

**Character**

- ◇ 5A two sets of contacts switching capability
- ◇ 10A contact switching capability
- ◇ Only impulse excitation needed, both for single and double coil.
- ◇ Low power consumption, small in size
- ◇ Small in size, PCB type installation
- ◇ 4KV dielectric strength between coil and contacts
- ◇ RoHS compliant
- ◇ Outline dimensions: (25 x 13 x 17) mm
- ◇ Patent number: 200420115716.8

Contact Data

Contact Form	2B/2C	1B/1C	
Contact Material	AgSnO ₂	AgSnO ₂	
Contact Resistance	Max.1.0mΩ(1A 6VDC)	Max.1.0mΩ(1A 6VDC)	
Rated Load(Resistive)	5A 250VAC/28VDC	10A 250VAC/28VDC	
Max. Switching Voltage	250VAC/28VDC	250VAC/28VDC	
Max. Switching Current	5A	10A	
Max. Switching Power	1250VA/140W	2500VA/280W	
Service Life	Mechanical Endurance	1×10 ⁶ OPS	1×10 ⁶ OPS
	Electrical Endurance	1×10 ⁵ OPS	1×10 ⁵ OPS
Max. Short-circuit Current	200A/2ms	500A/2ms	

Characteristics

Operate Time	15ms Max.	15ms Max.	
Release Time	15ms Max.	15ms Max.	
Insulation Resistance (500VDC)	500MΩ Min.	500MΩ Min.	
Dielectric Strength (50/60hz, 1min)	Contact to Coil	2000VAC	2000VAC
	Across Open Contacts	750VAC	750VAC
	Contact to contact	1500VAC	
Surge Voltage (1.2/50 μ s)	Contact to Coil		
Creepage Distance			
Unit Weight	About 12g	About 10g	

Environmental Data

Ambient Temperature	-40°C ~ +85°C	Relative Humidity	5%-85% RH
Vibration	10-55Hz 1.5mm	Shock	98m/s ²

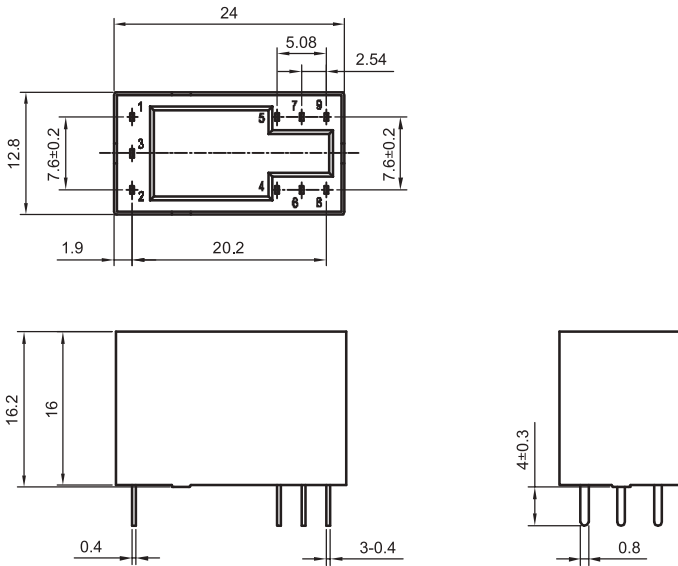
Coil Data (20°C)

Coil Voltage (VDC)	Coil Resistance(Ω) $\pm 10\%$		Coil Power(w)		Operating Voltage (VDC)	Releasing Voltage (VDC)	Allowing voltage (VDC)	Pulse Duration (ms)
	Single	Double	Single	Double				
<input type="checkbox"/> 5	39.1	19.5/19.5			≤ 3.5	≤ 3.5	7.5	≥ 50
<input type="checkbox"/> 6	56.3	28.1/28.1			≤ 4.2	≤ 4.2	9	
<input type="checkbox"/> 9	126.6	63.3/63.3	0.64	1.28	≤ 6.3	≤ 6.3	13.5	
<input type="checkbox"/> 12	225	112.5/112.5			≤ 8.4	≤ 8.4	18	
<input type="checkbox"/> 24	900	450/450			≤ 16.8	≤ 16.8	36	

Ordering information

GRT508E	10A	1B	12VDC	S	XX	
					Terminal type:	Custom design
					Coil type:	S: single coil D: double coil
					Coil voltage:	5, 6, 9, 12, 24V
					Contact form:	1B: a set of contacts remain closed
					Contact current:	10A
					Relay Series:	GRT508E

