

Subminiature Relays

Type VTH

Monostable

CARLO GAVAZZI



- Subminiature relay
- Switching current up to 10 A
- DC coils from 3 to 24 VDC
- 1 change-over or normally open contact
- Sealed as standard
- UL, cUL, VDE approved

Product Description

Sealed according to IP 67, suitable for automatic soldering and immersion or spray washing. Power subminiature relay for p.c. board, with one change-over contact, suitable for many electronic applications such as antitheft, automotive market, heating equipment, air conditioning, automatic dispensers, video-games, etc.

Ordering Key

VTH A 001 24

Type _____
 Version _____
 Contact code _____
 Coil rated voltage _____

Version

A = contact material Ag Cd O (standard)
 S = contact material Ag Sn O₂ (on request)

Type Selection

Contact configuration	Contact rating	Contact code
1 change over contact (SPDT {1-form C})	10 A	001

Coil Characteristics, DC (20°C)

Rated voltage VDC	Winding Resistance $\Omega \pm 10\%$	Operating range		
		Min. pick-up voltage VDC	Max. VDC	Drop-out voltage VDC
5	70	3.75	120% of rated voltage	0.5
6	100	4.50		0.6
9	225	6.75		0.9
12	400	9.00		1.2
18	900	13.50		1.8
24	1600	18.00		2.4
48	4500	36.00		4.8

Contact Characteristics

Rating	10 A	Max. switching voltage with resistive load	125 VDC / 240 VAC
Contact Material (stand. vers.)	AgCdO		
Initial contact resistance	$\leq 100 \text{ m}\Omega$ (1A-24VDC)	Max. switching power with resistive load	1750 VA 2500 VA
Current (for AC)		Min. switching load (reference value)	12 VDC 100 mA
Rated current with resistive load		Life	
AgCdO	7 A 250 VAC / 24 VDC	Electrical life	10 ⁵ cycles
AgSnO ₂	10 A 250 VAC / 24 VDC	Mechanical life	1 x 10 ⁷ cycles
Max. switching current with resistive load	15 A	Max. switching frequency	
Voltage		electrical	1200 cycles/h
Rated voltage	28 VDC / 240 VAC	mechanical	18000 cycles/h

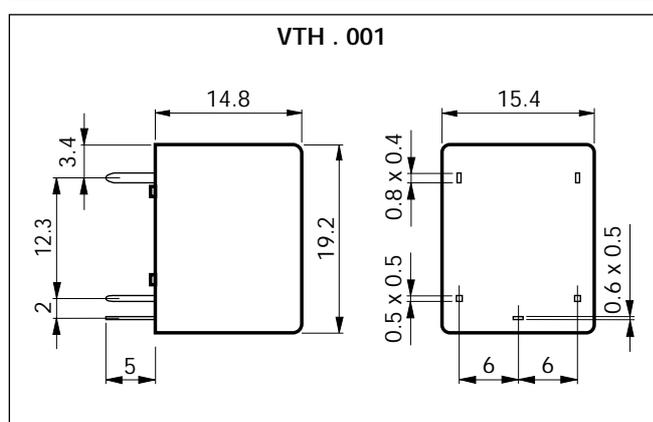
Insulation

Test voltage (1 min.) Open cont. Coil/contacts	750 VAC 1500 VAC
Insulation resistance at 500 VDC	> 1000 MΩ

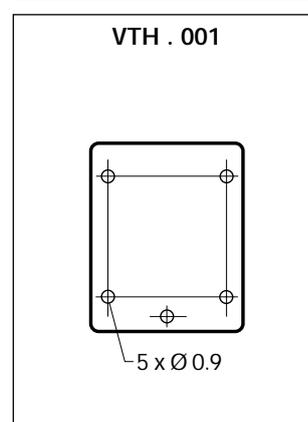
General Data

Max. operating time at rated voltage (excluded bounces)	≤ 10 ms
Bounces time (at rated voltage)	≤ 5 ms
Max. release time (excluded bounces)	≤ 5 ms
Bounces time	≤ 5 ms
Ambient temperature	-40 °C - +70 °C
Vibration resistance	1,5 mm p.p., 10 + 55 Hz
Shock resistance functional	100 m/s ²
Shock resistance destructive	1000 m/s ²
Weight	~ 10 g

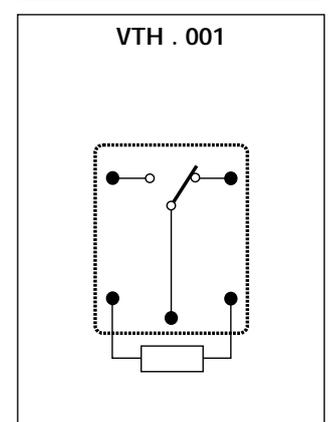
Dimensions



Pin View

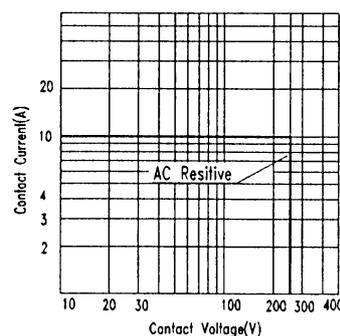


Wiring Diagram

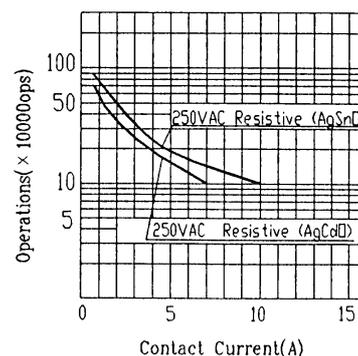


Diagrams

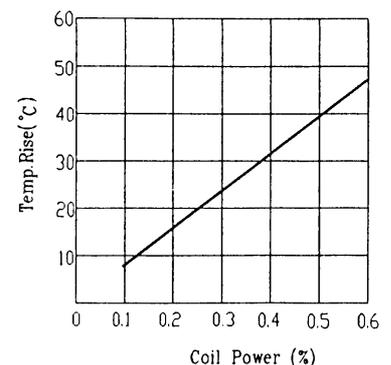
1 Maximum Switching Power



2 Life Curve



3 Coil Temperature



Application notes

The relays are completely sealed, suitable for automatic soldering process and immersion washing. If maximum utilization of switching capacity is required, it is recommended to open the

relay after completion of the soldering/washing process by taking the tape out of the front cover. For washing it is advisable to use alcohol, freon or (temperature must be < 50 °C).

Approvals



The approvals stated are not generally applicable to all relay versions of a particular type.

For further information please apply for relevant data sheets ref. **3.84.00.10.X**