

Features

- 8-channel
- Outputs Ex ib
- Mounting in Zone 2, Class I/Div.2 or in the safe area
- Module can be exchanged under voltage
- Galvanic group isolation
- Line fault detection (LFD)
- Positive or negative logic selectable
- Simulation mode for service operations (forcing)
- Permanently self-monitoring
- Output with watchdog
- Output with bus-independent safety shutdown

Function

The device features 8 independent channels.

The device can be used to drive low power solenoids, sounders, or LEDs.

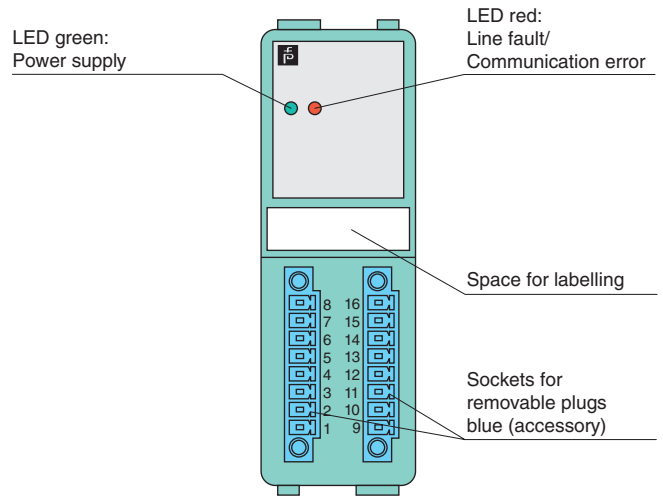
Open and short-circuit line faults are detected.

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

The outputs can be switched off via a contact. This can be used for bus-independent safety applications.

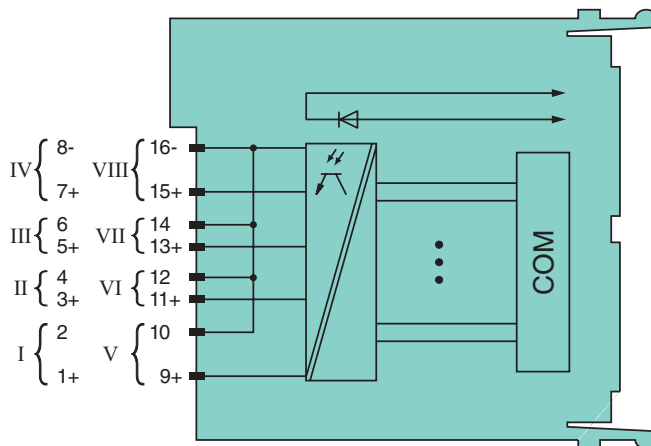
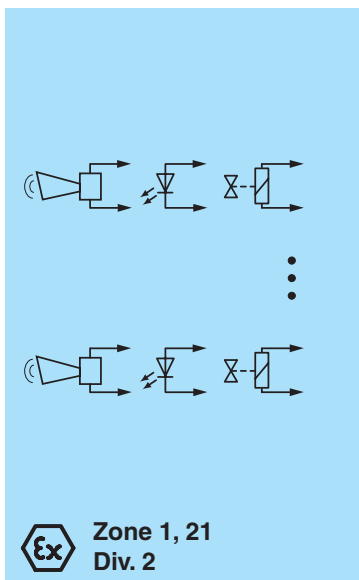
Assembly

Front view



SIL2

Connection



**Zone 2
Div. 2**

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

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

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Slots		
Occupied slots		2
Supply		
Connection		backplane bus
Rated voltage	U_r	12 V DC , only in connection with the power supplies LB9***
Power dissipation		2.35 W
Power consumption		2.35 W
Internal bus		
Connection		backplane bus
Interface		manufacturer-specific bus to standard com unit
Digital output		
Number of channels		8
Suitable field devices		
Field device		Solenoid Valve
Field device [2]		audible alarm
Field device [3]		visual alarm
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-
Current limit	I_{max}	8 mA
Open loop voltage		20 V
Line fault detection		can be switched on/off for each channel via configuration tool
Test current		0.33 mA
Short-circuit		< 300 Ω
Open-circuit		> 50 k Ω
Response time		20 ms (depending on bus cycle time)
Watchdog		within 0.5 s the device goes in safe state, e.g. after loss of communication
Indicators/settings		
LED indication		LED green: supply LED red: line fault , communication error red flashing
Coding		optional mechanical coding via front socket
Directive conformity		
Electromagnetic compatibility		
Directive 2014/30/EU		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 15 g, number of shocks 18
Vibration resistance		frequency range 10 ... 150 Hz; transition frequency: 57.56 Hz, amplitude/acceleration \pm 0.075 mm/1 g; 10 cycles frequency range 5 ... 100 Hz; transition frequency: 13.2 Hz amplitude/acceleration \pm 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
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. 160 g
Dimensions		32.5 x 100 x 102 mm (1.28 x 3.9 x 4 inch)
Data for application in connection with hazardous areas		
EU-Type Examination Certificate		PTB 03 ATEX 2042
Marking		 II (2) G [Ex ib] IIC  II (2) D [Ex ib] IIIC
Output		
Voltage	U_o	28 V
Current	I_o	13.5 mA
Power	P_o	376 mW (characteristic curve rectangular type)

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Certificate	PF 08 CERT 1234 X
Marking	⊕ II 3 G Ex nA IIC T4 Gc
Galvanic isolation	
Output/power supply, internal bus	safe electrical isolation acc. to EN 60079-11, voltage peak value 375 V
Directive conformity	
Directive 2014/34/EU	EN 60079-0:2009 EN 60079-11:2007 EN 60079-15:2010 EN 61241-11:2006
International approvals	
ATEX approval	PF 08 CERT 1234 X PTB 03 ATEX 2042
IECEx approval	BVS 09.0037X
Approved for	Ex nA [ib Gb] IIC T4 Gc [Ex ib Db] IIIC
EAC approval	Russia: RU C-IT.MIII06.B.00129
Marine approval	
Lloyd Register	15/20021
American Bureau of Shipping	T1450280/UN
Bureau Veritas Marine	22449/B0 BV
General information	
System information	The module has to be mounted in appropriate backplanes (LB9***) in Zone 2 or outside hazardous areas. Here, observe the corresponding declaration of conformity. For use in hazardous areas (e. g. Zone 2, Zone 22 or Div. 2) 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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