

Features **Assembly**

- 1-channel isolated barrier
- 24 V DC supply (loop powered)
- SMART fire alarm input
- Current input 1 mA ... 20 mA

Function

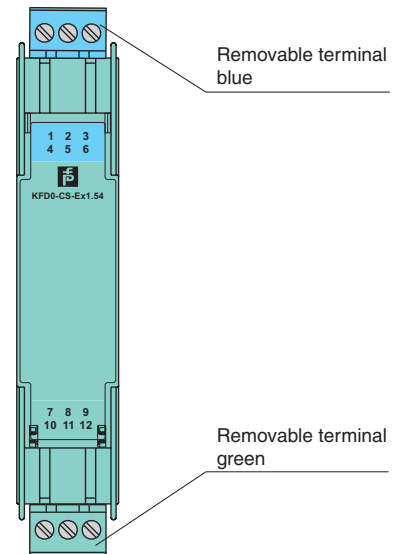
This isolated barrier is used for intrinsic safety applications. It provides control and signal transfer for SMART compatible fire and smoke alarm transmitters inside hazardous areas.

Digital signals may be superimposed (AC up to 6 V) on the analog values in the hazardous or safe area and are transferred bidirectionally.

The fall time of the digital signal must be smaller than 50 μ s, the current in the hazardous area must be bigger than 1 mA.

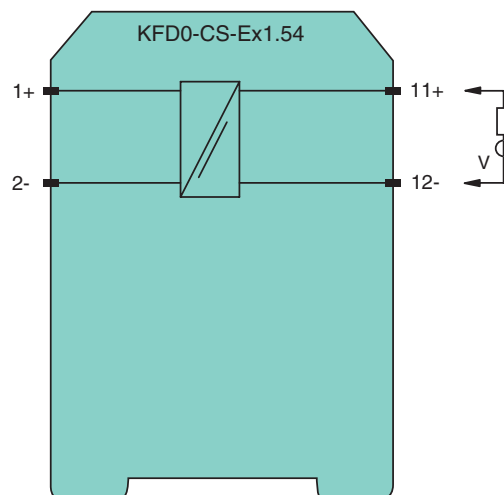
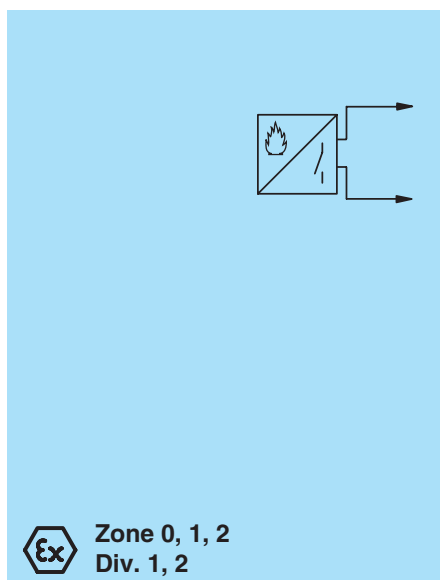
Since this isolator is loop-powered, use the technical data to verify that proper voltage is available to the field devices.

Front view



Connection

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Zone 2
Div. 2

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		$< 0.2 \text{ W}$ for $U_{in} = 24 \text{ V}$, $I_o = 20 \text{ mA}$
Control circuit		
Connection		terminals 11+, 12-
Voltage		$0 \dots 24 \text{ V}$ for $4 \text{ V} \leq U_e \leq 24 \text{ V}$: $\geq U_e - (0.38 \times \text{current in mA}) - 0.5$
Current		$0 \dots 20 \text{ mA}$
Field circuit		
Connection		terminals 1+, 2-
Short-circuit current		$\leq 65 \text{ mA}$
Transfer characteristics		
Deviation		
After calibration		$\leq 3.5 \text{ mA}$ current loss at 20 mA load current
Influence of ambient temperature		$\pm 20 \mu\text{A} / \text{K}$
Rise time/fall time		$\leq 50 \mu\text{s}$ (load current $\geq 1 \text{ mA}$)
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 61326-1:2013
Conformity		
Electromagnetic compatibility		
Degree of protection		NE 21:2006
Protection against electrical shock		UL 61010-1
Ambient conditions		
Ambient temperature		$-20 \dots 60 \text{ }^\circ\text{C}$ ($-4 \dots 140 \text{ }^\circ\text{F}$)
Mechanical specifications		
Degree of protection		
Mass		approx. 100 g
Dimensions		$20 \times 107 \times 115 \text{ mm}$ ($0.8 \times 4.2 \times 4.5 \text{ in}$), housing type B1
Data for application in connection with Ex-areas		
EC-Type Examination Certificate		
Group, category, type of protection		BAS 00 ATEX 7087, for additional certificates see www.pepperl-fuchs.com
Voltage	U_o	28 V
Current	I_o	93 mA
Power	P_o	653 mW
Supply		
Maximum safe voltage	U_m	253 V (Attention! The rated voltage can be lower.)
Type of protection [Ex ia]		
Statement of conformity		
Group, category, type of protection, temperature class		TÜV 99 ATEX 1499 X, observe statement of conformity
Electrical isolation		$\text{Ex} \text{ II } 3\text{G Ex nA II T4 Gc}$ [device in zone 2]
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 (cFMus)
UL approval		
Control drawing		116-0348 (cULus)
IECEX approval		
Approved for		IECEX BAS 08.0079 IECEX BAS 10.0007X [Ex ia Ga] IIC, [Ex ia Da] IIIC, [Ex ia Ma] I Ex nA II T4 Gc
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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