

**Features**

- 2-channel signal conditioner
- 24 V DC supply (Power Rail)
- Input 2-wire SMART transmitters
- Output 0/4 mA ... 20 mA
- Terminal blocks with test sockets
- Up to SIL2 acc. to IEC 61508

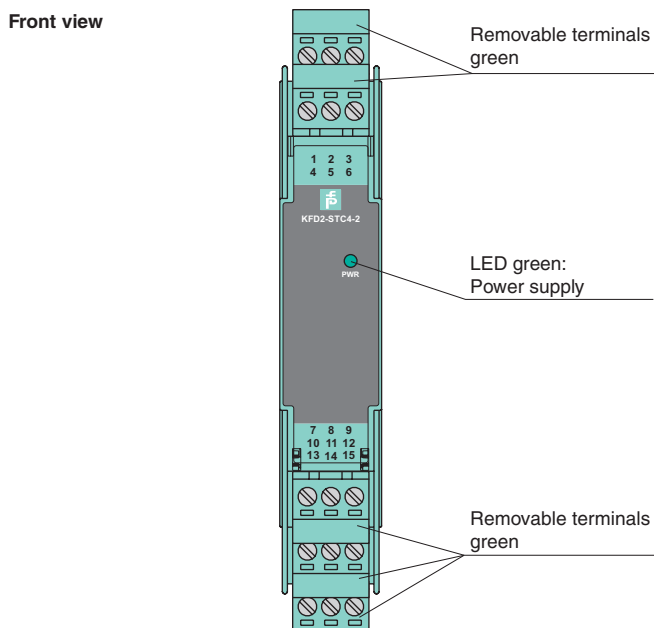
**Function**

This signal conditioner provides the isolation for non-intrinsically safe applications. The device supplies 2-wire SMART transmitters. It transfers the analog input signal as an isolated current value. Digital signals may be superimposed on the input signal and are transferred bi-directionally. If the HART communication resistance in the loop is too low, the internal resistance of 250 Ohm between terminals 8, 9 and 11, 12 can be used. Test sockets for the connection of HART communicators are integrated into the terminals of the device.

**Application**

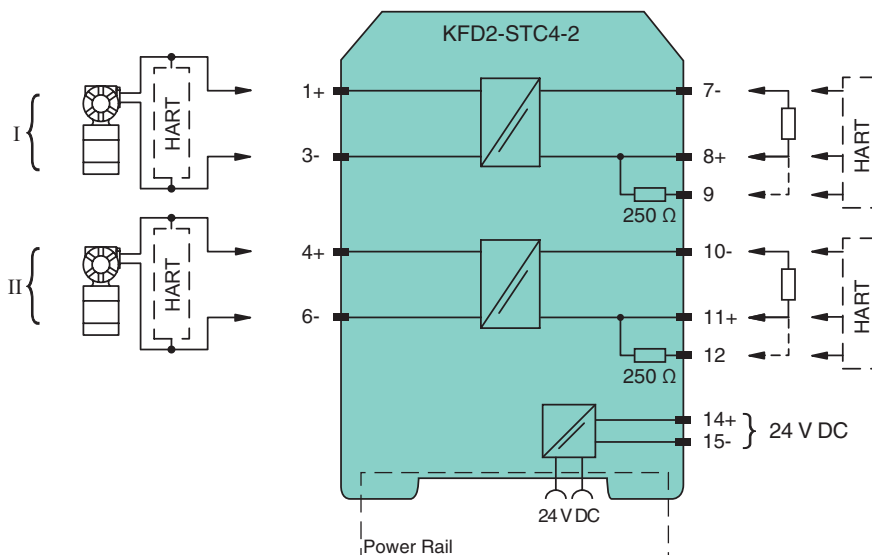
- The device supports the following SMART protocols:
- HART
  - BRAIN
  - Foxboro

**Assembly**



**SIL2**

**Connection**



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<b>General specifications</b>	
Signal type	Analog input
<b>Supply</b>	
Connection	Power Rail or terminals 14+, 15-
Rated voltage	$U_n$ 20 ... 35 V DC
Ripple	within the supply tolerance
Power loss	1.8 W
Power consumption	≤ 2.7 W
<b>Input</b>	
Connection	terminals 1+, 3-; 4+, 6-
Input signal	0/4 ... 20 mA
Open circuit voltage/short-circuit current	terminals 1+, 3-; 4+, 6-: 22.1 V / 38 mA
Available voltage	terminals 1+, 3-: ≥ 16 V at 20 mA
<b>Output</b>	
Connection	terminals 7-, 8+; 10-, 11+
Load	0 ... 550 Ω
Output signal	4 ... 20 mA (overload > 25 mA)
Ripple	≤ 50 μA <sub>rms</sub>
<b>Transfer characteristics</b>	
Deviation	at 20 °C (68 °F), 0/4 ... 20 mA ≤ 10 μA incl. calibration, linearity, hysteresis, loads and fluctuations of supply voltage
Influence of ambient temperature	0.25 μA/K
Frequency range	input to output: bandwidth with 1 V <sub>pp</sub> signal 0 ... 7.5 kHz (-3 dB) output to input: bandwidth with 1 V <sub>pp</sub> signal 0.3 ... 7.5 kHz (-3 dB)
Settling time	200 μs
Rise time/fall time	20 μs
<b>Electrical isolation</b>	
Input/Output	basic insulation according to IEC 61010-1, rated insulation voltage 300 V <sub>eff</sub>
Input/power supply	basic insulation according to IEC 61010-1, rated insulation voltage 300 V <sub>eff</sub>
Output/power supply	functional insulation, rated insulation voltage 50 V AC
Input/input	basic insulation according to IEC 61010-1, rated insulation voltage 300 V <sub>eff</sub>
Output/Output	functional insulation, rated insulation voltage 50 V AC
<b>Directive conformity</b>	
Electromagnetic compatibility	
Directive 2004/108/EC	EN 61326-1:2006
<b>Conformity</b>	
Electromagnetic compatibility	NE 21:2011
Degree of protection	IEC 60529:2001
Protection against electrical shock	EN 61010-1:2010
<b>Ambient conditions</b>	
Ambient temperature	-20 ... 60 °C (-4 ... 140 °F)
<b>Mechanical specifications</b>	
Degree of protection	IP20
Mass	approx. 150 g
Dimensions	20 x 124 x 115 mm (0.8 x 4.9 x 4.5 in) , housing type B2
Mounting	on 35 mm DIN mounting rail acc. to EN 60715:2001
<b>General information</b>	
Supplementary information	Statement of Conformity, Declaration of Conformity, Attestation of Conformity and instructions have to be observed where applicable. For information see <a href="http://www.pepperl-fuchs.com">www.pepperl-fuchs.com</a> .

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## Accessories

### Power feed module KFD2-EB2

The power feed module is used to supply the devices with 24 V DC via the Power Rail. The fuse-protected power feed module can supply up to 150 individual devices depending on the power consumption of the devices. Collective error messages received from the Power Rail activate a galvanically-isolated mechanical contact.

### Power Rail UPR-03

The Power Rail UPR-03 is a complete unit consisting of the electrical insert and an aluminium profile rail 35 mm x 15 mm. To make electrical contact, the devices are simply engaged.

### Profile Rail K-DUCT with Power Rail

The profile rail K-DUCT is an aluminum profile rail with Power Rail insert and two integral cable ducts for system and field cables. Due to this assembly no additional cable guides are necessary.



*Power Rail and Profile Rail must not be fed via the device terminals of the individual devices!*