

Relay Module KFD0-RSH-1

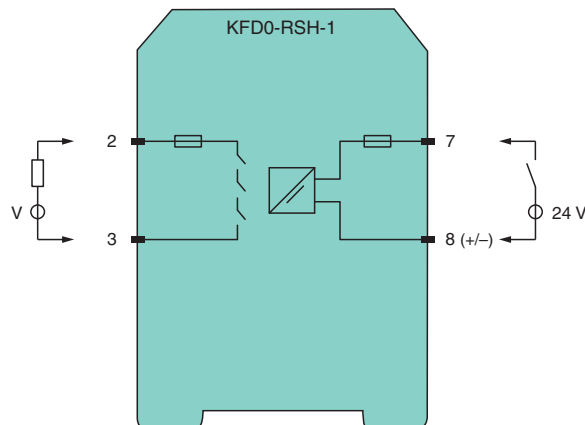
- 1-channel signal conditioner
- 24 V DC supply (loop powered)
- Logic input 16 V DC ... 30 V DC, non-polarized
- Fail-safe relay contact output
- Up to SIL 3 acc. to IEC/EN 61508

CE SIL3

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.

Connection



Technical Data

General specifications

Signal type Digital Output

Functional safety related parameters

Safety Integrity Level (SIL) SIL 3

Supply

Rated voltage U_r 0-signal: 0 ... 5 V DC, loop powered
1-signal: 16 ... 30 V DC, loop powered

Power dissipation < 1.5 W

Power consumption < 1.5 W

Input

Connection side control side

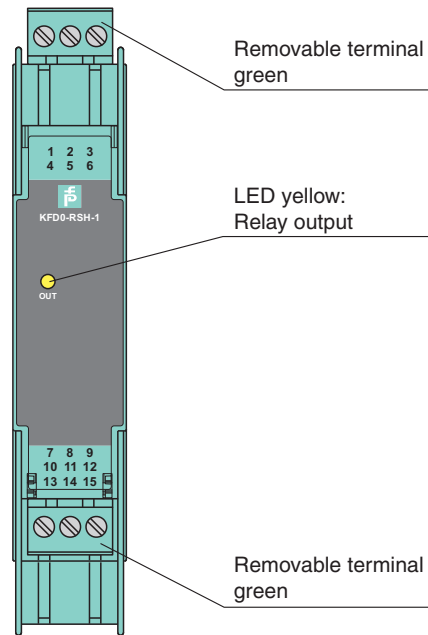
Connection terminals 7, 8

Technical Data


Pulse/Pause ratio		min. 20 ms / min. 20 ms
Signal level		0-signal: 0 ... 5 V DC 1-signal: 16 ... 30 V
Rated current	I_r	approx. 50 mA
Output		
Connection side		field side
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		approx. 10 ms / approx. 5 ms
Mechanical life		5 x 10 ⁶ switching cycles
Electrical life		2 x 10 ⁵ switching cycles , at maximum load
Fuse rating		2.5 A recommended maximum utilization of the fuse: 80 %
Transfer characteristics		
Switching frequency		< 10 Hz
Galvanic isolation		
Input/Output		reinforced insulation according to IEC/EN 61010-1, rated insulation voltage 300 V _{eff}
Indicators/settings		
Display elements		LED
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
Ambient conditions		
Ambient temperature		-20 ... 60 °C (-4 ... 140 °F)
Mechanical specifications		
Degree of protection		IP20
Connection		screw terminals
Mass		approx. 100 g
Dimensions		20 x 119 x 115 mm (0.8 x 4.7 x 4.5 inch) (W x H x D) , housing type B2
Mounting		on 35 mm DIN mounting rail acc. to EN 60715:2001
General information		
Supplementary information		Observe the certificates, declarations of conformity, instruction manuals, and manuals where applicable. For information see www.pepperl-fuchs.com .

Assembly



Front view



Matching System Components

	K-DUCT-GY	Profile rail, wiring comb field side, gray
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Accessories

	KF-ST-5GN	Terminal block for KF modules, 3-pin screw terminal, green
	KF-CP	Red coding pins, packaging unit: 20 x 6

Release date: 2023-02-14 Date of issue: 2023-02-14 Filename: 203635_eng.pdf

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

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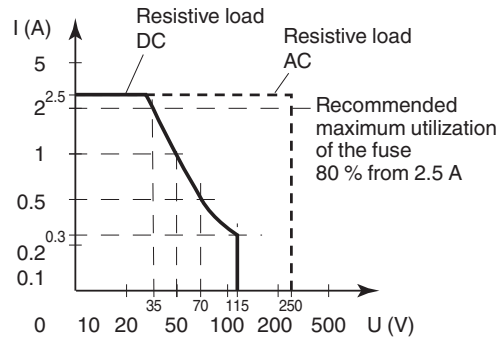
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Characteristic Curve

Maximal switching power of the output



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