

Features

- 2-channel
- AC version
- Working voltage 6.5 V at 10 μ A
- Series resistance max. 115 Ω
- Fuse rating 100 mA
- DIN rail mounting
- Replaceable back-up fuse

Function

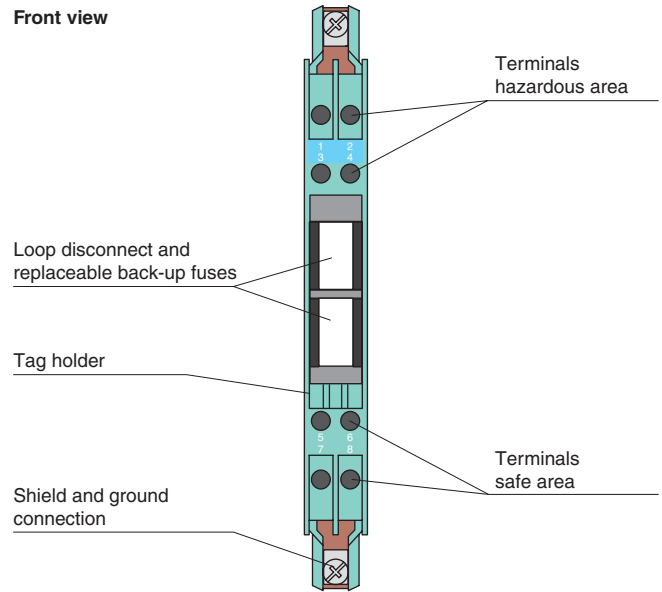
The Zener Barrier prevents the transfer of unacceptably high energy from the safe area into the hazardous area.

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 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.

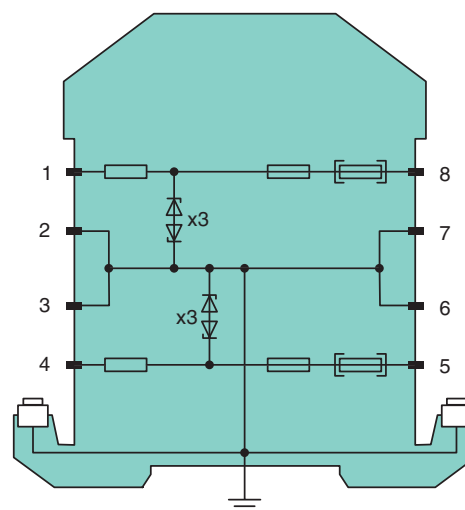
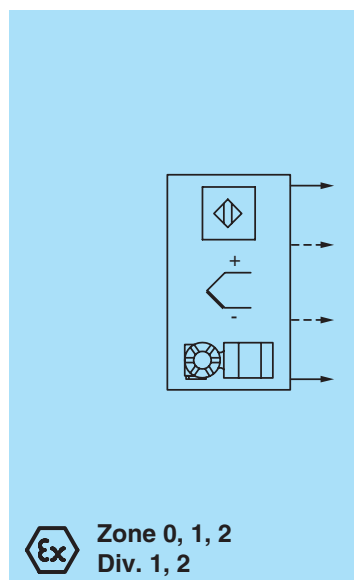
Additionally this Zener Barrier is equipped with a replaceable fuse.

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.

Assembly



Connection



General specifications		
Type	AC version	
Electrical specifications		
Nominal resistance	100 Ω	
Series resistance	max. 115 Ω	
Fuse rating	100 mA	
Hazardous area connection		
Connection	terminals 1, 2; 3, 4	
Safe area connection		
Connection	terminals 5, 6; 7, 8	
Working voltage		
Supply	≤ 7.7 V	
Measurement	≤ 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 condensation	
Mechanical specifications		
Degree of protection	IP20	
Connection	screw 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 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		 II (1)GD, I (M1) [Ex ia] IIC, [Ex iaD], [Ex ia] I (-20 °C ≤ T _{amb} ≤ 60 °C) [circuit(s) in zone 0/1/2]
Voltage	U _o	8.7 V
Current	I _o	89 mA
Power	P _o	192 mW
Supply		
Maximum safe voltage	U _m	250 V
Series resistance	min. 98 Ω	
Certificate		TÜV 99 ATEX 1484 X
Marking		 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
General information		
Supplementary information		Observe the certificates, declarations of conformity, instruction manuals, and manuals where applicable. For information see www.pepperl-fuchs.com .