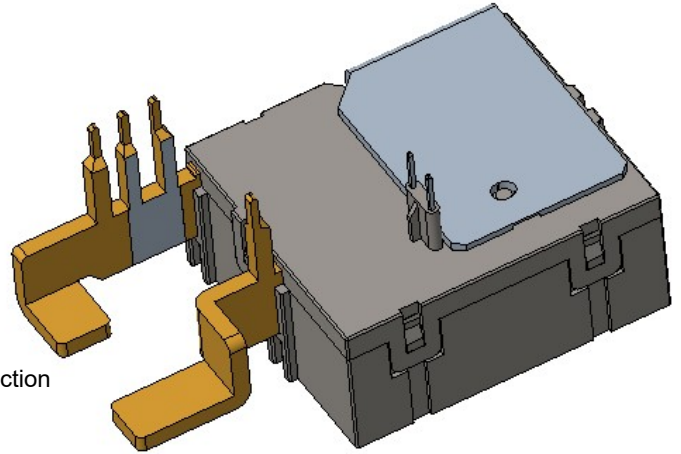


Features

- 120A switching capability
- Single coil and double coils are available
- External accessories such as manganese copper shunts and transformers can be ordered according to customer requirements
- Breakdown voltage (between contact and coil):4KV
- Meet standard of IEC62052-31: 2005 UC3
- Environment-friendly product(RoHS compliant)
- Outline Dimensions:(48×43×20.8)mm
- Can be integrated design, convenient automatic installation and production
- Power frequency interference resistance, and good consistency
- Main application: smart meter, compound switch, Smart home, new energy



CHARACTERISTICS

Specifications	Item		
Contact Data	Contact arrangement		1A、1B
	Contact resistance(initial)		≤0.5mΩ(6VDC 1A)
	Contact material		AgSnO ₂
Rated value	Rated load(Resistance load)		120A 250VAC
	Max.switching voltage		250VAC
	Max.switching current		120A
	Max.switching capacity		25000VA
Electrical performance	Insulation resistance(initial)		1000MΩ(500VDC)
	Dielectric strength (Initial)	Between open contacts	2000VAC 1min
		Between coil&contacts	4000VAC 1min
	Closing time		≤30ms
	Opening time		≤30ms
Mechanical performance	Shock resistance	Functional	98m/s ² (10g)
		Destructive	980m/s ² (100g)
	Vibration resistance		10Hz~55Hz 1.5mm DA
Endurance	Mechanical		7×10 ³ ops
	Electrical	ON/OFF=10S/20S	120A 220VAC 1×10 ³ ops(COS φ=1)
Operate condition	Ambient temperature		-40℃~85℃
	Humidity		5%~85%RH
Termination			Plug-in needle type+Screw type(XB)
Unit weight			Approx.121.8g (Without attachment)
Construction			Flux proofed

COIL DATA(23°C)

Single coil latching

Nominal Voltage	Closing Voltage VDC	Opening Voltage VDC	Rated Current (±10%)	Coil Resistance (±10%)	Nominal Power	Max Voltage
DC 5V	≤3.75	≤3.75	1.8A	2.8Ω	9W	DC 7.5V
DC 6V	≤4.50	≤4.50	1.5A	4Ω		DC 9V
DC 9V	≤6.75	≤6.75	1A	9Ω		DC 13.5V
DC 12V	≤9.00	≤9.00	0.75A	16Ω		DC 18V
DC 24V	≤18.00	≤18.00	0.38A	64Ω		DC 36V

Double coils latching

Nominal Voltage	Closing Voltage VDC	Opening Voltage VDC	Rated Current (±10%)	Coil Resistance (±10%)	Nominal Power	Max Voltage
DC 5V	≤3.75	≤3.75	3.6/3.6A	1.4/1.4Ω	18W	DC 7.5V
DC 6V	≤4.50	≤4.50	3/3A	2/2Ω		DC 9V
DC 9V	≤6.75	≤6.75	2/2A	4.5/4.5Ω		DC 13.5V
DC 12V	≤9.00	≤9.00	1.5/1.5A	8/8Ω		DC 18V
DC 24V	≤18.00	≤18.00	0.75/0.75A	32/32Ω		DC 36V

ORDERING INFORMATION

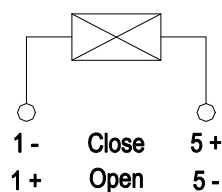
FH27L 1B T -L1 R -XXX -DC12V

- ① Type
- ② Contact arrangement: 1A=1 open contacts
1B=1 close contacts
- ③ Contact material: T=AgSnO₂
- ④ Coil type: L1=Single coil latching, L2=Double coils latching
- ⑤ Polarity: Nil=standard polarity R=reversed polarity
- ⑥ Customer special code: numbers or letters denote customer's requirements
- ⑦ Coil specification: DC5/6/9/12/24V

WIRING DIAGRAM AND PC BOARD LAYOUT(Unit:mm)

