

Features

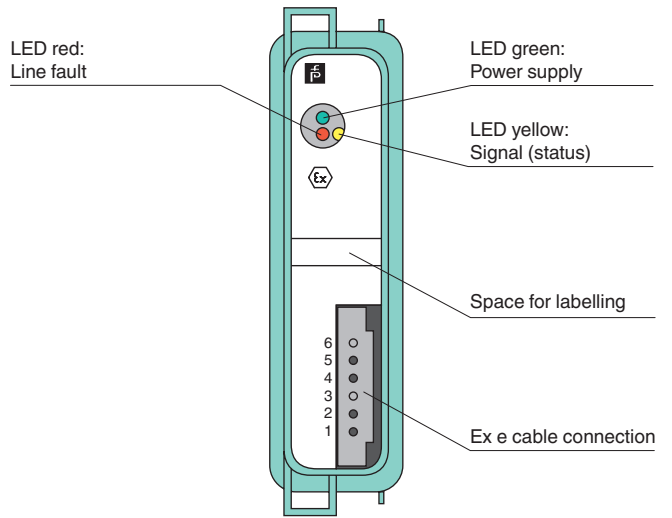
- 2-channel
- Inputs wired to Ex e terminals
- Dry contact or NAMUR inputs
- Galvanic isolation between channels and the bus
- Installation in suitable enclosures in Zone 1 or Zone 21
- Positive or negative logic selectable
- Simulation mode for service operations (forcing)
- Line fault detection (LFD)
- Permanently self-monitoring
- Module can be exchanged under voltage (hot swap)

Function

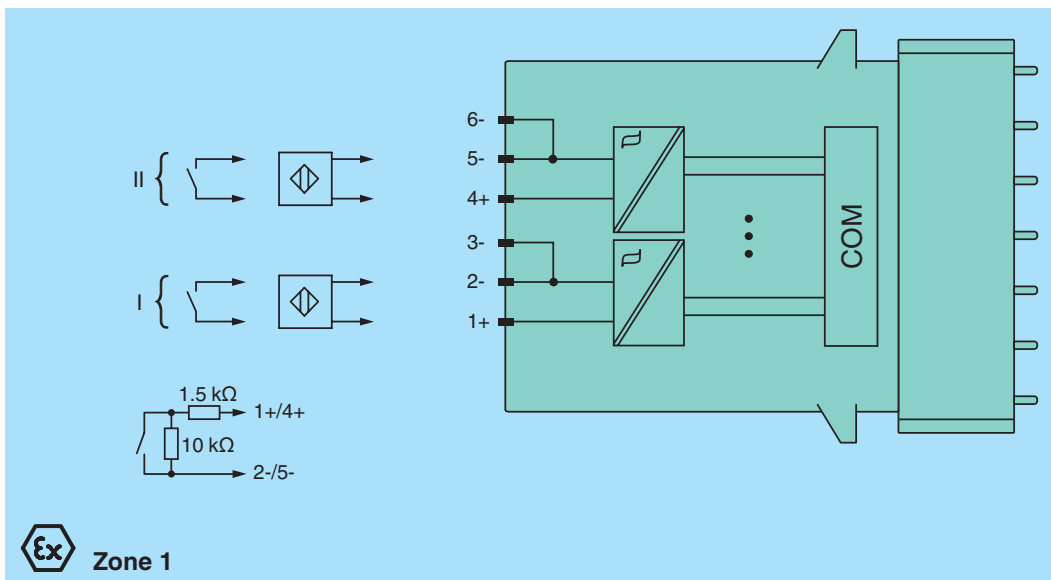
The device accepts digital input signals of NAMUR sensors or mechanical contacts from the hazardous area.
 Open or short circuit line fault alarms are detected.
 The intrinsically safe inputs are galvanically isolated from the bus and the power supply (EN 60079-11).

