EX-SIGNAL- AND ESCAPE SIGN LUMINAIRS

ibemo Kazakhstan - 090301 Republic of Kazakhstan, West Kazakhstan Oblast, Aksai, Pramzone, BKKS office complex
Phone: +7 71133 93077 ; Fax: +7 71133 93074 ; E-Mail: info@ibemo-kz.com

Emergency Lighting – central or decentral

Appertaining to Emergency Lighting in hazardous 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.

Ex-Escape sign luminaire EXIT

Taking the availability and the redundance into consideration, this system has with respect to the supply assurance in safetyengineering 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 each self-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 CEAG Emergency light fittings with self-contained battery systems EXIT N, Ex-Lite E (in preparation) and EE 11 PL have been designed for a 3 hour or 1 hour Emergency Lighting duration. They do in part have an automatic self-test system for functionality and duration tests.

Escape sign luminaire Ex-Lite N

Ex-Emergency Light Fitting EE 11 PL

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Central Emergency Lighting Supply using system light fittings with CG-S-Modules

A centrally monitored 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.

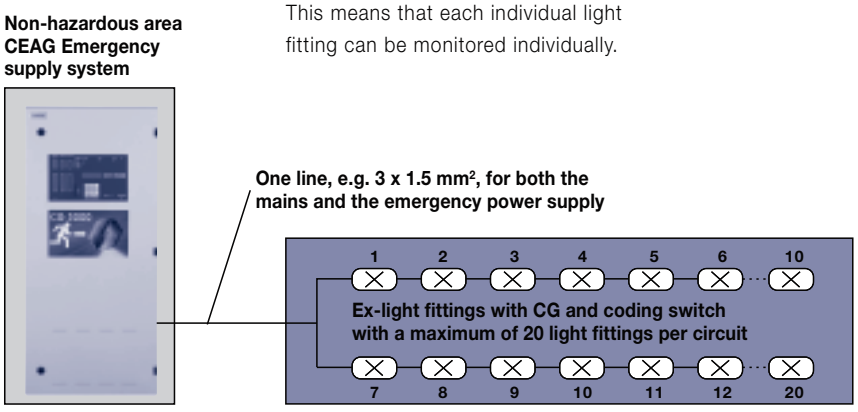
To be able to run the CEAG emergency light system we offer versions with CG-modules for the emergency and escape sign fittings. This controlling module monitors amongst other things the data exchange with the main emergency lighting system and reports all functional errors.

In connection with the CG-S-Modules all CEAG light fittings that are so equipped have the possibility of being connected to the CEAG emergency light system with monitoring facility. This means that each individual light fitting can be monitored individually.

With this the explosion-protected light fittings EXIT CG-S, Ex-Lite CG-S (in preparation), dKLK 23 CG-S and the AB 12108-EVG can be integrated into the monitoring system and be used as system light fittings.

This combination offers the following advantages:

- Automatic performance of the necessary function and duration tests with a central record of all operating funktions and error reports
- Enormous cost savings as manual testing is no longer necessary
- Programming function to enable a multiple lighting modus on a single power supply circuit; that means a choice of permanent or stand-by modus as well as a switching with the general lighting.
- High degree of safety of emergency lighting due to constant display of availability
- Simplified installation:
  - mains and emergency power supply have a common connection
  - no separate data line is required
  - up to 20 light fittings can be connected and addressed separately on one circuit



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EX-ESCAPE SIGN LUMINAIRES

EXIT
Moulded plastic version with LED technology for Zone 1 and Zone 21

The EXIT series of explosion-protected escape sign luminaire fulfils the requirements of ATEX Directive 94/9/EC and EN 60598, Section 2.22 for emergency lighting luminaires. The luminaires are suited for marking escape routes and exits in potentially explosive atmospheres. Only white, high-efficiency LEDs are used as illuminants for these luminaires. This guarantees maintenance-free operation, as the illuminants do not need replacing throughout the complete service life of the luminaire.
The supply electronics are also laid out for this service life; the LED circuits are intrinsically safe. The wide input voltage range allows international use. The housing of these luminaires is made of high-grade polycarbonate: the escape signs comply with the latest standards.

Thanks to the robust design and high degree of protection, these luminaires are suited for both indoor and outdoor use.

As an emergency lighting luminaire with self-contained battery system for maintained operation, the EXIT N features an NC battery and automatic function monitoring with operating time test.

With the optional built-in CG-S monitoring module with coding switch for max. 20 addresses, this luminaire can also be used as an individually monitored emergency lighting luminaire that is connected to a CEAG emergency lighting supply system. With this, the operator can programme the switching mode according to the respective requirements. Thus, as many as 20 luminaires with different switching modes can be connected to one end circuit.

- **All-plastic polycarbonate housing**
- **Power-saving LED technology, maintenance-free throughout service life**
- **High degree of protection IP66**
- **Luminaire with self-contained battery unit and automatic function monitoring**
- **Connection and monitoring with CEAG emergency lighting supply systems possible**

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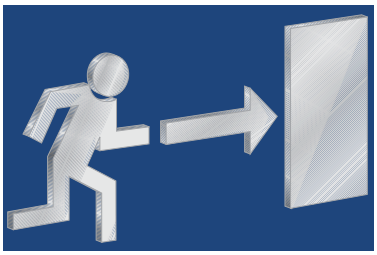
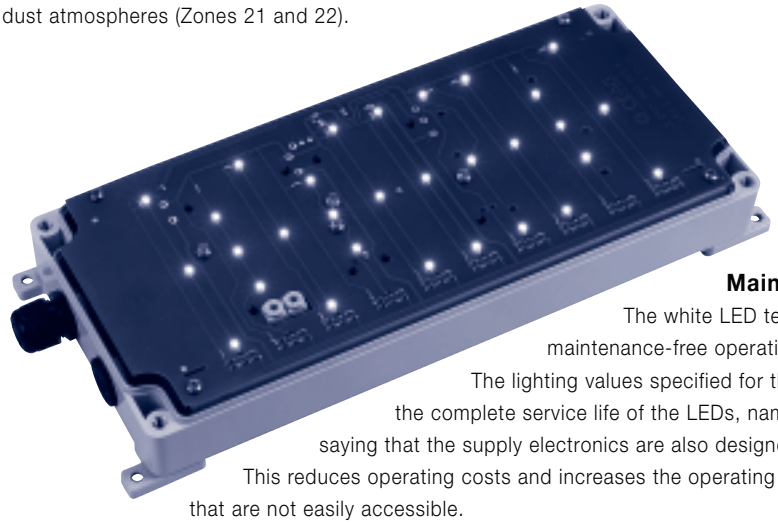
For all types of application

The escape sign luminaires of the EXIT series are available as mains luminaires "EXIT", e.g. for specially safeguarded industrial networks in production plants, as "EXIT CG-S" emergency lighting luminaires with individual function monitoring for use in CEAG emergency lighting supply systems, and as "EXIT-N" emergency lighting luminaires with self-contained battery systems and automatic function and operating time tests.



Green light for all zones

On account of the robust, all-plastic polycarbonate housing in the high degree of protection IP66, the EXIT luminaire can be installed almost anywhere, both indoors and out. The luminaire is designed in the type of protection EEx em ib IIC up to T6 and in accordance with the ATEX Directive. It can be used in hazardous areas with potentially explosive gas atmospheres (Zones 1 and 2) and potentially explosive dust atmospheres (Zones 21 and 22).



Conformity to standards

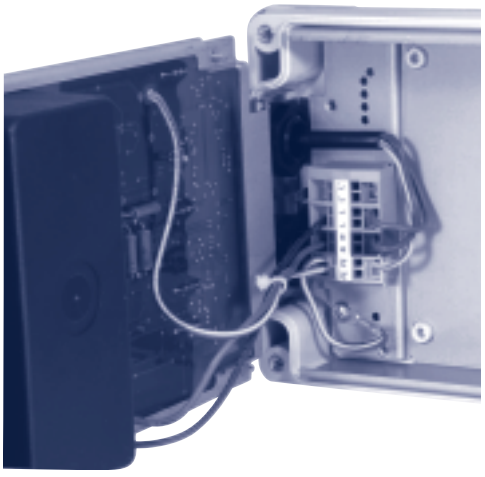
The EXIT explosion-protected escape sign luminaire series fulfils the requirements of ATEX Directive 94/9/EC and EN 60598, Part 2.22 for emergency lighting luminaires. It is suited for marking escape routes and exits in potentially explosive atmospheres. The housing of this luminaire is made of high-grade polycarbonate and it goes without saying that the escape sign comply with the latest standards.

