W30L

Latching Relay

Features

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

TV-15

■ 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)	40A 250VAC 3×10^{4}ops(ON/OFF=3s/3s)
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	DC 7.5V
DC 6V	≤4.50	≤4.50	166.7mA	36Ω		DC 9V
DC 9V	≤6.75	≤6.75	111.1mA	81Ω		DC 13.5V
DC 12V	≤9.00	≤9.00	83.3mA	144Ω		DC 18V
DC 24V	≤18.00	≤18.00	41.7mA	576Ω		DC 36V

■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	DC 7.5V
DC 6V	≤4.50	≤4.50	333.3/333.3mA	18/18Ω		DC 9V
DC 9V	≤6.75	≤6.75	222.2/222.2mA	40.5/40.5Ω		DC 13.5V
DC 12V	≤9.00	≤9.00	166.7/166.7mA	72/72Ω		DC 18V
DC 24V	≤18.00	≤18.00	83.3/83.3mA	288/288Ω		DC 36V

■ 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=$AgSnO_2$

④ Control type(1):：
Nil=No hand control switch、No Plastic sealed（Flux proofed 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

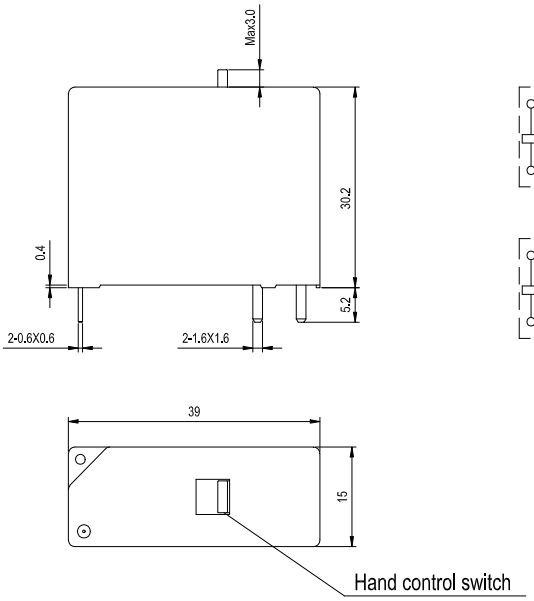
⑦ Customer special code：numbers or letters denote customer's requirements

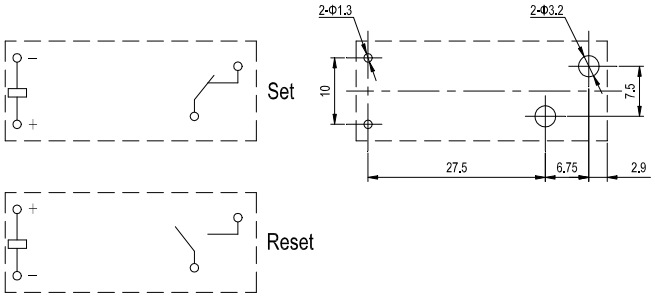
⑧ Coil specification：DC5/6/9/12/24V

(1) When used in clean environment(excluding H2S、SO2、NO2、dust and other pollutants), it is recommended to choose the Flux proofed type;When used in unclean environment(contain H2S、SO2、NO2、dust and other pollutants), it is recommended to choose the Plastic sealed.

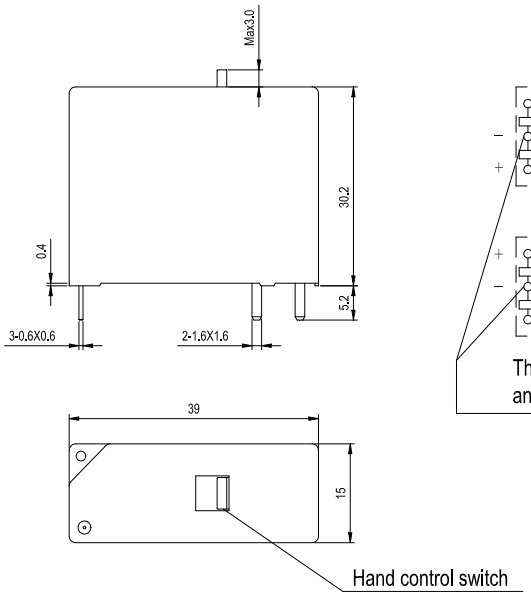
■ OUTLINE DIMENSIONS,WIRING DIAGRAM AND PC BOARD LAYOUT(Unit：mm)

