

Repeater KFD0-CS-1.50

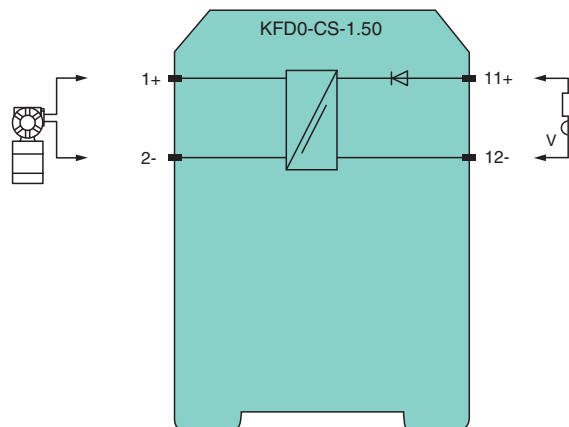
- 1-channel signal conditioner
- 24 V DC supply (loop powered)
- Current input/output 4 mA ... 20 mA
- transmitter power supply
- Accuracy 0.1 %
- Reverse polarity protection
- Up to SIL 2 acc. to IEC/EN 61508

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 loop powered

Power dissipation 0.2 W

Control circuit

Connection terminals 12-, 11+

Voltage 10 ... 35 V DC

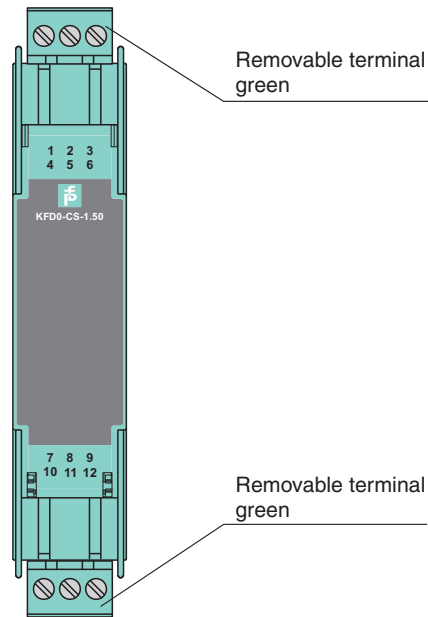
Current 4 ... 20 mA

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

	K-DUCT-GY	Profile rail, wiring comb field side, gray
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Accessories

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

Release date: 2021-12-10 Date of issue: 2021-12-10 Filename: 294965_eng.pdf

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

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