

## Features

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

## Function

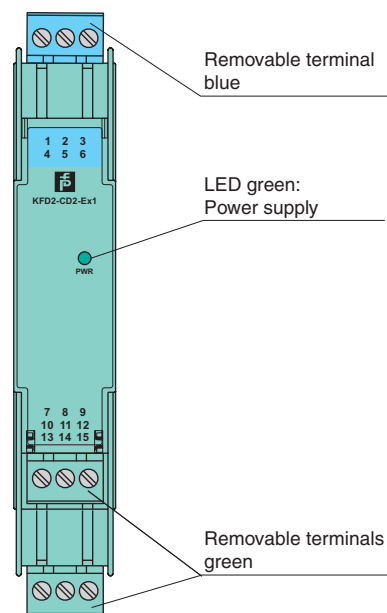
This isolated barrier is used for intrinsic safety applications. It drives a 4 mA ... 20 mA signal from the safe area to I/P converters, electrical valves, and positioners located in the hazardous area.

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  $\Omega$  at 20 mA.

## Assembly

Front view

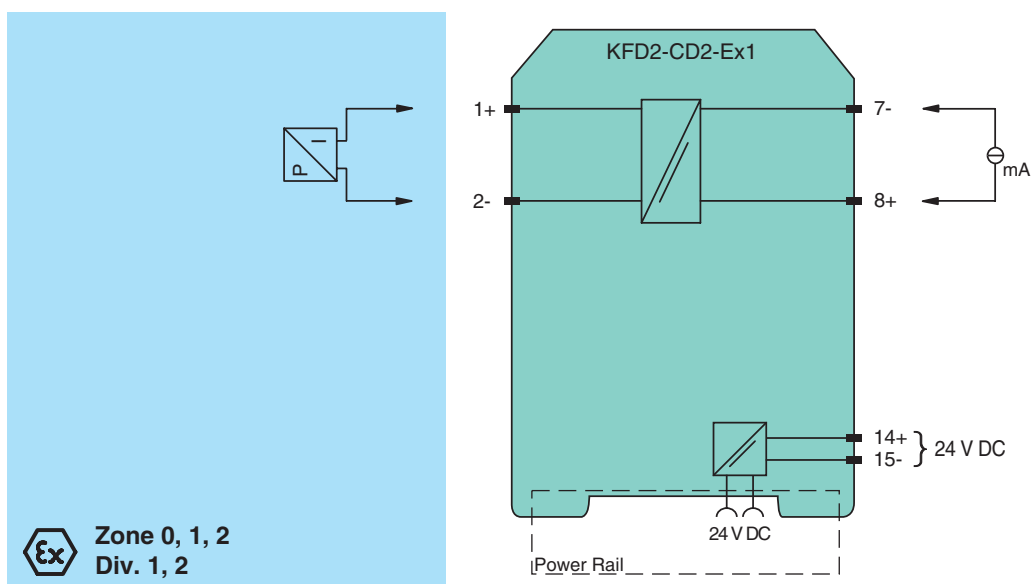


CE



SIL2

## 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	$U_d$	approx. 2.5 V or internal resistance 125 $\Omega$ at 20 mA
Input resistance		$\leq 2.5$ V, equivalent to 125 $\Omega$ at 20 mA
Ripple		50 $\mu A_{rms}$
Current		4 ... 20 mA limited to approx. 24 mA
<b>Output</b>		
Connection		terminals 1+, 2-
Current		4 ... 20 mA
Load		0 ... 700 $\Omega$
Voltage		$\geq 14$ V at 20 mA
<b>Transfer characteristics</b>		
Deviation		
After calibration		at 20 °C (68 °F): 10 $\mu A$ incl. non-linearity, calibration, hysteresis, supply and load changes
Influence of ambient temperature		1 $\mu A/K$
Rise time		$< 100$ $\mu s$ (bounce from 10 ... 90 %)
<b>Directive conformity</b>		
Electromagnetic compatibility		
Directive 2004/108/EC		EN 61326-1:2006
<b>Conformity</b>		
Insulation coordination		EN 50178
Electrical isolation		EN 50178
Electromagnetic compatibility		NE 21
Protection degree		IEC 60529
<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
<b>Data for application in connection with Ex-areas</b>		
EC-Type Examination Certificate		BAS 00 ATEX 7240 , for additional certificates see <a href="http://www.pepperl-fuchs.com">www.pepperl-fuchs.com</a>
Group, category, type of protection		$\text{Ex}$ II (1)GD, I (M1), [Ex ia] IIC, [Ex iaD], [Ex ia] I (-20 °C $\leq T_{amb} \leq 60$ °C) [circuit(s) in zone 0/1/2]
Input		Ex ia IIC, Ex iaD
Voltage	$U_o$	25.2 V
Current	$I_o$	93 mA
Power	$P_o$	585 mW
<b>Supply</b>		
Maximum safe voltage $U_m$		250 V $rms$ (Attention! The rated voltage can be lower.)
Type of protection [EEx ia]		
Statement of conformity		TÜV 99 ATEX 1499 X , observe statement of conformity
Group, category, type of protection, temperature classification		$\text{Ex}$ II 3G Ex nA II T4 [device in zone 2]
<b>Directive conformity</b>		
Directive 94/9/EC		EN 60079-0:2006, 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		IECEX BAS 04.0014
Approved for		[zone 0] [Ex ia] IIC, [Ex iaD], [Ex ia] I
<b>General information</b>		
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 <a href="http://www.pepperl-fuchs.com">www.pepperl-fuchs.com</a> .

## 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!*