

**Features**

- 4-channel
- Analog output module for 0/4 mA ... 20 mA
- Installation in Zone 2, Zone 22, or safe area
- HART communication via field bus or service bus
- Simulation mode for service operations (forcing)
- Line fault detection (LFD)
- Permanently self-monitoring
- Up to SIL2 acc. to IEC 61508
- Module can be exchanged under voltage (hot swap)

**Function**

The device drives positioners, proportional valves, I/P converters, or local indicators.

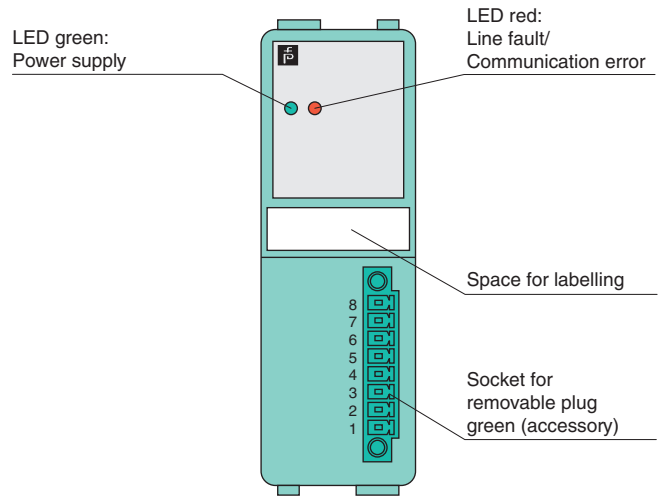
Open and short-circuit line faults are detected.

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

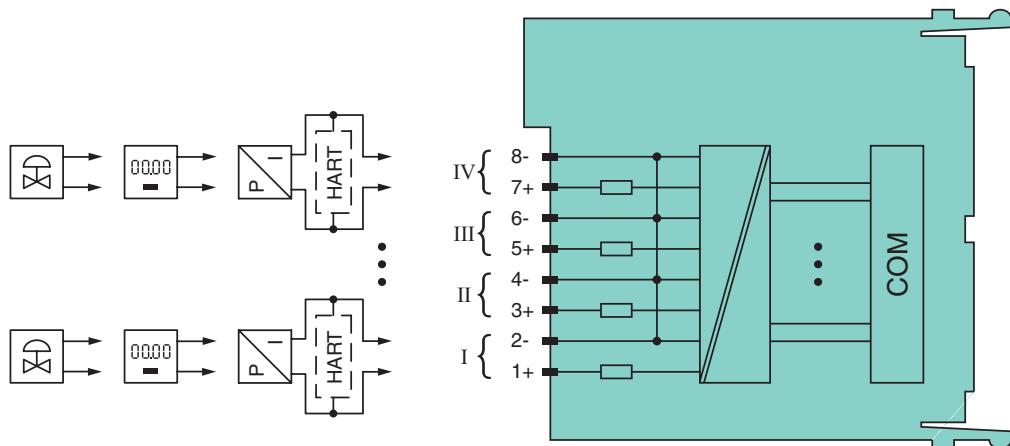
The outputs are galvanically isolated from the bus and the power supply.

**Assembly**

Front view



**Connection**



Zone 2

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<b>Supply</b>	
Connection	backplane bus
Rated voltage	12 V DC , only in connection with the power supplies LB9***
Power consumption	3 W
<b>Internal bus</b>	
Connection	backplane bus
Interface	manufacturer specific bus to standard Com Unit/gateway
<b>Output</b>	
Connection	terminals 1+, 2-, 3+, 4-, 5+, 6-, 7+, 8-
Current	4 ... 20 mA (0 ... 25 mA) short-circuit protected
Load	750 Ω max.
Line fault detection	min. 1 mA
Response threshold	≥ 850 Ω
Watchdog	output off 0.5 s after serious fault
<b>Transfer characteristics</b>	
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
Refresh time	approx. 58 ms 110 ms during HART
<b>Indicators/settings</b>	
LED indicator	LED green: supply LED red: line fault Red LED, flashing : communication error
Labeling	space for labeling at the front
Coding	mechanical coding at the front socket , optional
<b>Directive conformity</b>	
Electromagnetic compatibility	
Directive 2004/108/EC	EN 61326-1
<b>Conformity</b>	
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
<b>Ambient conditions</b>	
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 <sup>2</sup> , 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 <sub>2</sub> , at 25 °C and 75 % rel. humidity, device G3
<b>Mechanical specifications</b>	
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 <sup>2</sup> ), screw terminals: (0.08 ... 1.5 mm <sup>2</sup> )
Mass	approx. 150 g
Dimensions	32 x 100 x 103 mm (1.26 x 3.9 x 4 in)
<b>Data for application in connection with Ex-areas</b>	
Declaration of conformity	PF 08 CERT 1234 X
Group, category, type of protection, temperature class	⊕ II 3G Ex nA [ic] IIC T4
Electrical isolation	
Output/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
<b>International approvals</b>	
IECEx approval	BVS 09.0037X
<b>General information</b>	

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System information	<p>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.</p>
Supplementary information	<p>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>.</p>