Maintenance-free operation

The white LED technology used as the light source allows maintenance-free operation without replacement of the illuminant. The lighting values specified for the escape sign are maintained throughout the complete service life of the LEDs, namely approx. 50,000 hours. It goes without saying that the supply electronics are also designed for this extremely long operating time. This reduces operating costs and increases the operating safety essentially, in particular in locations that are not easily accessible.

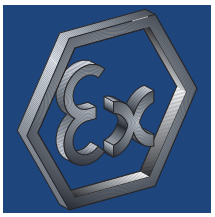
For international use

The LED escape sign luminaire of the EXIT series was designed to meet the requirements of a large number of different safety concepts. Thanks to the wide input voltage range from 110 V to 277 V AC and up to 250 V DC, this luminaire can be used internationally, whereby the supply circuits of the LED circuits are intrinsically safe. The luminaire has a visibility range of 25 metres and it is available with a wide variety of pictograms.



Installation-friendly hinged frame for easy electrical connection

Double safety



Whenever the operational safety of explosion-protected safety and escape sign luminaires is involved, there is no room for compromises, as only a luminaire that is fully functional at all times can save human lives. The new series of explosion-protected LED escape sign luminaires not only fulfils the extremely high explosion protection requirements, but it also fulfils the legal requirements for emergency and safety lighting installations. The new EXIT is capable of safely showing the right way to go at all times, even in complex and often badly laid out industrial installations with potentially explosive atmospheres.

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Central emergency lighting supply via system luminaires with CG-S module

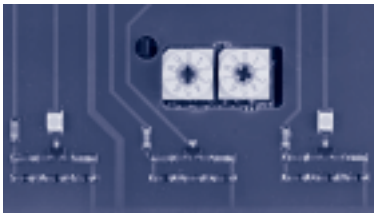
A central emergency lighting supply using CEAG group supply and central battery systems are used wherever a large number of emergency lighting luminaires can be combined and operated as system luminaires.

These battery systems are generally installed outside the hazardous areas and, therefore, they are not subjected to the ambient conditions of the luminaires in the field. As a result, the operating life of the battery is relatively long and the amount of maintenance required is minimal.

The mains and emergency lighting supplies of these luminaires are fed via separate circuits from the emergency lighting power supply installation to the escape sign luminaire in the hazardous area. Various luminaires with CG-S function can be operated in these circuits.

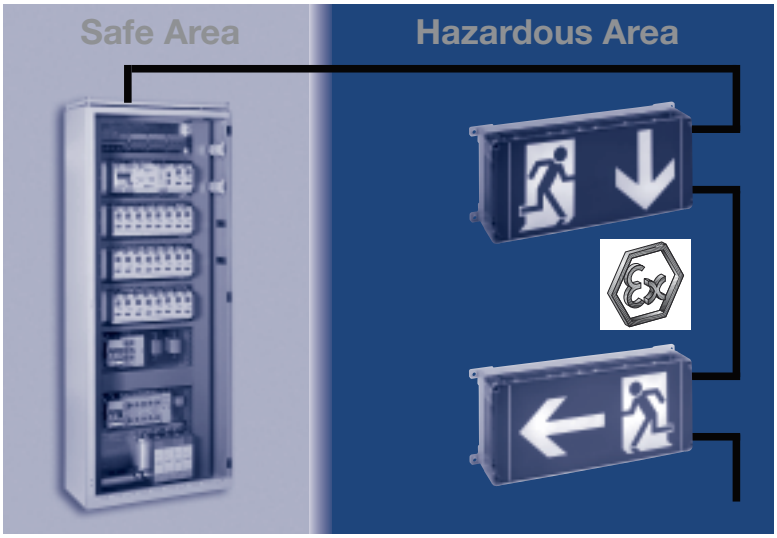
Better safe than sorry

In addition to the EXIT for use as a mains luminaire, e.g. for specially safeguarded industrial networks in production plants, there is also the EXIT CG-S version with easy function monitoring. In conjunction with the CG-S monitoring module with coding switch up to 20 addresses, this luminaire can be operated as emergency lighting luminaire with individual monitoring. The operator can programme the switching mode according to his individual requirements, thus allowing the operation of up to 20 luminaires with different switching modes in one end circuit.



Addressing switch in the EXIT CG-S

No additional installation work is required. The central control unit monitors all the functions of the luminaire, checks the feed line for shorts or open circuits and indicates any incidents clearly on the display. Thus, even with highly complex installations, troubleshooting and eliminating faults are not a problem. Another considerable advantage: all the function and operating time tests are carried out automatically and recorded by the central control unit. This saves no end of time and money. During this function test, the correct functioning of the luminaire is monitored by the built-in CG-S module and any faults are reported to the central control unit. Thus, for example, the failure of LED groups is indicated automatically.



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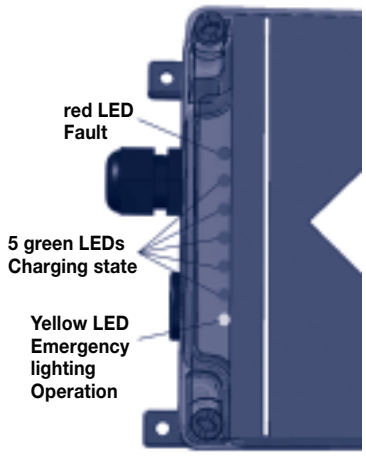


Emergency lighting luminaires with selfcontained battery systems

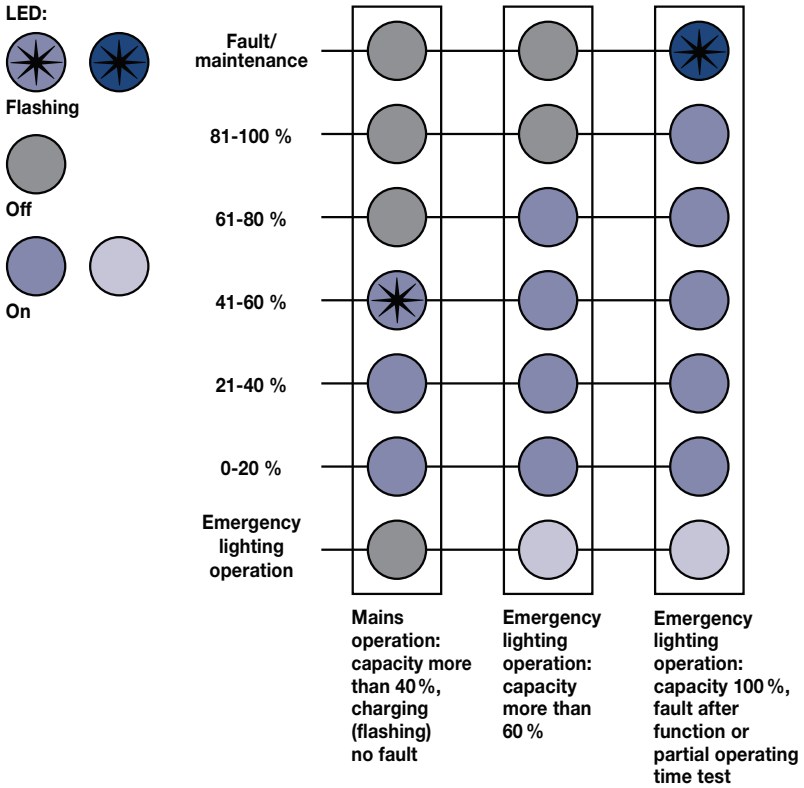
Emergency lighting luminaires with self-contained battery systems provide the required emergency lighting from a decentralized source, independent of central systems. These luminaires are particularly economical when used in extensive plants. Until now, compared to centrally operated and monitored installations, the disadvantage of the emergency lighting luminaires with self-contained battery systems was that they did not provide any information on the state of the luminaire. However, this monitoring function has been incorporated in the EXIT N escape sign luminaire. Five green LEDs supply constant information on the charging state and available battery capacity. A yellow LED indicates the emergency lighting operation mode and an additional red LED indicates any faults.

