



Current Driver KFD2-CD-1.32

- 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/EN 61508



SIL 2

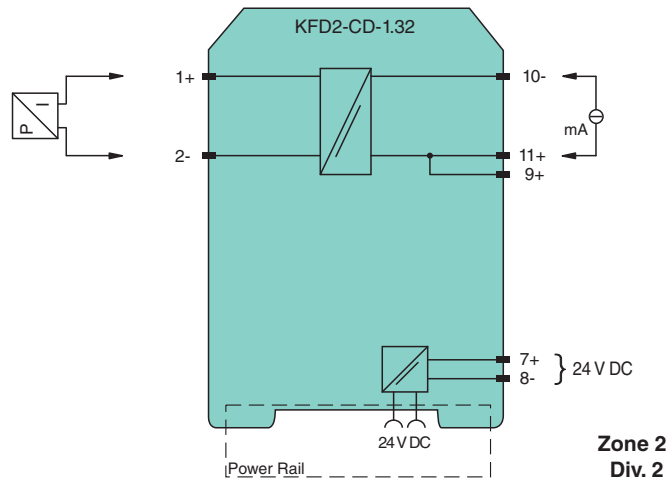


Function

This signal conditioner provides the galvanic isolation between field circuits and control circuits. The device drives I/P converters, electrical valves, and positioners in the field. The device has current input and current output.

A current limit circuit in series to terminal 9 protects the device from damage. The maximum voltage drop at the input is 4 V DC, allowing for the connection of several devices 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 at terminals 1 and 2. The maximum load that can be applied is 850 Ω .

Connection



Technical Data

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

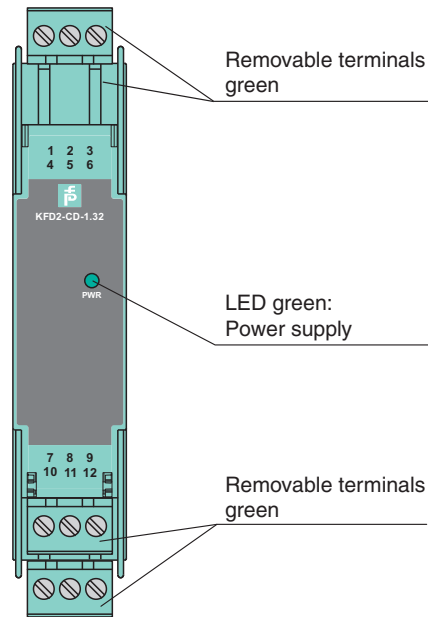
Power dissipation 1.4 W

Technical Data







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-
Voltage	17 V at 20 mA
Current	0 ... 20 mA
Load	max. 850 Ω
Transfer characteristics	
Deviation	at 20 °C (68 °F), 4 ... 20 mA < 0.1 % of full scale, incl. non-linearity and hysteresis
Influence of ambient temperature	$\leq \pm 0.01$ %/K
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	
Degree of protection	IEC 60529:2001
Protection against electrical shock	UL 61010-1:2012
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) (W x H x D) , 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	⊕ II 3G Ex nA II T4
Directive conformity	
Directive 2014/34/EU	EN IEC 60079-0:2018+AC:2020 , EN 60079-15:2010
International approvals	
IECEx approval	
IECEx certificate	IECEx CML 19.0051X
IECEx marking	Ex ec IIC T4 Gc
General information	
Supplementary information	Observe the certificates, declarations of conformity, instruction manuals, and manuals where applicable. For information see www.pepperl-fuchs.com .

Assembly



Front view



Matching System Components

	KFD2-EB2	Power Feed Module
	UPR-03	Universal Power Rail with end caps and cover, 3 conductors, length: 2 m
	UPR-03-M	Universal Power Rail with end caps and cover, 3 conductors, length: 1,6 m
	UPR-03-S	Universal Power Rail with end caps and cover, 3 conductors, length: 0.8 m
	K-DUCT-GY	Profile rail, wiring comb field side, gray
	K-DUCT-GY-UPR-03	Profile rail with UPR-03-* insert, 3 conductors, wiring comb field side, gray

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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