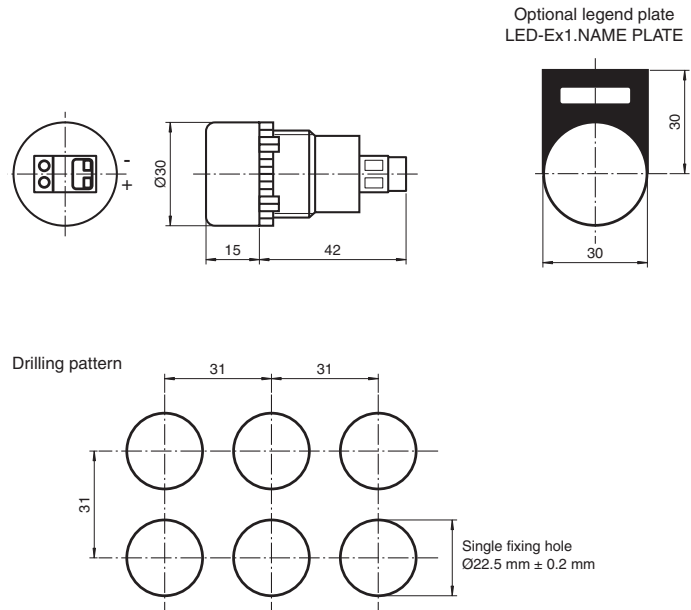


## LED cluster lamp



## Dimensions



## LED-Ex1.R



## Function

The LED cluster lamp provides reliable visual status indication. A group of high efficiency light emitting diodes are mounted behind a coloured diffuser to produce a bright, uniform output.

All models contain a 20 mA current regulator which maintains constant brilliance, provides protection against excess voltages and enables to comply with common system design rules.

Two lamps may be powered from a single IIC intrinsically safe source, and up to four lamps from a IIB source.

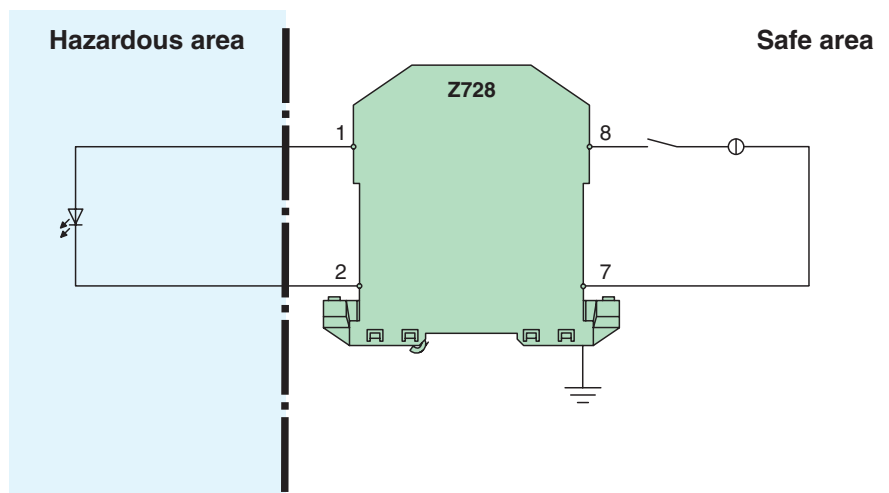
IP65 sealing of the lens and the joint between the lamp and the panel makes the LED-Ex1.\* ideal for installation in areas which will be hosed, washed or splashed.

Mounting is via a single standard 22.5 mm (0.9 inches) diameter hole. The lamp housing, fixing nut and terminals have a maximum diameter of 30 mm (1.2 inches) which permits a very high packing density on the panel. To aid identification from the rear of the panel, the model number and suffix which identifies the colour are marked on the lamp body close to the terminals.

## Features

- red LED
- Intrinsically safe EEx ia IIC T4
- Protection degree IP65 (front)
- Protection degree IP20 (rear)
- Low current, max. 22 mA

## Electrical connection



<b>Supply</b>	
Rated voltage	14 ... 30 V DC
Rated current	18 ... 22 mA
<b>Output</b>	
Mechanical life	10 <sup>5</sup> h
<b>Directive conformity</b>	
Electromagnetic compatibility	
Directive 89/336/EC	EN 61326, EN 50081-2
<b>Conformity</b>	
Electromagnetic compatibility	NE 21
Protection degree	IEC 60529
<b>Ambient conditions</b>	
Ambient temperature	-20 ... 60 °C (253 ... 333 K)
Storage temperature	-40 ... 85 °C (233 ... 358 K)
Relative humidity	5 ... 95 %, non-condensing
<b>Mechanical specifications</b>	
Protection degree	IP65 (front), IP20 (rear)
Connection	screw terminals for 1.5 mm <sup>2</sup>
Material	housing: polyamid 6.6 lens: polycarbonat
Mass	18 g
Dimensions	Ø30 x 57 mm (1.2 x 2.2 in)
<b>Data for application in conjunction with hazardous areas</b>	
EC-Type Examination Certificate	BSA 01 ATEX 1062 X (firm BEKA)
Group, category, type of protection	Ⓔ II 1G EEx ia IIC T4 [circuit(s) in zone 0/1/2]
Voltage U <sub>o</sub>	30 V DC
Power P <sub>o</sub>	max. 1.3 W , see also section installation
<b>Supply</b>	
Safety maximum voltage U <sub>m</sub>	60 V (Attention! The rated voltage is lower.)
<b>Type of protection [EEx ia]</b>	
Internal capacitance	-
Internal inductance	-
<b>Directive conformity</b>	
Directive 94/9 EC	EN 50014, EN 50020, EN 50284
<b>General information</b>	
Supplementary information	EC-Type Examination Certificate, Statement of Conformity, Declaration of Conformity and instructions have to be observed. For information see <a href="http://www.pepperl-fuchs.com">www.pepperl-fuchs.com</a> .

## Installation

One or two LED-Ex1.\* lamps may be powered by any certified Zener barrier or solenoid driver with output parameters within the following limits:

- voltage U<sub>o</sub>: 30 V DC
- power P<sub>o</sub>: 1.3 W at 40 °C (313 K); 1.2 W at 60 °C (333 K)
- gas groups IIA, IIB or IIC

e. g. 28 V, 300 Ω with a Zener barrier (Typ Z 728) or a solenoid driver (KFD2-SD-Ex1.\*\*, KFD2-SL2-Ex\*.\*)

Up to three LED-Ex1.\* lamps may be powered in an ambient temperature up to 40 °C (313 K) by a solenoid driver with output parameters within the following limits:

- voltage U<sub>o</sub>: 30 V DC
- power P<sub>o</sub>: 1.3 W at 40 °C (313 K)
- gas groups IIA or IIB

## Accessories

Legend plate LED-Ex1.NAME PLATE