

Features

- 2-channel isolated barrier
- 115 V AC supply
- Dry contact or NAMUR inputs
- Latching relay contact output
- Line fault detection (LFD)

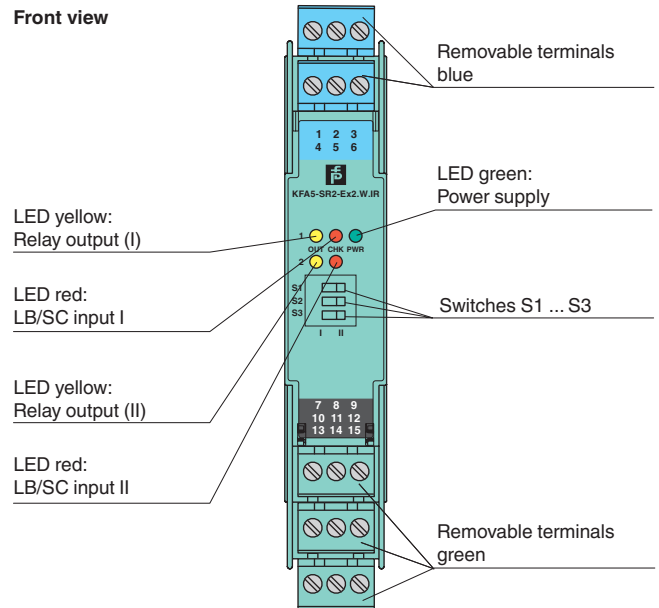
Function

This isolated barrier is used for intrinsic safety applications. The device is used for level control, pump control and other switching applications.

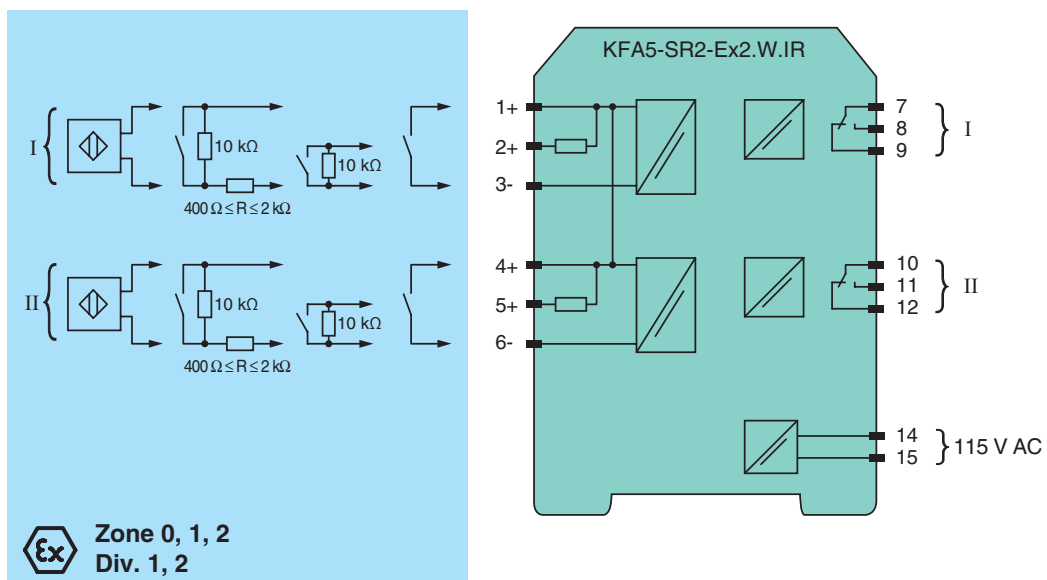
The device transfers digital signals from NAMUR sensors or dry contacts from the hazardous area to the non-hazardous area.

The device is easily configured by the use of DIP switches. A fault is signalized by LEDs.

