

	HANDOUK		HT3
	Miniature High Power Latching Relay		



cUL US E222977

- ∴ Maximum switching capability up to 50A
- ∴ Lamp load up to 5000W
- ∴ Capacitor load up to 200uF (Min. inrush current at 500A/10s)
- ∴ Creepage distance: 8mm
- ∴ Dielectric strength: more than 4000VAC(between coil and contacts)
- ∴ Wash tight and flux proofed types available
- ∴ Manual switch function available
- ∴ Environmental friendly product (RoHS compliant)
- ∴ Outline Dimensions: (39.0 x 15.0 x 30.2)mm

1. CONTACT DATA

Contact arrangement		1 form A (SPST), 1 form C (SPDT)
Contact resistance		≤50 mΩ (at 1A 24VDC)
Contact material		AgSnO ₂ , AgCdo
Contact rating	1A	50A 250VAC, 1 x 10 ⁵ operations (Resistive Load) 5000W 220VAC, 3 x 10 ⁴ operations (Incandescent & fluorescent Lamp) 5HP 250VAC, 3 x 10 ⁴ operations (Motor)
	1C	40A/250VAC 3 x 10 ⁴ operations (Resistive)
Max switching voltage		440 VAC
Max. switching current		50 A
Max switching power		1A: 12,500VA, 1C : 10,000VA
Max continuous current		50 A
Mechanical endurance		1 x 10 ⁶ operations
Electric endurance		See rated load

2. CHARACTERISTICS

Insulation Resistance	1000MΩ (at 500VDC)	Operate time	15ms max. (At nominal volt)
Humidity	98% RH, 40 °C	Release time	15ms max. (At nominal volt)
Pulse width of coil	50ms min. (Recommended 100 to 200ms.)		
Dielectric strength	Between coil & contacts	4,000 VAC 1min.	
	Between open contacts	1,500 VAC 1min.	
Creepage distance (Input to output)	1A	8mm	
	1C	6mm	
Shock resistance	Functional	98m/s ²	
	Destructive	980m/s ²	
Vibration resistance	10Hz to 55Hz 1.5mm DA	Storage temperature	-40 °C □ 100 °C
Termination	PCB	Ambient temperature	-40 °C □ 70 °C
Unit weight	Approximate 32g	Construction	Wash tight, Flux proofed
Max operate frequency	1A	20 cycles / minute	
	1C	20 cycles / minute	

3. SAFETY APPROVAL RATINGS

UL&CUL (AgSnO ₂)	1A	Resistive : 50A 277VAC Tungsten : 5,000W 240VAC
	1C	40A 277VAC

