



PEPPERL+FUCHS

Pepperl+Fuchs Z928 Zener barrier for fire bells

Product code 42076 · Fire alarm systems > Field devices > Alarm devices

Single-channel Zener barrier (Pepperl+Fuchs Z928) that separates the lines of intrinsically safe fire bells and sounders located in Ex areas from the safe area.

- 1 channel, AC version, series resistance max. 327 Ω
- Ex ia output parameters: U_o 28 V, I_o 93 mA, P_o 650 mW
- ATEX BAS 01 ATEX 7005, IECEx BAS 09.0142
- Field devices for zones 0, 1 and 2
- Fuse 50 mA, working voltage 26 V (10 μ A)
- 12.5 mm wide, for 35 mm DIN rail

Product description

Pepperl+Fuchs Z928 is a single-channel Zener barrier that prevents excessive energy from passing from the safe area into a hazardous area. In this product it is used on the alarm device lines of Ex areas: the alarm output of the fire alarm control panel is connected to the safe-side terminals of the barrier, and intrinsically safe fire bells or sounders to the Ex-side terminals.

Operation

The Zener diodes of the barrier are reverse-biased. In normal operation their breakdown voltage is not reached, but if a fault occurs on the safe side and the voltage rises, the diodes start to conduct and the 50 mA fuse blows. In the AC version the diodes are connected back to back, so the barrier is suitable for both AC and DC signals. The nominal resistance is 300 Ω and the series resistance at most 327 Ω .

Approvals and Ex values

The barrier has the ATEX type-examination certificate BAS 01 ATEX 7005 and IECEx certification, as well as FM and UL approvals. The output values are U_o 28 V, I_o 93 mA and P_o 650 mW, and the field devices can be located in zones 0, 1 and 2. The barrier itself can be installed in zone 2 (Ex nA / Ex ec). For example, the datasheets of the E2S IS-A105N and IS-mA1 alarm devices give permitted input values of 28 V / 93 mA / 660 mW. The system as a whole must always be verified against the Ex parameters of the devices and the cable.

Installation

The barrier is mounted on a 35 mm DIN rail (EN 60715), and the module width is 12.5 mm. The Ex-side conductors are connected to terminals 1–2 and the safe-side conductors to terminals 7–8. Conductors may be at most 2 × 2.5 mm².

Technical data

Product code	42076
Manufacturer	Pepperl+Fuchs
Product group	Fire alarm systems > Field devices > Alarm devices
Dimensions	12.5 × 115 × 116 mm (W × H × D)

Weight	Approx. 150 g
IP rating	IP20
Operating temperature	-20...+60 °C
Humidity	Max. 75% RH, non-condensing
Channels	1 (AC version)
Resistance	Nominal 300 Ω , series resistance max. 327 Ω
Fuse	50 mA
Operating voltage	Working voltage 26 V (10 μ A), supply loop max. 26.3 V
Ex output parameters	Uo 28 V, Io 93 mA, Po 650 mW; Um 250 V
ATEX classification	II (1)GD, I (M1) [Ex ia Ga] IIC, [Ex ia Da] IIIC, [Ex ia Ma] I; II 3G Ex nA IIC T4 Gc
ATEX certificate	BAS 01 ATEX 7005; TÜV 99 ATEX 1484 X
IECEx certificate	IECEx BAS 09.0142, IECEx BAS 17.0091X
Connection	Screw terminals, max. 2 × 2.5 mm ² ; Ex side 1-2, safe side 7-8
Mounting	35 mm DIN rail (EN 60715)
Standards	EN IEC 60079-0, EN IEC 60079-11, EN IEC 60079-7; FM, UL (cULus)

Documents

The manufacturer's original documents can be downloaded from the product page (QR code at the top of this sheet).

Technical datasheet: Zener barrier Zg28 for fire bells

Installation guide (series): Pepperl+Fuchs Z-System Zener barriers

Certificate: EU declaration of conformity, no. DOC-0060G

Request a quote or ask for more information

Sales +358 40 668 7641 · myynti@pap.fi · Mon-Fri 8 am – 4 pm (Finnish time)

Up-to-date information and documents: pap.fi/en/tuote/zener-barrier-zg28-palokellot/