



## Miniature Power Relay TRK 10 A

**250 mW rated power**  
**5 A, 250 V<sub>AC</sub> contact load**  
**4 kV test voltage between coil and contact**  
**According to EN 60950 (IEC 950, VDE 0805)**



- **Small dimension 20.3 x 10.2 x 11.5 mm**
- **Washable version Q**
- **Direct installation on PCB**
- **Non-flammable material V – 0**
- **High inrush currents with AgSnO<sub>2</sub> contacts**
- **Ambient temperature up to +85°C**
- **High insulation resistance**
- **Plastic bars packing**

### Application

Relay TRK 10XX A is a neutral, monostable, electromagnetic relay for DC coil energizing with one change-over contact system. Small dimensions and low self-heating of this relays enable high density of electronics components on PC board.

As a switching element with ability of galvanic separation it is designed to control medium power devices in industrial automation, automotive industry, safety and alarm devices, office equipment, and for general purposes.

In case of full load on contacts and operating with max. switching rate and max. ambient temperature it is recommended to open the vent hole provided for this purpose, after the relay is mounted on the PCB and the cleaning process is completed.

## Technical Data

### Contact data

Form	1 Change-over , 1 Make , 1 Break
Material	Ag Sn O <sub>2</sub>
Rated current	5 A
Max. operating voltage	380 V <sub>AC</sub> , 220 V <sub>DC</sub>
Max.switching power	1500 VA, 60 W to 144 W
Min.switching load	5V <sub>DC</sub> , 100 mA
Contact resistance:	≤ 100 mΩ (100mA, 24V <sub>AC</sub> ) - new relay
Max.operating frequency	360 operations /h - rated load 36000 operations/h - min. load
Capacitance cont.-cont.	≤ 1,5 pF
Mechanical life	≥ 2 X 10 <sup>7</sup> operations
Electrical life	≥ 100 000 operations (NO contact, 5 A, 250 V <sub>AC</sub> ) at 23°C

### Coils

Coil rated voltage	Coil resistance at 20°C	Operative coil voltage range at 20°C		
		Must operate	Must release	U <sub>max</sub>
U <sub>n</sub> (V <sub>DC</sub> )	R <sub>n</sub> (Ω) ± 10%	U <sub>op</sub> ≤ (V <sub>DC</sub> )	U <sub>re</sub> ≥ (V <sub>DC</sub> )	(V <sub>DC</sub> )
3	36	2.3	0.3	6
5	100	3.9	0.5	11
6	144	4.7	0.6	13
9	324	7.0	0.9	19
12	576	9.4	1.2	26
18	1296	14.0	1.8	39
24	2304	18.7	2.4	52
36	5184	28.1	3.6	78
48	9216	37.4	4.8	104

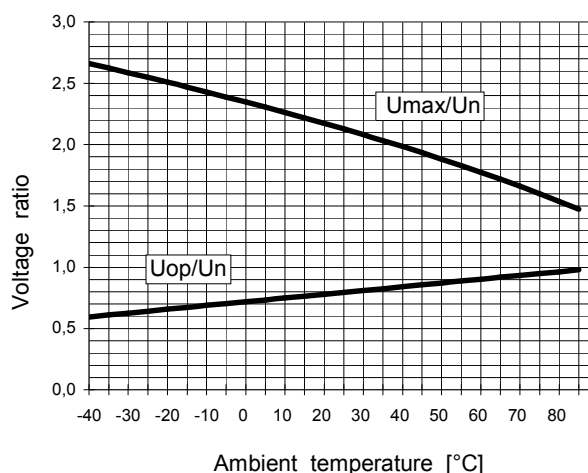
### General coil data for energizing at 20°C

Rated power: abt. 250 mW  
 Max.coil temperature: 155° C  
 Thermal resistance: abt. 155 K/W  
 Operative range: class 1, IEC 61810 - 1  
 Operate voltage: U<sub>op</sub> ≤ 78% U<sub>n</sub>  
 Release voltage: U<sub>re</sub> ≥ 10% U<sub>n</sub>

### Other data

Test voltage (1 min.):  
     contact - coil ≥ 4 kV<sub>rms</sub>, 50 Hz  
     contact - contact ≥ 1 kV<sub>rms</sub>, 50 Hz  
 Creepage distances:  
     contact - coil ≥ 5,5 mm  
 Clearances: contact - coil ≥ 4,5 mm  
 Impulse voltage test (1,2/50 μs):  
     contact - coil ≥ 5 kV<sub>imp</sub>  
 Operate time at U<sub>n</sub>: abt. 6 ms  
 Release time: abt. 4 ms  
 Bouncing time: abt. 2 ms - make, abt. 10 ms - break  
 Insulation resistance (500 V<sub>DC</sub>): > 10<sup>3</sup> MΩ  
 Vibrations resistance (10-200Hz): 10 g<sub>n</sub>  
 Shock resistance (11 ms)  
     functional: 20 g<sub>n</sub>  
     destructive: 100 g<sub>n</sub>  
 Ambient temperature  
     for operating: - 40°C to + 85°C  
     for storage: - 40°C to + 95°C  
 Protection degree: IP 67, IEC 529  
 Seal test: (1min), IEC60068-2-17: Qc/2  
 Flammability class: V-0, UL 94  
 Mounting position: optional  
 Relay weight: abt. 5 g

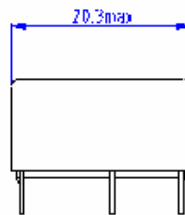
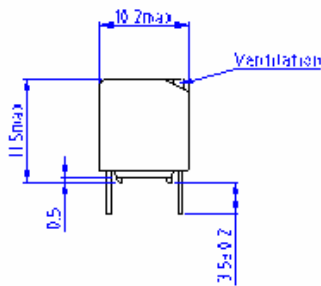
### Coil operative voltage range



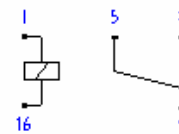
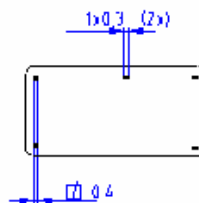
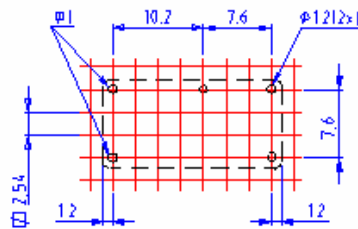
**Ordering data**

	TRK 10	X	X	A	XX DC
Basic designation					
Contact material:					
2 - AgSnO <sub>2</sub>					
Contact form:					
1 - Make (SPST-NO)					
2 - Break (SPST-NC)					
3 - Change over (SPDT)					
Coil rated voltage					

**Dimensions and terminals layout**



**Terminals side view**



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