Assembly



Connection



General specifications		
Signal type		Digital Input
Supply		
Connection		terminals 14, 15
Rated voltage	U_r	103.5 ... 126 V AC , 45 ... 65 Hz
Power consumption		≤ 1.5 W
Input		
Connection side		field side
Connection		terminals 1+, 2+, 3-; 4+, 5+, 6-
Rated values		acc. to EN 60947-5-6 (NAMUR)
Open circuit voltage/short-circuit current		approx. 8 V DC / approx. 8 mA
Line fault detection		breakage $I \leq 0.1$ mA , short-circuit $I > 6$ mA
Pulse/Pause ratio		≥ 10 ms / ≥ 10 ms
Output		
Connection side		control side
Connection		output I: terminals 7, 8, 9 ; output II: terminals 10, 11, 12
Output I, II		signal ; relay
Contact loading		253 V AC/2 A/cos $\phi > 0.7$; 126.5 V AC/4 A/cos $\phi > 0.7$; 40 V DC/2 A resistive load
Energized/De-energized delay		approx. 20 ms / approx. 20 ms
Mechanical life		10^7 switching cycles
Transfer characteristics		
Switching frequency		≤ 10 Hz
Galvanic isolation		
Input/Output		reinforced insulation according to IEC/EN 61010-1, rated insulation voltage 300 V _{eff}
Input/power supply		reinforced insulation according to IEC/EN 61010-1, rated insulation voltage 300 V _{eff}
Output/power supply		reinforced insulation according to IEC/EN 61010-1, rated insulation voltage 300 V _{eff}
Output/Output		reinforced insulation according to IEC/EN 61010-1, rated insulation voltage 300 V _{eff}
Indicators/settings		
Display elements		LEDs
Control elements		DIP-switch
Configuration		via DIP switches
Labeling		space for labeling at the front
Directive conformity		
Electromagnetic compatibility		
Directive 2014/30/EU		EN 61326-1:2013 (industrial locations)
Low voltage		
Directive 2014/35/EU		EN 61010-1:2010
Conformity		
Electromagnetic compatibility		NE 21:2006
Degree of protection		IEC 60529:2001
Input		EN 60947-5-6:2000
Ambient conditions		
Ambient temperature		-20 ... 60 °C (-4 ... 140 °F)
Mechanical specifications		
Degree of protection		IP20
Connection		screw terminals
Mass		approx. 150 g
Dimensions		20 x 119 x 115 mm (0.8 x 4.7 x 4.5 inch) , housing type B2
Mounting		on 35 mm DIN mounting rail acc. to EN 60715:2001
Data for application in connection with hazardous areas		
EU-Type Examination Certificate		PTB 00 ATEX 2081
Marking		Ex II (1)G [Ex ia Ga] IIC Ex II (1)D [Ex ia Da] IIIC Ex I (M1) [Ex ia Ma] I
Input		Ex ia
Voltage	U_o	10.6 V
Current	I_o	19.1 mA
Power	P_o	51 mW (linear characteristic)
Supply		
Maximum safe voltage	U_m	126.5 V AC (Attention! U_m is no rated voltage.)
Output		
Contact loading		253 V AC/2 A/cos $\phi > 0.7$; 126.5 V AC/4 A/cos $\phi > 0.7$; 40 V DC/2 A resistive load
Maximum safe voltage	U_m	253 V AC (Attention! The rated voltage can be lower.)
Galvanic isolation		

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

Pepperl+Fuchs Group
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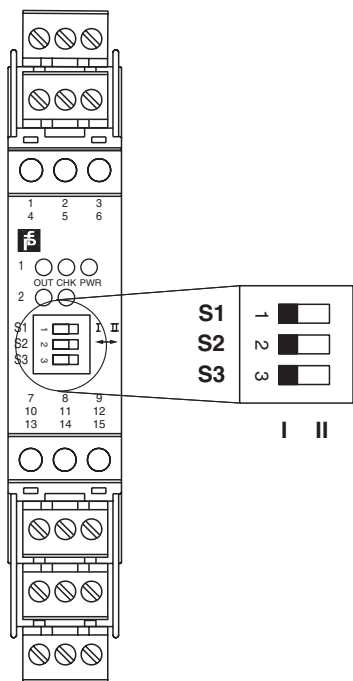
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Input/input	not available
Input/Output	safe electrical isolation acc. to IEC/EN 60079-11, voltage peak value 375 V
Input/power supply	safe electrical isolation acc. to IEC/EN 60079-11, voltage peak value 375 V
Directive conformity	
Directive 2014/34/EU	EN 60079-0:2012+A11:2013 , EN 60079-11:2012
International approvals	
FM approval	
Control drawing	116-0035
UL approval	
Control drawing	116-0145
CSA approval	
Control drawing	116-0047
IECEX approval	IECEX PTB 11.0031
Approved for	[Ex ia Ga] IIC, [Ex ia Da] IIIC, [Ex ia Ma] I
General information	
Supplementary information	Observe the certificates, declarations of conformity, instruction manuals, and manuals where applicable. For information see www.pepperl-fuchs.com .

Configuration



Switch position

S	Function	Position
1	Mode of operation output I (relay) energized	with high input current
	with low input current	II
2	Mode of operation output II (relay) energized	with high input current
	with low input current	II
3	Line fault detection	ON
	OFF	II

Operating status

Control circuit	Input signal
Sensor high impedance/contact opened	low input current
Sensor low impedance/contact closed	high input current
Lead breakage, short circuit	Line fault

Factory setting: switch 1, 2 and 3 in position I