

Features

- 1-channel isolated barrier
- 24 V DC supply (Power Rail)
- Voltage input 0 V ... 10 V
- Voltage output 0 V ... 5 V
- Accuracy 0.1 %
- Up to SIL 2 acc. to IEC 61508

Function

This isolated barrier is used for intrinsic safety applications.

The device drives I/P converters, electrical valves, and positioners in the hazardous area.

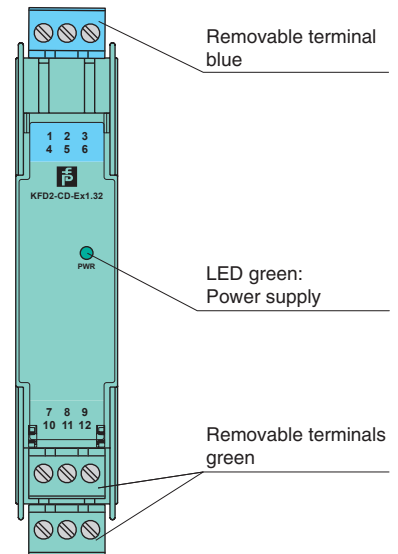
The device has voltage input and voltage output.

The signal is transmitted to terminals 9 and 10 across an amplifier and the DC/DC converter within the allowable voltage range. A voltage limiter circuit protects the amplifier from incorrect input switching and overvoltage, but will draw current through a 50 mA fuse during operation. The fuse can be changed only by the manufacturer.

At least 20 mA is available within the allowable supply voltage range at terminals 1 and 2 which means that with 10 V output voltage, a load of at least 500 Ω must be connected.

Assembly

Front view

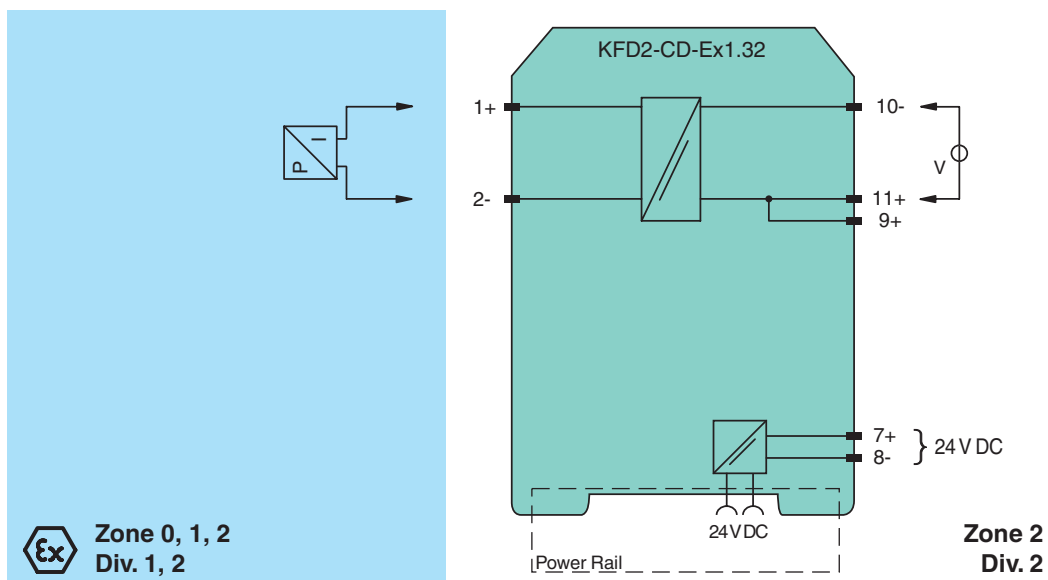


CE



SIL 2

Connection



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	≤ 20 mA
Power dissipation		1.4 W
Input		
Connection side		control side
Connection		terminals 9+, 10-, 11+
Input current		≤ 100 μ A up to 50 °C (122 °F) at 10 V
Limit		≤ 12 V DC
Transmission range		0 ... 10 V
Output		
Connection side		field side
Connection		terminals 1+, 2-
Current		≤ 20 mA
Load		output resistance: ≤ 3 Ω
Voltage		0 ... 5 V
Transfer characteristics		
Accuracy		0.1 %
Deviation		
After calibration		$\leq \pm 0.1$ % incl. non-linearity and hysteresis at 20 °C (68 °F)
Influence of ambient temperature		$\leq \pm 0.01$ %/K
Rise time		< 10 ms
Galvanic isolation		
Input/power supply		functional insulation, rated insulation voltage 50 V AC
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) , housing type B1
Mounting		on 35 mm DIN mounting rail acc. to EN 60715:2001
Data for application in connection with hazardous areas		
EU-Type Examination Certificate		BAS 02 ATEX 7203 X
Marking		Ⓔ II (1)G [Ex ia Ga] IIC , Ⓔ II (1)D [Ex ia Da] IIIC , Ⓔ I (M1) [Ex ia Ma] I
Certificate		TÜV 99 ATEX 1499 X
Marking		Ⓔ II 3G Ex nA II T4
Directive conformity		
Directive 2014/34/EU		EN 60079-0:2012+A11:2013 , EN 60079-11:2012 , EN 60079-15:2010
International approvals		
FM approval		
Control drawing		116-0440
UL approval		
Control drawing		116-0441 (cULus)
IECEX approval		IECEX BAS 05.0041X
Approved for		[Ex ia Ga] IIC, [Ex ia Da] IIIC, [Ex ia Ma] I
General information		

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

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Supplementary information	Observe the certificates, declarations of conformity, instruction manuals, and manuals where applicable. For information see www.pepperl-fuchs.com .
Accessories	
Optional accessories	<ul style="list-style-type: none">- power feed module KFD2-EB2(.R4A.B)(.SP)- universal power rail UPR-03(-M)(-S)- profile rail K-DUCT-BU(-UPR-03)