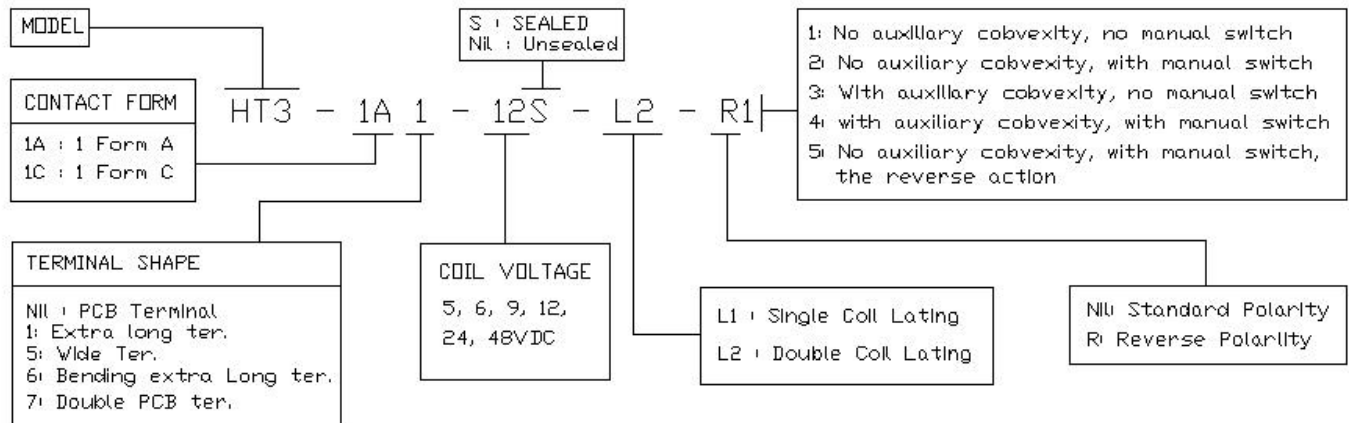
4. COIL DATA

Coil Power	Single Coil		1.5W
	Double Coil		3.0W

Nominal voltage VDC	Coil resistance ±10% Ω		Set / Reset Voltage VDC	Max. allowable Voltage VDC
005	Single coil	16.8	4	6.5
006		24	4.8	7.8
009		54	7.2	11.7
012		96	9.6	15.6
024		384	19.2	31.2
048		1,536	38.4	62.4
005	Double coil	8.4+8.4	4	6.5
006		12+12	4.8	7.8
009		27+27	7.2	11.7
012		48+48	9.6	15.6
024		192+192	19.2	31.2
048		768+768	38.4	62.4

5.

ORDERING INFORMATION

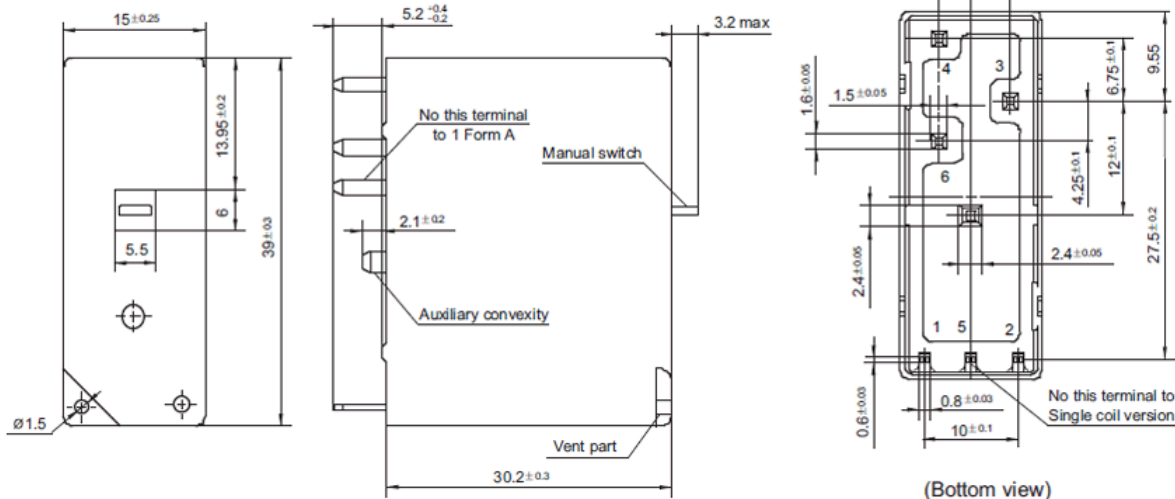


- 1A means that relay is on the "reset" status when delivery; 1B means that relay is on the "set" status when delivery.
- the 1 type, 5 type, 6 type, 7 type is only for HT3-1**-**S-L2(L1)-1 or HT3-1**-**S-L2(L1)-2.
- If water cleaning is required after the relay assembled on PCB, Please contact us for suggestion about suitable parts.
- As to lamp load, capacitive load, motor load, please choose AgSnO2 contact material.

