

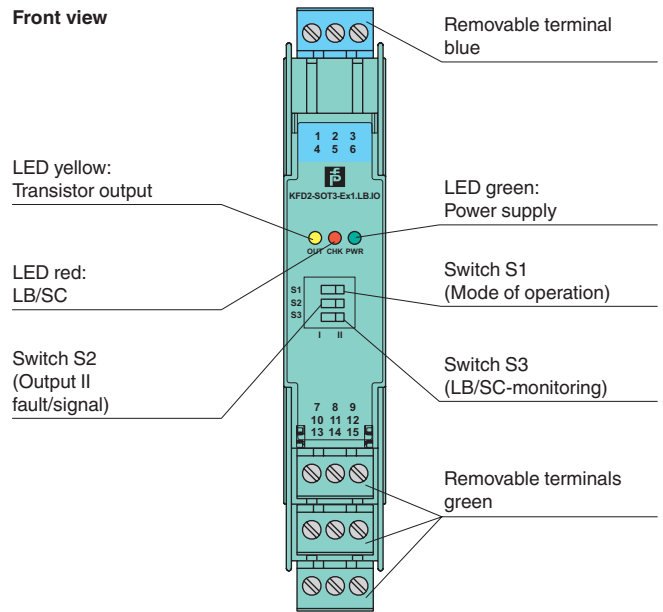
**Features**

- 1-channel isolated barrier
- 24 V DC supply (Power Rail)
- Dry contact or NAMUR inputs
- Usable as signal splitter (1 input and 2 outputs)
- Isolated passive transistor output, non-polarized
- Isolated passive fault output, non-polarized
- Line fault detection (LFD)
- Reversible mode of operation
- Up to SIL 2 acc. to IEC 61508

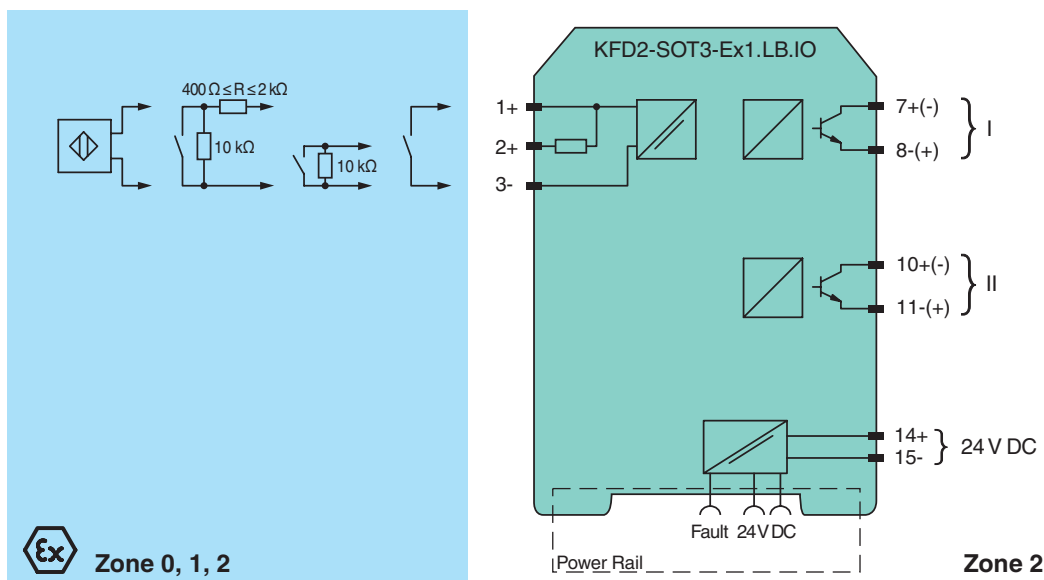
**Function**

This isolated barrier is used for intrinsic safety applications. The device transfers digital signals (NAMUR sensors or dry contacts) from a hazardous area to a safe area. The input controls two passive transistor outputs. The outputs are galvanically isolated from each other. Via switches the mode of operation can be reversed and the line fault detection can be switched off. Via switch the function of the second output can be defined as a signal output or a fault indication output. A fault is signaled by LEDs acc. to NAMUR NE44 and a separate collective error message output.