Monitoring functions

The extended self-monitoring with automatic function and partial duty cycle test is also new. The five green LEDs behind the protective cover provide continuous indication of the charging state and the current battery capacity. Charging is signalized by a flashing green LED. The charged capacity is indicated in 20% stages. The yellow LED indicates emergency lighting operation.

An automatic function test lasting 5 minutes is carried out on a weekly basis. For this, the luminaire is switched electronically from mains to battery operation. The emergency lighting function is tested and any faults are indicated by the flashing red LED.

After approx. 3 months a part-operating time test (35 mins.) is initiated automatically. If a minimum emergency lighting operating time of 30 minutes is not reached, it is signalized by the flashing red LED. After the cause of the fault has been eliminated, e.g. by charging or replacing the battery, the fault indication is reset during the next emergency lighting operation (manual or automatic) when the minimum operating time of > 30 minutes has been reached.



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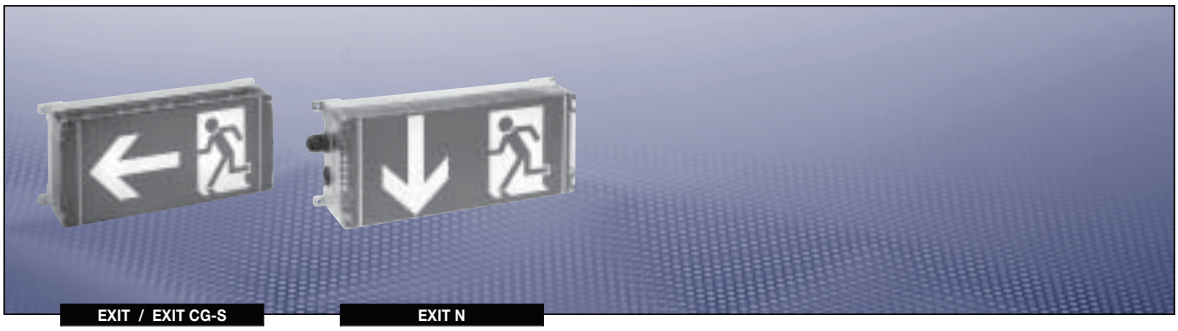


EXIT / EXIT CG-S EXIT N

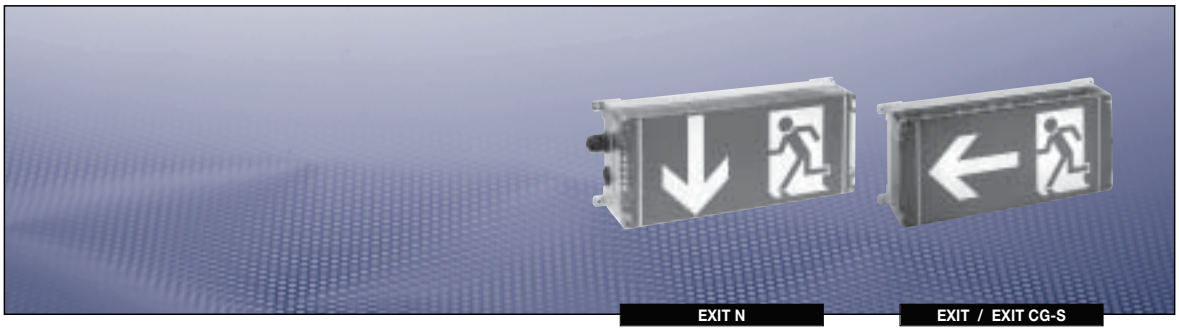
Technical data

EXIT | EXIT CG-S | EXIT N	
Marking to 94/9/EC	Ex II 2 G EEx e m ib IIC T6/T5/T4 / Ex II 2 D IP66 T60 °C
EC-Type Examination Certificate	PTB 02 ATEX 2111
IEC Ex Cerificate of Conformity	IEC Ex BKI-06.0003
Permissable ambient temperature	-20 °C up to +40 °C / 50 °C (EXIT N: specified data +5 °C up to 35 °C)
Rated current	DC: 220 V = 20 mA, 110 V = 40 mA
Frequency	0 up to 50 / 60 Hz
Circuit	elektronic power supply
Connecting terminals	3 x loop terminal 2.5 mm^2
Lamp/Illuminant	high output-LEDs, white
Viewing distance	up to 25 m
Degree of protection accd. EN 60529	IP66
Cable glands/gland plates/enclosure drilling	1 x Ex e-cable gland M20 x 1.5 (plastic) / 1 x Ex e-screw plug M20 x 1.5
Dimensions (L x W x H)	340 x 150 x 75 mm
Type of mounting	wall installation
Enclosure material	polycarbonat
Enclosure colour	grey, RAL 7035
Protective cover/protective bowl	polycarbonat

EXIT | EXIT 24 V	
Temperature class	T6: Ta max. +40 °C, T5: Ta max. +50 °C
Rated voltage 1	110 V - 277 V AC
Rated voltage 2	110 V - 250 V DC
Rated voltage (EXIT 24 V)	12 - 24 V (EXIT 24 V)
Rated power consumption	approx. 6 VA
Weight	2 kg

EXIT CG-S	
Temperature class	T6: Ta max. +40 °C, T5: Ta max. +50 °C
Rated voltage 1	220 V - 254 V AC
Rated voltage 2	195 V - 250 V DC
Rated power consumption	approx. 6 VA
Weight	2.2 kg

EXIT N	
Temperature class	T5: Ta max. +40 °C, T4: Ta max. +50 °C
Rated voltage 1	110 V - 277 V AC
Rated voltage 2	110 V - 250 V DC
Rated power consumption	approx. 8 VA
Battery	NC-Akku 12 V/600 mAh
Rated emergency operating duration	3 h (specified data +5 °C up to +35)
Charging duration (Cap. > 90 %)	28 h
Weight	2.5 kg



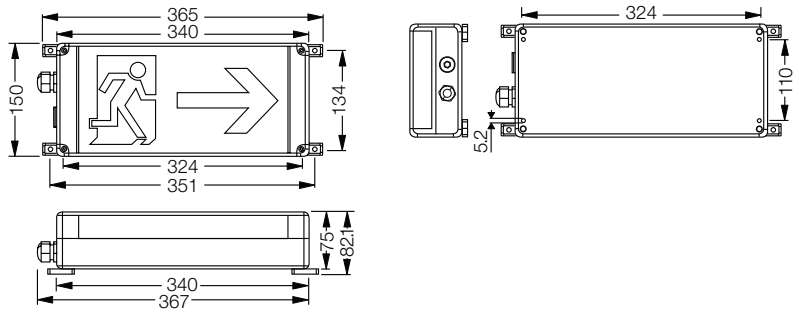
Ordering details

Type	Scope of delivery[1)]	Ordering Code
Type EXIT		
EXIT	including cover with silk-screen pictogram PR	**1 2191 000 _01**
	including cover with silk-screen pictogram PL	**1 2191 000 _02**
	including cover with silk-screen pictogram PU	**1 2191 000 _03**
	including cover, clear, without pictogram	**1 2191 000 _04**
Type EXIT CG-S		
EXIT CG-S	including cover with silk-screen pictogram PR	**1 2191 020 _01**
	including cover with silk-screen pictogram PL	**1 2191 020 _02**
	including cover with silk-screen pictogram PU	**1 2191 020 _03**
	including cover, clear, without pictogram	**1 2191 020 _04**
Type EXIT N		
EXIT N	including cover with silk-screen pictogram PR	**1 2191 030 _01**
	including cover with silk-screen pictogram PL	**1 2191 030 _02**
	including cover with silk-screen pictogram PU	**1 2191 030 _03**
	including cover, clear, without pictogram	**1 2191 030 _04**

[1)] Other silk-screen pictograms or inscriptions available on request

0 — M25 plastic cable glands
1 — Thread M20 metal (optional)

Dimension drawing | Pictograms



EXIT / EXIT CG-S / EXIT N

PL **PR** **PU**

Escape sign acc. to latest standards

Dimensions in mm

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EX-ESCAPE SIGN LUMINAIRES

Ex-Lite
Metal version with LED technology for Zone 1 and Zone 21

The Ex-Lite series of explosion-protected escape sign luminaire fulfils the requirements of ATEX Directive 94/9/EC and EN 60598, Section 2.22 for emergency lighting luminaires. The luminaires are suited for marking escape routes and exits in potentially explosive atmospheres. Only white, high-efficiency LEDs are used as illuminants for these luminaires. This guarantees maintenance-free operation, as the illuminants do not need replacing throughout the complete service life of the luminaire.
The supply electronics are also laid out for this service life; the LED circuits are intrinsically safe. The wide input voltage range allows international use. The housing of these luminaires is made of robust light alloy: the escape signs comply with the latest standards.

