

Transmitter Power Supply/Converter KFU8-VCR-1

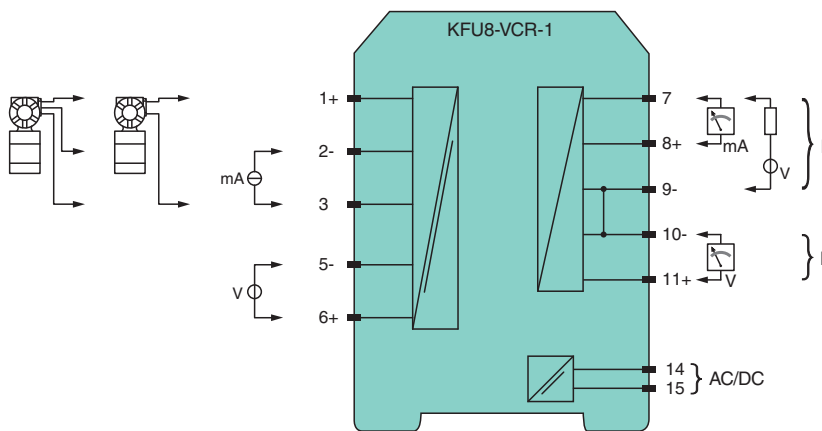
- 1-channel signal conditioner
- Universal usage at different power supplies
- Input 2-wire and 3-wire transmitters, current and voltage sources
- Current and voltage output



Function

This signal conditioner provides the isolation for non-intrinsically safe applications. The device supplies 2-wire and 3-wire transmitters, and can also be used with current and voltage sources. The input ranges include 0/4 mA ... 20 mA or 0/2 V ... 10 V. At the output the signal is available as 0/4 mA ... 20 mA or 0/2 V ... 10 V. Output and measuring range are selected by switches located on the front of the device.

Connection



Technical Data

General specifications

Signal type	Analog input		
Supply			
Connection	terminals 14, 15		
Rated voltage	U_r	19 ... 90 V DC / 48 ... 253 V AC	
Rated current	I_r	≤ 110 mA DC / ≤ 75 mA AC	
Power dissipation	1.3 W		
Power consumption	2.1 W		
Input			
Connection side	field side		
Input I			

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Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

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Technical Data

Connection	terminals 1+, 2-, 3
Input signal	0/4 ... 20 mA
Rated current	22 mA
Available voltage	> 15 V at 20 mA , terminals 1+, 3-
Open circuit voltage/short-circuit current	21 V / 26 mA , terminals 1+, 3- terminals 1+, 2- not short-circuit protected
Input resistance	< 55 Ω , terminals 2-, 3+
Input II	
Connection	terminals 5-, 6+
Input signal	0/2 ... 10 V
Input resistance	> 1 M Ω
Output	
Connection side	control side
Output I	
Connection	source: terminals 7(-), 8(+) sink: terminals 7(+), 9(-)
Output signal	0/4 ... 20 mA
Source	load 0 ... 750 Ω open circuit voltage < 21 V
Sink	voltage across terminals 5 ... 30 V
Output II	
Connection	terminals 10-, 11+
Output signal	0/2 ... 10 V
Load	min. 10 k Ω
Transfer characteristics	
Deviation	
Resolution/accuracy	S1 in position I: 7 μ A/40 μ A (0.2 %) S1 in position II: 3.5 mV/20 mV (0.2 %)
Influence of ambient temperature	0.01 % / K of output signal range
Reaction time	150 ms
Galvanic isolation	
Input/Output	functional insulation acc. to IEC 62103, rated insulation voltage 100 V _{rms}
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	LED
Control elements	DIP switch rotary switch
Configuration	via DIP switches via rotary switch
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 21:2006
Degree of protection	IEC 60529:1989+A1:1999+A2:2013
Ambient conditions	
Ambient temperature	-20 ... 60 °C (-4 ... 140 °F)
Mechanical specifications	
Degree of protection	IP20
Connection	screw terminals
Mass	approx. 150 g
Dimensions	20 x 119 x 115 mm (0.8 x 4.7 x 4.5 inch) (W x H x D) , housing type B2

