

Features

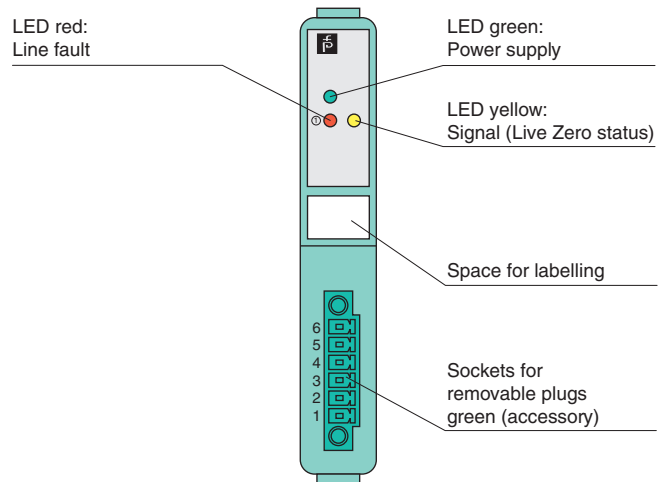
- 1-channel
- Power supply for 2- or 3-wire transmitters with 4 mA ... 20 mA
- Supply circuit 16.5 V (20 mA)
- Input from active signals of 4-wire transmitters
- Installation in Zone 2, Zone 22, or safe area
- HART communication via field bus or service bus
- HART communication also for separately powered devices
- Simulation mode for service operations (forcing)
- Line fault detection (LFD) and Live Zero monitoring
- Permanently self-monitoring
- Module can be exchanged under voltage (hot swap)

Function

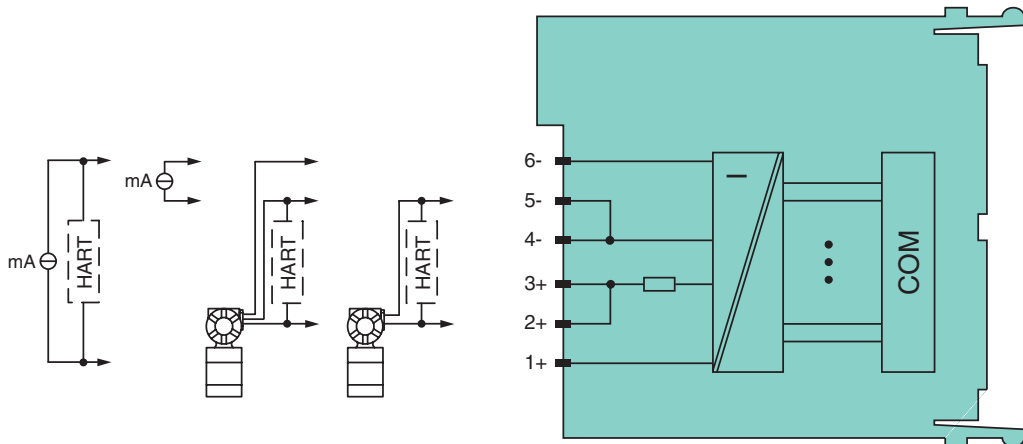
The transmitter power supply feeds 2-and 3-wire transmitters. Active signals from separately powered field devices and 4-wire transmitters can be connected. Open and short circuit line fault alarms as well as Live Zero status are detected. The input is galvanically isolated from the bus and the power supply (EN 60079-11).

Assembly

Front view



Connection



Zone 2

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| Supply | |
| Connection | backplane bus |
| Rated voltage | 12 V DC , only in connection with the power supplies LB9*** |
| Power consumption | approx. 1.2 W |
| Internal bus | |
| Connection | backplane bus |
| Interface | manufacturer specific bus to standard Com Unit/gateway |
| Input | |
| Number of channels | 1 |
| Suitable field devices | transmitters for pressure, differential pressure, level, flow, temperature, etc. |
| Connection | terminals 2+, 5-: HART supply; 5+, 6-: input; 1+, 6-: HART input |
| Input resistance | 15 Ω (terminals 5, 6) 236 Ω (terminals 1-6) , HART |
| Transmitter supply voltage | min. 16 V at 20 mA (incl. 250 Ω HART communication resistor) |
| Line fault detection | Parameterization range 0 ... 26 mA Ex works settings: line fault < 0.5 mA, short circuit > 22 mA |
| Live Zero monitoring | Ex works settings: ≤ 3.6 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. 50 ms |
| Indicators/settings | |
| LED indicator | LED green: supply LED red: line fault LED yellow: signal (Live Zero status) |
| 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. 90 g |
| Dimensions | 16 x 100 x 103 mm (0.63 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 | |

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| IECEX approval | BVS 09.0037X |
| 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 . |