

Features

- 2-channel
- AC version
- Working voltage 6.5 V at 10 μ A
- Series resistance max. 380 Ω
- Fuse rating 50 mA
- DIN rail mounting
- High power version

Function

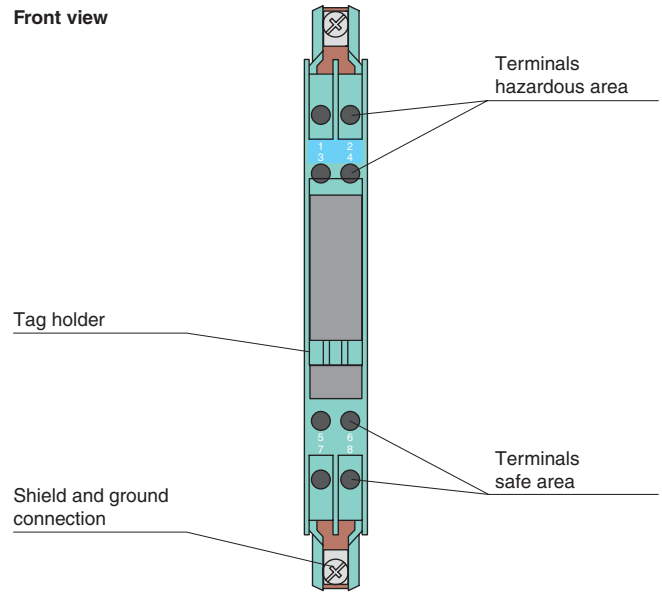
The Zener Barrier prevents the transfer of unacceptably high energy from the safe area into the hazardous area.

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 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.

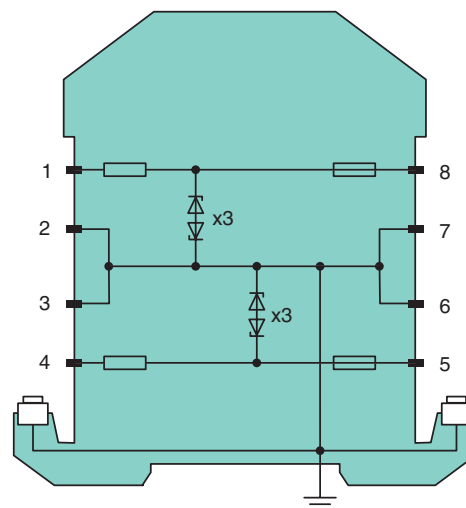
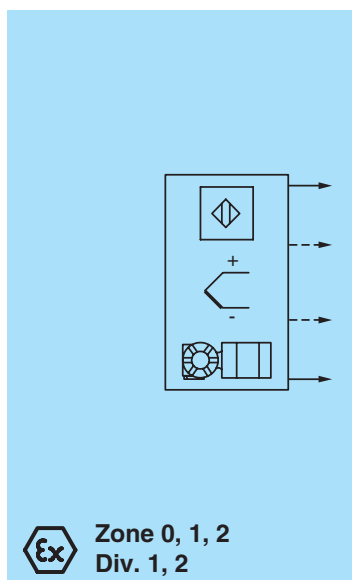
This high power version has a smaller serial resistance and therefore provides higher voltage to the field device.

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

General specifications		
Type	AC version	
Electrical specifications		
Nominal resistance	360 Ω	
Series resistance	≤ 380 Ω	
Fuse rating	50 mA	
Hazardous area connection		
Connection	terminals 1, 2; 3, 4	
Safe area connection		
Connection	terminals 5, 6; 7, 8	
Working voltage		
Supply loop	≤ 7.7 V	
Measurement loop	≤ 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	
Core cross-section	max. 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 01 ATEX 7005		
Marking		
⊕ 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	8.7 V
Current	I _o	25 mA
Power	P _o	50 mW
Supply		
Maximum safe voltage	U _m	250 V
Series resistance	min. 352.8 Ω	
Permissible connection values [EEx ia]		
Certificate		
TÜV 99 ATEX 1484 X		
Marking		
⊕ II 3G Ex nA IIC T4 Gc [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		
116-0139 (cULus)		
IECEX approval		
IECEX BAS 09.0142		
IECEX BAS 17.0091X		
Approved for		
[Ex ia Ga] IIC , [Ex ia Da] IIIC , [Ex ia Ma] I		
Ex ec IIC T4 Gc		
General information		
Supplementary information		
Observe the certificates, declarations of conformity, instruction manuals, and manuals where applicable. For information see www.pepperl-fuchs.com .		