Features

- 2-channel
- DC version, positive polarity
- Working voltage 26.5 V at 10 µA
- Series resistance max. 273 Ω
- Fuse rating 50 mA
- DIN rail mounting
- High power version
- Replaceable back-up fuse

Function

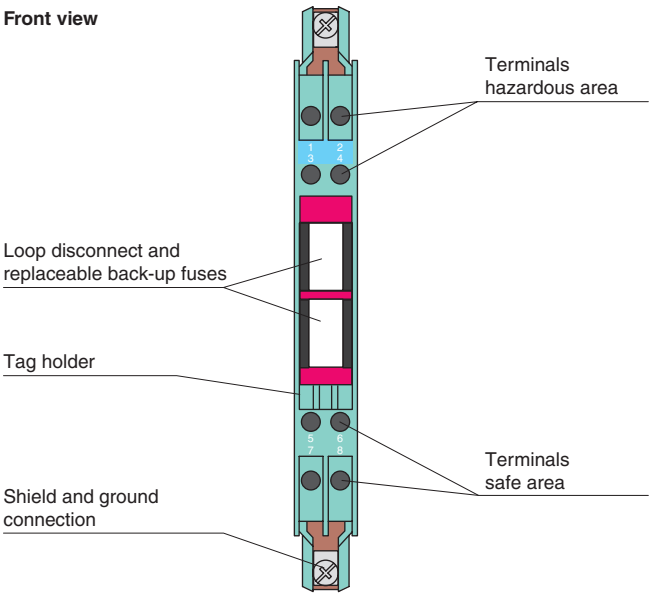
The Zener Barrier prevents the transfer of unacceptably high energy from the safe area into the hazardous area.

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.

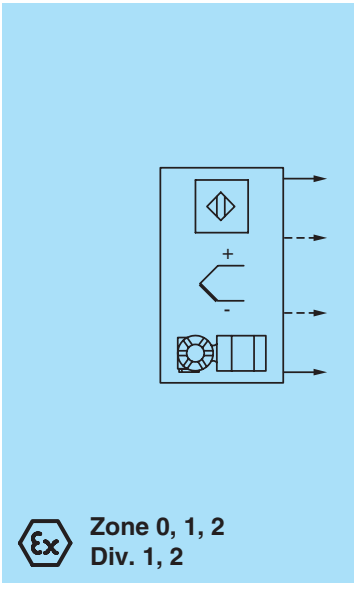
Additionally this Zener Barrier is equipped with a replaceable fuse. This high power version has a smaller serial resistance and therefore provides higher voltage to the field device.

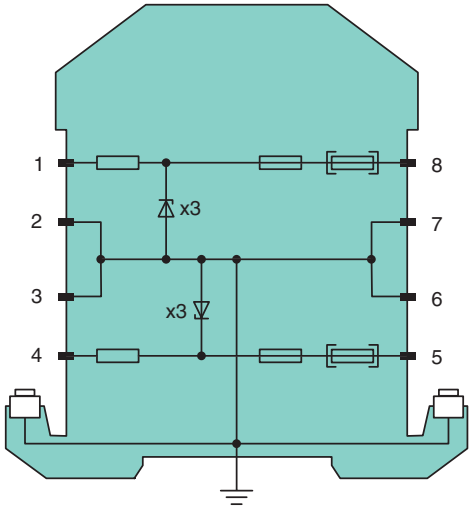
Depending on the application, increased or decreased intrinsic safety parameters apply for serial or parallel connection. For the detailed parameters refer to the Zener Barrier certificate. Application examples can be found in the system description of the Zener Barriers.

Assembly



Connection





Zone 2
Div. 2

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General specifications		
Type		DC version, positive polarity
Electrical specifications		
Nominal resistance		240 Ω
Series resistance		max. 273 Ω
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		≤ 27 V
Measurement loop		≤ 26.5 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 00 ATEX 7096
Marking		⟨Ex⟩ II (1)GD, [Ex ia Ga] IIC, [Ex ia Da] IIIC, (-20 °C ≤ T_{amb} ≤ 60 °C) [circuit(s) in zone 0/1/2]
Voltage	U_o	28 V
Current	I_o	120 mA
Power	P_o	830 mW
Supply		
Maximum safe voltage	U_m	250 V
Series resistance		min. 235 Ω
Permissible connection values [EEx ia]		
Certificate		TÜV 99 ATEX 1484 X
Marking		⟨Ex⟩ II 3G Ex nA II T4 [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		116-0355 (cULus)
CSA approval		
Control drawing		116-0119
IECEx approval		IECEx BAS 18.0033
Approved for		[Ex ia Ga] IIC, [Ex ia Da] IIIC, [Ex ia Ma] I
General information		
Supplementary information		Observe the certificates, declarations of conformity, instruction manuals, and manuals where applicable. For information see www.pepperl-fuchs.com.

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