

Features

- 2-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

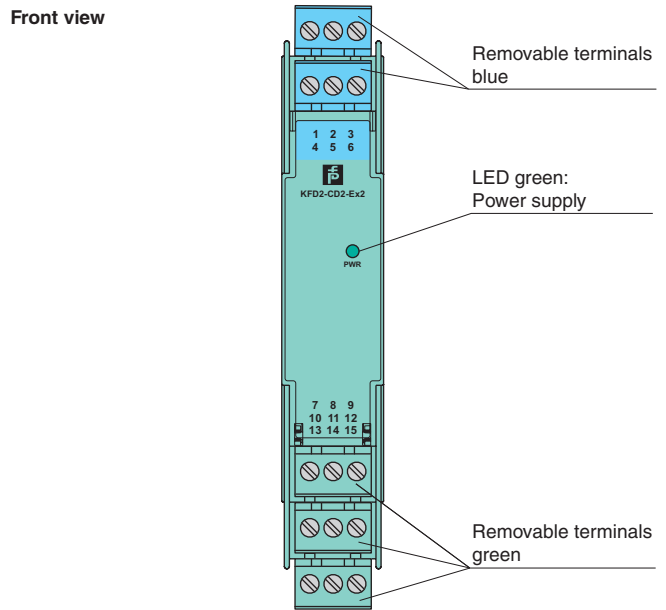
Function

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.

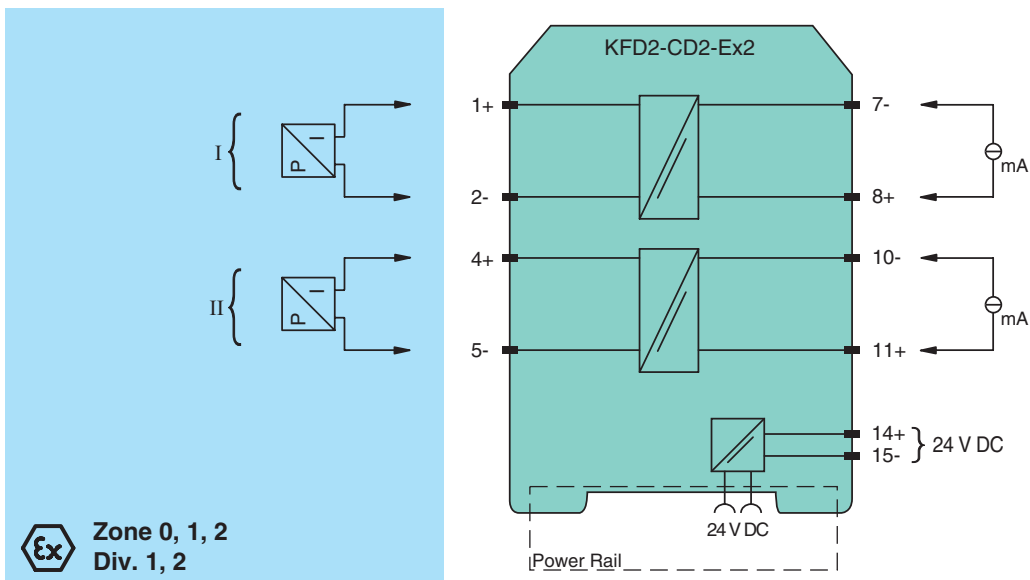
The voltage drop at the current input (terminals 7-, 8+ and 10-, 11+) is lower than 2.5 V equivalent to an input resistance of 125 Ω at 20 mA.

Assembly



SIL2

Connection



Release date 2012-07-12 11:42 Date of issue 2012-07-12 123522_eng.xml

General specifications	
Signal type	Analog output
Supply	
Connection	Power Rail or terminals 14+, 15-
Rated voltage	20 ... 35 V DC
Ripple	within the supply tolerance
Power loss	1.4 W
Power consumption	1.8 W at 20 mA
Input	
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	terminals 1+, 2-; 4+, 5-
Current	4 ... 20 mA
Load	0 ... 700 Ω
Voltage	≥ 14 V at 20 mA
Transfer characteristics	
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
Electrical isolation	
Input/power supply	functional insulation, rated insulation voltage 50 V AC
Directive conformity	
Electromagnetic compatibility	
Directive 2004/108/EC	EN 61326-1:2006
Conformity	
Electromagnetic compatibility	NE 21:2006
Protection degree	IEC 60529:2001
Protection against electric shock	UL 61010-1
Ambient conditions	
Ambient temperature	-20 ... 60 °C (-4 ... 140 °F)
Mechanical specifications	
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
Data for application in connection with Ex-areas	
EC-Type Examination Certificate	BAS 00 ATEX 7240 , for additional certificates see www.pepperl-fuchs.com
Group, category, type of protection	⊕ II (1)GD, I (M1), [Ex ia] IIC, [Ex iaD], [Ex ia] I (-20 °C ≤ T _{amb} ≤ 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
Supply	
Maximum safe voltage	U _m 250 V _{rms} (Attention! The rated voltage can be lower.)
Statement of conformity	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
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	

Release date 2012-07-12 11:42 Date of issue 2012-07-12 123522_eng.xml

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.

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!