

Features

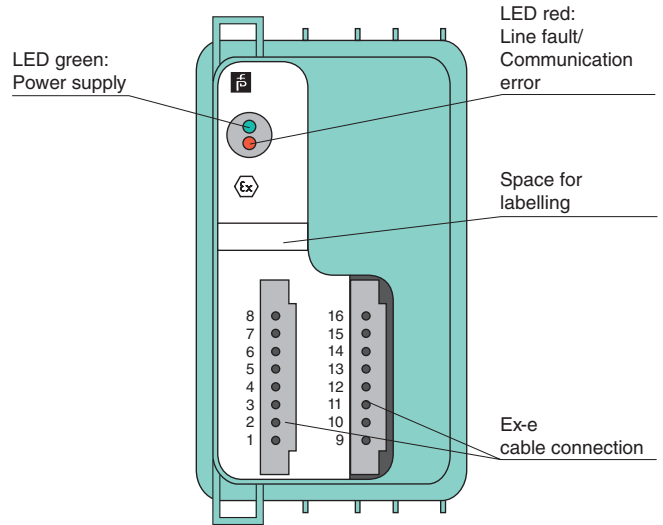
- 4-channel
- Inputs wired to Ex e terminals
- Power supply for 2- or 3-wire transmitters with 4 mA ... 20 mA
- Supply circuit 15 V (20 mA)
- Input from active signals of 4-wire transmitters
- Installation in suitable enclosures in Zone 1 or Zone 21
- HART communication via field bus or service bus
- Simulation mode for service operations (forcing)
- Line fault detection (LFD)
- Permanently self-monitoring

Function

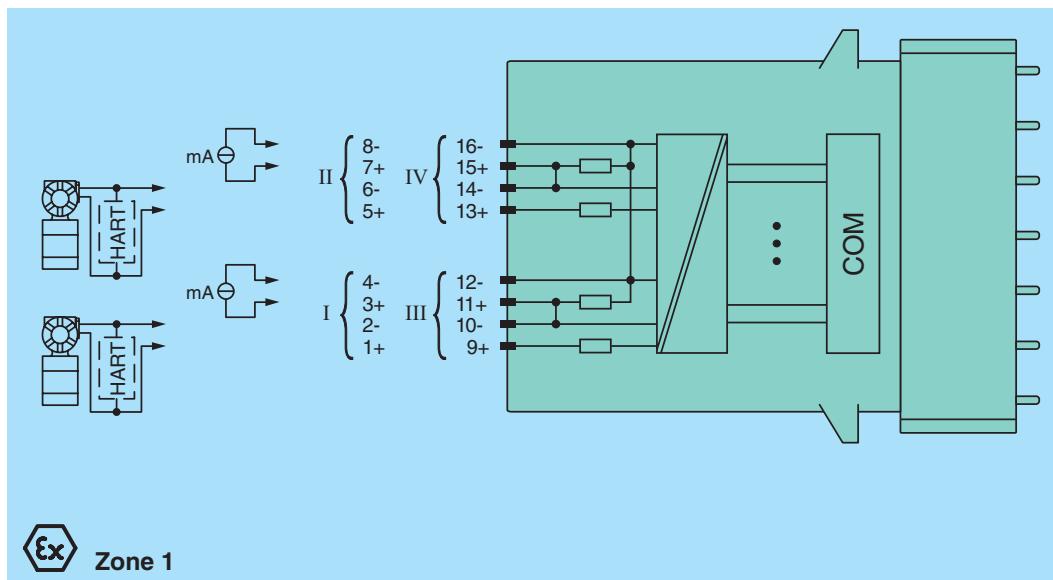
The transmitter power supply feeds 2- and 3-wire transmitters. Active signals from separately powered field devices and 4-wire transmitters can be connected. Open and short-circuit line faults are detected. The inputs are galvanically isolated from the bus and the power supply.

Assembly

Front view



Connection



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Supply	
Connection	backplane bus
Rated voltage	12 V DC , only in connection with the power supplies FB92**
Power consumption	3 W
Internal bus	
Connection	backplane bus
Interface	manufacturer specific bus to standard Com Unit/gateway
Input	
Suitable field devices	transmitters for pressure, differential pressure, level, flow, temperature, etc.
Connection	wire ends 1+ (white), 2- (brown), 5+ (grey), 6- (pink), 9+ (white), 10- (brown), 13+ (grey), 14- (pink) HART supply circuit wire ends 3+, 4- / 7+, 8- / 11+, 12- / 15+, 16- active field devices
Input resistance	15 Ω (stat.) , no HART for separately powered field devices
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 green flashing: calibration error LED red: line fault Red LED, flashing communication error
Labeling	space for labeling at the front
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	wire ends or shielded cable tail wiring connection separately covered Ex e terminals required
Mass	approx. 750 g
Dimensions	57 x 107 x 132 mm (2.2 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 G Ex d IIC
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 60079-1
International approvals	
IECEx approval	pending
General information	

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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 .

Versions

Model number	Options
FB3305B-80	wire ends, 80 cm
FB3305B150	wire ends, 150 cm
FB3305B200	wire ends, 200 cm
FB3305BS200	shielded cable tail, 200 cm