# **Relay Module**

### KFD0-RSH-1-Y191196

### Features

- 1-channel signal conditioner
- 24 V DC supply (loop powered)
- Fail-safe relay contact output
- Logic input 16 V DC ... 30 V DC, non-polarized
- Special version with test pulse suppression for Trident system from Triconex
- Up to SIL3 acc. to IEC 61508

#### Function

This isolated signal conditioner is used for non hazardous area applications. It is a relay module that is suitable for safely switching applications of a control 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 different design, but have a common effect on the switch output.



SIL3

## 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 <sub>i</sub>	approx. 50 mA
Output	
Connection	terminals 2, 3
Contact loading	230 V AC / 2 A / cos
Minimum switch current	2 mA / 24 V DC
Energized/de-energized delay	max. 15 ms / max. 10 ms
Mechanical life	5 x 10 <sup>6</sup> switching cycles
Transfer characteristics	
Switching frequency	< 10 Hz
Electrical isolation	
Input/output	reinforced insulation acc. to IEC 61140, rated insulation voltage 253 $\mathrm{V}_{\mathrm{eff}}$
Directive conformity	
Electromagnetic compatibility	
Directive 2004/108/EC	EN 61326-1:2006
Low voltage	
Directive 2006/95/EC	EN 50178:1997
Conformity	
Electromagnetic compatibility	NE 21
Protection degree	IEC 60529
Protection against electric shock	IEC 61140
Ambient conditions	
Ambient temperature	-20 60 °C (253 333 K)
Mechanical specifications	
Protection degree	IP20
Mass	approx. 100 g
Dimensions	20 x 93 x 115 mm (0.8 x 3.7 x 4.5 in) , housing type B1
General information	
Supplementary information	Statement of Conformity, Declaration of Conformity and instructions have to be observed where applicable.

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