



Bistable power PCB relay TRK 28X6

650 mW rated power (2 coils) or

400 mW rated power (1 coil)

2 pole 8 A , 2 CO contacts

5KV test voltage between coil and contacts

Flammability class V-0



- Small dimensions 29 x 12.7 x 15.7 mm
- Reduced coil power
- Low self-heating (impuls energization)
- Direct instalation on PCB
- Washable version Qc/2
- Extinguishable casing V – 0
- Material compliance: RoHS and REACH
- High inrush currents with AgSnO₂ contacts
- Clearance/creepage \geq 10mm
- High insulation resistance
- Plastic bars packing

Application

Relay TRK28 is a polarized, bistable, electromagnetic relay for DC coil energizing with 2 change-over contacts system. Small dimensions and low self-heating of this relay enable high density of electronic components on PC board.

As a switching element with ability of galvanic separation it is designed to control power devices in industrial automatisaton, automobile technique, 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 mounting of relay and completion of the cleaning proces on the PCB.

Technical Data

Contact data

Form	2 Change-over, 2 Make, 2 Break
Material	Ag Sn O ₂ , AgNi10
Rated current	8 A
Rated voltage	250 V AC
Max. switching power	2000 VA
Min. switching load	5V DC, 100 mA
Contact resistance:	≤ 100 mΩ (100mA, 24VAC) - new relay
Max.operating frequency	360 operations /h - rated load 36000 operations/h - min. load
Capacitance cont.-cont.	≤ 1,5 pF
Mechanical life	≥2x10 ⁶
Electrical life	≥3x10 ⁴ (NO, 250V/8A AC1, at 23 °C)

General coil data for energizing at 20°C

Rated power: abt. 650 mW (1 coil)
400 mW (2 coils)

Max. coil temperature: 155° C

Operative range: class 2, IEC 61810 - 1

Operate voltage: $U_{op} \leq 70\% U_n$

Release voltage: $U_{re} \leq 70\% U_n$

Minimum energization duration: 20ms

Maximum energization duration: 30s at < 10% DF

Other data

Test voltage (1 min.):

- contact - coil ≥ 5 kV_{rms}
- contact - contact ≥ 1 kV_{rms}
- adjacent - contact circuits ≥ 2.5 kV_{rms}

Creepage distances:

- contact - coil ≥ 10 mm

Clearances:

- contact - coil ≥ 10mm

Impulse voltage test (1,2/50 μs):

- contact - coil ≥ 5 kV_{imp}

Operate time at U_n: abt. 6 ms

Release time: abt. 6 ms

Insulation resistance (500 V_{DC}): > 10³ MΩ

Vibrations resistance (10-200Hz): 5 g_n(NO)/3g_n(NC)

Shock resistance (11 ms)

- functional: 10 g_n(NO)/5g_n(NC)
- destructive: 100 g_n

Ambient temperature for operating: - 40°C to + 85°

Protection degree: IP 67, IEC 529

Seal test: (1min), IEC60068-2-17: Qc/2

Extinguishing case: V-0, UL 94

Mounting position: optional

Relay weight: abt. 9,8 g

Unless otherwise stated the relays are wash tight according to Qc2 IEC 60068-2-17, tested with a water immersion test at 70°C for 1 min.

2 coils

Coil rated voltage	Coil resistance at 20°C	Operative coil voltage range at 20°C		
		Operate voltage	Reset voltage	Rated coil power
U _n (V _{DC})	R _n (Ω) ± 10%	U _{op} ≤ (V _{DC})	U _{re} ≤(V _{DC})	(mW)
3	13.8	2,1	2,1	650
5	38	3,5	3,5	650
12	221	8,4	8,4	650
24	886	16,8	16,8	650

2 coils – operation

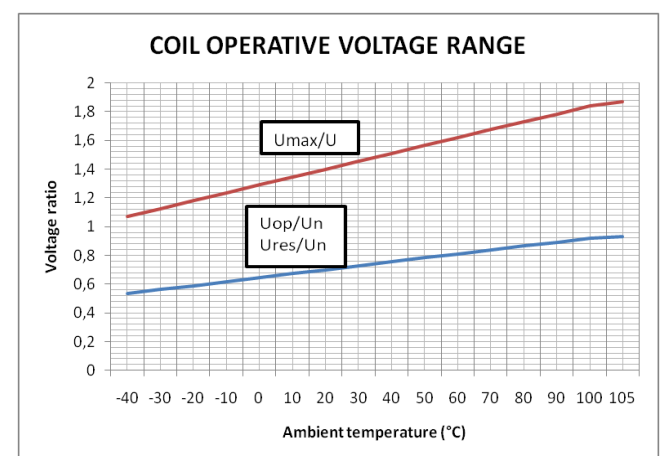
Coil terminal	A1	A3	A2
Set		+	-
Reset	-	+	

1 coil

Coil rated voltage	Coil resistance at 20°C	Operative coil voltage range at 20°C		
		Operate voltage	Reset voltage	Rated coil power
U _n (V _{DC})	R _n (Ω) ± 10%	U _{op} ≤ (V _{DC})	U _{re} ≤(V _{DC})	(mW)
3	22,5	2,1	2,1	400
5	62,5	3,5	3,5	400
12	360	8,4	8,4	400
24	1440	16,8	16,8	400

1 coil – operation

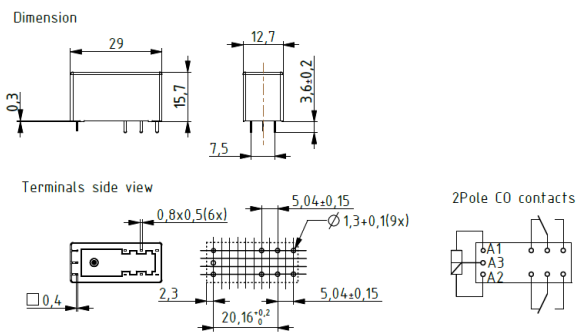
Coil terminal	A1		A2
Set	+		-
Reset	-		+



Ordering data

	TRK 28	X	X	XXX DC
Basic designation				
Contact material: 0 - AgNi10 2 - AgSnO ₂				
Contact form: 4 - Make (DPST-NO) 5 - Break (DPST-NC) 6 - Change over (DPDT)				
Coil rated voltage: - D and voltage for 2 coils (D24 DC)				

Dimensions and terminals layout



ISKRA RELEJI d.d.

Štatenberg 88,
SI-2321 Makole,
SLOVENIA

Commercial department:

Tel.: ++386 2 803 10 20

Fax.: ++386 2 803 10 21

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