Features

- 2-channel
- AC version
- Working voltage 10 V at 2 µA
- Series resistance max. 208 Ω
- Fuse rating 32 mA
- Terminal Base or Termination Board mounting, pluggable
- Replaceable fuse

Function

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

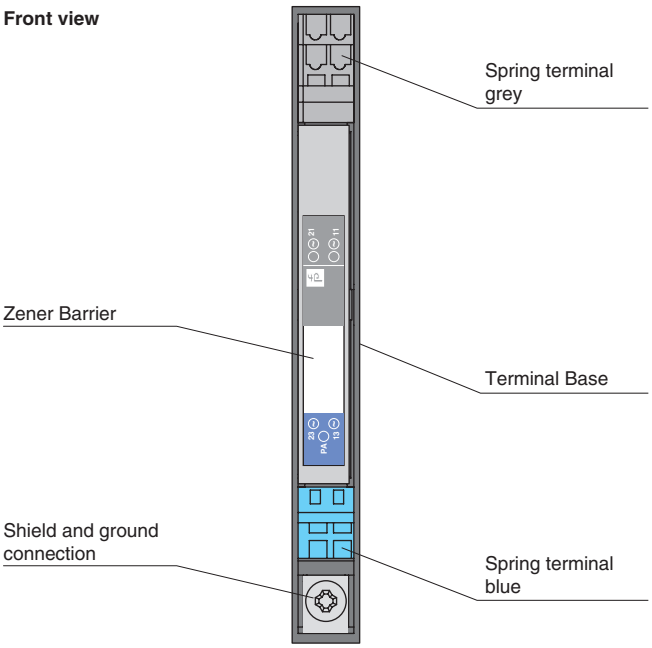
The zener diodes in the Zener Barrier are connected in the reverse direction. The breakdown voltage of the diodes is not exceeded in normal operation. If this voltage is exceeded, due to a fault in the safe area, the diodes start to conduct, causing the fuse to blow. The Zener Barrier has alternating polarities, i. e. interconnected zener diodes are employed and one side is grounded. The Zener Barrier can be used for both alternating voltage signals and direct voltage signals.

Additionally this Zener Barrier is equipped with a replaceable fuse.

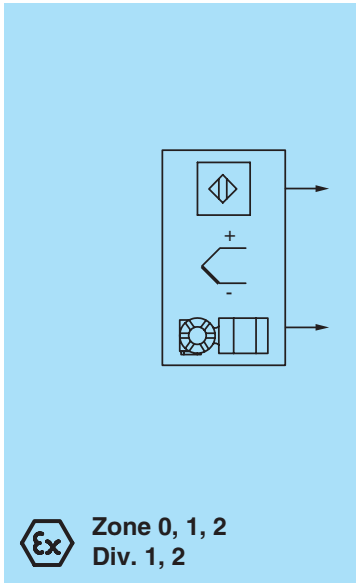
Depending on the application, increased or decreased intrinsic safety parameters apply for serial or parallel connection. For the detailed parameters refer to the Zener Barrier certificate. Application examples can be found in the system description of the Zener Barriers.

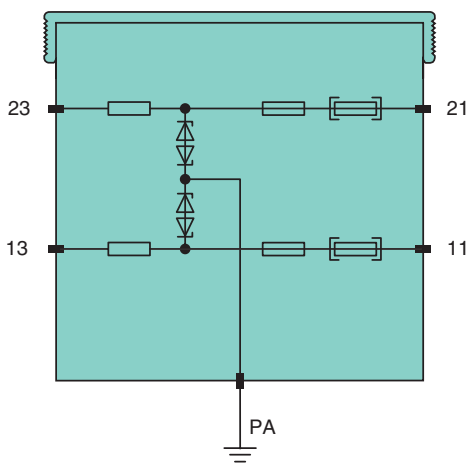
Zener Barriers will be supplied without terminal base or termination board. Please order separately (accessories see technical data).

Assembly



Connection





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General specifications		
Type		AC version
Electrical specifications		
Nominal resistance		without back-up fuse 178 Ω , with back-up fuse 194 Ω
Series resistance		without back-up fuse max. 188.5 Ω , with back-up fuse max. 208 Ω
Fuse rating		internal fuse 50 mA , back-up fuse 32 mA
Hazardous area connection		
Connection		terminals 13; 23
Safe area connection		
Connection		terminals 11; 21
Working voltage		10 V at 2 µA
Conformity		
Protection degree		IEC 60529
Ambient conditions		
Ambient temperature		-20 ... 60 °C (-4 ... 140 °F)
Storage temperature		-40 ... 80 °C (-40 ... 176 °F)
Relative humidity		< 75 % (annual mean) < 95 % (30 d/year), no moisture condensation
Mechanical specifications		
Protection degree		IP20 (installed on Terminal Base or Termination Board)
Connection		wiring via Terminal Base or Termination Board
Mass		approx. 70 g
Dimensions		9.7 x 70.4 x 68.2 mm (0.4 x 2.8 x 2.7 in)
Construction type		pluggable housing
Mounting		Terminal Base or Termination Board mounting on 35 mm DIN rail acc. to DIN EN 60715
Data for application in connection with Ex-areas		
EC-Type Examination Certificate		TÜV 99 ATEX 1449 X , for additional certificates see www.pepperl-fuchs.com
Group, category, type of protection		⟨Ex⟩ II (1) G [Ex ia] IIC ⟨Ex⟩ II (1) D [Ex iaD]
Voltage	U_o	12 V
Current	I_o	80 mA
Power	P_o	240 mW
Supply		
Maximum safe voltage	U_m	250 V
Directive conformity		
Directive 94/9/EC		EN 60079-0:2009, EN 60079-11:2012, EN 60079-26:2007
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.
Accessories		
Designation		Terminal Base for 1 Zener Barrier: SB9101 Termination Board for 6 Zener Barriers: SB9106 Termination Board for 10 Zener Barriers: SB9100 grounding rail for 20 units: SB9220 grounding rail for 10 units: SB9221 grounding rail for 6 units: SB9222

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