Features

- 2-channel
- DC version, positive polarity
- Working voltage 7 V at 2 µA
- Series resistance max. 2030.5 Ω
- Fuse rating 80 mA
- Terminal Base or Termination Board mounting, pluggable

Function

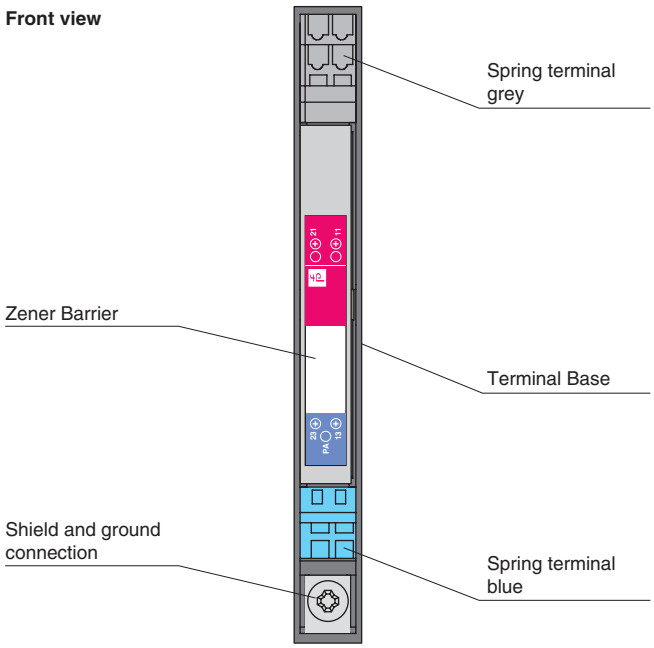
The Zener Barrier prevents the transfer of unacceptably high energy from the safe area into the hazardous area.

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.

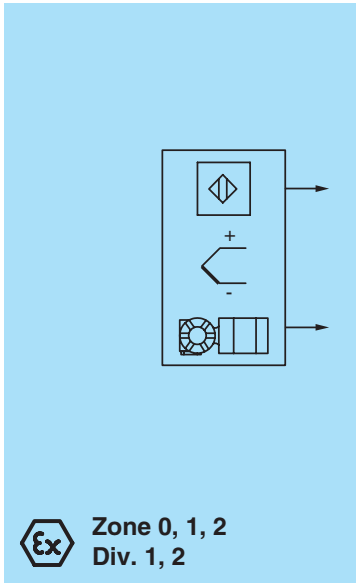
Depending on the application, increased or decreased intrinsic safety parameters apply for serial or parallel connection. For the detailed parameters refer to the Zener Barrier certificate. Application examples can be found in the system description of the Zener Barriers.

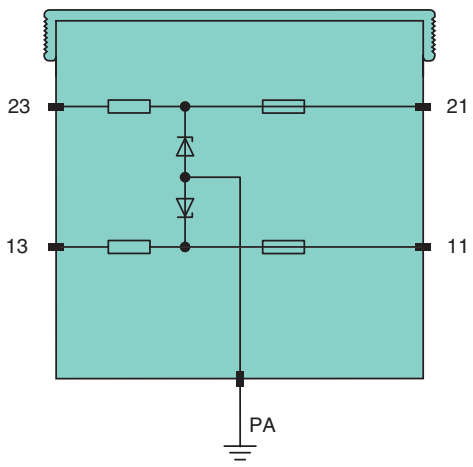
Zener Barriers will be supplied without terminal base or termination board. Please order separately (accessories see technical data).

Assembly



Connection





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General specifications		
Type		DC version, positive polarity
Electrical specifications		
Nominal resistance		2009 Ω
Series resistance		max. 2030.5 Ω
Fuse rating		80 mA
Hazardous area connection		
Connection		terminals 13; 23
Safe area connection		
Connection		terminals 11; 21
Working voltage		7 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	8.6 V
Current	I_o	4.4 mA
Power	P_o	9.4 mW
Supply		
Maximum safe voltage	U_m	250 V
Statement of conformity		Pepperl+Fuchs
Group, category, type of protection, temperature classification		⟨Ex⟩ II 3G Ex nA IIC T4 Gc X
Directive conformity		
Directive 94/9/EC		EN 60079-0, EN 60079-11, EN60079-15, EN60079-26, EN 61241-0, EN 61241-11
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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