

**Features**

- 8-channel
- Inputs with plug-in Ex e terminals
- Dry contact or NAMUR inputs
- Installation in suitable enclosures in Zone 1
- Positive or negative logic selectable
- Simulation mode for service operations (forcing)
- Line fault detection (LFD)
- Permanently self-monitoring
- On/Off delay
- Module can be exchanged under voltage (hot swap)

**Function**

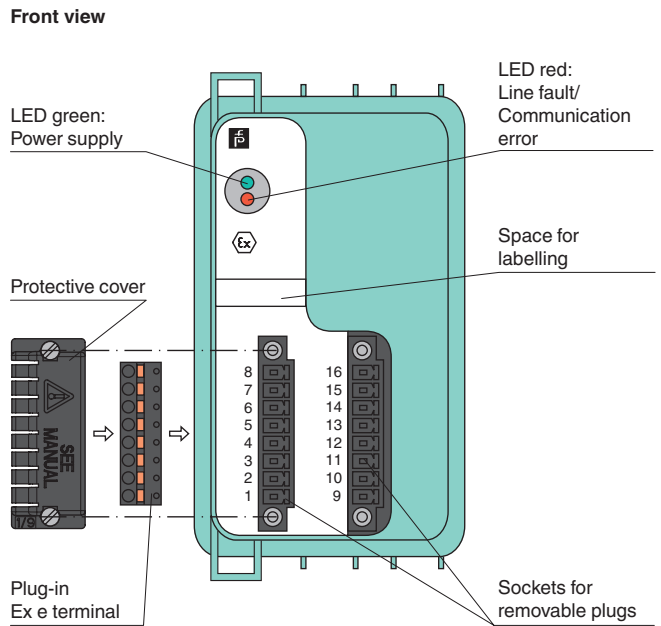
The device accepts digital input signals of NAMUR sensors or mechanical contacts from the hazardous area.

Open and short circuit line faults are detected.

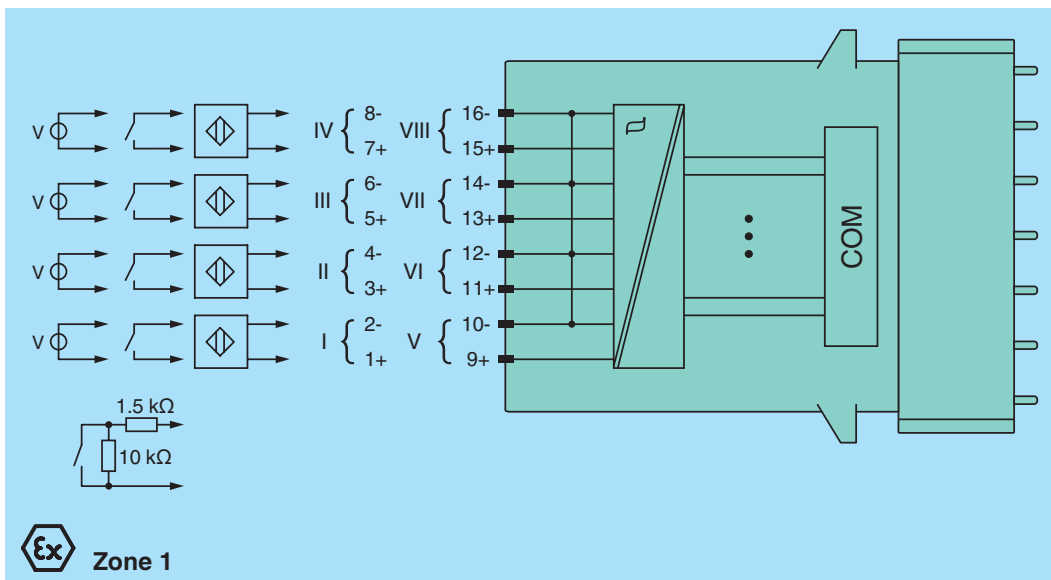
The device is supplied with plug-in Ex e terminals and protective cover.

The inputs are galvanically isolated from the bus and the power supply.

**Assembly**



**Connection**



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

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<b>Supply</b>		
Connection		backplane bus
Rated voltage	U <sub>n</sub>	12 V DC , only in connection with the power supplies FB92**
Power consumption		0.7 W
<b>Internal bus</b>		
Connection		backplane bus
Interface		manufacturer-specific bus to standard com unit
<b>Input</b>		
Number of channels		8
Suitable sensors		mechanical contacts, NAMUR proximity switches
Connection		channel I: 1+, 2-; channel II: 3+, 4-; channel III: 5+, 6-; channel IV: 7+, 8-; channel V: 9+, 10-; channel VI: 11+, 12-; channel VII: 13+, 14-; channel VIII: 15+, 16-
Rated values		acc. to EN 60947-5-6 (NAMUR)
Switching point/switching hysteresis		1.2 ... 2.1 mA / ± 0.2 mA
Digital signals (active)		configurable 24 V      5 V
Switching point: ON		> 8 V      > 2.7 V
Switching point: OFF		< 3 V      < 2.3 V
Voltage		8.2 V
Internal resistor		1 kΩ
Line fault detection		can be switched on/off for each channel via configuration tool , active signals (24 V, 5 V) without line fault detection
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		1 ms
<b>Indicators/settings</b>		
LED indicator		LED green: supply LED red: line fault , red flashing: communication error
Coding		optional mechanical coding via front socket
<b>Directive conformity</b>		
Electromagnetic compatibility		
Directive 2004/108/EC		EN 61326-1:2006
<b>Conformity</b>		
Electromagnetic compatibility		NE 21:2007
Degree of protection		IEC 60529:2000
Environmental test		EN 60068-2-14:2009
Shock resistance		EN 60068-2-27:2009
Vibration resistance		EN 60068-2-6:2008
Damaging gas		EN 60068-2-42:2003
Relative humidity		EN 60068-2-78:2001
<b>Ambient conditions</b>		
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 <sup>2</sup> , number of shock directions 6, number of shocks per direction 100
Vibration resistance		frequency range 5 ... 500 Hz, amplitude 5 ... 13.2 Hz ± 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 <sub>2</sub> , at 25 °C and 75 % rel. humidity, device G3
<b>Mechanical specifications</b>		
Degree of protection		IP20 (module) , a separate housing is required acc. to the system description
Connection		Ex e spring terminal with protective cover
Mass		approx. 750 g
Dimensions		57 x 107 x 132 mm (2.2 x 4.2 x 5.2 in)
<b>Data for application in connection with Ex-areas</b>		
EC-Type Examination Certificate		BVS 11 ATEX E 093 X , for additional certificates see www.pepperl-fuchs.com
Group, category, type of protection		⊕ II 2 G Ex db eb IIC T4
Electrical isolation		
Input/power supply, internal bus		safe electrical isolation acc. to EN 60079-11:2007 , voltage peak value 375 V
Directive conformity		
Directive 94/9/EC		EN 60079-0:2009 EN 60079-1:2007 EN 60079-7:2007

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<b>General information</b>	
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.
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 <a href="http://www.pepperl-fuchs.com">www.pepperl-fuchs.com</a> .

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