Features

- 2-channel isolated barrier
- 24 V DC supply (loop powered)
- Relay contact output
- Logic input 15 V DC ... 30 V DC, non-polarized
- Up to SIL3 acc. to IEC 61508

Function

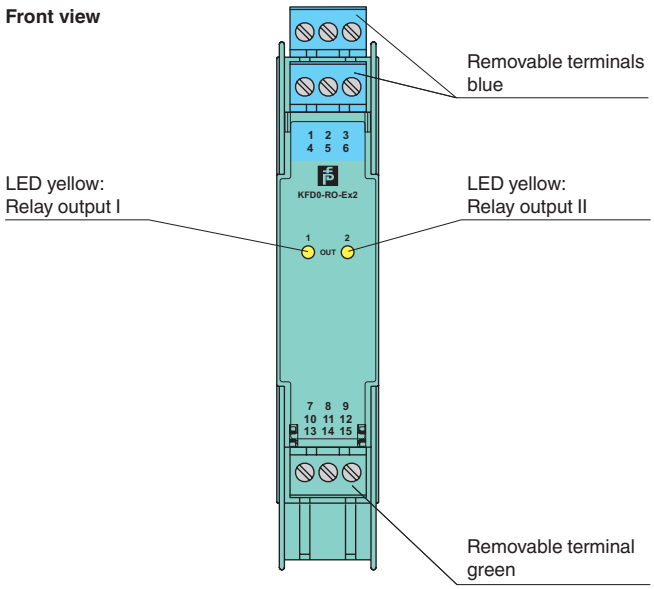
This isolated barrier is used for intrinsic safety applications.

The device switches intrinsically safe circuits on the field side. Typical applications for the use of the device are remote reset, fire alarm testing or remote calibration of strain gauges.

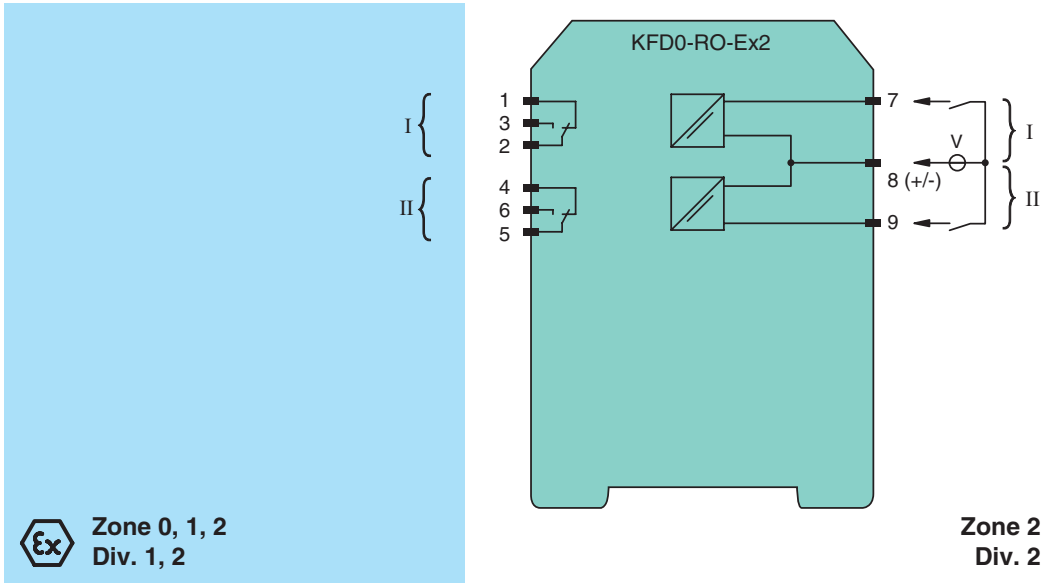
The outputs are galvanically isolated to the inputs. The inputs are not polarized and share a common reference potential.

Each input of the device is protected by a fuse and an electronic current limiting.

