

Features

- 1-channel
- Output Ex ia
- Analog output module for 0/4 mA ... 20 mA
- Installation in suitable enclosures in Zone 1 or Zone 21
- HART communication via field bus or service bus
- Simulation mode for service operations (forcing)
- Line fault detection (LFD)
- Permanently self-monitoring

Function

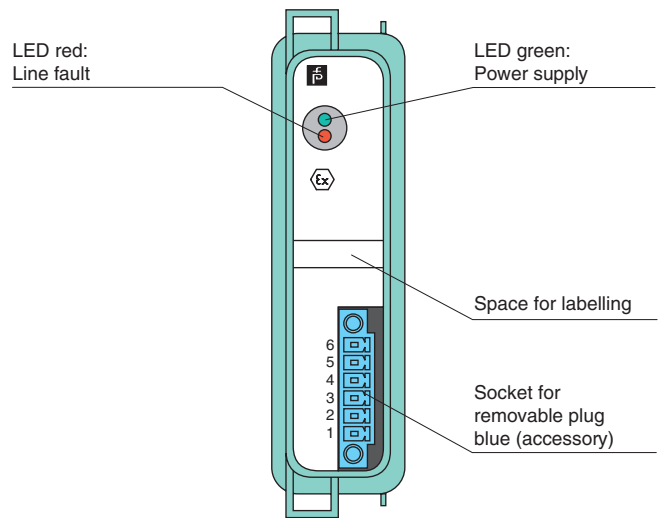
The analog output drives positioners, proportional valves, I/P converters, or local indicators.

Open circuit line fault alarms are detected, depending on the parameter setting.

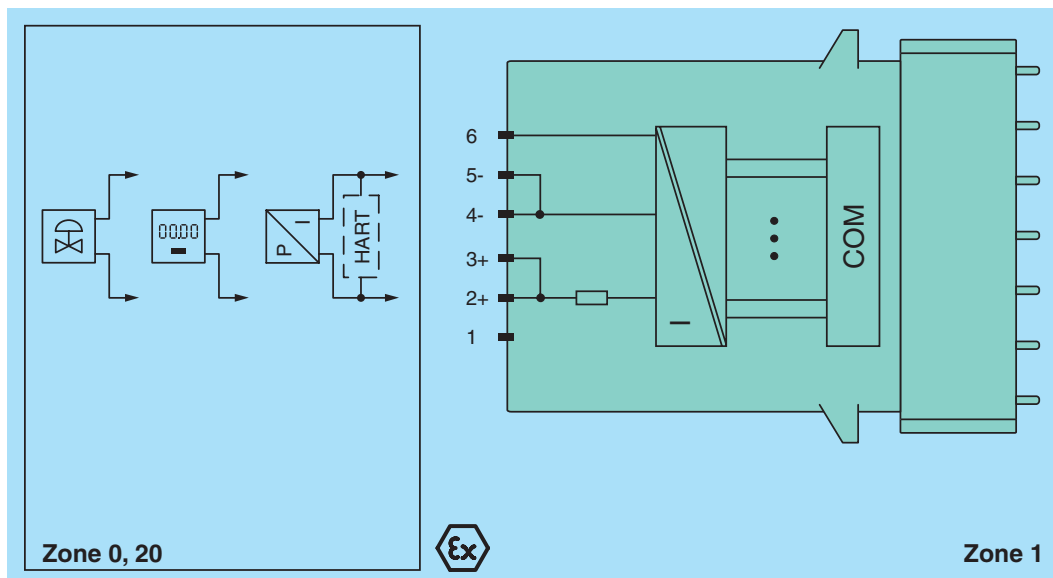
The output is galvanically isolated from the bus and the power supply (EN 60079-11).

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	Ⓔ 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 .