

Features

- 50A switching capability
- Single coil and double coil are all available
- Contact arrangement: 1A 、 1C
- Contact on and off can be controlled by manual control switch
- UL insulation system: Class F
- Environmental friendly product (RoHS compliant)
- Outline Dimensions: (39×15.0×30.2) mm
- Main application: smart meter、lighting control



TV-15 C  US

CHARACTERISTICS

Specifications	Item		
Contact Data	Contact arrangement	1A、 1B	1C
	Contact resistance(initial)	2mΩ(6VDC 1A)	
	Contact material	AgSnO ₂	
Rated value	Rated load(Resistance load)	50A 250VAC	40A 250VAC
	Max.switching voltage	440VAC	440VAC
	Max.switching current	50A	40A
	Max.switching capacity	12500VA	10000VA
	Min.allowing load	5VDC 100mA	
Electrical performance	Insulation resistance(initial)		1000MΩ(500VDC)
	Dielectric strength (initial)	Between open contacts	1500VAC,1min
		Between coil&contacts	4000VAC,1min
	Operate time		≤20ms
	Release time		≤20ms
Mechanical performance	Shock resistance	Functional	98m/s ² (10g)
		Destructive	980m/s ² (100g)
	Vibration resistance		10Hz~55Hz 1.5mm DA
Endurance	Mechanical		1×10 ⁶ ops
	Electrical		50A 250VAC 5×10 ⁴ ops(ON/OFF=1s/9s)
Operate condition	Ambient temperature		-40℃~85℃
	Humidity		5% to 85%
Termination			PCB
Unit weight			Approx.44g
Construction			Plastic sealed,Flux proofed

COIL DATA(23℃)

Single coil latching

Nominal Voltage	Pick-up Voltage VDC	Drop-out Voltage VDC	Rated Current (±10%)	Coil Resistance (±10%)	Nominal Power	Max Voltage
DC 5V	≤3.75	≤3.75	200mA	25Ω	1W	150%Nominal Voltage
DC 6V	≤4.50	≤4.50	166.7mA	36Ω		
DC 9V	≤6.75	≤6.75	111.1mA	81Ω		
DC 12V	≤9.00	≤9.00	83.3mA	144Ω		
DC 24V	≤18.00	≤18.00	41.7mA	576Ω		

Double coils latching

Nominal Voltage	Pick-up Voltage VDC	Drop-out Voltage VDC	Rated Current (±10%)	Coil Resistance (±10%)	Nominal Power	Max Voltage
DC 5V	≤3.75	≤3.75	400/400mA	12.5/12.5Ω	2W	150%Nominal Voltage
DC 6V	≤4.50	≤4.50	333/333mA	18/18Ω		
DC 9V	≤6.75	≤6.75	222/222mA	40.5/40.5Ω		
DC 12V	≤9.00	≤9.00	167/167mA	72/72Ω		
DC 24V	≤18.00	≤18.00	83.3/83.3mA	288/288Ω		

ORDERING INFORMATION

W30L -1A T M L1 R -XXX DC12V

① Type

② Contact arrangement: 1A=1open contacts、
1B=1close contacts、1C=1 switched contacts

③ Contact material: T=AgSnO₂

④ Control type:

Nil=No hand control switch、No Plastic sealed (Flux proofed type)

S=No hand control switch、Plastic sealed (Plastic sealed type)

M=hand control switch (Flux proofed type)

