

Signal Converter with Trip Value

KFU8-USC-1.D

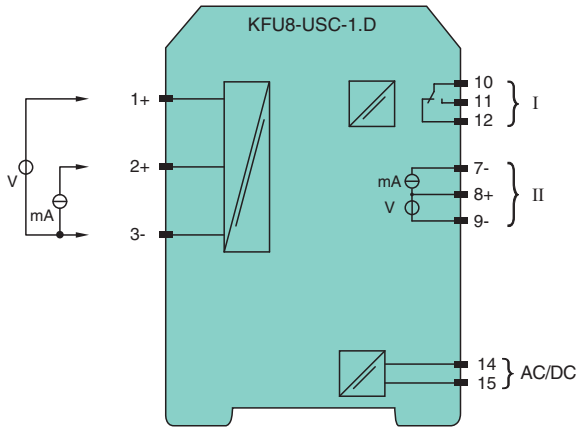
- 1-channel signal conditioner
- Universal usage at different power supplies
- Scaleable current or voltage input
- Current or voltage output
- Relay contact output
- Configurable by keypad
- Line fault detection (LFD)

CE

Function

This signal conditioner is suitable for the connection of current and voltage signals and provides isolation for nonintrinsically 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.

Connection



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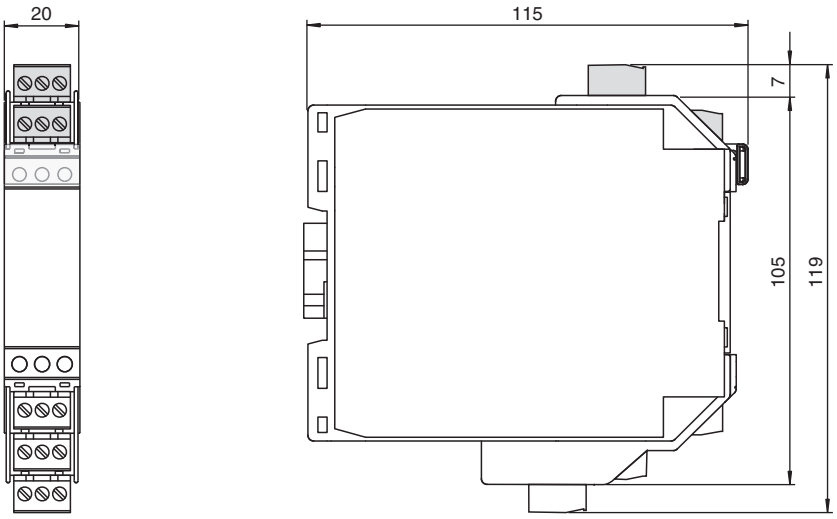
Dimensions



Technical Data

General specifications		
Signal type		Analog input
Supply		
Connection		terminals 14, 15
Rated voltage	U_r	20 ... 90 V DC / 48 ... 253 V AC
Rated current	I_r	≤ 80 mA DC / ≤ 45 mA AC
Power consumption		≤ 1.6 W / ≤ 2.6 VA
Input		
Connection side		field side
Connection		terminals 1+, 3- : mV, V ; terminals 2+, 3- : mA
Input resistance		voltage: 1 MΩ , current: max. 100 Ω
Limit		30 V
Current		0 ... 20 mA
Voltage		0 ... 10 V / 0 ... 60 mV
Resolution		15 Bit
Output		
Connection side		control side
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: max. 550 Ω , voltage: min. 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

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Technical Data

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
Galvanic isolation	
Input/Output	reinforced insulation according to IEC/EN 61010-1, rated insulation voltage 300 V_{eff}
Input/power supply	reinforced insulation according to IEC/EN 61010-1, rated insulation voltage 300 V_{eff}
Output/power supply	reinforced insulation according to IEC/EN 61010-1, rated insulation voltage 300 V_{eff}
Indicators/settings	
Display elements	display
Control elements	Control panel
Configuration	via operating buttons
Labeling	space for labeling at the front
Directive conformity	
Electromagnetic compatibility	
Directive 2014/30/EU	EN 61326-1:2013 (industrial locations)
Low voltage	
Directive 2014/35/EU	EN 61010-1:2010
Conformity	
Electromagnetic compatibility	NE 21
Degree of protection	IEC 60529
Ambient conditions	
Ambient temperature	-20 ... 60 °C (-4 ... 140 °F)
Mechanical specifications	
Degree of protection	IP20
Connection	screw terminals
Mass	150 g
Dimensions	20 x 119 x 115 mm (0.8 x 4.7 x 4.5 inch) , housing type B3
Mounting	on 35 mm DIN mounting rail acc. to EN 60715:2001
General information	
Supplementary information	Observe the certificates, declarations of conformity, instruction manuals, and manuals where applicable. For information see www.pepperl-fuchs.com.

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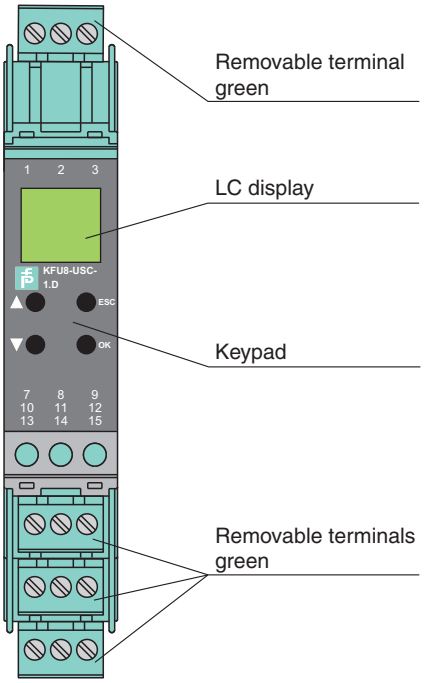
Assembly

Front view



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