Features

- 1-channel signal conditioner
- 24 V DC supply (loop powered)
- Fail-safe relay contact output
- Logic input 20 V DC ... 30 V DC, non-polarized
- Test pulse immunity
- Up to SIL3 acc. to IEC 61508

Function

This signal conditioner is a relay module that is suitable for safely switching applications of a load circuit. The device isolates load circuits up to 230 V and the 24 V control interface.

The output is galvanically isolated from the input and is protected against contact welding by a fuse.

The three relays are of diverse design, but have a common effect on the switch output.

Application

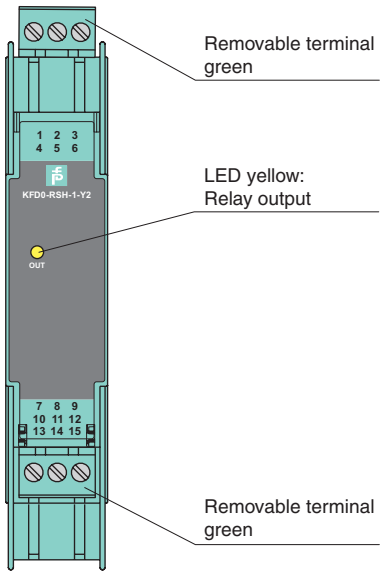
This device is compatible to the controls:

- Invensys Tricon DO cards 3604, 3624 und 3664
- Invensys Trident DO card DO3401

Compatibility check to other ESD/DCS systems on request.

Assembly

Front view



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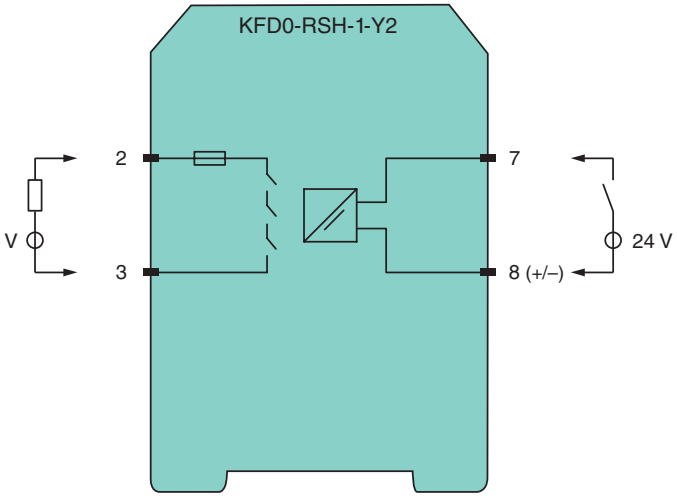
Connection



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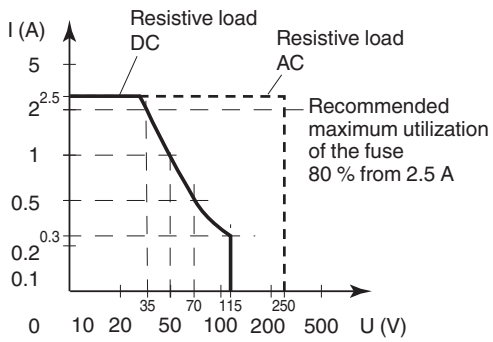
General specifications	
Signal type	Digital Output
Supply	
Power loss	< 1.5 W
Power consumption	< 1.5 W
Input	
Connection	terminals 7, 8
Pulse/Pause ratio	≥ 35 ms / ≥ 35 ms
Pulse/Pause ratio test pulse	< 10 %
Test pulse length	max. 2 ms
Signal level	0-signal: 0 ... 5 V DC 1-signal: 20 ... 30 V
Rated current I_n	approx. 58 mA
Output	
Connection	terminals 2, 3
Contact loading	230 V AC/2 A/cos ϕ 0.7; 40 V DC/2 A resistive load
Minimum switch current	2 mA / 24 V DC
Energized/De-energized delay	5 ... 15 ms / 5 ... 10 ms
Mechanical life	5 x 10^6 switching cycles
Electrical life	2 x 10^5 switching cycles , at maximium load
Fuse rating	2.5 A recommended maximum utilization of the fuse: 80 %
Transfer characteristics	
Switching frequency	< 10 Hz
Electrical isolation	
Input/Output	reinforced insulation according to IEC/EN 61010-1, rated insulation voltage 300 V_{eff}
Directive conformity	
Electromagnetic compatibility	
Directive 2004/108/EC	EN 61326-1:2006
Low voltage	
Directive 2006/95/EC	EN 61010-1:2010
Conformity	
Electromagnetic compatibility	NE 21:2006
Degree of protection	IEC 60529:2001
Ambient conditions	
Ambient temperature	-20 ... 60 °C (-4 ... 140 °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
General information	
Supplementary information	Statement of Conformity, Declaration of Conformity, Attestation of Conformity and instructions have to be observed where applicable. For information see www.pepperl-fuchs.com.

Maximal switching power of the output



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