

Features

- 2-channel isolated barrier
- 24 V DC supply (Power Rail)
- Current input 0 mA ... 20 mA
- Current output 0 mA ... 20 mA
- Current output up to 700 Ω load
- I/P and valve positioners
- Accuracy 0.05 %
- Up to SIL 2 acc. to IEC 61508

Function

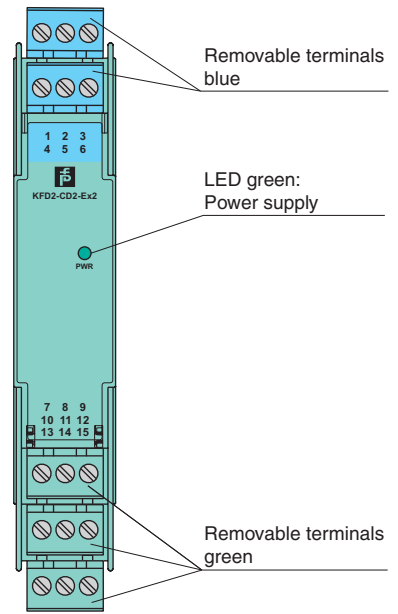
This isolated barrier is used for intrinsic safety applications. It drives a 4 mA ... 20 mA signal from the safe area to I/P converters, electrical valves, and positioners located in the hazardous area.

An open or high resistance field circuit presents a similar resistance to the control side to allow line fault detection by control system.

The voltage drop at the current input (terminals 7-, 8+ and 10-, 11+) is lower than 2.5 V equivalent to an input resistance of 125 Ω at 20 mA.

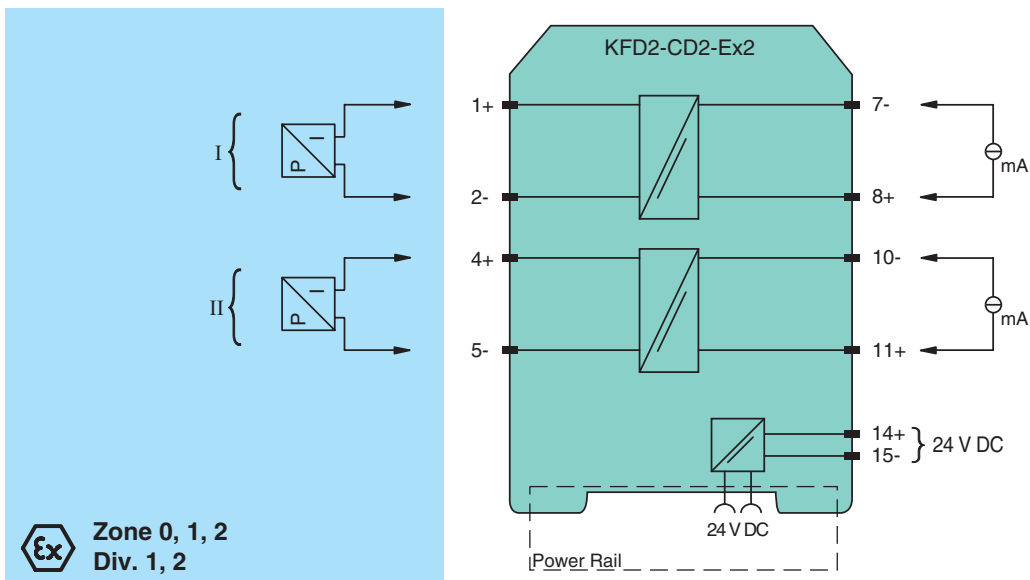
Assembly

Front view



SIL 2

Connection



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

General specifications		
Signal type		Analog output
Functional safety related parameters		
Safety Integrity Level (SIL)		SIL 2
Supply		
Connection		Power Rail or terminals 14+, 15-
Rated voltage	U_r	20 ... 35 V DC
Ripple		within the supply tolerance
Power dissipation		1.4 W
Power consumption		1.8 W at 20 mA
Input		
Connection side		control side
Connection		terminals 7-, 8+; 10-, 11+
Voltage drop		approx. 2.5 V or internal resistance 125 Ω at 20 mA
Input resistance		≤ 2.5 V, equivalent to 125 Ω at 20 mA
Ripple		50 μA_{rms}
Current		4 ... 20 mA limited to approx. 25 mA
Output		
Connection side		field side
Connection		terminals 1+, 2-; 4+, 5-
Current		4 ... 20 mA
Load		0 ... 700 Ω
Voltage		≥ 14 V at 20 mA
Transfer characteristics		
Accuracy		0.05 %
Deviation		
After calibration		at 20 °C (68 °F): ≤ 10 μA incl. non-linearity, calibration, hysteresis, supply and load changes
Influence of ambient temperature		≤ 1 $\mu A/K$
Rise time		< 100 μs , 10 ... 90 % step change
Galvanic isolation		
Input/power supply		functional insulation, rated insulation voltage 50 V AC
Input/input		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		
Electromagnetic compatibility		NE 21:2011
Degree of protection		IEC 60529:2001
Protection against electrical shock		UL 61010-1:2004
Ambient conditions		
Ambient temperature		-20 ... 60 °C (-4 ... 140 °F)
Mechanical specifications		
Degree of protection		IP20
Connection		screw terminals
Mass		approx. 150 g
Dimensions		20 x 119 x 115 mm (0.8 x 4.7 x 4.5 inch) , housing type B2
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 00 ATEX 7240
Marking		II (1)G [Ex ia Ga] IIC , II (1)D [Ex ia Da] IIIC , I (M1) [Ex ia Ma] I
Output		[Ex ia Ga] IIC, [Ex ia Da] IIIC, [Ex ia Ma] I
Voltage	U_o	25.2 V
Current	I_o	93 mA
Power	P_o	585 mW
Supply		
Maximum safe voltage	U_m	250 V rms (Attention! The rated voltage can be lower.)
Type of protection [EEx ia]		
Certificate		TÜV 99 ATEX 1499 X
Marking		II 3G Ex nA II T4 [device in zone 2]
Galvanic isolation		
Input/Output		safe electrical isolation acc. to IEC/EN 60079-11, voltage peak value 375 V

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Output/power supply	safe electrical isolation acc. to IEC/EN 60079-11, voltage peak value 375 V
Directive conformity	
Directive 2014/34/EU	EN 60079-0:2012+A11:2013 , EN 60079-11:2012 , EN 60079-15:2010
International approvals	
UL approval	
Control drawing	116-0173 (cULus)
IECEX approval	IECEX BAS 04.0014
Approved for	[Zone 0] [Ex ia] IIC, [Ex iaD], [Ex ia] I
General information	
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)

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Pepperl+Fuchs Group
www.pepperl-fuchs.com

USA: +1 330 486 0002
pa-info@us.pepperl-fuchs.com

Germany: +49 621 776 2222
pa-info@de.pepperl-fuchs.com

Singapore: +65 6779 9091
pa-info@sg.pepperl-fuchs.com