

Features

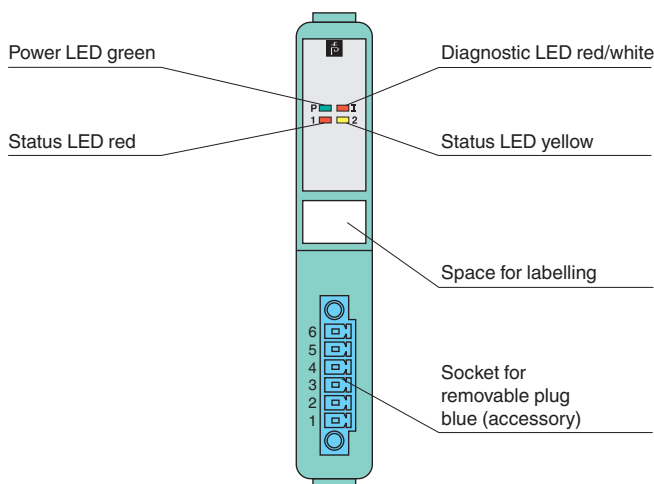
- 1-channel
- Input Ex ia
- Power supply for 2- or 3-wire transmitters with 4 mA ... 20 mA
- Supply circuit 15 V (20 mA)
- Input from active signals of 4-wire transmitters
- Installation in Zone 2, Zone 22, Div. 2, or safe area
- Simulation mode for service operations (forcing)
- Line fault detection (LFD) and Live Zero monitoring
- Permanently self-monitoring
- Module can be exchanged under voltage

Function

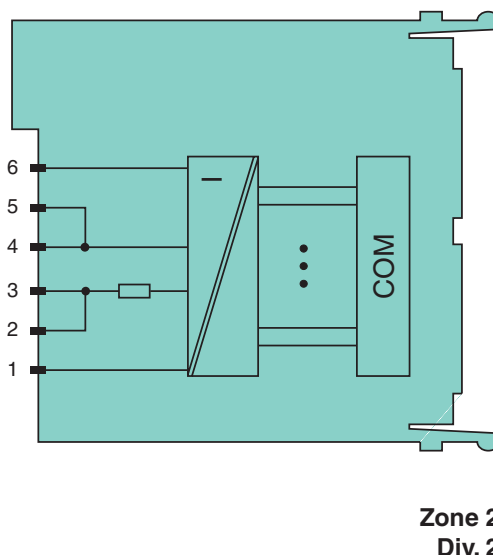
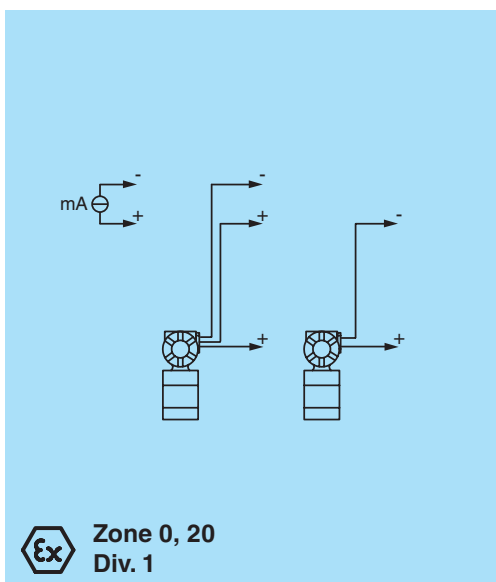
The transmitter power supply feeds 2- and 3-wire transmitters. Active signals from separately powered field devices and 4-wire transmitters can be connected. Open circuit, short circuit, and Live Zero status are detected. The intrinsically safe input is galvanically isolated from the bus and the power supply.