⑤ Coil type: L1=1 coil latching、L2=2 coils latching

⑥ Operation polarity: Nil=standard polarity R=reversed polarity

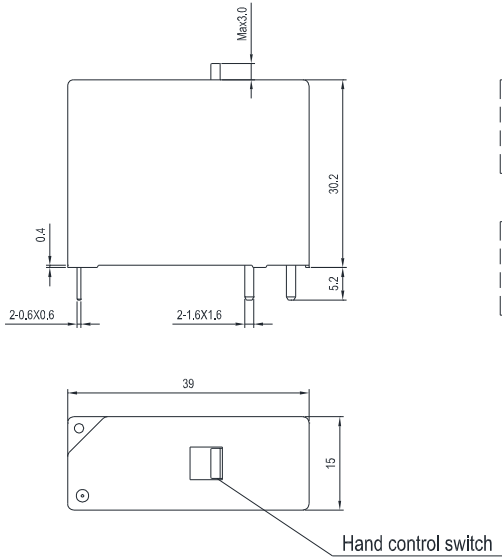
⑦ Customer special code: numbers or letters denote customer's requirements

⑧ Coil specification: DC5/6/9/12/24V

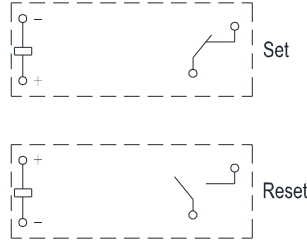
OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT (Unit: mm)

1A/1B (coil latching)

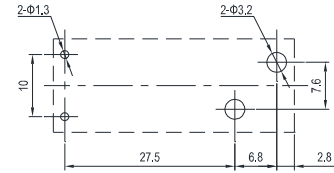
Outline Dimensions



Wiring Diagram (Bottom view)

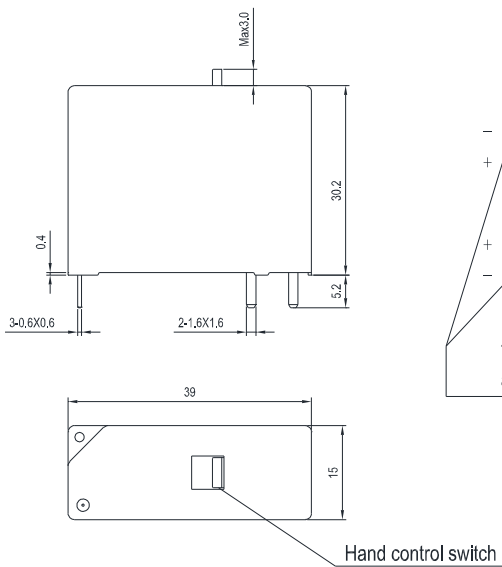


PCB Layout (Bottom view)

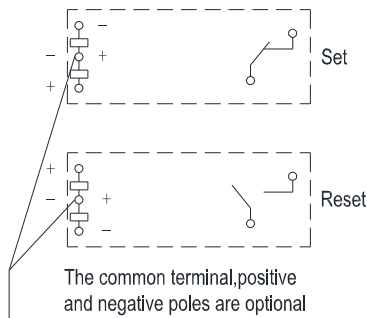


1A/1B (coils latching)

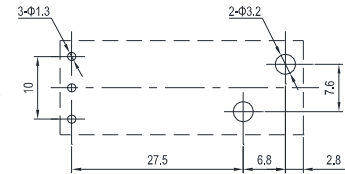
Outline Dimensions



Wiring Diagram (Bottom view)



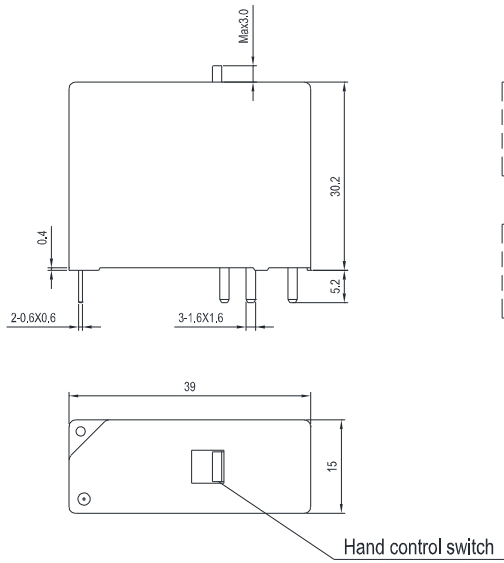
PCB Layout (Bottom view)



