

Zener Barrier SB8002

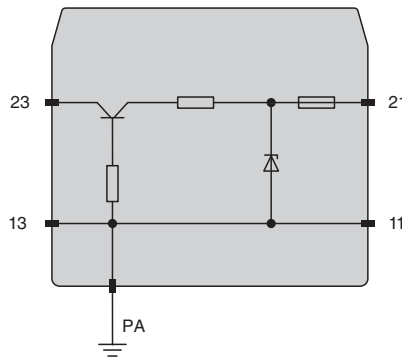
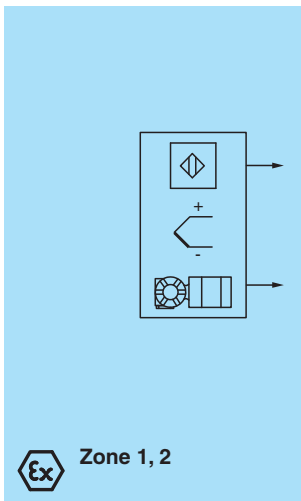
- 1-channel
- DC version, positive polarity
- Max. working voltage 10.6 V
- Series resistance approx. 18.7 Ω
- Fuse rating 100 mA
- DIN rail mounting



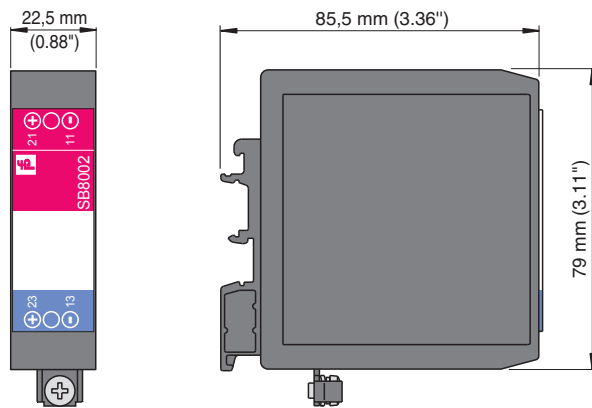
Function

The zener barrier prevents the transfer of unacceptably high energy from the non-hazardous area into the hazardous area. The zener diodes in the zener barrier are connected in the reverse direction. The breakdown voltage of the diodes is not exceeded in normal operation. If this voltage is exceeded, due to a fault in the non-hazardous area, the fuse will blow. Additionally, the fuse will blow if the current is too high. The zener barrier has a positive polarity, i. e. the anodes of the zener diodes are grounded.

Connection



Dimensions



Technical Data

General specifications

Type	DC version, positive polarity
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Electrical specifications

Series resistance	approx. 18.7 Ω
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Hazardous area connection

Connection	terminals 13, 23
Output voltage	U_{in} - 1.4 V at 75 mA

Safe area connection

Connection	terminals 11, 21
Working voltage	9 ... 10.6 V
Short-circuit current	max. 95 mA

Directive conformity

Electromagnetic compatibility	
Directive 2014/30/EU	EN 61326-1:2013 (industrial locations)

Conformity

Degree of protection	IEC 60529:2001
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Ambient conditions

Ambient temperature	-20 ... 60 °C (-4 ... 140 °F)
Storage temperature	-40 ... 80 °C (-40 ... 176 °F)
Relative humidity	< 95 % (30 d/year), no moisture condensation

Mechanical specifications

Degree of protection	IP20
Connection	screw connection, max. 2.5 mm ² PA connection, max. 4 mm ²
Mass	approx. 100 g
Dimensions	22.5 x 79 x 85.5 mm (0.88 x 3.11 x 3.36 inch)
Mounting	on 35 mm DIN mounting rail acc. to EN 60715:2001

Data for application in connection with hazardous areas

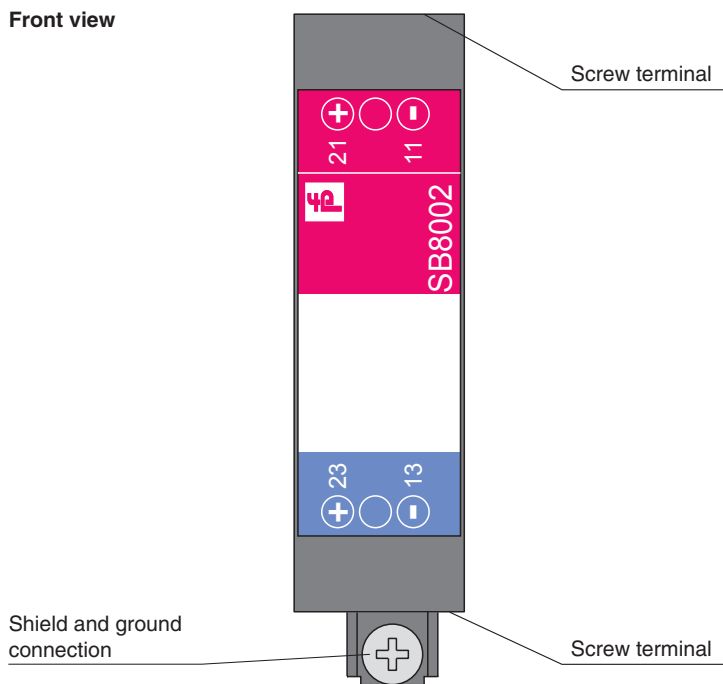
EU-type examination certificate	TÜV 16 ATEX 181955 X
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Technical Data

Marking		Ⓜ II (2)G [Ex ib Gb] IIC Ⓜ II (2)D [Ex ib Db] IIIC Ⓜ I (M2) [Ex ib Mb] I
Voltage	U_o	12.4 V
Current	I_o	95 mA
Power	P_o	1180 mW (characteristic curve rectangular type)
Supply		
Maximum safe voltage	U_m	250 V AC / 125 V DC (Attention! U_m is no rated voltage.)
Directive conformity		
Directive 2014/34/EU		EN 60079-0:2012+A11:2013 , EN 60079-11:2012
International approvals		
IECEX approval		IECEX TUN 16.0023 X
Approved for		[Ex ib Gb] IIC [Ex ib Db] IIIC [Ex ib Mb] I
General information		
Supplementary information		Observe the certificates, declarations of conformity, instruction manuals, and manuals where applicable. For information see www.pepperl-fuchs.com .

Assembly

Front view



Release date: 2020-10-21 Date of issue: 2020-10-21 Filename: 288376_eng.pdf

Refer to "General Notes Relating to Pepperl+Fuchs Product Information".