
Marking to IECEx	Ex edm ib IIC T4 Ex DIP A21 IP66 TA 80 °C
Frequency	50 - 60 Hz
Power factor cos φ	≥ 0.95
Circuit	EVG resp. EVG/CG-S
Connecting terminals	L1, L2, L3, L, N, PE; max. 2 x 6 mm² single wire per terminal
Insulation class	I
Lamp cap	G13 accd. to IEC 60081
Degree of protection accd. EN 60529	IP66
Cable glands/gland plates/enclosure entry holes	EEx-e cable glands M25 x 1.5 (plastic) for cables from Ø 8 - 17 mm, Option: M20 x 1.5 metal thread
Enclosure material	Glass-fibre reinforced polyester
Protective cover/protective bowl	Polycarbonate

	eLLK 92018/18	eLLK 92036	eLLK 92036/36
Permissible ambient temperature	-25 °C to +50 °C	-25 °C to +50 °C	-25 °C to +50 °C
Rated voltage	110 - 254 V AC / 195 - 250 V DC	110 - 254 V AC / 110 - 250 V DC	110 - 254 V AC / 110 - 250 V DC
Rated voltage (optional)	110 - 254 V AC / 110 - 127 V DC		
Rated voltage CG-S[1)]	220 - 254 V AC / 195 - 250 V DC	220 - 254 V AC / 195 - 250 V DC	220 - 254 V AC / 195 - 250 V DC
Rated current	0.18 A 0.19 A (CG-S variant)	0.18 A	0.34 A 0.35 A (CG-S variant)
Lamp/illuminant	2 x T26 / 18 W (T8)	1 x T26 / 36 W (T8)	2 x T26 / 36 W (T8)
Rated luminous flux[1)]	2700 lm	3350 lm	6700 lm
Light efficiency in operation	78 %	86 %	78 %
Dimensions (L x W x H)	760 x 188 x 130 mm	1460 x 280 x 120 mm	1460 x 430 x 120 mm
Weight	approx. 4.6 kg / approx. 5.3 kg (CG-S variant)	approx. 6.2 kg	approx. 6.7 kg / approx. 7.2 kg (CG-S variant)

eLLK 92058	eLLK 92058/58	
Permissible ambient temperature	-25 °C to +50 °C	-25 °C to +40 °C
Rated voltage	110 - 254 V AC / 110 - 250 V DC	220 - 254 V AC / 195 - 250 V DC
Rated voltage CG-S[1)]	220 - 254 V AC / 195 - 250 V DC	220 - 254 V AC / 195 - 250 V DC
Rated current	0.27 A	0.53 A / 0.54 A (CG-S variant)
Lamp/illuminant	1 x T26 / 58 W (T8)	2 x T26 / 58 W (T8)
Rated luminous flux[1)]	5200 lm	10400 lm
Light efficiency in operation	83 %	72 %
Dimensions (L x W x H)	1760 x 280 x 120 mm	1760 x 280 x 120 mm
Weight	approx. 8 kg	approx. 8.5 kg / approx. 9.0 kg (CG-S variant)

[1)] depends on used lamps

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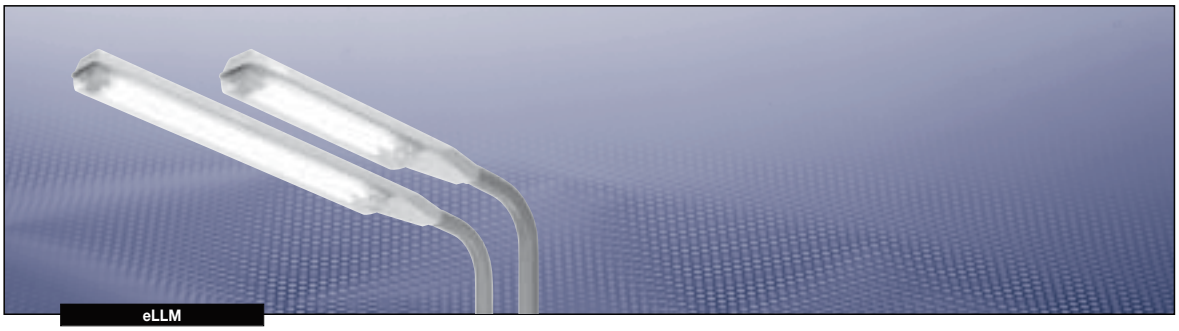

Technical data

eLLM 92018/18 | eLLM 92036/36	
Marking to 94/9/EC	Ex II 2 G EEx ed IIC T4 / Ex II 2 D IP66 T80 °C
EC-Type Examination Certificate	PTB 96 ATEX 2144
IECEx-Certificate of Conformity	IECEx PTB-04.0001
Marking to IECEx	Ex edm ib IIC T4
	Ex DIP A21 IP66 TA 80 °C
Frequency	50 - 60 Hz
Power factor cos φ	≥ 0.95
Circuit	EVG
Connecting terminals	L1, N, PE; max. 2 x 6 mm² single wire per terminal
Insulation class	I
Lamp cap	G13 accd. to IEC 60081
Degree of protection accd. EN 60529	IP66
Cable glands/gland plates/enclosure entry holes	EEx-e cable glands M25 x 1.5 (plastic) for cables from Ø 8 - 17 mm
Enclosure material	Glass-fibre reinforced polyester
Protective cover/protective bowl	Polycarbonate

	eLLM 92018/18	eLLM 92036/36
Permissible ambient temperature	-25 °C to +50 °C	-25 °C to +50 °C
Rated voltage	110 - 254 V AC / 196 - 230 V DC	110 - 254 C AC / 110 - 230 V DC
Rated voltage (option)	110 - 127 C AC/DC	
Rated current	0.18 A	0.34 A
Lamp/illuminant	2 x T26 / 18 W (T8)	2 x T26 / 36 W (T8)
Rated luminous flux[1)]	2700 lm	6700 lm
Light efficiency in operation	78 %	78 %
Dimensions (L x W x H)	1060 x 188 x 130 mm	1660 x 188 x 130 mm
Pole socket	Ø 44 mm x 150 mm	Ø 44 mm x 150 mm
Weight	approx. 6.7 kg	approx. 9.1 kg

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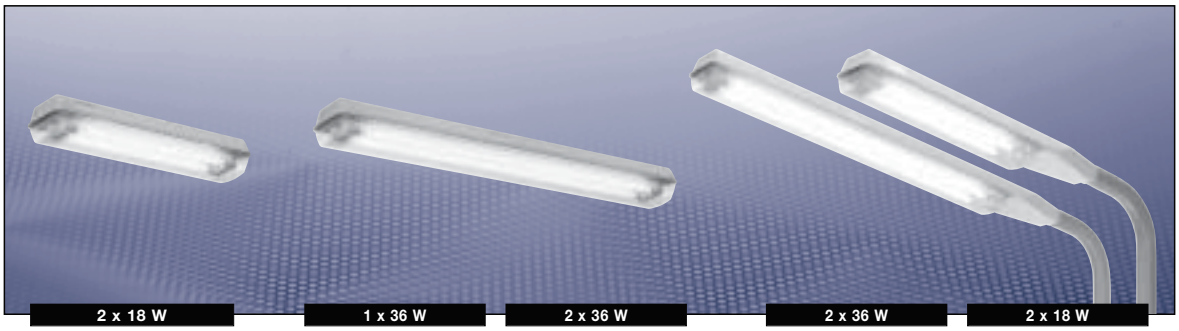

Ordering details

Type	Connecting terminals	Through-wiring single-ended	Through-wiring double-ended	Cable glands[3]	Plugs	Order No.
eLLK 92018/18 (2 x 18 W)						
1/6-1	1 x 6	x	–	2 x M25 x 1.5	1 x blanking	**1 2265 875 101**
2/6-2	2 x 6	–	x	2 x M25 x 1.5	2 x threaded	**1 2265 875 103**
1/6-1 M[1]	1 x 6	x	–	2 x M20 x 1.5	1 x threaded	**1 2265 875 109**
2/6-2 M[1]	2 x 6	–	x	4 x M20 x 1.5	2 x threaded	**1 2265 875 111**
eLLK 92018/18 (2 x 18 W)						
Level gauge P2	1 x 6	x	–	2 x M25 x 1.5	1 x blanking	**1 2265 875 126**
eLLK 92018/18 CG-S[2] (2 x 18 W)						
2/6-2	2 x 6	–	x	2 x M25 x 1.5	2 x threaded	**1 2265 881 103**
2/6-2M[1]	2 x 6	–	x	4 x M20 x 1.5	2 x threaded	**1 2265 881 211**
eLLM 92018/18 (2 x 18 W)						
1/6-1	1 x 3	–	–	1 x M25 x 1.5		**1 2268 875 101**
eLLK 92036 (1 x 36 W)						
1/6-1	1 x 6	x	–	2 x M25 x 1.5	1 x blanking	**1 2263 875 101**
2/6-2	2 x 6	–	x	2 x M25 x 1.5	2 x threaded	**1 2263 875 103**
eLLK 92036 (1 x 36 W)						
Level gauge P3 1/6-1	1 x 6	x	–	2 x M25 x 1.5	1 x blanking	**1 2263 875 125**
eLLK 92036/36 (2 x 36 W)						
1/6-1	1 x 6	x	–	2 x M25 x 1.5	1 x blanking	**1 2266 875 101**
2/6-2	2 x 6	–	x	2 x M25 x 1.5	2 x threaded	**1 2266 875 103**
1/6-1 M[1]	1 x 6	x	–	2 x M20 x 1.5	1 x threaded	**1 2266 875 109**
2/6-2 M[1]	2 x 6	–	x	4 x M20 x 1.5	2 x threaded	**1 2266 875 111**
eLLK 92036/36 CG-S[2] (2 x 36 W)						
2/6-2	2 x 6	–	x	2 x M25 x 1.5	2 x threaded	**1 2266 881 103**
2/6-2M[1]	2 x 6	–	x	4 x M20 x 1.5	2 x threaded	**1 2266 881 211**
eLLM 92036/36 (2 x 36 W)						
1/6-1	1 x 3	–	–	1 x M25 x 1.5		**1 2269 875 101**
eLLK 92058 (1 x 58 W)						
1/6-1	1 x 6	x	–	2 x M25 x 1.5	1 x blanking	**1 2264 875 101**
2/6-2	2 x 6	–	x	2 x M25 x 1.5	2 x threaded	**1 2264 875 103**
2/6-2 M[1]	2 x 6	–	x	4 x M20 x 1.5	2 x threaded	**1 2264 875 111**
eLLK 92058/58 (2 x 58 W)						
1/6-1	1 x 6	x	–	2 x M25 x 1.5	1 x blanking	**1 2267 875 101**
2/6-2	2 x 6	–	x	2 x M25 x 1.5	2 x threaded	**1 2267 875 103**
2/6-2 M[1]	2 x 6	–	x	4 x M20 x 1.5	2 x threaded	**1 2267 875 111**
eLLK 92058/58 CG-S[2] (2 x 58 W)						
2/6-2	2 x 6	–	x	2 x M25 x 1.5	2 x threaded	**1 2267 881 103**
2/6-2 M[1]	2 x 6	–	x	4 x M20 x 1.5	2 x threaded	**1 2267 881 211**

[1] M: with metal thread, without cable gland
[2] CG-S: design single monitored emergency light fitting for use in CEAG emergency light supply unit
[3] With dustcover if entry/thread is not closed
Scope of delivery without lamp and fixing accessories.

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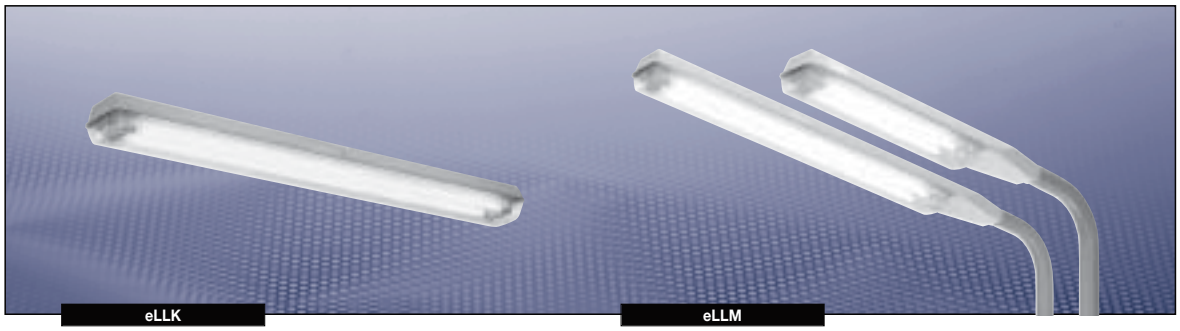

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Accessories

Lamp for luminaire eLLK92/eLLM92

Type of lamp socket/ diameter	Power	Luminous flux light colour	Order No.
T26/Ø 26 mm (T8) G13-IEC-60081-Bl. 22/20 Bi-pin socket G13	18 W	1350 lm universal white	**3 2475 900 081**
T26/Ø 26 mm (T8) G13-IEC-60081-Bl. 24/20 Bi-pin socket G13	36 W	3350 lm universal white	**3 2475 900 082**
T26/Ø 26 mm (T8) G13-IEC-60081-Bl. 21/22 Bi-pin socket G13	58 W	5200 lm universal white	**3 2475 900 083**
T26/Ø 26 mm (T8) Longlife G13-socket Aura-Ultimate	18 W	1300 lm universal white	**3 2475 900 087**
	36 W	3350 lm universal white	**3 2475 900 088**
	58 W	5200 lm universal white	**on request**
T-HS 26/Ø 26 mm[1)] Single pin cap Fa6 Aura Super Ex	18 W	1150 lm universal white	**3 2475 900 084**
	36 W	3000 lm universal white	**3 2475 900 085**
	58 W	4800 lm universal white	**on request**

Series eLLK 92... and eLLM 92...

Type	Order No.
Hexagon screw SW 13	**3 2485 000 005**

Series eLLM 92018/18 and eLLM 92036/36

Type	Order No.
Single sided through wiring 2/6 with 2 entries M25, incl. terminals and mounting material	**2 2218 602 000**

Fixing materials eLLK 92

Type/code	Corrosion protection	Qty. per light fitting	Order No.
Eye bolt A2	galvanized	2	**2 2480 002 000**
Hexagon screw S4	stainless steel	2	**2 2480 054 000**
Ceiling mounting bracket D92 incl. screws and washer	stainless steel	2	**2 2480 092 000**

Fixing materials

Type/code	Corrosion protection	for pipes DIN	Outer Ø D (mm)	Qty. per light fitting	Order No.
Pipe clamp					
R12	hot galvanized	1¼"	38 - 42	2	**2 2480 462 000**
R14	CrNi	1¼"	38 - 42	2	**2 2480 464 000**
R22	hot galvanized	1½"	47 - 51	2	**2 2480 472 000**
R24	CrNi	1½"	47 - 51	2	**2 2480 474 000**
R32	hot galvanized	2"	56 - 60	2	**2 2480 482 000**
R34	CrNi	2"	56 - 60	2	**2 2480 484 000**
Wall bracket W27	hot galvanized		42.4	1	**2 2483 027 000**
Luminaire wall suspension 30° incl. screws and washer	hot galvanized			2	**2 2480 000 122**

[1)] For luminaires eLLK 923../.. and eLLM 923../.. with single pin caps Fa6

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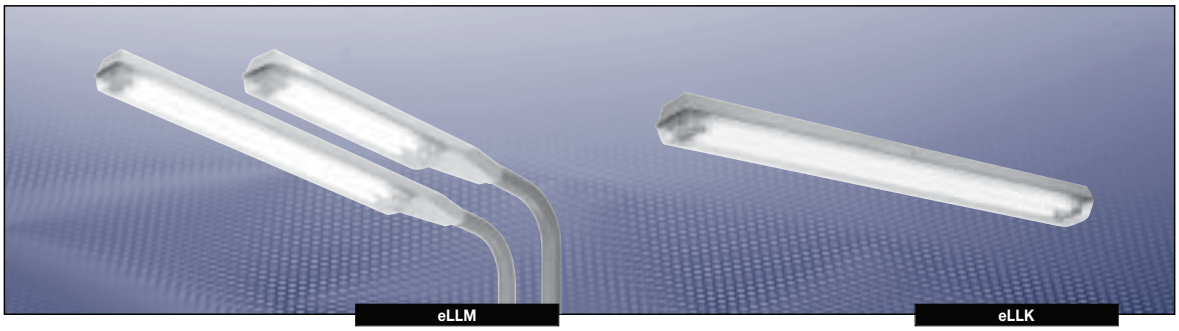
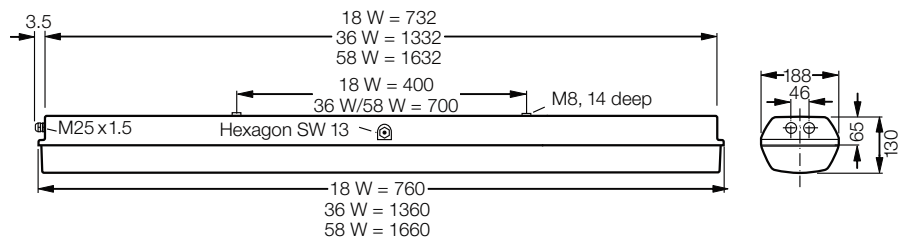
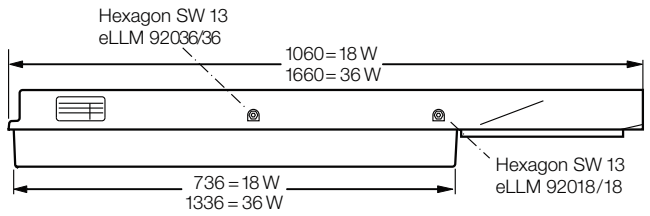


Dimension drawing | Polar curve | Accessories



eLLK 92018/18 / eLLK 92036 / eLLK 92036/36 / eLLK 92058 / eLLK 92058/58



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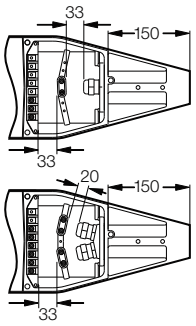
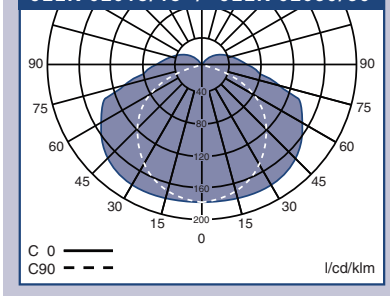
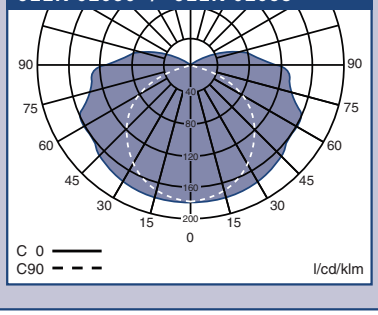


eLLM 92...

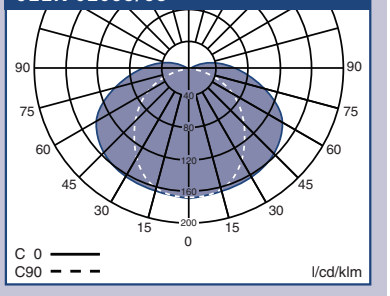
Polar curve eLLK 92018/18 / eLLK 92036/36

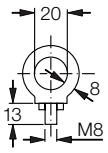


Polar curve eLLK 92036 / eLLK 92058

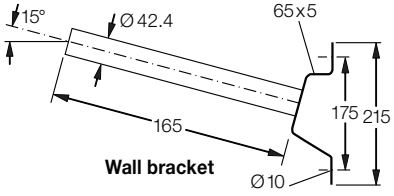


Polar curve eLLK 92058/58

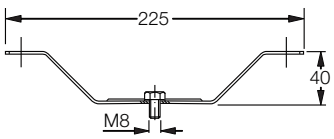


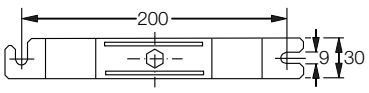


Eye bolt

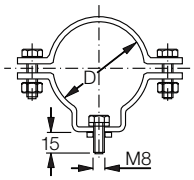


Wall bracket

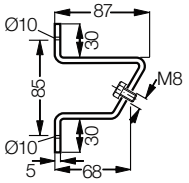




Ceiling mounting bracket D92



Pipe clamp



Luminaire wall suspension 30°

Dimensions in mm

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EX-EMERGENCY LIGHT FITTINGS

eLLK 92... NIB/eLLM 92... NIB 18 W - 36 W
All-plastic for Zone 1 and 21

The new Ex-emergency light fittings with self-contained battery unit, types eLLK 92... NIB, for bi-pin fluorescent lamps are fitted with an electronic ballast (EVG). They meet the requirements of ATEX Directive 94/9/EC. The electronic ballast EVG 05, according to the newest standard (IEC 60079-7:2006) enables the safe and economic use of G13 bi-pin lamps acc. to IEC 60081. Lamps are monitored and safety shut down at the event that the lamp does not strike. Due to a new charging and monitoring technology with intelligent microelectronics, they provide reliable safety and reduced maintenance costs. A function test lasting 5 minutes, that is carried out automatically on a weekly basis, even during mains operation, and a quarterly partial duty-cycle test provide additional safety and drastically reduce the necessaary amount of manual tests. The charging and discharging funtions are monitored constantly by the micro-processor and are indicated via a diode display. Only the spent energy is recharged – therefore, overcharging is not possible. The so-called memory effect cannot occur – the service life of the battery is optimized. The need to replace a battery, a fault in the emergency lighting circuit or a faulty battery is indicated by the LED display. Due to a new type of battery connection, the battery can be replaced in the hazardous area. The emergency lighting cycle can be set locally for 1.5 or 3 hours. A remote switch inquiry is standard.

- **Two-channel EVG with EOL monitoring as standard**
- **Automatic weekly 5 minute function test**
- **Automatic quarterly partial duty cycle test**
- **Fault indication by flashing red LED with reset after fault elimination**
- **Monitoring of battery cells with fault indication**
- **Capacity-dependant charging: indication of charged capacity and remaining operating time by 5 green LEDs**
- **Easy replacement of battery, even in Ex-area**
- **International approvals**

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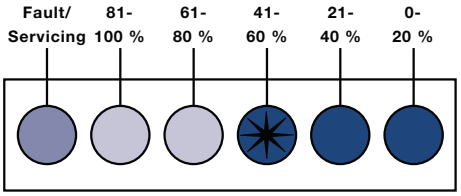
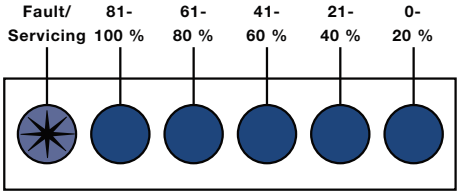
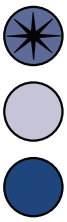


Capacity larger than 40 %, Charging (flashing), no faults



Capacity 100 %, Charging, Fault after Function or duty cycle

LED:



= flashing

= off

= on

Emergency light fittings with self-contained battery systems

Emergency light fittings with self-contained battery systems provide the required emergency lighting from a de-centralized source and function inde-pendent of the central system. These light fittings are particularly economical when used in extensive plants. Until now, compared to the centrally opera-ted and monitored installations, the disadvantage of the emergency light fittings with self-contained battery systems was that they do not supply any information on the state of the light fittings. With the introduction of the eLLK 92 .... NIB, Cooper Crouse-Hinds GmbH has now incorporated monito-ring. Five LEDs supply constant infor-mation on the charging state, and the available battery capacity.

Monitoring functions NIB

A novelty is the enlarged self-monito-ring function with automatic function and duration tests. For further safety, all battery cells are permanently moni-tored. In the event of a fault, the red LED lights up. Then the battery must be changed. Resetting is not possible for safety reasons.
Guarded by a lens, the 5 green LEDs cotinuously indicate the charging state and the battery capacity. Charging is indicated by flashing green LEDs. The loaded capacity is shown in 20 % steps. An automatic 5 minute function test is carried out on a weekly basis. Thereby, the electronics of the emergency lamp switches from mains to emergency operation, while the mains lamp stays in normal operation. The battery capacity and also the converter- and lamp-function is being tested and possible faults are shown by a flashing red LED. After removing the fault (p.e. by lamp change) and a new function test the fault indication resets auto-matically.

