

Technical Data

| | | |
|--|----------------|---|
| Connection side | | control side |
| Connection | | terminals 9+, 10-, 11+ |
| Voltage drop | | optional current input: approx. 4 V at 20 mA |
| Input current | | ≤ 100 µA up to 50 °C (122 °F) at 10 V |
| Limit | | optional current input: Input current: approx. ≤40 mA optional voltage input: input voltage: 12 V DC |
| Transmission range | | optional current input: 0 ... 20 mA/optional voltage input: 0 ... 10 V |
| Output | | |
| Connection side | | field side |
| Connection | | terminals 1+, 2- |
| Voltage | | optional current output: 17 V at 20 mA/optional voltage output: 0 ... 10 V |
| Current | | optional current output: 0 ... 20 mA/optional voltage output: ≤ 20 mA |
| Load | | optional current output: max. 850 Ω optional voltage output: output resistance max. 3 Ω |
| 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 %/K |
| Rise time | | < 10 ms |
| Galvanic isolation | | |
| Input/power supply | | functional insulation, rated insulation voltage 50 V AC |
| 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 | | |
| Degree of protection | | IEC 60529:2001 |
| Protection against electrical shock | | UL 61010-1:2004 |
| 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 | | |
| EU-type examination certificate | | BAS 02 ATEX 7203 X |
| Marking | | ⊕ II (1)G [Ex ia Ga] IIC , ⊕ II (1)D [Ex ia Da] IIIC , ⊕ I (M1) [Ex ia Ma] I |
| Voltage | U _o | 25.2 V DC |
| Current | I _o | optional current output: 93 mA optional voltage output: 95 mA |
| Power | P _o | optional current output: 0.586 W optional voltage output: 0.59 W |
| Supply | | |
| Maximum safe voltage | U _m | 250 V (Attention! The rated voltage can be lower.) |
| Input | | |
| Maximum safe voltage | U _m | 250 V (Attention! The rated voltage can be lower.) |
| Certificate | | TÜV 99 ATEX 1499 X |
| Marking | | ⊕ II 3G Ex nA II T4 |
| Galvanic isolation | | |

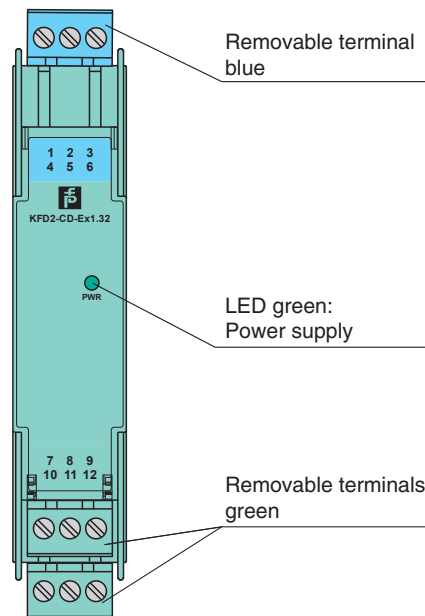
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Technical Data

| | |
|--------------------------------|---|
| Input/Output | safe electrical isolation acc. to IEC/EN 60079-11, voltage peak value 375 V |
| Output/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 | |
| FM approval | |
| Control drawing | 116-0129 |
| UL approval | |
| Control drawing | 116-0173 (cULus) |
| IECEX approval | IECEX BAS 05.0041 |
| Approved for | [Ex ia Ga] IIC, [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 . |

Assembly

Front view







Removable terminal blue

LED green: Power supply



Removable terminals green

Accessories

| | | |
|---|-----------------|---|
|  | KFD2-EB2 | Power Feed Module |
|  | UPR-03 | Universal Power Rail with end caps and cover, 3 conductors, length: 2 m |
|  | UPR-03-M | Universal Power Rail with end caps and cover, 3 conductors, length: 1,6 m |
|  | UPR-03-S | Universal Power Rail with end caps and cover, 3 conductors, length: 0.8 m |

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Accessories

| | | |
|---|-------------------------|---|
|  | K-DUCT-BU | |
|  | K-DUCT-BU-UPR-03 | Profile rail with UPR-03- * insert, 3 conductors, wiring comb field side blue |

Product Versions

Input/output options, model number

This barrier is designed to provide various inputs and outputs of voltage and current:

- **Current input option**
A current limit circuit in series to terminal 9 protects the device from damage. The max. voltage drop at the input is DC 4 V, allowing for the connection of several KFD2-CD-Ex1.32 repeaters due to the low voltage drop in order to maintain multiple galvanically isolated outputs (signal duplication).
- **Voltage input option**
The signal is transmitted to terminals 9 and 10 across an amplifier and the DC/DC converter within the allowable voltage range. A voltage limiter circuit protects the amplifier from incorrect input switching and overvoltage, but will draw current through a 50 mA fuse during operation. The fuse can be changed only by the manufacturer.
- **Current output option**
The open circuit voltage is DC 24 V within the allowable supply voltage range at terminals 1 and 2. The max. load that can be applied is 850 Ω .
- **Voltage output option**
At least 20 mA is available within the allowable supply voltage range at terminals 1 and 2 which means that with 10 V output voltage, a load of at least 500 Ω must be connected.

| Input | Output | | | | | | Ordering example |
|----------------|----------------|----------------|-------------|-------------|--------------|--------------|--|
| | 0 mA ... 20 mA | 4 mA ... 20 mA | 0 V ... 5 V | 1 V ... 5 V | 0 V ... 10 V | 2 V ... 10 V | |
| 0 mA ... 20 mA | 0 | 2 | – | 9 | 12 | – | Input 0 V ... 10 V, Output 4 mA ... 20 mA: is code number 8 Type code: KFD2-CD-Ex1.32.8 |
| 4 mA ... 20 mA | 1 | (0) | 10 | – | 13 | (12) | |
| 0 V ... 5 V | 3 | 5 | (15) | – | – | – | |
| 1 V ... 5 V | – | (3) | – | (15) | – | – | |
| 0 V ... 10 V | 6 | 8 | 21 | – | 15 | – | |
| 2 V ... 10 V | – | (6) | – | – | – | (15) | |

For options enclosed in parentheses, the transfer range for a base type is only partially used, i. e. 4 mA ... 20 mA from the base type 0 mA ... 20 mA.