Assembly

Front view



Connection



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Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

| | | |
|---|-------|---|
| Supply | | |
| Connection | | backplane bus |
| Rated voltage | U_n | 12 V DC , only in connection with the power supplies LB9*** |
| Power loss | | 0.4 W |
| Power consumption | | 1 W |
| Internal bus | | |
| Connection | | backplane bus |
| Interface | | manufacturer-specific bus to standard com unit |
| Input | | |
| Number of channels | | 1 |
| Suitable field devices | | transmitters for pressure, differential pressure, level, flow, temperature, etc. |
| Connection | | 2-wire transmitter: supply circuit: 2/3+, 4/5- 3-wire transmitter: supply circuit: 2/3+, 6- measuring circuit: 4/5+, 6- 4-wire transmitter (separately powered): measuring circuit: 4/5+, 6- |
| Input resistance | | 15 Ω (terminals 5, 6) |
| Line fault detection | | can be switched on/off for each channel via configuration tool , configurable via configuration tool |
| Short-circuit | | Ex works settings: > 22 mA configurable between 0 ... 26 mA |
| Open-circuit | | Ex works settings: < 1 mA configurable between 0 ... 26 mA |
| Transmitter supply voltage | | 15 V at 20 mA |
| Live Zero monitoring | | configurable |
| Transfer characteristics | | |
| Deviation | | |
| After calibration | | 0.1 % of the signal range at 20 °C (68 °F) |
| Influence of ambient temperature | | 0.1 %/10 K of the signal range |
| Resolution | | 12 Bit (0 ... 26 mA) |
| Refresh time | | 100 ms |
| Indicators/settings | | |
| LED indicator | | Power LED (P) green: supply Diagnostic LED (I) red: module fault , red flashing: communication error , white: fixed parameter set (parameters from com unit are ignored) , white flashing: requests parameters from com unit Status LED (1) red: line fault (lead breakage or short circuit) Status LED (2) yellow: Live Zero monitoring |
| Coding | | optional mechanical coding via front socket |
| Directive conformity | | |
| Electromagnetic compatibility | | |
| Directive 2004/108/EC | | EN 61326-1:2006 |
| Conformity | | |
| Electromagnetic compatibility | | NE 21:2007 |
| Degree of protection | | IEC 60529:2000 |
| Environmental test | | EN 60068-2-14:2009 |
| Shock resistance | | EN 60068-2-27:2009 |
| Vibration resistance | | EN 60068-2-6:2008 |
| Damaging gas | | EN 60068-2-42:2003 |
| Relative humidity | | EN 60068-2-78:2001 |
| 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 \pm 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 | | |
| Degree of protection | | IP20 when mounted on backplane |
| Connection | | removable front connector with screw flange (accessory) wiring connection via spring terminals (0.14 ... 1.5 mm ²) or 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 | | |
| EC-Type Examination Certificate | | BVS 12 ATEX E 100 X for additional certificates see www.pepperl-fuchs.com |

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Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

| | | |
|-------------------------------------|---|---------------------------------------|
| Group, category, type of protection | Ex II 3(1) G Ex nA [ia Ga] IIC T4 Gc Ex I (M1) [Ex ia Ma] I Ex II (1) D [Ex ia Da] IIIC | |
| Supply | | |
| Voltage | U_o | 23.8 V |
| Current | I_o | 90 mA |
| Power | P_o | 533 mW (linear characteristic) |
| Input | | |
| Voltage | U_o | 0.7 V |
| Current | I_o | 7 mA |
| Power | P_o | 5 mW (trapezoid characteristic curve) |
| Internal capacitance | C_i | 242 nF |
| Internal inductance | L_i | 0 mH |
| Electrical isolation | | |
| Input/power supply, internal bus | safe electrical isolation acc. to EN 60079-11, voltage peak value 375 V | |
| Directive conformity | | |
| Directive 94/9/EC | EN 60079-0:2012 EN 60079-11:2012 EN 60079-15:2010 EN 60079-26:2007 EN 50303:2000 | |
| International approvals | | |
| UL approval | E106378 | |
| IECEx approval | BVS 13.0043X | |
| Approved for | Ex nA [ia Ga] IIC T4 Gc [Ex ia Da] IIIC [Ex ia Ma] I | |
| 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, Zone 22 or Div. 2) 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 . | |

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