A partial duty cycle-test (35 min.) is initiated automatically after approx. 3 months. If the min. operation time of 30 minutes is not reached, this is indicated by a flashing red LED. When the cause of the fault has been elimina-ted, the fault indication is reset during the next emergency lighting operation (manual or automatic) when the minimum operating time of approx. 30 minutes has been reached.

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Handling

The battery is installed in a separate, certified housing.
There are up to 7 Ex-d connectors for the data transfer between the battery unit and the luminaire. Therefore, a battery change is also possible in hazardous areas – at any time. If the luminaire is closed all contacts are safely closed (Fig. 1).

After opening

After loosening the screw plug the battery can be taken away. Thereby the Ex-d switching contact first is cutoff and disconnect the battery circuit (Fig. 2).
So the battery can be completely cut off from the charging circuit of the luminaire (Fig. 2a).
A battery change in hazardous areas can be done at every time. A detachable strap protects the insert from being dropped inadvertenly (Fig. 3).

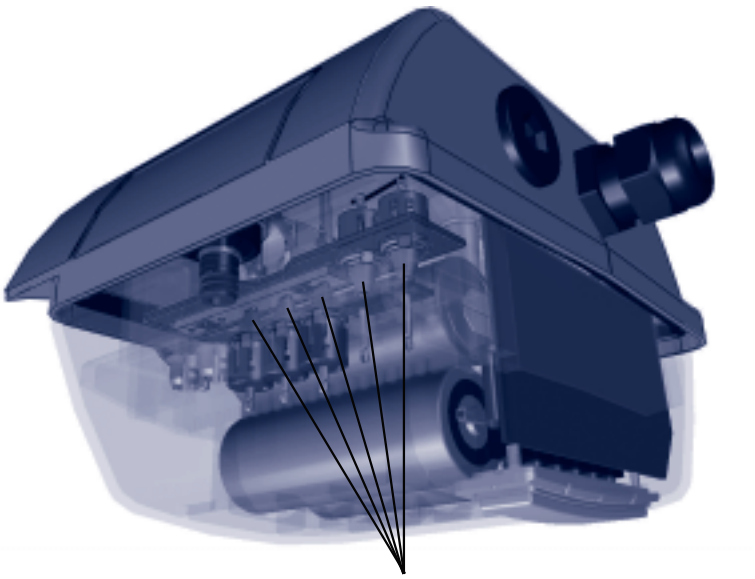

Fig. 1: Ex-d Contact pins

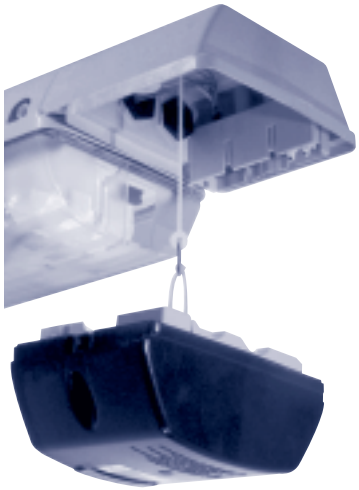

Fig. 3

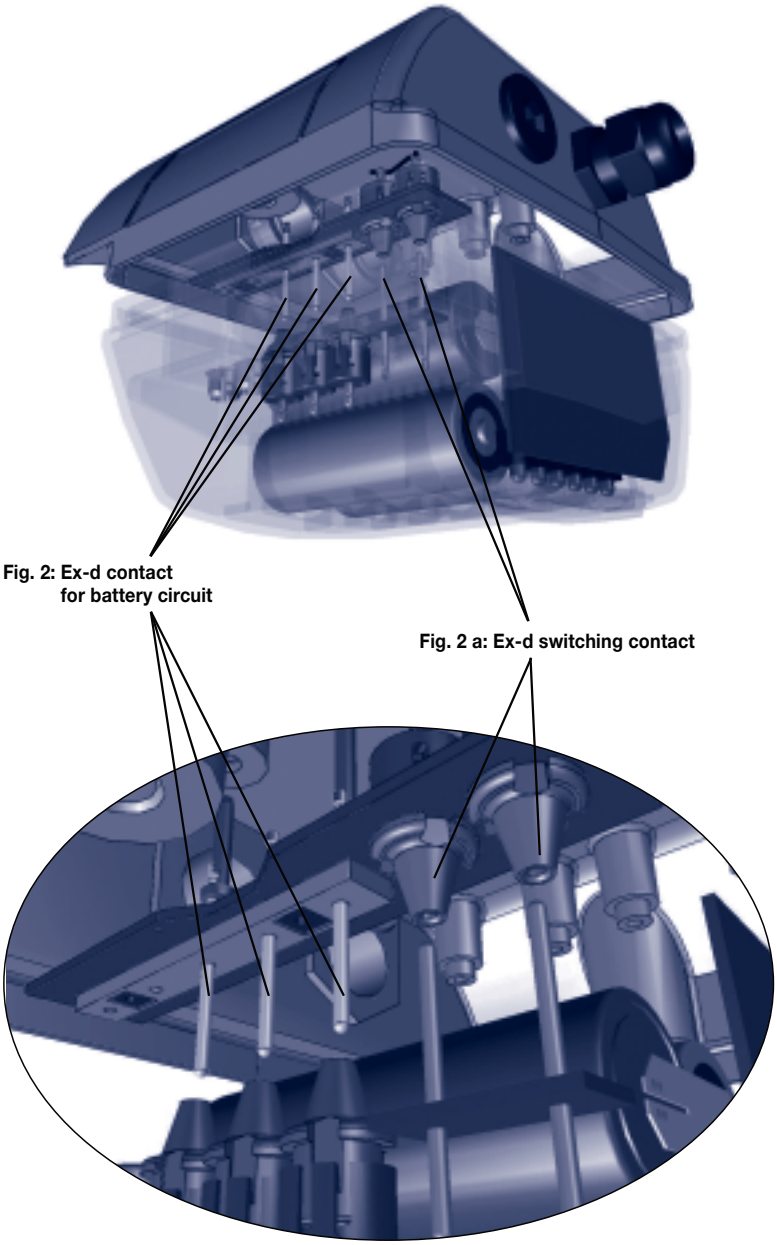

Fig. 2: Ex-d contact for battery circuit

Fig. 2 a: Ex-d switching contact

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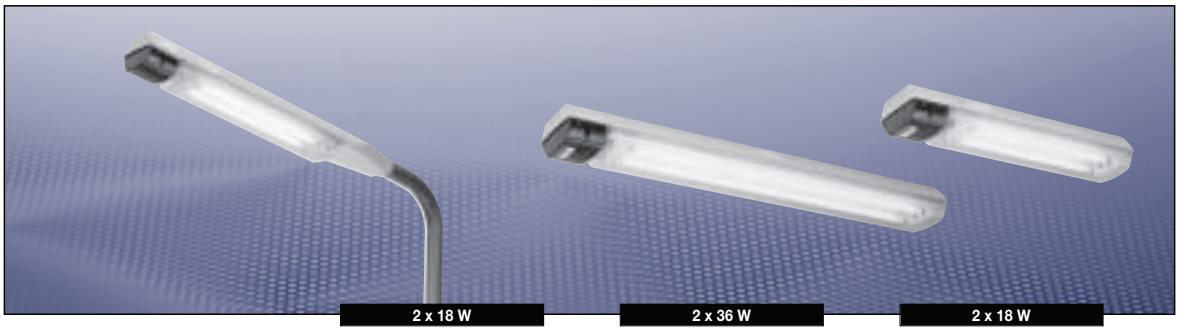

Technical data

eLLK 92018/18 NIB | eLLK 92036/36 NIB | eLLM 92018/18 NIB	
Marking to 94/9/EC	Ex II 2 G EEx edm ib IIC T4 / Ex II 2 D IP66 T80 °C
EC-Type Examination Certificate	PTB 96 ATEX 2144
IECEx-Certificate of Conformity	IECEx PTB-04.0001
Marking to IECEx	Ex edm ib IIC T4 Ex DIP A21 IP66 TA 80 °C
Permissible ambient temperature	-20 °C to +50 °C (apecified data: -5 °C to +35 °C)
Rated voltage	220 - 254 V AC
Rated voltage (option)	110 - 127 V AC
Frequency	50 - 60 Hz
Power factor cos φ	≥ 0.95
Circuit	EVG with emergency lighting supply
Insulation class	I
Lamp cap	G13 accd. to IEC 60081
Light efficiency in operation	78 %
Battery	Battery set with 7 Ah-NC battery, with LED display and monitoring via microprocessor
Rated emergency lighting operation	1-lamps can be set on site for an emergency lighting duration of 1.5 or 3 hours
Charging duration	> 14 h
Degree of protection accd. EN 60529	IP66
Cable glands/gland plates/enclosure drilling	EEx-e cable glands M25 x 1.5 (plastic) for cables from Ø 8 - 17 mm, Option: M20 x 1.5 metal thread (eLLK 92 NIB)
Enclosure material	Glass-fibre reinforced polyester
Protective cover/protective bowl	Polycarbonate

	eLLK 92018/18 NIB	eLLK 92036/36 NIB	eLLM 92018/18 NIB
Rated current	0.23 A	0.40 A	0.23 A
Connecting terminals	L1, L2, L3, L, N, PE; max. 2 x 6 mm² single wire per terminal	L1, L2, L3, L, N, PE; max. 2 x 6 mm² single wire per terminal	L1, L2, L3, L, N, PE; max. 2 x 6 mm² single wire per terminal
Lamp/illuminant	2 x T26 / 18 W (T8)	2 x T26 / 36 W (T8)	2 x T26 / 18 W (T8)
Rated luminous flux[1)]	2700 lm	6700 lm	2700 lm
Luminous flux in emergency operation (1.5 h, one lamp)[1)]	1215 lm (90 %)	1507 lm (45 %)	1215 lm (90 %)
Luminous flux in emergency operation (3 h, one lamp)[1)]	607 lm (45 %)	873 lm (25 %)	607 lm (45 %)
Dimensions (L x W x H)	900 x 130 x 188 mm	1500 x 130 x 188 mm	1205 x 130 x 188 mm
Pole socket			Ø 44 x 150 mm
Weight	approx. 10 kg	approx. 12 kg	approx. 12.4 kg

[1)] depends on used lamps

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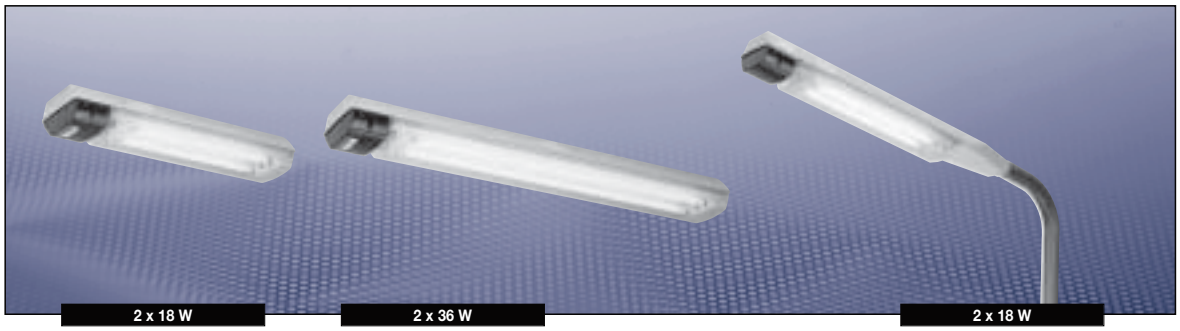

Ordering details

Type	Connecting terminals	Through-wiring single-ended	Through-wiring double-ended	Cable glands[3]	Plugs	Order No.
eLLK 92018/18 NIB[1] (2 x 18 W)						
1/6-1	1 x 6	x	–	2 x M25 x 1.5	1 x blanking	**1 2260 879 101**
2/6-2	2 x 6	–	x	2 x M25 x 1.5	2 x threaded	**1 2260 879 103**
2/6-2 M[2]	2 x 6	–	x	4 x M20 x 1.5	3 x threaded	**1 2260 879 111**
eLLK 92036/36 NIB[1] (2 x 36 W)						
1/6-1	1 x 6	x	–	2 x M25 x 1.5	1 x blanking	**1 2261 879 101**
2/6-2	2 x 6	–	x	2 x M25 x 1.5	2 x threaded	**1 2261 879 103**
2/6-2 M[2]	2 x 6	–	x	4 x M20 x 1.5	3 x threaded	**1 2261 879 111**
eLLM 92018/18 NIB[1] (2 x 18 W)						
2/6-1	1 x 8	x	–	1 x M25	–	**1 2273 879 101**

[1] Version: 220-254 V, optional: 110-127 V

[2] M: with metal thread, without cable gland

[3] With dustcover if entry/thread is not closed

Scope of delivery without lamp and fixing accessoires

Accessories

Lamp for luminaire eLLK92... NIB/eLLM92... NIB

Type of lamp socket/ Diameter	Power	Luminous flux Light colour	Order No.
T26/Ø 26 mm (T8) G13-IEC-60081-Bl. 22/20 Bi-pin socket G13	18 W	1350 lm universal white	**3 2475 900 081**
T26/Ø 26 mm (T8) G13-IEC-60081-Bl. 24/20 Bi-pin socket G13	36 W	3350 lm universal white	**3 2475 900 082**
T26/Ø 26 mm (T8) Longlife Socket G13 Aura-Ultimate	18 W 36 W 58 W	1300 lm universal white 3350 lm universal white 5200 lm universal white	**3 2475 900 087** **3 2475 900 088** **on request**
T-HS 26/Ø 26 mm[1] Single pin cap Fa6 Aura Super Ex	18 W 36 W 58 W	1150 lm universal white 3000 lm universal white 4800 lm universal white	**3 2475 900 084** **3 2475 900 085** **on request**

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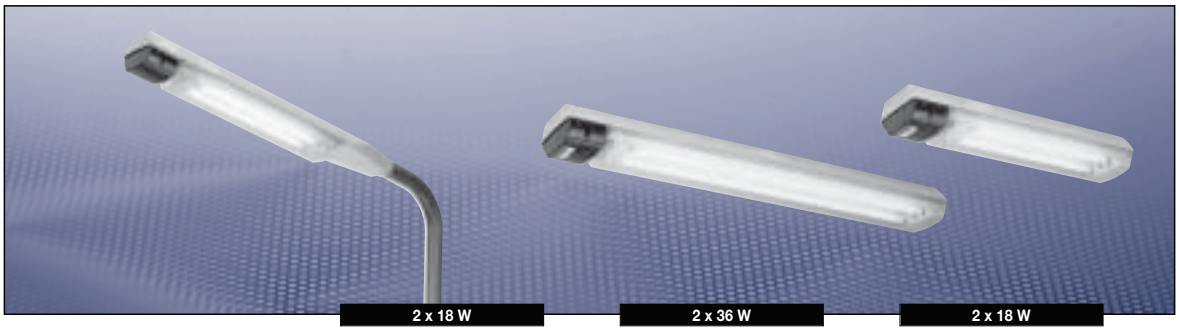

Accessories

Series eLLK 92... NIB and eLLM 92... NIB	
Type	**Order No.**
Hexagon screw SW 13	**3 2485 000 005**

Series eLLM 92018/18 NIB and eLLM 92036/36 NIB	
Type	**Order No.**
Single sided through wiring 2/6 with 2 entries M25, incl. terminals and mounting material	**2 2218 602 000**

Fixing materials eLLK 92... NIB			
Type/code	**Corrosion protection**	**Qty. per light fitting**	**Order No.**
Eye bolt A2	galvanized	2	**2 2480 002 000**
Hexagon screw S4	stainless steel	2	**2 2480 054 000**
Ceiling mounting bracket D92 incl. screws and washer	stainless steel	2	**2 2480 092 000**

Fixing materials					
Type/code	**Corrosion protection**	**for pipes DIN**	**Outer Ø D (mm)**	**Qty. per light fitting**	**Order No.**
Pipe clamp					
R12	hot galvanized	1¼"	38 - 42	2	**2 2480 462 000**
R14	CrNi	1¼"	38 - 42	2	**2 2480 464 000**
R22	hot galvanized	1½"	47 - 51	2	**2 2480 472 000**
R24	CrNi	1½"	47 - 51	2	**2 2480 474 000**
R32	hot galvanized	2"	56 - 60	2	**2 2480 482 000**
R34	CrNi	2"	56 - 60	2	**2 2480 484 000**
Wall bracket W27	hot galvanized		42.4	1	**2 2483 027 000**
Luminaire wall suspension 30° incl. screws and washer	hot galvanized			2	**2 2480 000 122**

Battery	
Type	**Order No.**
eLLK 92..., eLLM 92... NIB Battery set type 2710-3 with LED display and micro-processor monitoring, complete	**2 2710 904 000**

[1] For luminaires eLLK 923../.. and eLLM 923../.. with single pin caps Fa6

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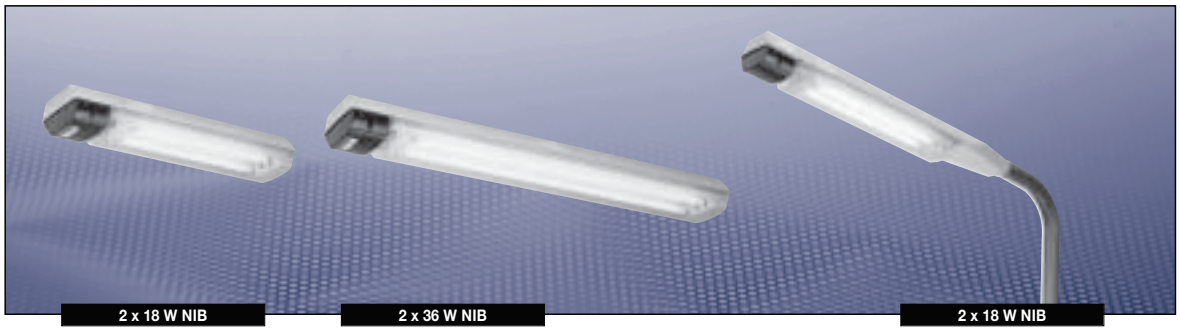
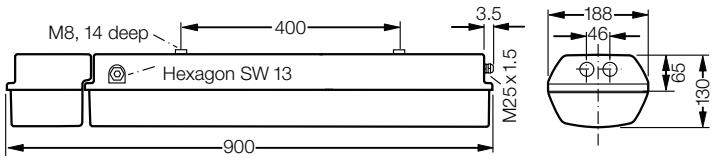
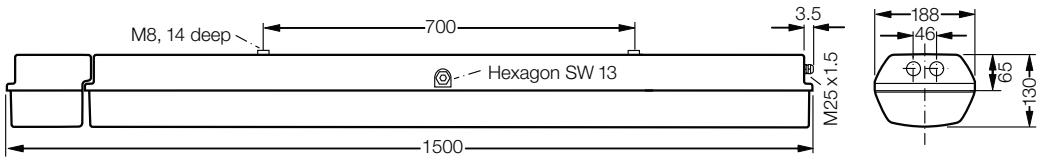


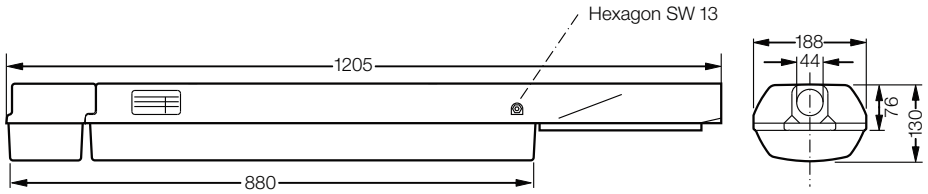
Dimension drawing | Polar curve



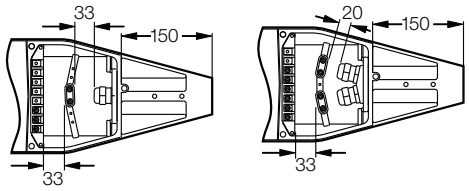
eLLK 92018/18 NIB



eLLK 92036/36 NIB

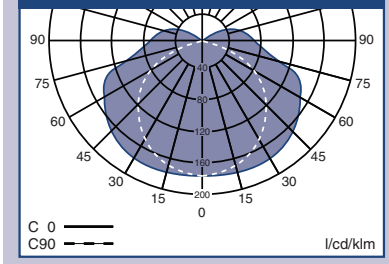


eLLM 92018/18 NIB

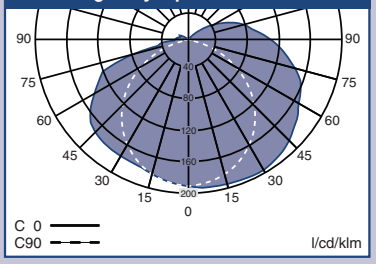


eLLM 92018/18 NIB

Polar curve
eLLK 92018/18 /
eLLK 92036/36 NIB



Polar curve
eLLK/eLLM 920../.. NIB
in emergency operation



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Dimensions in mm

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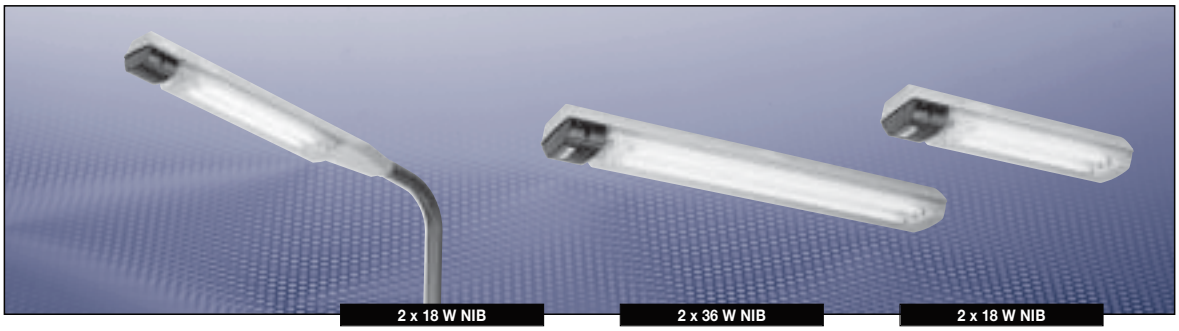
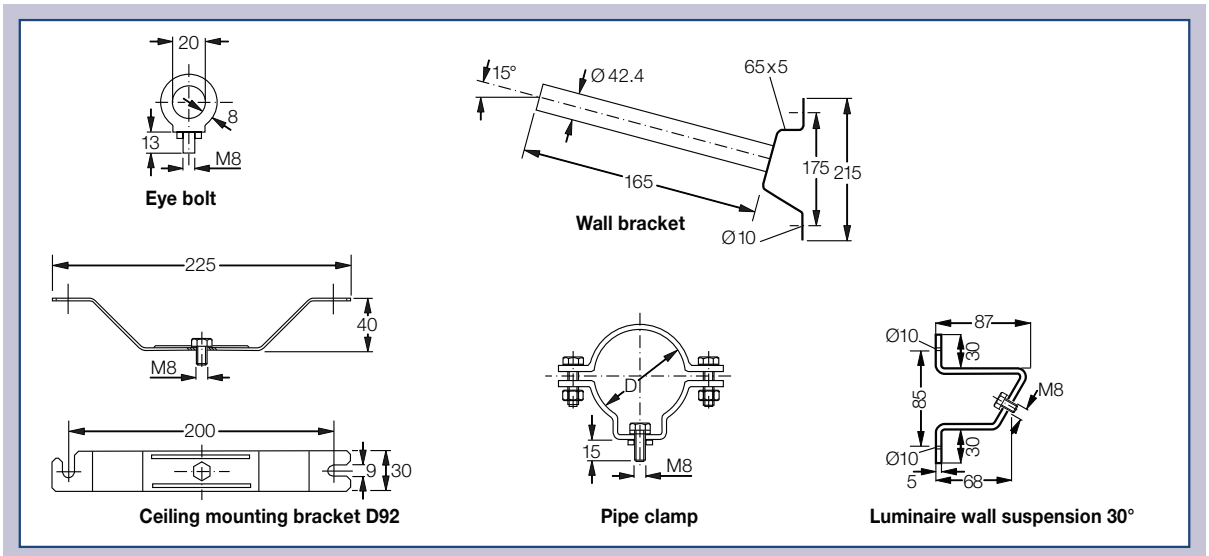