Thanks to the very robust design and high degree of protection, these luminaires are suited although under rough conditions for both indoor and outdoor use.

As an emergency lighting luminaire for maintained operation with self-contained battery system, the Ex-Lite N features an NC battery and automatic function monitoring with operating time test.

With the optional built-in CG-S monitoring module with coding switch for max. 20 addresses, this luminaire can also be used as an individually monitored emergency lighting luminaire that is connected to a CEAG emergency lighting supply system. With this, the operator can programme the switching mode according to the respective requirements. Thus, as many as 20 luminaires with different switching modes can be connected to one end circuit.

- **Robust light alloy housing**
- **Power-saving LED technology, maintenance-free throughout service life**
- **High degree of protection IP66**
- **Luminaire with self-contained battery unit and automatic function monitoring**
- **Connection and monitoring with CEAG emergency lighting supply systems possible**

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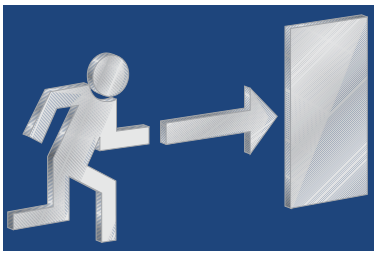
For all types of application

The escape sign luminaires of the Ex-Lite series are available as mains luminaires “Ex-Lite”, e.g. for specially safeguarded industrial networks in production plants, as “Ex-Lite CG-S” emergency lighting luminaires with individual function monitoring for use in CEAG emergency lighting supply systems, and as “Ex-Lite-N” emergency lighting luminaires with self-contained battery systems and automatic function and operating time tests.



Green light for all zones

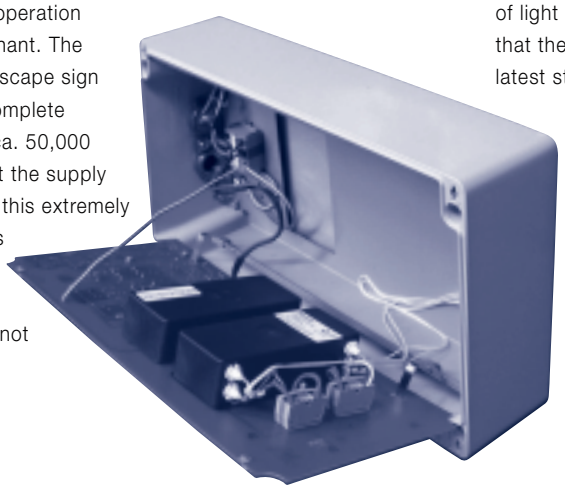
On account of the very robust, light alloy housing in the high degree of protection IP66, the Ex-Lite luminaire can be installed almost anywhere, both indoors and out. The luminaire is designed in the type of protection EEx e m ib IIC up to T6 and in accordance with the ATEX Directive. It can be used in hazardous areas with potentially explosive gas atmospheres (Zones 1 and 2) and potentially explosive dust atmospheres (Zones 21 and 22).

Conformity to standards

The Ex-Lite explosion-protected escape sign luminaire series fulfils the requirements of ATEX Directive 94/9/EC and EN 60598, Part 2.22 for emergency lighting luminaires. It is suited for marking escape routes and exits in potentially explosive atmospheres. The housing of this luminaire is made of light alloy and it goes without saying that the escape sign comply with the latest standards.

Maintenance-free operation

The white LED technology used as the light source allows maintenance-free operation without replacement of the illuminant. The lighting values specified for the escape sign are maintained throughout the complete service life of the LEDs, namely ca. 50,000 hours. It goes without saying that the supply electronics are also designed for this extremely long operating time. This reduces operating costs and increases the operating safety essentially, in particular in locations that are not easily accessible.

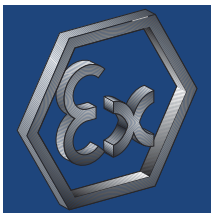


For international use

The LED escape sign luminaire of the Ex-Lite series was designed to meet the requirements of a large number of different safety concepts. Thanks to the wide input voltage range from 110 V to 277 V AC and up to 250 V DC, this luminaire can be used internationally, whereby the supply circuits of the LED circuits are intrinsically safe. The luminaire has a visibility range of 28 metres and it is available with a wide variety of pictograms.

Simply change of the pictogram

Double safety



Whenever the operational safety of explosion-protected safety and escape sign luminaires is involved, there is no room for compromises, as only a luminaire that is fully functional at all times can save human lives. The new series of explosion-protected LED escape sign luminaires not only fulfils the extremely high explosion protection requirements, but it also fulfils the legal requirements for emergency and safety lighting installations. The new Ex-Lite is capable of safely showing the right way to go at all times, even in complex and often badly laid out industrial installations with potentially explosive atmospheres.

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Central emergency lighting supply via system luminaires with CG-S module

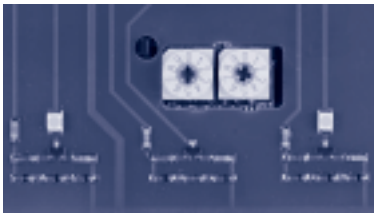
A central emergency lighting supply using CEAG group supply and central battery systems are used wherever a large number of emergency lighting luminaires can be combined and operated as system luminaires.

These battery systems are generally installed outside the hazardous areas and, therefore, they are not subjected to the ambient conditions of the luminaires in the field. As a result, the operating life of the battery is relatively long and the amount of maintenance required is minimal.

The mains and emergency lighting supplies of these luminaires are fed via separate circuits from the emergency lighting power supply installation to the escape sign luminaire in the hazardous area. Various luminaires with CG-S function can be operated in these circuits.

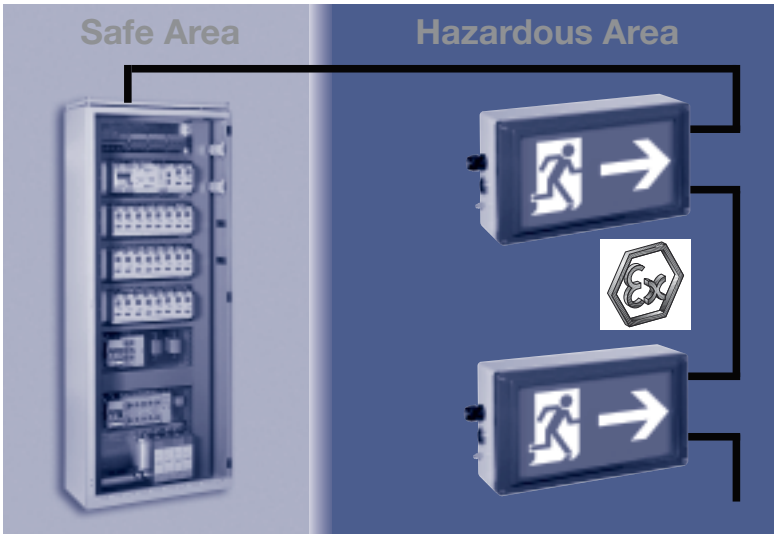
Better safe than sorry

In addition to the Ex-Lite for use as a mains luminaire, e.g. for specially safeguarded industrial networks in production plants, there is also the Ex-Lite CG-S version with easy function monitoring. In conjunction with the CG-S monitoring module with coding switch for max. 20 addresses, this luminaire can be operated as emergency lighting luminaire with individual monitoring. The operator can programme the switching mode according to his individual requirements, thus allowing the operation of up to 20 luminaires with different switching modes in one end circuit.



