

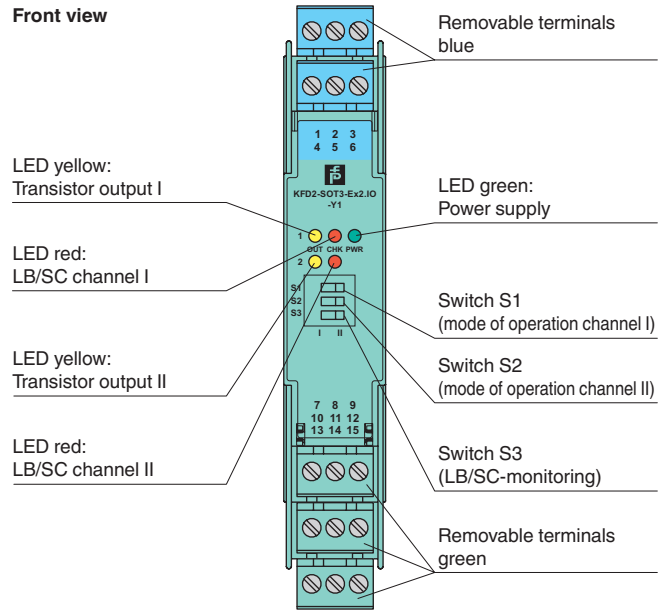
Features

- 2-channel isolated barrier
- 24 V DC supply (Power Rail)
- Dry contact or NAMUR inputs
- Isolated passive transistor output, TTL level
- Line fault detection (LFD)
- Reversible mode of operation
- Up to SIL 2 acc. to IEC 61508

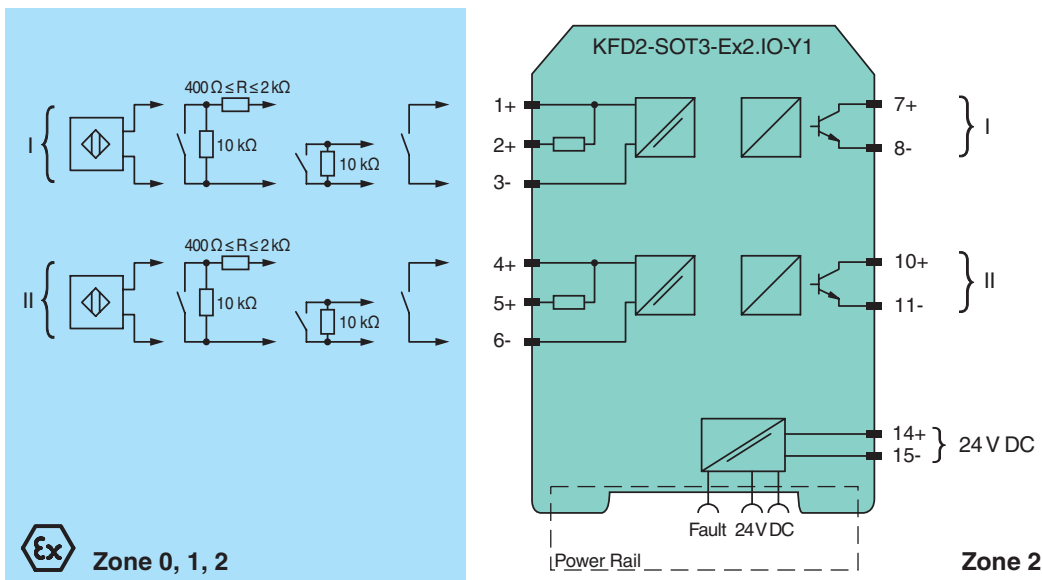
Function

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. Each input controls a passive transistor output. 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. A fault is signaled by LEDs acc. to NAMUR NE44 and a separate collective error message output.

