Features

- 1-channel isolated barrier
- 24 V DC supply (Power Rail)
- Current input 4 mA ... 20 mA
- Voltage output 0 V ... 10 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.

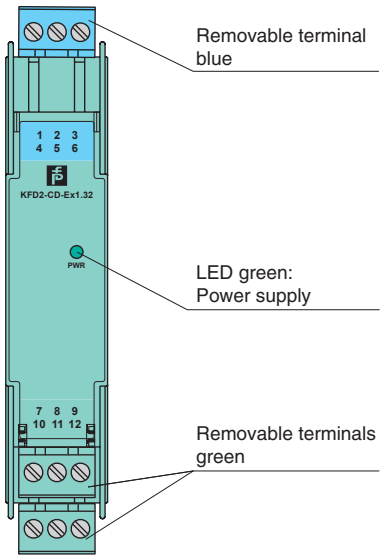
The device has current input and voltage output.

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).

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.

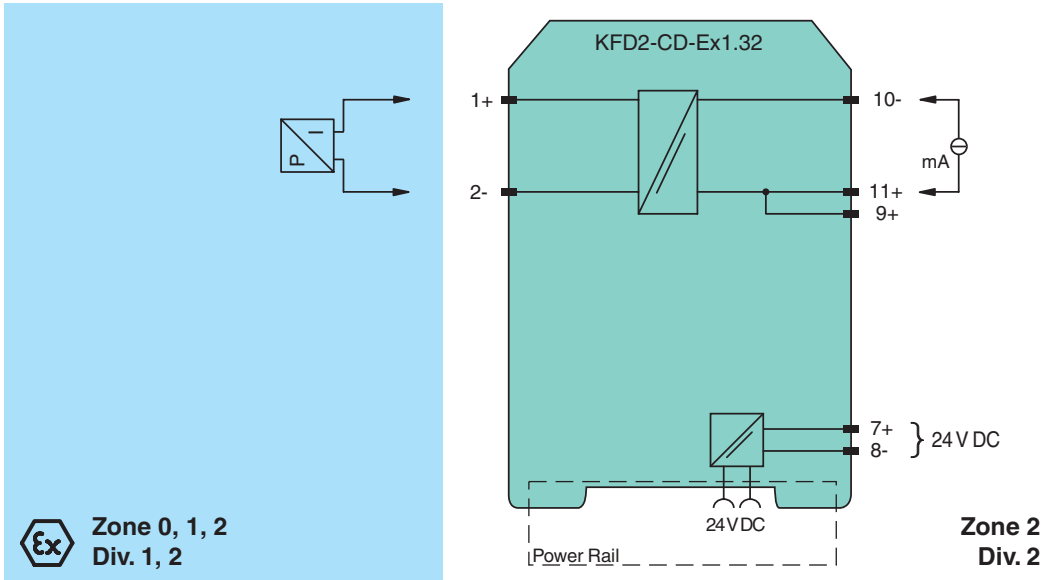
Assembly

Front view



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	≤ 20 mA
Power dissipation		1.4 W
Input		
Connection side		control side
Connection		terminals 9+, 10-, 11+
Voltage drop		approx. 4 V at 20 mA
Input current		≤ 100 µA up to 50 °C (122 °F) at 10 V
Limit		≤ 40 mA
Transmission range		4 ... 20 mA
Output		
Connection side		field side
Connection		terminals 1+, 2-
Current		≤ 20 mA
Load		output resistance: ≤ 3 Ω
Voltage		0 ... 10 V
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 %/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		⟨Ex⟩ II (1)G [Ex ia Ga] IIC , ⟨Ex⟩ II (1)D [Ex ia Da] IIIC , ⟨Ex⟩ I (M1) [Ex ia Ma] I
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 60079-11:2012 , 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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Supplementary information	Observe the certificates, declarations of conformity, instruction manuals, and manuals where applicable. For information see www.pepperl-fuchs.com.
Accessories	
Optional accessories	- power feed module KFD2-EB2(.R4A.B)(.SP) - universal power rail UPR-03(-M)(-S) - profile rail K-DUCT-BU(-UPR-03)

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