Features

- 1-channel isolated barrier
- 24 V DC supply (Power Rail)
- Voltage input 0 V ... 12 V
- Voltage output 0 V ... 12 V

Function

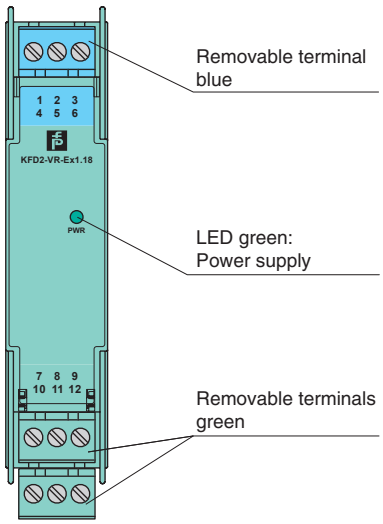
This isolated barrier is used for intrinsic safety applications. It transfers voltage signals from hazardous areas to safe areas.

The input voltage of the terminals 4 and 5 is transferred to the terminals 7 and 8. The terminals 4 and 8 have the same polarity.

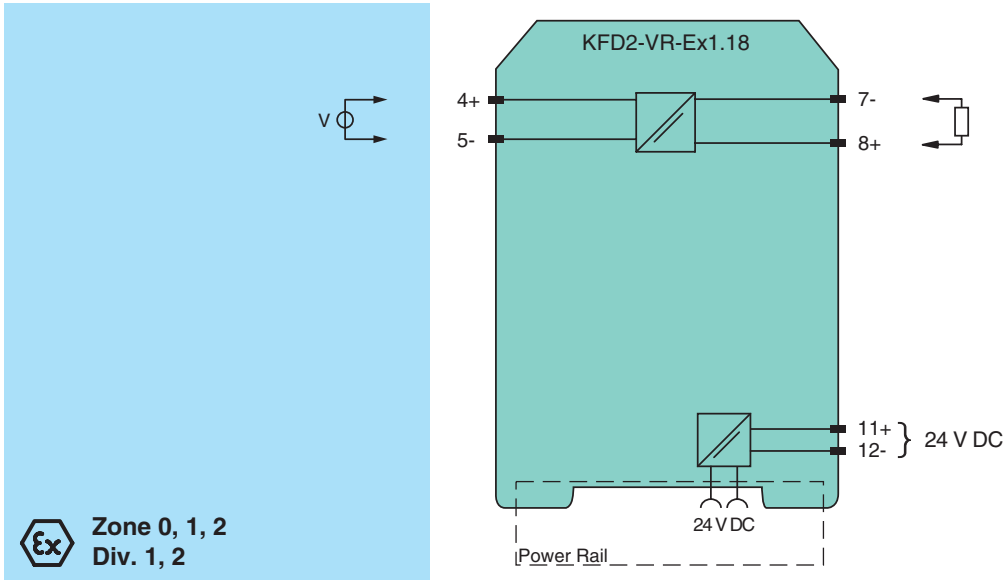
It repeats 0 V ... 12 V signals from strain gauges, transducers, and inductive motion sensors with signal frequencies up to 1.2 kHz.

Assembly

Front view



Connection



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General specifications	
Signal type	Analog input
Supply	
Connection	Power Rail or terminals 11+, 12-
Rated voltage	20 ... 35 V DC
Ripple	within the supply tolerance
Rated current	< 20 mA
Input	
Connection	terminals 4+, 5-
Input resistance	≥ 10 MΩ
Transmission range	0 ... 12 V
Offset voltage/current	< 2 mV / < 7 nA
Output	
Connection	terminals 7-, 8+
Voltage	0 ... 12 V
Output resistance	≤ 20 Ω
Transfer characteristics	
Deviation	
After calibration	± 5 mV at 20 °C (68 °F)
Influence of ambient temperature	≤ 0.005 % of range per K
Bandwidth	1.2 kHz (-3 dB)
Rise time	≤ 0.4 ms
Electrical isolation	
Output/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
Protection degree	IEC 60529
Ambient conditions	
Ambient temperature	-20 ... 60 °C (-4 ... 140 °F)
Mechanical specifications	
Protection degree	IP20
Mass	approx. 100 g
Dimensions	20 x 107 x 115 mm (0.8 x 4.2 x 4.5 in) , housing type B1
Data for application in connection with Ex-areas	
EC-Type Examination Certificate	BAS 01 ATEX 7262 , for additional certificates see www.pepperl-fuchs.com
Group, category, type of protection	⟨Ex⟩ 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]
Voltage U_o	18 V
Current I_o	4.2 mA
Power P_o	19 mW
Supply	
Maximum safe voltage U_m	250 V (Attention! The rated voltage is lower.)
Output	
Maximum safe voltage U_m	250 V (Attention! The rated voltage is lower.)
Statement of conformity	BASEEFA 10 ATEX 0079X , observe statement of conformity
Group, category, type of protection, temperature classification	⟨Ex⟩ 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
Input/power supply	safe electrical isolation acc. to IEC/EN 60079-11, voltage peak value 375 V
Directive conformity	
Directive 94/9/EC	EN 60079-0:2006, EN 60079-11:2007, EN 60079-15:2005, EN 61241-11:2006
International approvals	
FM approval	
Control drawing	116-0129
UL approval	
Control drawing	116-0173 (cULus)
CSA approval	
Control drawing	116-0132
IECEx approval	IECEx BAS 10.0040X
Approved for	Ex nA II T4
General information	

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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.

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!

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