

Features

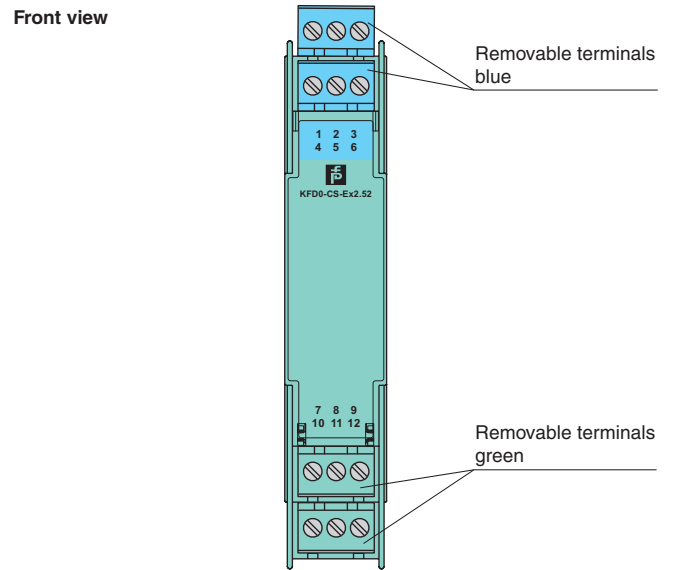
- 2-channel isolated barrier
- 24 V DC supply (loop powered)
- Current input/output 4 mA ... 20 mA
- Accuracy 0.1 %
- Entity parameter $I_O/I_{SC} = 0$ mA

Function

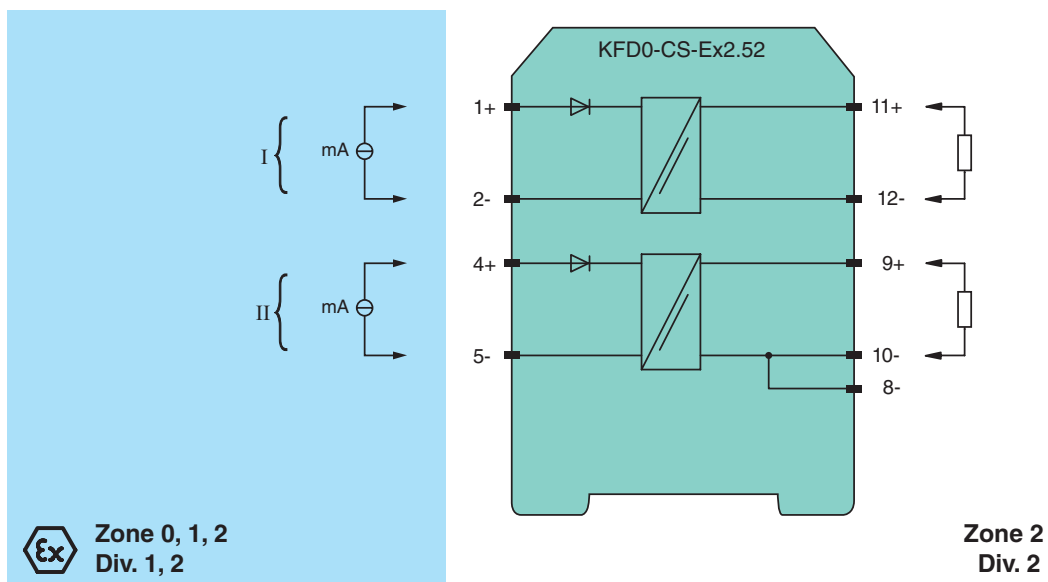
This isolated barrier is used for intrinsic safety applications. It is loop-powered and repeats a 4 mA ... 20 mA signal from a current source inside a hazardous area to the safe area (It does not provide power for transmitters inside the hazardous area.).

The 25.2 V, 0 mA entity parameters make it easy to design intrinsically safe systems.

Assembly



Connection



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Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

General specifications		
Signal type		Analog input
Supply		
Rated voltage	U_n	loop powered
Power loss		150 mW
Power consumption		1 W
Input		
Connection		terminals 1+, 2-, 4+, 5-
Transmission range		current range 4 ... 20 mA voltage range 4 ... 24 V DC
Output		
Connection		terminals 12-, 11+; 8-, 10-, 9+
Current		4 ... 20 mA
Voltage		4 ... 24 V DC for $4 V < U_{in} < 24 V$: $0.97 \times U_{in} - (85 \times \text{current in A}) - 1.3$
Transfer characteristics		
Deviation		
After calibration		$\pm 20 \mu A$ incl. calibration, linearity, hysteresis and load fluctuations at $20^\circ C$ ($68^\circ F$), $U_{in} \leq 20 V$ $\pm 20 \mu A$ / $-50 \mu A$ incl. calibration, linearity, hysteresis and load fluctuations at $20^\circ C$ ($68^\circ F$), $20 V < U_{in} < 24 V$
Influence of ambient temperature		$\pm 1 \mu A/K$ ($0 \dots 50^\circ C$ ($32 \dots 122^\circ F$)), $U_{in} \leq 12 V$ $\pm 2 \mu A/K$ ($0 \dots 60^\circ C$ ($32 \dots 140^\circ F$)), $U_{in} \leq 18 V$ $\pm 5 \mu A/K$ ($-20 \dots 60^\circ C$ ($-4 \dots 140^\circ F$)), $U_{in} \leq 24 V$
Rise time		≤ 10 ms at 4 ... 20 mA and 250 Ω load
Electrical isolation		
Input/Output		safe electrical isolation acc. to IEC/EN 60079-11, voltage peak value 375 V
Directive conformity		
Electromagnetic compatibility		
Directive 2004/108/EC		EN 61326-1:2006
Conformity		
Electromagnetic compatibility		NE 21:2011
Degree of protection		IEC 60529:2001
Protection against electrical shock		UL 61010-1:2012
Ambient conditions		
Ambient temperature		$-20 \dots 60^\circ C$ ($-4 \dots 140^\circ F$)
Mechanical specifications		
Degree of protection		IP20
Mass		approx. 100 g
Dimensions		20 x 119 x 115 mm (0.8 x 4.7 x 4.5 in) , housing type B2
Data for application in connection with Ex-areas		
EC-Type Examination Certificate		BASEEFA 03 ATEX 0141 , for additional certificates see www.pepperl-fuchs.com
Group, category, type of protection		II (I) GD, I (M1), [Ex ia] II C, [Ex iaD], [Ex ia] I ($-20^\circ C \leq T_{amb} \leq 60^\circ C$) [circuit(s) in zone 0/1/2]
Voltage	U_o	25.2 V DC
Current	I_o	0 mA
Type of protection [Ex ia]		
Output		
Maximum safe voltage	U_m	253 V _{eff} (Attention! The rated voltage can be lower.)
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
Directive conformity		
Directive 94/9/EC		EN 60079-0:2012 , EN 60079-11:2012 , EN 60079-15:2010
International approvals		
FM approval		
Control drawing		116-0129
UL approval		
Control drawing		116-0173 (cULus)
IECEX approval		IECEX BAS 08.0059
General information		
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 .

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