Features

- 1-channel signal conditioner
- 24 V DC supply (Power Rail)
- Current input 0 mA ... 20 mA
- Current output 0 mA ... 20 mA
- Accuracy 0.1 %
- Up to SIL 2 acc. to IEC 61508

Function

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

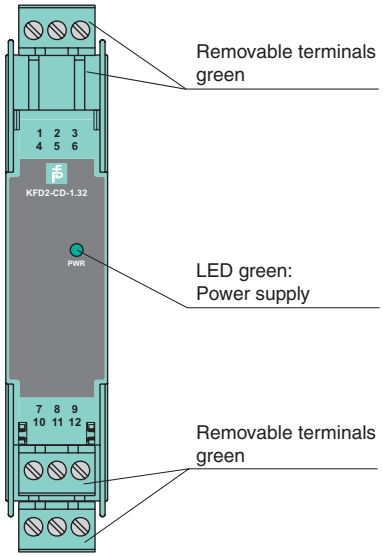
The device drives a current signal from the control side to I/P converters, electrical valves and positioners.

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.

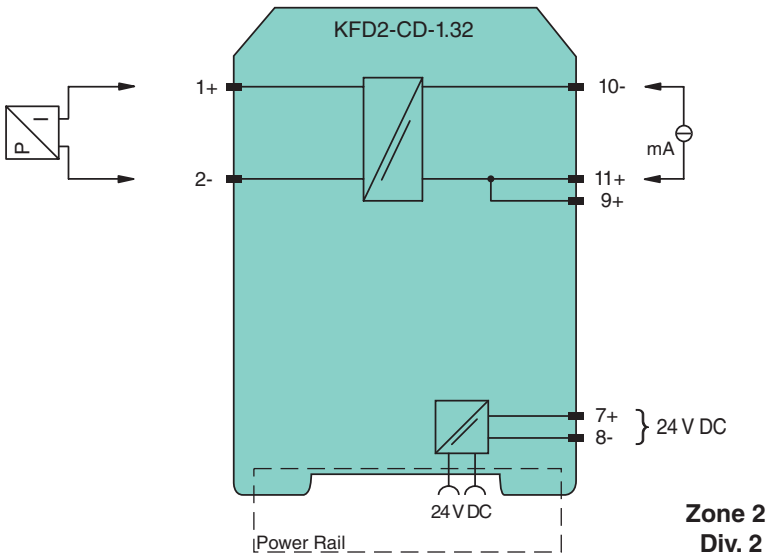
Assembly

Front view



CE SIL 2

Connection



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General specifications		
Signal type		Analog output
Functional safety related parameters		
Safety Integrity Level (SIL)		SIL 2
Supply		
Connection		Power Rail or terminals 7+, 8-
Rated voltage	U_r	20 ... 35 V DC
Ripple		within the supply tolerance
Rated current	I_r	≤ 50 mA
Power dissipation		1.2 W
Input		
Connection side		control side
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 side		field side
Connection		terminals 1+, 2-
Current		0 ... 20 mA
Load		≤ 850 Ω
Voltage		17 V at 20 mA
Transfer characteristics		
Accuracy		0.1 %
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
Galvanic 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
Indicators/settings		
Display elements		LED
Labeling		space for labeling at the front
Directive conformity		
Electromagnetic compatibility		
Directive 2014/30/EU		EN 61326-1:2013 (industrial locations)
Conformity		
Insulation coordination		EN 50178
Galvanic isolation		EN 50178
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		approx. 100 g
Dimensions		20 x 107 x 115 mm (0.8 x 4.2 x 4.5 inch) , housing type B1
Mounting		on 35 mm DIN mounting rail acc. to EN 60715:2001
Data for application in connection with hazardous areas		
Certificate		TÜV 99 ATEX 1499 X
Marking		⟨Ex⟩ II 3G Ex nA II T4
Directive conformity		
Directive 2014/34/EU		EN 60079-0:2012+A11:2013 , EN 60079-15:2010
General information		
Supplementary information		Observe the certificates, declarations of conformity, instruction manuals, and manuals where applicable. For information see
Accessories		
Optional accessories		- power feed module KFD2-EB2(.R4A.B)(.SP) - universal power rail UPR-03(-M)(-S) - profile rail K-DUCT-GY(-UPR-03)

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