

Features

- 90A contact switching capability.
- Low coil power consumption and Pulse-driven.
- Dielectric Strength of 4KV between coil and contacts.
- Excellent anti-shock ability and high reliability .
- Both single and dual coil relay available.
- Green-products(compliance with RoHs and IEC62055-31).
- Through to 2500A,bear with short circuit current of 4500A

Contact Capacity

Model	WJ31D
Nominal switching capacity (res. load)	90A 250VAC
Max. switching current	90A
Max. switching voltage	250VAC
Max. switching power	22,500 VA

Characteristic Data

Contact material	Silver alloy	
Initial contact resistance (at 6VDC 1A)	1mΩ Max.	
Operate time (at nominal volt.)	30msec. Max.	
Release time (at nominal volt.)	30msec. Max.	
Initial insulation resistance	1,000MΩ Min.(DC500V)	
Initial dielectric strength	Between open contacts : AC1,500V , 50/60Hz 1Min.	
	Between coil and contact : AC4,000V , 50/60Hz 1Min.	
Vibration resistance	Functional	10 ~ 55Hz at double amplitude of 1.5 mm
	Destructive	10 ~ 55Hz at double amplitude of 1.5 mm
Shock resistance	Functional	10G Min
	Destructive	100G Min.
Endurance (operations)	Mechanical (at 3,600 ops./h)	100,000 cycles
	Electrical (at 600 ops./h)	10,000 cycles
Ambient temperature	-40°C ~ +70°C (no condensation)	

Coil Data (at 20°C)

Nominal voltage (VDC)	Single coil resistance ±10% (Ω)	Dual coil resistance ±10% (Ω)		Set voltage (Max.)	Reset voltage (Max.)	Pulse duration (ms)	Nominal operating power
5	16.6	8.3	8.3	70 % of nominal voltage	70 % of nominal voltage	80 Min.	:Dual/Single 1.5W/3.0W
6	24	12	12				
9	54	27	27				
12	96	48	48				
24	384	192	192				
48	1536	768	768				

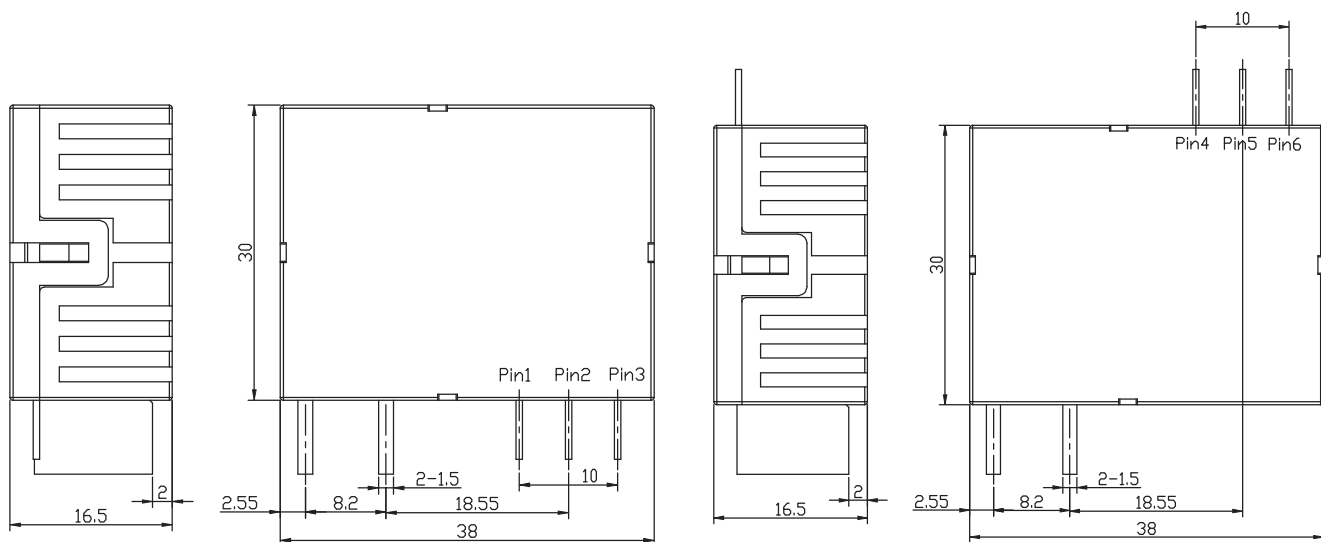
Coil Data (at 20°C)

Nominal voltage (VDC)	Single coil resistance ±10% (Ω)	Dual coil resistance ±10% (Ω)		Set voltage (Max.)	Reset voltage (Max.)	Pulse duration (ms)	sensitive
							Nominal operating power
5	25	12.5	12.5	70 % of nominal voltage	70 % of nominal voltage	80 Min.	Single/Dual: 1W/2W
6	36	18	18				
9	81	40.5	40.5				
12	144	72	72				
24	576	288	288				
48	2304	1,152	1,152				

