

## Features

- 1-channel isolated barrier
- 24 V DC supply (Power Rail)
- Current input 0 mA ... 20 mA
- Voltage output 0 V ... 10 V
- Accuracy 0.1 %
- Up to SIL 2 acc. to IEC 61508

## Function

This isolated barrier is used for intrinsic safety applications.

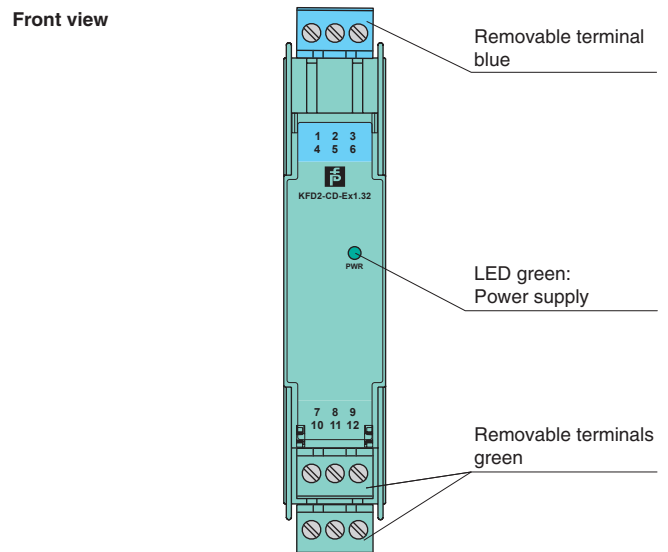
The device drives I/P converters, electrical valves, and positioners in the hazardous area.

The device has current input and voltage output.

A current limit circuit in series to terminal 9 protects the device from damage. The maximum voltage drop at the input is 4 V DC, allowing for the connection of several devices due to the low voltage drop in order to maintain multiple galvanically isolated outputs (signal duplication).

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  $\Omega$  must be connected.

## Assembly

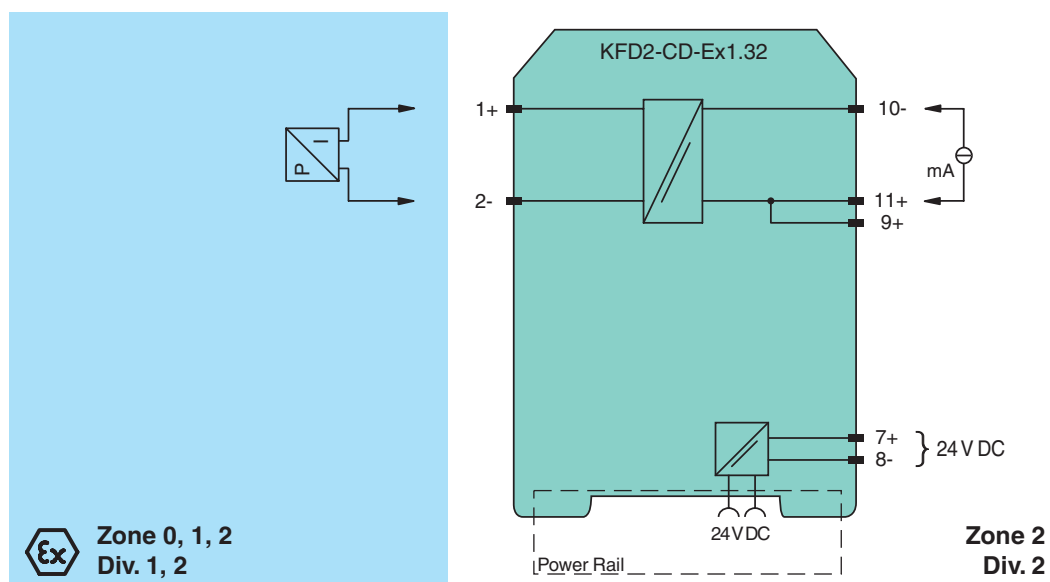


CE



SIL 2

## Connection



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|  |       |  |
|--|-------|--|
| <b>General specifications</b>                                  |       |  |
| Signal type  |       | Analog output  |
| <b>Functional safety related parameters</b>                    |       |  |
| Safety Integrity Level (SIL)                                   |       | SIL 2  |
| <b>Supply</b>  |       |  |
| Connection   |       | Power Rail or terminals 7+, 8-   |
| Rated voltage  | $U_r$ | 20 ... 35 V DC   |
| Ripple   |       | within the supply tolerance  |
| Rated current  | $I_r$ | ≤ 20 mA  |
| Power dissipation  |       | 1.4 W  |
| <b>Input</b>   |       |  |
| Connection side  |       | control side   |
| Connection   |       | terminals 9+, 10-, 11+   |
| Voltage drop   |       | approx. 4 V at 20 mA   |
| Input current  |       | ≤ 100 μA up to 50 °C (122 °F) at 10 V  |
| Limit  |       | ≤ 40 mA  |
| Transmission range   |       | 0 ... 20 mA  |
| <b>Output</b>  |       |  |
| Connection side  |       | field side   |
| Connection   |       | terminals 1+, 2-   |
| Current  |       | ≤ 20 mA  |
| Load   |       | output resistance: ≤ 3 Ω   |
| Voltage  |       | 0 ... 10 V   |
| <b>Transfer characteristics</b>                                |       |  |
| 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  |
| <b>Galvanic isolation</b>                                      |       |  |
| Input/power supply   |       | functional insulation, rated insulation voltage 50 V AC                      |
| <b>Indicators/settings</b>                                     |       |  |
| Display elements   |       | LED  |
| Labeling   |       | space for labeling at the front  |
| <b>Directive conformity</b>                                    |       |  |
| Electromagnetic compatibility                                  |       |  |
| Directive 2014/30/EU   |       | EN 61326-1:2013 (industrial locations)                                       |
| <b>Conformity</b>  |       |  |
| Degree of protection   |       | IEC 60529:2001   |
| Protection against electrical shock                            |       | UL 61010-1:2012  |
| <b>Ambient conditions</b>                                      |       |  |
| Ambient temperature  |       | -20 ... 60 °C (-4 ... 140 °F)  |
| <b>Mechanical specifications</b>                               |       |  |
| 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                             |
| <b>Data for application in connection with hazardous areas</b> |       |  |
| 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 |
| 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 60079-11:2012 , EN 60079-15:2010               |
| <b>International approvals</b>                                 |       |  |
| FM approval  |       |  |
| Control drawing  |       | 116-0440   |
| UL approval  |       |  |
| Control drawing  |       | 116-0441 (cULus)   |
| IECEx approval   |       | IECEx BAS 05.0041X   |
| Approved for   |       | [Ex ia Ga] IIC, [Ex ia Da] IIIC, [Ex ia Ma] I                                |
| <b>General information</b>                                     |       |  |

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|                           |   |
|---------------------------|---|
| Supplementary information | Observe the certificates, declarations of conformity, instruction manuals, and manuals where applicable. For information see <a href="http://www.pepperl-fuchs.com">www.pepperl-fuchs.com</a> . |
| <b>Accessories</b>        |   |
| Optional accessories      | <ul style="list-style-type: none"> <li>- power feed module KFD2-EB2(.R4A.B)(.SP)</li> <li>- universal power rail UPR-03(-M)(-S)</li> <li>- profile rail K-DUCT-BU(-UPR-03)</li> </ul>           |

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