

Features

- 1-channel signal conditioner
- 24 V DC supply (Power Rail)
- Current input 0 mA ... 20 mA
- Current output 0 mA ... 20 mA
- Accuracy 0.1 %
- Up to SIL 2 acc. to IEC 61508

Function

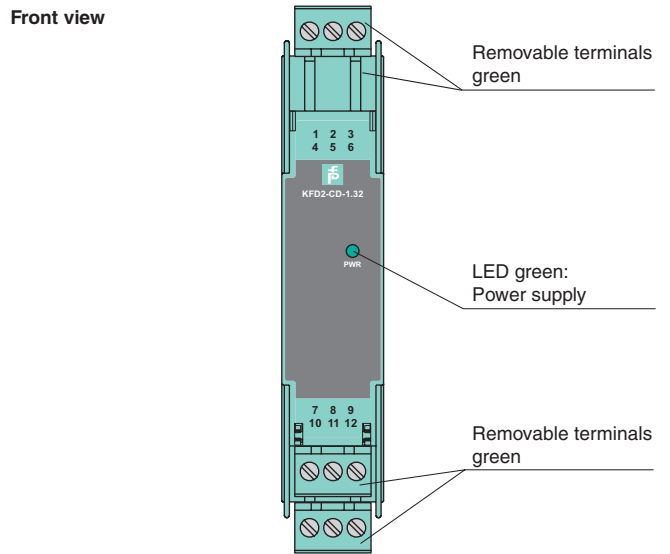
This signal conditioner provides the isolation for non-intrinsically safe applications.

The device drives a current signal from the control side to I/P converters, electrical valves and positioners.

The max. voltage drop at the input is 4 V DC, allowing for the connection of several KFD2-CD-1.32 repeaters due to the low voltage drop in order to maintain multiple galvanically isolated outputs (signal duplication).

The open circuit voltage is 24 V DC within the allowable supply voltage range. The maximum load that can be applied is 850 Ω.

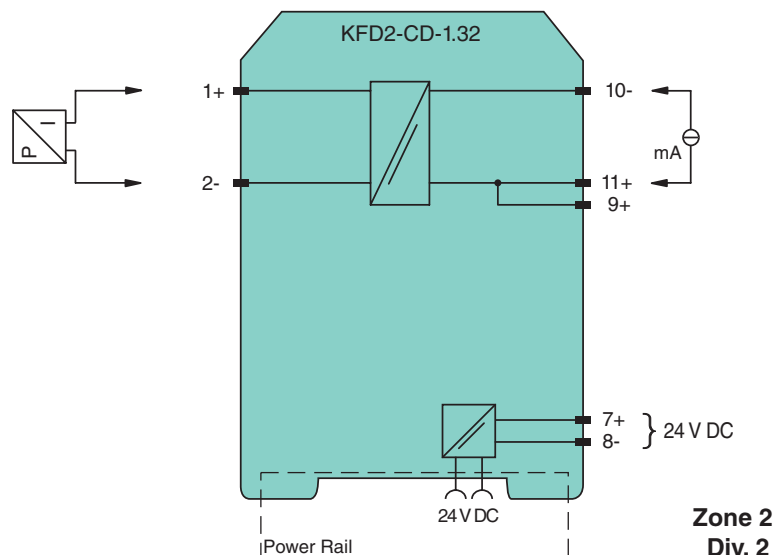
Assembly



CE

SIL 2

Connection



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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

| | | |
|--|-------|---|
| General specifications | | |
| Signal type | | Analog output |
| Functional safety related parameters | | |
| Safety Integrity Level (SIL) | | SIL 2 |
| Supply | | |
| Connection | | Power Rail or terminals 7+, 8- |
| Rated voltage | U_r | 20 ... 35 V DC |
| Ripple | | within the supply tolerance |
| Rated current | I_r | ≤ 50 mA |
| Power dissipation | | 1.2 W |
| Input | | |
| Connection side | | control side |
| Connection | | terminals 9+, 10-, 11+ |
| Voltage drop | | approx. 4 V at 20 mA |
| Limit | | Input current: approx. ≤40 mA ; input voltage: ≤ 35 V |
| Transmission range | | 0 ... 20 mA |
| Voltage | | ≤ 4 V at 20 mA |
| Output | | |
| Connection side | | field side |
| Connection | | terminals 1+, 2- |
| Current | | 0 ... 20 mA |
| Load | | ≤ 850 Ω |
| Voltage | | 17 V at 20 mA |
| Transfer characteristics | | |
| Accuracy | | 0.1 % |
| Deviation | | |
| After calibration | | ≤ ± 0.1 % incl. non-linearity and hysteresis at 20 °C (68 °F) |
| Influence of ambient temperature | | ≤ ± 0.01 % |
| Rise time | | < 10 ms |
| Galvanic isolation | | |
| Input/Output | | safe electrical isolation acc. to IEC/EN 60079-11, voltage peak value 375 V |
| Input/power supply | | functional insulation, rated insulation voltage 50 V AC |
| Output/power supply | | safe electrical isolation acc. to IEC/EN 60079-11, voltage peak value 375 V |
| Indicators/settings | | |
| Display elements | | LED |
| Labeling | | space for labeling at the front |
| Directive conformity | | |
| Electromagnetic compatibility | | |
| Directive 2014/30/EU | | EN 61326-1:2013 (industrial locations) |
| Conformity | | |
| Insulation coordination | | EN 50178 |
| Galvanic isolation | | EN 50178 |
| Degree of protection | | IEC 60529 |
| Ambient conditions | | |
| Ambient temperature | | -20 ... 60 °C (-4 ... 140 °F) |
| Mechanical specifications | | |
| Degree of protection | | IP20 |
| Connection | | screw terminals |
| Mass | | approx. 100 g |
| Dimensions | | 20 x 107 x 115 mm (0.8 x 4.2 x 4.5 inch) , housing type B1 |
| Mounting | | on 35 mm DIN mounting rail acc. to EN 60715:2001 |
| Data for application in connection with hazardous areas | | |
| Certificate | | TÜV 99 ATEX 1499 X |
| Marking | | ⊕ II 3G Ex nA II T4 |
| Directive conformity | | |
| Directive 2014/34/EU | | EN 60079-0:2012+A11:2013 , EN 60079-15:2010 |
| General information | | |
| Supplementary information | | Observe the certificates, declarations of conformity, instruction manuals, and manuals where applicable. For information see www.pepperl-fuchs.com . |

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Accessories

Power feed module KFD2-EB2

The power feed module is used to supply the devices with 24 V DC via the Power Rail. The fuse-protected power feed module can supply up to 150 individual devices depending on the power consumption of the devices. Collective error messages received from the Power Rail activate a galvanically-isolated mechanical contact.

Power Rail UPR-03

The Power Rail UPR-03 is a complete unit consisting of the electrical insert and an aluminium profile rail 35 mm x 15 mm. To make electrical contact, the devices are simply engaged.

Profile Rail K-DUCT with Power Rail

The profile rail K-DUCT is an aluminum profile rail with Power Rail insert and two integral cable ducts for system and field cables. Due to this assembly no additional cable guides are necessary.



Power Rail and Profile Rail must not be fed via the device terminals of the individual devices!