

Features

- 1-channel isolated barrier
- 24 V DC supply (Power Rail)
- Voltage input 0 V ... 9 V
- Voltage output 0 V ... 9 V

Function

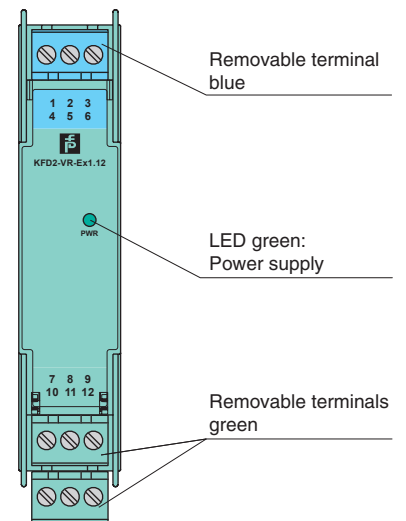
This isolated barrier is used for intrinsic safety applications. It transfers voltage signals from hazardous areas to safe areas.

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.

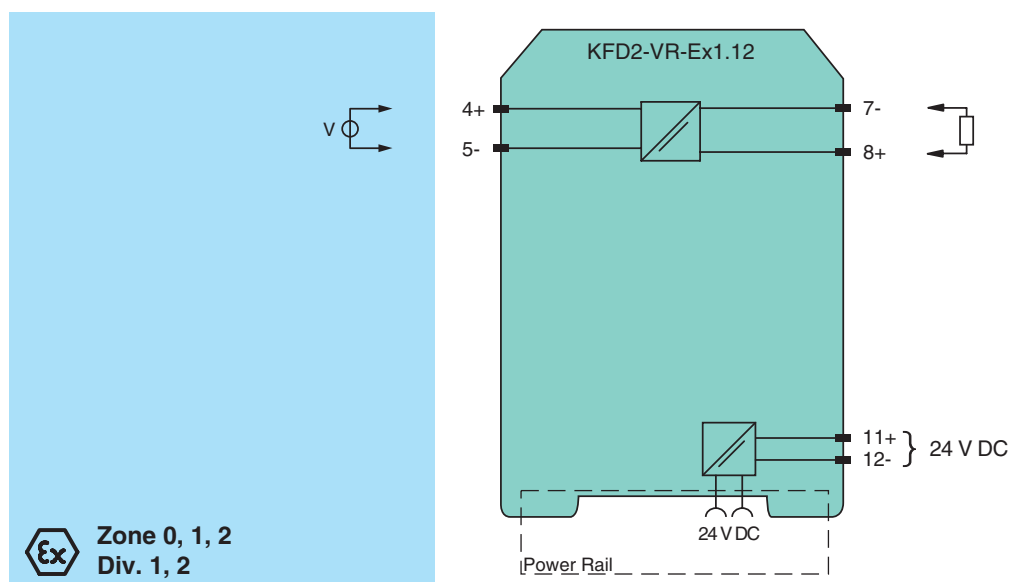
It repeats 0 V ... 9 V signals from strain gauges, transducers, and inductive motion sensors with signal frequencies up to 1.2 kHz.

Assembly

Front view



Connection



Release date 2019-01-25 09:38 Date of issue 2019-01-25 11:6955_eng.xml

General specifications		
Signal type		Analog input
Supply		
Connection		Power Rail or terminals 11+, 12-
Rated voltage	U_r	20 ... 35 V DC
Ripple		within the supply tolerance
Rated current	I_r	< 20 mA
Input		
Connection side		field side
Connection		terminals 4+, 5-
Input resistance		$\geq 10 \text{ M}\Omega$
Transmission range		0 ... 9 V
Offset voltage/current		< 2 mV / < 7 nA
Output		
Connection side		control side
Connection		terminals 7-, 8+
Voltage		0 ... 9 V
Output resistance		$\leq 20 \Omega$
Transfer characteristics		
Cut-off frequency		1.2 kHz (-3 dB)
Deviation		
After calibration		$\pm 5 \text{ mV}$ at 20 °C (68 °F)
Influence of ambient temperature		$\leq 0.005 \%$ of range per K
Rise time		$\leq 0.4 \text{ ms}$
Galvanic isolation		
Output/power supply		Basic insulation according to DIN EN 50178, rated insulation voltage of AC 50 V
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		
Insulation coordination		EN 50178
Electromagnetic compatibility		NE 21
Degree of protection		IEC 60529
Ambient conditions		
Ambient temperature		-20 ... 60 °C (-4 ... 140 °F)
Mechanical specifications		
Degree of protection		IP20
Connection		screw terminals
Mass		approx. 100 g
Dimensions		20 x 107 x 115 mm (0.8 x 4.2 x 4.5 inch) , housing type B1
Mounting		on 35 mm DIN mounting rail acc. to EN 60715:2001
Data for application in connection with hazardous areas		
EU-Type Examination Certificate		
Marking		Ex I (M1) [Ex ia] I
Voltage	U_o	12 V
Current	I_o	2.8 mA
Power	P_o	8.4 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.)
Galvanic isolation		
Input/Output		safe galvanic isolation acc. to EN 60079-11, voltage peak value 375 V
Input/power supply		safe galvanic isolation acc. to 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 50303:2000
General information		
Supplementary information		Observe the certificate of conformity, instruction manuals, and manuals where applicable. For information see
Accessories		

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Optional accessories

- power feed module KFD2-EB2(.R4A.B)(.SP)
- universal power rail UPR-03(-M)(-S)
- profile rail K-DUCT-BU(-UPR-03)