

Features

- 8-channel
- Outputs Ex ib
- Installation in Zone 2, Zone 22, Div. 2, or safe area
- Galvanic group isolation
- Line fault detection (LFD)
- Positive or negative logic selectable
- Simulation mode for service operations (forcing)
- Permanently self-monitoring
- Up to SIL2 acc. to IEC 61508
- Output with watchdog
- Output with bus-independent safety shutdown
- Module can be exchanged under voltage

Function

The device features 8 independent channels.

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

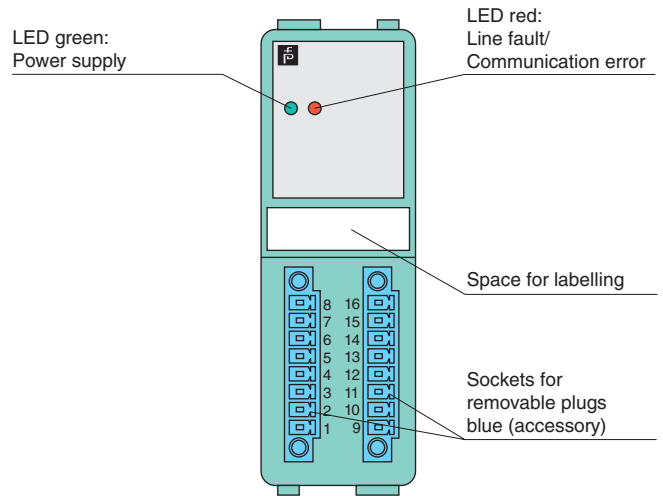
Open and short-circuit line faults are detected.

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.

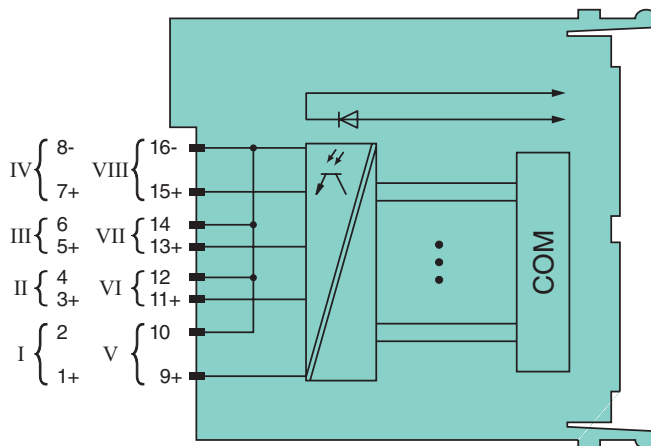
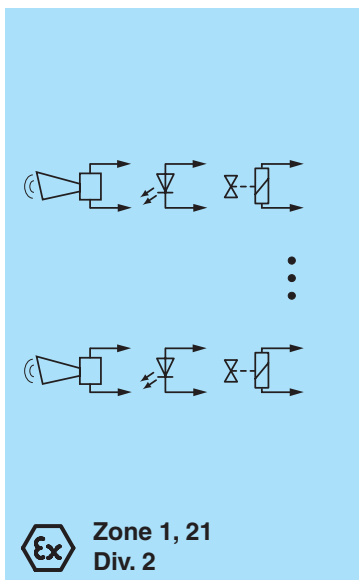
Assembly

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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Supply		
Connection		backplane bus
Rated voltage	U_n	12 V DC , only in connection with the power supplies LB9***
Power consumption		2.2 W
Internal bus		
Connection		backplane bus
Interface		manufacturer-specific bus to standard com unit
Output		
Number of channels		8
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-
Open loop voltage	U_s	20 V
Current limit	I_{max}	8 mA
Response time		20 ms (depending on bus cycle time)
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
Watchdog		within 0.5 s the device goes in safe state, e.g. after loss of communication
Digital signals (active/short-protected)		20 V, 8 mA per channel
Indicators/settings		
LED indicator		LED green: supply LED red: line fault , communication error red flashing
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)
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 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 x 100 x 103 mm (1.26 x 3.9 x 4 in)
Data for application in connection with Ex-areas		
EC-Type Examination Certificate		PTB 03 ATEX 2042 , for additional certificates see www.pepperl-fuchs.com
Group, category, type of protection		 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)
Statement of conformity		
Group, category, type of protection		 II 3 G Ex nA IIC T4 Gc
Electrical isolation		
Output/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 EN 61241-11:2006
International approvals	
IECEx approval	BVS 09.0037X
Approved for	Ex nAc [ib] IIC T4 [Ex ibD] IIIC
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, 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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