

Features

- 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.

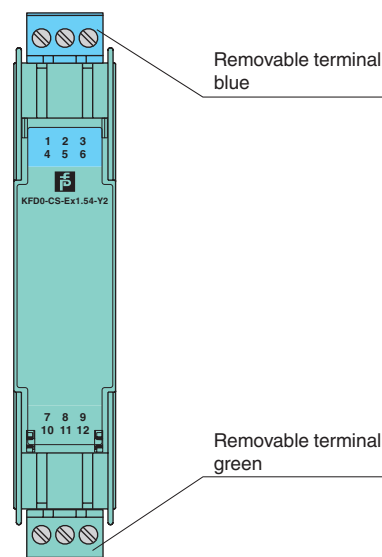
The typical application for the barrier is connection of a fire detector loop to a control panel through a System Sensor® translator device (typically an IST200).

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

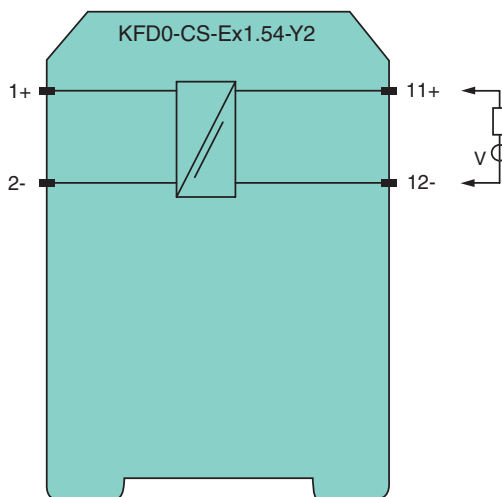
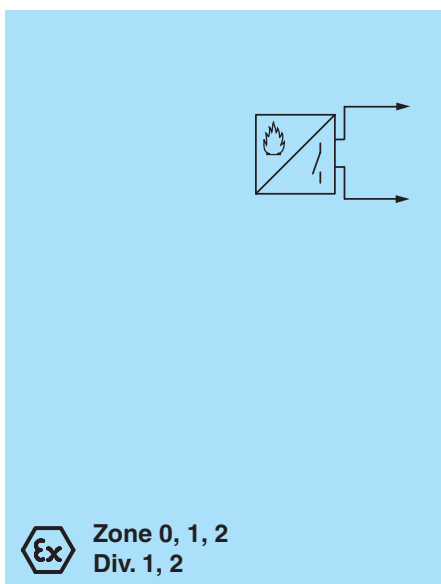
Since this isolator is loop-powered, use the technical data to verify that proper voltage is available to the field devices.

Assembly

Front view



Connection



Zone 2
Div. 2

Release date 2014-03-06 11:44 Date of issue 2015-02-16 241590_eng.xml

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

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General specifications		
Signal type		Analog input
Supply		
Rated voltage	U_n	loop powered
Power loss		0.2 W
Input		
Connection		terminals 11+, 12-
Short-circuit current		≤ 65 mA
Transmission range		voltage: 0 ... 24 V current: 1 ... 20 mA
Output		
Connection		terminals 1+, 2-
Current		0 ... 20 mA
Voltage		0 ... 24 V for $4 V \leq U_e \leq 24 V$: $\geq U_e - (0.72 \times \text{current in mA}) - 0.5$
Transfer characteristics		
Deviation		
After calibration		≤ 3.5 mA current loss at 20 mA load current
Influence of ambient temperature		± 20 µA / K
Rise time/fall 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 61326-1:2013
Conformity		
Electromagnetic compatibility		NE 21:2006
Degree of protection		IEC 60529:2001
Protection against electrical shock		UL 61010-1
Ambient conditions		
Ambient temperature		-20 ... 60 °C (-4 ... 140 °F)
Mechanical specifications		
Degree of protection		IP20
Mass		approx. 100 g
Dimensions		20 x 107 x 115 mm (0.8 x 4.2 x 4.5 in) , housing type B1
Mounting		on 35 mm DIN mounting rail acc. to EN 60715:2001
Data for application in connection with Ex-areas		
EC-Type Examination Certificate		BAS 00 ATEX 7087 , for additional certificates see www.pepperl-fuchs.com
Group, category, type of protection		Ex II (1)G [Ex ia Ga] IIC , Ex II (1)D [Ex ia Da] IIIC , Ex I (M1) [Ex ia Ma] I (-20 °C ≤ T _{amb} ≤ 60 °C)
Voltage	U_o	25.2 V
Current	I_o	43 mA
Power	P_o	271 mW
Supply		
Maximum safe voltage	U_m	250 V (Attention! The rated voltage can be lower.)
Type of protection [Ex ia]		
Statement of conformity		TÜV 99 ATEX 1499 X , observe statement of conformity
Group, category, type of protection, temperature class		Ex 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 (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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