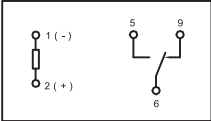
Dimensional Drawings/Wiring Diagrams(unit:mm)



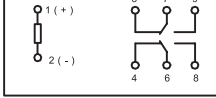
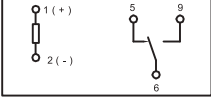
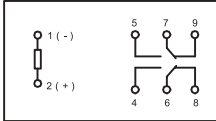
Note: No tolerance marked. If dimension ≤ 1 mm, the tolerance is ± 0.2 mm; if dimension 1-5mm, the tolerance is ± 0.3 mm; if dimension ≥ 5 mm, the tolerance is ± 0.5 mm.

single coil

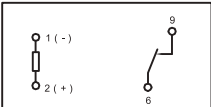
a set of contacts can be switched



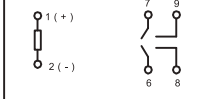
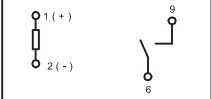
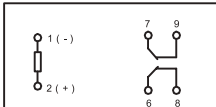
two sets of contacts can be switched



a set of contacts remain close

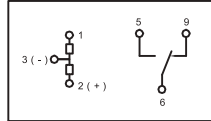


two sets of contacts remain close

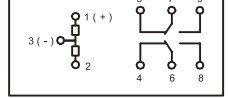
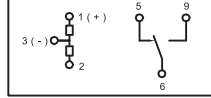
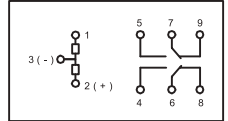


Double coil

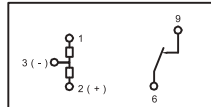
a set of contacts can be switched



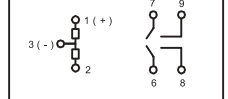
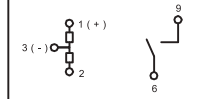
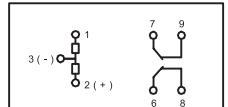
two sets of contacts can be switched



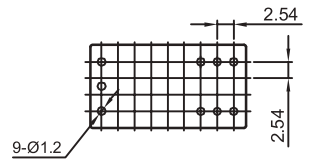
a set of contacts remain close



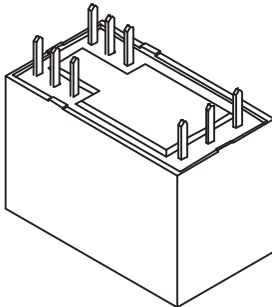
two sets of contacts remain close



mounting hole

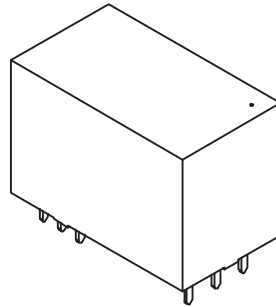


Typical Terminal Type



Typical application

- Smart Meter
- Smart Home





Notes:

1.The factory defaults of relay contacts is set to be closed (reset state), however, due to the transportation or installation, contacts may be impacted, and change its state, so it is necessary to take action to reset before usage (access to power)

2.To be sure latching relay operating reliably, the excitation voltage to coil is to be attained rating, the setting of pulse width should be more than rating, long time (more than 1 min) applied voltage to coil is not acceptable

3.PCB type latching relay, suggested welding temperature is 240°C-260°C, time is 2S-5S. Please do not adopt reflow soldering. Normally, the temperature for wave soldering is required 250°C and time is $\leq 2S$.

4.Latching relay which is without copper braided wires, the load leading pin can neither be tin soldered nor be wrenched. Don't do any extra force to load

5.When screws or bolt is used for load leading terminal of latching relay, please be sure to connect tightly, in case of any damage or the other safety accident causing by over temperature rise.

6.Due to limited signal wire strength of coil or shunts, do not twist or pull the signal wire, it is easy to get it broken.

7.Please handle gently when doing coming inspection and usage, preventing falling to impact the parameters. Distinguish the product which needs destructive inspection with normal products when entering to the factory, forbidding using it.

Statement:

Product specification brochure is for reference only. GRT can't ensure relays meet all performance parameters in each specific application field.

Customers should choose the right products as per according to specific using conditions.