



29×12.7×15.8

UL E169380 CE 40020063

# NT75

## Features

- Small size, light weight.Low coil consumption.
- 20A switching capacity.
- PC board mounting.
- Product in accordance to IEC60335-1 available.

## Ordering Information

**NT75 1C S 0.41 3.5 N G 12 DC12V W**  
 1 2 3 4 5 6 7 8 9 10

- |                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                       |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 Part number: NT75<br>2 Contact arrangement:<br>1A:1A; A2:1A2; 1C:1C; C2:1C2; 2A:2A; 2C:2C<br>3 Enclosure: S: Wash tight; Z: Flux proof<br>4 Coil power: 0.25:0.25W; 0.41:0.41W; 0.53:0.53W<br>5 Pin distance: 3.5:3.5mm; 5:5.0mm<br>6 Contact material: NIL:AgSnO <sub>2</sub> ; N:AgNi<br>7 Contact plating: Nil:Standard; G:Au plated | 8 Contact rating: 1A,1C:12: 12A;16:16A<br>2A,2C(0.41W): 8:8A<br>2A(0.53W): 10:10A<br>9 Coil rated voltage(V): DC:5,6,9,12,24,48<br>10 Special request: W: 335 compliant; Nil:Standard |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## Contact Data

|                        |                                                                                                                                       |  |                            |
|------------------------|---------------------------------------------------------------------------------------------------------------------------------------|--|----------------------------|
| Contact Arrangement    | 1A(SPSTNO) 1C(SPDT(B-M)) 2A(DPSTNO) 2C(DPDT(B-M))                                                                                     |  |                            |
| Contact Material       | AgSnO <sub>2</sub> AgNi                                                                                                               |  |                            |
| Contact Rating         | 1A,1C:12A,16A/250VAC,30VDC (Rushing current 80A)<br>2A,2C(0.41W):NO:8A/277VAC,30VDC; NC:8A/277VAC,30VDC<br>2A(0.53W):10A/250VAC,30VDC |  |                            |
| Max. Switching Power   | 1C:480W 4000VA 2C:300W 2500VA                                                                                                         |  |                            |
| Max. Switching Voltage | 300VDC 440VAC                                                                                                                         |  | Max. Switching Current:20A |
| Contact Resistance     | ≤100mΩ                                                                                                                                |  | Item 4.12 of IEC 61810-7   |
| Electrical Endurance   | 1×10 <sup>5</sup><br>2A: 5×10 <sup>4</sup> (10A/250VDC 85℃)<br>2A: 1×10 <sup>4</sup> (10A/30VDC 85℃)                                  |  | Item 4.30 of IEC 61810-7   |
| Mechanical Endurance   | 1×10 <sup>7</sup>                                                                                                                     |  | Item 4.31 of IEC 61810-7   |

**Notes:** For gold plated version, the min. switching current and min. switching voltage is 50mA/6VDC; for non gold plated version (standard type),the min. switching current and min. switching voltage is 100mA/6VDC.

## Coil Parameter

| Coil voltage<br>VDC |      | Coil<br>resistance<br>Ω ± 10% | Pick-up voltage<br>VDC(max)<br>(70%of rated<br>voltage ) | Drop-out voltage<br>VDC(min)<br>(10% of rated<br>voltage) | Coil<br>power<br>W | Operate<br>time<br>ms | Release<br>time<br>ms |
|---------------------|------|-------------------------------|----------------------------------------------------------|-----------------------------------------------------------|--------------------|-----------------------|-----------------------|
| Rated               | Max. |                               |                                                          |                                                           |                    |                       |                       |
| 5                   | 6.5  | 100                           | 3.5                                                      | 0.5                                                       | 0.25               | ≤15                   | ≤8                    |
| 6                   | 7.8  | 144                           | 4.2                                                      | 0.6                                                       |                    |                       |                       |
| 9                   | 11.7 | 324                           | 6.3                                                      | 0.9                                                       |                    |                       |                       |
| 12                  | 15.6 | 576                           | 8.4                                                      | 1.2                                                       |                    |                       |                       |
| 24                  | 31.2 | 2304                          | 16.8                                                     | 2.4                                                       |                    |                       |                       |
| 48                  | 62.4 | 9216                          | 33.6                                                     | 4.8                                                       |                    |                       |                       |
| 5                   | 6.5  | 61                            | 3.5                                                      | 0.5                                                       | 0.41               | ≤15                   | ≤8                    |
| 6                   | 7.8  | 88                            | 4.2                                                      | 0.6                                                       |                    |                       |                       |
| 9                   | 11.7 | 198                           | 6.3                                                      | 0.9                                                       |                    |                       |                       |
| 12                  | 15.6 | 351                           | 8.4                                                      | 1.2                                                       |                    |                       |                       |
| 24                  | 31.2 | 1405                          | 16.8                                                     | 2.4                                                       |                    |                       |                       |
| 48                  | 62.4 | 5620                          | 33.6                                                     | 4.8                                                       |                    |                       |                       |

