



# NCT

17.4×14×13.5 (1C: 17.4×7.2×13.5)

## Features

- Ultra small size, light weight.
- Low coil power consumption.
- Forward/reverse motor control is possible with a single relay.
- PC board mounting.
- Suitable for automobile, automation system, electronic equipment.

## Ordering Information

**NCT 2 DC12V**  
1 2 3

1 Part number: NCT

3 Coil rated Voltage(V): DC:12

2Contact arrangement: 1:1C; 2:2×1C; 5:2C

## Contact Data

Contact Arrangement	1C (SPDT(B-M)) 2C (DPDT(B-M)) 2×1C (2×SPDT(B-M) (H-Bridge)
Contact Material	Silver alloy Ag-SnO <sub>2</sub>
Contact Rating (resistive)	NO: 20A/14VDC; NC: 10A/14VDC
Max. Switching Power	300W
Max. Switching Voltage	16VDC
Contact Resistance or Voltage drop	≤100mΩ (200mV at 10A)
Operation life	Electrical 10 <sup>5</sup>
	Mechanical 10 <sup>7</sup>
	Max. Switching Current:20A Item 3.12 of IEC255-7 Item 3.30 of IEC255-7 Item 3.31 of IEC255-7

## Coil Parameter

Dash numbers	Coil voltage VDC	Operating Voltage Range VDC	Coil resistance Ω±10%	Pickup voltage VDC(max) (60%of rated voltage )	release voltage VDC(min) (8% of rated voltage)	Coil power consumption W	Operate Time ms	Release Time ms
	Rated							
012-800	12	10-16	180	7.2	1.0	0.8	≤10	≤10

**CAUTION:** 1.The use of any coil voltage overstep operating voltage range of coil , it 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 IEC255-5
Dielectric Strength		
Between contacts	50Hz 500V	Item 6 of IEC255-5 (Detection current:10m A)
Between contact and coil	50Hz 500V	Item 6 of IEC255-5 (Detection current:10m A)
Shock resistance	Functional: 100m/s <sup>2</sup> 11ms; Survival: 1000 m/s <sup>2</sup> 6ms	IEC68-2-27 Test Ea
Vibration resistance	10~100Hz 44 m/s <sup>2</sup>	IEC68-2-6 Test Fc
Terminals strength	10N	IEC68-2-21 Test Ua1
Solderability	235 $^{\circ}$ C $\pm$ 2 $^{\circ}$ C 3 $\pm$ 0.5s	IEC68-2-20 Test Ta method 1
Ambient Temperature	-40~85 $^{\circ}$ C	
Relative Humidity	85% (at 40 $^{\circ}$ C)	IEC68-2-3Test Ca
Mass	8g,4g (1C)	

**Qualification inspection:**

Perform the qualification test as specified in the table IV of IEC255-19-1 and minimum sample size 24.

Dimensions (Unit: mm)		mm	inch
<p>1 type</p>		0.3	0.012
		0.4	0.016
		0.65	0.026
		0.8	0.031
		1.0	0.039
		1.1	0.043
		1.25	0.049
		1.4	0.055
		1.45	0.057
		2.5	0.098
<p>2 type</p>		3.15	0.124
		3.5	0.138
		4.3	0.169
		6.0	0.236
		6.8	0.268
		7.2	0.283
		9.5	0.374
		13.5	0.551
		14	0.551
		15	0.591
<p>5 type</p>		17.4	0.685

  

<p>1(1C)</p>	<p>2(2X1C)</p>	<p>5(2C)</p>
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**Wiring diagram (Bottom views)**

**NOTES** 1).Dimensions are in millimeter.  
 2).Inch equivalents are given for general information only.