Dimension drawing



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Dimensions in mm

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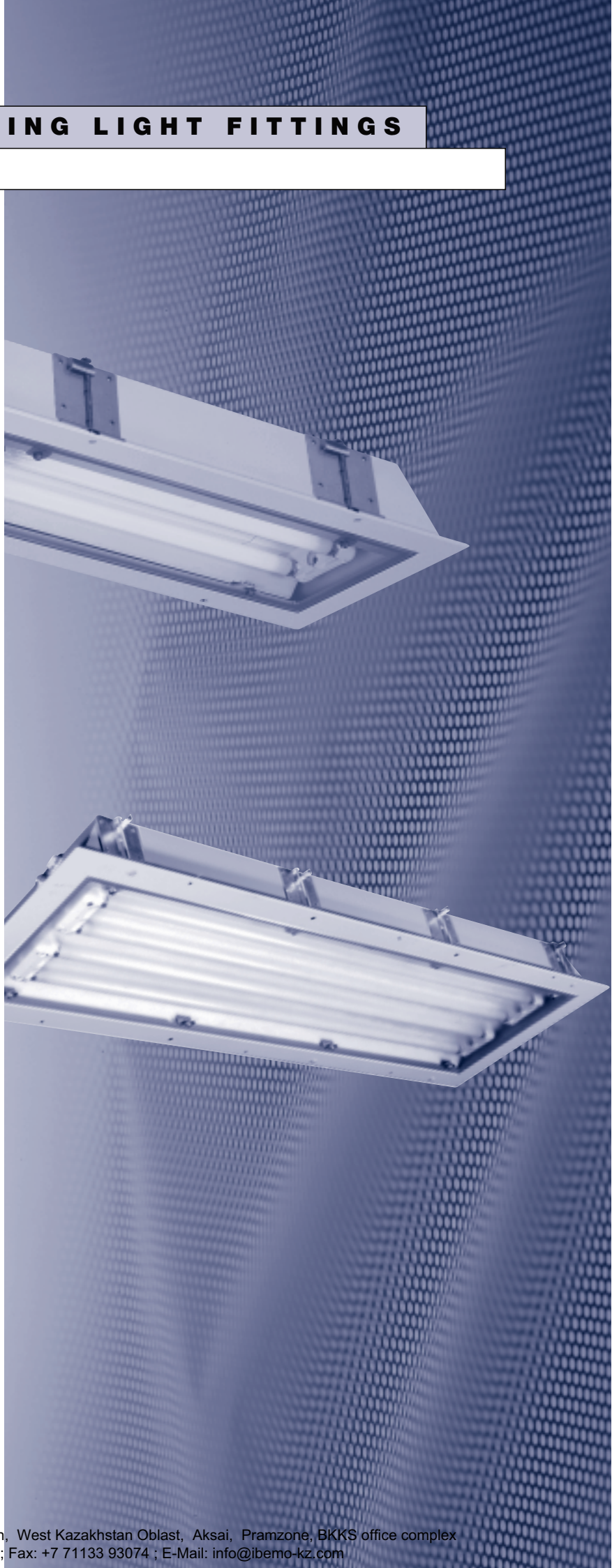
EX-RECESSED CEILING LIGHT FITTINGS

eLLB 20... 18 - 58 W
Metallic design for Zone 1 and 21



The eLLB 20 explosion-protected ceiling light fitting with electronic ballast meet the requirements of ATEX-Directive 94/9/EC and are suitable for two-pin fluorescent lamps.
These lamps are used for surface and flush mounting in ceilings, in particular in clean rooms where smooth, flush surfaces are very important. The area of application is in the pharmaceutical and chemical industry and in engineering as well as in paint shops and spraying cabinets.
The housing comprises white-painted steel sheet with integrally moulded covering frame or, optionally, made of polished stainless steel. Safe installation in the ceiling is ensured with special fixing elements, who allows a universal and simple mounting in recessed clean room ceiling from 25 up to 90 mm thickness. In addition, it can also be fixed by means of two M8 drilled holes on the top of the housing.
The hinged, frameless pane made of 6 mm thick safety glass is fixed with captive screws and has inside hinges. The sealing material is guaranteed silicone-leak-proof. The modern economical ballast EVG 05 according to the latest standards (IEC 60079-7: 2006) allows a safe and economical operation of bi-pin fluorescent lamps G13 according to IEC 60081. Lamps reaching its end of life will be monitored and securely switched off (EOL-effect). The high input voltage range allows international use. The standard two-channel structure means that if one lamp fails, the other one remains in operation.
The standard two-sided through-wiring together with the generous terminal housing offers a cost-saving installation.
The light switch is designed as an automatic disconnector pursuant to EN 60947-1 (IEC 60664) and reliably prevents the lamp from being switched on when the cover disc is open.
With the optional CG-S module, single monitoring of the lamp is possible with the CEAG Emergency Light Supply Systems.

- **Two channel EVG with EOL monitoring as standard**
- **Flush Installation Specially for Clean Rooms**
- **Optionally in painted sheet steel or stainless steel**
- **Safety locking due to integral automatic disconnector**
- **High degree of protection IP66**
- **Connection to CEAG Emergency Light Supply Systems possible**

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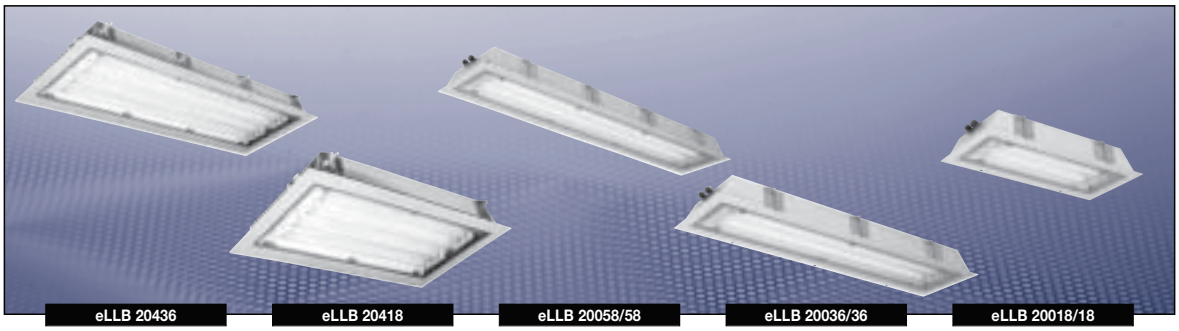

Technical data

eLLB 20018/18 | eLLB 20418 | eLLB 20036/36 | eLLB 20436 | eLLB 20058/58	
Marking to 94/9/EC	Ex II 2 G EEx ed IIC T4 EEx edm ib IIC T4 (CG-S variant) / Ex II 2 D IP66 T80 °C
EC-Type Examination Certificate	DMT 02 ATEX E 069
Permissible ambient temperature	-25 °C to +50 °C
Frequency	50 - 60 Hz
Power factor cos φ	≥ 0.95
Circuit	EVG resp. EVG/CG-S
Connecting terminals	L1, L2, L3, L, N, PE; max. 2 x 6 mm² single wire per terminal, through-wiring double-ended
Insulation class	I
Lamp cap	G13 accd. to IEC 60081
Degree of protection accd. EN 60529	IP66
Cable glands/gland plates/enclosure drilling	EEx-e cable glands M25 x 1.5 (plastic) for cables from Ø 8 - 17 mm, Option: metal thread M20 x 1.5
Enclosure material	Painted steel sheet, white optional polished stainless steel
Enclosure colour	white, optional stainless steel
Protective cover/protective bowl	Single-safety glass pane of 6 mm thick
Permissible ceiling tickness for fixing accessories	min. 25 mm to max. 90 mm

	eLLB 20018/18	eLLB 20418
Rated voltage	110 - 254 V AC / 195 - 250 V DC	110 - 254 V AC / 195 - 250 V DC
Rated voltage (option)	110 - 127 V DC	110 - 127 V DC
Rated voltage CG-S	220 - 254 V AC / 195 - 250 V DC	220 - 254 V AC / 195 - 250 V DC
Rated current	0.18 A / 0.19 A (CG-S variant)	0.36 A / 0.37 A (CG-S variant)
Lamp/illuminant	2 x T26 / 18 W (T8)	4 x T26 / 18 W (T8)
Rated luminous flux[1)]	2700 lm	5400 lm
Light efficiency in operation	70 %	69 %
Dimensions (L x W x H)	862 x 280 x 120 mm	862 x 430 x 120 mm
Weight	apx. 15 kg / apx. 15.5 kg (CG-S variant)	apx. 25 kg / apx. 25.5 kg (CG-S variant)

	eLLB 20036/36	eLLB 20436
Rated voltage	110 - 254 V AC / 110 - 250 V DC	110 - 254 V AC / 110 - 250 V DC
Rated voltage CG-S	220 - 254 V AC / 195 - 250 V DC	220 - 254 V AC / 195 - 250 V DC
Rated current	0.34 A / 0.35 A (CG-S variant)	0.68 A / 0.69 A (CG-S variant)
Lamp/illuminant	2 x T26 / 36 W (T8)	4 x T26 / 36 W (T8)
Rated luminous flux[1)]	6700 lm	13400 lm
Light efficiency in operation	70 %	69 %
Dimensions (L x W x H)	1460 x 280 x 120 mm	1460 x 430 x 120 mm
Weight	apx. 22 kg / apx. 22.5 kg (CG-S variant)	apx. 34 kg / apx. 34.5 kg (CG-S variant)

	eLLB 20058/58
Rated voltage	220 - 254 V AC / 195 - 250 V DC
Rated voltage CG-S	220 - 254 V AC / 195 - 250 V DC
Rated current	0.53 A / 0.54 A (CG-S variant)
Lamp/illuminant	2 x T26 / 58 W (T8)
Rated luminous flux[1)]	10400 lm
Light efficiency in operation	68 %
Dimensions (L x W x H)	1760 x 280 x 120 mm
Weight	approx. 26 kg / approx. 26.5 kg (CG-S variant)

[1)] depends on used lamps

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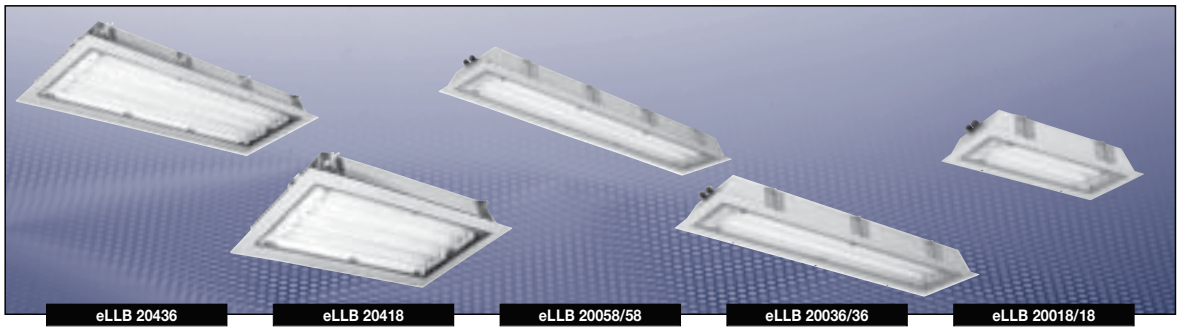

Ordering details

Type	Cable gland[3]	Enclosure	Order No.
Type eLLB 20018/18			
eLLB 20018/18	M20M[2]	stainless steel 316	**1 2190 218 111**
eLLB 20018/18	M20M[2]	painted steel sheet	**1 2190 218 101**
eLLB 20018/18	M25K	stainless steel 316	**1 2190 218 011**
eLLB 20018/18	M25K	painted steel sheet	**1 2190 218 001**
eLLB 20018/18 CG-S[1]	M20M[2]	stainless steel 316	**1 2190 218 723**
eLLB 20018/18 CG-S[1]	M20M[2]	painted steel sheet	**1 2190 218 713**
eLLB 20018/18 CG-S[1]	M25K	stainless steel 316	**1 2190 218 733**
eLLB 20018/18 CG-S[1]	M25K	painted steel sheet	**1 2190 218 703**
Type eLLB 20036/36			
eLLB 20036/36	M20M[2]	stainless steel 316	**1 2190 236 111**
eLLB 20036/36	M20M[2]	painted steel sheet	**1 2190 236 101**
eLLB 20036/36	M25K	stainless steel 316	**1 2190 236 011**
eLLB 20036/36	M25K	painted steel sheet	**1 2190 236 001**
eLLB 20036/36 CG-S[1]	M20M[2]	stainless steel 316	**1 2190 236 723**
eLLB 20036/36 CG-S[1]	M20M[2]	painted steel sheet	**1 2190 236 713**
eLLB 20036/36 CG-S[1]	M25K	stainless steel 316	**1 2190 236 733**
eLLB 20036/36 CG-S[1]	M25K	painted steel sheet	**1 2190 236 703**
Type eLLB 20058/58			
eLLB 20058/58	M20M[2]	stainless steel 316	**1 2190 258 111**
eLLB 20058/58	M20M[2]	painted steel sheet	**1 2190 258 101**
eLLB 20058/58	M25K	stainless steel 316	**1 2190 258 011**
eLLB 20058/58	M25K	painted steel sheet	**1 2190 258 001**
eLLB 20058/58 CG-S[1]	M20M[2]	stainless steel 316	**1 2190 258 723**
eLLB 20058/58 CG-S[1]	M20M[2]	painted steel sheet	**1 2190 258 713**
eLLB 20058/58 CG-S[1]	M25K	stainless steel 316	**1 2190 258 733**
eLLB 20058/58 CG-S[1]	M25K	painted steel sheet	**1 2190 258 703**
Type eLLB 20418			
eLLB 20418	M20M[2]	stainless steel 316	**1 2190 418 111**
eLLB 20418	M20M[2]	painted steel sheet	**1 2190 418 101**
eLLB 20418	M25K	stainless steel 316	**1 2190 418 011**
eLLB 20418	M25K	painted steel sheet	**1 2190 418 001**
eLLB 20418 CG-S[1]	M20M[2]	stainless steel 316	**1 2190 418 723**
eLLB 20418 CG-S[1]	M20M[2]	painted steel sheet	**1 2190 418 713**
eLLB 20418 CG-S[1]	M25K	stainless steel 316	**1 2190 418 733**
eLLB 20418 CG-S[1]	M25K	painted steel sheet	**1 2190 418 703**
Type eLLB 20436			
eLLB 20436	M20M[2]	stainless steel 316	**1 2190 436 111**
eLLB 20436	M20M[2]	painted steel sheet	**1 2190 436 101**
eLLB 20436	M25K	stainless steel 316	**1 2190 436 011**
eLLB 20436	M25K	painted steel sheet	**1 2190 436 001**
eLLB 20436 CG-S[1]	M20M[2]	stainless steel 316	**1 2190 436 723**
eLLB 20436 CG-S[1]	M20M[2]	painted steel sheet	**1 2190 436 713**
eLLB 20436 CG-S[1]	M25K	stainless steel 316	**1 2190 436 733**
eLLB 20436 CG-S[1]	M25K	painted steel sheet	**1 2190 436 703**

[1] CG-S: design single monitored emergency light fitting for use in CEAG emergency light supply unit

[2] M: with metal thread, without cable gland

[3] With dustcover if entry/thread is not closed

Scope of delivery without lamp and fixing accessories.

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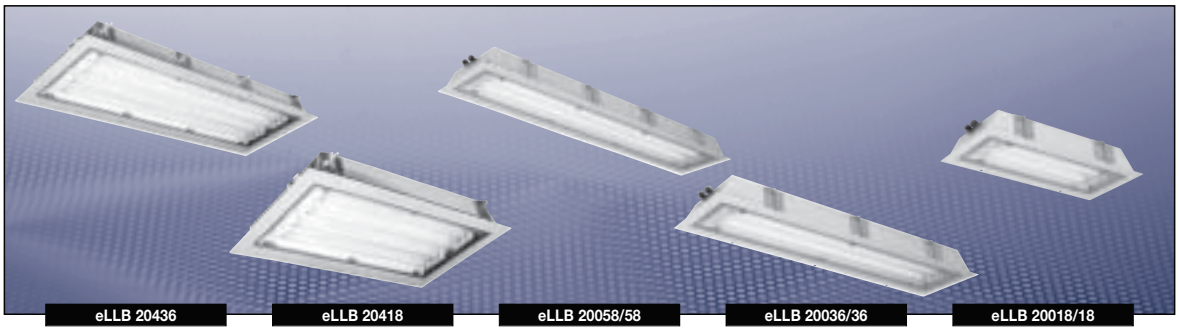

Accessories

Lamp for luminaire eLLB 20...

Type of lamp socket/ Diameter	Power	Luminous flux Light colour	Order No.
T26/Ø 26 mm (T8) G13-IEC-60081-BI. 22/20 Bi-pin socket G13	18 W	1350 lm universal white	**3 2475 900 081**
T26/Ø 26 mm (T8) G13-IEC-60081-BI. 24/20 Bi-pin socket G13	36 W	3350 lm universal white	**3 2475 900 082**
T26/Ø 26 mm (T8) G13-IEC-60081-BI. 21/22 Bi-pin socket G13	58 W	5200 lm universal white	**3 2475 900 083**
T26/Ø 26 mm (T8) Longlife G13-socket	18 W	1300 lm universal white	**3 2475 900 087**
Aura-Ultimate	36 W	3350 lm universal white	**3 2475 900 088**
	58 W	5200 lm universal white	**on request**

Fixing materials eLLB 20...

Type/code	Corrosion protection	Qty. per light fitting	Order No.
Eye bolt A2	galvanized	2	**2 2480 002 000**
Hexagon screw S4	stainless steel	2	**2 2480 054 000**
Ceiling mounting bracket D92 incl. screws and washer	stainless steel	2	**2 2480 092 000**

Fixing materials eLLB 20...

Type/code	Corrosion protection	for pipes DIN	Outer Ø D (mm)	Qty. per light fitting	Order No.
Pipe clamp					
R12	hot galvanized	1¼"	38 - 42	2	**2 2480 462 000**
R14	CrNi	1¼"	38 - 42	2	**2 2480 464 000**
R22	hot galvanized	1½"	47 - 51	2	**2 2480 472 000**
R24	CrNi	1½"	47 - 51	2	**2 2480 474 000**
R32	hot galvanized	2"	56 - 60	2	**2 2480 482 000**
R34	CrNi	2"	56 - 60	2	**2 2480 484 000**
Luminaire wall suspension 30° incl. screws and washer	hot galvanized			2	**2 2480 000 122**

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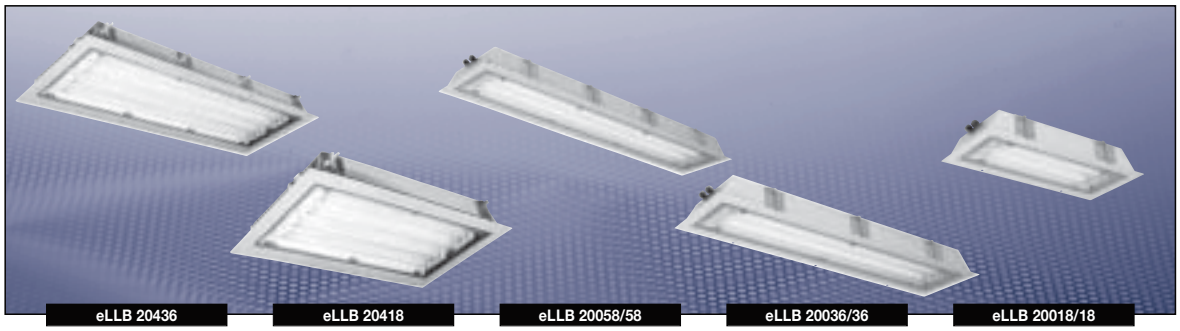
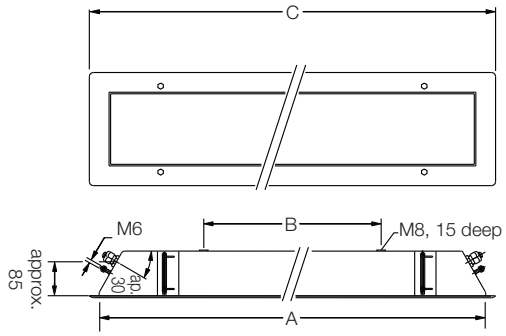
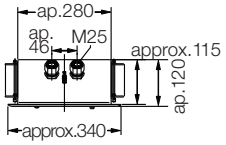
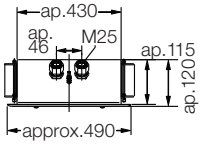


Dimension drawing | Polar curve



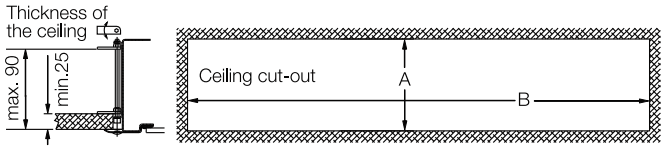




	A	B	C
eLLB 20018/18	802	400	862
eLLB 20036/36	1400	700	1460
eLLB 20058/58	1700	700	1760
eLLB 20418	802	400	862
eLLB 20436	1400	700	1460

eLLB 20018/18
eLLB 20036/36
eLLB 20058/58

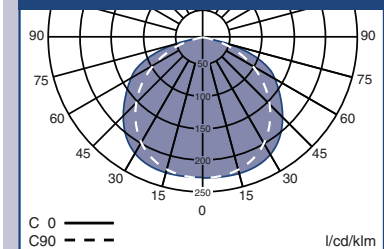
eLLB 20418
eLLB 20436



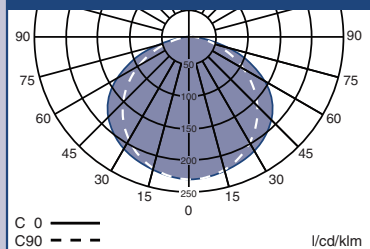
	A	B
eLLB 20018/18	315+3	832+5
eLLB 20036/36	315+3	1432+5
eLLB 20058/58	315+3	1732+5
eLLB 20418	465+3	832+5
eLLB 20436	465+3	1432+5

eLLB 20018/18 / eLLB 20036/36 / eLLB 20058/58 / eLLB 20418 / eLLB 20436

Polar curve
eLLB 20018/18 / eLLB 20036/36
eLLB 20058/58



Polar curve
eLLB 20418 / eLLB 20436



Dimensions in mm

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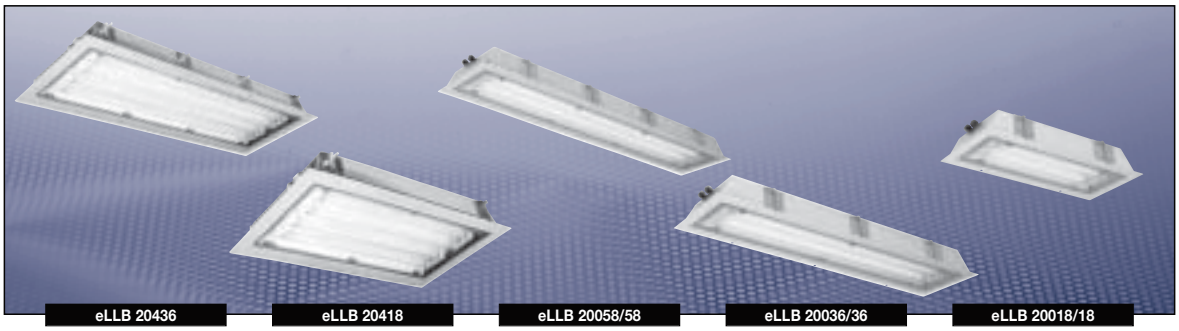
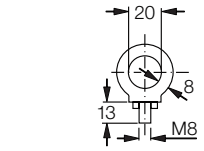
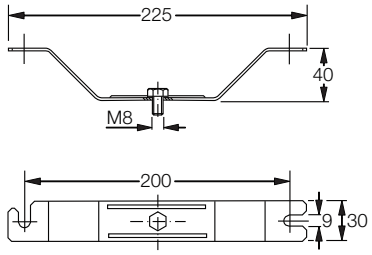


