

Features

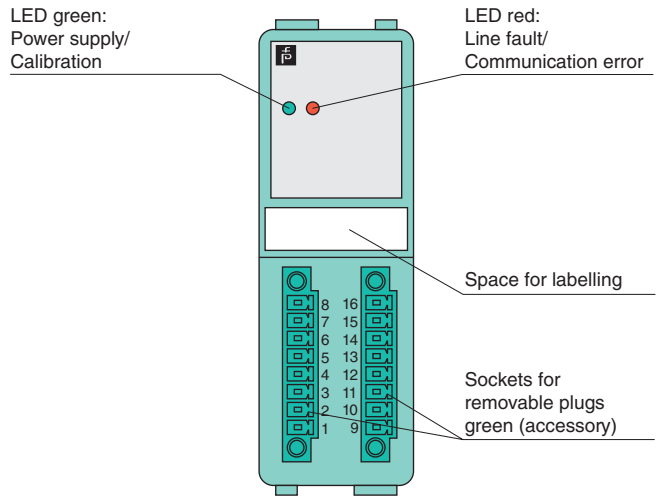
- 4-channel
- Power supply for 2- or 3-wire transmitters with 4 mA ... 20 mA
- Supply circuit 15 V (20 mA)
- Input from active signals of 4-wire transmitters
- Installation in Zone 2, Zone 22, or safe area
- HART communication via field bus or service bus
- HART communication also for separately powered devices
- Simulation mode for service operations (forcing)
- Line fault detection (LFD)
- Permanently self-monitoring
- Module can be exchanged under voltage (hot swap)

Function

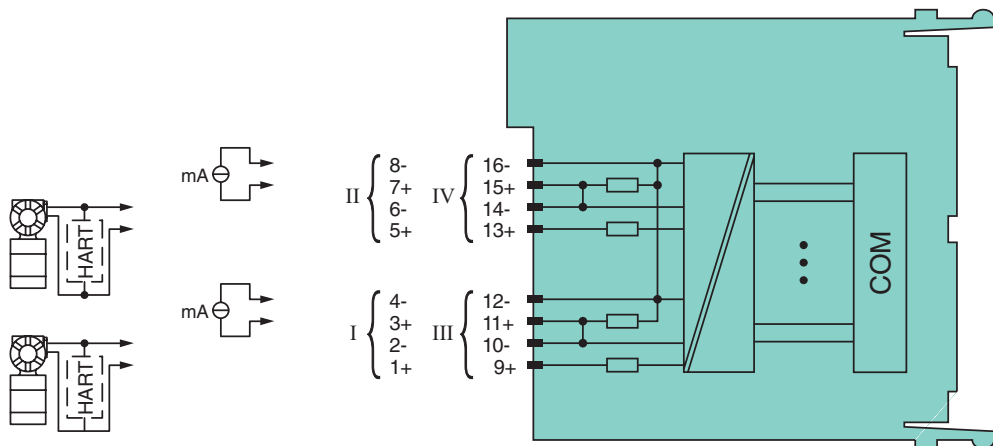
The transmitter power supply feeds 2- and 3-wire transmitters. Active signals from separately powered field devices and 4-wire transmitters can be connected. Open and short-circuit line faults are detected. The inputs are galvanically isolated from the bus and the power supply.

Assembly

Front view



Connection



Zone 2

Supply	
Connection	backplane bus
Rated voltage	12 V DC , only in connection with the power supplies LB9***
Power consumption	3 W
Internal bus	
Connection	backplane bus
Interface	manufacturer specific bus to standard Com Unit/gateway
Input	
Number of channels	4
Suitable field devices	transmitters for pressure, differential pressure, level, flow, temperature, etc.
Connection	terminals 2+, 3+ / 4-, 5- supply, HART
Input resistance	15 Ω (terminals 5, 6) 255 Ω (terminals 1-6) , HART
Transmitter supply voltage	min. 15 V at 20 mA
Line fault detection	Parameterization range 0 ... 26 mA Ex works settings: line fault < 0.5 mA, short circuit > 22 mA
Transfer characteristics	
Deviation	0.1 % of the input signal range at 20 °C (68 °F)
Influence of ambient temperature	0.01 %/K of the input signal range
Resolution	12 Bit (0 ... 26 mA)
Refresh time	approx. 80 ms (4 channels) 130 ms during HART
Indicators/settings	
LED indicator	LED green: supply LED red: line fault
Labeling	space for labeling at the front
Coding	mechanical coding at the front socket , optional
Directive conformity	
Electromagnetic compatibility	
Directive 2004/108/EC	EN 61326-1
Conformity	
Electromagnetic compatibility	NE 21
Protection degree	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	
Protection degree	IP20 (module) , mounted on backplane
Connection	device plug (accessories) - removable terminals - plug with screw flange - wiring connection: spring terminals: (0.14 ... 1.5 mm ²), screw terminals: (0.08 ... 1.5 mm ²)
Mass	approx. 150 g
Dimensions	32 x 100 x 103 mm (1.26 x 3.9 x 4 in)
Data for application in connection with Ex-areas	
Declaration of conformity	PF 08 CERT 1234 X
Group, category, type of protection, temperature class	⊕ II 3G Ex nA [ic] IIC T4
Electrical isolation	
Input/power supply, internal bus	safe electrical isolation acc. to IEC/EN 60079-11, voltage peak value 375 V
Directive conformity	
Directive 94/9/EC	EN 60079-0 , EN 60079-11 , EN 60079-15
International approvals	
IECEx approval	BVS 09.0037X

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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.