

**Features**

- 1-channel isolated barrier
- 24 V DC supply (Power Rail)
- Current output up to 700 Ω load
- I/P and valve positioners
- Accuracy 0.05 %
- Up to SIL2 acc. to IEC 61508

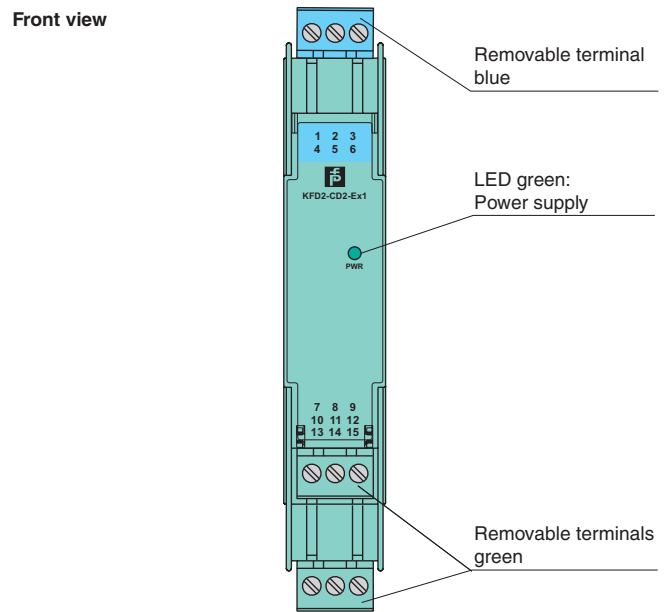
**Function**

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.

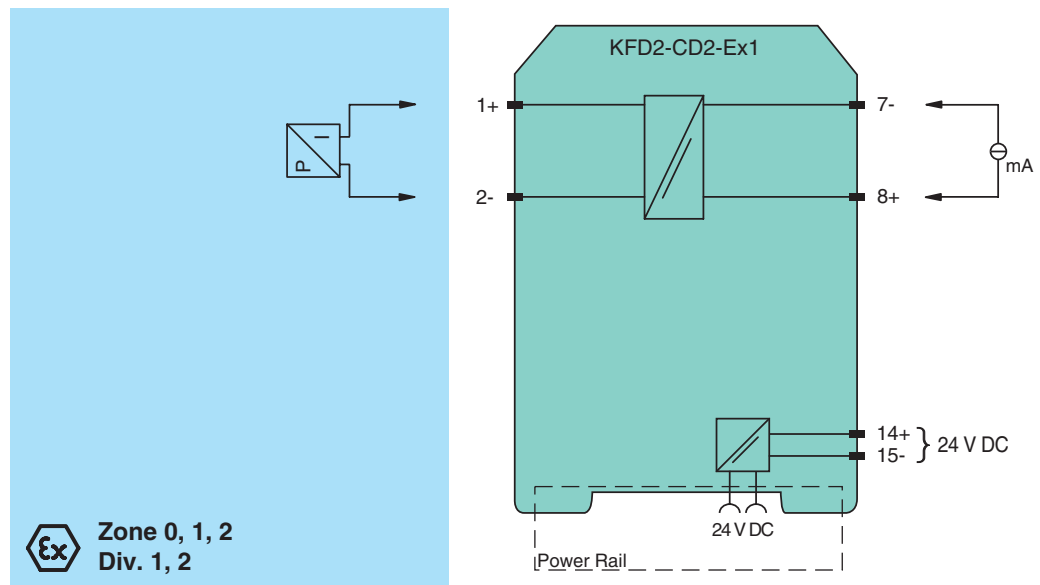
An open or high resistance field circuit presents a similar resistance to the control side to allow line fault detection by control system.

