

**Features**

- 2-channel
- DC version, negative polarity
- Working voltage 24 V/18 V at 10 µA
- Series resistance max. 340 Ω/437 Ω
- Fuse rating 50 mA
- DIN rail mounting
- Asymmetrical version

**Function**

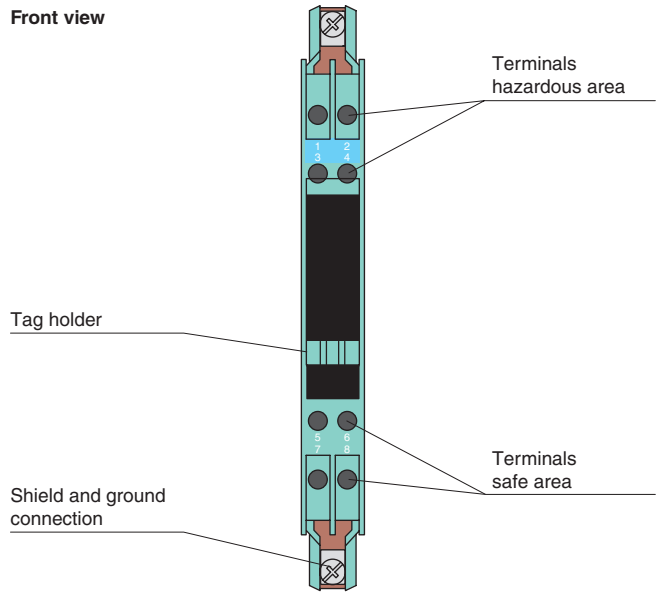
The Zener Barrier prevents the transfer of unacceptably high energy from the safe area into the hazardous area.

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 a negative polarity, i. e. the cathodes of the zener diodes are grounded.

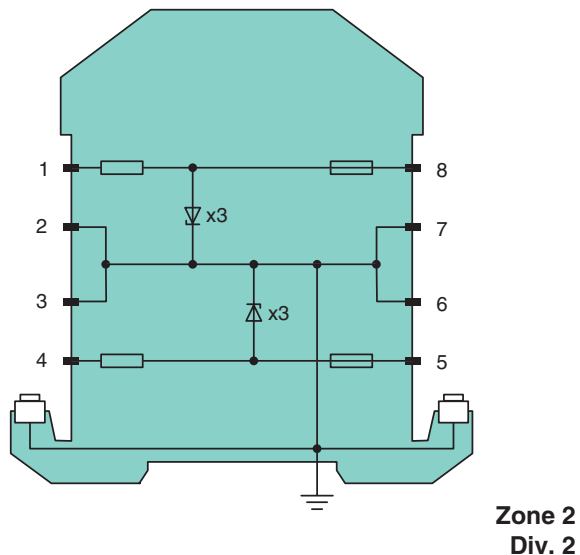
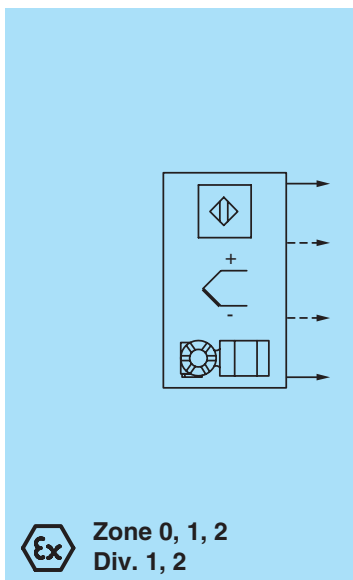
Asymmetrical Zener Barriers are for optimization of applications which have different voltage levels regarding to ground potential.

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 2020-01-08 08:50 Date of issue 2020-01-08 071809\_eng.xml

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

Pepperl+Fuchs Group  
www.pepperl-fuchs.com

USA: +1 330 486 0002  
pa-info@us.pepperl-fuchs.com

Germany: +49 621 776 2222  
pa-info@de.pepperl-fuchs.com

Singapore: +65 6779 9091  
pa-info@sg.pepperl-fuchs.com

<b>Search characteristics</b>	
Asymmetrical version	yes
<b>General specifications</b>	
Type	DC version, negative polarity
<b>Electrical specifications</b>	
Nominal resistance	terminals 1, 8: 320 Ω terminals 4, 5: 415 Ω
Series resistance	terminals 1, 8: ≤ 340 Ω terminals 4, 5: ≤ 437 Ω
Fuse rating	50 mA
<b>Hazardous area connection</b>	
Connection	terminals 1, 2; 3, 4
<b>Safe area connection</b>	
Connection	terminals 5, 6; 7, 8
<b>Working voltage</b>	
Supply loop	terminals 7, 8: ≤ 24.6 V terminals 5, 6: ≤ 19 V
Measurement loop	terminals 7, 8: ≤ 24 V at 10 μA terminals 5, 6: ≤ 18 V at 10 μA
<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 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
<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 (-20 °C ≤ T <sub>amb</sub> ≤ 60 °C) [circuit(s) in zone 0/1/2]
Voltage U <sub>o</sub>	terminals 1, 2: 26.6 V; terminals 3, 4: 20.5 V
Current I <sub>o</sub>	terminals 1, 2: 85 mA; terminals 3, 4: 50 mA
Power P <sub>o</sub>	terminals 1, 2: 560 mW; terminals 3, 4: 260 mW
<b>Supply</b>	
Maximum safe voltage U <sub>m</sub>	250 V
Series resistance	terminals 1, 2: min. 314 Ω; terminals 3, 4: min. 407 Ω
<b>Permissible connection values [EEx ia]</b>	
Certificate	TÜV 99 ATEX 1484 X
Marking	⊕ II 3G Ex nA IIC T4 Gc [device in zone 2]
<b>Directive conformity</b>	
Directive 2014/34/EU	EN 60079-0:2012+A11:2013 , EN 60079-11:2012 , EN 60079-15:2010
<b>International approvals</b>	
<b>FM approval</b>	
Control drawing	116-0118
<b>UL approval</b>	
Control drawing	116-0139 (cULus)
<b>IECEX approval</b>	
Approved for	IECEX BAS 09.0142 IECEX BAS 17.0091X [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 www.pepperl-fuchs.com.

Release date 2020-01-08 08:50 Date of issue 2020-01-08 07:1809\_eng.xml

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

Pepperl+Fuchs Group  
www.pepperl-fuchs.com

USA: +1 330 486 0002  
pa-info@us.pepperl-fuchs.com

Germany: +49 621 776 2222  
pa-info@de.pepperl-fuchs.com

Singapore: +65 6779 9091  
pa-info@sg.pepperl-fuchs.com



# SCATTERGOOD & JOHNSON LTD

ELECTRICAL ENGINEERING & FLUID CONTROL DISTRIBUTORS

Est.1899

At Scattergood & Johnson Ltd, we pride ourselves on being a technical distributor to specialist industries.

Working with a range of quality product suppliers across a number of specialist markets, we are not your average 'box shifter' - we are your technical and supply chain partner.

We fully support every product we sell - for free! Our internal team and external sales engineers can answer any product or application question, no matter the complexity.

Backing up this technical ability is a range of 50,000+ products available from stock for nationwide next day delivery (same day if required!), or you can collect what you need from any of our trade counters around the UK.

Select your specialist interest below to learn more about how we can help.



Online, In Branch and On the Road - Scattergood & Johnson Ltd, there when you need us.

# [www.scatts.co.uk](http://www.scatts.co.uk)