

**Features**

- 30A switching capability
- Breakdown voltage (between coil and contacts): 2.5KV
- Plastic sealed and Flux proofed are optional
- UL insulation system: Class F
- Outline Dimensions: (32.0\*27.2\*19.5) mm

**CHARACTERISTICS**

| Specifications         | Item                           |                       |   |
|------------------------|--------------------------------|-----------------------|---|
| Contact Data           | Contact arrangement            |                       | 1A、1B、1C  |
|                        | Contact resistance(initial)    |                       | ≤100mΩ(6VDC1A)                                    |
|                        | Contact material               |                       | AgNi、AgSnO <sub>2</sub>                           |
| Rated value            | Rated load(Resistance load)    |                       | NO:30A 250VAC<br>NC:20A 250VAC                    |
|                        | Max.switching voltage          |                       | 250VAC  |
|                        | Max.switching current          |                       | 40A   |
|                        | Max.switching capacity         |                       | 7500VA  |
|                        | Min.allowing load              |                       | 5VDC 100mA  |
| Electrical performance | Insulation resistance(initial) |                       | 1000MΩ(500VDC)                                    |
|                        | Dielectric strength (initial)  | Between open contacts | 1500VAC,1min                                      |
|                        |                                | Between coil&contacts | 2500VAC,1min                                      |
|                        | Operate time                   |                       | ≤15ms   |
|                        | Release time                   |                       | ≤10ms   |
| Mechanical performance | Shock resistance               | Functional            | 98m/s <sup>2</sup> (10G)                          |
|                        |                                | Destructive           | 980m/s <sup>2</sup> (100G)                        |
|                        | Vibration resistance           |                       | 10Hz~55Hz1.5mmDA                                  |
| Endurance              | Mechanical                     |                       | 1×10 <sup>6</sup> ops                             |
|                        | Electrical(Room temperature)   |                       | 30A 250VAC<br>5×10 <sup>4</sup> ops(ON/OFF=1s/9s) |
| Operate condition      | Ambient temperature            |                       | -40℃~85℃  |
|                        | Humidity                       |                       | 5% to 90%   |
| Termination            |                                |                       | PCB   |
| Unit weight            |                                |                       | Approx.24g  |
| Construction           |                                |                       | Plastic sealed,Flux proofed                       |

## COILDATA(23°C)

| Nominal Voltage | Pick-up Voltage VDC | Drop-out Voltage VDC | Rated Current (±10%) | Coil Resistance (±10%) | Nominal Power | Max Voltage |
|-----------------|---------------------|----------------------|----------------------|------------------------|---------------|-------------|
| DC 5V           | ≤3.75               | ≥0.25                | 180mA                | 27.8Ω                  | 900 mW        | DC 6.5V     |
| DC 6V           | ≤4.50               | ≥0.30                | 150mA                | 40Ω                    |               | DC 7.8V     |
| DC 9V           | ≤6.75               | ≥0.45                | 100mA                | 90Ω                    |               | DC 11.7V    |
| DC 12V          | ≤9.00               | ≥0.60                | 75mA                 | 160Ω                   |               | DC 15.6V    |
| DC 15V          | ≤11.25              | ≥0.75                | 60mA                 | 250Ω                   |               | DC 19.5V    |
| DC 18V          | ≤13.50              | ≥0.90                | 50mA                 | 360Ω                   |               | DC 23.4V    |
| DC 24V          | ≤18.00              | ≥1.20                | 37.5mA               | 640Ω                   |               | DC 31.2V    |
| DC 36V          | ≤27.00              | ≥1.80                | 25mA                 | 1440Ω                  |               | DC 46.8V    |
| DC 48V          | ≤36.00              | ≥2.40                | 18.75mA              | 2560Ω                  |               | DC 62.4V    |
| DC 110V         | ≤82.50              | ≥5.50                | 8.19mA               | 13444.5Ω               |               | DC 143V     |

