Features

- 2-channel
- DC version, positive polarity
- Working voltage 26.5 V at 10 µA
- Series resistance max. 341 Ω
- Fuse rating 50 mA
- DIN rail mounting
- Replaceable fuse
- With diode return

Function

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

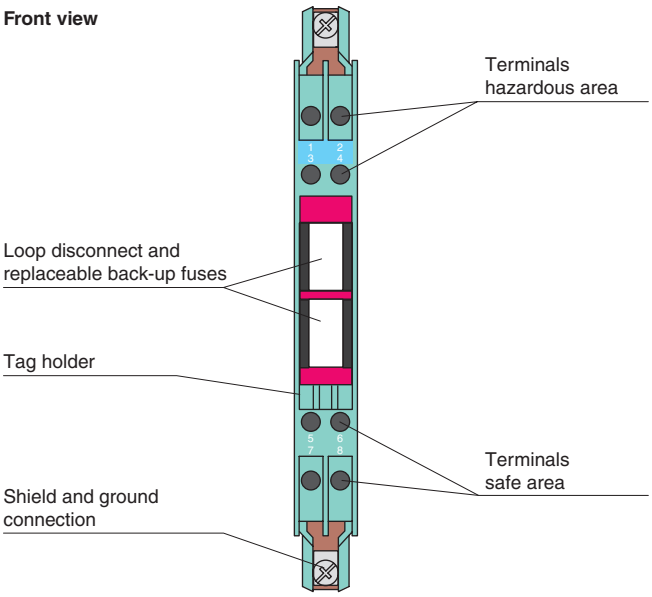
The zener diodes in the Zener Barrier are connected in the reverse direction. The breakdown voltage of the diodes is not exceeded in normal operation. If this voltage is exceeded, due to a fault in the safe area, the diodes start to conduct, causing the fuse to blow. The Zener Barrier has a positive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

Additionally this Zener Barrier is equipped with a replaceable fuse.

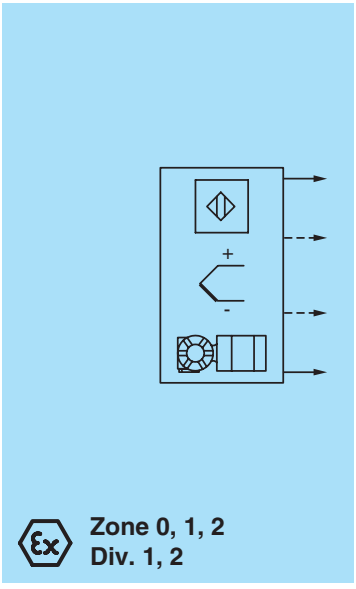
The Zener Barrier is for evaluation of signals from the hazardous area. The diodes of diode return prevent a current into the hazardous area, therefore the current assumption for intrinsic safety calculations is zero.

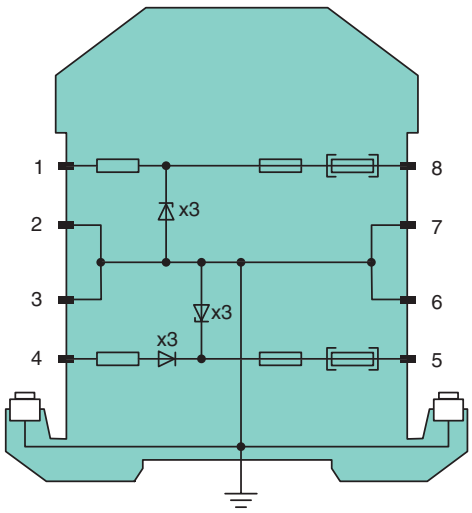
Depending on the application, increased or decreased intrinsic safety parameters apply for serial or parallel connection. For the detailed parameters refer to the Zener Barrier certificate. Application examples can be found in the system description of the Zener Barriers.

Assembly



Connection





Release date 2010-08-04 16:47 Date of issue 2010-08-04 072178_ENG.xml

General specifications	
Type	DC version, positive polarity
Electrical specifications	
Nominal resistance	300 Ω
Series resistance	max. 341 Ω
Fuse rating	50 mA
Hazardous area connection	
Connection	terminals 1, 2; 3, 4
Safe area connection	
Connection	terminals 5, 6; 7, 8
Rated voltage	28 V
Supply voltage	max. 28 V
Working voltage	26.5 V at 10 µA
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 00 ATEX 7096 , 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 ≤ T_{amb} ≤ 60 °C) [circuit(s) in zone 0/1/2]
Voltage U_o	28 V
Current I_o	93 mA
Power P_o	650 mW
Supply	
Maximum safe voltage U_m	250 V
Series resistance	min. 301 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
CSA approval	
Control drawing	116-0119
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.

Release date 2010-08-04 16:47 Date of issue 2010-08-04 072178_ENG.xml