

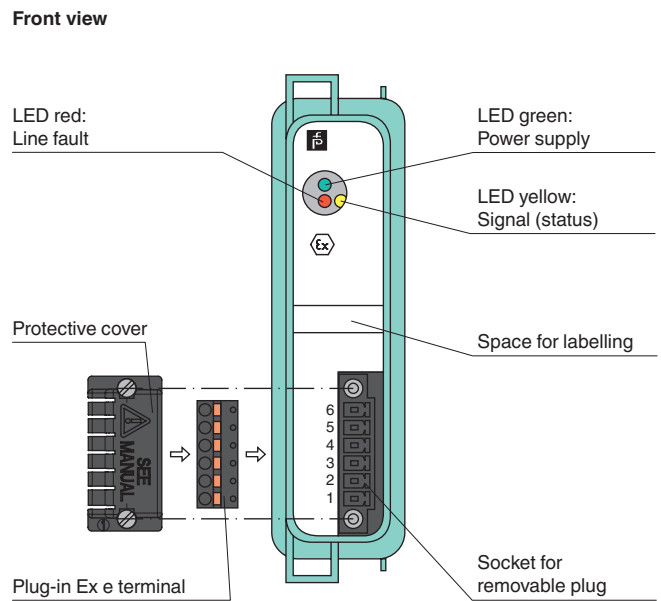
**Features**

- 3-channel
- Fully compatible replacement for FB1302\*\*
- Inputs with plug-in Ex e terminals
- Installation in suitable enclosures in Zone 1
- Module can be exchanged under voltage (hot swap)
- Dry contact or NAMUR inputs
- Positive or negative logic selectable
- Simulation mode for service operations (forcing)
- Line fault detection (LFD)
- Permanently self-monitoring

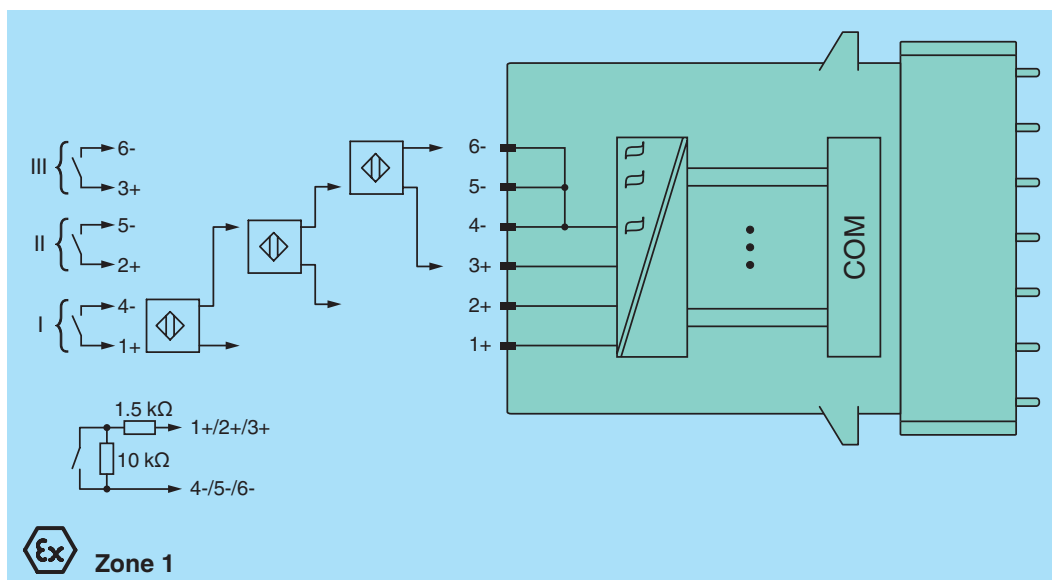
**Function**

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>Slots</b>		
Occupied slots		1
<b>Supply</b>		
Connection		backplane bus
Rated voltage	$U_r$	12 V DC , only in connection with the power supplies FB92**
Power dissipation		0.75 W
Power consumption		0.75 W
<b>Internal bus</b>		
Connection		backplane bus
Interface		manufacturer-specific bus to standard com unit
<b>Digital input</b>		
Number of channels		3
<b>Sensor interface</b>		
Connection		NAMUR sensor
Connection [2]		volt-free contact
Connection [3]		active binary signal 24 V DC
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 / ± 0.2 mA
Internal resistor	$R_i$	1 kΩ
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
<b>Indicators/settings</b>		
LED indication		LED green: supply LED red: line fault, per channel LED yellow: signal (status), per channel
Coding		optional mechanical coding via front socket
<b>Directive conformity</b>		
Electromagnetic compatibility		
Directive 2014/30/EU		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 15 g, number of shocks 18
Vibration resistance		frequency range 10 ... 150 Hz; transition frequency: 57.56 Hz, amplitude/acceleration ± 0.075 mm/1 g; 10 cycles frequency range 5 ... 100 Hz; transition frequency: 13.2 Hz amplitude/acceleration ± 1 mm/0.7 g; 90 minutes at each resonance
Damaging gas		designed for operation in environmental conditions acc. to ISA-S71.04-1985, severity level 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. 350 g
Dimensions		28 x 107 x 132 mm (1.1 x 4.2 x 5.2 inch)
<b>Data for application in connection with hazardous areas</b>		
EU-Type Examination Certificate		BVS 11 ATEX E 093 X
Marking		Ⓔ II 2 G Ex db eb IIC T4
Galvanic isolation		
Input/power supply, internal bus		safe electrical isolation acc. to EN 60079-11: 2007, voltage peak value 375 V
Directive conformity		

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Directive 2014/34/EU	EN 60079-0:2009 EN 60079-1:2007 EN 60079-7:2007
<b>International approvals</b>	
ATEX approval	BVS 11 ATEX E 093X
INMETRO	Brazil: TÜV 14.1599X
EAC approval	Russia: RU C-IT.MIII06.B.00129
<b>Marine approval</b>	
Lloyd Register	15/20021
American Bureau of Shipping	T1450280/UN
Bureau Veritas Marine	22449/B0 BV
<b>General information</b>	
System information	The module has to be mounted in appropriate backplanes (FB92**) in Zone 1, 2, or outside hazardous areas. Observe the corresponding EC-type examination certificate.
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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