Features

- 1-channel signal conditioner
- 24 V DC supply (Power Rail)
- Scaleable current or voltage input
- Current or voltage output
- Relay contact output
- Configurable by keypad
- Line fault detection (LFD)

Function

This signal conditioner is suitable for the connection of current and voltage signals and provides isolation for non-intrinsically safe applications.

The input ranges include 0 mA ... 20 mA, 0 V ... 10 V or 0 mV ... 60 mV. Subranges from the input ranges are selectable.

The output measuring signals are 0/4 mA ... 20 mA, 0/2 V ... 10 V or 0/1 V ... 5 V.

The output relay serves as trip value contact.

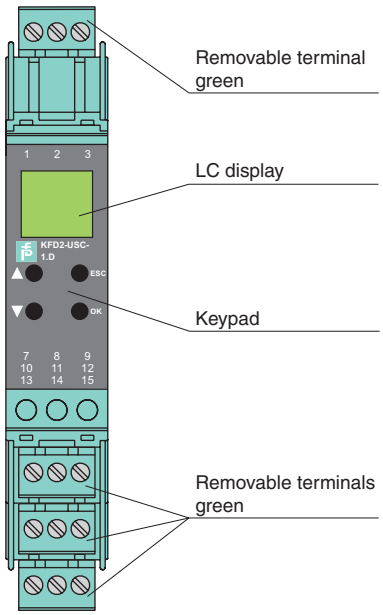
On the display the measured value can be indicated in various physical units.

The unit is easily programmed by the use of a keypad located on the front of the unit.

For additional information, refer to the manual and www.pepperl-fuchs.com.

Assembly

Front view



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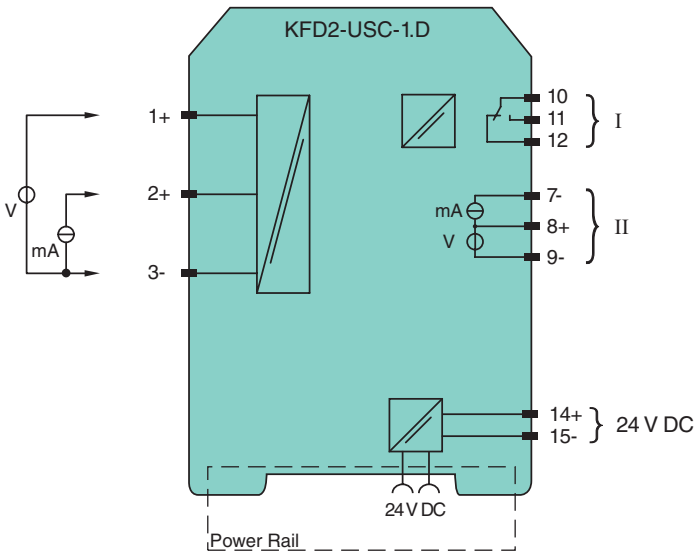
Connection



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General specifications		
Signal type		Analog input
Supply		
Connection		terminals 14+, 15- or Power Rail
Rated voltage	U_n	20 ... 30 V DC
Rated current	I_n	≤ 80 mA DC
Power consumption		≤ 1.6 W
Input		
Connection		terminals 1+, 3- : mV, V ; terminals 2+, 3- : mA
Input resistance		voltage: 1 MΩ , current: ≤ 100 Ω
Limit		30 V
Current		0 ... 20 mA
Voltage		0 ... 10 V / 0 ... 60 mV
Resolution		15 Bit
Output		
Connection		output I: terminals 10, 11, 12 output II: terminals 7-, 8+, 9-
Output I		signal, relay
Contact loading		250 V AC/2 A/cos ϕ 0.7; 40 V DC/2 A
Mechanical life		2 x 10^7 switching cycles
Energized/De-energized delay		approx. 10 ms / approx. 10 ms
Output II		analog
Load		current: ≤ 550 Ω , voltage: ≥ 1 kΩ
Analog voltage output		0/1 ... 5 V , 0/2 ... 10 V
Analog current output		0/4 ... 20 mA
Transfer characteristics		
Deviation		0.1 % of full-scale value
Resolution/accuracy		current: 1 µA/20 µA voltage: 0.5 mV/10 mV mV: 3 µV/60 µV
Influence of ambient temperature		0.003 %/K (30 ppm)
Reaction time		≥ 150 ms/≤ 300 ms
Electrical isolation		
Input/Output		reinforced insulation according to IEC 61140, rated insulation voltage 300 V_{eff}
Input/power supply		reinforced insulation according to IEC 61140, rated insulation voltage 300 V_{eff}
Output/power supply		reinforced insulation according to IEC 61140, rated insulation voltage 300 V_{eff}
Directive conformity		
Electromagnetic compatibility		
Directive 2004/108/EC		EN 61326-1:2006
Low voltage		
Directive 2006/95/EC		EN 50178:1997
Conformity		
Electromagnetic compatibility		NE 21
Degree of protection		IEC 60529
Protection against electrical shock		IEC 61140
Ambient conditions		
Ambient temperature		-20 ... 60 °C (-4 ... 140 °F)
Mechanical specifications		
Degree of protection		IP20
Mass		150 g
Dimensions		20 x 119 x 115 mm (0.8 x 4.7 x 4.5 in) , housing type B3
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.

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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 100 individual devices depending on the power consumption of the devices. A galvanically isolated mechanical contact uses the Power Rail to transmit collective error messages.

Power Rail UPR-03

The Power Rail UPR-03 is a complete unit consisting of the electrical inset 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.

Attention

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

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