

# 4120 (JQC-4)



Dust Covered  
26.8×21.5×22.3



Open Type  
24×19×20

## Features

- Small size, heavy contact load, capable of standing strong current of 45A at 14VDC.
- PC board mounting.
- Suitable for automatic control facilities and automobile application etc.
- Both European 11mm pole distance and American 8mm pole distance available.

## Ordering Information

4120 C S 30 DC12V 1.6 U  
1 2 3 4 5 6 7

1 Part number: 4120 (JQC-4)  
2 Contact arrangement: A:1A; B:1B; C:1C  
3 Enclosure: S: Sealed type; Z: Dust cover  
O: Open type

4 Contact current: 15:15A; 20:20A; 30:30A; 45:45A  
5 Coil rated voltage(V): DC:6,9,12,18,24  
6 Coil power consumption: 1.6:1.6W; 1.9:1.9W  
7 Terminal distance type:U:USA; E:European

## Contact Data

|                                    |                                                                                         |                 |                          |
|------------------------------------|-----------------------------------------------------------------------------------------|-----------------|--------------------------|
| Contact Arrangement                | 1A (SPSTNO) 1B (SPSTNC) 1C (SPDT(B-M))                                                  |                 |                          |
| Contact Material                   | AgNi AgSnO <sub>2</sub> AgCdO                                                           |                 |                          |
| Contact Rating (resistive)         | 1A: 45A/14VDC; 1B: 30A/14VDC;<br>1C:20A/120VAC, 15A/28VDC, NO: 40A/14VDC ,NC: 30A/14VDC |                 |                          |
| Max. Switching Power               | 630W 2400VA                                                                             |                 |                          |
| Max. Switching Voltage             | 75VDC 380VAC                                                                            |                 |                          |
| Contact Resistance or Voltage drop | <30mΩ                                                                                   |                 |                          |
| Operation                          | Electrical                                                                              | 10 <sup>5</sup> | Item 4.12 of IEC 61810-7 |
| life                               | Mechanical                                                                              | 10 <sup>7</sup> | Item 4.31 of IEC 61810-7 |

**CAUTION:** 1.For the intermediate current, it only applies to the room temperature.  
2.For the open type relays, the min. switching current and min. switching voltage is 100mA/6VDC.

## Coil Parameter

| Dash numbers                     | Coil voltage VDC |                      | Coil resistance Ω ±10% | Pickup voltage VDC(max)<br>(70%of rated voltage ) | Release voltage VDC(min)<br>(10% of rated voltage) | Coil power consumption W | Operate Time ms | Release Time ms |
|----------------------------------|------------------|----------------------|------------------------|---------------------------------------------------|----------------------------------------------------|--------------------------|-----------------|-----------------|
|                                  | Rated            | Max.                 |                        |                                                   |                                                    |                          |                 |                 |
| 006-1900<br>009-1900             | 6<br>9           | 7.8<br>11.7          | 19<br>42.6             | 4.20<br>6.30                                      | 0.6<br>0.9                                         | 1.9                      | <5              | <3              |
| 012-1600<br>018-1600<br>024-1600 | 12<br>18<br>24   | 15.6<br>23.4<br>31.2 | 90<br>202.5<br>360     | 8.40<br>12.6<br>16.8                              | 1.2<br>1.8<br>2.4                                  | 1.6                      |                 |                 |

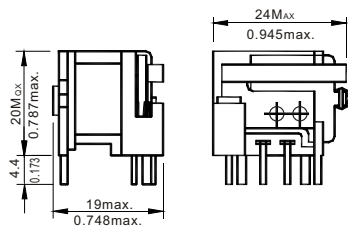
**CAUTION:** 1.The use of any coil voltage less than the rated coil voltage will compromise the operation of the relay.  
2.Pickup and release voltage are for test purposes only and are not to be used as design criteria.

## Operation condition

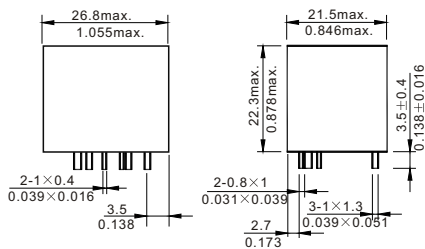
|                          |                                   |                              |
|--------------------------|-----------------------------------|------------------------------|
| Insulation Resistance    | 100M $\Omega$ min (at 500VDC)     | Item 7 of IEC 60255-5        |
| Dielectric Strength      |                                   |                              |
| Between contacts         | 50Hz 500V                         | Item 6 of IEC 60255-5        |
| Between contact and coil | 50Hz 750V                         | Item 6 of IEC 60255-5        |
| Shock resistance         | 200m/s <sup>2</sup> 11ms          | IEC 68-2-27 Test Ea          |
| Vibration resistance     | 10Hz~40Hz double amplitude 1.27mm | IEC 68-2-6 Test Fc           |
| Terminals strength       | 10N                               | IEC 68-2-21 Test Ua1         |
| Solderability            | 235℃ $\pm$ 2℃ 3s $\pm$ 0.5s       | IEC 68-2-20 Test Ta method 1 |
| Ambient Temperature      | -40℃~125℃                         |                              |
| Relative Humidity        | 85% (at 40℃)                      | IEC 68-2-3 Test Ca           |
| Mass                     | 19g (Open type) 21g               |                              |

## Dimensions

mm /inch

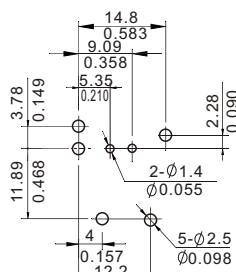


Open type

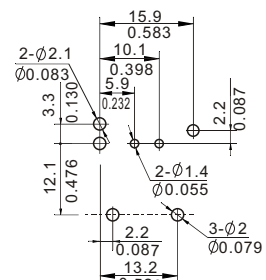


Dust cover type

Dimensions

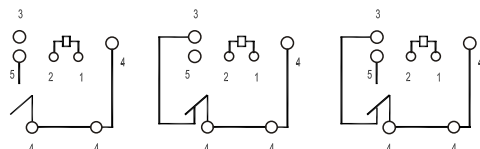


U type



E type

Mounting (Bottom view)



1A

1B

1C

Wiring diagram(Bottom view)

NOTES 1).Dimensions are in millimeters.

2).Inch equivalents are given for general information only.

## Reference Data