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

**Assembly**



**Connection**



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<b>General specifications</b>	
Signal type	Analog output
<b>Supply</b>	
Connection	Power Rail or terminals 14+, 15-
Rated voltage	10 ... 35 V DC
Ripple	within the supply tolerance
Power loss	0.8 W
Power consumption	1 W at 20 mA
<b>Input</b>	
Connection	terminals 7-, 8+
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 <sub>rms</sub>
Current	4 ... 20 mA limited to approx. 24 mA
<b>Output</b>	
Connection	terminals 1+, 2-
Current	4 ... 20 mA
Load	0 ... 700 Ω
Voltage	≥ 14 V at 20 mA
<b>Transfer characteristics</b>	
Deviation	
After calibration	at 20 °C (68 °F): ≤ 10 μA incl. non-linearity, calibration, hysteresis, supply and load changes
Influence of ambient temperature	≤ 1 μA/K
Rise time	< 100 μs , 10 ... 90 % step change
<b>Electrical isolation</b>	
Input/power supply	functional insulation, rated insulation voltage 50 V AC
<b>Directive conformity</b>	
Electromagnetic compatibility	
Directive 2004/108/EC	EN 61326-1:2006
<b>Conformity</b>	
Electromagnetic compatibility	
Protection degree	NE 21:2006
Protection against electric shock	IEC 60529:2001
Protection against electric shock	UL 61010-1
<b>Ambient conditions</b>	
Ambient temperature	-20 ... 60 °C (-4 ... 140 °F)
<b>Mechanical specifications</b>	
Protection degree	IP20
Mass	approx. 150 g
Dimensions	20 x 119 x 115 mm (0.8 x 4.7 x 4.5 in) , housing type B2
Mounting	on 35 mm DIN mounting rail acc. to EN 60715:2001
<b>Data for application in connection with Ex-areas</b>	
EC-Type Examination Certificate	
Group, category, type of protection	BAS 00 ATEX 7240 , for additional certificates see www.pepperl-fuchs.com
Input	⊕ II (1)GD, I (M1), [Ex ia] IIC, [Ex iaD], [Ex ia] I (-20 °C ≤ T <sub>amb</sub> ≤ 60 °C) [circuit(s) in zone 0/1/2]
Voltage	U <sub>o</sub> 25.2 V
Current	I <sub>o</sub> 93 mA
Power	P <sub>o</sub> 585 mW
Supply	
Maximum safe voltage	U <sub>m</sub> 250 V <sub>rms</sub> (Attention! The rated voltage can be lower.)
Statement of conformity	
Group, category, type of protection, temperature class	TÜV 99 ATEX 1499 X , observe statement of conformity
Group, category, type of protection, temperature class	⊕ II 3G Ex nA II T4 [device in zone 2]
Electrical isolation	
Input/Output	safe electrical isolation acc. to IEC/EN 60079-11, voltage peak value 375 V
Output/power supply	safe electrical isolation acc. to IEC/EN 60079-11, voltage peak value 375 V
Directive conformity	
Directive 94/9/EC	EN 60079-0:2009, EN 60079-11:2007, EN 60079-15:2005, EN 61241-11:2006
<b>International approvals</b>	
UL approval	
Control drawing	116-0173 (cULus)
IECEx approval	
Approved for	IECEx BAS 04.0014
Approved for	[Zone 0] [Ex ia] IIC, [Ex iaD], [Ex ia] I
<b>General information</b>	

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## Supplementary information

EC-Type Examination Certificate, Statement of Conformity, Declaration of Conformity, Attestation of Conformity and instructions have to be observed where applicable. For information see [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

**Accessories****Power feed module KFD2-EB2**

The power feed module is used to supply the devices with 24 V DC via the Power Rail. The fuse-protected power feed module can supply up to 100 individual devices depending on the power consumption of the devices. A galvanically isolated mechanical contact uses the Power Rail to transmit collective error messages.

**Power Rail UPR-03**

The Power Rail UPR-03 is a complete unit consisting of the electrical inset and an aluminium profile rail 35 mm x 15 mm. To make electrical contact, the devices are simply engaged.

**Profile Rail K-DUCT with Power Rail**

The profile rail K-DUCT is an aluminum profile rail with Power Rail insert and two integral cable ducts for system and field cables. Due to this assembly no additional cable guides are necessary.

**Attention**

*Power Rail and Profile Rail must not be fed via the device terminals of the individual devices!*