

Features

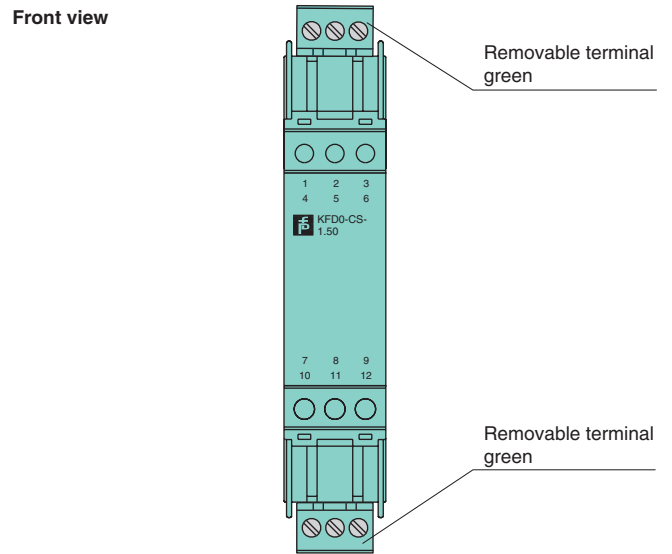
- 1-channel signal conditioner
- 24 V DC supply (loop powered)
- Current input/output 4 mA ... 20 mA
- I/P or transmitter power supply
- Accuracy 0.1 %
- Up to SIL2 acc. to IEC 61508

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.

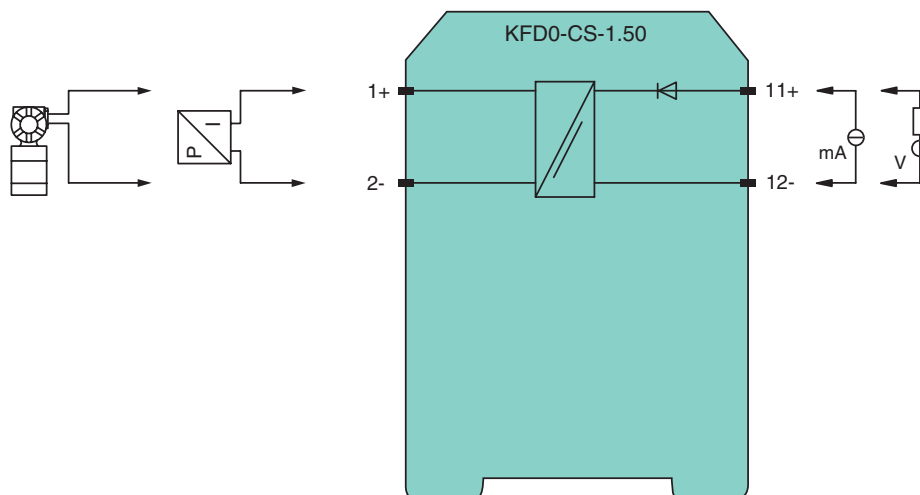
Since this isolator is loop powered, use the technical data to verify that proper voltage is available to the field devices.

Assembly



SIL2

Connection



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| | |
|----------------------------------|--|
| General specifications | |
| Signal type | analogue output |
| Supply | |
| Rated voltage | loop powered |
| Power loss | 0.2 W |
| Input | |
| Connection | terminals 12-, 11+ |
| 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- |
| 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 ... $+50 \text{ }^\circ\text{C}$); $\leq 5 \mu\text{A/K}$ ($-20 \text{ }^\circ\text{C}$... $+60 \text{ }^\circ\text{C}$) |
| 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 V_{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 | $-20 \text{ }^\circ\text{C}$... $60 \text{ }^\circ\text{C}$ (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 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, 1 output

Application: supply of 2 wire transmitters, fire detectors etc.