Addressing switch in the Ex-Lite CG-S

No additional installation work is required. The central control unit monitors all the functions of the luminaire, checks the feed line for shorts or open circuits and indicates any incidents clearly on the display. Thus, even with highly complex installations, troubleshooting and eliminating faults are not a problem. Another considerable advantage: all the function and operating time tests are carried out automatically and recorded by the central control unit. This saves no end of time and money. During this function test, the correct functioning of the luminaire is monitored by the built-in CG-S module and any faults are reported to the central control unit. Thus, for example, the failure of LED groups is indicated automatically.



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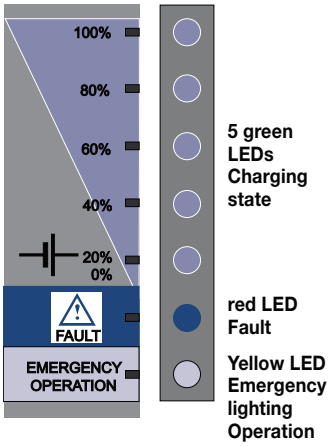


Emergency lighting luminaires with selfcontained battery systems

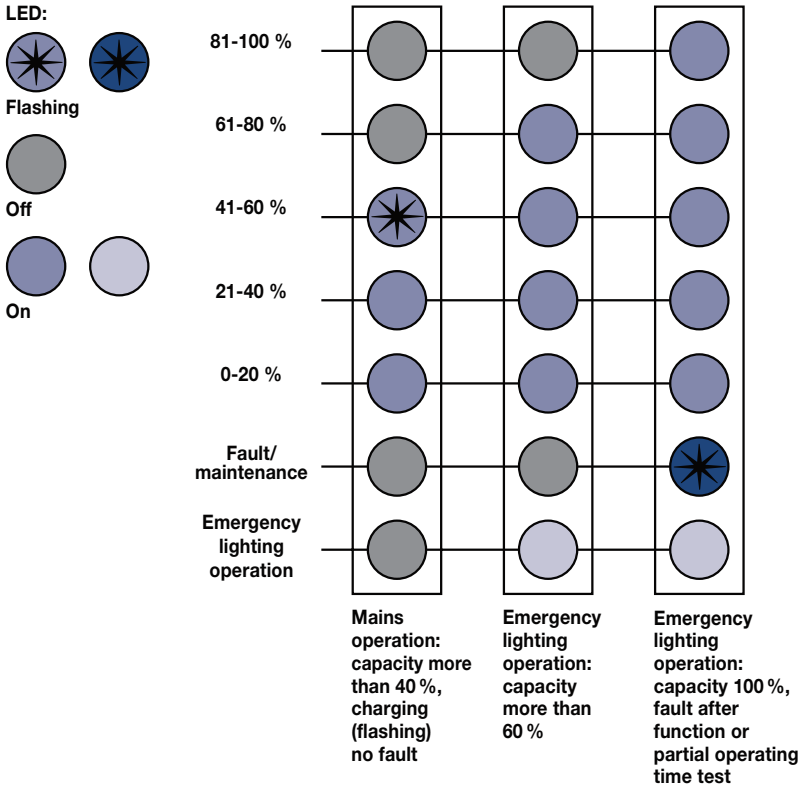
Emergency lighting luminaires with self-contained battery systems provide the required emergency lighting from a decentralized source, independent of central systems. These luminaires are particularly economical when used in extensive plants. Until now, compared to centrally operated and monitored installations, the disadvantage of the emergency lighting luminaires with self-contained battery systems was that they did not provide any information on the state of the luminaire. However, this monitoring function has been incorporated in the Ex-Lite N escape sign luminaire. Five green LEDs supply constant information on the charging state and available battery capacity. A yellow LED indicates the emergency lighting operation mode and an additional red LED indicates any faults.

Monitoring functions

The extended self-monitoring with automatic function and partial duty cycle test is also new. The five green LEDs behind the protective cover provide continuous indication of the charging state and the current battery capacity. Charging is signalized by a flashing green LED. The charged capacity is indicated in 20% stages. The yellow LED indicates emergency lighting operation.

An automatic function test lasting 5 minutes is carried out on a weekly basis. For this, the luminaire is switched electronically from mains to battery operation. The emergency lighting function is tested and any faults are indicated by the flashing red LED.

After ca. 3 months a part-operating time test (35 mins.) is initiated automatically. If a minimum emergency lighting operating time of 30 minutes is not reached, it is signalized by the flashing red LED. After the cause of the fault has been eliminated, e.g. by charging or replacing the battery, the fault indication is reset during the next emergency lighting operation (manual or automatic) when the minimum operating time of > 30 minutes has been reached.



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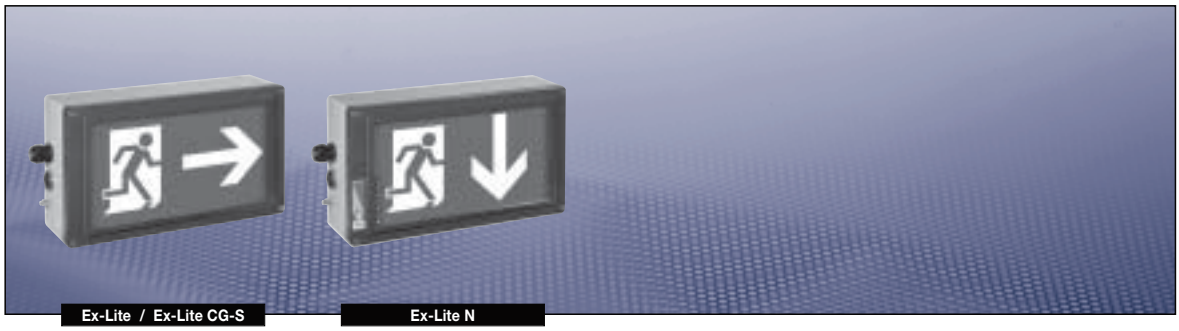


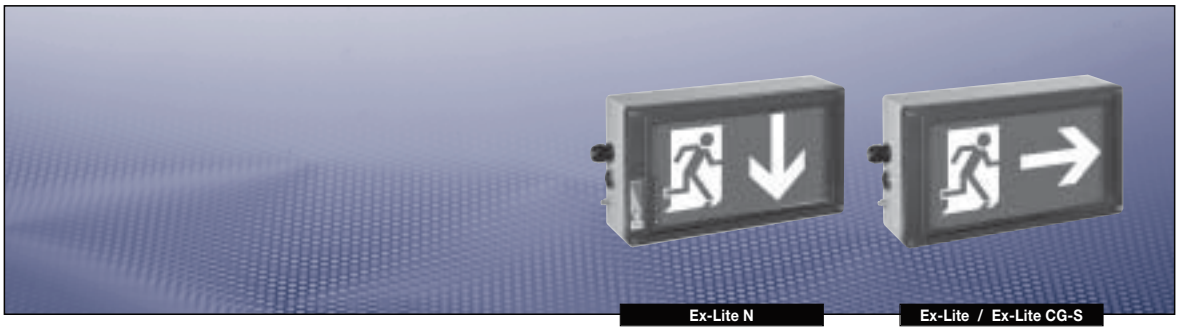
Technical data

Ex-Lite | Ex-Lite CG-S | Ex-Lite N	
Marking to 94/9/EC	Ex II 2 G EEx e m ib IIC T6/T5/T4 / Ex II 2 D IP66 T60 °C
EC-Type Examination Certificate	PTB 02 ATEX 2111
IEC Ex Cerificate of Conformity	IEC Ex BKI-06.0003
Permissable ambient temperature	-20 °C up to +40 °C / 50 °C (Ex-Lite N: specified data +5 °C up to 35 °C)
Rated current	DC: 220 V = 20 mA, 110 V = 40 mA
Frequency	0 up to 50 / 60 Hz
Circuit	elektronic power supply
Connecting terminals	3 x loop terminal 2.5 mm^2
Lamp/Illuminant	high output-LEDs, white
Viewing distance	up to 28 m
Degree of protection accd. EN 60529	IP66
Cable glands/gland plates/enclosure drilling	1 x Ex e-cable gland M25 x 1.5 (plastic) / 1 x Ex e-screw plug M25 x 1.5
Dimensions (L x W x H)	400 x 230 x 115 mm
Type of mounting	wall installation
Enclosure material	light alloy
Enclosure colour	grey, RAL 7035
Protective cover/protective bowl	mineral glass