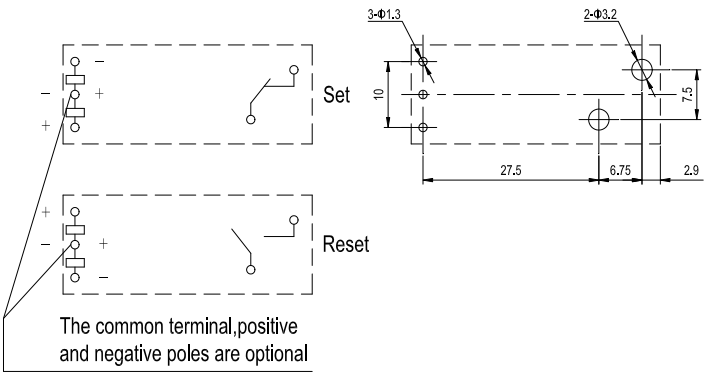
1A/1B(coil latching) Outline Dimensions Wiring Diagram (Bottom view) PCB Layout (Bottom view)





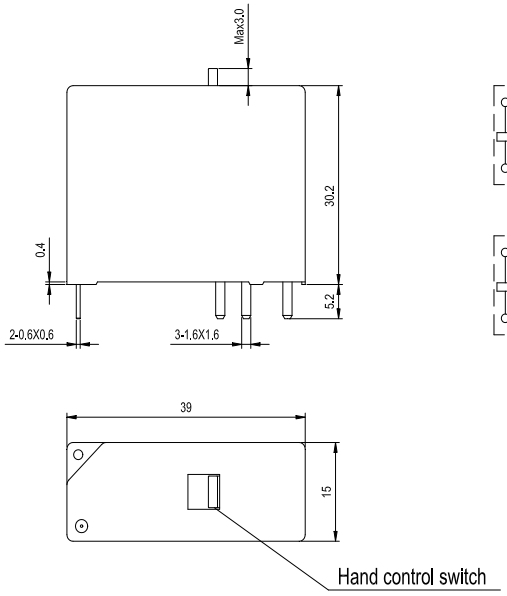
1A/1B(coils latching) Outline Dimensions Wiring Diagram (Bottom view) PCB Layout (Bottom view)

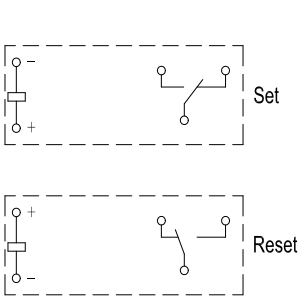


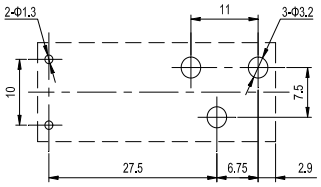


■ OUTLINE DIMENSIONS,WIRING DIAGRAM AND PC BOARD LAYOUT(Unit：mm)

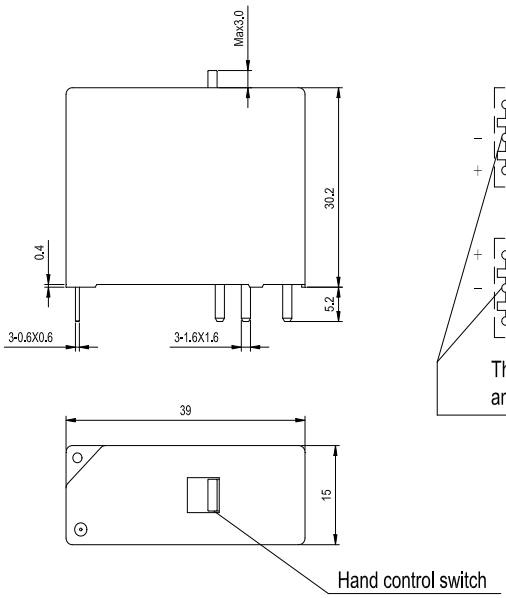
1C(coil latching) Outline Dimensions Wiring Diagram (Bottom view) PCB Layout (Bottom view)

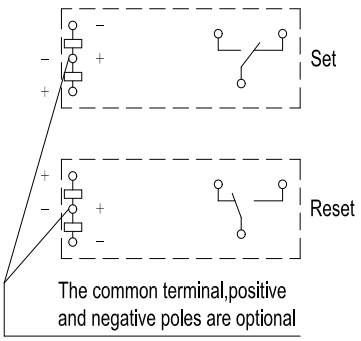


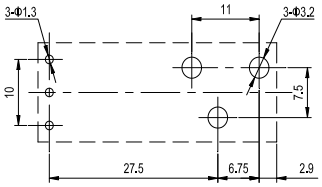




1C(coils latching) Outline Dimensions Wiring Diagram (Bottom view) PCB Layout (Bottom view)







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

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

■ 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 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.

② In order to maintain the initial performance parameters of the relay, please be careful not to drop the product;

③ The specification is for reference only.Specifications subject to change without notice.