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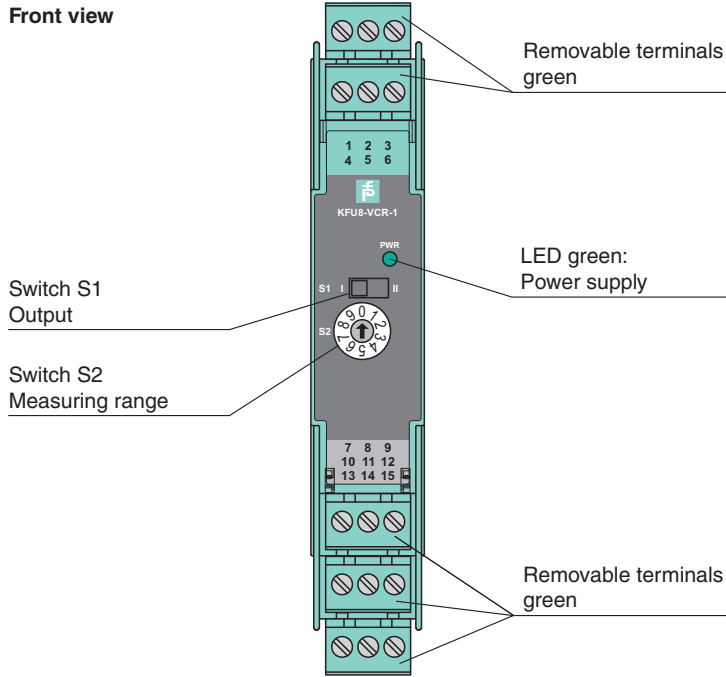
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
Technical Data

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 .



Assembly



Matching System Components

	K-DUCT-GY	Profile rail, wiring comb field side, gray
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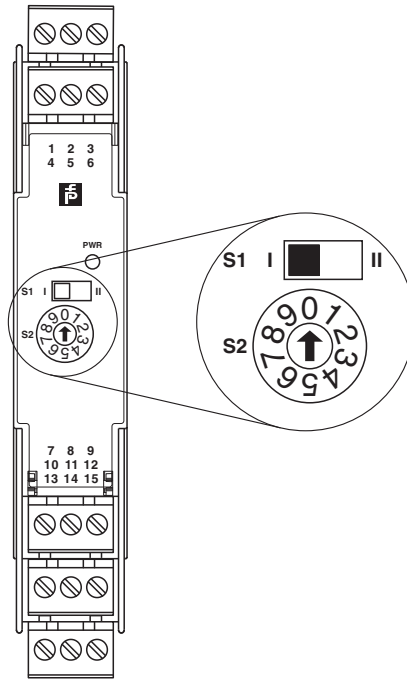
Accessories

	KF-ST-5GN	Terminal block for KF modules, 3-pin screw terminal, green
	KF-CP	Red coding pins, packaging unit: 20 x 6

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Configuration



Switch S1 (output)

Position	Signal
I	Current output
II	Voltage output

Switch S2 (measuring range)

Position	Input	Output I	Output II
0	4 mA ... 20 mA	4 mA ... 20 mA	2 V ... 10 V
1	4 mA ... 20 mA	0 mA ... 20 mA	0 V ... 10 V
2	0 mA ... 20 mA	4 mA ... 20 mA	2 V ... 10 V
3	0 mA ... 20 mA	0 mA ... 20 mA	0 V ... 10 V
4	2 V ... 10 V	4 mA ... 20 mA	2 V ... 10 V
5	2 V ... 10 V	0 mA ... 20 mA	0 V ... 10 V
6	0 V ... 10 V	4 mA ... 20 mA	2 V ... 10 V
7	0 V ... 10 V	0 mA ... 20 mA	0 V ... 10 V
8	not used		
9	not used		

Factory setting: switch S1 in position I
 switch S2 in position 3

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