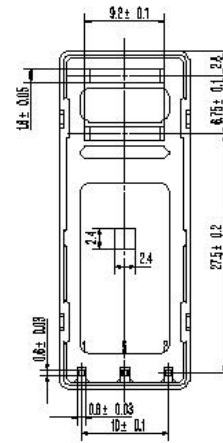
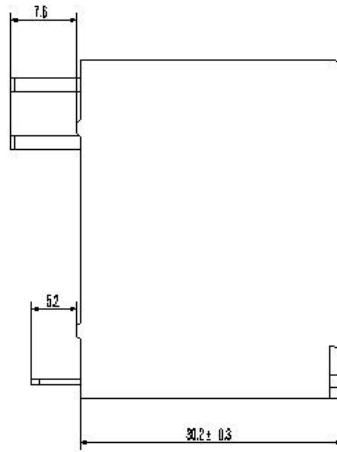
6.DIMENSIONS

HT3-1*-**-1,2,3,4

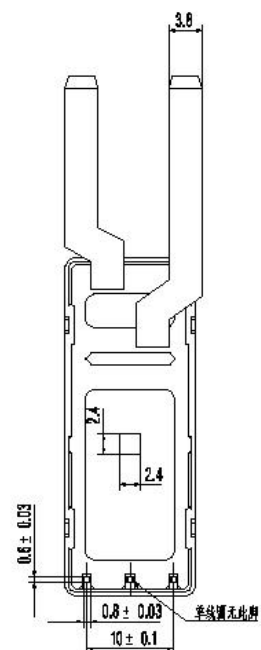
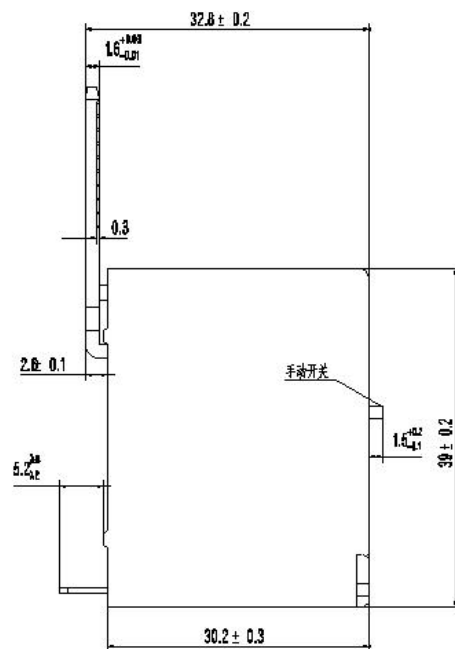
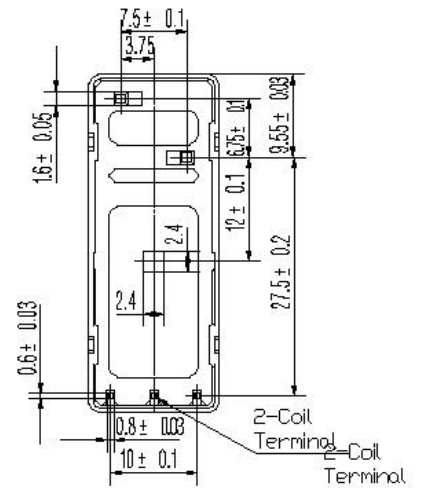
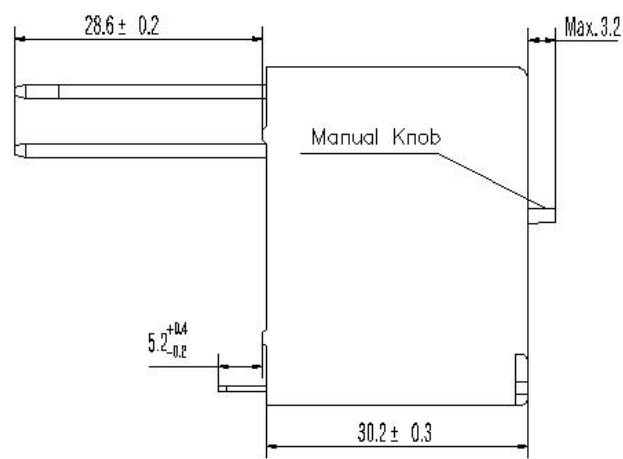
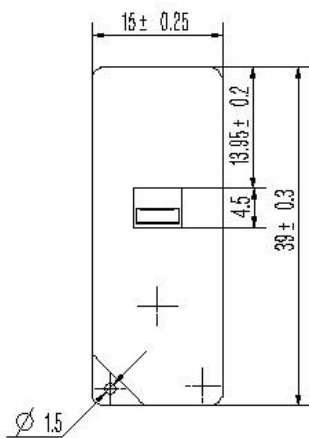
Outline Dimensions