**Assembly**






**Connection**



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

|  |       |  |
|--|-------|--|
| <b>General specifications</b>                                  |       |  |
| Signal type  |       | Digital Input  |
| <b>Supply</b>  |       |  |
| Connection   |       | Power Rail or terminals 14+, 15-   |
| Rated voltage  | $U_r$ | 19 ... 30 V DC   |
| Ripple   |       | ≤ 10 %   |
| Rated current  | $I_r$ | 20 ... 15 mA   |
| Power dissipation  |       | ≤ 1 W including maximum power dissipation in the output  |
| <b>Input</b>   |       |  |
| Connection   |       | terminals 1+, 2+, 3-   |
| Rated values   |       | acc. to EN 60947-5-6 (NAMUR), see system description for electrical data   |
| Open circuit voltage/short-circuit current                     |       | approx. 10 V DC / approx. 8 mA   |
| Switching point/switching hysteresis                           |       | 1.2 ... 2.1 mA / approx. 0.2 mA  |
| Line fault detection   |       | breakage $I \leq 0.1$ mA , short-circuit $I \geq 6.5$ mA   |
| Pulse/Pause ratio  |       | ≥ 100 $\mu$ s / ≥ 100 $\mu$ s  |
| <b>Output</b>  |       |  |
| Connection   |       | output I: terminals 7, 8 ; output II: terminals 10, 11   |
| Rated voltage  | $U_n$ | 30 V DC  |
| Rated current  | $I_n$ | 100 mA , short-circuit protected   |
| Response time  |       | ≤ 200 $\mu$ s  |
| Signal level   |       | 1-signal: (external voltage) - 3 V max. for 100 mA<br>0-signal: blocked output (off-state current ≤ 10 $\mu$ A)  |
| Output I   |       | signal ; Transistor  |
| Output II  |       | signal or error message ; Transistor   |
| Collective error message                                       |       | Power Rail   |
| <b>Transfer characteristics</b>                                |       |  |
| Switching frequency  |       | ≤ 5 kHz  |
| <b>Galvanic isolation</b>                                      |       |  |
| Input/Output   |       | reinforced insulation according to IEC/EN 61010-1, rated insulation voltage 300 V <sub>eff</sub>   |
| Input/power supply   |       | reinforced insulation according to IEC/EN 61010-1, rated insulation voltage 300 V <sub>eff</sub>   |
| Output/power supply  |       | basic insulation according to IEC/EN 61010-1, rated insulation voltage 300 V <sub>eff</sub>  |
| Output/Output  |       | basic insulation according to IEC/EN 61010-1, rated insulation voltage 60 V <sub>eff</sub>   |
| <b>Directive conformity</b>                                    |       |  |
| Electromagnetic compatibility                                  |       |  |
| Directive 2014/30/EU   |       | EN 61326-1:2013 (industrial locations)   |
| <b>Conformity</b>  |       |  |
| Electromagnetic compatibility                                  |       | NE 21:2012 , EN 61326-3-2:2008   |
| Degree of protection   |       | IEC 60529:2001   |
| Input  |       | EN 60947-5-6:2000  |
| <b>Ambient conditions</b>                                      |       |  |
| Ambient temperature  |       | -20 ... 60 °C (-4 ... 140 °F)  |
| <b>Mechanical specifications</b>                               |       |  |
| Degree of protection   |       | IP20   |
| Mass   |       | approx. 150 g  |
| Dimensions   |       | 20 x 119 x 115 mm (0.8 x 4.7 x 4.5 inch) , housing type B2   |
| Mounting   |       | on 35 mm DIN mounting rail acc. to EN 60715:2001   |
| <b>Data for application in connection with hazardous areas</b> |       |  |
| EU-Type Examination Certificate                                |       | EXA 16 ATEX 0016 X   |
| Marking  |       |  II 3(1)G Ex nA [ia Ga] IIC T4 Gc<br> II (1)D [Ex ia Da] IIIC<br> I (M1) [Ex ia Ma] I |
| Input  |       | Ex ia  |
| Voltage  | $U_o$ | 10.5 V   |
| Current  | $I_o$ | 17.1 mA  |
| Power  | $P_o$ | 45 mW (linear characteristic)  |
| <b>Supply</b>  |       |  |
| Maximum safe voltage   | $U_m$ | 253 V AC (Attention! $U_m$ is no rated voltage.)   |
| <b>Output</b>  |       |  |
| Maximum safe voltage   | $U_m$ | 253 V AC (Attention! The rated voltage can be lower.)  |
| <b>Galvanic isolation</b>                                      |       |  |
| Input/Output   |       | safe electrical isolation acc. to IEC/EN 60079-11, voltage peak value 375 V  |
| Input/power supply   |       | safe electrical isolation acc. to IEC/EN 60079-11, voltage peak value 375 V  |
| <b>Directive conformity</b>                                    |       |  |
| Directive 2014/34/EU   |       | EN 60079-0:2012+A11:2013 , EN 60079-11:2012 , EN 60079-15:2010   |

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

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|                                |  |
|--------------------------------|--|
| <b>International approvals</b> |  |
| IECEX approval                 | IECEX EXA 16.0009 X  |
| Approved for                   | Ex nA [ia Ga] IIC T4 Gc , [Ex ia Da] IIIC , [Ex ia Ma] I   |
| <b>General information</b>     |  |
| 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 <a href="http://www.pepperl-fuchs.com">www.pepperl-fuchs.com</a> . |
| <b>Accessories</b>             |  |
| Optional accessories           | power feed module KFD2-EB2<br>Universal Power Rail UPR-03<br>Universal Power Rail UPR-03-S<br>profile rail K-DUCT-BU<br>profile rail K-DUCT-UPR-03   |

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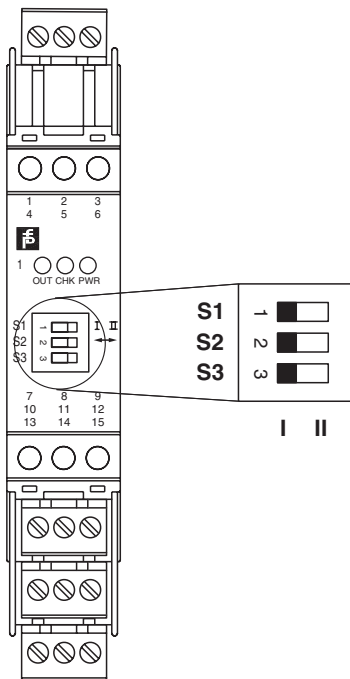
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**Configuration**



**Switch position**

| S | Function                             |   | Position |
|---|--------------------------------------|---|----------|
| 1 | Mode of operation<br>Output I active | with high input current                   | I        |
|   |                                      | with low input current                    | II       |
| 2 | Assignment<br>Output II              | switching state like output I             | I        |
|   |                                      | fault signal output<br>(passive if fault) | II       |
| 3 | Line fault detection                 | ON  | I        |
|   |                                      | OFF                                       | II       |

**Operating status**

| Control circuit                             | Input signal       |
|---|--------------------|
| Initiator high impedance/<br>contact opened | low input current  |
| Initiator low impedance/<br>contact closed  | high input current |
| Lead breakage,<br>lead short-circuit        | Line fault         |

Factory settings: switch 1, 2 and 3 in position I