

HART Output Isolator LB4106A

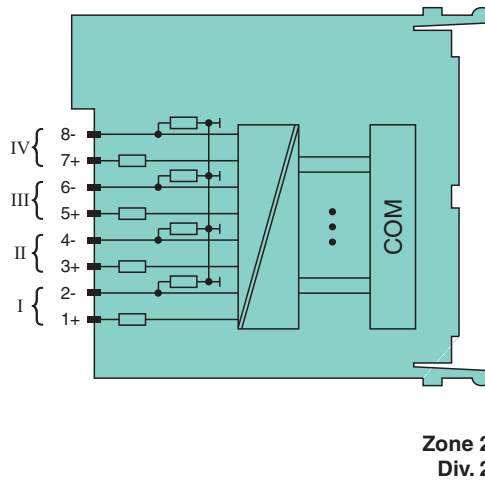
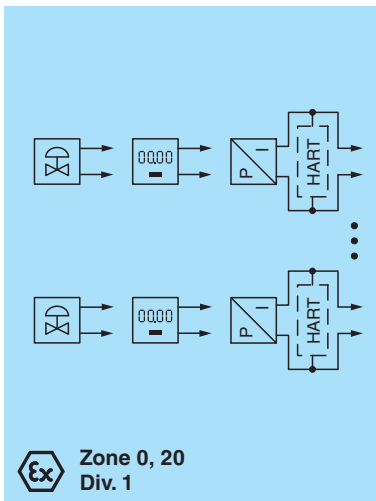
- 4-channel
- Outputs Ex ia
- Mounting in Zone 2, Class I/Div.2 or in the safe area
- Analog output module for 0/4 mA ... 20 mA
- HART communication via field bus or service bus
- Simulation mode for service operations (forcing)
- Line fault detection (LFD): one LED per channel
- Permanently self-monitoring
- Module can be exchanged under voltage



Function

The device drives positioners, proportional valves, I/P converters, or local indicators.
Open and short circuit line faults are detected.
The outputs are galvanically isolated from the bus and the power supply.

Connection



Technical Data

| | |
|-------------------------|---|
| Slots | |
| Occupied slots | 1 |
| Supply | |
| Connection | backplane bus |
| Rated voltage | U_r 12 V DC , only in connection with the power supplies LB9*** |
| Power dissipation | 2.15 W |
| Power consumption | 3.3 W |
| Internal bus | |
| Connection | backplane bus |
| Interface | manufacturer-specific bus to standard com unit |
| Analog input | |
| HART communication | yes |
| HART secondary variable | no |

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

Pepperl+Fuchs Group
www.pepperl-fuchs.com

USA: +1 330 486 0002
pa-info@us.pepperl-fuchs.com

Germany: +49 621 776 2222
pa-info@de.pepperl-fuchs.com

Singapore: +65 6779 9091
pa-info@sg.pepperl-fuchs.com

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Technical Data

| Analog output | |
|----------------------------------|--|
| Number of channels | 4 |
| Suitable field devices | |
| Field device | Proportional Valve |
| Field device [2] | I/P converters |
| Field device [3] | on-site display |
| Connection | terminals 1+, 2-, 3+, 4-, 5+, 6-, 7+, 8- |
| Current | 0 ... 26 mA short-circuit protected |
| Line fault detection | can be switched on/off for each channel via configuration tool , configurable via configuration tool |
| Short-circuit | factory setting: < 50 Ω configurable between 0 ... 26 mA |
| Open-circuit | deviation of preset output value > 0.5 mA |
| Load | 750 Ω max. |
| HART communication | yes |
| HART secondary variable | yes |
| Watchdog | within 0.5 s the device goes in safe state, e.g. after loss of communication |
| 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 |
| Refresh time | 100 ms |
| Indicators/settings | |
| LED indication | 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 (1-4) red: line fault (lead breakage or short circuit) |
| Coding | optional mechanical coding via front socket |
| Directive conformity | |
| Electromagnetic compatibility | |
| Directive 2014/30/EU | EN 61326-1:2013 |
| 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 | -40 ... 60 °C (-40 ... 140 °F) |
| Storage temperature | -40 ... 85 °C (-40 ... 185 °F) |
| Relative humidity | 95 % non-condensing |
| Altitude | max. 2000 m |
| Shock resistance | shock type I, shock duration 11 ms, shock amplitude 15 g, number of shocks 18 |
| Vibration resistance | frequency range 10 ... 150 Hz; transition frequency: 57.56 Hz, amplitude/acceleration ± 0.075 mm/1 g; 10 cycles frequency range 5 ... 100 Hz; transition frequency: 13.2 Hz amplitude/acceleration ± 1 mm/0.7 g; 90 minutes at each resonance |
| Damaging gas | designed for operation in environmental conditions acc. to ISA-S71.04-1985, severity level 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 |