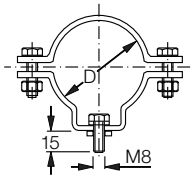
Dimension drawing



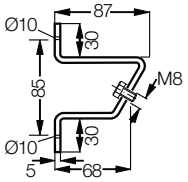
Eye bolt



Ceiling mounting bracket D92



Pipe clamp



Luminaire wall suspension 30°

Dimensions in mm

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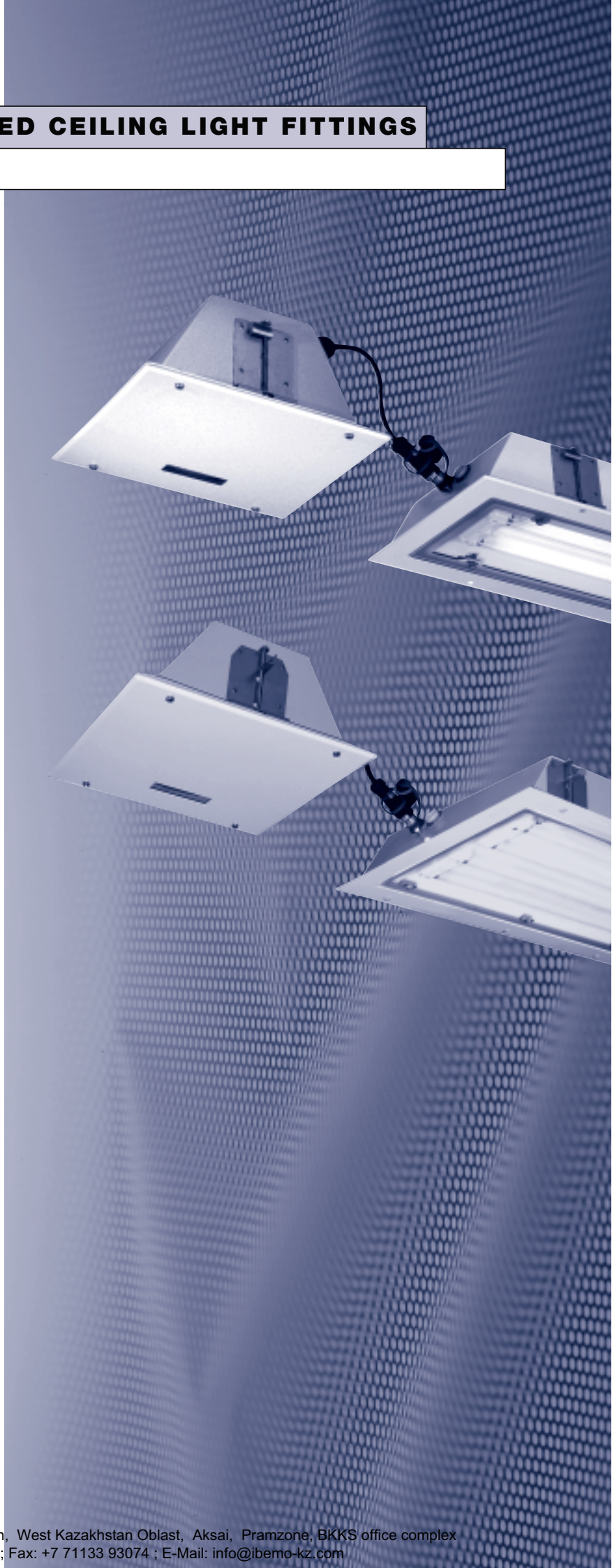
EX-EMERGENCY RECESSED CEILING LIGHT FITTINGS

eLLB 20... NIB 18-36 W
Metallic design for Zone 1 and 21



The new Ex-emergency light fittings with self-contained battery unit, type eLLB 20 ... NIB for bi-pin fluorescent lamps are fitted with an electronic ballast (EVG). They meet the requirements of ATEX-Directive 94/9/EC. The electronic ballast EVG 05, according to the newest standard (IEC 60079–7:2006) enables the safe and economic use of G13 bi-pin lamps acc. to IEC 60081. Lamps reaching its end of life will be monitored and securely switched of (EOL-effect). Due to a new charging and monitoring technology with intelligent microelectronics, they provide reliable safety and reduced maintenance costs. A function test lasting 5 minutes, that is carried out automatically on a weekly basis, even during mains operation, and a quarterly partial duty-cycle test provide additional safety and drastically reduce the neccessary amount of manual tests.

The charging and discharging functions are monitored constantly by the micro-processor and are indicated via a diode display. Only the spent energy is recharged – therefor, overcharging is not possible. The so-called memory effect cannot occur – therefore life of the battery is optimized. The need to replace a battery, a fault in the emergency lighting circuit or a faulty battery is indicated by the LED display.

Due to a new type of battery connection, the battery can be replaced in the hazardous area. The emergency lighting cycle can be set locally for 1.5 or 3 hours.

A remote switch inquiry is standard.

All the other mechanical details are corespon-ding to the eLLB 20... serie. The seperate battery housing with a 1.5 m long connecting load can be mounted directly in line with the light fitting or, depending on the ceiling raster, alongside it.

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- **Two channel EVG with EOL monitoring as standard**
- **Automatic weekly 5 min. function test**
- **Automatic quaterly partial duty cycle test**
- **Fault indication by flashing red LED with reset after fault elimination**
- **Capacity-dependent charging: indication of charged capacity and remaining operating time by 5 green LEDs**
- **Easy replacement of battery, even in Ex-area**
- **Separate mounted no battery housing**

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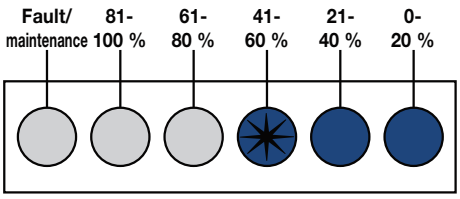
red LED green LEDs
Monitoring display



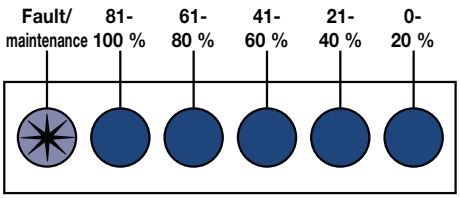
Capacity higher 40 %, charging operation (flashing)
no Fault

LED:

= flashing

= off

= on



Capacity 100 %, charging operation,
fault after function or duty cycle

Monitoring functions NIB

Guarded by a lens, the 5 green LEDs cotinuously indicate the charging state and the battery capacity. Charging is indicated by flashing green LEDs. The loaded capacity is shown in 20 % steps.
A novelty is the enlarged self-monitoring function with automatic function and duration tests.
An automatic 5 minute function test is carried out on a weekly basis. Thereby, the electronics of the emergency lamp switches from mains to emergency operation, while the mains lamp stays in normal operation. The battery capacity and also the converter and lamp-function is being tested and possible faults are shown by a flashing red LED. After removing the fault (p.e. by lamp change) and a new function test the fault indication resets automatically.

A partial duty cycle-test (35 min.) is initiated automatically after approx. 3 months. If the min. operation time of 30 minutes is not reached, this is indicated by a flashing red LED. When the cause of the fault has been eliminated, the fault indication is reset during the next emergency lighting operation (manual or automatic) when the minimum operating time of approx. 30 minutes has been reached.

Battery set NIB

Emergency light fittings with self-contained battery systems

Emergency light fittings with self-contained battery systems provide the required emergency lighting from a decentralized source and function independent of the central system. These light fittings are particularly economical when used in extensive plants. Until now, compared to the centrally operated and monitored installations, the disadvantage of the emergency light fittings with self-contained battery systems was that they do not supply any information on the state of the light fittings. With the introduction of the eLLB 20 ... NIB, Cooper Crouse-Hinds has now incorporated monitoring. Five LEDs supply constant information on the charging state and the available battery capacity.

Handling

The battery is installed in a separate, certified housing.
There are up to 7 Ex-d connectors for the data transfer between the battery unit and the luminaire. Therefore, a battery change is also possible in hazardous areas – at any time.
The run-down battery set can be replaced by loosening the screws and simply pulling off the battery set. A detachable strap protects the insert from being dropped inadvertenly.

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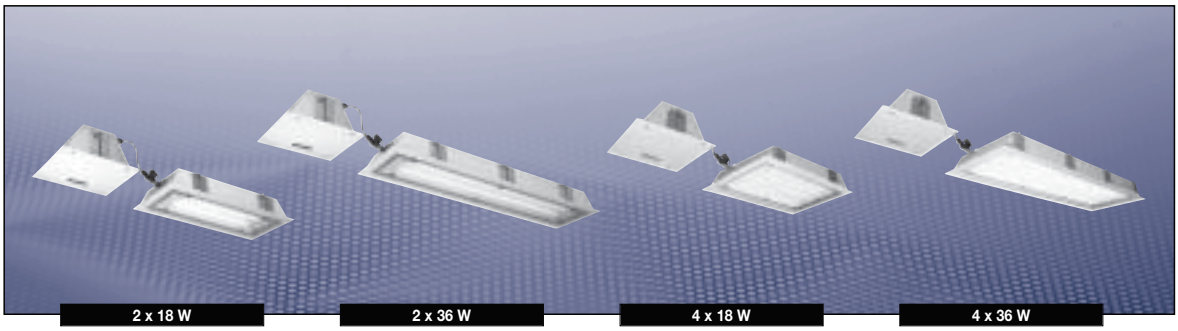

Technical data

eLLB 20018/18 NIB | eLLB 20418 NIB | eLLB 20036/36 NIB | eLLB 20436 NIB	
Marking to 94/9/EC	Ex II 2 G EEx EEx edm ib IIC T4 / Ex II 2 D IP66 T80 °C
EC-Type Examination Certificate	DMT 02 ATEX E 069
Permissible ambient temperature	-20 °C to +50 °C (apecified data: -5 °C to +35 °C)
Rated voltage	220 - 254 V AC
Rated voltage (option)	110 - 127 V AC
Frequency	50 - 60 Hz
Power factor cos φ	≥ 0.95
Circuit	EVG with emergency lighting supply
Connecting terminals	L1, L2, L3, L, N, PE; max. 2 x 6 mm² single wire per terminal, through-wiring double-ended
Insulation class	I
Lamp cap	G 13 accd. to IEC 60081
Degree of protection accd. EN 60529	IP66
Cable glands/gland plates/enclosure drilling	EEx-e cable glands M25 x 1.5 (plastic) for cables Ø 8 - 17 mm Option: M20 x 1.5 metal thread
Enclosure material	Painted steel sheet, white optional polished stainless steel
Enclosure colour	white, optional stainless steel
Protective cover/protective bowl	Single-safety glass pane of 6 mm thick
Permissible ceiling tickness for fixing accessories	min. 25 mm to max. 90 mm

	eLLB 20018/18 NIB	eLLB 20418 NIB
Rated current	0.23 A	0.41 A
Lamp/illuminant	2 x T26 / 18 W (T8)	4 x T26 / 18 W (T8)
Rated luminous flux	2700 lm	5400 lm
Luminous flux in emergency operation (1.5 h, one lamp)[1)]	1215 lm (90 %)	1215 lm (90 %)
Luminous flux in emergency operation (3 h, one lamp)[1)]	607 lm (45 %)	607 lm (45 %)
Light efficiency in operation	70 %	69 %
Dimensions (L x W x H)	862 x 280 x 120 mm	862 x 430 x 120 mm
Weight	approx. 18 kg	approx. 29 kg

	eLLB 20036/36 NIB	eLLB 20436 NIB
Rated current	0.40 A	0.74 A
Lamp/illuminant	2 x T26 / 36 W (T8)	4 x T26 / 36 W (T8)
Rated luminous flux	6700 lm	13400 lm
Luminous flux in emergency operation (1.5 h, one lamp)[1)]	1507 lm (45 %)	1507 lm (45 %)
Luminous flux in emergency operation (3 h, one lamp)[1)]	873 lm (25 %)	873 lm (25 %)
Light efficiency in operation	70 %	69 %
Dimensions (L x W x H)	1460 x 280 x 120 mm	1460 x 430 x 120 mm
Weight	approx. 25 kg	approx. 38 kg

Battery housing	
Battery	Battery set with 7 Ah-NC battery, with LED display and monitoring via microprocessor
Battery housing	Connection via 1.5 long connection lead with plugs
Rated emergency lighting operation	1-lamps can be set on site for an emergency lighting duration of 1.5 or 3 hours
Charging duration	> 14 h
Cable glands/gland plates/enclosure drilling[1)]	Connection via 1.5 long connection lead with plugs eXLink
Dimensions (L x W x H)	350 x 340 x 143 mm
Weight	approx. 5.7 kg

[1)] depends on used lamps

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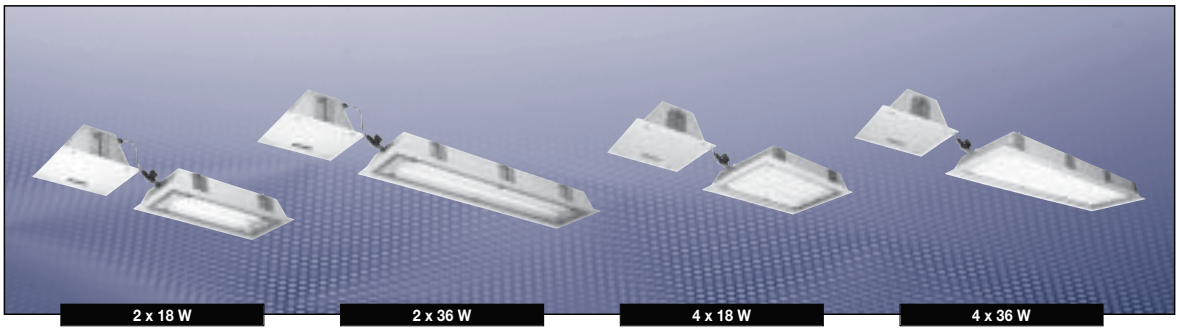

Ordering details

Type	Cable gland[2]	Enclosure	Order No.
Type eLLB 20018/18 NIB			
eLLB 20018/18 NIB	M25K	painted steel sheet	**1 2190 218 002**
eLLB 20018/18 NIB	M25K	stainless steel 316	**1 2190 218 012**
eLLB 20018/18 NIB	M20M[1]	painted steel sheet	**1 2190 218 102**
eLLB 20018/18 NIB	M20M[1]	stainless steel 316	**1 2190 218 112**
Type eLLB 20036/36 NIB			
eLLB 20036/36 NIB	M25K	painted steel sheet	**1 2190 236 002**
eLLB 20036/36 NIB	M25K	stainless steel 316	**1 2190 236 012**
eLLB 20036/36 NIB	M20M[1]	painted steel sheet	**1 2190 236 102**
eLLB 20036/36 NIB	M20M[1]	stainless steel 316	**1 2190 236 112**
Type eLLB 20418 NIB			
eLLB 20418 NIB	M25K	painted steel sheet	**1 2190 418 002**
eLLB 20418 NIB	M25K	stainless steel 316	**1 2190 418 012**
eLLB 20418 NIB	M20M[1]	painted steel sheet	**1 2190 418 102**
eLLB 20418 NIB	M20M[1]	stainless steel 316	**1 2190 418 112**
Type eLLB 20436 NIB			
eLLB 20436 NIB	M25K	painted steel sheet	**1 2190 436 002**
eLLB 20436 NIB	M25K	stainless steel 316	**1 2190 436 012**
eLLB 20436 NIB	M20M[1]	painted steel sheet	**1 2190 436 102**
eLLB 20436 NIB	M20M[1]	stainless steel 316	**1 2190 436 112**

[1] M: with metal thread, without cable gland

[2] With dustcover if entry/thread is not closed

Scope of delivery without lamp and fixing accessories.

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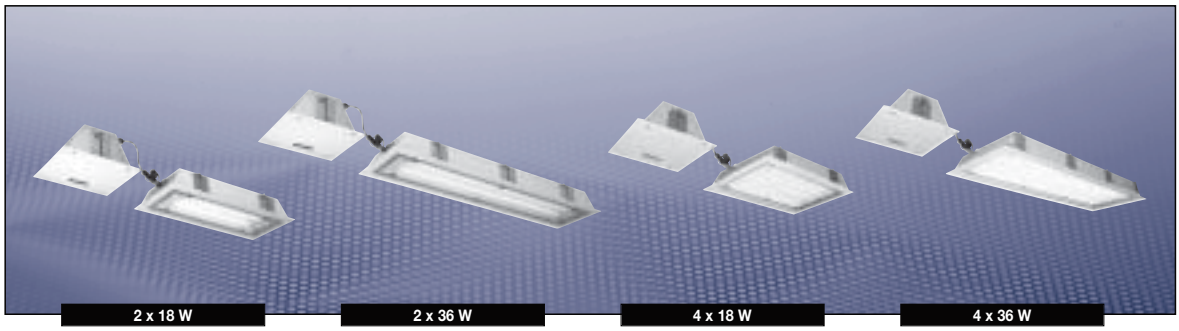

Accessories

Lamp for luminaire eLLB 20... NIB

Type of lamp socket/ Diameter	Power	Luminous flux Light colour	Order No.
T26/Ø 26 mm (T8) G13-IEC-60081-Bl. 22/20 Bi-pin socket G13	18 W	1350 lm universal white	**3 2475 900 081**
T26/Ø 26 mm (T8) G13-IEC-60081-Bl. 24/20 Bi-pin socket G13	36 W	3350 lm universal white	**3 2475 900 082**
T26/Ø 26 mm (T8) G13-IEC-60081-Bl. 21/22 Bi-pin socket G13	58 W	5200 lm universal white	**3 2475 900 083**
T26/Ø 26 mm (T8) Longlife G13-socket	18 W	1300 lm universal white	**3 2475 900 087**
Aura-Ultimate	36 W	3350 lm universal white	**3 2475 900 088**
	58 W	5200 lm universal white	**on request**

Fixing materials eLLB 20... NIB

Type/code	Corrosion protection	Qty. per light fitting	Order No.
Eye bolt A2	galvanized	2	**2 2480 002 000**
Hexagon screw S4	stainless steel	2	**2 2480 054 000**
Ceiling mounting bracket D92 incl. screws and washer	stainless steel	2	**2 2480 092 000**

Fixing materials eLLB 20... NIB

Type/code	Corrosion protection	for pipes DIN	Outer Ø D (mm)	Qty. per light fitting	Order No.
Pipe clamp					
R12	hot galvanized	1¼"	38 - 42	2	**2 2480 462 000**
R14	CrNi	1¼"	38 - 42	2	**2 2480 464 000**
R22	hot galvanized	1½"	47 - 51	2	**2 2480 472 000**
R24	CrNi	1½"	47 - 51	2	**2 2480 474 000**
R32	hot galvanized	2"	56 - 60	2	**2 2480 482 000**
R34	CrNi	2"	56 - 60	2	**2 2480 484 000**
Luminaire wall suspension 30° incl. screws and washer	hot galvanized			2	**2 2480 000 122**

Ersatzbatterie eLLB 20... NIB

Type	Order No.
Battery set Type 2710-3 with LED display and micro-processor monitoring, complete	**2 2710 904 000**

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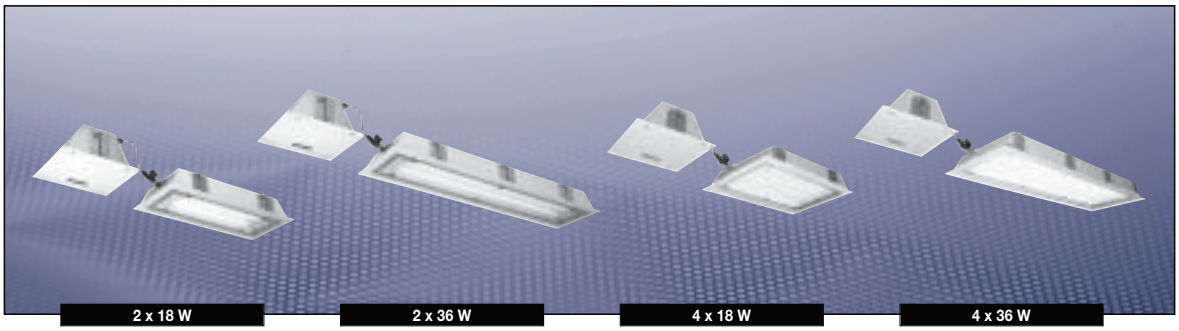
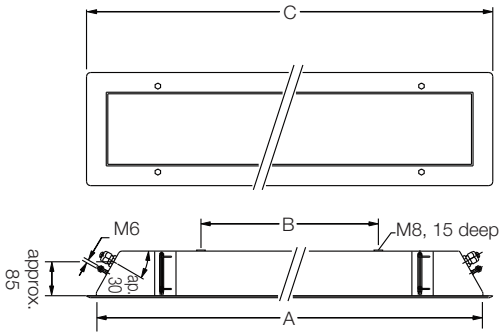
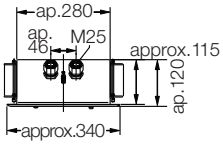


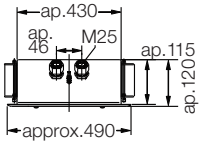
Dimension drawing | Polar curve



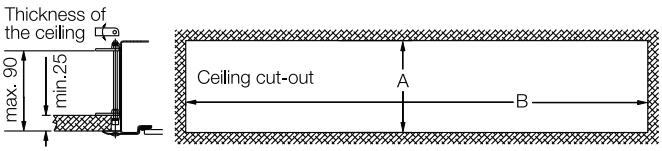
	A	B	C
eLLB 20018/18	802	400	862
eLLB 20036/36	1400	700	1460
eLLB 20418	802	400	862
eLLB 20436	1400	700	1460



eLLB 20018/18
eLLB 20036/36

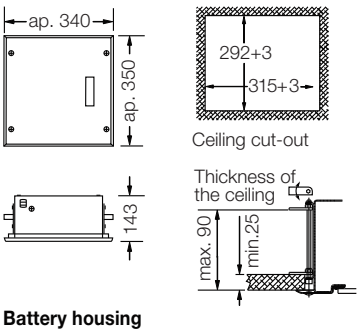


eLLB 20418
eLLB 20436



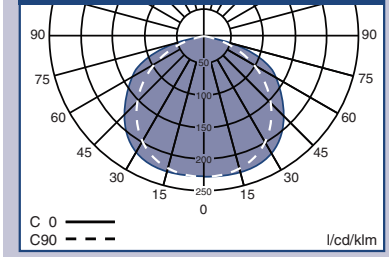
	A	B
eLLB 20018/18	315+3	832+5
eLLB 20036/36	315+3	1432+5
eLLB 20418	465+3	832+5
eLLB 20436	465+3	1432+5

eLLB 20018/18 / eLLB 20036/36 / eLLB 20418 / eLLB 20436

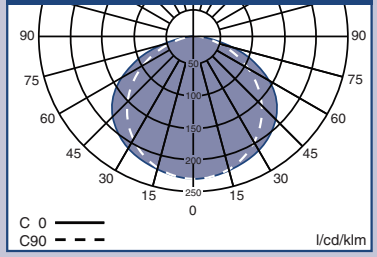


Battery housing

Polar curve
eLLK 20018/18 NIB
eLLK 92036/36 NIB



Polar curve
eLLK 20418 NIB
eLLK 92436 NIB



Dimensions in mm

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EX-RECESSED CEILING LIGHT FITTINGS

RLF 250... 18 - 58 W / RLF 250... N .. 18 + 36 W
Metallic design for Zone 1 and Zone 21

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The RLF 250 explosion-protected recessed ceiling light fittings with electronic ballast meet the requirements of ATEX-Directive 94/9/EC and are suitable for two-pin fluorescent lamps.
These lamps are used for surface and flush mounting in ceilings, in particular in clean rooms where smooth, flush surfaces are very important.
The area of application is in the pharmaceutical and chemical industry and in labs as well as in paint shops and spraying cabinets.
The housing comprises white-painted steel sheet with an optionally integrally moulded covering frame for safe installation in the ceiling. In addition, it can also be fixed by means of two M8 drilled holes on the top of the housing.
The hinged, frameless pane made of 5 mm thick safety glass is fixed with 3 alt. 4 captive screws.
The sealing material is EPDM and guarantees the high portection IP65.
The electronic ballasts of the latest generation can be used internationally due to their large input voltage range and contents the “End oft Life“ disconnection acc. latest standard. The standard two-channel structure means that if one lamp fails, the other one remains in operation.
The standard two-sided through-wiring together with the generous terminal housing offers a cost-saving installation.
The light switch reliably prevents the lamp from being switched on when the cover pane is open.
An emergency light fitting version with self-contained battery-system allows a decentral emergency light with an emergency lighting cycle of 1.5 or 3 hours.

