Features

- 1-channel
- Output Ex ia
- Device installation in suitable enclosures in Zone 1 or Zone 21
- Analog output module for 0/4 mA ... 20 mA
- 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
- Up to SIL2 acc. to IEC 61508

Function

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

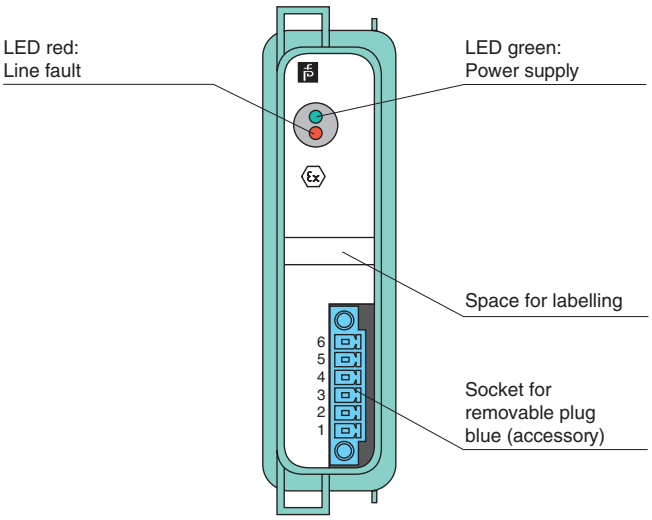
Open circuit line fault alarms are detected.

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

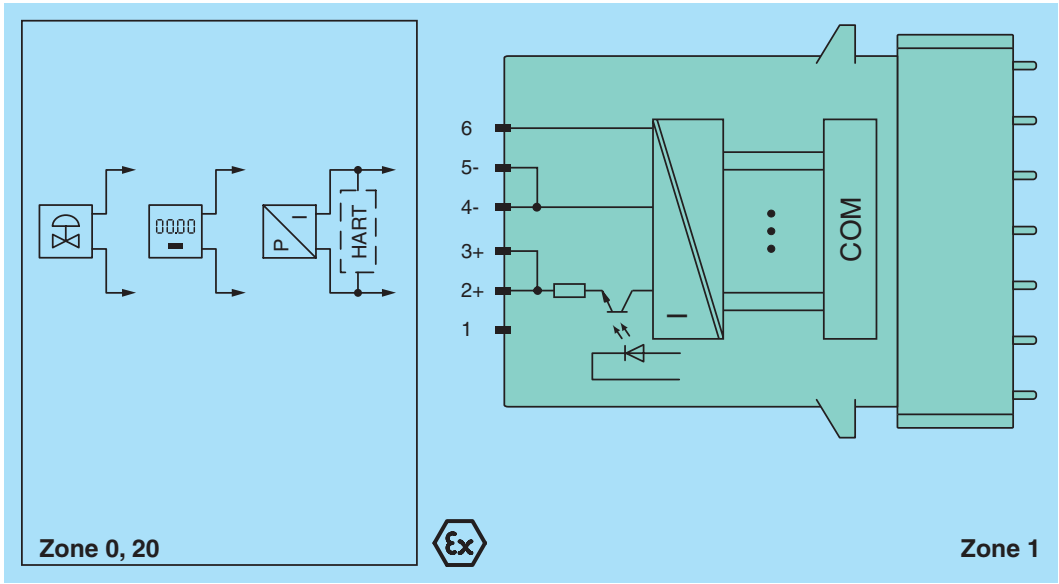
The output is galvanically isolated from the bus and the power supply (EN 60079-11).

Assembly

Front view



Connection



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Supply		
Connection		backplane bus
Rated voltage		12 V DC , only in connection with the power supplies FB92**
Power consumption		0.73 W
Internal bus		
Connection		backplane bus
Interface		manufacturer specific bus to standard Com Unit/gateway
Output		
Connection		terminals 2+, 3+ / 4-, 5-
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
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
Refresh time		approx. 50 ms
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)
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) , a separate housing is required acc. to the system description
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. 350 g
Dimensions		28 x 107 x 132 mm (1.1 x 4.2 x 5.2 in)
Data for application in connection with Ex-areas		
EC-Type Examination Certificate		PTB 97 ATEX 1074 U , PTB 97 ATEX 1075 (system) , for additional certificates see www.pepperl-fuchs.com
Group, category, type of protection		⟨Ex⟩ II 2(1) G Ex d [ia] IIC , [Ex iaD]
Output		
Voltage	U_o	27.3 V
Current	I_o	87 mA
Power	P_o	595 mW (linear characteristic)
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 60079-1, EN 60079-11, EN 60079-26, EN 61241-0, EN 61241-11
International approvals		
IECEx approval		pending

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General information	
System information	The module has to be mounted in appropriate backplanes and housings (FB92**) in Zone 1, 2, 21, 22 or outside hazardous areas (gas or dust). Here, the corresponding EC-Type Examination Certificate has to be observed.
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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