

**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.

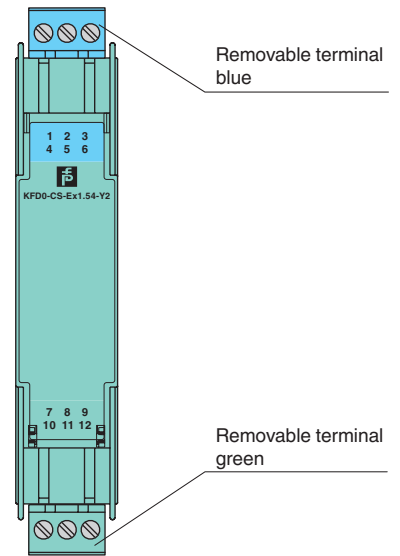
The typical application for the barrier is connection of a fire detector loop to a control panel through a System Sensor® translator device (typically an IST200).

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.

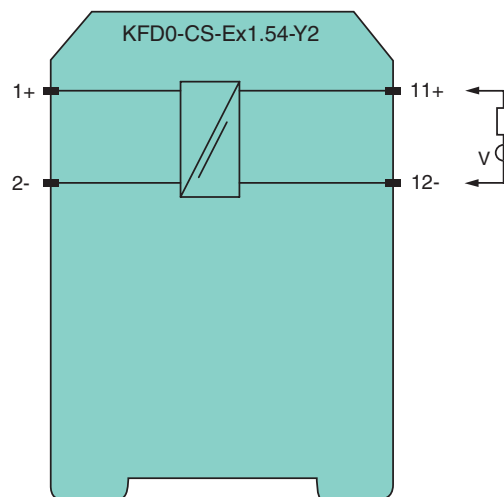
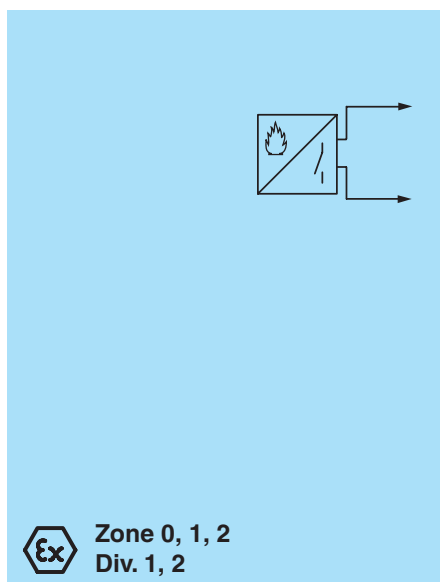
Since this isolator is loop-powered, use the technical data to verify that proper voltage is available to the field devices.

**Assembly**

Front view



**Connection**



Zone 2  
Div. 2

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

Pepperl+Fuchs Group  
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<b>General specifications</b>		
Signal type		Analog input
<b>Supply</b>		
Rated voltage	$U_n$	loop powered
Power loss		0.2 W
<b>Input</b>		
Connection		terminals 11+, 12-
Short-circuit current		≤ 65 mA
Transmission range		voltage: 0 ... 24 V current: 1 ... 20 mA
<b>Output</b>		
Connection		terminals 1+, 2-
Current		0 ... 20 mA
Voltage		0 ... 24 V for $4 V \leq U_e \leq 24 V$ : $\geq U_e - (0.72 \times \text{current in mA}) - 0.5$
<b>Transfer characteristics</b>		
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)
<b>Electrical isolation</b>		
Input/Output		safe electrical isolation acc. to IEC/EN 60079-11, voltage peak value 375 V
<b>Directive conformity</b>		
Electromagnetic compatibility		
Directive 2004/108/EC		EN 61326-1:2013
<b>Conformity</b>		
Electromagnetic compatibility		NE 21:2006
Degree of protection		IEC 60529:2001
Protection against electrical shock		UL 61010-1
<b>Ambient conditions</b>		
Ambient temperature		-20 ... 60 °C (-4 ... 140 °F)
<b>Mechanical specifications</b>		
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
<b>Data for application in connection with Ex-areas</b>		
EC-Type Examination Certificate		BAS 00 ATEX 7087 , for additional certificates see <a href="http://www.pepperl-fuchs.com">www.pepperl-fuchs.com</a>
Group, category, type of protection		$\text{Ex}$ II (1)G [Ex ia Ga] IIC , $\text{Ex}$ II (1)D [Ex ia Da] IIIC , $\text{Ex}$ I (M1) [Ex ia Ma] I (-20 °C ≤ T <sub>amb</sub> ≤ 60 °C)
Voltage	$U_o$	25.2 V
Current	$I_o$	43 mA
Power	$P_o$	271 mW
<b>Supply</b>		
Maximum safe voltage	$U_m$	250 V (Attention! The rated voltage can be lower.)
<b>Type of protection [Ex ia]</b>		
Statement of conformity		TÜV 99 ATEX 1499 X , observe statement of conformity
Group, category, type of protection, temperature class		$\text{Ex}$ II 3G Ex nA II T4 [device in zone 2]
<b>Electrical isolation</b>		
Input/Output		safe electrical isolation acc. to IEC/EN 60079-11, voltage peak value 375 V
<b>Directive conformity</b>		
Directive 94/9/EC		EN 60079-0:2012 , EN 60079-11:2012 , EN 60079-15:2010
<b>International approvals</b>		
FM approval		
Control drawing		116-0129 (cFMus)
UL approval		
Control drawing		116-0348 (cULus)
IECEx approval		IECEx BAS 08.0079 IECEx BAS 10.0007X
Approved for		[Ex ia Ga] IIC, [Ex ia Da] IIIC, [Ex ia Ma] I Ex nA II T4 Gc
<b>General information</b>		
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 <a href="http://www.pepperl-fuchs.com">www.pepperl-fuchs.com</a> .

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