Ordering Information

Nomenclature					
WJ31D	-90A-	12	L	2	-XXX
Customer Requirement					
Coil Specification : 1-Single coil, 2-Dual coils					
Coil Type: L-sensitive, D-standard					
Coil Voltage (VDC) : 05 , 06 , 09 , 12 , 24 , 48					
Contact capacity : 90A					
Type Designation : WJ31D Number of Poles : 1pole					

Outline Dimensions, Wiring Diagram, Mounting Holes (unit : mm)



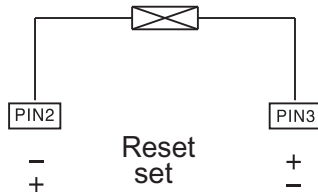
Unless otherwise specified :
 If dimension < 1mm, tolerance : ±0.2mm;
 If dimension 1~5mm, tolerance : ±0.3mm;
 If dimension > 5mm, tolerance : ±0.4mm.
 Note : 1. Extended terminal dimension is dimension before soldering. 2. Tolerance of mounting holes : ±0.5mm.

Typical Applications

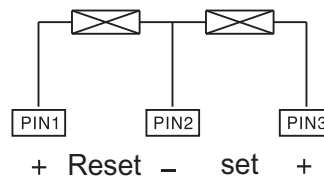
- Intelligent electric meter
- Electric remote control
- Composite power switch
- Electrical device

Wiring diagram

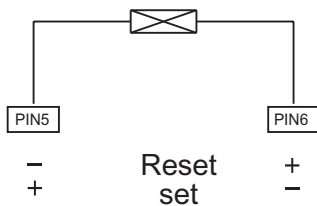
Wiring diagram of single coil



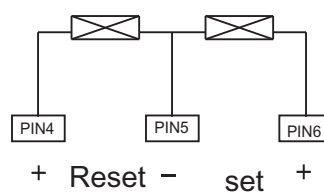
Wiring diagram of dual coil



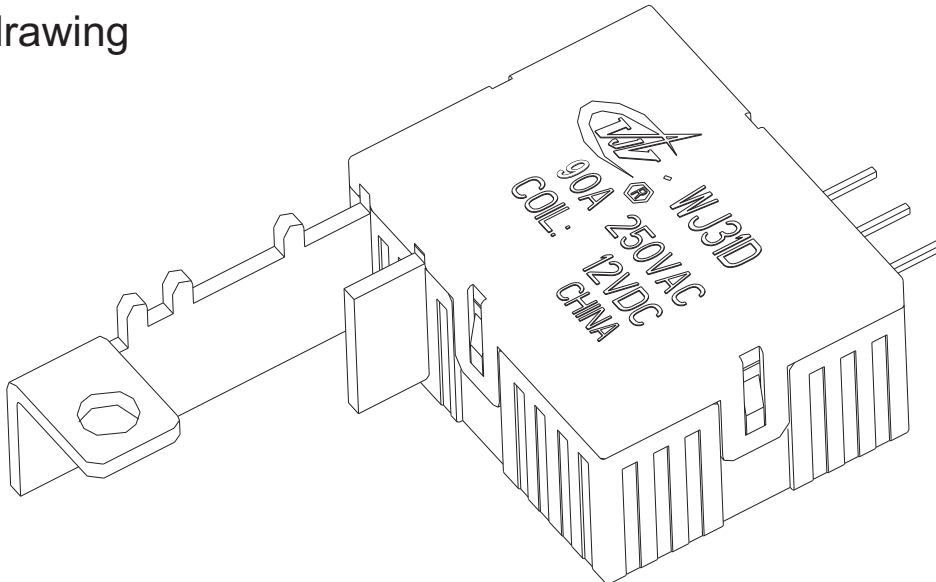
Wiring diagram of single coil



Wiring diagram of dual coil



Typical drawing



Note:above is a typical drawing for mounting,also according to our customers' requirements we can redesign or carry out with our customers. If a relay needs to connect with other components, please do not hesitate to contact us.

Announcements:

- 1 A Magnetic Latching Relay stays operation status when out of factory, but the status may change because of the effect of shock or stress during delivering or mounting. you can reset the tatus according to your requirement.
- 2 In order to make sure that a magnetic latching relay works properly, the energizing quantity of voltage applied to coil must reach to the rated value, and the width of pulse should be 5 times greater than the Operate or Release time. Don't apply voltage to both set and reset coil at the same time, and when applied energizing voltage value to coil, please do not exceed one minute.

Disclaimer:

This datasheet is the customers' reference. All the specification are subject to change without notice. We could not evaluate all the performance and all the parameters for every possible application. Thus the user should in a right position to choose the suitable product for their own application. If there is any query, please contact Sanyou for the technical service. However it is the user's responsibility to determine which product should be used only.

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