TRK 12-14
Miniature Relay

- Small dimensions
- Rated coil power 0.2 W or 0.45 W
- Max. contact current 1,25 A or 3 A
- Direct instalation on PCB
- Ambient temperature up to +70°C
- Washable version Qc/2
- Extinguishable casing V-0
- Plastic bars packing

Technical data

Characteristics

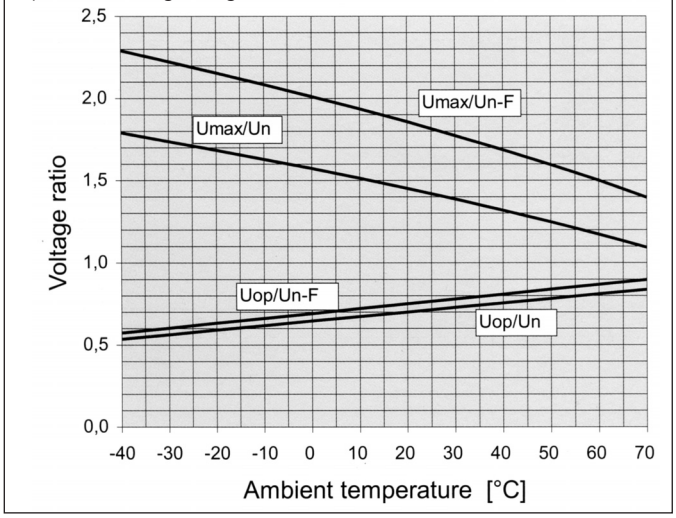
- Contact Form: 1 Change-Over, 1 Make, 1Break
- Rated Current: 1.25A and 3A
- Contact Material: 1.25A AgNi10+AuAg8 or Ag Pd30+AuAg8
  3A AgNi10
- Max. Operating Voltage: 120VAC, 120VDC (see diagram)
- Max. Switching Power: 1.25A 150VA 60W - 3A 250VA 70W
- Min. Switching Load: 1.25A 10 µA 10 mVDC - 3A 5VDC 100mA
- Contact Resistance: 1.25A ≤ 50 mΩ - 3A ≤ 100 mΩ
  New relay
  1.25A 10mA 30 mVDC - 3A 100mA 5VDC
- Max. Operating Frequency:
  1.25A 1800 operations/h rated load 36000 operations/h min. load
  3A 600 operations/h rated load 36000 operations/h min. load
- Capacitance cont-cont: ≤ 1,5 pF
- Mechanical Life: ≥ $2x10^7$ operations
- Electrical Life: See diagram
- Rated Power: sensitive-F abt. 0.2 W - standard abt. 0.45 W
- Max. Coil Temperature: 155°C
- Thermal Coil Resistance: sensitive-F abt. 220 K / W
  standard abt. 160 K / W
- Operate Voltage: sensitive-F Uop ≤ 75% Un (cold coil)
  standard Uop ≤ 70% Un (cold coil)
- Release Voltage: Ure ≥ 10% Un
- Operative Range: 1, IEC61810-1
- Test Voltage (1 min.): contact-coil ≥ 1000 Vrms 50 Hz
  contact-contact ≥ 660 Vrms 50 Hz
- Rated Impulse Voltage (1,2/50 µs): contact-coil ≥ 1.5 kVimp
- Overvoltage Category: II, IEC 60664-1
- Degree of Pollution: 2, IEC 60664-1
- Operate Time at Un: see diagram
- Release Time: abt. 4 ms
- Bouncing Time: abt. 2 ms make abt. 10 ms break
- Insulation Resistance (500 VDC): > 10^3 MΩ
- Vibration Resistance (10–200Hz): 10 g_n
- Shock Resistance (11 ms): functional 10 g_n destructive 100 g_n
- Ambient Temperature: operating -40°C/+70°C,
  storage -40°C/+85°C
- Protection Degree: IP 67, IEC 529
- Seal Test (1min): Qc/2, IEC 60068-2-17
- Case Extinguishing: V-0, UL 94
- Mounting Position: optional
- Relay Weight: abt. 4.2 g

