

**Features**

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

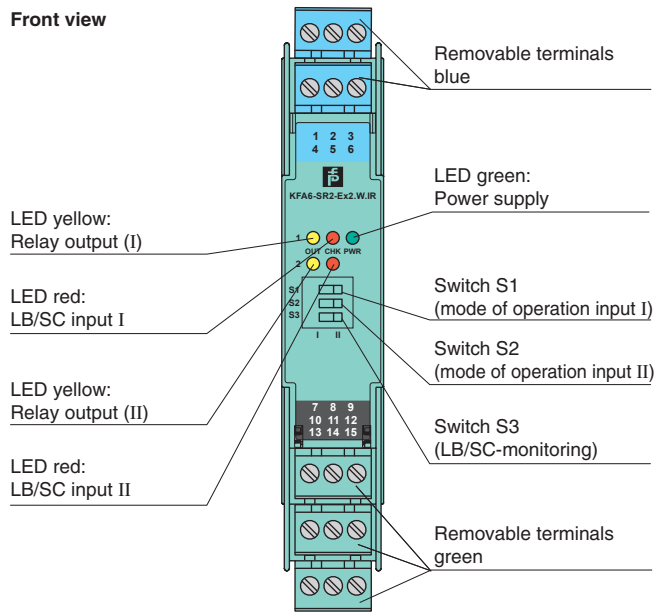
**Function**

This isolated barrier is used for intrinsic safety applications. It has a latching relay (bistable operation) for level control, pump up/pump down, or other switch/logic applications. The device is set by an active signal on input I and is reset by an active signal on input II. The mode of operation of inputs I and II can be programmed.

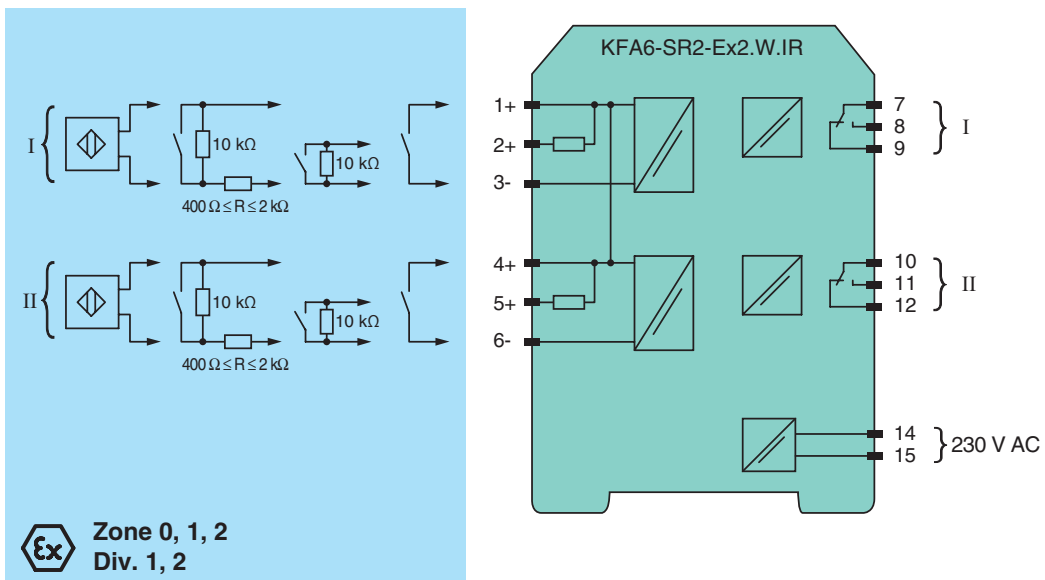
Switch S3 is used to enable or disable line fault detection of the field circuit. During an error condition or loss of power, the form C changeover relays revert to their de-energized state and the LEDs indicate the fault according to NAMUR NE44. When the wiring fault is corrected, the relay will revert to the state prior to the fault.

If the device is re-energized after power loss, the relays return to a factory-configured state.

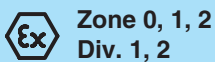
**Assembly**



**Connection**



Release date 2015-02-19 11:47 Date of issue 2015-02-19 107093\_eng.xml



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

Pepperl+Fuchs Group  
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<b>General specifications</b>		
Signal type		Digital Input
<b>Supply</b>		
Connection		terminals 14, 15
Rated voltage	$U_n$	207 ... 253 V AC, 45 ... 65 Hz
Power consumption		≤ 1.5 W
<b>Input</b>		
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		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>Electrical 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>Directive conformity</b>		
Electromagnetic compatibility		
Directive 2004/108/EC		EN 61326-1:2006
Low voltage		
Directive 2006/95/EC		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
Mass		approx. 150 g
Dimensions		20 x 119 x 115 mm (0.8 x 4.7 x 4.5 in) , housing type B2
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		PTB 00 ATEX 2081 , 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
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>Electrical isolation</b>		
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
<b>Directive conformity</b>		
Directive 94/9/EC		EN 60079-0:2012 , EN 60079-11:2012
<b>International approvals</b>		
<b>FM approval</b>		
Control drawing		116-0035

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<b>UL approval</b>	
Control drawing	116-0145
<b>CSA approval</b>	
Control drawing	116-0047
<b>IECEX approval</b>	
Approved for	IECEX PTB 11.0031 [Ex ia Ga] IIC, [Ex ia Da] IIIC, [Ex ia Ma] I
<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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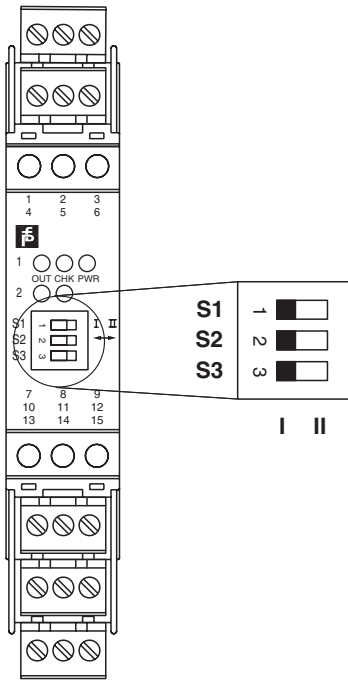
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**Configuration**



**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
Initiator high impedance/ contact opened	low input current
Initiator low impedance/ contact closed	high input current
Lead breakage, lead short-circuit	Line fault

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