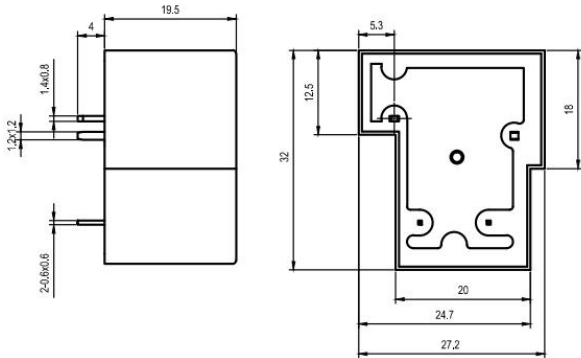
## ORDERINGINFORMATION

|  | FH12 | -1A | S | T | F | -XXX | DC12V |
|--|------|-----|---|---|---|------|-------|
| ① Type   |      |     |   |   |   |      |       |
| ② Contact arrangement: 1A=1 open contacts<br>1B=1 close contacts<br>1C=1 switched contacts |      |     |   |   |   |      |       |
| ③ Construction(1): Nil=Flux proofed. S=Plastic sealed                                      |      |     |   |   |   |      |       |
| ④ Contact material (2): Nil=AgNi. T=AgSnO <sub>2</sub>                                     |      |     |   |   |   |      |       |
| ⑤ Insulation standard: F=Class F   |      |     |   |   |   |      |       |
| ⑥ Customer special code: numbers or letters denote customer's requirements                 |      |     |   |   |   |      |       |
| ⑦ Coil specification: DC5/6/9/12/15/18/24/36/48/110V                                       |      |     |   |   |   |      |       |

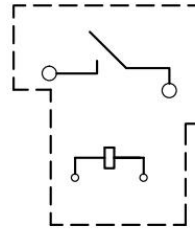
- (1) When used in clean environment(excluding H<sub>2</sub>S、SO<sub>2</sub>、NO<sub>2</sub>、dust and other pollutants), it is recommended to choose the Flux proofed type;When used in unclean environment(contain H<sub>2</sub>S、SO<sub>2</sub>、NO<sub>2</sub>、dust and other pollutants), it is recommended to choose the Plastic sealed.
- (2) Due to the high surge current of relay connection,we propose to use AgSnO<sub>2</sub> contacts.

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

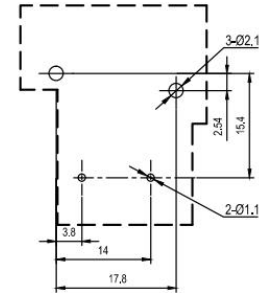
1A Outline Dimensions



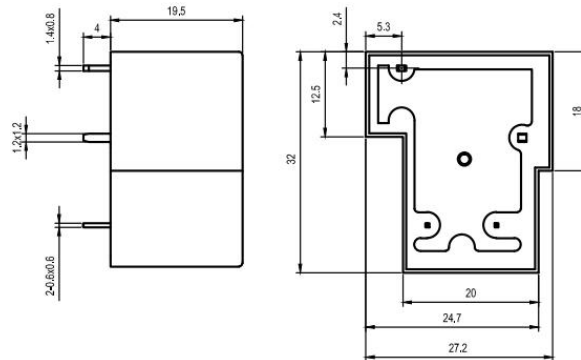
Wiring Diagram  
(Bottom view)



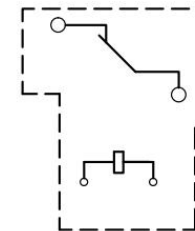
PCB Layout  
(Bottom view)



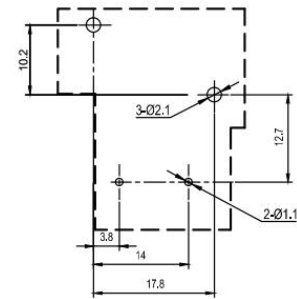
1B Outline Dimensions



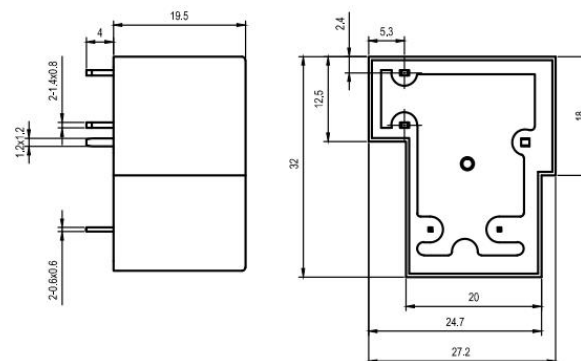
Wiring Diagram  
(Bottom view)



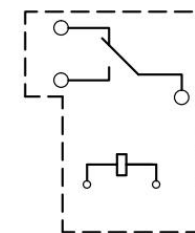
PCB Layout  
(Bottom view)



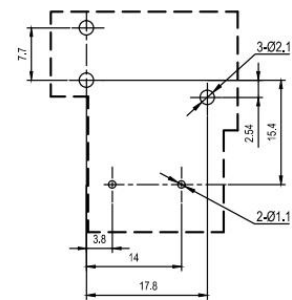
1C Outline Dimensions



Wiring Diagram  
(Bottom view)



PCB Layout  
(Bottom view)



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

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

## NOTICE

- ① In order to maintain the initial performance parameters of the relay, please be careful not to drop the product;
- ② The specification is for reference only. Specifications subject to change without notice.