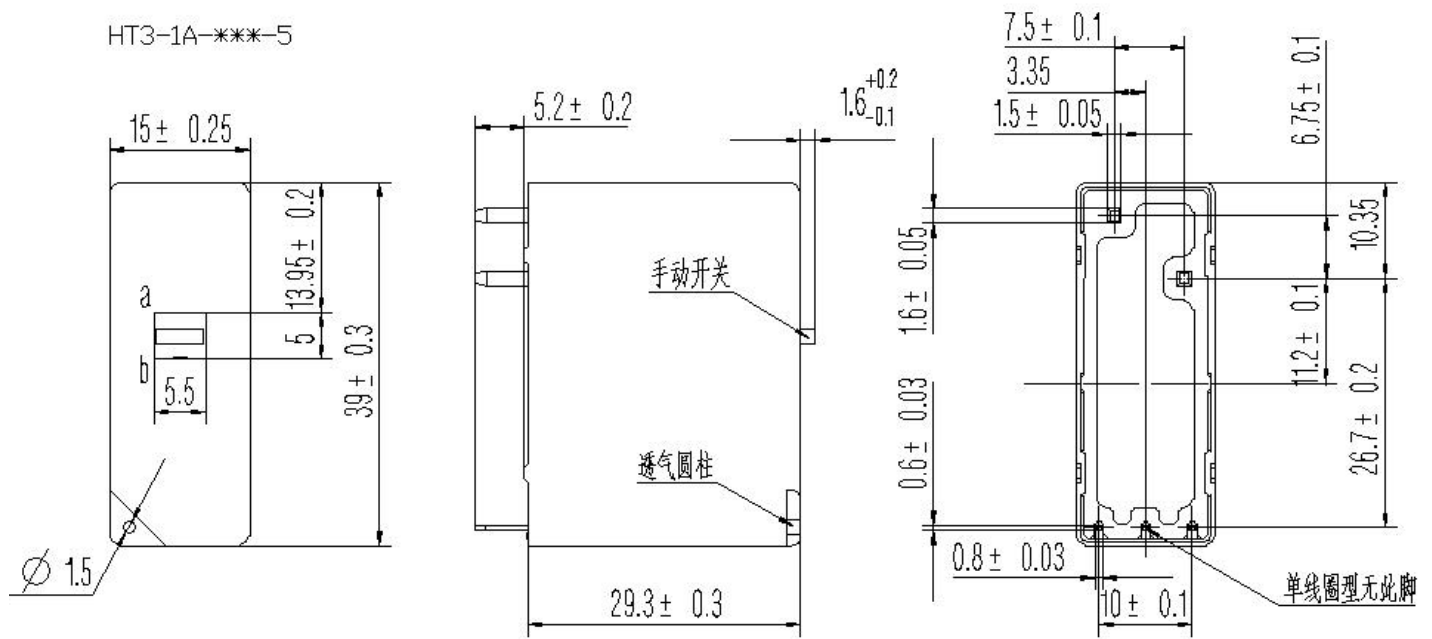
(Bottom view)



Technical drawing of a component with dimensions 3.2, 1.6, and 5.



