

**Features**

- 1-channel
- DC version, positive polarity
- Working voltage 12 V at 2 μA
- Series resistance max. 41 Ω + 1.2 V
- Fuse rating 32 mA
- Terminal Base or Termination Board mounting, pluggable
- Replaceable fuse
- With diode return

**Function**

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

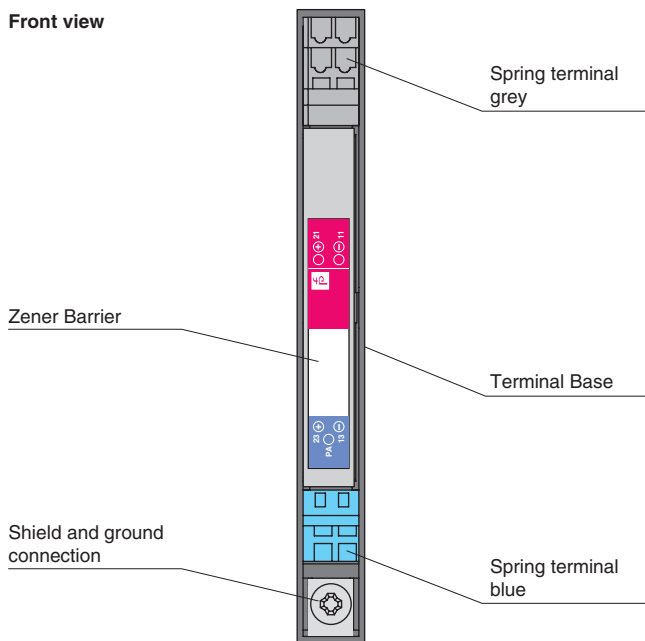
The zener diodes in the Zener Barrier are connected in the reverse direction. The breakdown voltage of the diodes is not exceeded in normal operation. If this voltage is exceeded, due to a fault in the safe area, the diodes start to conduct, causing the fuse to blow. The Zener Barrier has a positive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

Additionally this Zener Barrier is equipped with a replaceable fuse.

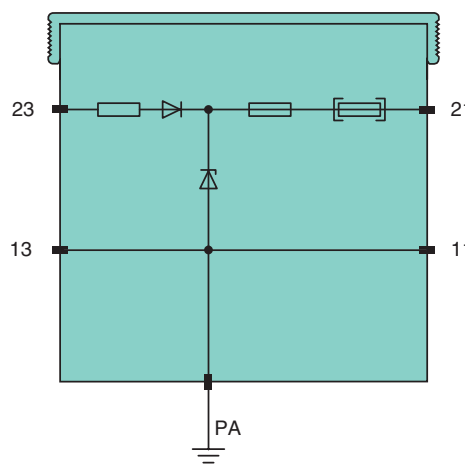
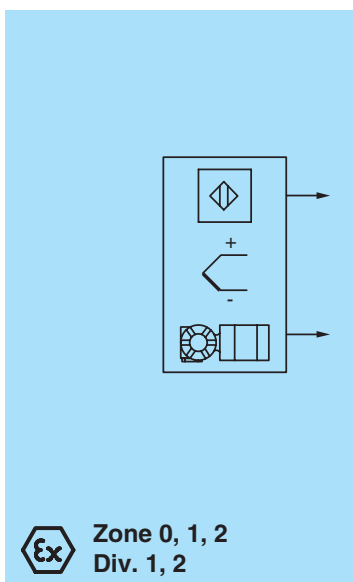
The Zener Barrier is for evaluation of signals from the hazardous area. The diodes of diode return prevent a current into the hazardous area, therefore the current assumption for intrinsic safety calculations is zero.

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

**Assembly**



**Connection**



Zone 2  
Div. 2

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

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<b>General specifications</b>		
Type	DC version, positive polarity	
<b>Electrical specifications</b>		
Nominal resistance	without back-up fuse 18 Ω , with back-up fuse 34 Ω + 1.2 V voltage drop by diode return	
Series resistance	without back-up fuse max. 21 Ω , with back-up fuse max. 41 Ω + 1.2 V voltage drop by diode return	
Fuse rating	internal fuse 50 mA , back-up fuse 32 mA	
<b>Hazardous area connection</b>		
Connection	terminals 13, 23	
<b>Safe area connection</b>		
Connection	terminals 11, 21	
Working voltage	12 V at 2 μA	
<b>Conformity</b>		
Degree of protection	IEC 60529	
<b>Ambient conditions</b>		
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	
<b>Mechanical specifications</b>		
Degree of protection	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	
<b>Data for application in connection with Ex-areas</b>		
EC-Type Examination Certificate	TÜV 99 ATEX 1449 X , for additional certificates see <a href="http://www.pepperl-fuchs.com">www.pepperl-fuchs.com</a>	
Group, category, type of protection	$\text{Ex}$ II (1) G [Ex ia] IIC $\text{Ex}$ II (1) D [Ex iaD]	
Voltage	U <sub>o</sub>	16.8 V
Current	I <sub>o</sub>	330 mA
Power	P <sub>o</sub>	130 mW
<b>Supply</b>		
Maximum safe voltage	U <sub>m</sub>	250 V
<b>Directive conformity</b>		
Directive 94/9/EC	EN 60079-0:2009, EN 60079-11:2012, EN 60079-26:2007	
<b>General information</b>		
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 <a href="http://www.pepperl-fuchs.com">www.pepperl-fuchs.com</a> .	
<b>Accessories</b>		
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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