Ex-Lite | Ex-Lite 24 V	
Temperature class	T6: Ta max. +40 °C, T5: Ta max. +50 °C
Rated current 1	110 V - 277 V AC
Rated current 2	110 V - 250 V DC
Rated voltage (option)	12 - 24 V (Ex-Lite 24 V)
Rated power consumption	approx. 6 VA
Weight	6.2 kg

Ex-Lite CG-S	
Temperature class	T6: Ta max. +40 °C, T5: Ta max. +50 °C
Rated current 1	220 V - 254 V AC
Rated current 2	195 V - 250 V DC
Rated power consumption	approx. 6 VA
Weight	6.4 kg

Ex-Lite N	
Temperature class	T5: Ta max. +40 °C, T4: Ta max. +50 °C
Rated current 1	110 V - 277 V AC
Rated current 2	110 V - 250 V DC
Rated power consumption	approx. 8 VA
Battery	NC-Akku 12 V/600 mAh
Rated emergency operating duration	3 h (specified data +5 °C up to +35 °C)
Charging duration (Cap. > 90 %)	28 h
Weight	6.7 kg



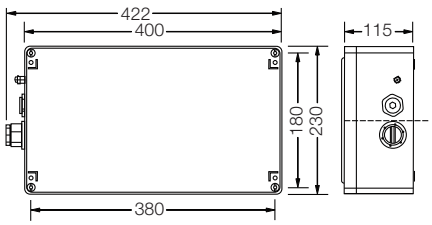
Ordering details

Type	Scope of delivery[1)]	Ordering Code
Type Ex-Lite		
Ex-Lite	including cover with pictogram PR	**1 2191 011 _01**
	including cover with pictogram PL	**1 2191 011 _02**
	including cover with pictogram PU	**1 2191 011 _03**
	including cover clear, without pictogram	**1 2191 011 _04**
Type Ex-Lite CG-S		
Ex-Lite CG-S	including cover with pictogram PR	**1 2191 021 _01**
	including cover with pictogram PL	**1 2191 021 _02**
	including cover with pictogram PU	**1 2191 021 _03**
	including cover, clear, without pictogram	**1 2191 021 _04**
Type Ex-Lite N		
Ex-Lite N	including cover with silk-screen pictogram PR	**1 2191 031 _01**
	including cover with silk-screen pictogram PL	**1 2191 031 _02**
	including cover with silk-screen pictogram PU	**1 2191 031 _03**
	including cover, clear, without pictogram	**1 2191 031 _04**

[1)] Other pictograms or inscriptions available on request

0 — M25 plastic cable glands
1 — Thread M20 metal (optional)

Dimension drawing | Pictograms



Ex-Lite / Ex-Lite CG-S / Ex-Lite N

PL **PR** **PU**

Escape sign acc. to latest standards

Dimensions in mm

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EX-EMERGENCY LIGHT FITTING

AB 12108-EVG Safety Light Fitting for Zone Zone 1 and 21
EE11 PL Self-Contained Emergency Luminaire for Zone 1 and 21

These light fittings are in accordance to the ATEX Directive 94/9/EC for the temperature class up to T6. They are therefore certified for use in the Zones 1, 2, 21 and 22. Additionally they fulfill the directive EN 60598, Part 2.22 for Emergency Lighting accordingly.

The Ex-light fitting AB 12108-EVG is fitted with an electronic ballast and an 8 W fluorescent lamp.

With the optional built-in CG-S monitoring module with coding switch for max. 20 addresses, this luminaire can also be used as an individually monitored emergency lighting luminaire that is connected to a CEAG emergency lighting supply system. With this, the operator can programme the switching mode according to the respective requirements. Thus, as many as 20 luminaires with different switching modes can be connected to one end circuit.

The Ex-light fitting EE 11 PL with a self-contained battery system is fitted with an 11 W compact fluorescent lamp and was designed for a 1.5 hour Emergency Lighting duration.

The light fitting has a Micro-computer which controls the lighting functions and monitoring. Per LED's, possible faults in the emergency lighting circuit, battery or lamp defects are shown. Additionally the charging status and the mains supply are also shown. The housing is made of a copper-free aluminium and has a borosilicate glass tube.

They are used for illuminating emergency exit routes, as well as emergency light fitting for dentification of exits.

- **Housing made of copper-free aluminium with a borosilicate glass tube**
- **Safety Standard IP67**
- **8 W fluorescent lamp for mai lighting (AB 12 108)**
- **11 W compact fluorescent lamp for emergency lighting (EE11 PL)**
- **Operation and monitoring possible from CEAG emergency lighting system**

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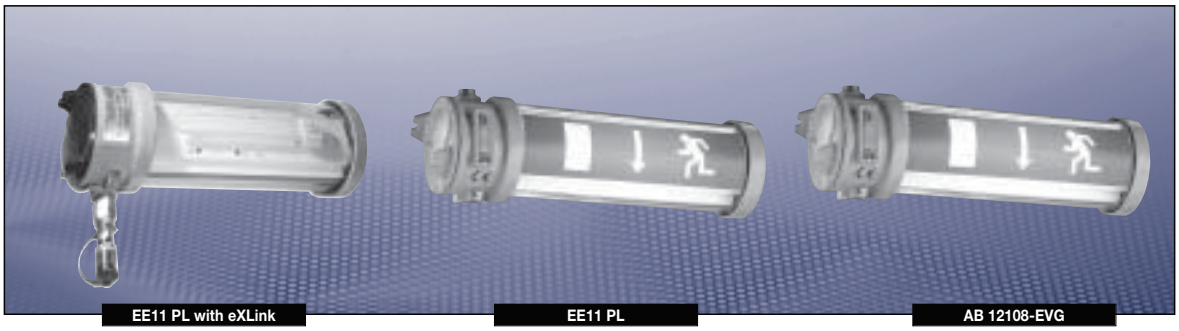

Technical data

AB 12108-EVG	
Marking to 94/9/EC	Ⓔx II 2 G EEx d IIC T6/T5 / Ⓔx II 2 D T 58 °C (T_a <= 40 °C) T 73 °C (T_a <= 55 °C)
EC-Type Examination Certificate	LOM 02 ATEX 2013 X
Permissable ambient temperature	-20 °C up to +55 °C (temperature class T5), -20 °C up to +40 °C (temperature class T6) (specified data: -10 °C up to +40 °C)
Rated voltage 1	220 - 230 V AC
Rated voltage 2	195 V - 250 V DC
Frequency	0 up to 50 / 60 Hz
Rated power consumption	approx. 16 VA
Connecting terminals	2 x 2.5 mm²
Insulation class	I
Lamp/Illuminant	1 x 8 W/T5-fluorescent lamp for mains and emergency operation
Lamp cap	G5
Luminous flux Φ_E/Φ_N at the end of rated operating time	75 %
Viewing distance with legend	up to approx. 15 m
Degree of protection accd. EN 60529	IP67
Cable glands/gland plates/enclosure drilling	see ordering details, eXLink inlet on request
Dimensions (L x W x H)	460 x 144 x 140 mm
Weight	approx. 5.3 kg
Enclosure material	copper-free aluminium
Protective cover/protective bowl	borosilicat-glass
Enclosure earth	1 x 6 mm²

EE11 PL	
Marking to 94/9/EC	Ⓔx II 2 G EEx d IIC T6 / Ⓔx II 2 D T58 °C
EC-Type Examination Certificate	LOM 03 ATEX 2036 X
Permissable ambient temperature	-5 °C up to +40 °C
Rated voltage 1	220 V - 240 V AC
Rated voltage (option)	108 V - 127 V AC
Frequency	50 - 60 Hz
Rated power consumption	approx. 16 VA
Connecting terminals	2 x 2.5 mm²
Insulation class	I
Lamp/Illuminant	1 x 11 W compact-fluorescent lamp for emergency operation
Pilot lamp	high output-LEDs, white (mains operation)
Lamp cap	socket 2G7
Luminous flux in emergency operation	approx. 70 % after 1.5 h
Viewing distance with legend	up to approx. 15 m
Battery	nickel-cadmium 4 Ah
Rated operating duration	1.5 h
Charging duration	24 h
Degree of protection accd. EN 60529	IP67
Cable glands/gland plates/enclosure drilling	see ordering details, eXLink inlet on request
Dimensions (L x W x H)	460 x 144 x 140 mm
Weight	approx. 5.6 kg
Enclosure material	copper-free aluminium
Protective cover/protective bowl	borosilicat-glass
Function	fault indication: Emergency circuit, battery, lamp: red LED Mains and charging state indication: green LED
Enclosure earth	1 x 6 mm²

Note: Luminaire must not be opened in hazardous area.

