

Features

- 2-channel
- DC version, negative polarity
- Working voltage 26.5 V/6.5 V at 10 µA
- Series resistance max. 250 Ω/64 Ω
- Fuse rating 80 mA
- DIN rail mounting
- High power version
- Asymmetrical version

Function

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

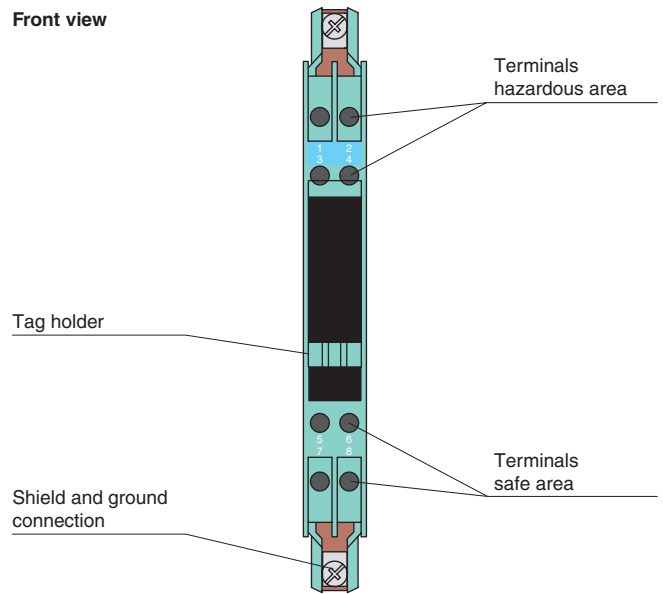
The zener diodes in the Zener Barrier are connected in the reverse direction. The breakdown voltage of the diodes is not exceeded in normal operation. If this voltage is exceeded, due to a fault in the safe area, the diodes start to conduct, causing the fuse to blow. The Zener Barrier has a negative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

This high power version has a smaller serial resistance and therefore provides higher voltage to the field device.

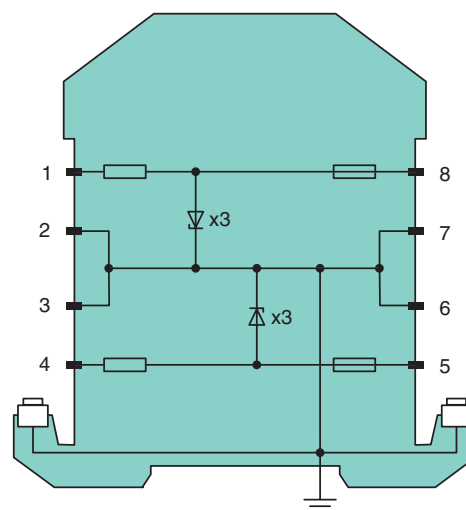
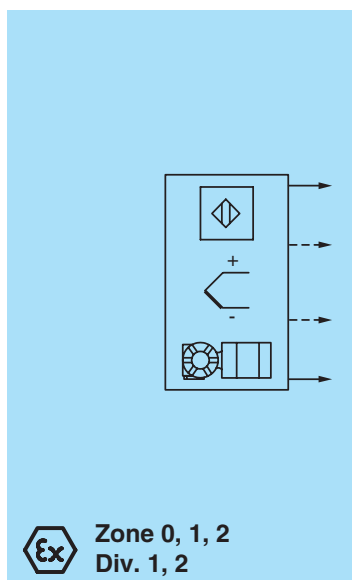
Asymmetrical Zener Barriers are for optimization of applications which have different voltage levels regarding to ground potential.

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

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

Pepperl+Fuchs Group
www.pepperl-fuchs.com

USA: +1 330 486 0002
pa-info@us.pepperl-fuchs.com

Germany: +49 621 776 2222
pa-info@de.pepperl-fuchs.com

Singapore: +65 6779 9091
pa-info@sg.pepperl-fuchs.com

General specifications	
Type	DC version, negative polarity
Electrical specifications	
Nominal resistance	terminals 1, 8: 240 Ω; terminals 4, 5: 50 Ω
Series resistance	terminals 1, 8: max. 250 Ω; terminals 4, 5: max. 64 Ω
Fuse rating	80 mA
Hazardous area connection	
Connection	terminals 1, 2; 3, 4
Safe area connection	
Connection	terminals 5, 6; 7, 8
Working voltage	terminals 7, 8: max. 27 V; 26.5 V at 10 μA terminals 5, 6: max. 8.6 V; 6.5 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 moisture condensation
Mechanical specifications	
Degree of protection	IP20
Connection	self-opening connection 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 , for additional certificates see www.pepperl-fuchs.com
Group, category, type of protection	Ⓔ II (1)GD, I (M1) [Ex ia Ga] IIC, [Ex ia Da] IIIC, [Ex ia Ma] I (-20 °C ≤ T _{amb} ≤ 60 °C) [circuit(s) in zone 0/1/2]
Voltage U _o	terminals 1, 2: 28 V; terminals 3, 4: 9.56 V
Current I _o	terminals 1, 2: 120 mA; terminals 3, 4: 195 mA
Power P _o	terminals 1, 2: 830 mW; terminals 3, 4: 470 mW
Supply	
Maximum safe voltage U _m	250 V
Series resistance	terminals 1, 2: min. 235 Ω; terminals 3, 4: min. 49 Ω
Permissible connection values [EEx ia]	
Statement of conformity TÜV 99 ATEX 1484 X , observe statement of conformity	
Group, category, type of protection, temperature class	Ⓔ II 3G Ex nA IIC T4 Gc [device in zone 2]
Directive conformity	
Directive 94/9/EC	EN 60079-0:2012, EN 60079-11:2012 , EN 60079-15:2010
International approvals	
FM approval	
Control drawing	116-0118
UL approval	
Control drawing	116-0139
CSA approval	
Control drawing	116-0119
IECEx approval IECEx BAS 09.0142	
Approved for	[Ex ia Ga] IIC, [Ex ia Da] IIIC, [Ex ia Ma] I
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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