

## Features

- 90A switching capability
- Single coil and double coil are all available
- Can customize the External attachments like manganese-copper shunt, mutual inductor according to the customers' requirements.
- Breakdown voltage (between contact and coil):4KV
- Meet the standard of IEC62055-31:2005 and UC2
- Environmental friendly product (RoHS compliant)
- Outline Dimensions: (38.0×30.0×16.5) mm
- Main application: smart meter、 compound switch



## CHARACTERISTICS

Specifications	Item		
Contact Data	Contact arrangement		1A、 1B
	Contact resistance(initial)		2mΩ(6VDC 1A)
	Contact material		AgSnO <sub>2</sub>
Rated value	Rated load(Resistance load)		90A 250VAC
	Max.switching voltage		277VAC
	Max.switching current		90A
	Max.switching capacity		22500VA
	Min.allowing load		/
Electrical performance	Insulation resistance(initial)		1000MΩ(500VDC)
	Dielectric strength (initial)	Between open contacts	2000VAC, 1min
		Between coil&contacts	4000VAC, 1min
	Operate time		≤20ms
	Release time		≤20ms
Mechanical performance	Shock resistance	Functional	98m/s <sup>2</sup> (10g)
		Destructive	980m/s <sup>2</sup> (100g)
	Vibration resistance		10Hz~55Hz 1.5mm DA
Endurance	Mechanical		1×10 <sup>5</sup> ops
	Electrical		90A 250VAC 1×10 <sup>4</sup> ops (ON/OFF=1s/9s)
Operate condition	Ambient temperature		-40℃~85℃
	Humidity		5% to 85%
Termination			INT'L PCB+Screw type(XB)
Unit weight			Approx.50g(Without attachment)
Construction			Flux proofed

## COIL DATA(23°C)

### 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	312.5mA	16.6Ω	1500mW	150%Nominal Voltage
DC 6V	≤4.50	≤4.50	250mA	24Ω		
DC 9V	≤6.75	≤6.75	166.7mA	54Ω		
DC 12V	≤9.00	≤9.00	125mA	96Ω		
DC 24V	≤18.00	≤18.00	62.5mA	384Ω		

### 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	625/625mA	8.3/8.3Ω	3000mW	150%Nominal Voltage
DC 6V	≤4.50	≤4.50	500/500mA	12/12Ω		
DC 9V	≤6.75	≤6.75	333.3/333.3mA	27/27Ω		
DC 12V	≤9.00	≤9.00	250/250mA	48/48Ω		
DC 24V	≤18.00	≤18.00	125/125mA	192/192Ω		

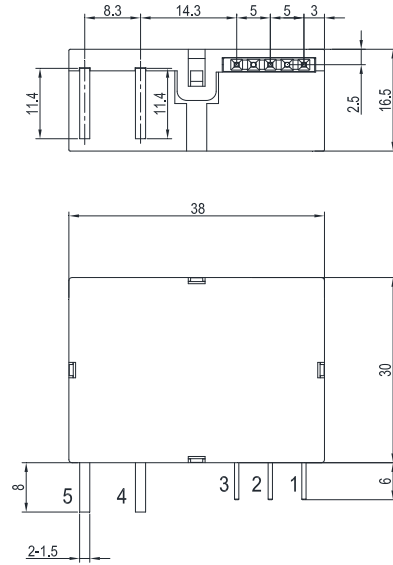
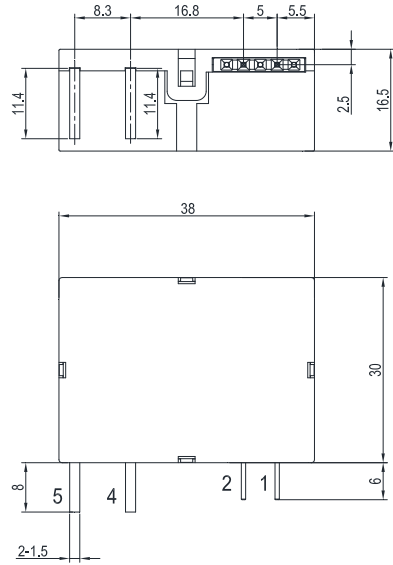
## ORDERING INFORMATION