- **Flush installation specially for lean rooms by using the accessed mounting frame**
- **Standard, two-channel electronic**
- **Safety locking due to integral disconnector**
- **High degree of protection IP65**
- **Version with self-contained battery system**

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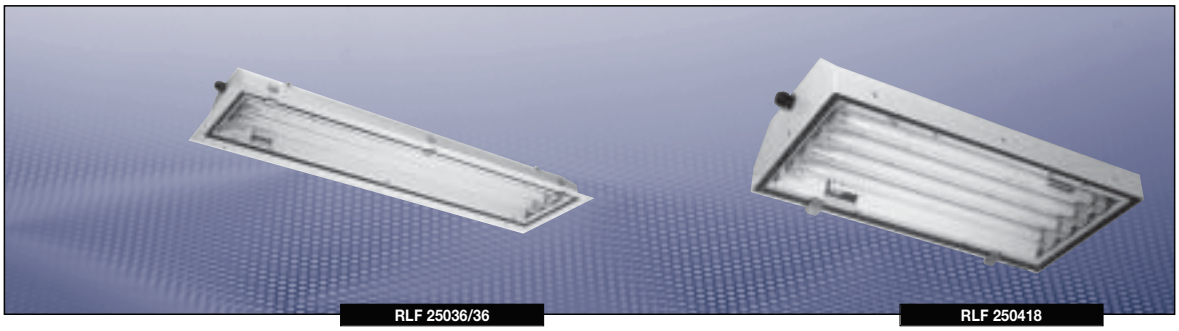

Technical data

RLF 250...	
Marking to 94/9/EC	Ex II 2 G EEx ed IIC T5 / Ex II 2 D T60 °C
EC-Type Examination Certificate	FTZU 06 ATEX 0050 X
Permissible ambient temperature	-20 °C to +40 °C
Frequency	50 - 60 Hz
Power factor cos φ	≥ 0.95
Circuit	EVG
Connecting terminals	L1, L2, L3, N, PE; max. 2 x 2.5 mm² Through-wiring double-ended
Insulation class	I
Lamp cap	G 13 accd. to IEC 60081
Degree of protection accd. EN 60529	IP65
Cable glands/gland plates/enclosure drilling	EEx-e cable glands M25 x 1.5 (plastic) for cables from Ø 8 - 17 mm, Option: M20 x 1.5 metal thread
Enclosure material	Painted steel sheet (option: stainless steel)
Enclosure colour	white
Protective cover/protective bowl	Single-safety glass pane of 5 mm thick

	RLF 25018/18	RFL 250418
Rated voltage	110 - 254 V AC / 195 - 250 V DC	110 - 254 V AC / 195 - 250 V DC
Rated current	0.18 A	0.36 A
Lamp/illuminant	2 x T26 / 18 W (T8)	4 x T26 / 18 W (T8)
Luminous flux[2)]	2700 lm	5400 lm
Light efficiency in operation	70 %	69 %
Dimensions (L x W x H)	701 x 302 x 130 mm	701 x 362 x 130 mm
Weight	6.9 kg	9.5 kg

	RLF 25036/36	RFL 250336	RFL 250436
Rated voltage	110 - 254 V AC / 110 - 250 V DC	110 - 254 V AC / 110 - 250 V DC	110 - 254 V AC / 110 - 250 V DC
Rated current	0.34 A	0.51 A	0.68 A
Lamp/illuminant	2 x T26 / 36 W (T8)	3 x T26 / 36 W (T8)	4 x T26 / 36 W (T8)
Luminous flux[2)]	6700 lm	10050 lm	13400 lm
Light efficiency in operation	70 %	68 %	69 %
Dimensions (L x W x H)	1312 x 302 x 130 mm	1312 x 302 x 130 mm	1312 x 362 x 130 mm
Weight	12.9 kg	13.4 kg	16.5 kg

	RLF 25058/58	RFL 250358	RFL 250458
Rated voltage	220 - 254 V AC / 195 - 250 V DC	220 - 254 V AC / 195 - 250 V DC	220 - 254 V AC / 195 - 250 V DC
Rated current	0.53 A	0.80 A	1.06 A
Lamp/illuminant	2 x T26 / 58 W (T8)	3 x T26 / 58 W (T8)	4 x T26 / 58 W (T8)
Luminous flux[2)]	10400 lm	15600 lm	20800 lm
Light efficiency in operation	68 %	66 %	67 %
Dimensions (L x W x H)	1611 x 302 x 130 mm	1611 x 302 x 130 mm	1611 x 362 x 130 mm
Weight	17.2 kg	17.8 kg	19.8 kg

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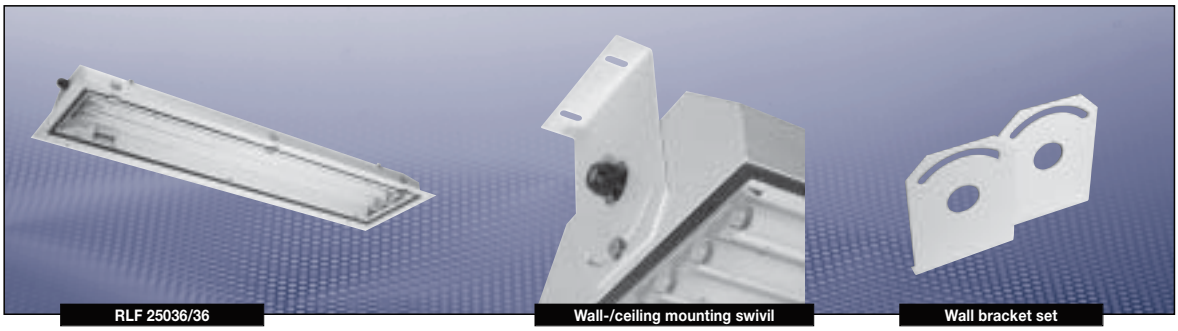


Ordering details

Type	Cable gland[1)]	Thread[1)]	Order No.
Type RLF 250...			
RLF 25018/18 2/5-2 K	M25 x 1.5	–	**1 2283 218 001**
RLF 25036/36 2/5-2 K	M25 x 1.5	–	**1 2283 236 001**
RLF 25058/58 2/5-2 K	M25 x 1.5	–	**1 2283 258 001**
RLF 25018/18 2/5-2 M	–	M20 x 1.5	**1 2283 218 002**
RLF 25036/36 2/5-2 M	–	M20 x 1.5	**1 2283 236 002**
RLF 25058/58 2/5-2 M	–	M20 x 1.5	**1 2283 258 002**
RLF 250336 2/5-2 K	M25 x 1.5	–	**1 2283 336 011**
RLF 250358 2/5-2 K	M25 x 1.5	–	**1 2283 358 011**
RLF 250336 2/5-2 M	–	M20 x 1.5	**1 2283 336 012**
RLF 250358 2/5-2 M	–	M20 x 1.5	**1 2283 358 012**
RLF 250418 2/5-2 K	M25 x 1.5	–	**1 2283 418 011**
RLF 250436 2/5-2 K	M25 x 1.5	–	**1 2283 436 011**
RLF 250458 2/5-2 K	M25 x 1.5	–	**1 2283 458 011**
RLF 250418 2/5-2 M	–	M20 x 1.5	**1 2283 418 012**
RLF 250436 2/5-2 M	–	M20 x 1.5	**1 2283 436 012**
RLF 250458 2/5-2 M	–	M20 x 1.5	**1 2283 458 012**

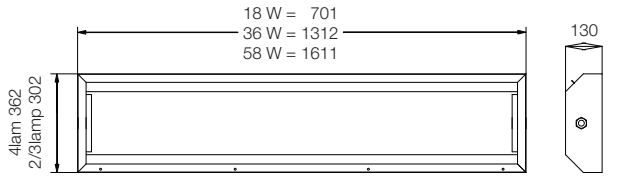
[1)] With dustcover if entry/thread is not closed

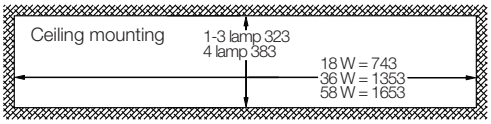
Scope of delivery without lamps and fixing material.

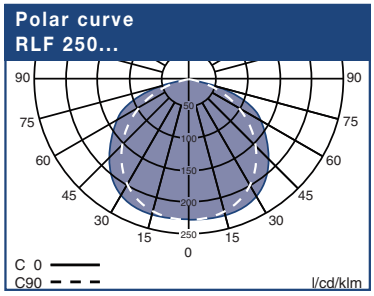
Accessories

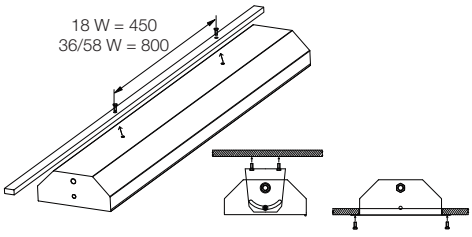
RLF 250...		
Type		**Order No.**
Wall bracket set, 2 pcs.		**3 2283 000 007**
Mounting frame for ceiling mounting:	for luminaires 2 x 18 W	**3 2283 000 001**
	for luminaires 4 x 18 W	**3 2283 000 002**
	for luminaires 2 x/3 x 36 W	**3 2283 000 003**
	for luminaires 4 x 36 W	**3 2283 000 004**
	for luminaires 2 x/3 x 58 W	**3 2283 000 005**
	for luminaires 4 x 58 W	**3 2283 000 006**

Dimension drawing | Polar curve









Dimensions in mm

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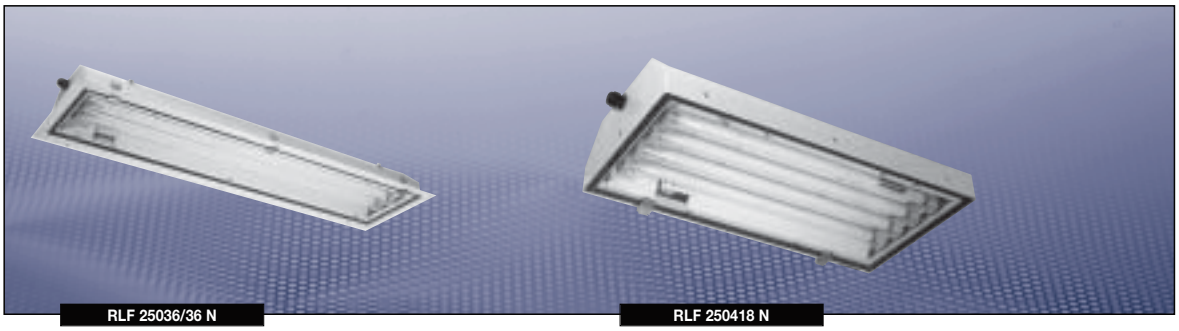

Technical data

RLF 250... N	
Marking to 94/9/EC	Ⓔx II 2 G EEx ed IIC T5 / Ⓔx II 2 D T60 °C
EC-Type Examination Certificate	applied for
Permissible ambient temperature	-5 °C to +40 °C
Rated voltage	230 - 240 V AC
Frequency	50 - 60 Hz
Circuit	EVG with emergency lighting supply
Connecting terminals	double-ended, 6 x 2.5 mm², with Through-wiring
Insulation class	I
Lamp cap	G 13 accd. to IEC 60081
Battery	4.8 V/4 Ah
Rated emergency lighting operation	1 h / 3 h
Charging duration	> 24 h
Degree of protection accd. EN 60529	IP65
Cable glands/gland plates/enclosure drilling	EEx-e cable glands M25 x 1.5 (plastic) for cables from Ø 8 - 17 mm, Option: M20 x 1.5 metal thread
Enclosure material	Painted steel sheet (option: stainless steel)
Enclosure colour	white
Protective cover/protective bowl	Single-safety glass pane of 5 mm thick

	RLF 25018/18 N	RFL 250418 N
Rated current	0.20 A	0.36 A
Lamp/illuminant	2 x T26 / 18 W (T8)	4 x T26 / 18 W (T8)
Rated luminous flux[1)]	2700 lm	5400 lm
Luminous flux in emergency operation (1 h, one lamp)[1)]	625 lm (50 %)	625 lm (50 %)
Luminous flux in emergency operation (3 h, one lamp)[1)]	338 lm (25 %)	338 lm (25 %)
Light efficiency in operation	70 %	69 %
Dimensions (L x W x H)	701 x 302 x 130 mm	701 x 362 x 130 mm
Weight	8.9 kg	11.5 kg

	RLF 25036/36 N	RFL 250436 N
Rated current	0.36 A	0.68 A
Lamp/illuminant	2 x T26 / 36 W (T8)	4 x T26 / 36 W (T8)
Rated luminous flux[1)]	6700 lm	13400 lm
Luminous flux in emergency operation (1 h, one lamp)[1)]	838 lm (25 %)	838 lm (25 %)
Luminous flux in emergency operation (3 h, one lamp)[1)]	402 lm (12 %)	402 lm (12 %)
Light efficiency in operation	70 %	69 %
Dimensions (L x W x H)	1312 x 302 x 130 mm	1312 x 362 x 130 mm
Weight	14.9 kg	18.5 kg

[1)] depends on used lamps

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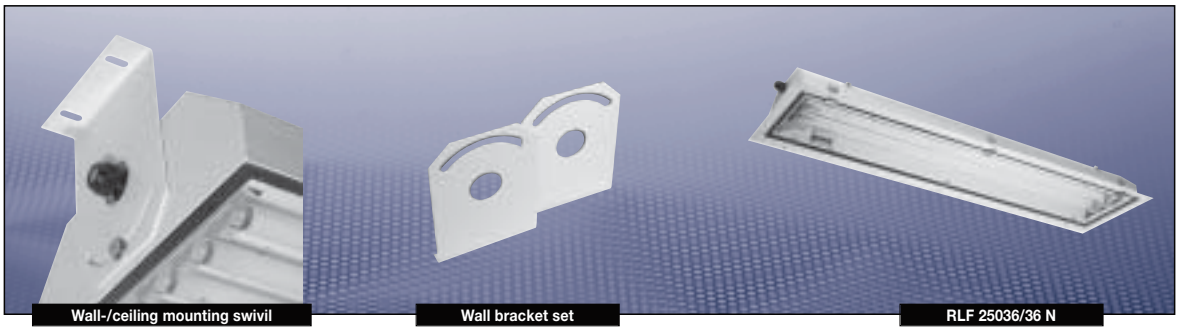

Ordering details

Type	Cable gland	Thread	Order No.
Type RLF 250...			
RLF 25018/18 N 2/5-2 K	M25 x 1.5	–	**on request**
RLF 25036/36 N 2/5-2 K	M25 x 1.5	–	**on request**
RLF 25018/18 N 2/5-2 M	–	M20 x 1.5	**on request**
RLF 25036/36 N 2/5-2 M	–	M20 x 1.5	**on request**
RLF 250418 N 2/5-2 K	M25 x 1.5	–	**on request**
RLF 250436 N 2/5-2 K	M25 x 1.5	–	**on request**
RLF 250418 N 2/5-2 M	–	M20 x 1.5	**on request**
RLF 250436 N 2/5-2 M	–	M20 x 1.5	**on request**

[1] With dustcover if entry/thread is not closed

Scope of delivery without lamps and fixing material.

Accessories

Lamp for luminaire RLF 250...

Type of lamp socket/ Diameter	Power	Luminous flux Light colour	Order No.
T26/Ø 26 mm (T8) G13-IEC-60081-Bl. 22/20 Bi-pin socket G13	18 W	1350 lm universal white	**3 2475 900 081**
T26/Ø 26 mm (T8) G13-IEC-60081-Bl. 24/20 Bi-pin socket G13	36 W	3350 lm universal white	**3 2475 900 082**
T26/Ø 26 mm (T8) G13-IEC-60081-Bl. 21/22 Bi-pin socket G13	58 W	5200 lm universal white	**3 2475 900 083**
T26/Ø 26 mm (T8) Longlife G13-socket	18 W	1300 lm universal white	**3 2475 900 087**
Aura-Ultimate	36 W	3350 lm universal white	**3 2475 900 088**
	58 W	5200 lm universal white	**on request**

RLF 250...

Type		Order No.
Wall bracket set, 2 pcs.		**3 2283 000 007**
Mounting frame for ceiling mounting:	for luminaires 2 x 18 W	**3 2283 000 001**
	for luminaires 4 x 18 W	**3 2283 000 002**
	for luminaires 2 x 36 W	**3 2283 000 003**
	for luminaires 4 x 36 W	**3 2283 000 004**
Battery set 6 V/4 Ah		**on request**

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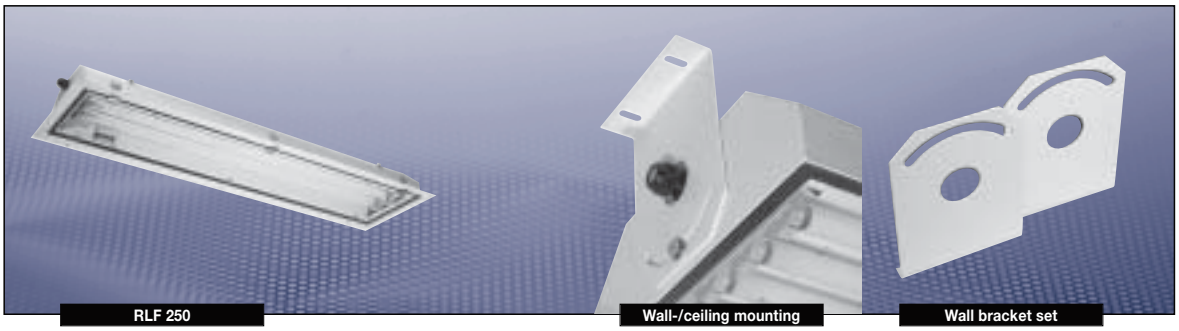
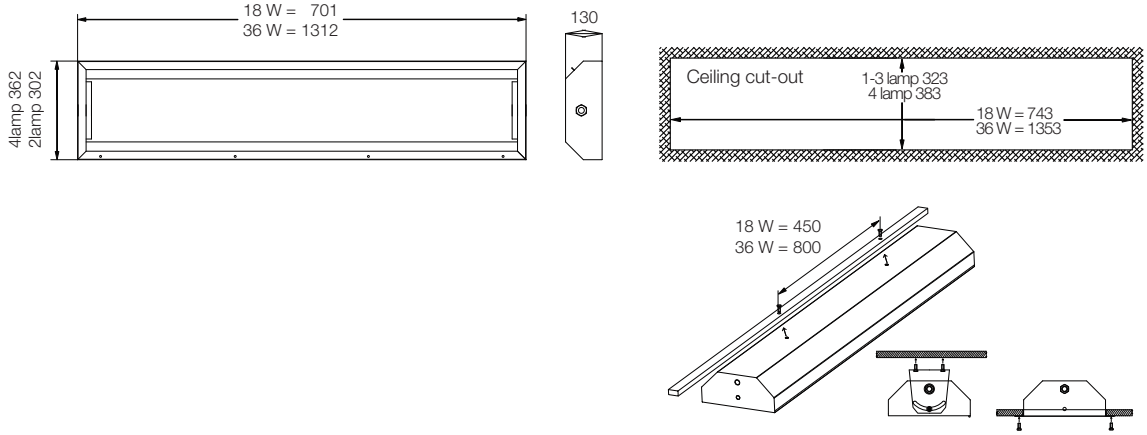
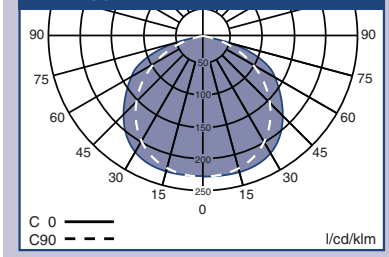


Dimension drawing | Polar curve



Polar curve
RLF 250... N



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Dimensions in mm

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E X - L I G H T F I T T I N G S

AB 12... and EVF... 18 - 58 W
Metal version for Zone 1 and Zone 21 (AB 12...)

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The light fittings series AB12 and EVF for fluorescent lamps are in accordance with the ATEX-Directive 94/9/EC and can be used in the Zones 1, 2 (for EVF...) and Zone 1, 2, 21 and 22 (for AB 12...). They are fitted alternatively with electronic or electromagnetic ballasts for fluorescent lamps with G13 sockets. The flameproof housing is made of copperfree aluminium (Cu < 0.1 %), the protective tube is made of borosilicate glass with high mechanical and thermal stability. The easy to open threaded cover, the large terminal compartment and lamp guide on a guide carriage make it simple for servicing.

