

RoHS

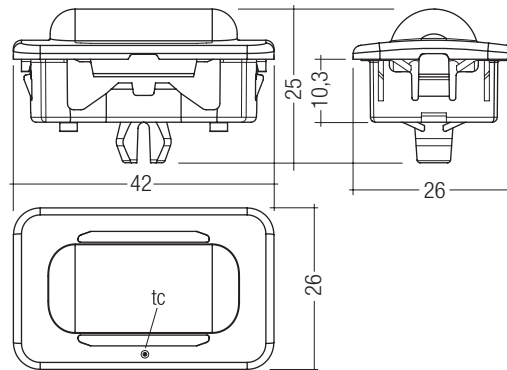
### TALEXengine EM-ER 003 TALEXengine EMERGENCY

#### Product description

- Latest generation LED light source
- Escape route emergency lighting: illuminance  
E = 1.0 lux (as per EN 1838)

#### Properties

- High-power LED in chip-on-board technology (COB)
- Suitable for Tridonic EM powerLED emergency lighting units
- Long life thanks to integrated heat removal
- Optimised system efficiency with specific beam characteristic
- Integrated bi-colour status LED
- Reverse polarity protection
- Small dimensions
- Different installation options
- Connection: Cable 260 mm



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#### Technical data

Weight	18 g
Ambient temperature $t_a$	-20 ... +50 °C
Max. tc point <sup>①</sup>	75 °C
Colour rendering index CRI <sup>②</sup>	> 70

#### Ordering data

Colour	Colour temperature <sup>③</sup>	Type	Article number
Daylight white	6,500 K	EM-ER 003	89600961

Packaging: 10 pieces

#### Specific technical data

Type	Typ. luminous flux	Min. luminous flux	Max. current <sup>④</sup>	Power <sup>⑤</sup>
EM-ER 003	90 lm	80 lm	350 mA	1.2 W

<sup>①</sup> Data for operation with 350 mA.

<sup>②</sup> If the max. temperature limits are exceeded, the life of the module will be reduced or the module may be damaged. The temperature of the TALEXengine at the tc-point is to be measured in the thermally stable state. For tc-point see the above diagram.

<sup>③</sup> Exceeding the max. operating current leads to an overload on the TALEXengine. This may in turn result in a significant reduction in lifetime or even destruction of the TALEXengine.

<sup>④</sup> Tolerance range for optical and electrical data: ±15 %

<sup>⑤</sup> Colour temperature and CRI according to CIE 1931.

All values at  $t_a = 25$  °C

**Standards**  
EN 62031

**Optical properties**

**Max. spacing for >1.0 lux for maintained mode ①**

Height	Centre to end ②		Centre to centre ③	
	Transversal	Axial	Transversal	Axial
2.5 m	1.30 m	3.55 m	3.00 m	8.30 m
3.0 m	1.45 m	3.90 m	3.30 m	9.25 m
4.0 m	1.65 m	4.35 m	4.00 m	10.80 m
5.0 m	1.75 m	4.40 m	4.50 m	11.85 m

all values at  $t_c = 45^\circ\text{C}$

① Maintainance factor = 0.8

Photometric data available on request

② Distance between module and wall

③ Distance between two modules

**$t_c$  point, ambient temperature and lifetime**

The temperature at  $t_c$  reference point is crucial for the light output and life time of a TALEX product.

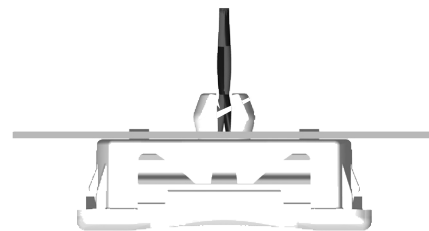
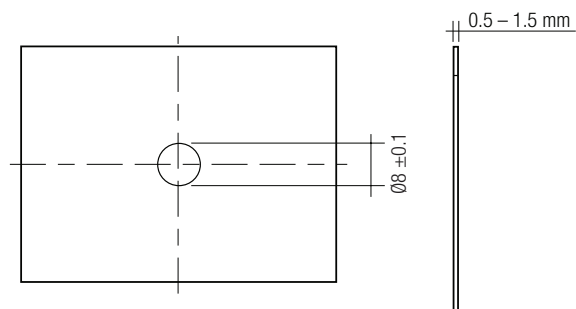
Compliance with the maximum permissible reference temperature at the  $t_c$  point must be checked under operating conditions in a thermally stable state. The maximum value must be determined under worst-case conditions for the relevant application.