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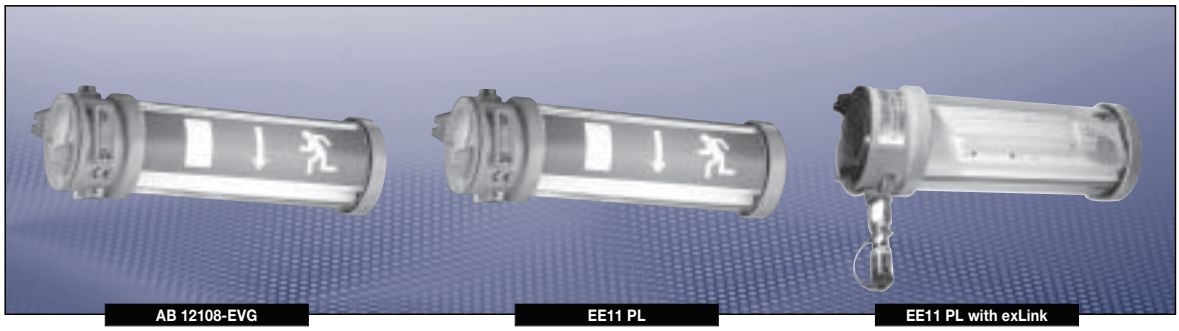

Ordering details

Type incl. lamp	Rated voltage	Thread	Cable gland Ex-d for Ø 10-14 mm	Stopping plug Ex-d	Ordering Code
Type AB12108-EVG					
AB12108-EVG	220 - 230 V AC /	2 x 3/4"	1 x 3/4"	1 x 3/4"	**NOR 000 005 060 837**
AB12108-EVG	195 - 250 V DC	2 x 3/4"	–	1 x 3/4"	**NOR 000 005 060 820**
Type EE11 PL					
EE11PL	220 - 240 V AC	2 x 3/4"	1 x 3/4"	1 x 3/4"	**NOR 000 005 160 012**
		2 x 3/4"	–	1 x 3/4"	**NOR 000 005 160 013**
EE11PL	108 - 127 V DC	2 x 3/4"	1 x 3/4"	1 x 3/4"	**NOR 000 005 160 015**
		2 x 3/4"	–	1 x 3/4"	**NOR 000 005 160 014**

Scope of delivery with lamp and without fixing accessories.

Accessories

Ex-Emergency luminaires AB 12108-EVG and EE11 PL	
Type	Ordering Code
Legend LWRE	**NOR 000 000 506 915**
Legend LWRD	**NOR 000 000 506 907**
Legend LWRH EXIT	**NOR 000 000 506 965**
Legend LWRI	**NOR 000 000 506 966**
Ceiling bracket D 92 with screws and polyamide washer (CrNi, 2 pcs.)	**2 2480 092 000**
Ceiling bracket A5 hot galvanized (1 pc.)	**NOR 000 005 009 162**
Wall bracket 45° hot galvanized (1 pc.)	**NOR 000 005 009 196**
Reflector RAB 108 (AISI 304)	**NOR 003 045 060 471**
Reflector RAB 108 (AISI 304) + guard (steel white epoxy coating)	**NOR 003 045 060 819**
Reflector RAB 108 (AISI 316)	**NOR 003 165 060 471**
Reflector RAB 108 (AISI 316) + guard (steel white epoxy coating)	**NOR 003 165 060 819**

Lamps for Ex-emergency and signal light fittings				
For luminaire Type	Lamp type/ lamp cap/diameter	Lamp power	rated luminous flux approx.	Ordering Code
AB 12108-EVG	T5, socket G5, Ø 16 mm	8 W	450 lm	**4 0040 004 623**
EE11 PL	TC-SEL, 4-pin socket 2G7	11 W	900 lm	**on request**

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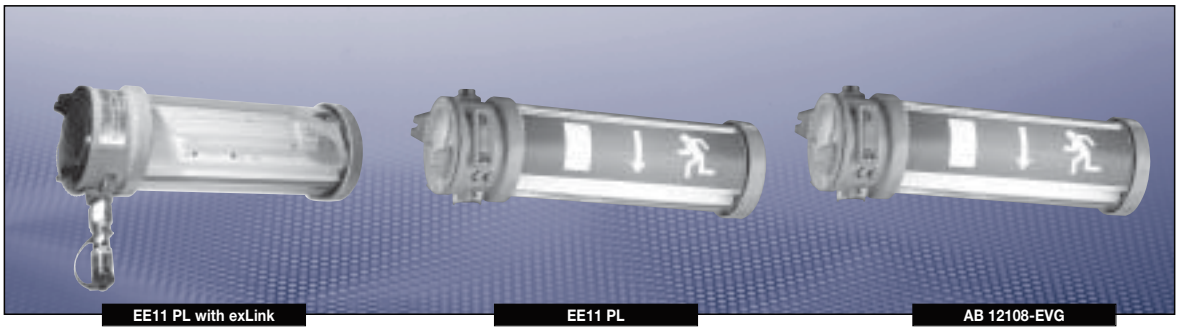
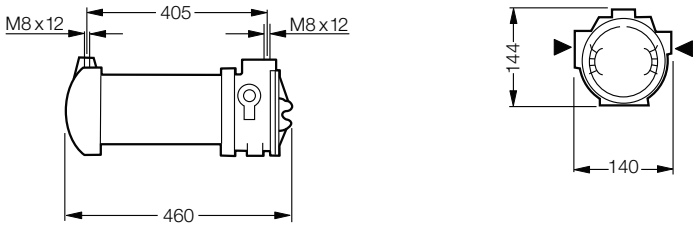
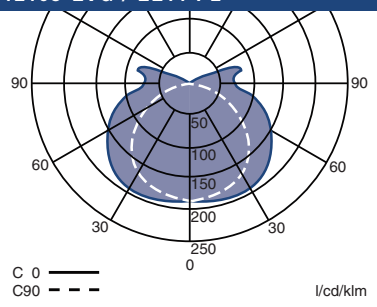


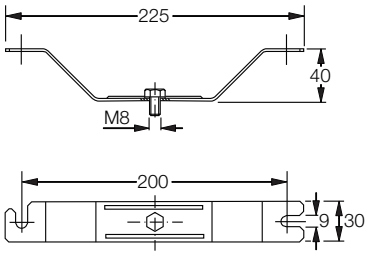
Dimension drawing | Polar curves | Accessories



AB 12108-EVG / EE11 PL

Polar curve
AB 12108-EVG / EE11 PL





Ceiling bracket D92

Dimensions in mm

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EX-SIGNAL AND EMERGENCY LIGHT FITTING

dKLK 23
Plastic version for Zone 1

These light fittings meet the requirements of ATEX-Directive 94/9/EC for temperature class T6. It is certified for use in hazardous areas of the Zones 1 and 2 also for the temperature class up to T6 as well as for dust-ex areas of the Zones 21 and 22.
Additionally they fulfill the directive EN 60598, Part 2.22 for Emergency Lighting. The Ex-light fitting dKLK 23 are built for compact fluorescent lamps 5-8 W with integrated electronic ballast.
By use of a flash module (optional) the light fitting can be used also as a strobe light.
The housing is made of a fibre-glass reinforced polyester and the protective globe of a transparent or coloured polycarbonate. When fitted with coloured protective covers they are used as signal light fittings but also as emergency light fittings in conjunction with the exit cubes.
The light fitting is connected by a flameproof eXLink inlet.
With the optional CG-S monitoring module with coding switch (for max. 20 light fittings) which assigns an address to each light fitting, they can be connected as singularly monitored emergency light fittings to the CEAG emergency lighting supply system (dKLK 23 CG-S).

