## Repeater

## KFD0-CS-2.50

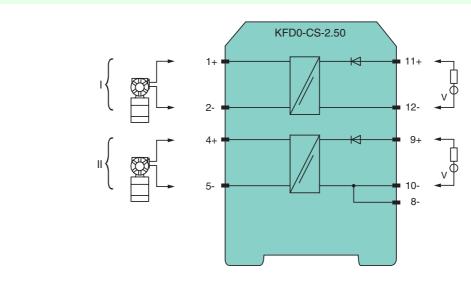
Features	Assembly
<ul> <li>2-channel signal conditioner</li> <li>24 V DC supply (loop powered)</li> <li>Current input/output 4 mA 20 mA</li> <li>transmitter power supply</li> <li>Accuracy 0.1 %</li> <li>Reverse polarity protection</li> <li>Up to SIL 2 acc. to IEC 61508</li> </ul>	Front view Removable terminals green reports 2.20
Function	
<ul> <li>This signal conditioner provides the galvanic isolation between field circuits and control circuits.</li> <li>The device can be used as a repeater or transmitter power supply for 2-wire transmitters.</li> <li>This device is loop powered. No additional power supply has to be connected.</li> <li>Use the technical data to verify that proper voltage is available to the field devices.</li> </ul>	Removable terminals

CE

**SIL** 2

## Connection

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Pepperl+Fuchs Group www.pepperl-fuchs.com

Refer to "General Notes Relating to Pepperl+Fuchs Product Information" USA: +1 330 486 0002 pa-info@us.pepperl-fuchs.com

Germany: +49 621 776 2222 pa-info@de.pepperl-fuchs.com

Singapore: +65 6779 9091 pa-info@sg.pepperl-fuchs.com



General specifications	
Signal type	Analog input/analog output
Functional safety related parameters	
Safety Integrity Level (SIL)	SIL 2
Supply	
Rated voltage U <sub>r</sub>	loop powered
Power dissipation	0.4 W
Control circuit	
Connection	terminals 12-, 11+; 8-, 10-, 9+
Voltage	10 35 V DC
Current	4 20 mA
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-; 4+, 5-
Voltage	$\ge$ 0.9 x U <sub>in</sub> - (0.23 x current in mA) - 0.7 for 10 V < U <sub>in</sub> < 26.1 V $\ge$ 23 V - (0.23 x current in mA) for U <sub>in</sub> > 26.1 V
Short-circuit current	max. 100 mA
Transfer current	max. 25 mA
Transfer characteristics	
Accuracy	0.1 %
Deviation	
After calibration	$U_{in} \ge 5 V \pm 20 \ \mu A/U_{in} \le 5 V \pm 50 \ \mu A$ incl. calibration, linearity, hysteresis and output load fluctuations at the field side; at 20 °C (68 °F)
Influence of ambient temperature	$\leq$ $\pm$ 2 $\mu\text{A/K}$ at U_{in} $\leq$ 20 V; $\leq$ $\pm$ 5 $\mu\text{A/K}$ at U_{in} > 20 V
Rise time	$\leq$ 5 ms at 4 20 mA and U <sub>in</sub> = input voltage < 26 V
Galvanic isolation	
Input/Output	basic insulation according to IEC 62103, rated insulation voltage 300 $\mathrm{V}_{\mathrm{eff}}$
Indicators/settings	
Labeling	space for labeling at the front
Directive conformity	
Electromagnetic compatibility	
Directive 2014/30/EU	EN 61326-1:2013 (industrial locations)
Conformity	
Insulation coordination	EN 50178:1997
Electromagnetic compatibility	NE 21:2006
Degree of protection	IEC 60529:2001
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
General information	
Supplementary information	Observe the certificates, declarations of conformity, instruction manuals, and manuals where applicable. For information see www.pepperl-fuchs.com.

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