Assembly



Connection



Release date 2017-08-09 14:30 Date of issue 2017-08-09 264348_eng.xml

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

| | | |
|--|-------|---|
| General specifications | | |
| Signal type | | Digital Input |
| Functional safety related parameters | | |
| Safety Integrity Level (SIL) | | SIL 2 |
| Supply | | |
| Connection | | Power Rail or terminals 14+, 15- |
| Rated voltage | U_r | 19 ... 30 V DC |
| Ripple | | ≤ 10 % |
| Rated current | I_r | 30 ... 20 mA |
| Power dissipation | | ≤ 1.1 W including maximum power dissipation in the output |
| Input | | |
| Connection side | | field side |
| Connection | | terminals 1+, 2+, 3-; 4+, 5+, 6- |
| 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 μs / ≥ 100 μs |
| Output | | |
| Connection side | | control side |
| Connection | | output I: terminals 7, 8 ; output II: terminals 10, 11 |
| Rated voltage | U_n | 30 V DC |
| Rated current | I_n | 2 mA , short-circuit protected |
| Response time | | ≤ 200 μs |
| Signal level | | 1-signal: switching voltage - 0.85 V max. at 2 mA switching current 0-signal: switched off (off-state current ≤ 10 μA) |
| Output I | | signal ; Transistor , TTL compatible |
| Output II | | signal ; Transistor , TTL compatible |
| Collective error message | | Power Rail |
| Transfer characteristics | | |
| Switching frequency | | ≤ 5 kHz |
| Galvanic isolation | | |
| Input/Output | | reinforced insulation according to IEC/EN 61010-1, rated insulation voltage 300 V _{eff} |
| Input/power supply | | reinforced insulation according to IEC/EN 61010-1, rated insulation voltage 300 V _{eff} |
| Output/power supply | | basic insulation according to IEC/EN 61010-1, rated insulation voltage 300 V _{eff} |
| Output/Output | | basic insulation according to IEC/EN 61010-1, rated insulation voltage 60 V _{eff} |
| Indicators/settings | | |
| Display elements | | LEDs |
| Control elements | | DIP-switch |
| Configuration | | via DIP switches |
| Labeling | | space for labeling at the front |
| Directive conformity | | |
| Electromagnetic compatibility | | |
| Directive 2014/30/EU | | EN 61326-1:2013 (industrial locations) |
| Conformity | | |
| Electromagnetic compatibility | | NE 21:2012 , EN 61326-3-2:2008 |
| Degree of protection | | IEC 60529:2001 |
| Input | | EN 60947-5-6:2000 |
| Ambient conditions | | |
| Ambient temperature | | -20 ... 60 °C (-4 ... 140 °F) |
| Mechanical specifications | | |
| Degree of protection | | IP20 |
| Connection | | screw terminals |
| 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 |
| Data for application in connection with hazardous areas | | |
| EU-Type Examination Certificate | | EXA 16 ATEX 0016 X |
| Marking | | ⊕ II 3(1)G Ex nA [ia Ga] IIC T4 Gc ⊕ II (1)D [Ex ia Da] IIIC ⊕ I (M1) [Ex ia Ma] I |
| Input | | Ex ia |
| Voltage | U_o | 10.5 V |
| Current | I_o | 17.1 mA |

Release date 2017-08-09 14:30 Date of issue 2017-08-09 264348_eng.xml

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

| | | |
|--------------------------------|-------|---|
| Power | P_o | 45 mW (linear characteristic) |
| Supply | | |
| Maximum safe voltage | U_m | 253 V AC (Attention! U_m is no rated voltage.) |
| Output | | |
| Maximum safe voltage | U_m | 253 V AC (Attention! The rated voltage can be lower.) |
| Galvanic isolation | | |
| 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 |
| Directive conformity | | |
| Directive 2014/34/EU | | EN 60079-0:2012+A11:2013 , EN 60079-11:2012 , EN 60079-15:2010 |
| International approvals | | |
| IECEX approval | | |
| IECEX approval | | IECEX EXA 16.0009X |
| Approved for | | Ex nA [ia Ga] IIC T4 Gc , [Ex ia Da] IIIC , [Ex ia Ma] I |
| General information | | |
| Supplementary information | | Observe the certificates, declarations of conformity, instruction manuals, and manuals where applicable. For information see www.pepperl-fuchs.com . |
| Accessories | | |
| Optional accessories | | power feed module KFD2-EB2 Universal Power Rail UPR-03 Universal Power Rail UPR-03-S profile rail K-DUCT-BU profile rail K-DUCT-UPR-03 |

Release date 2017-08-09 14:30 Date of issue 2017-08-09 264348_eng.xml

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

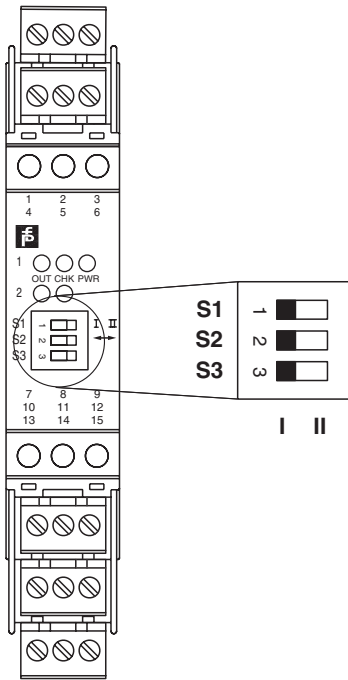
Pepperl+Fuchs Group
www.pepperl-fuchs.com

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

Configuration



Switch position

| S | Function | | Position |
|---|---------------------------------------|-------------------------|----------|
| 1 | Mode of operation Output I active | with high input current | I |
| | | with low input current | II |
| 2 | Mode of operation Output II active | with high input current | I |
| | | with low input current | II |
| 3 | Line fault detection | ON | I |
| | | OFF | II |

Operating status

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

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