- **Robust housing**
- **Easy opening due to screw plug on end**
- **2 individual circuits (double lamp version)**
- **Large terminal compartment**

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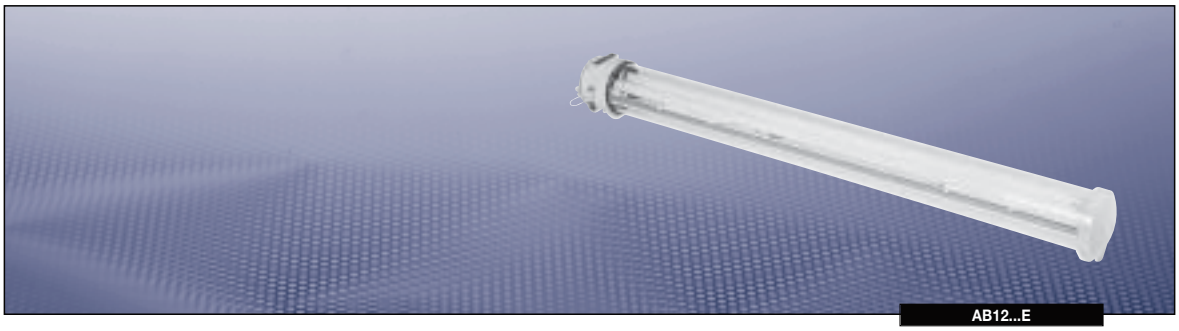

Technical data

AB 12...E with electronic ballast	
Marking to 94/9/EC	Ⓔx II 2 G EEx d IIB T5 / Ⓔx II 2 D Ex tD A21 IP67 T78 °C
EC-Type Examination Certificate	LOM 02 ATEX 2013 X
IECEx Certificate of Conformity	IECEx BKI 07.0008 X
Marking accd. to IECEx	Ex d IIB T5 Ex tD A21 IP67 T76 °C
Permissible ambient temperature	-20 °C to + 40 °C
Rated voltage	198 V - 254 V AC / 175 - 280 V DC
Frequency	50/60 Hz
Power factor cos φ	> 0.9
Circuit	EVG
Connecting terminals	L1, N and PE: 2 x 2.5 mm² / PE ext. 2 x 6 mm²
Insulation class	I
Light efficiency in operation	73%
Lamp cap	G 13 accd. to IEC 60081
Degree of protection accd. EN 60529	IP67
Cable glands/gland plates/enclosure drilling	Direct entry: 2 x 3/4" ISO 7/1, 1 x Ex d plugs ¾", eXLink inlet on request
Enclosure material	Copper-free aluminium
Enclosure colour	Polyester finish grey
Protective cover/protective bowl	Borosilicate glass

	AB 12220 E	AB 12240 E	AB 12265 E
Rated current	0.17 A	0.48 A	0.49 A
Lamp/illuminant	2 x T26 / 18 W	2 x T26 / 36 W	2 x T26 / 58 W
Luminous flux[1)]	2700 lm	6700 lm	10400 lm
Dimensions (L x W x H)	707 x 114 x 140 mm	1320 x 114 x 140 mm	1620 x 114 x 140 mm
Weight	7 kg	12 kg	14 kg

[1)] depends on used lamps

Options	Through-wiring with terminals L1, L2, L3, N and PE: 2 x 2.5 mm², other lamps, single lamp versions

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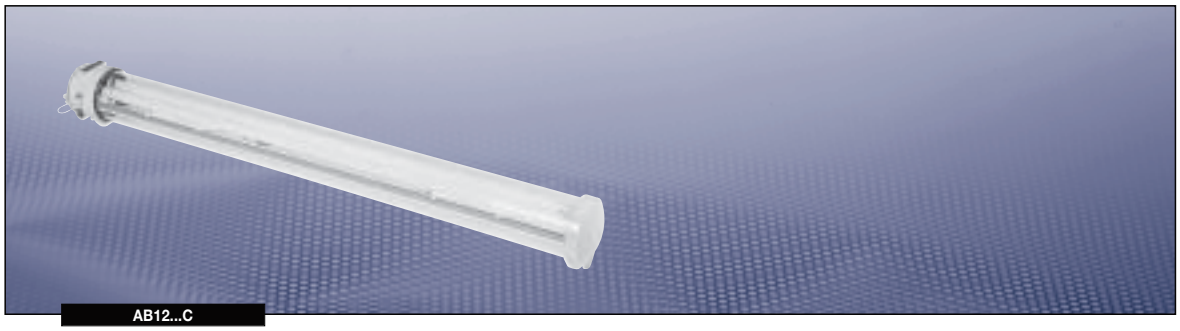

Technical data

AB 12... C/PL with conventional ballast	
Marking to 94/9/EC	Ex II 2 G EEx d IIB T5 / Ex II 2 D Ex tD A21 IP67 T93 °C
EC-Type Examination Certificate	LOM 02 ATEX 2013 X
IECEx Certificate of Conformity	IECEx BKI 07.0008 X
Marking accd. to IECEx	Ex d IIB T5
	Ex tD A21 IP67 T93 °C
Permissible ambient temperature	-20 °C to +55 °C
Rated voltage	230 V
Frequency	50 Hz
Power factor cos φ	> 0.9
Circuit	conventional ballast with ignitor
Connecting terminals	L1, N and PE: 2 x 2.5 mm² / PE ext. 2 x 6 mm²
Insulation class	I
Light efficiency in operation	70 %
Degree of protection accd. EN 60529	IP67
Cable glands/gland plates/enclosure drilling	Direct entry: 2 x ¾" ISO 7/1, 1 x Ex d plugs ¾", eXLink inlet on request
Enclosure material	Copper-free aluminium
Enclosure colour	Polyester finish grey
Protective cover/protective bowl	Borosilicate glass

	AB 12220 C	AB 12236PL
Rated current	0.37 A	0.39 A
Lamp/illuminant	2 x T26/ 18 W / T38/ 20 W	2 x TC-L 36 W
Luminous flux[1)]	2700 lm	2900 lm
Lamp cap	G 13 accd. to IEC 60081	2G11
Dimensions (L x W x H)	707 x 114 x 140 mm	707 x 114 x 140 mm
Weight	7 kg	8.5 kg

	AB 12240 C	AB 12265 C
Rated current	0.43 A	0.67 A
Lamp/illuminant	2 x T26 / 36 W / T38/ 40 W	2 x T26 / 58 W / T38/ 65 W
Luminous flux[1)]	6700 lm	10400 lm
Lamp cap	G 13 accd. to IEC 60081	G 13 accd. to IEC 60081
Dimensions (L x W x H)	1320 x 114 x 140 mm	1620 x 114 x 140 mm
Weight	12 kg	14 kg

[1)] depends on used lamps

Options	Through-wiring with terminals L1, L2, L3, N and PE: 2 x 2.5 mm², other lamps, single lamp versions

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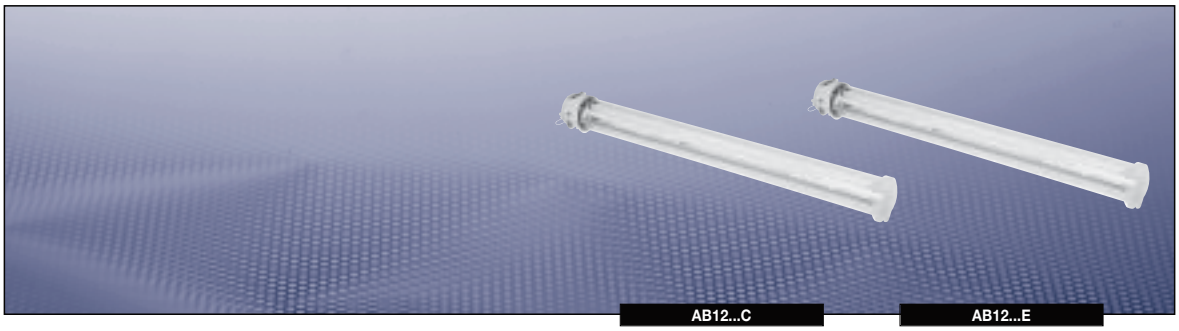

Ordering details

Type	Lamp	Rated current (230 V/50 Hz)	Weight approx.	Cable gland for cable Ø 9-14 mm	Order No.
Type AB 12...E					
AB12220E	2 x 18 W	0.17 A	7.0 kg	1 x 3/4"	**NOR 000 005 060 301**
	2 x 18 W	0.17 A	7.0 kg	–	**NOR 000 005 060 300**
AB12240E	2 x 36 W	0.32 A	12.0 kg	1 x 3/4"	**NOR 000 005 060 309**
	2 x 36 W	0.32 A	12.0 kg	–	**NOR 000 005 060 308**
AB12265E	2 x 58 W	0.49 A	14.0 kg	1 x 3/4"	**NOR 000 005 060 317**
	2 x 58 W	0.49 A	14.0 kg	–	**NOR 000 005 060 316**
Type AB 12...C					
AB12220C	2 x 18/20 W	0.37 A	7.0 kg	1 x 3/4"	**NOR 000 005 060 347**
	2 x 18/20 W	0.37 A	7.0 kg	–	**NOR 000 005 060 346**
AB12236PL	2 x 36 W-TC-L	0.39 A	8.5 kg	1 x 3/4"	**NOR 000 005 060 670**
	2 x 36 W-TC-L	0.39 A	8.5 kg	–	**NOR 000 005 060 669**
AB12240C	2 x 36/40 W	0.43 A	12.0 kg	1 x 3/4"	**NOR 000 005 060 355**
	2 x 36/40 W	0.43 A	12.0 kg	–	**NOR 000 005 060 354**
AB12265C	2 x 58/65 W	0.67 A	14.0 kg	1 x 3/4"	**NOR 000 005 060 363**
	2 x 58/65 W	0.67 A	14.0 kg	–	**NOR 000 005 060 362**

Accessories

Lamp for luminaire AB12..

Type of lamp socket/ Diameter	Power	Luminous flux Light colour	Order No.
T26/Ø 26 mm (T8) Bi-pin socket G13	18 W 36 W 58 W	1350 lm universal white 3350 lm universal white 5200 lm universal white	**3 2475 900 081** **3 2475 900 082** **3 2475 900 083**
T26/Ø 26 mm (T8) Longlife Bi-pin socket G13 Aura-Ultimate	18 W 36 W 58 W	1300 lm universal white 3350 lm universal white 5200 lm universal white	**3 2475 900 087** **3 2475 900 088** **on request**
TC-L four-pin/Ø 18 mm Socket 2G11 for AB 12236 PL	36 W	2900 lm universal white	**on request**

Reflector for luminaire AB12..

Type	Material	Version	Version	Order No.
Reflector RAB 220	AISI 304		for AB 12220../AB 12236 PL	**NOR 003 045 060 403**
Reflector RAB 240	AISI 304		for AB 12240..	**NOR 003 045 060 411**
Reflector RAB 265	AISI 304		for AB 12265..	**NOR 003 045 060 429**
Reflector RAB 220	ANSI 316		for AB 12220	**NOR 003 165 060 403**
Reflector RAB 240	ANSI 316		for AB 12240	**NOR 003 165 060 411**
Reflector RAB 265	ANSI 316		for AB 12265	**NOR 003 165 060 429**
Reflector GRAB 220	AISI 304	with wire guard (steel, white epoxid coated)	for AB 12220../AB 12236 PL	**NOR 003 045 060 479**
Reflector GRAB 240	AISI 304	with wire guard (steel, white epoxid coated)	for AB 12240..	**NOR 003 045 060 497**
Reflector GRAB 265	AISI 304	with wire guard (steel, white epoxid coated)	for AB 12265	**NOR 003 045 060 495**
Reflector GRAB 220	AISI 316	with wire guard (steel, white epoxid coated)	for AB 12220../AB 12236 PL	**NOR 003 165 060 479**
Reflector GRAB 240	AISI 316	with wire guard (steel, white epoxid coated)	for AB 12240..	**NOR 003 165 060 497**
Reflector GRAB 265	AISI 316	with wire guard (steel, white epoxid coated)	for AB 12265..	**NOR 003 165 060 495**

Scope of delivery without lamps and fixing material.

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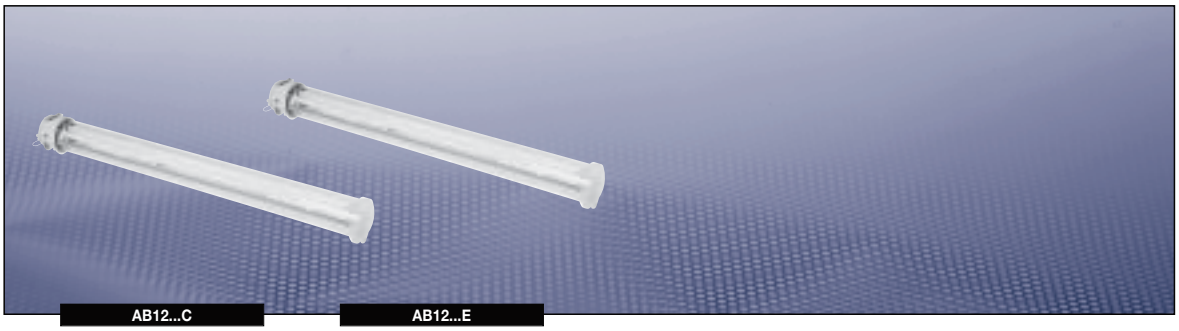
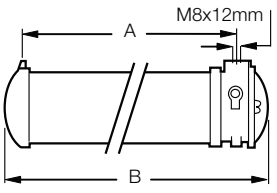


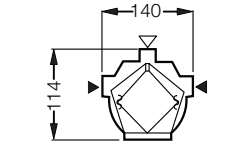
Accessories

Type	Material	Order No.
Eye bolt A1	galvanized steel	**NOR 000 005 009 261**
Ceiling mounting bracket A5	galvanized steel	**NOR 000 005 009 162**
Wall suspension BFP 45	galvanized steel	**NOR 000 005 009 196**
Pipe clamp A8 1" 1/2 D 47 – 51 mm	hot galvanized steel	**NOR 000 005 009 211**
Pipe clamp A9 2" D 56 – 60 mm	hot galvanized steel	**NOR 000 005 009 229**

For these applications, it will be necessary to have 2 parts for each luminaire.

Dimension drawing | Polar curve



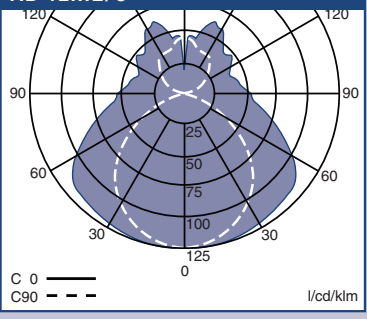


▻ optional entries, on request
► entries

	A	B
AB 12220	652	707
AB 12236 PL	652	707
AB 12240	1265	1320
AB 12265	1565	1620

AB 12220E / AB 12220C / AB 122236PL

Polar curve
AB 12...E/C



Dimensions in mm

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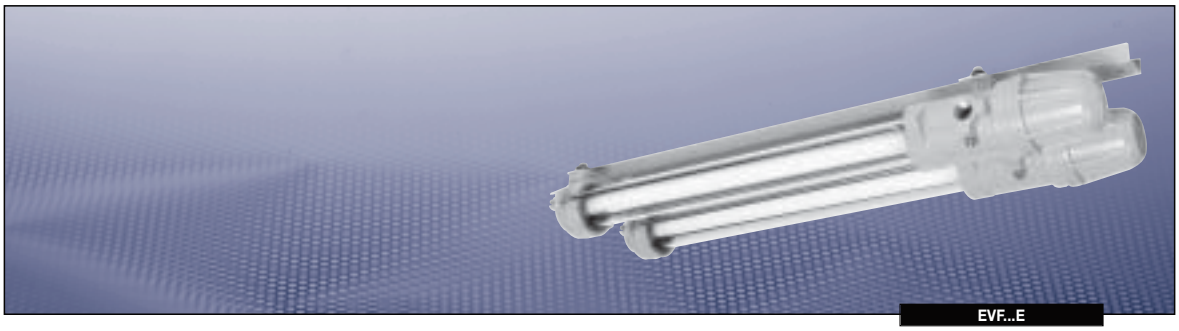

Technical data

EVF...E	
Marking to 94/9/EC	Ex II 2 G EEx d IIC T6
EC-Type Examination Certificate	LOM 02 ATEX 2019 X
IECEx Certificate of Conformity	IECEx BKI 07.0033 X
Marking accd. to IECEx	Ex d IIC T6 Ex tD A21 IP67 T76 °C
Permissible ambient temperature	-20 °C to +40 °C
Rated voltage	198 V - 254 V AC / 175 V - 280 V DC
Frequency	50/60 Hz
Power factor cos φ	> 0.9
Circuit	EVG
Connecting terminals	L1, N and PE: 2 x 2.5 mm² / PE ext. 2 x 6 mm²
Insulation class	I
Lamp cap	G 13 accd. to IEC 60081
Degree of protection accd. EN 60529	IP67
Cable glands/gland plates/enclosure drilling	Direct entry: 2 x ¾" ISO 7/1, 1 x Ex d plugs ¾", eXLink inlet on request
Enclosure material	Copper-free aluminium
Enclosure colour	Polyester finish grey
Protective cover/protective bowl	Borosilicate glass

	EVF 120 E	EVF 140 E/240 E	EVF 165 E / 265 E
Rated current	0.09 A	0.16 A / 0.32 A	0.25 A / 0.49 A
Lamp/illuminant	1 x T26 / 18 W	1 x T26 / 36 W, 2 x T26 / 36 W	1 x T26 / 58 W, 2 x T26 / 58 W
Rated luminous flux[1)]	1350 lm	3350 lm / 6700 lm	5200 lm / 10400 lm
Light efficiency in operation	83 %	83 % / 73 %	83 % / 73 %
Dimensions (L x W x H)	990 x 120 x 145 mm	1598 x 120 x 145 mm 1598 x 275 x 150 mm	1908 x 120 x 145 mm 1908 x 275 x 150 mm
Weight	6.2 kg	9.0 kg / 16.9 kg	14.6 kg / 26.4 kg

Options	Through-wiring with terminals L1, L2, L3, N and PE: 2 x 2.5 mm² other lamps, single lamp versions

[1)] depends on used lamps

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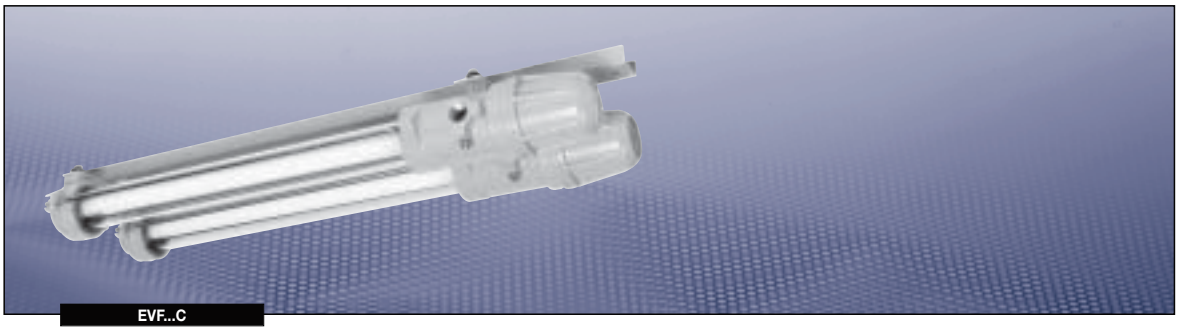

EVF...C

Technical data

EVF...C with conventional ballast	
Marking to 94/9/EC	Ex II 2 G EEx d IIC T6 58/6W = T5 at $T_{amb.}$ of +55 °C
EC-Type Examination Certificate	LOM 02 ATEX 2013 X
IECEx Certificate of Conformity	IECEx BKI 07.0033 X
Marking accd. to IECEx	Ex d IIC T6 (< 58/65 W = T5 at $T_{amb.}$ of +55 °C)
Permissible ambient temperature	-20 °C to +55 °C
Rated voltage	230 V
Frequency	50 Hz
Power factor cos φ	> 0.90
Circuit	conventional ballast with ignitor
Connecting terminals	L1, N and PE: 2 x 2.5 mm² / PE ext. 2 x 6 mm²
Insulation class	I
Degree of protection accd. EN 60529	IP67
Cable glands/gland plates/enclosure drilling	Direct entry: 2 x ¾" ISO 7/1, 1 x Ex d plugs ¾", eXLink inlet on request
Enclosure material	Copper-free aluminium
Enclosure colour	Polyester finish grey
Protective cover/protective bowl	Borosilicate glass

	EVF 120 C	EVF 140 C	EVF 165 C
Rated current	0.15 A	0.25 A	0.39 A
Lamp/illuminant	1 x T26 / 18 W, 1 x T38 / 40 W	1 x T26 / 36 W, 1 x T38 / 40 W	1 x T26 / 58 W, 1 x T38 / 65 W
Rated luminous flux	1350 lm	3350 lm	5200 lm
Light efficiency in operation	81 %	81 %	81 %
Dimensions (L x W x H)	990 x 120 x 145 mm	1598 x 120 x 145 mm	1908 x 120 x 145 mm
Weight	6.2 kg	9.0 kg	14.6 kg

	EVF 240 C	EVF 265 C
Rated current	0.50 A	0.78 A
Lamp/illuminant	2 x T26 / 36 W, 2 x T38 / 40 W	2 x T26 / 58 W, 2 x T38 / 65 W
Rated luminous flux	6700 lm	10400 lm
Light efficiency in operation	71 %	71 %
Dimensions (L x W x H)	1598 x 275 x 150 mm	1908 x 275 x 150 mm
Weight	16.9 kg	26.4 kg

Options	Through-wiring with terminals L1, L2, L3, N and PE: 2 x 2.5 mm² other lamps, single lamp versions

[1] depends on used lamps

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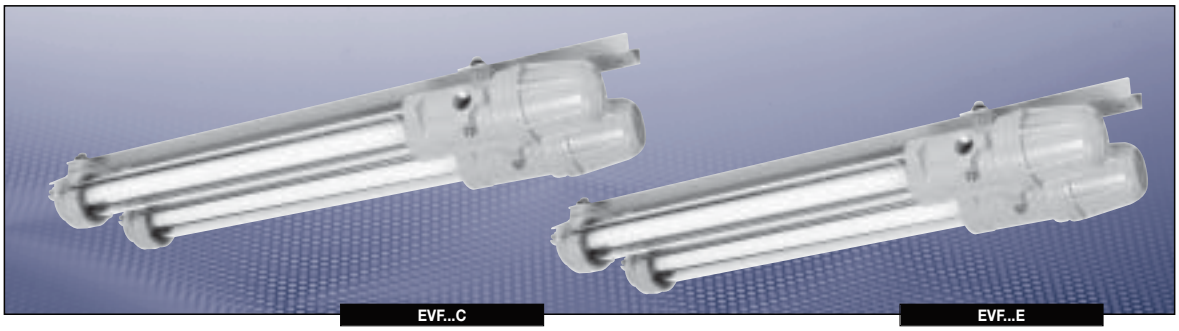

Ordering details

Type	Lamp	Rated current (230 V/50 Hz)	Weight approx.	Cable gland for cable Ø 9-14 mm	Order No.
Type EVF...E					
EVF120E	1 x 18 W	0.09 A	6.2 kg	1 x 3/4"	**NOR 000 005 070 301**
	1 x 18 W	0.09 A	6.2 kg	–	**NOR 000 005 070 300**
EVF140E	1 x 36 W	0.16 A	9.0 kg	1 x 3/4"	**NOR 000 005 070 309**
	1 x 36 W	0.16 A	9.0 kg	–	**NOR 000 005 070 308**
EVF165E	1 x 58 W	0.25 A	14.6 kg	1 x 3/4"	**NOR 000 005 070 317**
	1 x 58 W	0.25 A	14.6 kg	–	**NOR 000 005 070 316**
EVF240E	2 x 36 W	0.32 A	16.9 kg	1 x 3/4"	**NOR 000 005 070 329**
	2 x 36 W	0.32 A	16.9 kg	–	**NOR 000 005 070 328**
EVF265E	2 x 58 W	0.49 A	26.4 kg	1 x 3/4"	**NOR 000 005 070 335**
	2 x 58 W	0.49 A	26.4 kg	–	**NOR 000 005 070 333**
Type EVF...C					
EVF120C	1 x 18/20 W	0.15 A	6.2 kg	1 x 3/4"	**NOR 000 005 070 065**
	1 x 18/20 W	0.15 A	6.2 kg	–	**NOR 000 005 070 064**
EVF140C	1 x 36/40 W	0.25 A	9.0 kg	1 x 3/4"	**NOR 000 005 070 031**
	1 x 36/40 W	0.25 A	9.0 kg	–	**NOR 000 005 070 030**
EVF165C	1 x 58/65 W	0.39 A	14.6 kg	1 x 3/4"	**NOR 000 005 070 403**
	1 x 58/65 W	0.39 A	14.6 kg	–	**NOR 000 005 070 402**
EVF240C	2 x 36/40 W	0.50 A	16.9 kg	1 x 3/4"	**NOR 000 005 070 023**
	2 x 36/40 W	0.50 A	16.9 kg	–	**NOR 000 005 070 022**
EVF265C	2 x 58/65 W	0.78 A	26.4 kg	1 x 3/4"	**NOR 000 005 070 429**
	2 x 58/65 W	0.78 A	26.4 kg	–	**NOR 000 005 070 428**

Accessories

Lamp for luminaire EVF..

Type of lamp socket/ Diameter	Power	Luminous flux Light colour	Order No.
T26/Ø 26 mm (T8)	18 W	1350 lm universal white	**3 2475 900 081**
Bi-pin socket G13	36 W	3350 lm universal white	**3 2475 900 082**
	58 W	5200 lm universal white	**3 2475 900 083**
T26/Ø 26 mm (T8) Longlife	18 W	1300 lm universal white	**3 2475 900 087**
Bi-pin socket G13	36 W	3350 lm universal white	**3 2475 900 088**
Aura-Ultimate	58 W	5200 lm universal white	**on request**

Wire guard for luminaire EVF..

Type	Version	Order No.
Wire guard REVF 20 (steel, white epoxid coated)	for EVF 120	**NOR 000 000 507 385**
Wire guard REVF 40 (steel, white epoxid coated)[1)]	for EVF 140/240	**NOR 000 000 507 393**
Wire guard REVF 65 (steel, white epoxid coated)[1)]	for EVF 165/265	**NOR 000 000 507 319**

[1)] EVF 240 and 265-two wire guards per fitting.

Scope of delivery without lamps and fixing accessories.