## Coil Parameter

| Dash numbers | Coil voltage VDC |      | Coil resistance $\Omega \pm 10\%$ | Pick-up voltage VDC(max)<br>(70% of rated voltage) | Drop-out voltage VDC(min)<br>(10% of rated voltage) | Coil power W | Operate time ms | Release time ms |
|--------------|------------------|------|-----------------------------------|----------------------------------------------------|-----------------------------------------------------|--------------|-----------------|-----------------|
|              | Rated            | Max. |                                   |                                                    |                                                     |              |                 |                 |
| 005-530      | 5                | 6.5  | 47.1                              | 3.5                                                | 0.5                                                 | 0.53         | $\leq 15$       | $\leq 8$        |
| 006-530      | 6                | 7.8  | 67.9                              | 4.2                                                | 0.6                                                 |              |                 |                 |
| 009-530      | 9                | 11.7 | 152.8                             | 6.3                                                | 0.9                                                 |              |                 |                 |
| 012-530      | 12               | 15.6 | 271.7                             | 8.4                                                | 1.2                                                 |              |                 |                 |
| 024-530      | 24               | 31.2 | 1086.8                            | 16.8                                               | 2.4                                                 |              |                 |                 |
| 048-530      | 48               | 62.4 | 4347.2                            | 33.6                                               | 4.8                                                 |              |                 |                 |

**Notes:** 1.The use of any coil voltage less than the rated coil voltage will compromise the operation of the relay.  
2.Pick-up and drop-out voltage are for test purposes only and are not to be used as design criteria.

## Characteristics

|                                                                          |                                  |                          |
|--------------------------------------------------------------------------|----------------------------------|--------------------------|
| Insulation Resistance                                                    | 1000M $\Omega$ min (at 500VDC)   | Item 4.11 of IEC 61810-7 |
| Dielectric Strength<br>Between Open Contacts<br>Between Contact and Coil | 1000VAC 1min<br>5000VAC 1min     | Item 4.9 of IEC 61810-7  |
| Shock Resistance                                                         | 98m/s <sup>2</sup> 11ms          | Item 4.26 of IEC 61810-7 |
| Vibration Resistance                                                     | 10Hz~55Hz Double amplitude 1.5mm | Item 4.28 of IEC 61810-7 |
| Terminals Strength                                                       | 10N                              | Item 4.24 of IEC 61810-7 |
| Ambient Temperature                                                      | -40℃~85℃                         |                          |
| Relative Humidity                                                        | 5% to 85%                        | Item 4.16 of IEC 61810-7 |
| Weight (Approx.)                                                         | 12.5g 13.2g(2C)                  | Item 4.7 of IEC 61810-7  |

## Safety Approvals

| Safety approval | UL&CUR                                                                                           | VDE                                 |
|-----------------|--------------------------------------------------------------------------------------------------|-------------------------------------|
| Load            | 1A,1C: 12A,16A/250VAC;<br>12A/30VDC(1C)<br>2A,2C: 8A/277VAC,30VDC<br>2A(0.53W): 10A/250VAC,30VDC | 1A,1C:16A/250VAC<br>2A,2C:8A/250VAC |

