

Features

- 1-channel signal conditioner
- 24 V DC supply (Power Rail)
- Current output 0 mA ... 20 mA
- Accuracy 0.1 %
- Up to SIL2 acc. to IEC 61508

Function

This signal conditioner provides the isolation for non-intrinsically safe applications.

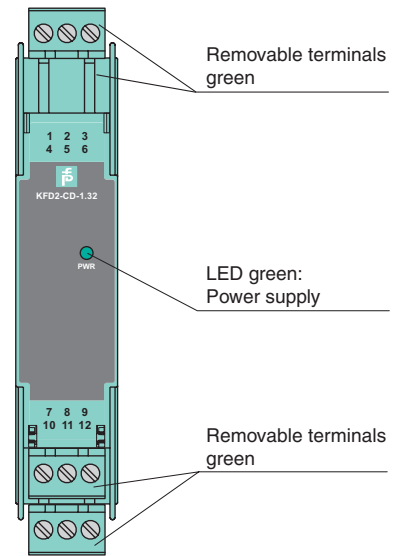
The device drives a current signal from the control side to I/P converters, electrical valves and positioners.

The max. voltage drop at the input is 4 V DC, allowing for the connection of several KFD2-CD-1.32 repeaters due to the low voltage drop in order to maintain multiple galvanically isolated outputs (signal duplication).

The open circuit voltage is 24 V DC within the allowable supply voltage range. The maximum load that can be applied is 850 Ω.

Assembly

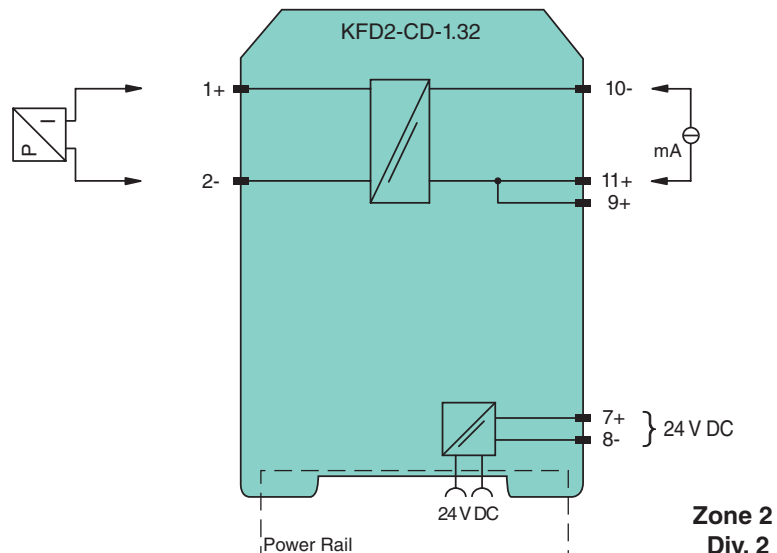
Front view



CE

SIL2

Connection



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

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General specifications		
Signal type		Analog output
Supply		
Connection		Power Rail or terminals 7+, 8-
Rated voltage	U_n	20 ... 35 V DC
Ripple		within the supply tolerance
Rated current	I_n	≤ 50 mA
Power loss		1.2 W
Input		
Connection		terminals 9+, 10-, 11+
Voltage drop		approx. 4 V at 20 mA
Limit		Input current: approx. ≤40 mA ; input voltage: ≤ 35 V
Transmission range		0 ... 20 mA
Voltage		≤ 4 V at 20 mA
Output		
Connection		terminals 1+, 2-
Current		0 ... 20 mA
Load		≤ 850 Ω
Voltage		17 V at 20 mA
Transfer characteristics		
Deviation		
After calibration		≤ ± 0.1 % incl. non-linearity and hysteresis at 20 °C (68 °F)
Influence of ambient temperature		≤ ± 0.01 %
Rise time		< 10 ms
Electrical isolation		
Input/Output		safe electrical isolation acc. to IEC/EN 60079-11, voltage peak value 375 V
Input/power supply		functional insulation, rated insulation voltage 50 V AC
Output/power supply		safe electrical isolation acc. to IEC/EN 60079-11, voltage peak value 375 V
Directive conformity		
Electromagnetic compatibility		
Directive 2004/108/EC		EN 61326-1:2006
Conformity		
Insulation coordination		EN 50178
Electrical isolation		EN 50178
Degree of protection		IEC 60529
Ambient conditions		
Ambient temperature		-20 ... 60 °C (-4 ... 140 °F)
Mechanical specifications		
Degree of protection		IP20
Mass		approx. 100 g
Dimensions		20 x 107 x 115 mm (0.8 x 4.2 x 4.5 in) , housing type B1
Data for application in connection with Ex-areas		
Statement of conformity		
Group, category, type of protection, temperature class		TÜV 99 ATEX 1499 X , observe statement of conformity ⊕ II 3G Ex nA II T4 [device in zone 2]
Directive conformity		
Directive 94/9/EC		EN 60079-0:2009, EN 60079-15:2005
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!