

Features

- 2-channel
- DC version, positive polarity
- Working voltage 1 V at 1 μ A
- Series resistance max. 50 Ω
- Fuse rating 100 mA
- DIN rail mountable

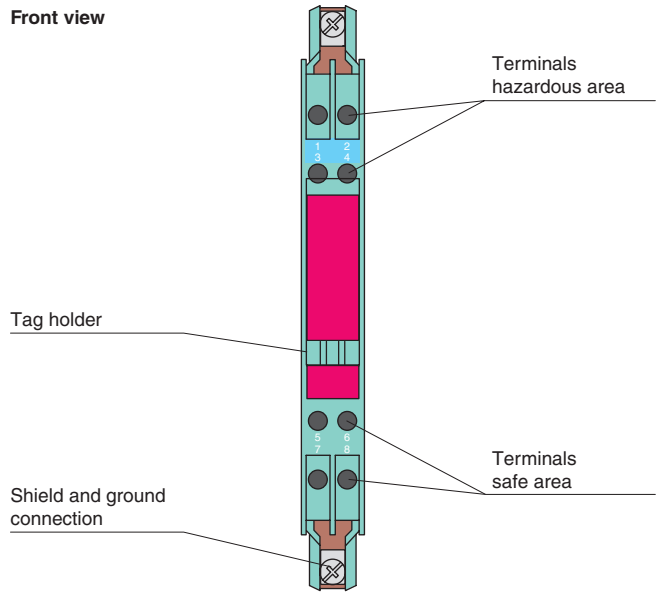
Function

The Zener Barrier prevents the transfer of unacceptably high energy from the safe area into the hazardous area.

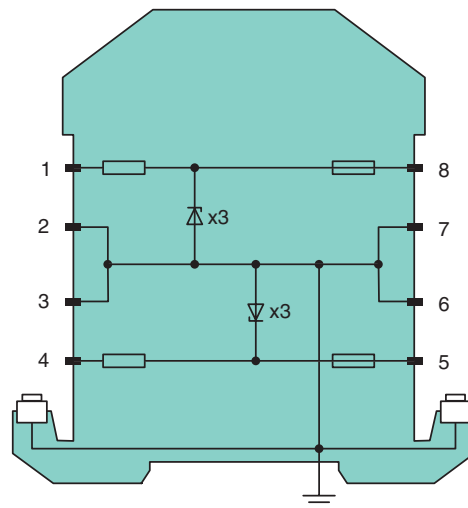
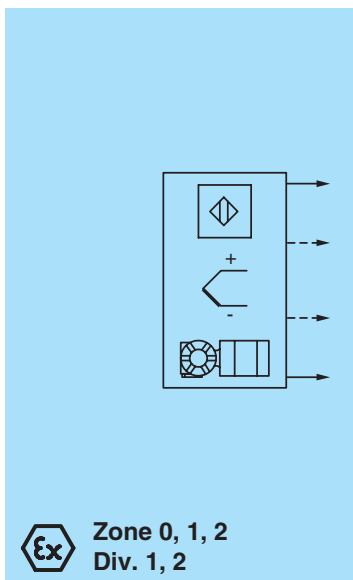
The zener diodes in the Zener Barrier are connected in the reverse direction. The breakdown voltage of the diodes is not exceeded in normal operation. If this voltage is exceeded, due to a fault in the safe area, the diodes start to conduct, causing the fuse to blow. The Zener Barrier has a positive polarity, i. e. the anodes of the zener diodes are grounded.

Depending on the application, increased or decreased intrinsic safety parameters apply for serial or parallel connection. For the detailed parameters refer to the Zener Barrier certificate. Application examples can be found in the system description of the Zener Barriers.

Assembly



Connection



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

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General specifications	
Type	DC version, positive polarity
Electrical specifications	
Nominal resistance	48.5 Ω
Series resistance	max. 50 Ω
Fuse rating	100 mA
Hazardous area connection	
Connection	terminals 1, 2; 3, 4
Safe area connection	
Connection	terminals 5, 6; 7, 8
Working voltage	terminals 5, 6: max. 5 V, 3 V at 10 μA (1 V at 1 μA) terminals 7, 8: max. 5 V, 3 V at 10 μA (1 V at 1 μA)
Transfer characteristics	
Deviation	
Influence of ambient temperature	max. 0.05 Ω/K
Conformity	
Degree of protection	IEC 60529
Ambient conditions	
Ambient temperature	-20 ... 60 °C (-4 ... 140 °F)
Storage temperature	-25 ... 70 °C (-13 ... 158 °F)
Relative humidity	max. 75 % , without moisture condensation
Mechanical specifications	
Degree of protection	IP20
Connection	screw terminals , max. core cross-section 2 x 2.5 mm ²
Mass	approx. 150 g
Dimensions	12.5 x 115 x 110 mm (0.5 x 4.5 x 4.3 in)
Construction type	modular terminal housing , see system description
Mounting	on 35 mm DIN mounting rail acc. to EN 60715:2001
Data for application in connection with Ex-areas	
EC-Type Examination Certificate	BAS 01 ATEX 7005
Group, category, type of protection	⊕ II (1)G [Ex ia Ga] IIC, II (1)D [Ex ia Da] IIIC, I (M1) [Ex ia Ma] I (-20 °C ≤ T _{amb} ≤ 60 °C)
Voltage U _o	terminals 1, 2: 5.88 V / terminals 3, 4: 5.88 V
Current I _o	terminals 1, 2: 140 mA / terminals 3, 4: 140 mA
Power P _o	terminals 1, 2: 206 mW / terminals 3, 4: 206 mW
Supply	
Maximum safe voltage U _m	250 V
Series resistance	min. 42.14 Ω
Statement of conformity	
Group, category, type of protection, temperature class	⊕ II 3G Ex nA IIC T4 Gc [device in zone 2]
Directive conformity	
Directive 2014/34/EU	EN 60079-0:2012+A11:2013 , EN 60079-11:2012 , EN 60079-15:2010
General information	
Supplementary information	EC-Type Examination Certificate, Statement of Conformity, Declaration of Conformity, Attestation of Conformity and instructions have to be observed where applicable. For information see www.pepperl-fuchs.com .

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