



Manual for LED-Luminaire EM41-Series






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1 Structure of safety and supplementary information

Important instructions are marked with signal words or symbols in this operating manual.

Some signal words denote the degree of the potential risk of injury. Colours and the different shades of grey and triangular symbols visually underline the degree of danger.

 DANGER	Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.
 WARNING	Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.
 CAUTION	Indicates a potentially hazardous situation which, if not avoided, could result in minor or slight injury.
 ATTENTION	Indicates a potentially hazardous situation which, if not avoided, could result in property damage.
 NOTE	Gives you additional information for the safe and efficient use of the Product.



Refers to compliance with these operating instructions.



CE marking: confirms conformity with applicable standards and regulations.

2 Proper use

The luminaire is used for illumination. The luminaire is intended for mounting in a luminaire holder or mounting bracket.

For connection values see "Technical data". The supply cable is connected to the luminaire via an M12 plug connection.



The safety information and all other information in this manual must be followed. Read the entire operating manual carefully before mounting and turning on.

Keep the operating manual with the device. It must be stored and handed over to third parties when the product is passed on.

3 For safe operation

The operating parameters of the LED luminaire specified on the type plate must correspond to the supply parameters of the machine or of the transformer.

CAUTION

Die Under no circumstances may the luminaire be covered with cloths, foils or similar. Object distance from the luminaire should be at least 10 cm.

ATTENTION

Machines can emit voltage spikes due to various factors. These voltage spikes in the power supply via machines should be avoided: Only use regulated 24V DC switched-mode power supplies, not transformers with rectifiers, as these can give rise to voltage spikes due to inductance.

Hot plugging should be avoided (connection of the luminaire to a power supply which is already connected to the mains), since this can lead to the destruction of the LED luminaire.

4 Safety information

WARNING

Installation of electrical equipment may only be carried out by qualified electricians.

Follow the five safety rules according to DIN VDE 1005.

Failure to do so may result in damage to the LED luminaire, as well as fire or other hazards.

DANGER

Danger of electric shock! Disconnect before working on the device or load. Ensure to disconnect all circuit breakers that supply dangerous voltages to the device or load, when doing so. Even when the device is switched off, the load is not galvanically isolated from the mains.

ATTENTION

Only use the device if it is completely free of faults, and with safety and awareness in mind.

If warnings or symbols are attached to the luminaire, they must not be removed.

LED lighting systems can produce very intense radiation which, if used improperly, can possibly damage the eyes.

5 Assembly / Mounting

Check the LED luminaire before installation to ensure it is complete and shows no signs of damage. Do not use the luminaire or accessories if they are damaged, as there is a risk of injury.

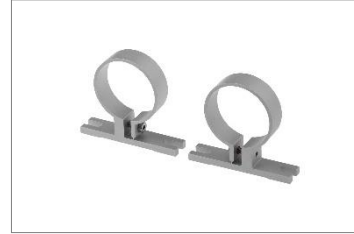
The LED luminaire comes fully assembled. The luminaire is attached via optional mounting hardware:



AE000011
(Mounting bracket, V2A)



AE000012
(Mounting bracket, V2A incl. Magnet)



AE000013
(Luminaire holder, Aluminium)

If attached using the mounting brackets, the LED luminaire is continuously adjustable by 111° in its rotation axis.



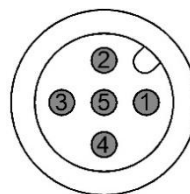
When mounting the luminaire, make sure that the luminaire is fastened securely and stably. If the luminaire falls down, its weight poses a risk of **injury!**

6 Connection

Suitable connection material, cables and accessories can be found in our accessory range.

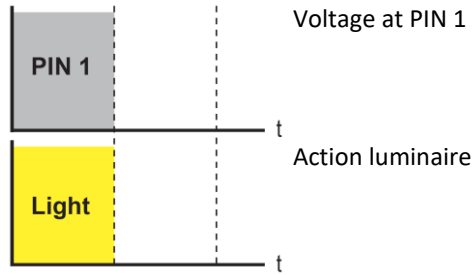
The LED light can be controlled using 3 different operating modes, which can be selected as desired. The wire cross sections of the connecting cables used must be adapted to local conditions and carried out by a qualified electrician.

PIN assignment of the M12 connector is as follows:



Mode 1

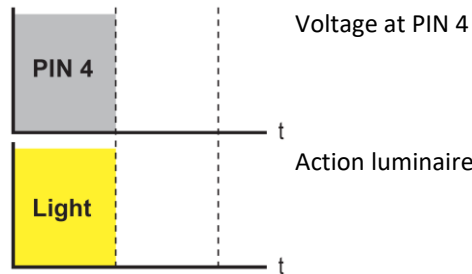
- PIN 1 = 24V DC
- PIN 2 = not used
- PIN 3 = GND
- PIN 4 = not used
- PIN 5 = not used



The luminaire can only be switched ON and OFF by switching the supply voltage at PIN 1.

