



Zener Barrier

Z779.H.F

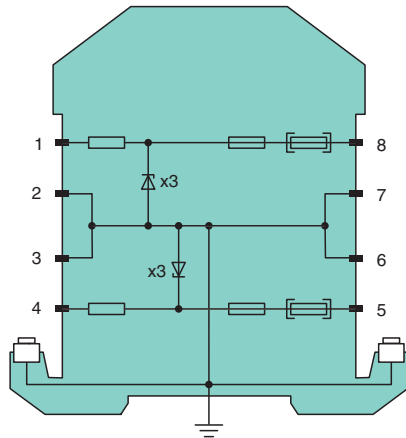
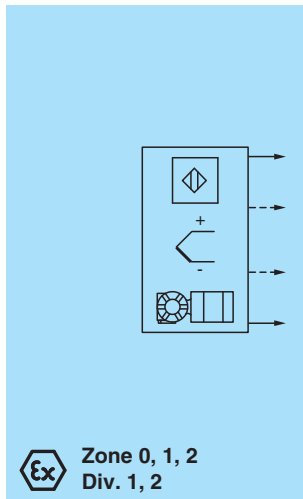
- 2-channel
- DC version, positive polarity
- Working voltage 26.5 V at 10 μ A
- Series resistance max. 273 Ω
- Fuse rating 50 mA
- DIN rail mountable
- High power version
- Replaceable back-up fuse



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 a positive polarity, i. e. the anodes of the zener diodes are grounded. Additionally this Zener Barrier is equipped with a replaceable fuse. 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.

Connection



Zone 2
Div. 2

Technical Data

General specifications	
Type	DC version, positive polarity
Electrical specifications	
Nominal resistance	240 Ω
Series resistance	max. 273 Ω
Fuse rating	50 mA
Hazardous area connection	
Connection	terminals 1, 2; 3, 4
Safe area connection	

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

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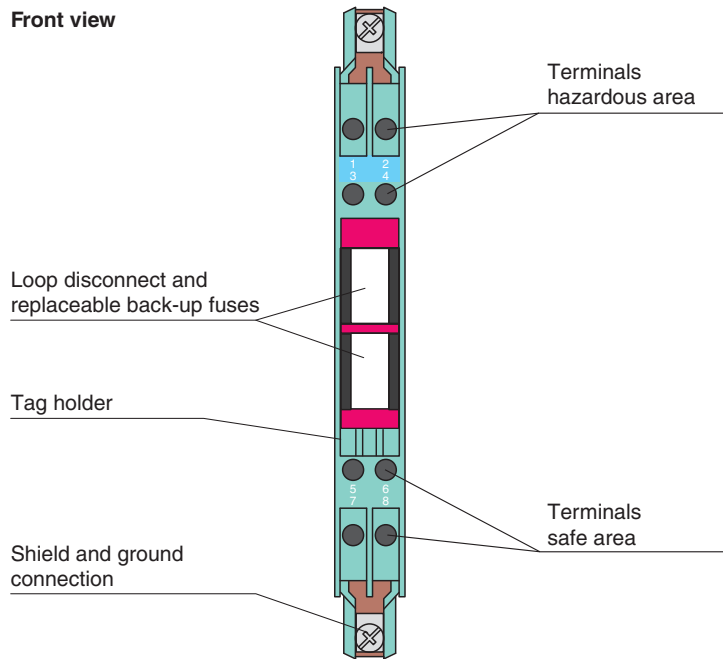
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Technical Data

Connection	terminals 5, 6; 7, 8	
Working voltage		
Supply loop	max. 27 V	
Measurement loop	max. 26.5 V at 10 μ A	
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 116 mm (0.5 x 4.5 x 4.6 inch) (W x H x D)	
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, [Ex ia Ga] IIC, [Ex ia Da] IIIC, (-20 °C \leq T _{amb} \leq 60 °C) [circuit(s) in zone 0/1/2]	
Voltage	U _o	28 V
Current	I _o	120 mA
Power	P _o	830 mW
Supply		
Maximum safe voltage	U _m	250 V
Series resistance	min. 235 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 IEC 60079-0:2018+AC:2020 , EN 60079-11:2012 , EN 60079-15:2010	
International approvals		
FM approval		
Control drawing	116-0118	
UL approval		
Control drawing	116-0355 (cULus)	
IECEx approval		
IECEx certificate	IECEx BAS 18.0033	
IECEx marking	[Ex ia Ga] IIC , [Ex ia Da] IIIC , [Ex ia Ma] I	
General information		
Supplementary information	Observe the certificates, declarations of conformity, instruction manuals, and manuals where applicable. For information see www.pepperl-fuchs.com .	

Assembly

Front view



Matching System Components

ZH-ES/LB	Insertion Strip
ZH-Z.AB/NS	Mounting block for DIN mounting rail
ZH-Z.AB/SS	Mounting block for grounding rail
ZH-Z.AK16	Connection terminal for grounding rail
ZH-Z.AR.125	Spacing Roller
ZH-Z.BT	Label Carrier
ZH-Z.ES	Single Socket
ZH-Z.LL	Ground Rail Feed
ZH-Z.NLS-Cu3/10	Grounding Rail
USLKG5	Terminal block for equipotential bonding