Coil data at 20 °C

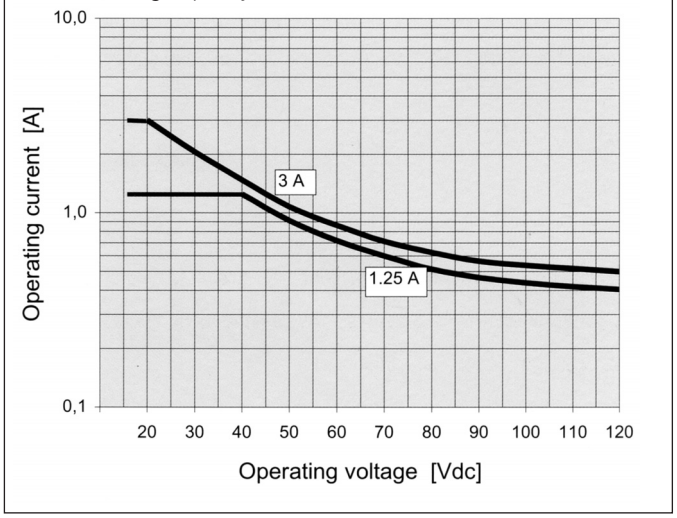
Coil Rated Voltage	Coil Resistance	Operative Coil Voltage Range		
		Must Operate	Must Release	U_{MAX}
Un (VDC)	Rn(Ω) ± 10%	Uop ≤ (VDC)	Ure ≥ (VDC)	(VDC)
Sensitive version - 0.2 W				
F 1.5	12	1.13	0.15	2.8
F 3	45	2.3	0.3	5.6
F 5	120	3.8	0.5	9.3
F 6	180	4.5	0.6	11
F 9	400	6.8	0.9	17
F 12	700	9.0	1.2	22
F 18	1620	13.5	1.8	33
F 24	2800	18.0	2.4	45

Coil Rated Voltage	Coil Resistance	Operative Coil Voltage Range		
		Must Operate	Must Release	U_{MAX}
Un (VDC)	Rn(Ω) ± 10%	Uop ≤ (VDC)	Ure ≥ (VDC)	(VDC)
Standard version - 0.45 W				
1.5	6	1.1	0.15	2.2
3	20	2.1	0.3	4.4
5	56	3.5	0.5	7.3
6	80	4.2	0.6	8.7
9	180	6.3	0.9	13
12	320	8.4	1.2	17
18	720	12.6	1.8	26
24	1280	16.8	2.4	35

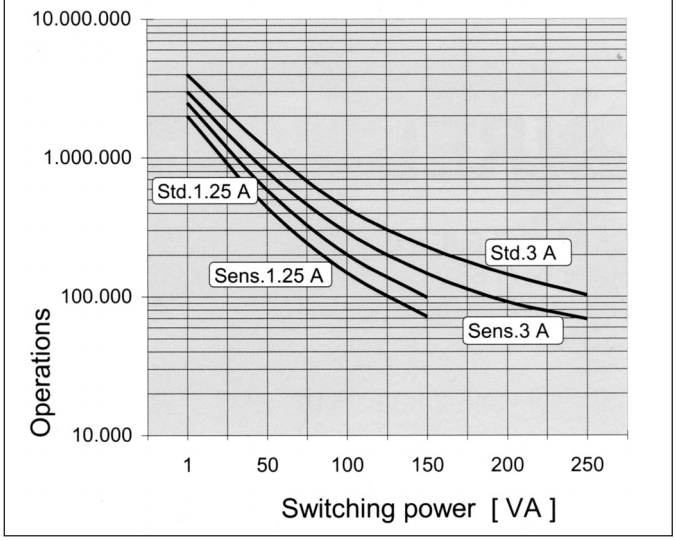
Operative voltage range



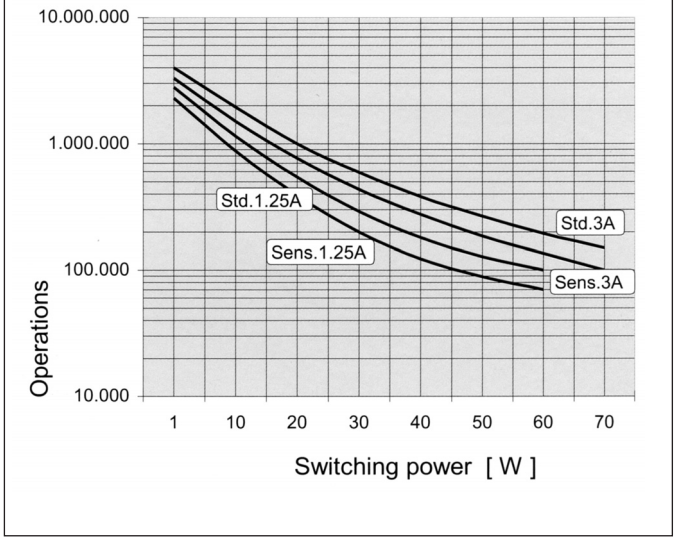
Max. switching capacity at resistive DC load



