

Features

- 2-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.

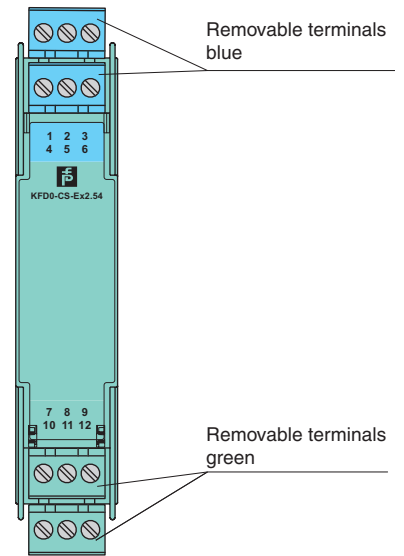
Digital signals may be superimposed (AC up to 6 V) on the analog values in the hazardous or safe area and are transferred bidirectionally.

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.

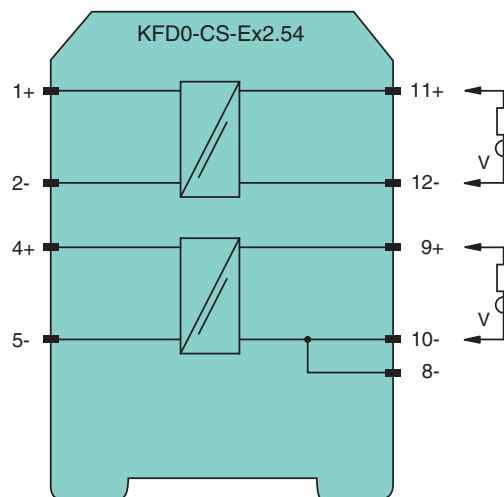
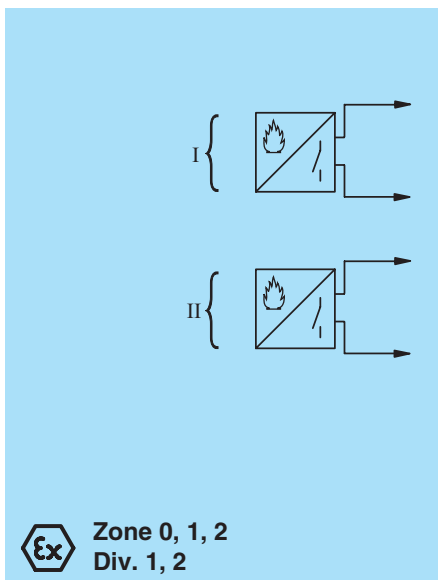
Since this isolator is loop-powered, use the technical data to verify that proper voltage is available to the field devices.

Assembly

Front view



Connection



**Zone 2
Div. 2**

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General specifications	
Signal type	Analog input
Supply	
Rated voltage	loop powered
Power loss	0.2 W
Input	
Connection	terminals 1+, 2-; 4+, 5-
Short-circuit current	≤ 65 mA
Transmission range	voltage: 4 ... 26 V DC/0 ... 6 V _{pp} AC current: 1 ... 20 mA
Output	
Connection	terminals 11+, 12-; 9+, 10-
Current	0 ... 20 mA
Voltage	0 ... 26 V for 4 V ≤ U _{in} ≤ 26 V: ≥ U _{in} - (0.38 x current in mA) - 0.5
Transfer characteristics	
Deviation	
After calibration	≤ 3.5 mA current loss at 20 mA load current
Influence of ambient temperature	± 20 µA / K
Rise time	≤ 50 µs (load current ≥ 1 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 61326-1:2006
Conformity	
Insulation coordination	EN 50178
Electrical isolation	EN 50178
Electromagnetic compatibility	NE 21:2006
Protection degree	IEC 60529
Ambient conditions	
Ambient temperature	-20 ... 60 °C (253 ... 333 K)
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 conjunction with hazardous areas	
EC-Type Examination Certificate	BAS 00 ATEX 7087 , for additional certificates see www.pepperl-fuchs.com
Group, category, type of protection	⊕ II (1)GD [Ex ia] IIC, [Ex iaD]
Voltage U _o	28 V
Current I _o	93 mA
Power P _o	653 mW
Supply	
Safety maximum voltage U _m	250 V (Attention! The rated voltage can be lower.)
Type of protection [EEx ia]	
Statement of conformity	TÜV 99 ATEX 1499 X , observe statement of conformity
Group, category, type of protection, temperature classification	⊕ II 3G Ex nA II T4
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 60079-0:2006, EN 60079-11:2007 , EN 60079-26:2004 , 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 08.0079
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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