

Repeater KFD0-CS-1.50

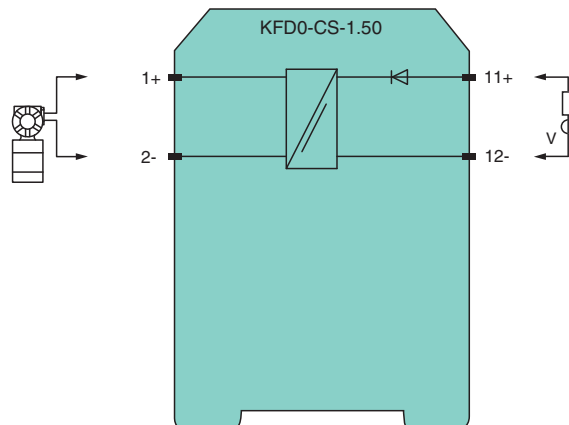
- 1-channel signal conditioner
- 24 V DC supply (loop powered)
- Current input/output 4 mA ... 20 mA
- transmitter power supply
- Accuracy 0.1 %
- Reverse polarity protection
- Up to SIL 2 acc. to IEC/EN 61508

CE SIL2

Function

This signal conditioner provides the galvanic isolation between field circuits and control circuits. The device can be used as a repeater or transmitter power supply for 2-wire transmitters. This device is loop powered. No additional power supply has to be connected. Use the technical data to verify that proper voltage is available to the field devices.

Connection



Technical Data

General specifications

Signal type Analog input/analog output

Functional safety related parameters

Safety Integrity Level (SIL) SIL 2

Supply

Rated voltage U_r 10 ... 35 V DC , loop powered

Power dissipation 0.2 W

Control circuit

Connection terminals 12-, 11+

Voltage 10 ... 35 V DC

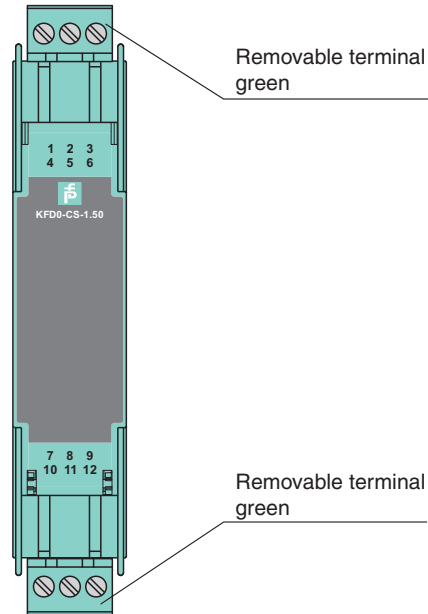
Current 4 ... 20 mA

Technical Data


| | |
|-------------------------------------|---|
| Power dissipation | < 150 mW per channel at 25 mA and $U < 26.1$ V < 400 mW per channel at 25 mA und $U > 26.1$ V |
| Field circuit | |
| Connection | terminals 1+, 2- |
| Voltage | $\geq 0.9 \times U_{in} - (0.23 \times \text{current in mA}) - 0.7$ for $10 \text{ V} < U_{in} < 26.1 \text{ V}$ $\geq 23 \text{ V} - (0.23 \times \text{current in mA})$ for $U_{in} > 26.1 \text{ V}$ |
| Short-circuit current | max. 100 mA |
| Transfer current | max. 25 mA |
| Transfer characteristics | |
| Accuracy | 0.1 % |
| Deviation | |
| After calibration | $U_{in} \geq 5 \text{ V} \pm 20 \mu\text{A}/U_{in} \leq 5 \text{ V} \pm 50 \mu\text{A}$ incl. calibration, linearity, hysteresis and output load fluctuations at the field side; at $20 \text{ }^\circ\text{C}$ ($68 \text{ }^\circ\text{F}$) |
| Influence of ambient temperature | $\leq \pm 2 \mu\text{A}/\text{K}$ at $U_{in} \leq 20 \text{ V}$; $\leq \pm 5 \mu\text{A}/\text{K}$ at $U_{in} > 20 \text{ V}$ |
| Rise time | $\leq 5 \text{ ms}$ at $4 \dots 20 \text{ mA}$ and $U_{in} = \text{input voltage} < 26 \text{ V}$ |
| Galvanic isolation | |
| Input/Output | basic insulation according to IEC 62103, rated insulation voltage $300 \text{ V}_{\text{eff}}$ |
| Indicators/settings | |
| 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 |
| Protection against electrical shock | EN 61010-1:2010 |
| Ambient conditions | |
| Ambient temperature | $-20 \dots 60 \text{ }^\circ\text{C}$ ($-4 \dots 140 \text{ }^\circ\text{F}$) extended ambient temperature range up to $70 \text{ }^\circ\text{C}$ ($158 \text{ }^\circ\text{F}$), refer to manual for necessary mounting conditions |
| Mechanical specifications | |
| Degree of protection | IP20 |
| Connection | screw terminals |
| Mass | approx. 100 g |
| Dimensions | $20 \times 107 \times 115 \text{ mm}$ ($0.8 \times 4.2 \times 4.5 \text{ inch}$) (W x H x D), housing type B1 |
| Mounting | on 35 mm DIN mounting rail acc. to EN 60715:2001 |
| 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



Matching System Components

| | | |
|---|-------------------------|---|
|  | <p>K-DUCT-GY</p> | <p>Profile rail, wiring comb field side, gray</p> |
|---|-------------------------|---|

Accessories

| | | |
|---|-------------------------|---|
|  | <p>KF-ST-5GN</p> | <p>Terminal block for KF modules, 3-pin screw terminal, green</p> |
|  | <p>KF-CP</p> | <p>Red coding pins, packaging unit: 20 x 6</p> |

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