## Features

- 1-channel
- AC version
- Working voltage 6 V at 2 µA
- Series resistance max. 179 Ω
- Fuse rating 80 mA
- Terminal Base or Termination Board mounting, plugable
- Replaceable fuse

## Function

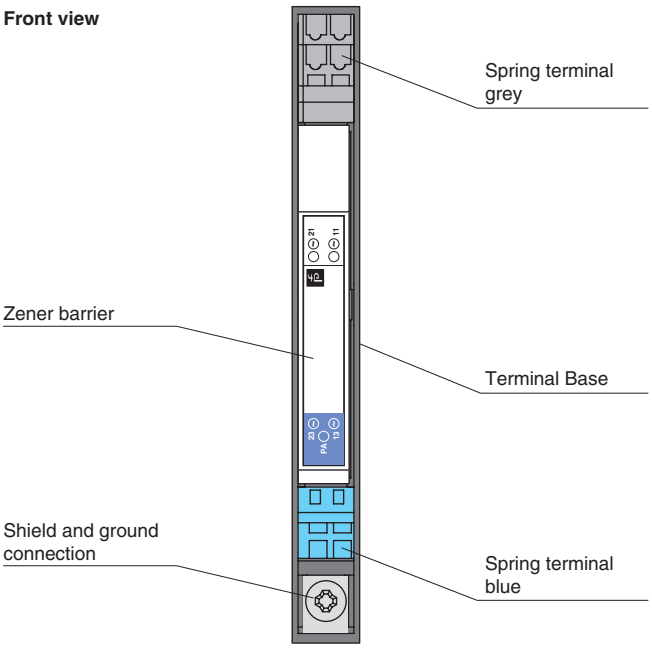
The Zener Barrier prevents the transfer of unacceptably high energy from the safe area into the hazardous area.

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 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.

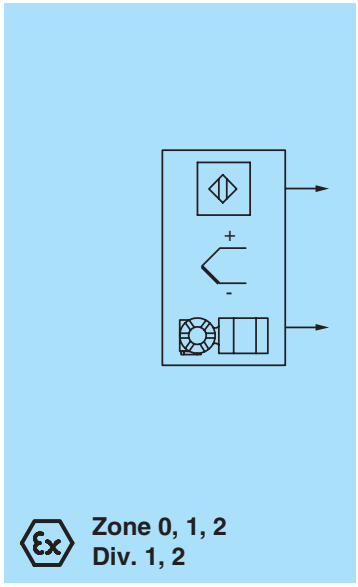
Additionally this Zener Barrier is equipped with a replaceable fuse.

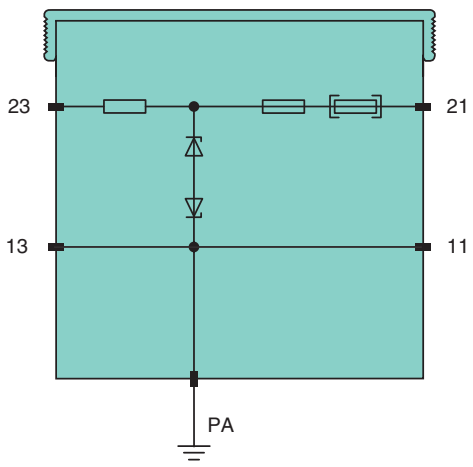
Zener Barriers will be supplied without terminal base or termination board. Please order separately (accessories see technical data).

## Assembly




## Connection

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|---|---|
| **Electrical specifications** | |
| Nominal resistance | without back-up fuse 3.3 kΩ , with back-up fuse 3.3 kΩ |
| Series resistance | without back-up fuse max. 3.4 kΩ , with back-up fuse max. 3.4 kΩ |
| Fuse rating | internal fuse 100 mA , back-up fuse 80 mA |
| **Hazardous area connection** | |
| Connection | terminals 13, 23 |
| **Safe area connection** | |
| Connection | terminals 11, 21 |
| Working voltage | 6 V at 2 µA |
| **Conformity** | |
| Protection degree | IEC 60529 |
| **Ambient conditions** | |
| Ambient temperature | -40 ... 60 °C (233 ... 333 K) |
| Storage temperature | -40 ... 80 °C (233 ... 353 K) |
| Relative humidity | < 75 % (annual mean)<br>< 95 % (30 d/year), no moisture condensation |
| **Mechanical specifications** | |
| Protection degree | IP20 (installed on Terminal Base or Termination Board) |
| Connection | wiring via Terminal Base or Termination Board |
| Mass | approx. 70 g |
| Dimensions | 9.7 x 70.4 x 68.2 mm (0.4 x 2.8 x 2.7 in) |
| Construction type | pluggable housing |
| Mounting | Terminal Base or Termination Board mounting on 35 mm DIN rail acc. to DIN EN 60715 |
| **Data for application in conjunction with hazardous areas** | |
| EC-Type Examination Certificate | TÜV 99 ATEX 1449 X , for additional certificates see www.pepperl-fuchs.com |
| Group, category, type of protection | ⟨Ex⟩ II (1)G [EEx ia] IIC |
| Voltage $U_o$ | 8.8 V |
| Current $I_o$ | 57 mA |
| Power $P_o$ | 7 mW |
| Supply | |
| Safety maximum voltage $U_m$ | 250 V |
| Directive conformity | |
| Directive 94/9 EC | EN 50014, EN 50020 |
| **International approvals** | |
| UL approval | |
| Control drawing | 16-557UL-12 (cULus) |
| **General information** | |
| Supplementary information | EC-Type Examination Certificate, Statement of Conformity, Declaration of Conformity and instructions have to be observed where applicable. For information see www.pepperl-fuchs.com. |
| **Accessories** | |
| Designation | Terminal Base for 1 Zener Barrier: SB9101<br>Termination Board for 6 Zener Barriers: SB9106<br>Termination Board for 10 Zener Barriers: SB9100<br>grounding rail for 20 units: SB9220<br>grounding rail for 10 units: SB9221<br>grounding rail for 6 units: SB9222 |

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