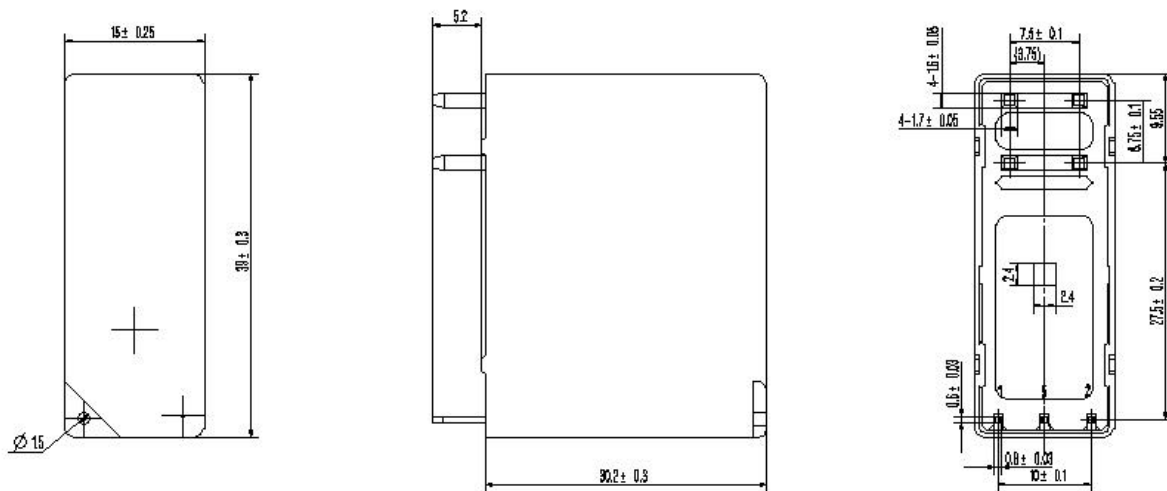
HT3-1A-***-5



Remark: When the manual switch is pitched on point a, the contact is open ;
when pitched on point b, the contact is closed.

(Bottom view)

HT3-1A7-***-1,2



Remark: In case of no tolerance shown in out line dimension :
out line dimension $\leq 1\text{mm}$, tolerance should be $\pm 0.2\text{mm}$;
 $1\text{mm} < \text{out line dimension} \leq 5\text{mm}$, be $\pm 0.3\text{mm}$; $5\text{mm} < \text{the dimension}$, should be $\pm 0.4\text{mm}$

(Bottom view)

- **Notice**
- 1. Relay is on the “set” status when being released from stock, with the consideration of stock risen from transit and
- Relay mounting, relay would be changed to “reset” status, therefore, when application (connecting the power supply),
- please reset the relay to “set” or “reset” status on request.
- 2. In order to maintain “set” or “reset” status, energized voltage to coil should reach the rated voltage, impulse width
- Should be 5 times more than “set” or “reset” time. Do not energize voltage to “set” coil and “reset” coil simultaneously.
- And also long energized time (more than 1 min.) should be avoided.
- 3. In order to avoid changing operate voltage, production should not be kept in strong magnetic field during transportation,
- storage and application.
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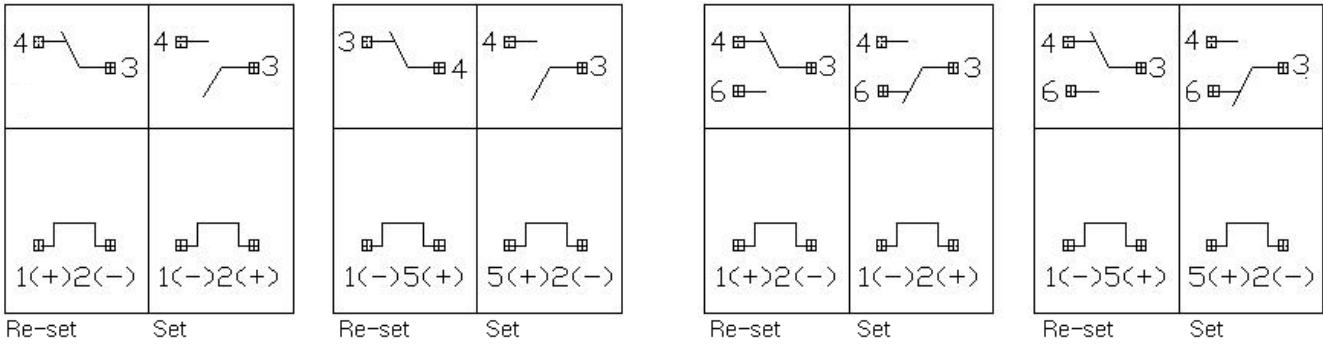
CIRCUIT DIAGRAM AND APPLICATIONS

