

Features

- 2-channel signal conditioner
- 24 V DC supply (loop powered)
- Current input/output 0 mA ... 40 mA
- I/P or transmitter power supply
- Accuracy 1 %
- Reverse polarity protection
- Up to SIL2 acc. to IEC 61508

Function

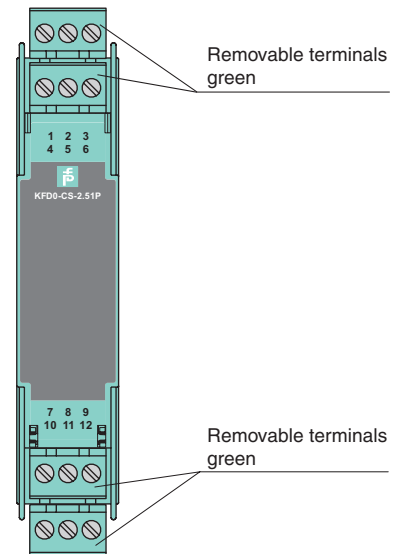
This signal conditioner transfers DC signals from fire alarms, smoke alarms, and temperature sensors to the control and provides isolation for non-intrinsically safe applications. It can also be used to control I/P converters, power solenoids, LEDs, and audible alarms.

Reverse polarity protection prevents damage to the isolator caused by faulty wiring.

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

Assembly

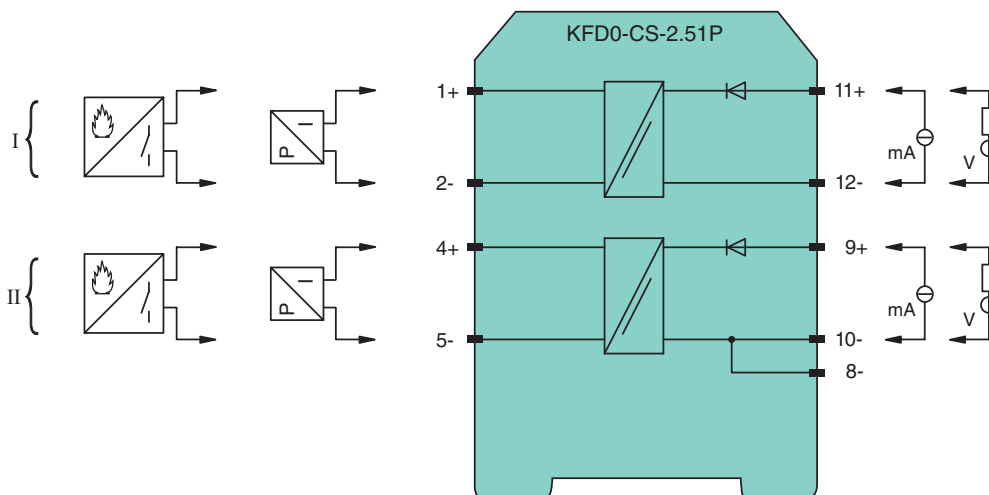
Front view



CE

SIL2

Connection



Release date 2012-01-04 15:56 Date of issue 2012-01-04 185695_eng.xml

General specifications	
Signal type	Analog output
Supply	
Rated voltage	loop powered
Input	
Connection	terminals 12-, 11+; 8-, 10-, 9+
Rated voltage U_i	4 ... 35 V
Rated current I_i	0 ... 40 mA
Power loss	at 40 mA and $U_{in} < 22$ V: 700 mW per channel at 40 mA and $U_{in} > 22$ V: 1.2 W per channel
Output	
Connection	terminals 1+, 2-; 4+, 5-
Voltage	for $4 \text{ V} < U_{in} < 24 \text{ V}$: $\geq 0.9 \times U_{in} - (0.37 \times \text{current in mA}) - 1.0$ for $U_{in} > 24 \text{ V}$: $\geq 21 \text{ V} - (0.36 \times \text{current in mA})$
Short-circuit current	at $U_{in} > 24 \text{ V}$: $\leq 65 \text{ mA}$
Transfer current	$\leq 40 \text{ mA}$
Transfer characteristics	
Deviation	
After calibration	$\leq \pm 200 \mu\text{A}$; incl. calibration, linearity, hysteresis and load fluctuations at the output up to a load of 1 k Ω and current $\leq 20 \text{ mA}$ at 20 °C (68 °F)
Influence of ambient temperature	$\leq \pm 2 \mu\text{A/K}$ at $U_{in} \leq 20 \text{ V}$; $\leq \pm 5 \mu\text{A/K}$ at $U_{in} > 20 \text{ V}$
Rise time	$\leq 5 \text{ ms}$ at 4 ... 20 mA step and $U_{in} < 24 \text{ V}$
Electrical isolation	
Input/Output	basic insulation according to IEC 62103, rated insulation voltage 300 V _{eff}
Directive conformity	
Electromagnetic compatibility	
Directive 2004/108/EC	EN 61326-1:2006
Conformity	
Insulation coordination	EN 50178
Electromagnetic compatibility	NE 21
Protection degree	IEC 60529
Ambient conditions	
Ambient temperature	-20 ... 60 °C (-4 ... 140 °F)
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, Attestation of Conformity and instructions have to be observed where applicable. For information see www.pepperl-fuchs.com .

Application

The isolation of power loops for the control of positioner, I/P converters etc. A current source is connected to the input terminals. The isolation of a current signal from fire detectors or similar sensors. In this case, a voltage source can be connected to the input terminals. A specific measurement current across a passive sensor can be measured in the input with a series resistor (min. 50 Ω). When a voltage supply is used, the measuring resistor can also provide current limitation.

Release date 2012-01-04 15:56 Date of issue 2012-01-04 185695_eng.xml