Mode 2

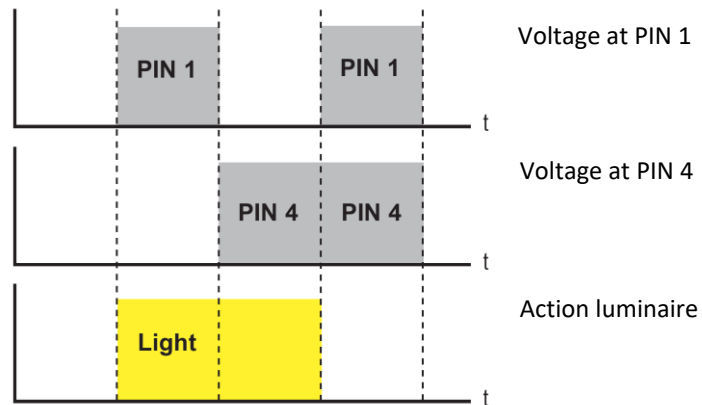
- PIN 1 = not used
- PIN 2 = not used
- PIN 3 = GND
- PIN 4 = 24V DC
- PIN 5 = not used



The luminaire can only be switched ON and OFF by switching the supply voltage at PIN 4.

Modus 3

- PIN 1 = 24V DC
- PIN 2 = not used
- PIN 3 = GND
- PIN 4 = 24V DC
- PIN 5 = not used



The voltage inputs at PIN 1 and PIN 4 are **connected exclusive - OR**. This makes it possible to switch the luminaire ON or OFF without additional switching devices (e.g. an external control cabinet).

As long as there is an exclusive supply voltage to the luminaire, the light is switched on.

If there is no voltage (PIN 1 = 0 and PIN 4 = 0) **OR** if both voltages are present (PIN 1 = 1 and PIN 4 = 1) the light is switched off. If a second voltage is added to an already active voltage in order to switch off the luminaire, only a small switching current is necessary.

7 Maintenance and care

The LED luminaire is maintenance-free. Do not make any alterations to the luminaire (except according to the mounting information contained in this manual).

The luminants used in the luminaire have a very long life and cannot be replaced.

Turn off the light before cleaning and let it cool down completely. Clean the outside of the luminaire with a soft, dry and clean cloth. To remove excess dirt, moisten the cloth with water. Never use aggressive cleaning agents, as these may cause discoloration of the housing.

ATTENTION

No liability is assumed for damages resulting from the use of unsuitable cleaning agents.

8 Warranty

We supply a full warranty for the product for 36 months from the date of purchase. This warranty applies for fault-free working under proper use and in accordance with the operating instructions.

During the warranty period defects and faults in the product will be rectified free of charge if they are proven to be caused by material, processing or design errors. If the purchaser complains of a material defect, he bears the burden of proof to demonstrate that the product was already defective upon receipt.

NOTE

The warranty does not extend to defects caused by wear, negligence or improper use.

Further claims, in particular claims for compensation for damage that did not occur on the LED luminaire itself, are excluded.

9 Disposal

The luminaire must be disposed of at a suitable disposal site designated for recycling of electrical and electronic equipment in accordance with local, national regulations. (WEEE-Nr. 40951076)



10 Technical Data

operating voltage	24V DC
power consumption	see table of articles
current consumption	see table of articles
dimensions (diameter)	40mm
length (A)	see table of articles
housing material	Aluminum
front screen material	hard glas
operating temperature	-30...+40°C
radiation angle	100°
color temperature	5200...5700K
protection class	III
degree of protection (EN60529)	IP67
luminous flux	see table of articles
illuminance in the center (1000mm)	see table of articles
connection	M12-connector
connection accessories	e.g. VK200025
mounting accessories	AE000011, AE000012, AE000013

11 Table of articles

article-no.	length A	length B	power consumption	current consumption	illuminance in the center (1000mm)	luminous flux
EM410120	190mm	158mm	8W	333mA	290lx	860lm
EM410121	280mm	248mm	12W	500mA	435lx	1,290lm
EM410122	365mm	333mm	16W	667mA	570lx	1,720lm
EM410123	540mm	508mm	24W	1,000mA	850lx	2,580lm
EM410124	715mm	683mm	32W	1,334mA	1,100lx	3,440lm
EM410125	1,040mm	1,008mm	48W	2,000mA	1,550lx	5,160lm
EM410126	1,540mm	1,508mm	72W	3,000mA	2,000lx	9,600lm