

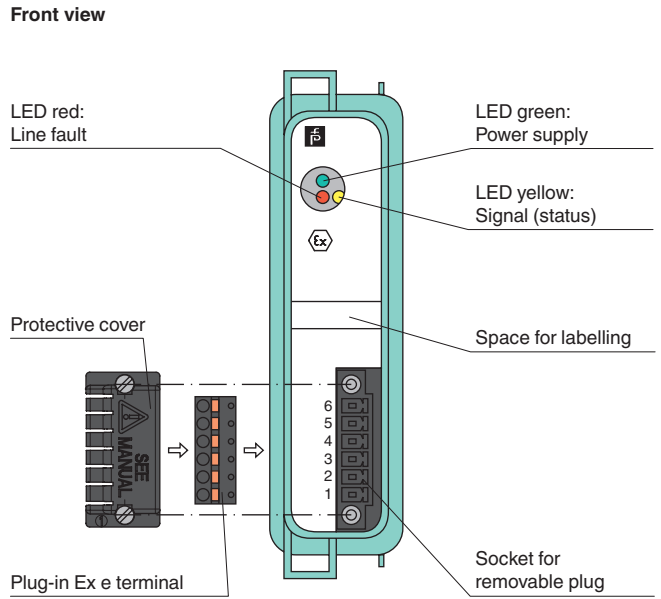
Features

- 3-channel
- Fully compatible replacement for FB1302**
- 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
- Module can be exchanged under voltage (hot swap)

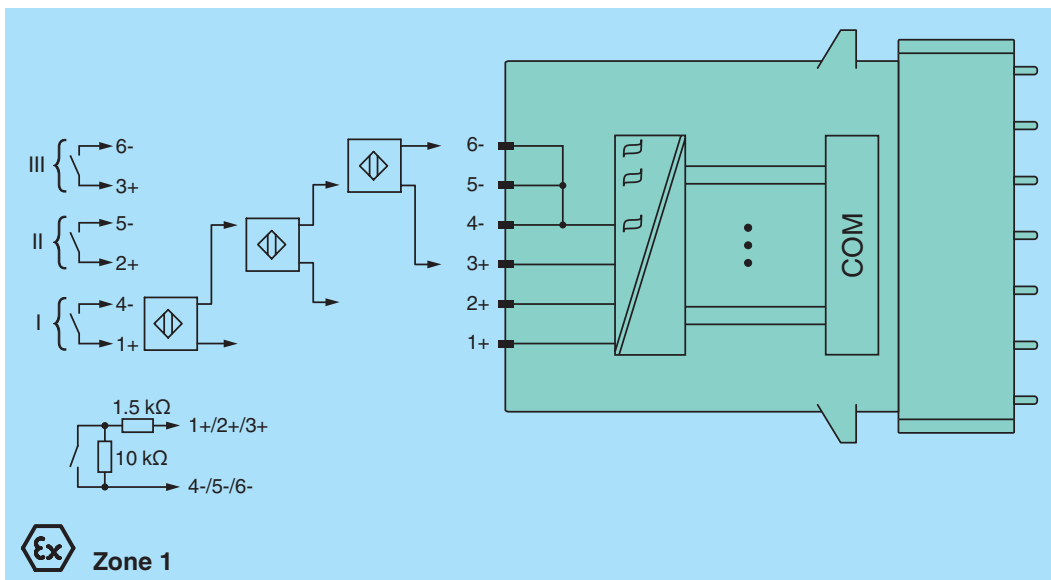
Function

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".

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		3
Suitable sensors		mechanical contacts, NAMUR proximity switches, 2-wire initiators
Connection		channel I: 1+, 4-; channel II: 2+, 5-; channel III: 3+, 6-
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
Coding		optional mechanical coding via front socket
Directive conformity		
Electromagnetic compatibility		
Directive 2004/108/EC		EN 61326-1:2006
Conformity		
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
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		Ex e spring terminal with protective cover
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		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
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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Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

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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