



## Miniature Power Relay TRK 17



- Rated coil power 0.28 W, 0.33 W, 0.45 W
- Max. contact current 7 A or 10 A
- Direct instalation on PCB
- UL, VDE approval
- Ambient temperature up to +70°C
- Washable version Qc/2
- Non-flammable material V-0
- Plastic bars packing

## Technical data

Relay TRK 17 is a neutral, monostable, electromagnetic relay for DC coil energizing with one 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 industry, automatisaton, automotive industry, safety and alarm devices, heating 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 mounting of relay and completion of the cleaning proces on the PCB.

## Contact data

Form	1 Make, 1Break, 1Change-over	
Material	AgNi10	AgCdO (AgSnO <sub>2</sub> )*
Rated current	7 A	10 A
Max. operating voltage	250 V <sub>ac</sub> , 220 V <sub>dc</sub> (see diagram)	
Max.switching power	1750 VA, 170W	2500VA, 240 W
Min.switching load	100 mA, 5V <sub>dc</sub>	
Contact resistance	≤ 100 mΩ (100 mA,24V) - new relay	
Max.operating frequency rated load ( min.load )	600 oper./ h (36000 oper./ h)	360 oper./ h (36000 oper./ h)
Capacitance cont.-cont.	≤ 1,5 pF	
Mechanical life	≥ 2 X 10 <sup>7</sup> operations	
Electrical life	See diagram CO contact, at 70°C	

## Coil data

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> )
<b>HIGH SENSITIVE VERSION - 0.28 W</b>				
H 3	32	2,3	0,3	7
H 5	90	3,9	0,5	11
H 6	130	4,6	0,6	13
H 9	290	7,0	0,9	20
H 12	530	9,3	1,2	27
H 18	1160	14,0	1,8	40
H 24	2060	18,7	2,4	53
H 36	4630	28,1	3,6	80
H 48	8230	37,4	4,8	107
<b>SENSITIVE VERSION - 0.33 W</b>				
F 3	27	2.2	0.3	6.3
F 5	80	3.7	0.5	10.5
F 6	110	4.4	0.6	12.6
F 9	250	6.6	0.9	18.9
F 12	440	8.8	1.2	25.3
F 18	1000	13.1	1.8	37.9
F 24	1780	17.5	2.4	50.6
F 48	6980	35.0	4.8	76.3
F 60	6250	43.8	6.0	95.5
<b>STANDARD VERSION - 0.45 W</b>				
3	20	2.1	0.3	5.2
5	56	3.5	0.5	8.8
6	80	4.2	0.6	10.5
9	180	6.3	0.9	15.8
12	320	8.4	1.2	21.1
18	720	12.6	1.8	31.6
24	1280	16.8	2.4	42.2
36	2880	25.2	3.6	63.3
48	5120	33.6	4.8	72.4
60	5940	42.0	6.0	89.5

## Coil data for energizing at 20°C

Rated power:

high sensitive - H: abt. 0.28 W  
 sensitive - F: abt. 0.33 W  
 sensitive - F: abt. 0.57W for 60V  
 standard : abt. 0.45 W  
 standard : abt. 0.61W for 60V

Max.coil temperature:

155° C

Operate voltage (cold coil):

high sensitive - H: U<sub>op</sub> ≤ 78% U<sub>n</sub>  
 sensitive - F: U<sub>op</sub> ≤ 73% U<sub>n</sub>  
 standard : U<sub>op</sub> ≤ 70% U<sub>n</sub>

Release voltage:

U<sub>re</sub> ≥ 10% U<sub>n</sub>

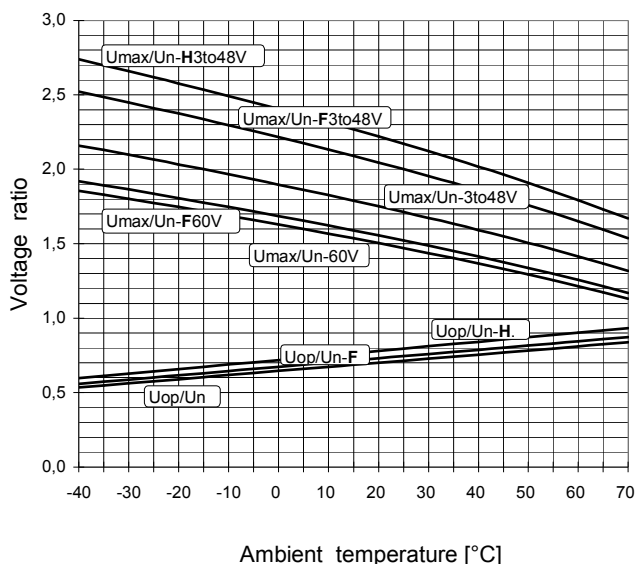
Thermal coil resistance:

abt.110 K/W

Operative range:

class 1, IEC 61810-1

## Operative voltage range



## Other data

Test voltage (1 min.):	
contact - coil	≥ 4 or 2 kV <sub>rms</sub> , 50 Hz
contact - contact	≥ 1 kV <sub>rms</sub> , 50 Hz
Impulse voltage test (1,2/50 μs):	
contact - coil	≥ 5 kV <sub>imp</sub>
Operate time at Un:	abt. 7 ms
Release time:	abt. 3 ms
Bounce time:	abt. 2 ms - make, abt. 10 ms - break
Insulation resistance (500 VDC):	> 10 <sup>3</sup> MΩ
Vibrations resistance (10-200Hz):	10 g <sub>n</sub>
Shock resistance (11 ms)	
functional:	10 g <sub>n</sub>
destructive:	100 g <sub>n</sub>
Ambient temperature	
for operating:	- 40°C to + 70°C
for storage:	- 40°C to + 85°C
Protection degree:	IP 67, IEC 529
Seal test: (1min)	Qc/2, IEC 60068-2-17
Flammability class:	V-0, UL 94
Mounting position:	optional
Relay weight:	abt. 9.5 g

