

Features

- 2-channel
- DC version, negative polarity
- Working voltage 24 V/18 V at 10 μ A
- Series resistance max. 340 Ω /437 Ω
- Fuse rating 50 mA
- DIN rail mounting
- Asymmetrical version

Function

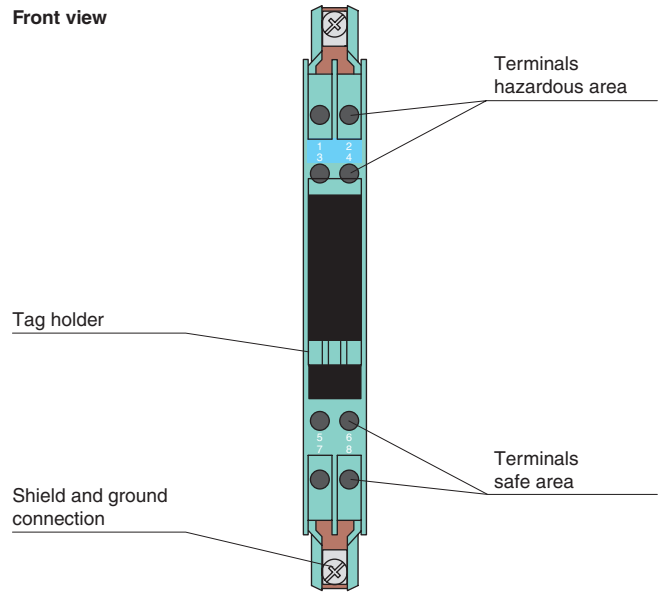
The Zener Barrier prevents the transfer of unacceptably high energy from the safe area into the hazardous area.

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 negative polarity, i. e. the cathodes of the zener diodes are grounded.

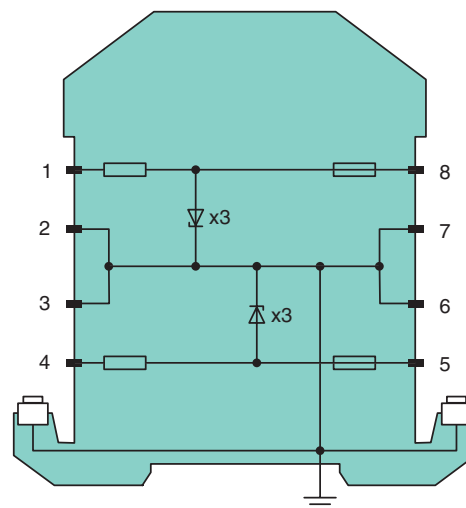
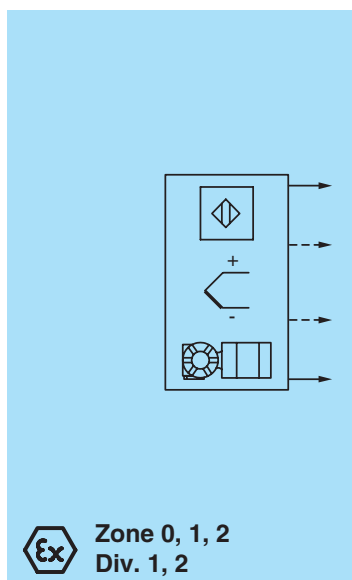
Asymmetrical Zener Barriers are for optimization of applications which have different voltage levels regarding to ground potential.

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



Zone 2
Div. 2

Search characteristics		
Asymmetrical version		yes
General specifications		
Type		DC version, negative polarity
Electrical specifications		
Nominal resistance		terminals 1, 8: 320 Ω terminals 4, 5: 415 Ω
Series resistance		terminals 1, 8: $\leq 340 \Omega$ terminals 4, 5: $\leq 437 \Omega$
Fuse rating		50 mA
Hazardous area connection		
Connection		terminals 1, 2; 3, 4
Safe area connection		
Connection		terminals 5, 6; 7, 8
Working voltage		
Supply loop		terminals 7, 8: $\leq 24.6 \text{ V}$ terminals 5, 6: $\leq 19 \text{ V}$
Measurement loop		terminals 7, 8: $\leq 24 \text{ V}$ at 10 μA terminals 5, 6: $\leq 18 \text{ V}$ at 10 μA
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 condensation
Mechanical specifications		
Degree of protection		IP20
Connection		screw terminals
Core cross-section		max. 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 inch)
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 hazardous areas		
EU-type examination certificate		BAS 01 ATEX 7005
Marking		Ⓔ II (1)GD, I (M1) [Ex ia Ga] IIC, [Ex ia Da] IIIC, [Ex ia Ma] I (-20 °C $\leq T_{\text{amb}} \leq 60$ °C) [circuit(s) in zone 0/1/2]
Voltage	U _o	terminals 1, 2: 26.6 V; terminals 3, 4: 20.5 V
Current	I _o	terminals 1, 2: 85 mA; terminals 3, 4: 50 mA
Power	P _o	terminals 1, 2: 560 mW; terminals 3, 4: 260 mW
Supply		
Maximum safe voltage	U _m	250 V
Series resistance		terminals 1, 2: min. 314 Ω ; terminals 3, 4: min. 407 Ω
Permissible connection values [EEx ia]		
Certificate		TÜV 99 ATEX 1484 X
Marking		Ⓔ 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
International approvals		
FM approval		
Control drawing		116-0118
UL approval		
Control drawing		116-0139 (cULus)
IECEEx approval		IECEEx BAS 09.0142 IECEEx BAS 17.0091X
Approved for		[Ex ia Ga] IIC , [Ex ia Da] IIIC , [Ex ia Ma] I Ex ec IIC T4 Gc
General information		
Supplementary information		Observe the certificates, declarations of conformity, instruction manuals, and manuals where applicable. For information see www.pepperl-fuchs.com .