**Thermal behaviour**

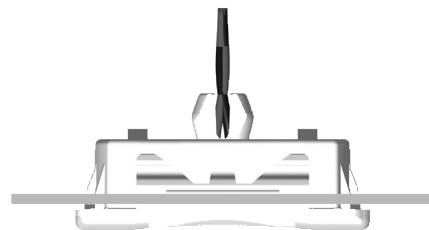
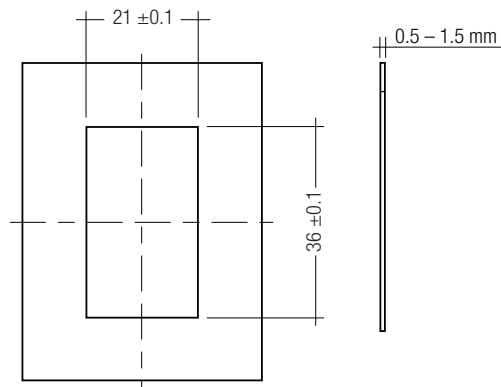
Storage temperature	-20–80 °C
Operating temperature	-20–50 °C
$t_c$ max. (at typ. current)	75 °C

**Mounting**

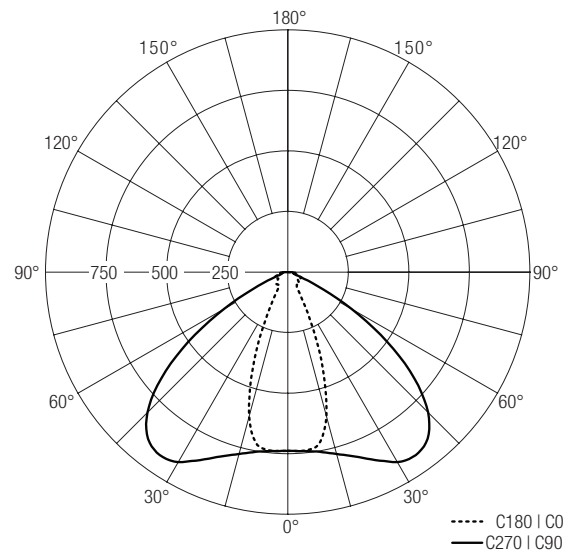
**Surface mounting:**



**Recessed mounting:**



**Light distribution**



### Electrical supply/choice of converter

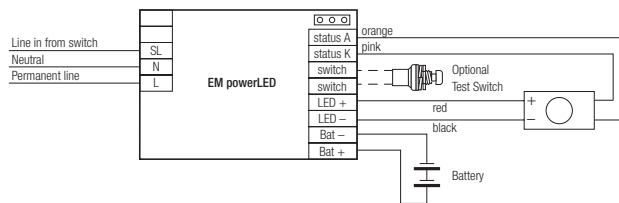
TALEXengine EM-ER 003 modules from Tridonic are not protected against over-voltages, overcurrents, overloads or short-circuit currents. Safe and reliable operation can only be guaranteed in conjunction with a converter which complies with the relevant standards. The use of EM powerLED converters from Tridonic in combination with TALEXengine EM-ER 003 modules guarantees the necessary protection for safe and reliable operation.

If a converter other than Tridonic EM powerLED converter is used, it must provide the following protection:

- SELV
- Short-circuit protection
- Overload protection
- Overtemperature protection

The TALEXengine EM-ER 003 module must be supplied by a constant current converter. Operation with a constant voltage converter will lead to an irreversible damage of the module. The TALEXengine EM-ER 003 modules is protected against reversed polarity.

### Wiring example



### Wiring

Cable: AWG24; length 300 mm

Colour	red	black	orange	pink
Function	+	-	Status A	Status K

### Notes

The wiring acc. to the information above is valid for the usage in conjunction with EM powerLED ST and EM powerLED PRO.

When the EM-ER 003 is used with the EM powerLED BASIC the polarity of the indicator LED has to be changed. Connect the orange lead to the terminal "P" and the pink lead to the terminal "O".

When two EM-ER module are used with an EM powerLED 2W converter module only one indicator LED can be connected to the driver.

When the EM-ER is used in mains operation a separate indication LED must be used.

### Notes:

The indication LED is part of the EM-ER module.

### Coordinates and tolerances according to CIE 1964

The specified colour coordinates are measured by a current impulse of 350 mA and a duration of 100 ms.

The ambient temperature of the measurement is  $t_a = 25^\circ\text{C}$ .

The measurement tolerance of the colour coordinates are  $\pm 0.01$ .

### CIE coordinates:

#### Daylight white

	x0	y0
Centre	0.3200	0.3270

MacAdam ellipse: 8SDCM

### Daylight white