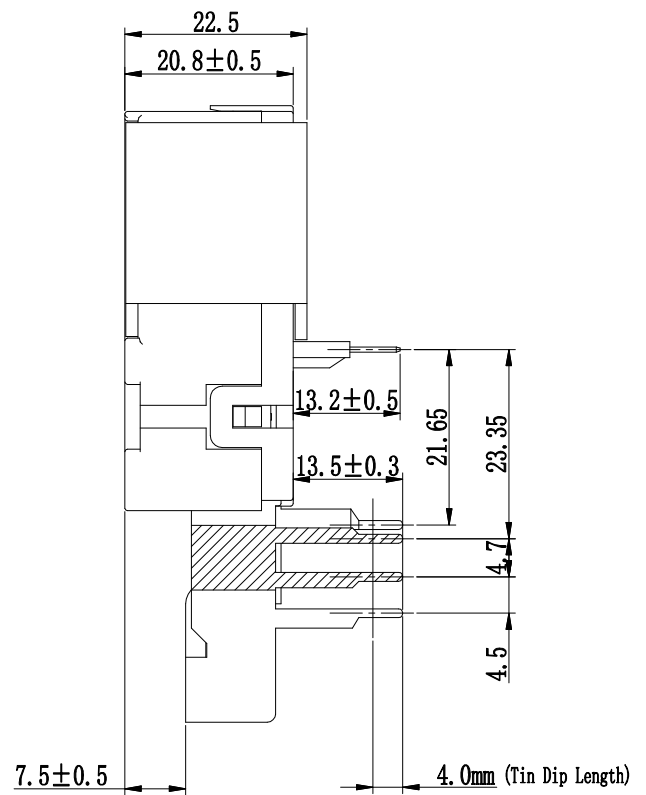
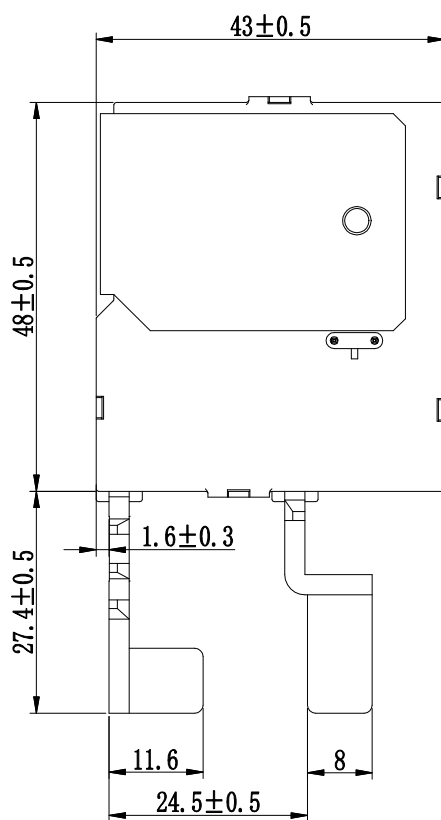
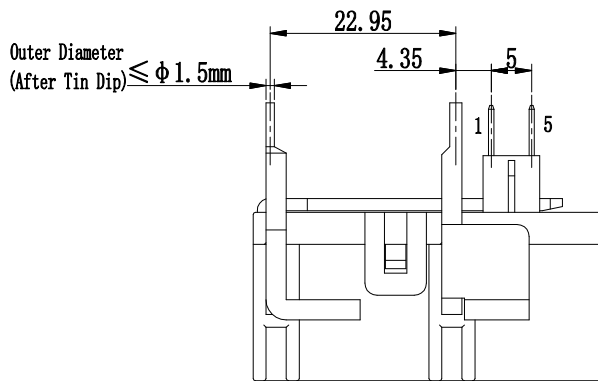
Standard polarity wiring diagram

Single Coil



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

Outline Dimensions



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

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

■ TYPICAL CASES



■ NOTICE

- ① For the state of latching relay as delivered,If the customer has no special requirements, we default to the closed state before delivery,but due to transportation or relay installation by shock and other factors may change the state,so please reset it to the closed or open state as needed when using;
- ② In order to maintain the initial performance parameters of the relay, please be careful not to drop the product or be affected by external force;
- ③ In order to maintain "opening" or "closing" status,energized voltage applied across the coil should reach the rated voltage,it is recommended that the actual driving voltage be 1~1.5 times the rated voltage, Pulse width ≥ 80 ms,and do not energize to "opening" coil and "closing" coil simultaneously,long energized time(more than 1 min) should also be avoided;
- ④ Normally the load terminals are not suitable for reflow solder, wave solder or tin solder, we suggest use spot welding. Load terminals shall be prevented from assembly stress;
- ⑤ Latching relays are customized products,the above cases are only for reference. If you have any questions, please contact Fanhar for more technical support;
- ⑥ The specification is for reference only.Specifications subject to change without notice.