## Ordering data TRK 17 X X K H XXdc

BASIC DESIGNATION

CONTACT MATERIAL:

- 0 - AgNi10 (7A)
- 1 - AgCdO (10A)
- 2 - AgSnO<sub>2</sub> (10A)

CONTACT FORM:

- 1 - MAKE (NO)
- 2 - BREAK (NC)
- 3 - CHANGE-OVER (SPDT)

TEST VOLTAGE BETWEEN COIL AND CONTACT:

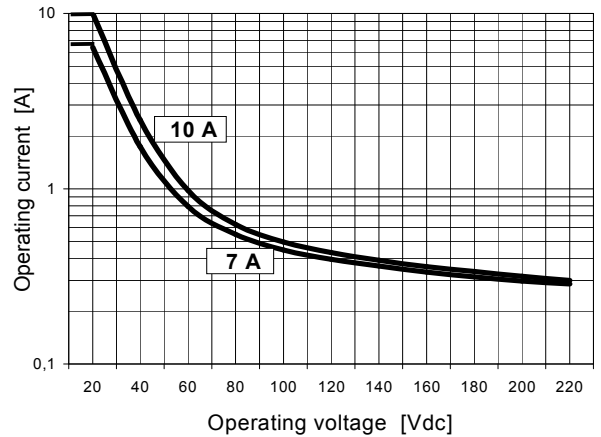
K - 4 kV; WITHOUT - 2 kV

COIL VERSION:

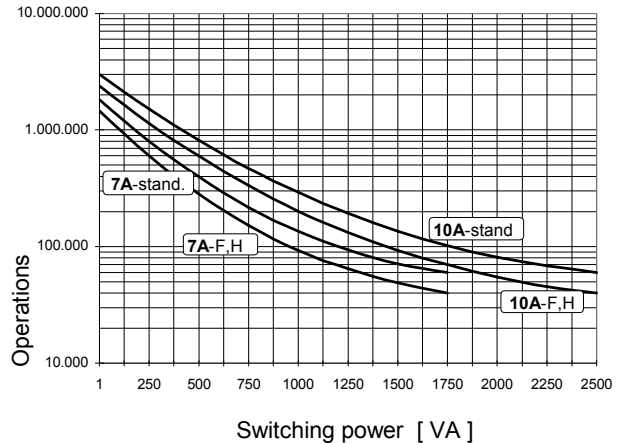
- WITHOUT - STANDARD
- F - SENSITIVE
- H - HIGH SENSITIVE

COIL RATED VOLTAGE:

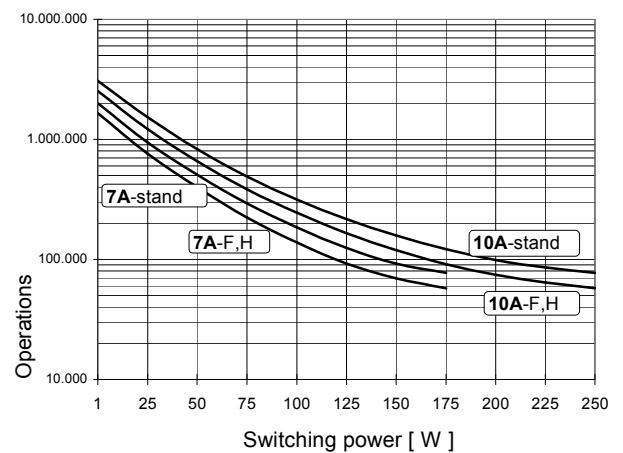
## Max. switching capacity – resistive DC load



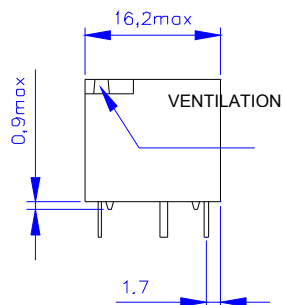
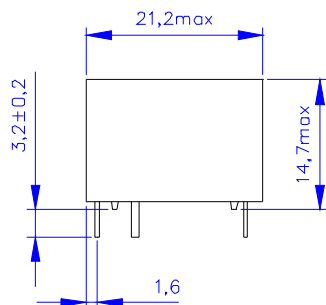
## Electrical life at resistive AC load



## Electrical life at resistive DC load

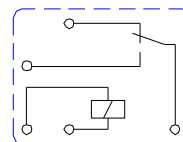
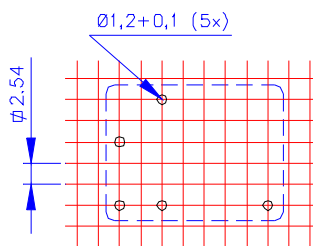
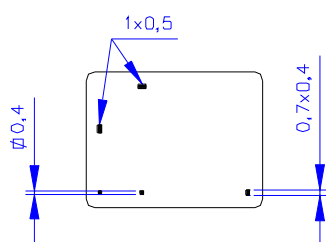


**Dimensions and terminals layout**



TOLERANCE  $\pm 0.1$

TERMINALS SIDE



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