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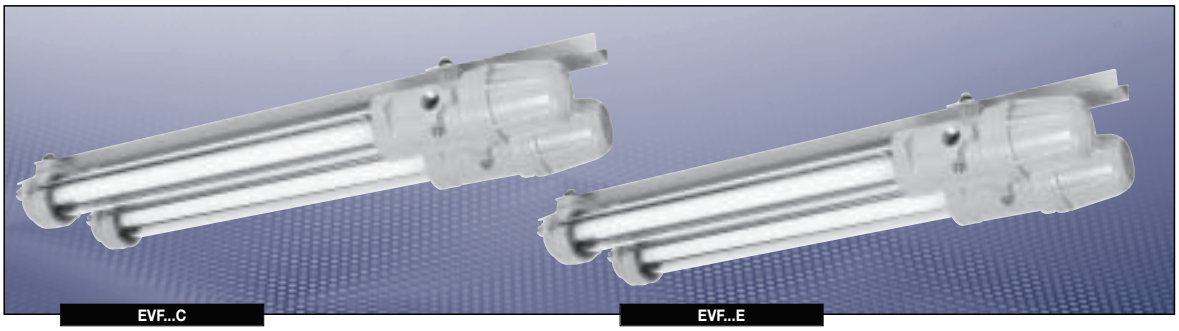
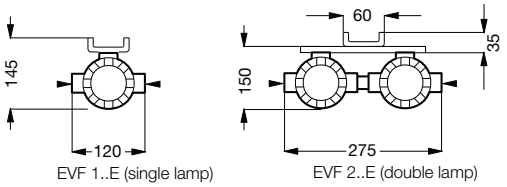
EVF...E with electronic ballast
EVF...C with electromagnetic ballast

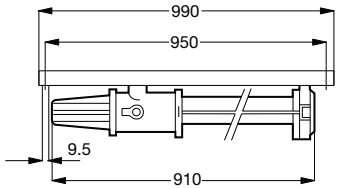


Dimension drawing | Polar curve

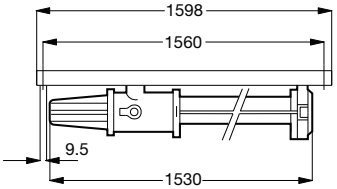


EVF 1..E (single lamp)

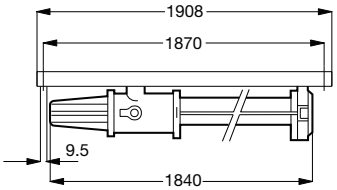
EVF 2..E (double lamp)



EVF120E / EVF120C

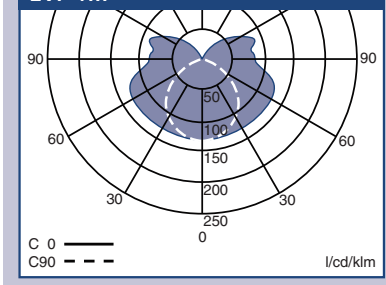


EVF140E / EVF140C /
EVF240E / EVF240C

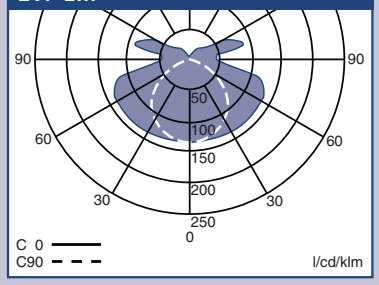


EVF165E / EVF165C
EVF265E / EVF265C

Polar curve
EVF 1...



Polar curve
EVF 2...



Dimensions in mm

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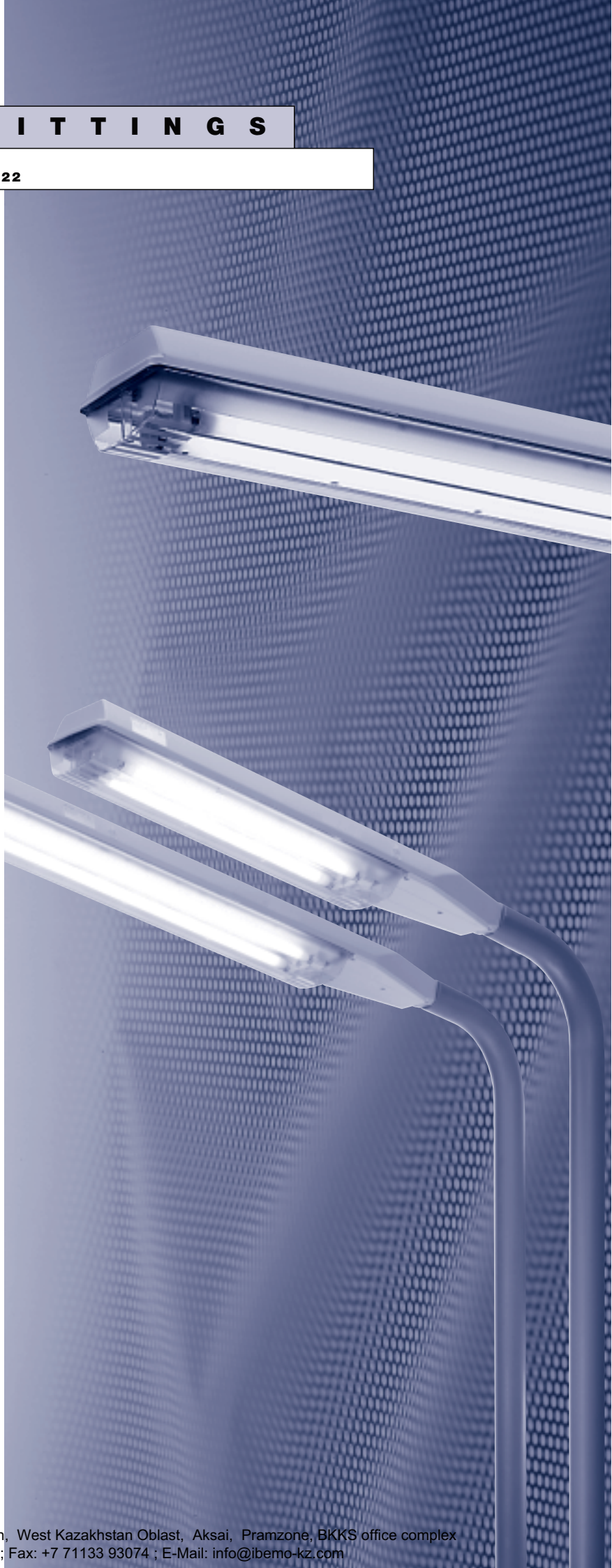
E X - L I G H T F I T T I N G S

nLLK 08... 18 - 58 W
All-plastic design for Zone 2 and Zone 21/22



The explosion-protected light fittings of the series nLLK 08 conform to the requirements of the ATEX-Directive 94/9/EC. They are designed and tested acc. to the new standard IEC EN 60079-15 for Ex equipment for use in zone 2 and EN 61241-1 for use in Zone 21 and Zone 22 of dust Ex-areas. They are equipped with electronic ballasts (EVGs) for G13 bi-pin fluorescent lamps. The new EVG additionally fullfills the relevant requirements of "End of Life" (EOL) acc. IEC 60079-7 for explosion protected fluorescent light fittings design "increased safety". The standard single-sided through-wiring architecture in conjunction with the generously large terminal compartment offers a cost efficient installation. Double-sided lock with 10, 20 or 24 latch points allows the protective bowl to be hingeable on both sides meaning the fitting can be mounted without having to pay attention to which side is the right side. With the optional CG-S module, single monitoring of the lamp is possible with the CEAG Emergency Light Supply Systems.

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- **Cost efficient installation due to single-sided through-wiring**
- **With electronic ballast incl. EOL set-up**
- **Double-sided safety lock**
- **Safety standard IP66**
- **Integration in the CEAG Emergency Light Supply System**

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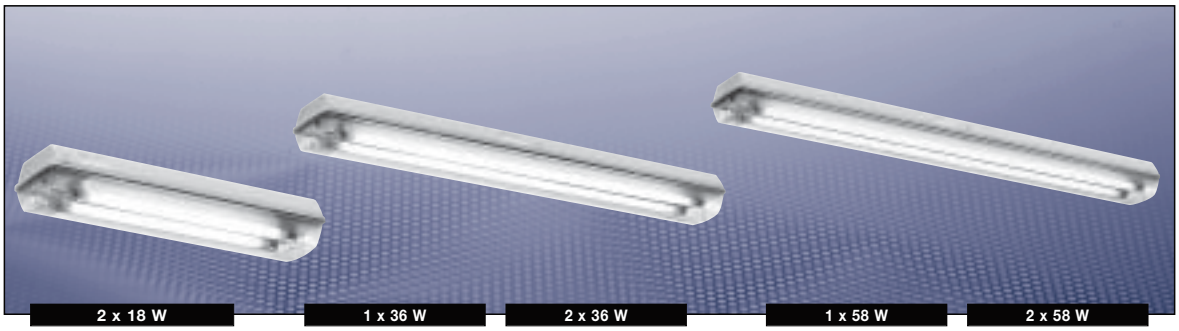

Technical data

nLLK 08018/18 | nLLK 08036 | nLLK 08036/36 | nLLK 08058 | nLLK 08058/58	
Marking to 94/9/EC	Ex II 3 G Ex nA II T4 / Ex II 2 D tD A21 IP66 T80 °C
EC Conformity Statement	PTB 08 ATEX 2008
Permissible ambient temperature	–25 °C to +50 °C / –25 °C to +40 °C (2 x 58 W) –25 °C to +45 °C (2 x 36 W 2/5 + 2/6, excl. CG-S-Version)
Rated voltage	220 V - 240 V AC 220 V - 254 V AC (CG-S variant)
Rated voltage	220 V - 240 V DC 195 V - 250 V DC (CG-S variant)
Frequency	50 - 60 Hz
Power factor cos φ	>= 0.95
Circuit	EVG resp. EVG/CG-S
Connecting terminals	L, N, PE max. 2 x 2.5 mm², clamp terminals; optional screw-type terminals max. 2 x 6 mm² single wire
Insulation class	I
Lamp cap	G13 accd. to IEC 60081
Degree of protection accd. EN 60529	IP66
Cable glands/gland plates/enclosure drilling	EEx e cable glands M25 x 1.5 (plastic) for cables from Ø 8 - 17 mm Option: M20 x 1.5 metal thread
Enclosure material	Glass-fibre reinforced polyester
Protective cover/protective bowl	Polycarbonate

	nLLK 08018/18
Rated current	0.16 A / 0.17 A (CG-S variant)
Lamp/illuminant	2 x T26 / 18 W
Rated luminous flux[1)]	2700 lm
Light efficiency in operation	78 %
Dimensions (L x W x H)	862 x 280 x 120 mm
Weight	approx. 4 kg / approx. 4.5 kg (CG-S variant)

	nLLK 08036	nLLK 08036/36
Rated current	0.16 A	0.34 A / 0.35 A (CG-S variant)
Lamp/illuminant	1 x T26 / 36 W	2 x T26 / 36 W
Rated luminous flux[1)]	3350 lm	6700 lm
Light efficiency in operation	86 %	78 %
Dimensions (L x W x H)	1460 x 280 x 120 mm	1460 x 280 x 120 mm
Weight	approx. 6.0 kg	approx. 6 kg /approx. 6.5 kg (CG-S variant)

	nLLK 08058	nLLK 08058/58
Rated current	0.53 A / 0.54 A (CG-S variant)	
Lamp/illuminant	2 x T26 / 58 W	
Rated luminous flux[1)]	5200 lm	10400 lm
Light efficiency in operation	83%	72%
Dimensions (L x W x H)	1760 x 280 x 120 mm	1760 x 280 x 120 mm
Weight	approx. 7.3 kg	approx. 7.3 kg / approx. 7.8 kg (CG-S variant)

[1)] depends on used lamps

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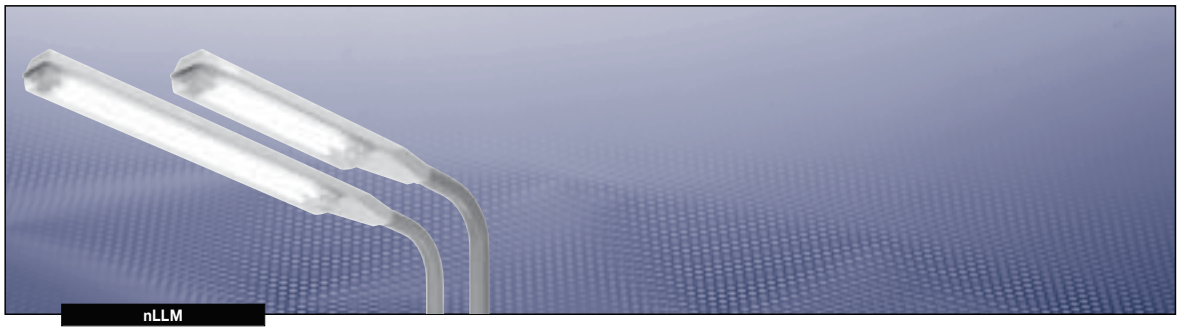

Technical data

nLLM 08018/18 | nLLM 08036/36	
Marking to 94/9/EC	Ex II 3 G Ex nA II T4 / Ex II 2 D tD A21 IP66 T80 °C
EC Conformity statement	PTB 08 ATEX 2008
Permissible ambient temperature	-25 °C to +50 °C
Rated voltage	220 V - 240 V AC
Rated voltage	220 V - 240 V DC
Frequency	50 - 60 Hz
Power factor cos φ	≥ 0.95
Circuit	EVG
Connecting terminals	L, N, PE screw-type terminals max. 2 x 6 mm² single wire
Insulation class	I
Lamp cap	G13 accd. to IEC 60081
Degree of protection accd. EN 60529	IP66
Cable glands	1 x EEx e cable glands M25 x 1.5 (plastic) for cables from Ø 8 - 17 mm
Enclosure material	Glass-fibre reinforced polyester
Protective cover/protective bowl	Polycarbonate

	nLLM 08018/18	nLLM 08036/36
Rated current	0.16 A	0.34 A
Lamp/illuminant	2 x T26 / 18 W	2 x T26 / 36 W
Rated luminous flux[1)]	2700 lm	6700 lm
Light efficiency in operation	78 %	78 %
Dimensions (L x W x H)	1060 x 188 x 130 mm	1660 x 188 x 130 mm
Pole socket	Ø 44 mm x 150 mm	Ø 44 mm x 150 mm
Weight	approx. 6.1 kg	approx. 8.4 kg

[1)] depends on used lamps

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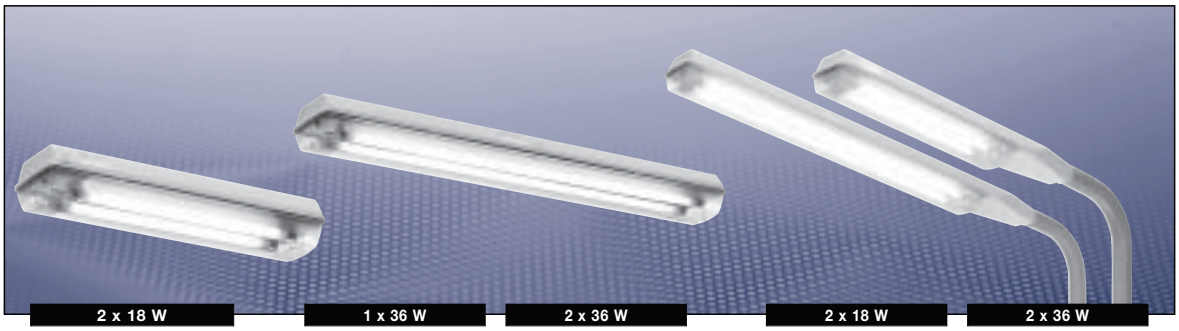

Ordering details

Type	Connecting terminals	Through-wiring single-ended	Through-wiring double-ended	Cable glands[2]	Plugs	Order No.
Type nLLK 08018/18 (2 x 18 W)						
1/3-1	1 x 3	x	–	1 x M25 x 1.5	1 x threaded	**1 3465 218 001**
2/5-2	2 x 5	–	x	2 x M25 x 1.5	2 x threaded	**1 3465 218 011**
2/6-2 M[1] [4]	2 x 6	–	x	4 x M20 x 1.5	2 x threaded	**1 3465 218 021**
Type nLLK 08018/18 CG-S[2] (2 x 18 W)						
2/6-2[4]	2 x 6	–	x	2 x M25 x 1.5	2 x threaded	**1 3465 218 912**
2/6-M[1] [4]	2 x 6	–	x	4 x M20 x 1.5	2 x threaded	**1 3465 218 922**
Type nLLM 08018/18 (2 x 18 W)						
1/3-1	1 x 3	–	–	1 x M25 x 1.5	–	**1 3465 218 101**
Type nLLK 08036 (1 x 36 W)						
1/3-1	1 x 3	x	–	1 x M25 x 1.5	1 x threaded	**1 3465 136 001**
2/5-2	2 x 5	–	x	2 x M25 x 1.5	2 x threaded	**1 3465 136 011**
2/6-2M[1] [4]	2 x 6	–	x	4 x M20 x 1.5	2 x threaded	**1 3465 136 021**
Type nLLK 08036/36 (2 x 36 W)						
1/3-1	1 x 3	x	–	1 x M25 x 1.5	1 x threaded	**1 3465 236 001**
2/5-2	2 x 5	–	x	2 x M25 x 1.5	2 x threaded	**1 3465 236 011**
2/6-2M[1] [4]	2 x 6	–	x	4 x M20 x 1.5	2 x threaded	**1 3465 236 021**
Type nLLK 08036/36 CG-S[2] (2 x 36 W)						
2/6-2[4]	2 x 6	–	x	2 x M25 x 1.5	2 x threaded	**1 3465 236 912**
2/6-2M[1] [4]	2 x 6	–	x	4 x M20 x 1.5	2 x threaded	**1 3465 236 922**
Type nLLM 08036/36 (2 x 36 W)						
1/3-1	1 x 3	–	–	1 x M25 x 1.5	–	**1 3465 236 101**
Type nLLK 08058 (1 x 58 W)						
1/3-1	1 x 3	x	–	1 x M25 x 1.5	1 x threaded	**1 3465 158 001**
2/5-2	2 x 5	–	x	2 x M25 x 1.5	2 x threaded	**1 3465 158 011**
2/6-2M[1] [4]	2 x 6	–	x	4 x M20 x 1.5	2 x threaded	**1 3465 158 021**
Type nLLK 08058/58 (2 x 58 W)						
1/3-1	1 x 3	x	–	1 x M25 x 1.5	1 x threaded	**1 3465 258 001**
2/5-2	2 x 5	–	x	2 x M25 x 1.5	2 x threaded	**1 3465 258 011**
2/6-2M[1] [4]	2 x 6	–	x	4 x M20 x 1.5	2 x threaded	**1 3465 258 021**
Type nLLK 08058/58 CG-S[2] (2 x 58 W)						
2/6-2[4]	2 x 6	–	x	2 x M25 x 1.5	2 x threaded	**1 3465 258 912**
2/6-2M[1] [4]	2 x 6	–	x	4 x M20 x 1.5	2 x threaded	**1 3465 258 922**

[1] M: with metal thread, without cable gland

[2] CG-S: design single monitored emergency light fitting for use in CEAG emergency light supply unit

[3] With dustcover if entry/thread is not closed

[4] With screw-type terminals max. 2 x 6 mm² single wire

Version with integrated isolating switch on request

Scope of delivery without lamp and fixing accessoires

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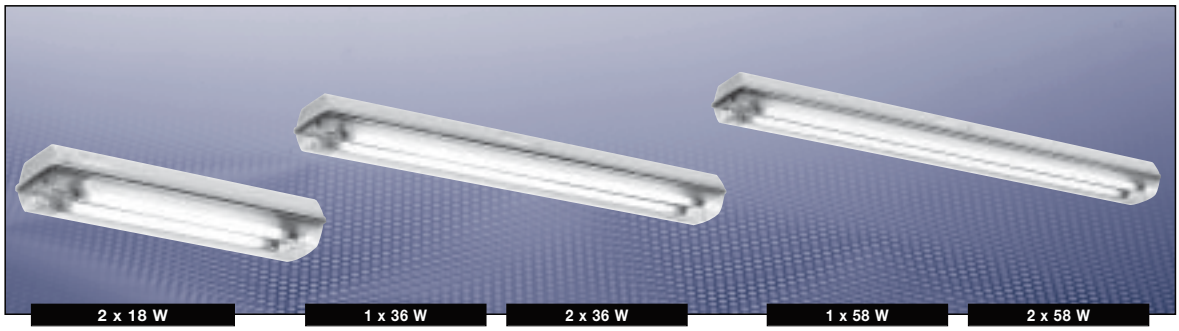

Accessories

Lamp for luminaire nLLK08/nLLM08

Type of lamp socket/ Diameter	Power	Luminous flux Light colour	Order No.
T26/Ø 26 mm (T8) G13-IEC-60081-Bl. 22/20 Bi-pin socket G13	18 W	1350 lm universal white	**3 2475 900 081**
T26/Ø 26 mm (T8) G13-IEC-60081-Bl. 24/20 Bi-pin socket G13	36 W	3350 lm universal white	**3 2475 900 082**
T26/Ø 26 mm (T8) G13-IEC-60081-Bl. 21/22 Bi-pin socket G13	58 W	5200 lm universal white	**3 2475 900 083**
T26/Ø 26 mm (T8) Longlife Socket G13 Aura-Ultimate	18 W	1300 lm universal white	**3 2475 900 087**
	36 W	3350 lm universal white	**3 2475 900 088**
	58 W	5200 lm universal white	**on request**

Series nLLK 08... and nLLM 08...

Type	Order No.
Hexagon screw SW 13	**3 2485 000 005**

Series nLLM 08018/18 and nLLM 08036/36

Type	Order No.
Single sided through wiring 2/6 with 2 entries M25, incl. terminals and mounting material	**2 2218 602 000**

Fixing materials nLLK 08

Type/code	Corrosion protection	Qty. per light fitting	Order No.
Eye bolt A2	galvanized	2	**2 2480 002 000**
Hexagon screw S4	stainless steel	2	**2 2480 054 000**
Ceiling mounting bracket D92 incl. screws and washer	stainless steel	2	**2 2480 092 000**

Fixing materials nLLK 08... and nLLM 08...

