

# Repeater

## KFD0-CS-1.50

**SIL 2**

- 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 61508

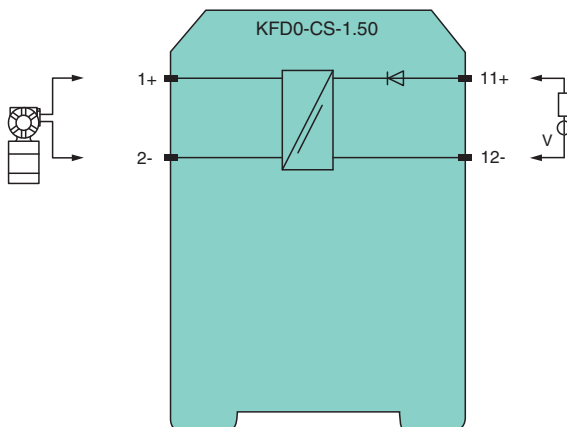
1-channel



### 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  $U_r$  loop powered  
 Power dissipation 0.2 W

#### Control circuit

Connection terminals 12-, 11+  
 Voltage 10 ... 35 V DC  
 Current 4 ... 20 mA

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

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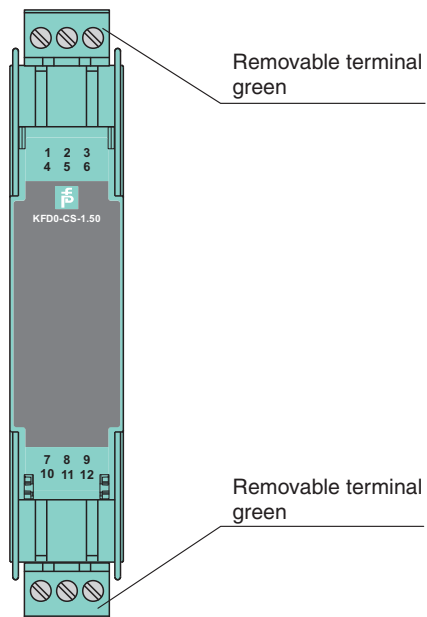


## Technical Data

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
<b>Field circuit</b>	
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
<b>Transfer characteristics</b>	
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 $U_{in} = \text{input voltage} < 26 \text{ V}$
<b>Galvanic isolation</b>	
Input/Output	basic insulation according to IEC 62103, rated insulation voltage $300 \text{ V}_{\text{eff}}$
<b>Indicators/settings</b>	
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>	
Insulation coordination	EN 50178:1997
Electromagnetic compatibility	NE 21:2006
Degree of protection	IEC 60529:2001
<b>Ambient conditions</b>	
Ambient temperature	$-20 \dots 60 \text{ }^\circ\text{C}$ ( $-4 \dots 140 \text{ }^\circ\text{F}$ )
<b>Mechanical specifications</b>	
Degree of protection	IP20
Connection	screw terminals
Mass	approx. 100 g
Dimensions	$20 \times 107 \times 115 \text{ mm}$ ( $0.8 \times 4.2 \times 4.5 \text{ inch}$ ), housing type B1
Mounting	on 35 mm DIN mounting rail acc. to EN 60715:2001
<b>General information</b>	
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> .

Assembly

Front view



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