

Features

- 2-channel signal conditioner
- 24 V DC supply (loop powered)
- Current input/output 4 mA ... 20 mA
- I/P or transmitter power supply
- Accuracy 0.1 %
- Up to SIL2 acc. to IEC 61508

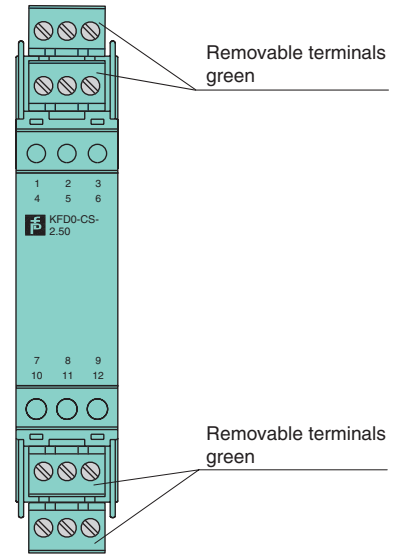
Function

This isolated signal conditioner is used for non hazardous area applications. It transfers DC signals from fire alarms, smoke alarms, and temperature sensors and provides isolation for non-intrinsically safe applications. It can also be used to control I/P converters, power solenoids, LEDs, and audible alarms.

Since this isolator is loop powered, use the technical data to verify that proper voltage is available to the field devices.

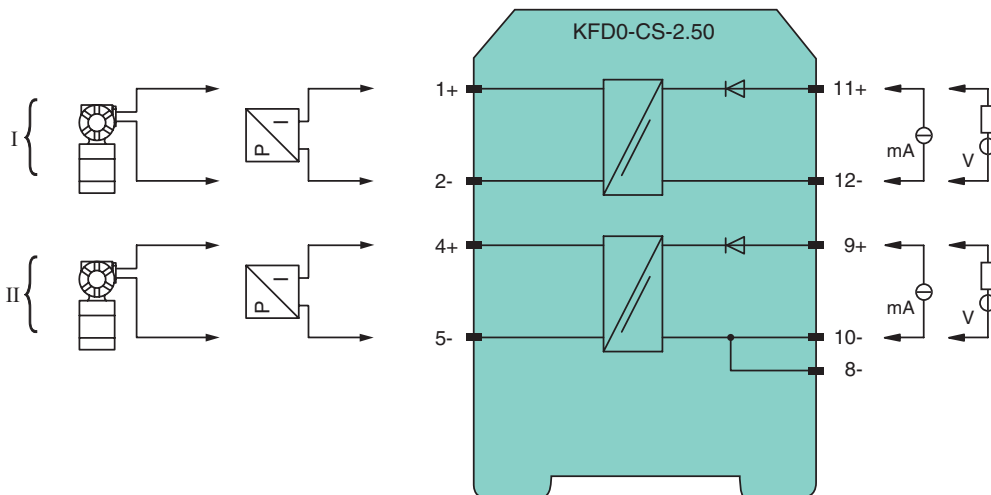
Assembly

Front view



SIL2

Connection



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General specifications	
Signal type	analogue output
Supply	
Rated voltage	loop powered
Power loss	0.4 W
Input	
Connection	terminals 12-, 11+; 8-, 10-, 9+
Rated voltage U_i	10 ... 35 V
Rated current I_e	4 ... 20 mA
Power loss	< 150 mW per channel at 25 mA and $U < 26.1$ V < 400 mW per channel at 25 mA and $U > 26.1$ V
Output	
Connection	terminals 1+, 2-; 4+, 5-
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	$\leq 100 \text{ mA}$
Transfer current	$\leq 25 \text{ mA}$
Transfer characteristics	
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 $20 \text{ }^\circ\text{C}$ (293 K)
Influence of ambient temperature	$\leq 2 \mu\text{A/K}$ (0 ... $+50 \text{ }^\circ\text{C}$); $\leq 5 \mu\text{A/K}$ (-20 ... $+60 \text{ }^\circ\text{C}$)
Rise time	$\leq 5 \text{ ms}$ at 4 ... 20 mA and $U_{in} = \text{input voltage} < 26 \text{ V}$
Electrical isolation	
Input/output	basic insulation according to IEC 62103, rated insulation voltage $300 \text{ V}_{\text{eff}}$
Directive conformity	
Electromagnetic compatibility	
Directive 2004/108/EC	EN 61326-1:2006, EN 61000-6-4:2006
Conformity	
Insulation coordination	EN 50178
Electromagnetic compatibility	NE 21
Protection degree	IEC 60529
Ambient conditions	
Ambient temperature	$-20 \text{ ... } 60 \text{ }^\circ\text{C}$ (253 ... 333 K)
Mechanical specifications	
Protection degree	IP20
Mass	approx. 100 g
Dimensions	20 x 107 x 115 mm (0.8 x 4.2 x 4.5 in) , housing type B1
General information	
Supplementary information	Statement of Conformity, Declaration of Conformity and instructions have to be observed where applicable. For information see www.pepperl-fuchs.com .

Application

- Isolation of power loops for the control of positioners, I/P converters etc. The current source (4 mA ... 20 mA) is connected to terminals 8 and 9 or 11 and 12.
- Isolation of power loops for 2 wire transmitters, fire detectors etc. In this case a voltage source is used as the supply, on which a resistor switched in series registers the measurement current (4 mA ... 20 mA).
- Signal duplication (not free of reactions): 1 input, 2 outputs

Application: 1 input, 2 galvanically isolated outputs

Please note! Jumper 11+, 8- is required.

- The internal resistance is doubled to 460 Ω.
- In the case of lead breakage of one of the two outputs, the second one also loses current.