Wiring Diagram
(Bottom View)

HT3-1**-*-*1,2,3,4

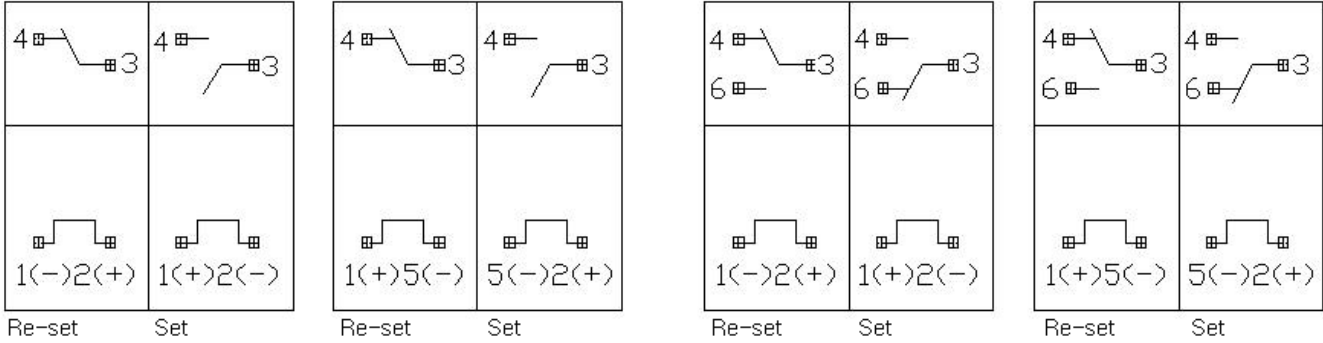
Standard Polarity

Single Coil, 1 form A Double Coil, 1 form A Single Coil, 1 form C Double Coil, 1 form C



Reverse Polarity

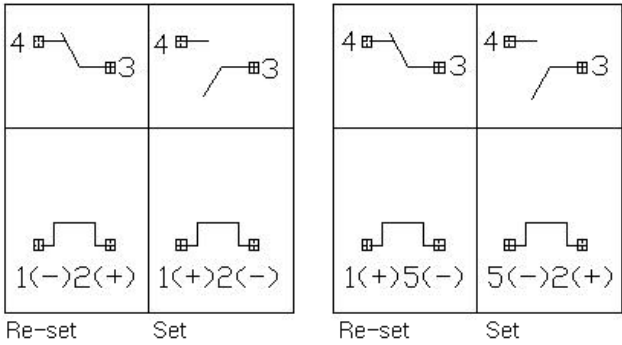
Single Coil, 1 form A Double Coil, 1 form A Single Coil, 1 form C Double Coil, 1 form C



HT3-1A*-***-5

Standard Polarity

Single Coil, 1 form A Double Coil, 1 form A



Reverse Polarity

Single Coil, 1 form A Double Coil, 1 form A

