Features

- 8-channel
- Dry contact or NAMUR inputs
- Installation in Zone 2, Zone 22, or safe area
- Positive or negative logic selectable
- Simulation mode for service operations (forcing)
- Line fault detection (LFD)
- Permanently self-monitoring
- Module can be exchanged under voltage

Function

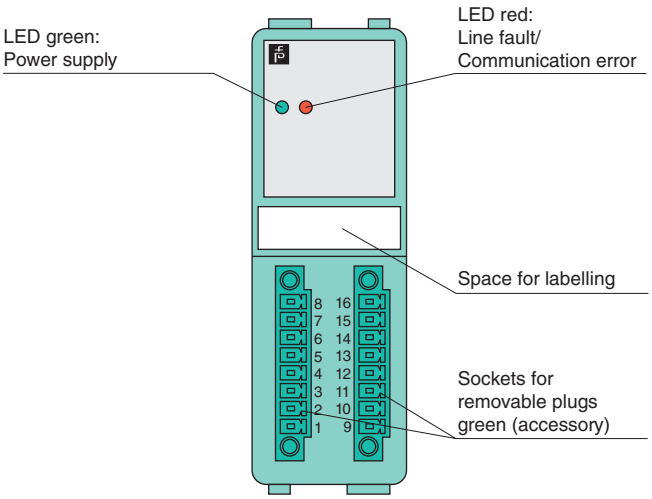
The device accepts digital input signals of NAMUR sensors or mechanical contacts from the field. It can be set to read active 24 V or 5 V DC inputs.

Open or short circuit line fault alarms are detected (not for active inputs).

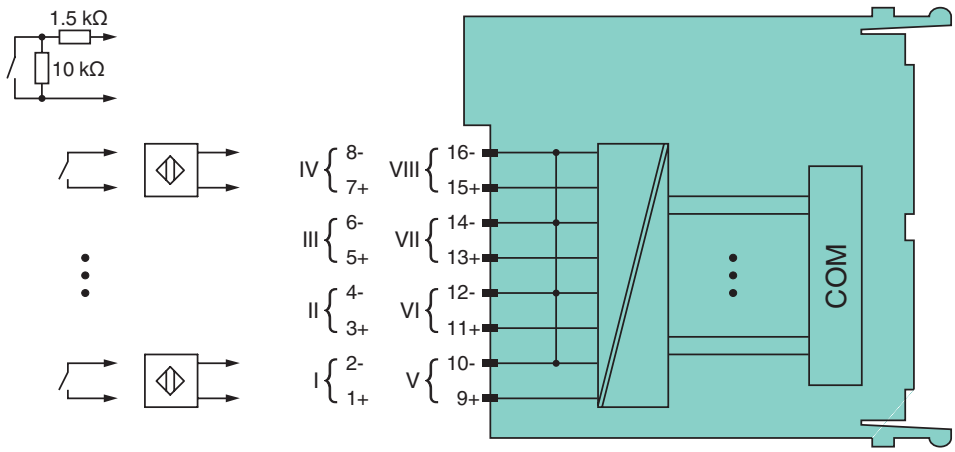
The inputs are galvanically isolated from the bus and the power supply (EN 60079-11).

Assembly

Front view



Connection



Zone 2

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Supply	
Connection	backplane bus
Rated voltage U_n	12 V DC , only in connection with the power supplies LB9***
Power consumption	0.7 W
Internal bus	
Connection	backplane bus
Interface	manufacturer-specific bus to standard com unit
Input	
Number of channels	8
Suitable sensors	mechanical contacts, NAMUR proximity switches, 2-wire initiators (24 V, 5 V) no mixed operation
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
Indicators/settings	
LED indicator	LED green: supply LED red: line fault
Coding	optional mechanical coding via front socket
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) , 70 °C (non-Ex)
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 ± 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 when mounted on backplane
Connection	removable front connector with screw flange (accessory) wiring connection via spring terminals (0.14 ... 1.5 mm^2) or screw terminals (0.08 ... 1.5 mm^2)
Mass	approx. 130 g
Dimensions	32 x 100 x 103 mm (1.26 x 3.9 x 4 in)
Data for application in connection with Ex-areas	
Statement of conformity	PF 08 CERT 1234 X
Group, category, type of protection	⟨Ex⟩ II 3 G Ex nA [ic] IIC T4 Gc
Electrical isolation	
Input/power supply, internal bus	safe electrical isolation acc. to EN 60079-11, voltage peak value 375 V
Directive conformity	

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Directive 94/9/EC	EN 60079-0:2009 EN 60079-11:2007 EN 60079-15:2010
International approvals	
IECEx approval	BVS 09.0037X
Approved for	Ex nAc [ic] IIC T4
General information	
System information	The module has to be mounted in appropriate backplanes (LB9***) in Zone 2 or outside hazardous areas. Here, the corresponding declaration of conformity has to be observed. For use in hazardous areas (e. g. Zone 2 or Zone 22) the module must be installed in an appropriate enclosure.
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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