



# Zener Barrier

## Z728.CL

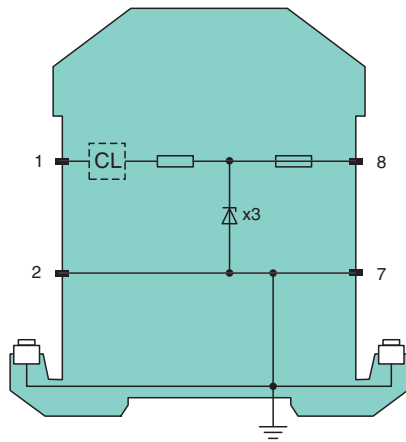
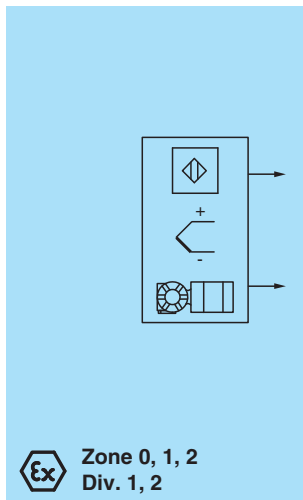
- 1-channel
- DC version, positive polarity
- Working voltage 26.5 V at 10  $\mu$ A
- Series resistance max. 342  $\Omega$  + 2 V
- Fuse rating 50 mA
- DIN rail mountable
- Current limiting



### 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. The connection to the field circuit is equipped with a current limiting.

### Connection



Zone 2  
Div. 2

### Technical Data

#### General specifications

Type DC version, positive polarity

#### Electrical specifications

Nominal resistance 300  $\Omega$   
 Series resistance max. 342  $\Omega$  +2 V  
 Fuse rating 50 mA

#### Hazardous area connection

Connection terminals 1, 2  
 Current limit 45 mA

#### Safe area connection

Connection terminals 7, 8

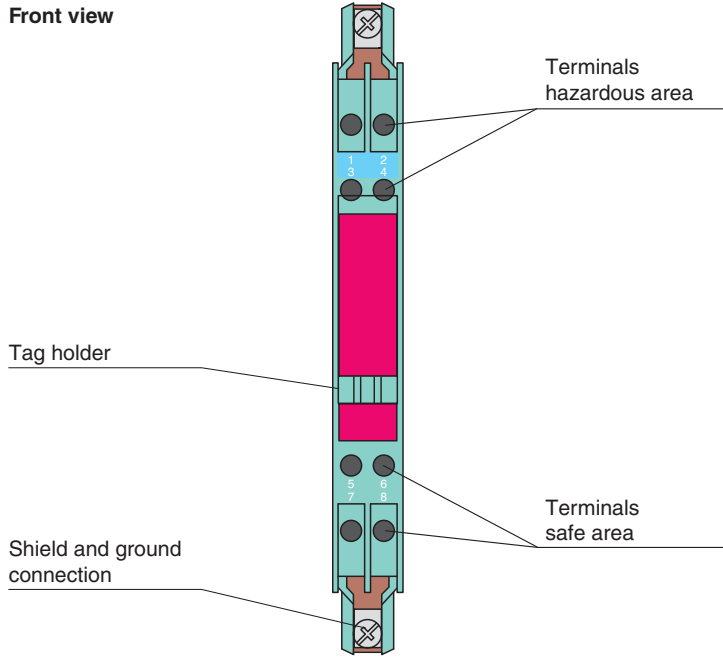
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## Technical Data











Working voltage			
Supply loop			max. 26.9 V
Measurement loop			max. 26.5 V at 10 $\mu$ A
<b>Conformity</b>			
Degree of protection			IEC 60529
<b>Ambient conditions</b>			
Ambient temperature			-20 ... 60 °C (-4 ... 140 °F)
Storage temperature			-25 ... 70 °C (-13 ... 158 °F)
Relative humidity			max. 75 % , without condensation
<b>Mechanical specifications</b>			
Degree of protection			IP20
Connection			screw terminals
Core cross section			max. 2 x 2.5 ... mm <sup>2</sup>
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
<b>Data for application in connection with hazardous areas</b>			
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
Voltage	U <sub>o</sub>		28 V
Current	I <sub>o</sub>		93 mA
Power	P <sub>o</sub>		650 mW
Supply			
Maximum safe voltage	U <sub>m</sub>		250 V
Series resistance			min. 301 $\Omega$
Certificate			TÜV 99 ATEX 1484 X
Marking			Ⓢ II 3G Ex nA IIC T4 Gc
Directive conformity			
Directive 2014/34/EU			EN IEC 60079-0:2018+AC:2020 , EN 60079-11:2012 , EN 60079-15:2010
<b>International approvals</b>			
FM approval			
Control drawing			116-0118
UL approval			
Control drawing			116-0139 (cULus)
IECEx approval			
IECEx certificate			IECEx BAS 09.0142 IECEx BAS 17.0091X
IECEx marking			[Ex ia Ga] IIC , [Ex ia Da] IIIC , [Ex ia Ma] I Ex ec IIC T4 Gc
<b>General information</b>			
Supplementary information			Observe the certificates, declarations of conformity, instruction manuals, and manuals where applicable. For information see <a href="http://www.pepperl-fuchs.com">www.pepperl-fuchs.com</a> .

**Assembly**

Front view



**Matching System Components**

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

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