- **Signal light fitting, even with coloured protective globe in temperature class T6 environments**
- **For compact fluorescent lamp with integrated EVG**
- **For ceiling and wall mounting**
- **Safety Standard IP66**
- **With possible connection to the CEAG emergency lighting supply systems**
- **Optional flash module**

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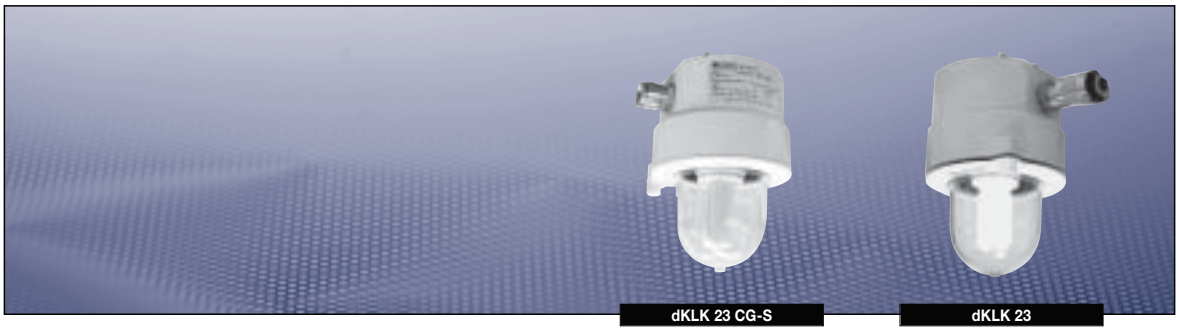

Technical data

dKLK 23 | dKLK 23 CG-S[1]	
Marking to RL 94/9/EG	Ex II 2 G EEx d IIC T6 / Ex II 2 D IP66 T80 °C
EC-Type Examination Certificate	PTB 04 ATEX 1017X
Permissable ambient temperature	-20 °C up to max. +45 °C (dept. on lamp power and operating position)
Rated voltage 1	230 V AC
Rated voltage 2	230 V DC
Rated current	max. 25 mA
Frequency	0 up to 50 / 60 Hz
Connecting terminals	flameproof inlet eXLink, 3pole, 2 + PE cage clamp terminal for cable Ø 8-11 mm and max. 1.5 mm² or flameproof cable gland M20 x 1.5 for cable Ø 8.5-16 mm; terminal L, N, PE max. 2.5 mm² clamp terminal
Insulation class	I
Lamp/Illuminant	Compact-fluorescent lamp with integrated electr. ballast, lamp cap E27, lamp power 5-8 W, manufacturer Philips MASTER PL Electronic 5W/8 W or equivalent; Flashmodule (see accessories)
Lamp cap	E 27
Rated luminous flux[2]	approx. 400 lm (7/8 W)
Degree of protection accd. EN 60529	IP66
Dimensions (L x W x H)	164.5 x 189 x 128 mm
Weight	approx. 1.7 kg
Enclosure material	Glass-fibre reinforced polyester
Protective cover/protective bowl	Polycarbonat

Accessory Flash module type Eurolite E27 Strobe	
Rated voltage	230 V
Frequency	50 Hz
Rated power consumption	5 W
Flash frequency	1-3 Hz

[1] For operation with CEAG emergency lighting systems, with code switch for 20 addresses

[2] Depends on used lamps

Scope of delivery with lamp and without fixing accessories.

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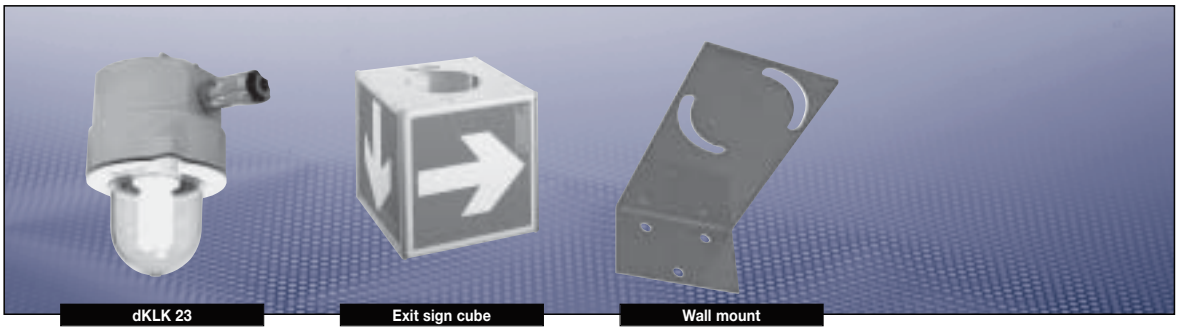


Ordering details

Type	Power connection	Colour of protective cover	Ordering Code
Type dKLK 23			
dKLK 23/eXLink	eXLink	clear	**GHG 871 1001 R 0001**
dKLK 23/eXLink	eXLink	red	**GHG 871 1101 R 0001**
dKLK 23/eXLink	eXLink	green	**GHG 871 1201 R 0001**
dKLK 23/eXLink	eXLink	blue	**GHG 871 1301 R 0001**
dKLK 23 CG-S[1]/eXLink	eXLink	clear with CG-S-module and code switch	**GHG 871 2001 R 0001**
dKLK 23/EEx d	Cable gland M20	clear	**GHG 871 1001 R 0101**
dKLK 23/EEx d	Cable gland M20	red	**GHG 871 1101 R 0101**
dKLK 23/EEx d	Cable gland M20	green	**GHG 871 1201 R 0101**
dKLK 23/EEx d	Cable gland M20	blue	**GHG 871 1301 R 0101**
dKLK 23 CG-S[1]/EEx d	Cable gland M20	clear with CG-S-module and code switch	**GHG 871 2001 R 0101**

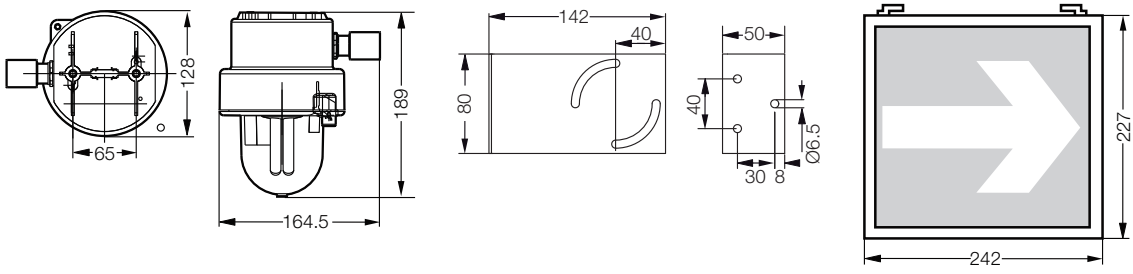
[1] for connection to CEAG emergency supply systems, with address switch for 20 addresses.

Scope of delivery with lamp and without fixing accessories.

Accessories

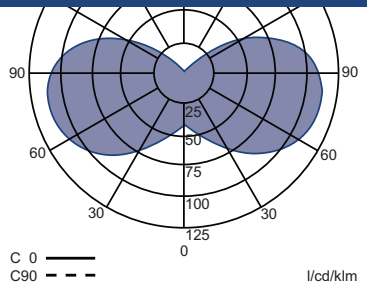
Ex-signal- and exit sign luminaire dKLK 23	
Type	Ordering Code
Flash module Eurolite E27 Strobe	**GHG 870 1912 R 0001**
Exit sign cube (242 x 227 x 242 mm)	**4 0071 344 115**
Compact fluorescent lamp 7 W with EVG	**GHG 870 9302 P 0002**

Dimension drawing | Polar curves



dKLK 23 **Exit sign cube**

Polar curve
dKLK 23 / dKLK 23 CG-S



Dimensions in mm

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