

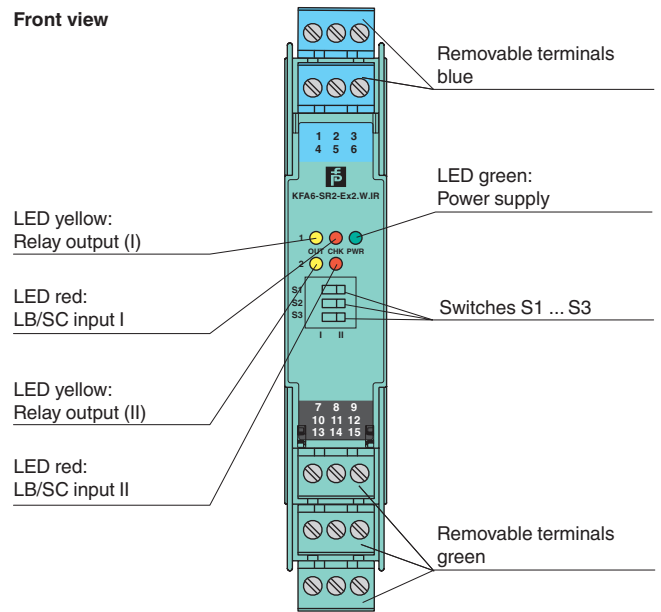
**Features**

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

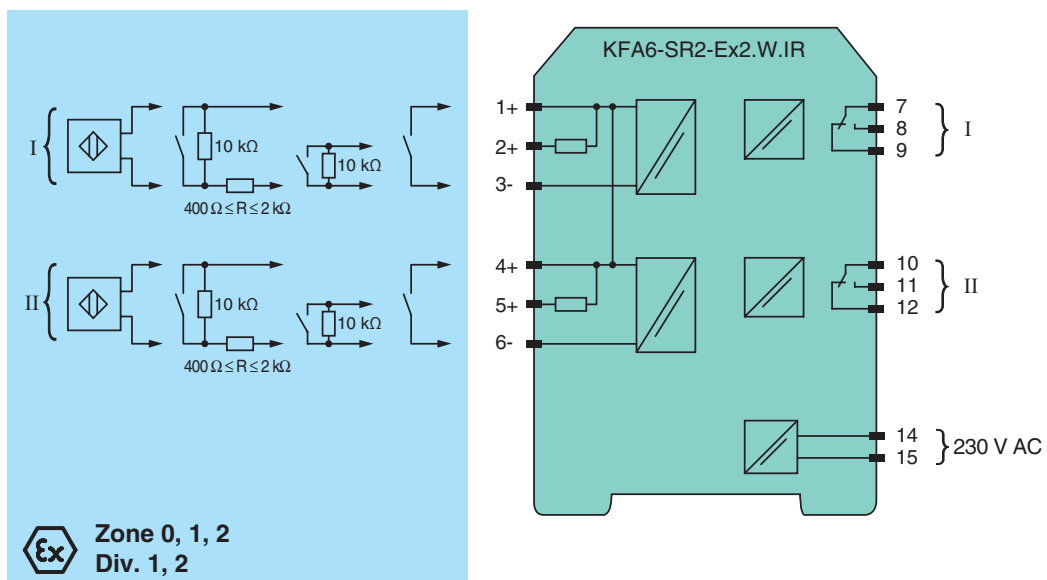
**Function**

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**



Release date 2019-01-24 13:57 Date of issue 2019-01-24 107093\_eng.xml

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

<b>General specifications</b>		
Signal type		Digital Input
<b>Supply</b>		
Connection		terminals 14, 15
Rated voltage	$U_r$	207 ... 253 V AC, 45 ... 65 Hz
Power consumption		≤ 1.5 W
<b>Input</b>		
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
<b>Output</b>		
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
<b>Transfer characteristics</b>		
Switching frequency		≤ 10 Hz
<b>Galvanic isolation</b>		
Input/Output		reinforced insulation according to IEC/EN 61010-1, rated insulation voltage 300 V <sub>eff</sub>
Input/power supply		reinforced insulation according to IEC/EN 61010-1, rated insulation voltage 300 V <sub>eff</sub>
Output/power supply		reinforced insulation according to IEC/EN 61010-1, rated insulation voltage 300 V <sub>eff</sub>
Output/Output		reinforced insulation according to IEC/EN 61010-1, rated insulation voltage 300 V <sub>eff</sub>
<b>Indicators/settings</b>		
Display elements		LEDs
Labeling		space for labeling at the front
<b>Directive conformity</b>		
Electromagnetic compatibility		
Directive 2014/30/EU		EN 61326-1:2013 (industrial locations)
Low voltage		
Directive 2014/35/EU		EN 61010-1:2010
<b>Conformity</b>		
Electromagnetic compatibility		NE 21:2006
Degree of protection		IEC 60529:2001
Input		EN 60947-5-6:2000
<b>Ambient conditions</b>		
Ambient temperature		-20 ... 60 °C (-4 ... 140 °F)
<b>Mechanical specifications</b>		
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
<b>Data for application in connection with hazardous areas</b>		
EU-Type Examination Certificate		PTB 00 ATEX 2081
Marking		$\text{Ex}$ II (1)G [Ex ia Ga] IIC $\text{Ex}$ II (1)D [Ex ia Da] IIIC $\text{Ex}$ I (M1) [Ex ia Ma] I
Input		Ex ia
Voltage	$U_o$	10.6 V
Current	$I_o$	19.1 mA
Power	$P_o$	51 mW (linear characteristic)
<b>Supply</b>		
Maximum safe voltage	$U_m$	253 V AC (Attention! $U_m$ is no rated voltage.)
<b>Output</b>		
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.)
<b>Galvanic isolation</b>		
Input/input		not available
Input/Output		safe electrical isolation acc. to IEC/EN 60079-11, voltage peak value 375 V

Release date 2019-01-24 13:57 Date of issue 2019-01-24 107093\_eng.xml

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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
<b>International approvals</b>	
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
<b>General information</b>	
Supplementary information	Observe the certificates, declarations of conformity, instruction manuals, and manuals where applicable. For information see <a href="http://www.pepperl-fuchs.com">www.pepperl-fuchs.com</a> .

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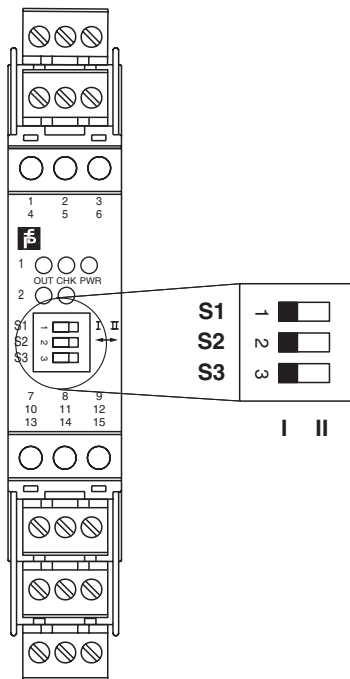
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**Configuration**



**Switch position**

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