

Features

- 3-channel
- AC version
- Working voltage 0.6 V at 1 μ A
- Series resistance max. 27.27 Ω
- Fuse rating 50 mA
- DIN rail mounting

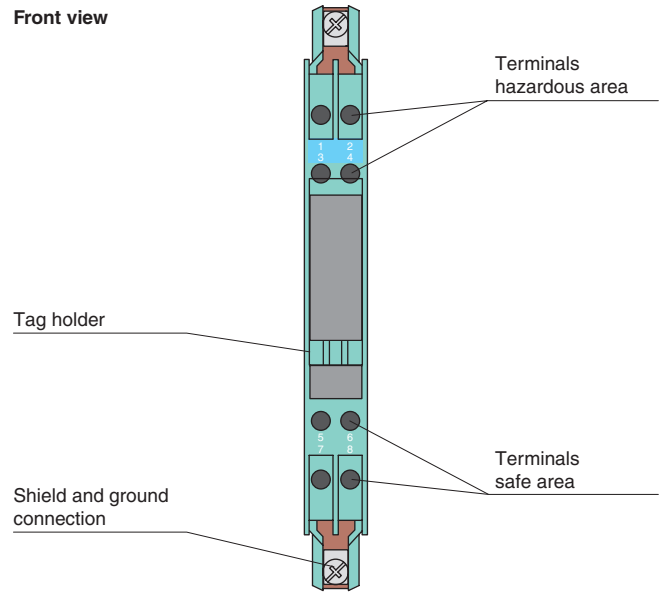
Function

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

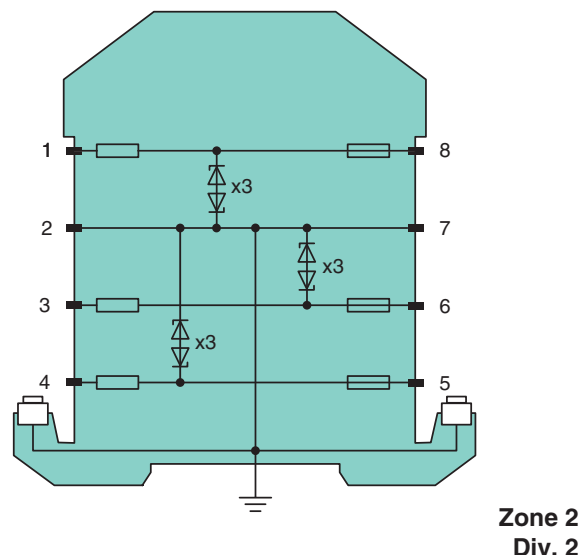
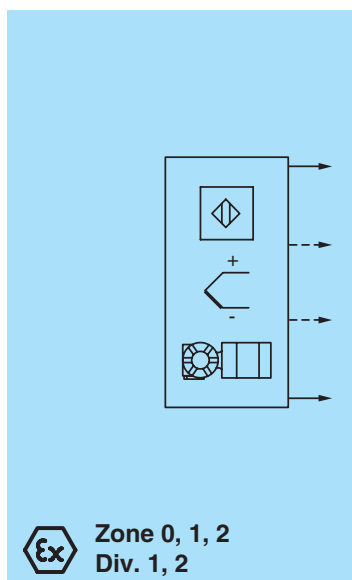
The zener diodes in the Zener Barrier are connected in the reverse direction. The breakdown voltage of the diodes is not exceeded in normal operation. If this voltage is exceeded, due to a fault in the safe area, the diodes start to conduct, causing the fuse to blow. The Zener Barrier has alternating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

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	12 Ω
Series resistance	max. 27.27 Ω
Fuse rating	50 mA
Hazardous area connection	
Connection	terminals 1, 2; 2, 3; 2, 4
Safe area connection	
Connection	terminals 5, 7; 6, 7; 8, 7
Rated voltage	4 V
Supply voltage	max. 4.2 V
Working voltage	0.6 V at 1 μ A
Conformity	
Protection degree	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 moisture condensation
Mechanical specifications	
Protection degree	IP20
Connection	self-opening connection 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 in)
Construction type	modular terminal housing , see system description
Mounting	mounting on 35 mm DIN rail acc. to DIN EN 60715
Data for application in connection with Ex-areas	
EC-Type Examination Certificate	BAS 01 ATEX 7005 , for additional certificates see www.pepperl-fuchs.com
Group, category, type of protection	Ex II (1)GD, I (M1) [Ex ia] IIC, [Ex iaD], [Ex ia] I (-20 °C \leq T _{amb} \leq 60 °C) [circuit(s) in zone 0/1/2]
Voltage U _o	4.5 V
Current I _o	383 mA
Power P _o	430 mW
Supply	
Maximum safe voltage U _m	250 V
Series resistance	min. 11.76 Ω
Statement of conformity	TÜV 99 ATEX 1484 X , observe statement of conformity
Group, category, type of protection, temperature classification	Ex II 3G Ex nA II T4 [device in zone 2]
Directive conformity	
Directive 94/9/EC	EN 60079-0:2006, EN 60079-11:2007, EN 61241-11:2006 , EN 60079-15:2005
International approvals	
FM approval	
Control drawing	116-0118
UL approval	
Control drawing	116-0139
CSA approval	
Control drawing	116-0119
IECEx approval	
IECEx BAS 09.0142	
Approved for	[zone 0] [Ex ia] IIC, [Ex iaD], [Ex ia] I
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 .