**W21L -1B 1 T -L1 R -XXX DC6V**

- ① Type
- ② Contact arrangement: 1A=1 open contacts, 1B=1 close contacts
- ③ PCB mounting: 1=A type、2=B type
- ④ Contact material: T=AgSnO<sub>2</sub>
- ⑤ Coil type: L1=coil latching、L2=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

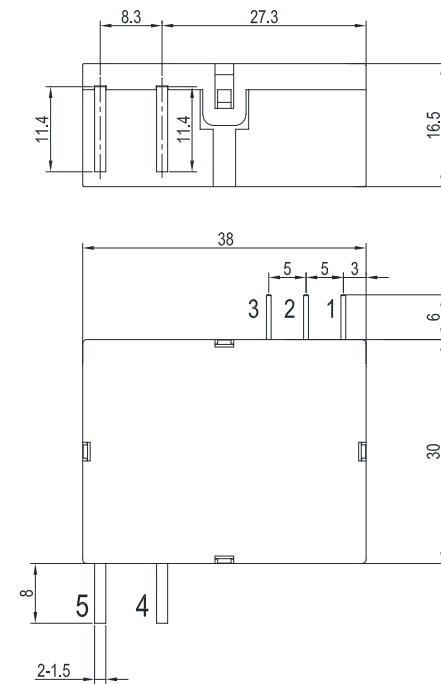
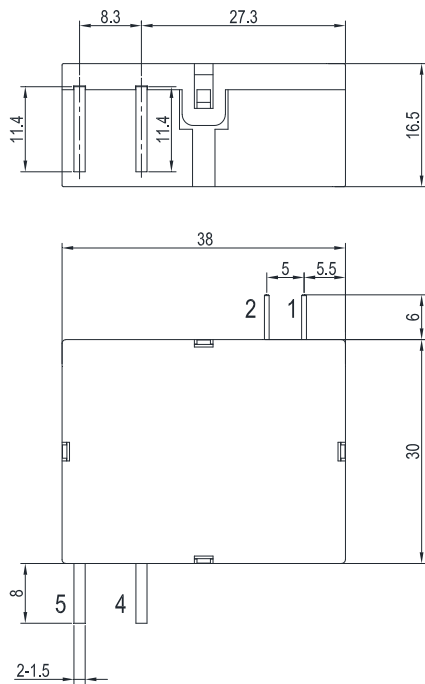
**A type**

Outline Dimensions



**B type**

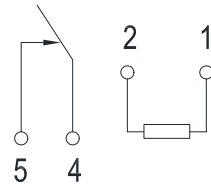
Outline Dimensions



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

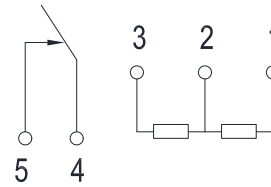
### Wiring Diagram

Single coil latching



1(+)2(-) 4-5 Reset  
2(+)1(-) 4-5 Set

Double coils latching



1(+)2(-) 4-5 Reset  
3(+)2(-) 4-5 Set

Notes:(1) In case of no tolerance shown in outline dimension:outline dimension $\leq$ 1mm,tolerance should be $\pm$ 0.2mm;outline dimension  $>$ 1mm and  $<$ 5mm,tolerance should be  $\pm$ 0.3mm;outline dimension $\geq$ 5mm,tolerance should be  $\pm$ 0.5mm.

(2) The tolerance without indicating for PCB layout is always  $\pm$ 0.1mm.

## SAFETY APPROVAL RATINGS

Approval	File No.	Contact arrangement	Contact material	Approved ratings
UL/C-UL	/	/	/	/
TUV	R 50376640	1A、1B	AgSnO <sub>2</sub>	90A 250VAC 70°C
CQC	/	/	/	/

## 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 $\geq$ 5 times operation time.
- ② The specification is for reference only,specifications subject to change without notice.