

Features

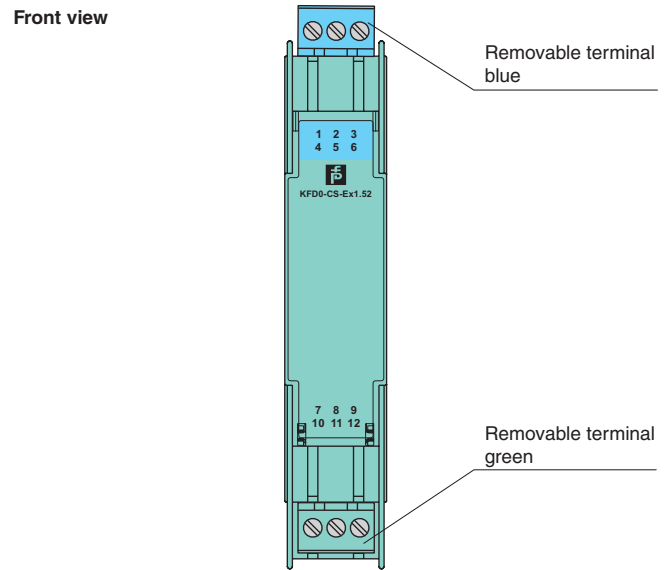
- 1-channel isolated barrier
- 24 V DC supply (loop powered)
- Current input/output 4 mA ... 20 mA
- Accuracy 0.1 %
- Entity parameter $I_O/I_{SC} = 0$ mA

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.).

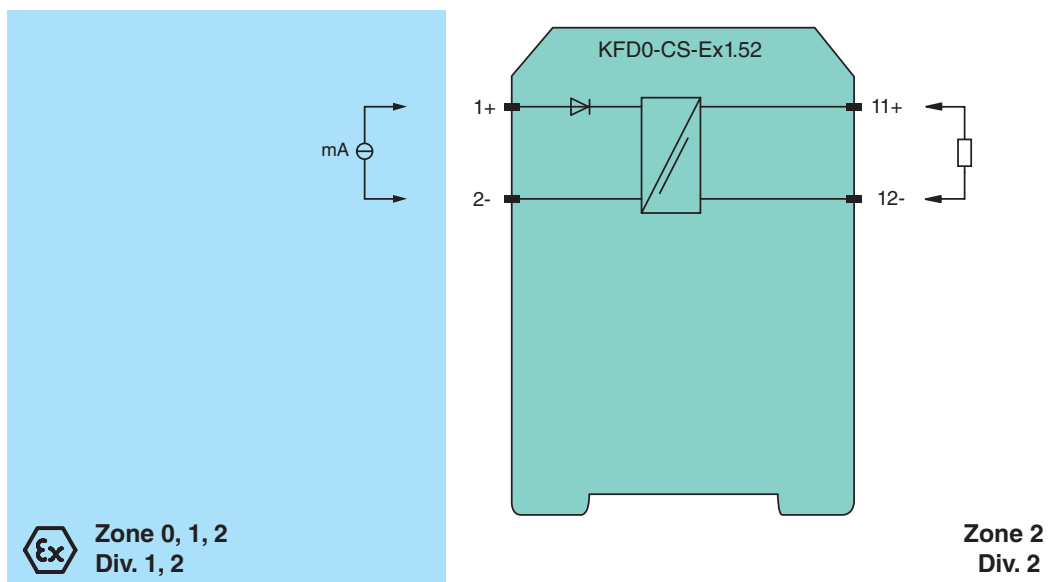
The 25.2 V, 0 mA entity parameters make it easy to design intrinsically safe systems.

Assembly





Connection

Release date 2014-06-27 12:19 Date of issue 2015-02-16 183892_eng.xml



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	75 mW
Power consumption	500 mW
Input	
Connection	terminals 1+, 2-
Transmission range	current range 4 ... 20 mA voltage range 4 ... 24 V DC
Output	
Connection	terminals 12-, 11+
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 μA 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 ... $50^\circ C$ (32 ... $122^\circ F$)), $U_{in} \leq 12 V$ $\pm 2 \mu A/K$ (0 ... $60^\circ C$ (32 ... $140^\circ F$)), $U_{in} \leq 18 V$ $\pm 5 \mu A/K$ ($-20 \dots 60^\circ C$ ($-4 \dots 140^\circ F$)), $U_{in} \leq 24 V$
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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