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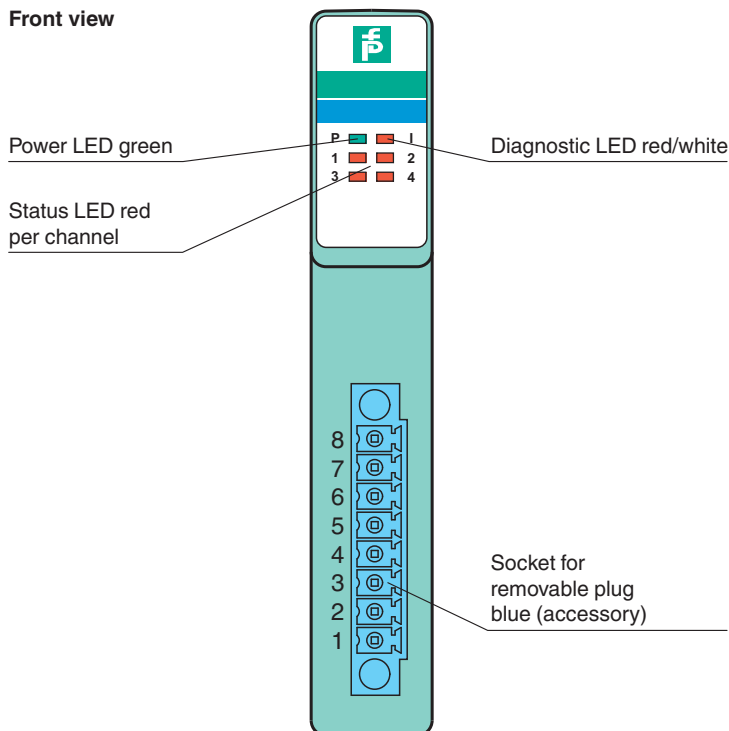
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Technical Data

| | | | |
|--|----------------|--|--|
| Dimensions | | 16 x 100 x 102 mm (0.63 x 3.9 x 4 inch) | |
| Data for application in connection with hazardous areas | | | |
| EU-type examination certificate | | BVS 11 ATEX E 116 X | |
| Marking | | Ⓢ II 3(1) G Ex nA [ia Ga] IIC T4 Gc Ⓢ I (M1) [Ex ia Ma] I Ⓢ II (1) D [Ex ia Da] IIIC | |
| Output | | | |
| Voltage | U _o | 27 V | |
| Current | I _o | 87 mA | |
| Power | P _o | 575 mW (linear characteristic) | |
| Galvanic isolation | | | |
| Output/power supply, internal bus | | safe electrical isolation acc. to EN 60079-11, voltage peak value 375 V | |
| Directive conformity | | | |
| Directive 2014/34/EU | | EN IEC 60079-0:2018+AC:2020 EN 60079-11:2012 EN 60079-15:2010 | |
| International approvals | | | |
| ATEX approval | | BVS 11 ATEX E 116X | |
| UL approval | | E106378 | |
| IECEX approval | | | |
| IECEX certificate | | IECEX BVS 11.0068X | |
| IECEX marking | | 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, observe the corresponding declaration of conformity. 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 . | |

Assembly

Front view



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