Assembly



Connection

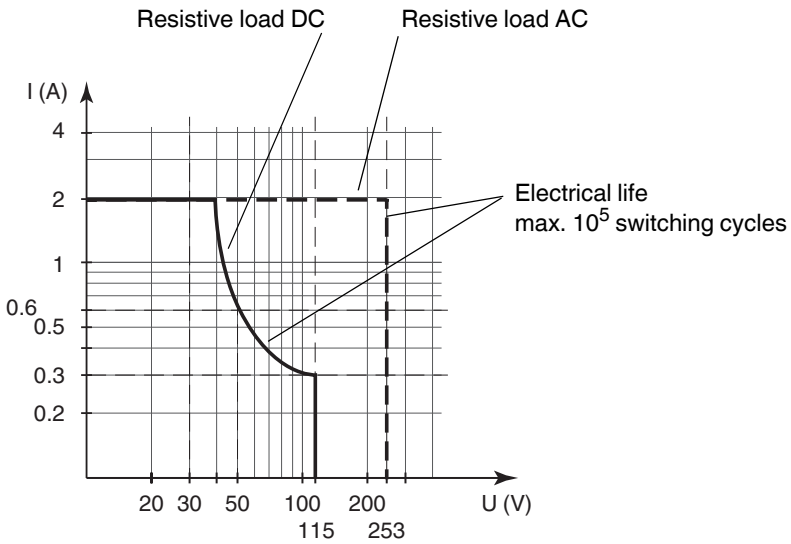


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General specifications		
Signal type		Digital Output
Supply		
Power dissipation		0.8 W
Input		
Connection		terminals 7, 8, 9
Input voltage		15 ... 30 V DC
Input current		≤ 21 mA per channel
Output		
Safety note		Attention! Combination of output Ex i with output **not** Ex i is **not** permitted. If load voltage > 50 V, de-energize before removing the terminals.
Connection		terminals 1, 2, 3; 4, 5, 6
Contact loading		230 V AC/2 A/cos ϕ > 0.7; 40 V DC/2 A resistive load
Energized/De-energized delay		approx. 10 ms / approx. 5 ms
Mechanical life		5 x 10^6 switching cycles
Transfer characteristics		
Switching frequency		< 10 Hz
Electrical isolation		
Input/Output		reinforced insulation according to IEC/EN 61010-1, rated insulation voltage 300 V_{eff}
Output/Output		basic insulation according to IEC/EN 61010-1, rated insulation voltage 300 V_{eff}
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
Ambient conditions		
Ambient temperature		-20 ... 65 °C (-4 ... 149 °F)
Mechanical specifications		
Degree of protection		IP20
Mass		approx. 100 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
Data for application in connection with Ex-areas		
EC-Type Examination Certificate		DMT 00 ATEX E 016
Group, category, type of protection		⟨Ex⟩ II (1)GD [Ex ia] IIC , [Ex iaD] , I (M1) [Ex ia] I
Output		Ex ia
Voltage	U_i	60 V
Current	I_i	2 A
Input		
Maximum safe voltage	U_m	40 V DC (Attention! U_m is no rated voltage.)
Output		
Contact loading		50 V AC/2 A ; 40 V DC/2 A (TÜV 00 ATEX 1621 X)
Statement of conformity		TÜV 00 ATEX 1621 X
Group, category, type of protection, temperature class		⟨Ex⟩ II 3G Ex nA nC IIC T4
Electrical isolation		
Input/Output		safe electrical isolation acc. to IEC/EN 60079-11, voltage peak value 375 V
Output/Output		safe electrical isolation acc. to IEC/EN 60079-11, voltage peak value 60 V
Directive conformity		
Directive 2014/34/EU		EN 60079-0:2012+A11:2013 , EN 60079-11:2012 , EN 60079-15:2010 , EN 60079-26:2007 , EN 50303:2000
International approvals		
CSA approval		
Control drawing		116-0156
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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Maximum switching power of output contacts



The maximum number of switching cycles is depending on the electrical load and may be higher when reduced currents and voltages are applied.

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