Type/code	Corrosion protection	for pipes DIN	Outer Ø D (mm)	Qty. per light fitting	Order No.
Pipe clamp					
R12	hot galvanized	1¼"	38 - 42	2	**2 2480 462 000**
R14	CrNi	1¼"	38 - 42	2	**2 2480 464 000**
R22	hot galvanized	1½"	47 - 51	2	**2 2480 472 000**
R24	CrNi	1½"	47 - 51	2	**2 2480 474 000**
R32	hot galvanized	2"	56 - 60	2	**2 2480 482 000**
R34	CrNi	2"	56 - 60	2	**2 2480 484 000**
Wall bracket W27	hot galvanized		42.4	1	**2 2483 027 000**
Luminaire wall suspension 30° incl. screws and washer	hot galvanized			2	**2 2480 000 122**

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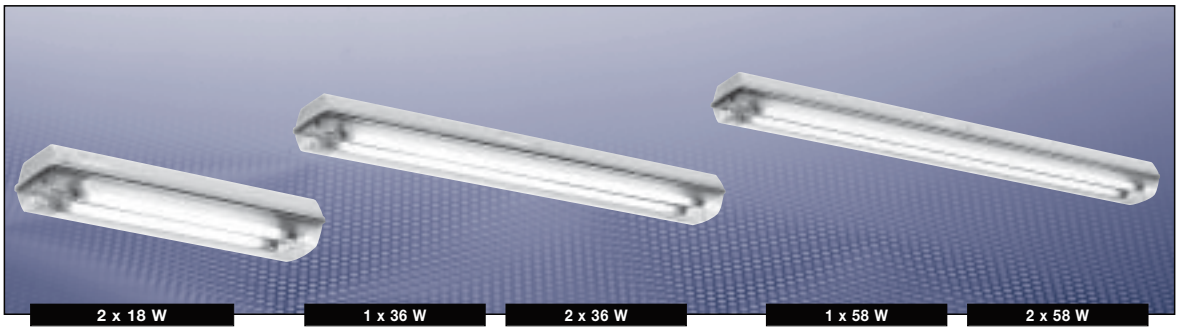
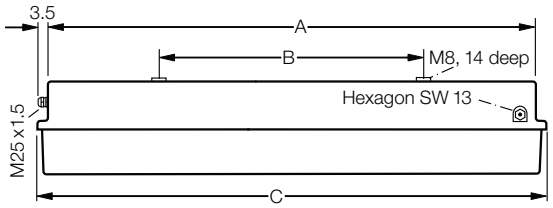
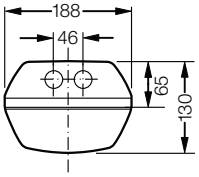


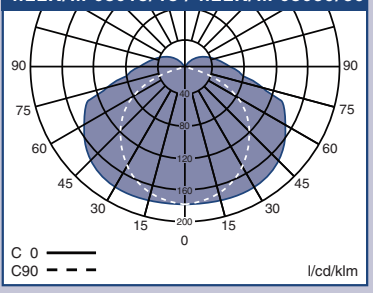
Dimension drawing | Polar curve | Accessories



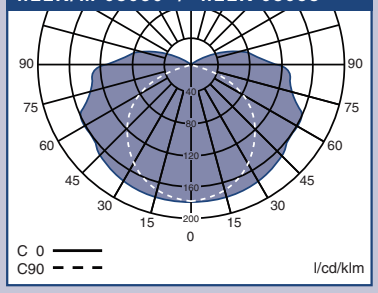


Type	A	B	C
nLLK 08018/18	732	400	760
nLLK 08036 / nLLK 08036/36	1332	700	1360
nLLK 08058 / nLLK 08058/58	1632	700	1660

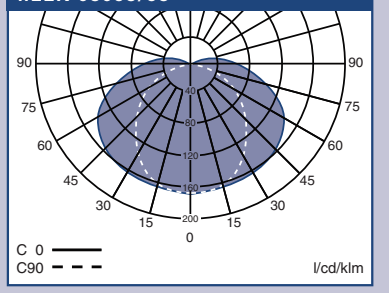
Polar curve
nLLK/M 08018/18 / nLLK/M 08036/36

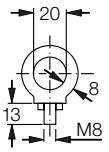


Polar curve
nLLK/M 08036 / nLLK 08058

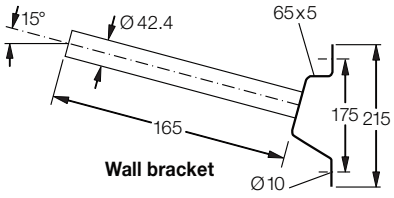


Polar curve
nLLK 08058/58

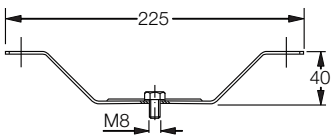


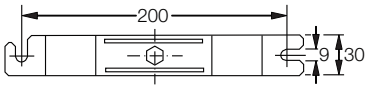


Eye bolt

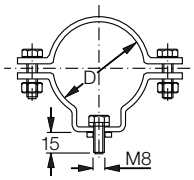


Wall bracket

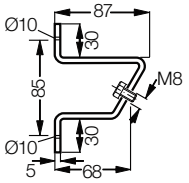




Ceiling mounting bracket D92



Pipe clamp



Luminaire wall suspension 30°

Dimensions in mm

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EX-EMERGENCY LIGHT FITTINGS

nLLK 08...N 18 - 36 W
Plastic version for Zone 2 and Zone 21/22

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The explosion-protected light fittings of the series nLLK 08 N are conform to the requirements of the ATEX-Directive 94/9/EC. They are designed and tested acc. to the new standard IEC EN 60079-15 for Ex equipment for use in zone 2 and EN 61241-1 for use in Zone 21 and Zone 22 of dust Ex-areas.They are equipped with electronic ballasts (EVGs) for G13 bi-pin fluorescent lamps and are available for 18 W and 36 W. Additionally it fullfills the relevant requirements „End of Life“ (EOL) acc. IEC 60079-7 for explosion protected fluorescent light fittings design „increased safety“ as well as for mains operation and for emergency light operation. Additionally the light fittings fullfill the requirements acc. EN 60598 part 2-22 for emergency light fittings. They are fitted with a self contained battery for maintained and non maintained mode. The light fitting has an emergency lighting duration time of 1.5 h, alternativ 3.0 h and a green indication LED for charging current.
The standard single-sided through-wiring architecture in conjunction with the generously large terminal compartment offers a cost efficient installation. Double-sided lock with 10 resp. 20 latch points allows the protective bowl to be hingeable on both sides meaning the fitting can be mounted without having to pay attention to which side is the right side. Maintenance-friendly the self-contained battery is mounted beneath a reflector-flap. Versions with double sided through wiring have a flanged battery housing.

- **Cost efficient installation due to single-sided through-wiring**
- **With electronic ballast incl. EOL set-up**
- **Double-sided safety lock**
- **High degree of protection IP66**
- **Self-contained NC-battery for emergency lighting 1.5 h, alt. 3.0 h**
- **Easy battery change**

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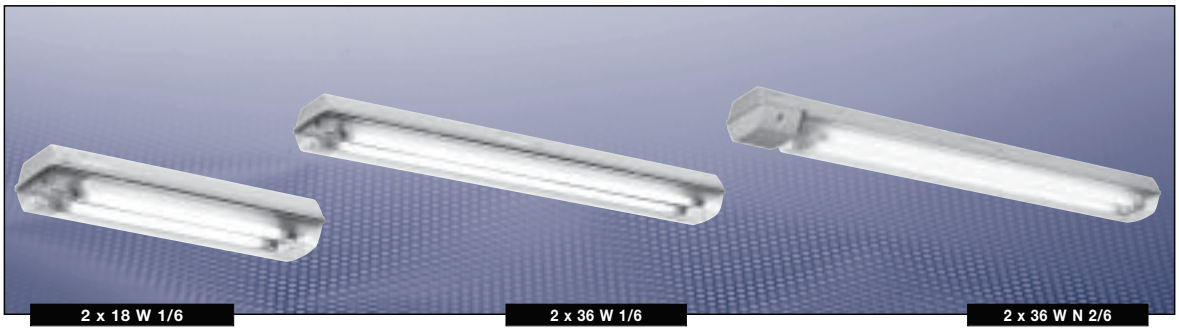

Technical data

nLLK 08018/18 N 1/6 | nLLK 08018/18 N 2/6 | nLLK 08036/36 N 1/6 | nLLK 08036/36 N 2/6	
Marking to 94/9/EC	Ex II 3 G Ex nA de II C T4 / Ex II 2 D tD A21 IP66 T80 °C
EC Conformity statement	PTB 08 ATEX 2008
Permissible ambient temperature	-25 °C to + 45 °C / -25 °C to +40 °C (2 x 36 W 2/6) (specified data: -5 °C to +35 °C)
Rated voltage	220 V - 240 V AC
Frequency	50 - 60 Hz
Power factor cos φ	>= 0.95
Circuit	EVG with emergency lighting supply
Connecting terminals	L1, L2, L3, L, N, PE, max. 2 x 6 mm² single wire per screw terminal
Insulation class	I
Lamp cap	G13 accd. to IEC 60081
Light efficiency in operation	78%
Rated emergency operation duration	1.5 h / 3 h
Charging duration	> 24 h
Degree of protection accd. EN 60529	IP66
Cable glands/gland plates/enclosure drilling[1]	EEx e cable glands M25 x 1.5 (plastic) for cables from Ø 8 - 17 mm
	Option: M20 x 1.5 metal thread
Enclosure material	Glass-fibre reinforced polyester
Protective cover/protective bowl	Polycarbonate

	nLLLK 08018/18 N 1/6	nLLLK 08018/18 N 2/6[2]
Rated current	0.18 A	0.18 A
Lamp/illuminant	2 x T26 / 18 W	2 x T26 / 18 W
Rated luminous flux[1]	2700 lm	2700 lm
Luminous flux in emergency operation (1.5 h, one lamp)[1]	880 lm (65 %)	880 lm (65 %)
Luminous flux in emergency operation (3 h, one lamp)[1]	415 lm (30 %)	415 lm (30 %)
Battery	6 V/4 Ah NC Accu	6 V/4 Ah NC Accu
Dimensions (L x W x H)	760 x 188 x 130 mm	900 x 130 x 188 mm
Weight	approx. 5.5 kg	approx. 6.5 kg

	nLLK 08036/36 N 1/6	nLLK 08036/36 N 2/6[2]
Rated current	0.36 A	0.36 A
Lamp/illuminant	2 x T26/ 36 W	2 x T26/ 36 W
Rated luminous flux[1]	6700 lm	6700 lm
Luminous flux in emergency operation (1.5 h, one lamp)[1]	1200 lm (36 %)	1200 lm (36 %)
Luminous flux in emergency operation (3 h, one lamp)[1]	---	1040 lm (31 %)
Battery	6 V/4 Ah NC Accu	6 V/4 Ah NC Accu (1.5 h), 6 V/7 Ah NC Accu (3.0 h)
Dimensions (L x W x H)	1360 x 188 x 130 mm	1500 x 130 x 188 mm
Weight	approx. 7.5 kg	approx. 8.5 kg (1.5 h), approx. 9.5 kg (3.0 h)

[1] depends on used lamps

[2] Version 2/6 with seperate battery housing

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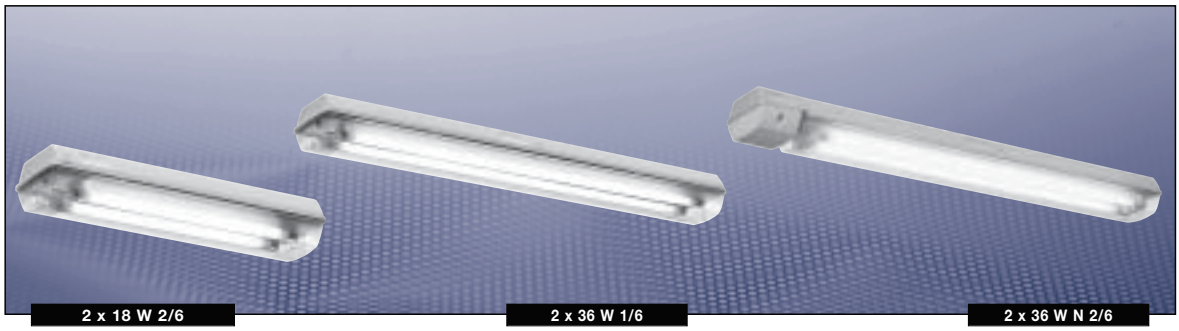

Ordering details

Type	Connecting terminals	Through-wiring single-ended	Through-wiring double-ended	With M25 plastic cable glands	For M20 metal[2] cable glands	Rated emergency lighting operation	Order No.
Type nLLK 08018/18 N 1/6 (2 x 18 W)							
1/6-1	1 x 6	X	–	X	–	1.5 h	**1 3470 218 001**
1/6-1 M[1]	1 x 6	X	–	–	X	1.5 h	**1 3470 218 031**
1/6-1	1 x 6	X	–	X	–	3 h	**1 3469 218 001**
1/6-1 M[1]	1 x 6	X	–	–	X	3 h	**1 3469 218 031**
Type nLLK 08018/18 N 2/6 (2 x 18 W)[3]							
2/6-2	2 x 6	–	X	X	–	1.5 h	**1 3470 218 011**
2/6-2 M[1]	2 x 6	–	X	–	X	1.5 h	**1 3470 218 131**
2/6-2	2 x 6	–	X	X	–	3 h	**1 3469 218 011**
2/6-2 M[1]	2 x 6	–	X	–	X	3 h	**1 3469 218 131**
Type nLLK 08036/36 N 1/6 (2 x 36 W)							
1/6-1	1 x 6	X	–	X	–	1.5 h	**1 3470 236 001**
1/6-1 M[1]	1 x 6	X	–	–	X	1.5 h	**1 3470 236 031**
Type nLLK 08036/36 N 2/6 (2 x 36 W)[3]							
2/6-2	2 x 6	–	X	X	–	1.5 h	**1 3470 236 011**
2/6-2 M[1]	2 x 6	–	X	–	X	1.5 h	**1 3470 236 131**
2/6-2	2 x 6	–	X	X	–	3 h	**1 3469 236 011**
2/6-2 M[1]	2 x 6	–	X	–	X	3 h	**1 3469 236 131**

[1] M: with metal thread, without cable gland

[2] With dustcover if entry/thread is not closed

[3] Version 2/6 with separate battery housing

Version with integrated isolating switch on request

Scope of delivery without lamp and fixing accessoires

Accessories

Lamp for luminaire nLLK08... N/nLLM08... N			
Type of lamp socket/ Diameter	Power	Luminous flux Light colour	Order No.
T26/Ø 26 mm (T8) Bi-pin socket G13	18 W 36 W	1350 lm universal white 3350 lm universal white	**3 2475 900 081** **3 2475 900 082**
T26/Ø 26 mm (T8) Longlife Bi-pin cap G13 Aura-Ultimate	18 W 36 W	1300 lm universal white 3350 lm universal white	**3 2475 900 087** **3 2475 900 088**
T-HS 26/Ø 26 mm[1] Single pin cap Fa6 Aura Super Ex	18 W 36 W	1150 lm universal white 3000 lm universal white	**3 2475 900 084** **3 2475 900 085**

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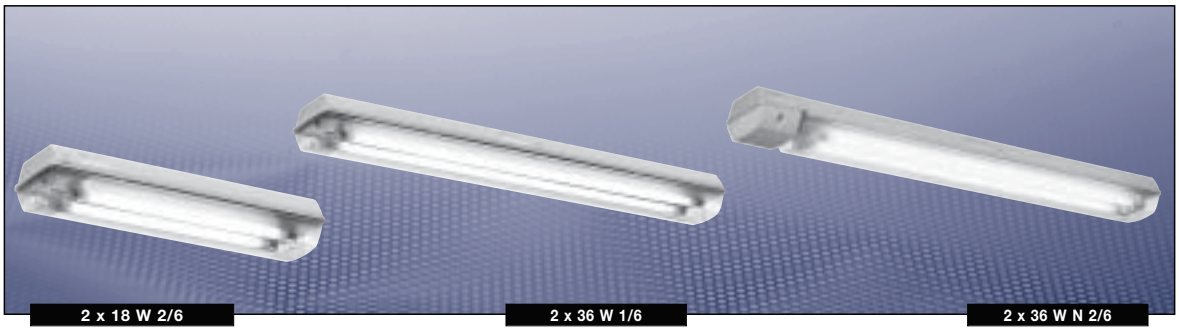

Accessories

Series nLLK 08... N	
Type	**Order No.**
Hexagon screw SW 13	**3 2485 000 005**

Series nLLK 08... N	
Type	**Order No.**
Single sided through wiring 2/6 with 2 entries M25, incl. terminals and mounting material	**2 2218 602 000**

Fixing materials nLLK 08... N			
Type/code	**Corrosion protection**	**Qty. per light fitting**	**Order No.**
Eye bolt A2	galvanized	2	**2 2480 002 000**
Hexagon screw S4	stainless steel	2	**2 2480 054 000**
Ceiling mounting bracket D92 incl. screws and washer	stainless steel	2	**2 2480 092 000**

Fixing materials nLLK 08... N					
Type/code	**Corrosion protection**	**for pipes DIN**	**Outer Ø D (mm)**	**Qty. per light fitting**	**Order No.**
Pipe clamp					
R12	hot galvanized	1¼"	38 - 42	2	**2 2480 462 000**
R14	CrNi	1¼"	38 - 42	2	**2 2480 464 000**
R22	hot galvanized	1½"	47 - 51	2	**2 2480 472 000**
R24	CrNi	1½"	47 - 51	2	**2 2480 474 000**
R32	hot galvanized	2"	56 - 60	2	**2 2480 482 000**
R34	CrNi	2"	56 - 60	2	**2 2480 484 000**
Luminaire wall suspension 30° incl. screws and washer	hot galvanized			2	**2 2480 000 122**

Battery nLLK 08... N	
Type	**Order No.**
nLLK 08... N 1/6, nLLK 08... N 2/6	
Battery set 6 V/4 Ah (... 18/18 N 1/6, 36/36 N 1/6)	**on request**
Battery set 6 V/4 Ah (... 18/18 N 2/6, 36/36 N 2/6)	**on request**
Battery set 6 V/7 Ah (... 36/36 N 2/6)	**on request**

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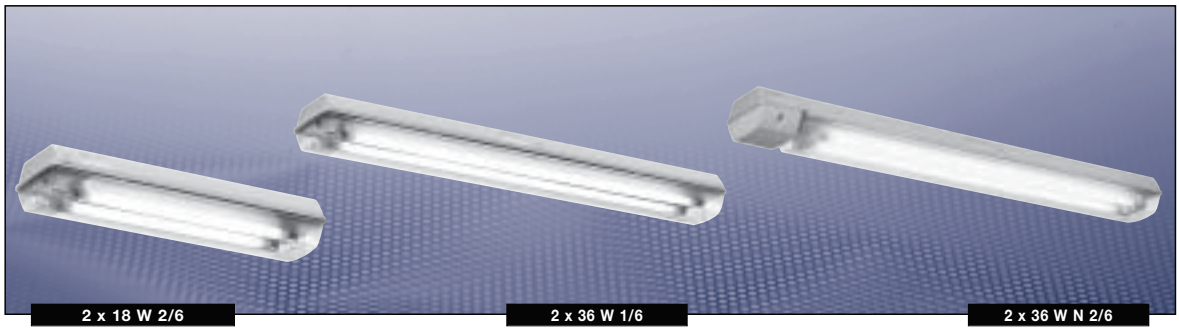
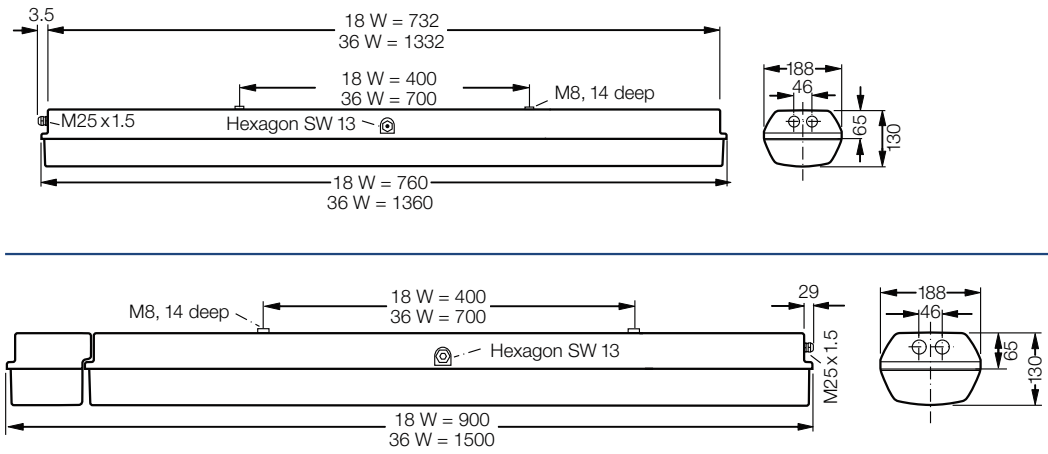
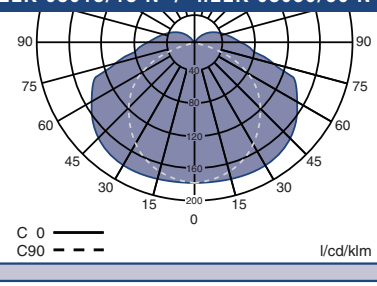


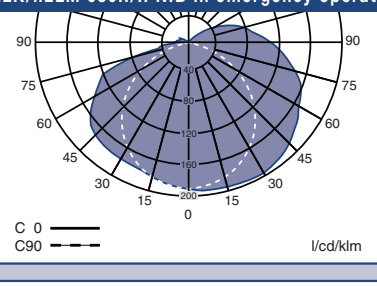
Dimension drawing | Polar curve

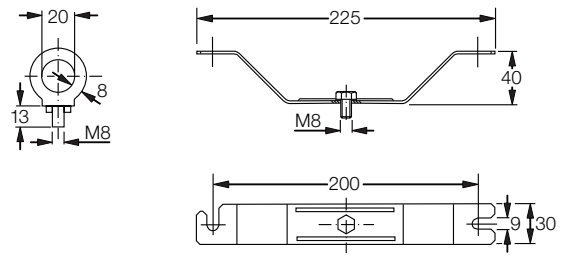


Polar curve
nLLK 08018/18 N / nLLK 08036/36 N



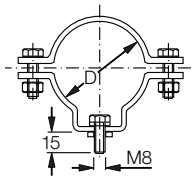
Polar curve
nLLK/nLLM 080../.. NIB in emergency operation



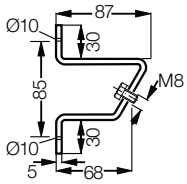


Eye bolt

Ceiling mounting bracket D92



Pipe clamp



Luminaire wall suspension 30°

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Dimensions in mm

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EX PHOTORELAY

for use in Zone 1 and 2

This photorelay can be used for comfortable and atomatic control of the illumination in hazardous areas.

This screw-in photorelay is proved for the direct installation in ex-d and ex-e enclosures.

The electronic and the photolectric sensor is encapsuled in a flameproof light alloy enclosure with a M32 x 1.5 mm threated connection. The encapsuled connection cables are 1.5 mm^2 and 500 mm long.

The photoelectric relay has an electronic circuit with low power consumption of approximately 0.3 W, operates with 105 VAC up to 305 VAC 50/60Hz and has a rated current of 10 A resp. a power of up to 1800 VA.

It turns ON immediately but has a 2 to 5 second delay in turning OFF to avoid accidental switching due to a flash, with a high degree of precision in recognizing the light level (lumens) and maintaining its sensibility over a long period of time.

- **Switching capacity up to 1000 W (1800 VA)**
- **High degree of protection IP66**
- **Easy to install**

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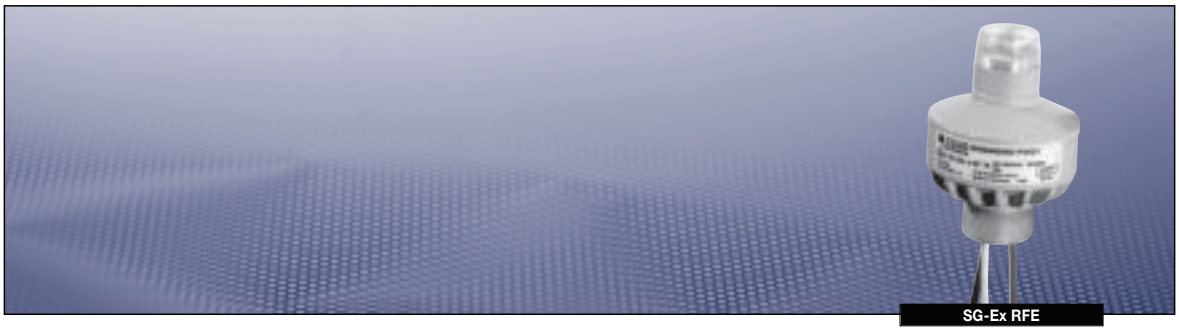


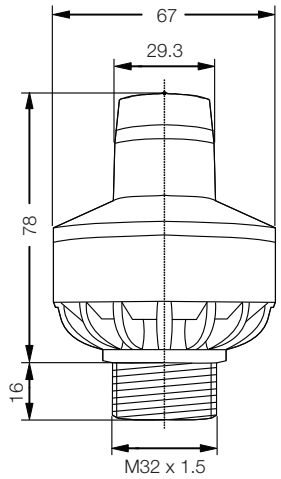
Technical data

SG-Ex RFE	
Marking to 94/9/EC	Ex II 2 G EEx d II C T6
EC-Type Examination Certificate	PTB 06 ATEX 1017 X
Permissible ambient temperature	-40 °C to +70 °C
Rated voltage	105 V to 305 V AC
Rated current	max. 10 A
Frequency	50 - 60 Hz
Power consumption (VA)	1 W
Switch rating	1000 W (1800 VA)
Standard cable length	approx. 0.5 m, 1.5 mm²
Insulation class	I
Degree of protection accd. EN 60529	IP66
Weight	0.25 kg
Type of mounting	Screw in thread M32 x 1.5
Enclosure material	Light alloy
Enclosure colour	Grey

Ordering details

Type	Design	Order No.
Photocell SG-Ex RFE	Sensitivity 10 – 15 lux	**GHG 640 9601 P0001**
Photocell SG-Ex RFE	Sensitivity 7 – 12 lux	**GHG 640 9601 P0002**
Photocell SG-Ex RFE	Sensitivity 4 – 11 lux	**GHG 640 9601 P0003**

Dimension drawing



Dimensions in mm

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