Assembly

Front view



Connection



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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

| | | |
|---|-------|---|
| Supply | | |
| Connection | | backplane bus |
| Rated voltage | U_n | 12 V DC , only in connection with the power supplies FB92** |
| Power consumption | | 0.5 W |
| Internal bus | | |
| Connection | | backplane bus |
| Interface | | manufacturer-specific bus to standard com unit |
| Input | | |
| Number of channels | | 2 |
| Suitable sensors | | mechanical contacts, NAMUR proximity switches, 2-wire initiators |
| Connection | | wire ends 1+ (white), 2- (brown); 4+ (yellow), 5- (grey) |
| Rated values | | acc. to EN 60947-5-6 (NAMUR) |
| Switching point/switching hysteresis | | 1.2 ... 2.1 mA / \pm 0.2 mA |
| Voltage | | 8.2 V |
| Internal resistor | | 1 k Ω |
| Line fault detection | | can be switched on/off for each channel via configuration tool |
| Connection | | mechanical switch with additional resistors (see connection diagram) , proximity switches without additional wiring |
| Short-circuit | | < 360 Ω |
| Open-circuit | | < 0.35 mA |
| Minimum pulse duration | | 20 ms |
| Indicators/settings | | |
| LED indicator | | LED green: supply LED red: line fault, per channel LED yellow: signal (status), per channel |
| Directive conformity | | |
| Electromagnetic compatibility | | |
| Directive 2004/108/EC | | EN 61326-1 |
| Conformity | | |
| Electromagnetic compatibility | | NE 21 |
| Degree of protection | | IEC 60529 |
| Environmental test | | EN 60068-2-14 |
| Shock resistance | | EN 60068-2-27 |
| Vibration resistance | | EN 60068-2-6 |
| Damaging gas | | EN 60068-2-42 |
| Relative humidity | | EN 60068-2-56 |
| Ambient conditions | | |
| Ambient temperature | | -20 ... 60 °C (-4 ... 140 °F) |
| Storage temperature | | -25 ... 85 °C (-13 ... 185 °F) |
| Relative humidity | | 95 % non-condensing |
| Shock resistance | | shock type I, shock duration 11 ms, shock amplitude 50 m/s ² , number of shock directions 6, number of shocks per direction 100 |
| Vibration resistance | | frequency range 5 ... 500 Hz, amplitude 5 ... 13.2 Hz \pm 1.5 mm, 13.2 ... 100 Hz 1g, sweep rate 1 octave/min, duration 10 sweeps 5 Hz - 100 Hz - 5 Hz |
| Damaging gas | | for plugs: 21 days in 25 ppm SO ₂ , at 25 °C and 75 % rel. humidity, device G3 |
| Mechanical specifications | | |
| Degree of protection | | IP20 (module) , a separate housing is required acc. to the system description |
| Connection | | wire ends, 150 cm wiring connection: separately covered Ex e terminals required |
| Mass | | approx. 350 g |
| Dimensions | | 28 x 107 x 132 mm (1.1 x 4.2 x 5.2 in) |
| Data for application in connection with Ex-areas | | |
| EC-Type Examination Certificate | | PTB 97 ATEX 1074 U , PTB 97 ATEX 1075 (system) , for additional certificates see www.pepperl-fuchs.com |
| Group, category, type of protection | |  II 2 G Ex d IIC Gb |
| Electrical isolation | | |
| Input/power supply, internal bus | | safe electrical isolation acc. to EN 60079-11, voltage peak value 375 V |
| Directive conformity | | |
| Directive 94/9/EC | | EN 60079-0:2009 EN 60079-1:2007 EN 60079-11:2007 EN 60079-26:2007 EN 61241-11:2006 |
| General information | | |
| System information | | The module has to be mounted in appropriate backplanes (FB92**) in Zone 1, 2, or outside hazardous areas. Here, the corresponding EC-Type Examination Certificate has to be observed. |

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| 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 . |
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