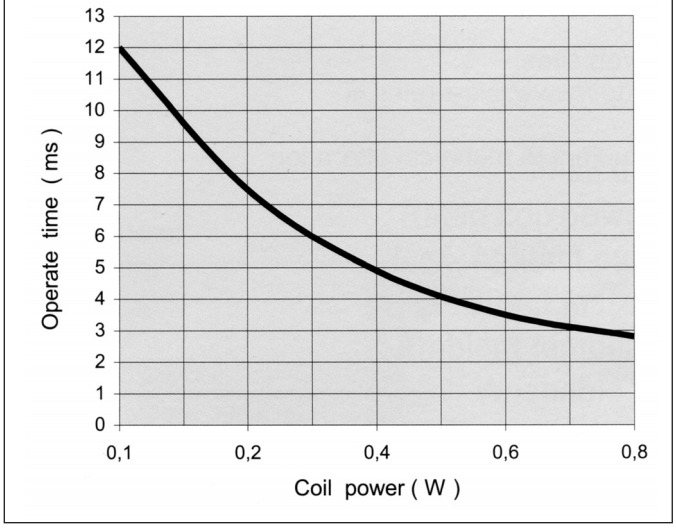
Electrical life at resistive AC load



Electrical life at resistive DC load



Max. operate time at Un



Ordering information

TRK1 X X X X XX V_{DC}

Basic designation

Terminals layout:
2 - Asymmetrical
4 - Symmetrical

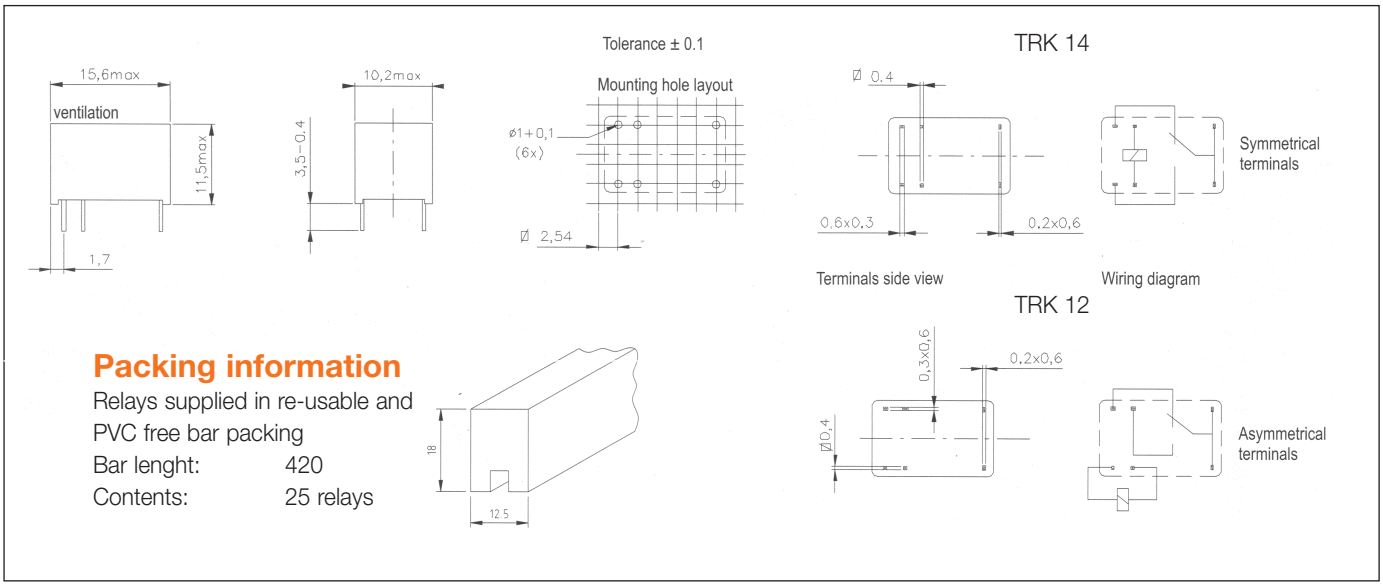
Contact material:
0 - AgNi10
3 - AgPd30 + AuAg8
4 - AgNi10 + AuAg8

Contact form:
1 - Make (NO)
2 - Break (NC)
3 - Change over (SPDT)

Coil version:
F - sensitive, without- standard

Rated coil voltage:

Dimensions and Terminals Layout in mm



Packing information

Relays supplied in re-usable and PVC free bar packing

Bar lenght: 420

Contents: 25 relays