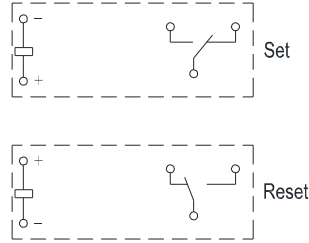
■ OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT (Unit: mm)

1C(coil latching)

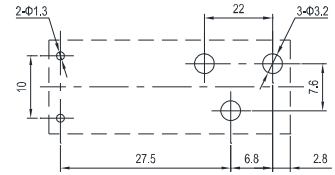
Outline Dimensions



Wiring Diagram (Bottom view)

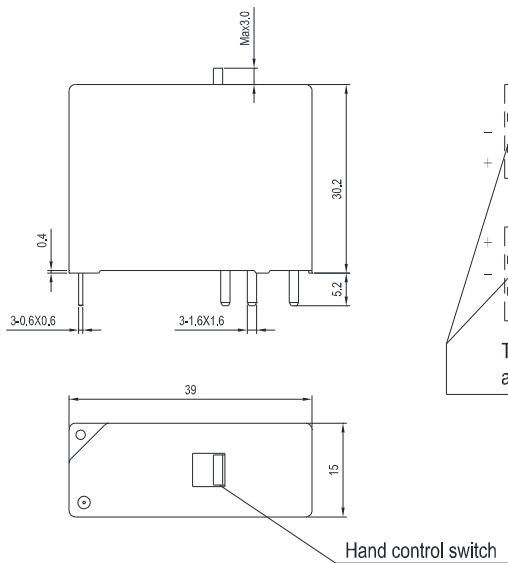


PCB Layout (Bottom view)

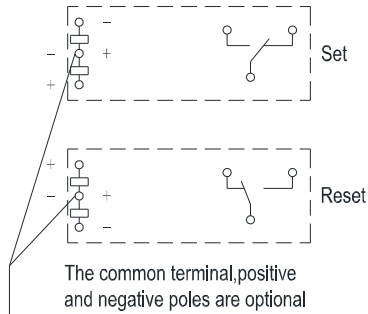


1C(coils latching)

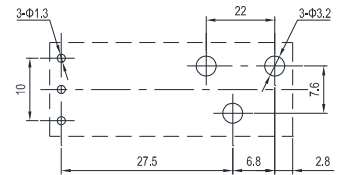
Outline Dimensions



Wiring Diagram (Bottom view)



PCB Layout (Bottom view)



Notes: (1) In case of no tolerance shown in outline dimension: outline dimension ≤ 1 mm, tolerance should be ± 0.2 mm; outline dimension > 1 mm and < 5 mm, tolerance should be ± 0.3 mm; outline dimension ≥ 5 mm, tolerance should be ± 0.5 mm.

(2) The tolerance without indicating for PCB layout is always ± 0.1 mm.

■ SAFETY APPROVAL RATINGS

Approval	File No.	Contact arrangement	Contact material	Approved ratings		
UL/C-UL	E340054	1A(NO)、1B(NC)	AgSnO ₂	50A/40A	250VAC	85℃
TUV	R 50406980	1A(NO)、1B(NC)	AgSnO ₂	50A/40A	250VAC	85℃
CQC	CQC18002188986	1A(NO)、1B(NC)	AgSnO ₂	50A/40A	250VAC	85℃

■ NOTICE

- ① If the relay needs to be cleaned or used in bad environment(e.g:dust or organic gas),we recommend plastic sealed type.
- ② With the consideration of shock risen from transit and relay mounting,relay's initial state might be changed,please impose pulse voltage to reset the relay before using(rated coil voltage,impulse width≥5 times operation time) .
- ③ The specification is for reference only,specifications subject to change without notice.