



29×12.7×15.8

NT75

UL US E169380 CE 40020063

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 | 8 Contact rating: |
| 2 Contact arrangement: 1A:1A; A2:1A2; 1C:1C; C2:1C2; 2A:2A; 2C:2C | 1A,1C:12A,16A/250VAC,30VDC |
| 3 Enclosure: S: Wash tight; Z: Flux proof | 2A,2C(0.41W):NO:8A/277VAC,30VDC NC:8A/277VAC,30VDC |
| 4 Coil power: 0.25:0.25W; 0.41:0.41W; 0.53:0.53W | 2A(0.53W):10A/250VAC,30VDC |
| 5 Pole-distance: 3.5:3.5mm; 5:5.0mm | 9 Coil rated voltage(V): DC:5,6,9,12,24,48 |
| 6 Contact material: NIL:AgSnO ₂ ; N:AgNi | 10 Special request: W: 335 compliant; Nil:Standard |
| 7 Contact plating: Nil:Standard; G:Au plated | |

Contact Data

| | |
|------------------------|---|
| Contact Arrangement | 1A(SPSTNO) 1C(SPDT(B-M)) 2A(DPSTNO) 2C(DPDT(B-M)) |
| Contact Material | AgSnO ₂ , AgNi |
| Contact Rating | 1A,1C:12A,16A/250VAC,30VDC (Rushing current 80A) 2A,2C(0.41W):NO:8A/277VAC,30VDC; NC:8A/277VAC,30VDC 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 ⁵ 2A:5×10 ⁴ (10A/250VDC 85°C) Item 4.30 of IEC 61810-7 2A:1×10 ⁴ (10A/30VDC 85°C) |
| Mechanical Endurance | 1×10 ⁷ 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

| Dash numbers | Coil voltage VDC | | Coil resistance Ω ± 10% | Pick-up voltage VDC(max) (70% of rated voltage) | Drop-out voltage VDC(min) (10% of rated voltage) | Coil power W | Operate time ms | Release time ms |
|--------------|------------------|------|-------------------------|---|--|--------------|-----------------|-----------------|
| | Rated | Max. | | | | | | |
| 005-250 | 5 | 6.5 | 100 | 3.5 | 0.5 | 0.25 | ≤15 | ≤8 |
| 006-250 | 6 | 7.8 | 144 | 4.2 | 0.6 | | | |
| 009-250 | 9 | 11.7 | 324 | 6.3 | 0.9 | | | |
| 012-250 | 12 | 15.6 | 576 | 8.4 | 1.2 | | | |
| 024-250 | 24 | 31.2 | 2304 | 16.8 | 2.4 | | | |
| 048-250 | 48 | 62.4 | 9216 | 33.6 | 4.8 | | | |
| 005-410 | 5 | 6.5 | 61 | 3.5 | 0.5 | 0.41 | ≤15 | ≤8 |
| 006-410 | 6 | 7.8 | 88 | 4.2 | 0.6 | | | |
| 009-410 | 9 | 11.7 | 198 | 6.3 | 0.9 | | | |
| 012-410 | 12 | 15.6 | 351 | 8.4 | 1.2 | | | |
| 024-410 | 24 | 31.2 | 1405 | 16.8 | 2.4 | | | |
| 048-410 | 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) (70% of rated voltage) | Drop-out voltage VDC(min) (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 | ≤ 15 | ≤ 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 Ω min (at 500VDC) | Item 4.11 of IEC 61810-7 |
| Dielectric Strength Between Contacts Between Contact and Coil | 1000VAC 1min 5000VAC 1min | Item 4.9 of IEC 61810-7 |
| Shock Resistance | 98m/s ² 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 $^{\circ}$ C~85 $^{\circ}$ C | |
| Relative Humidity | 5% to 85% | Item 4.16 of IEC 61810-7 |
| Weight (Approx.) | 12.5g 13.2g | Item 4.7 of IEC 61810-7 |

Safety Approvals

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

Dimensions mm

Dimension

Mounting (Bottom view)

Wiring diagram(Bottom view)

Remark: In case of no tolerance shown in outline dimension: outline dimension ≤ 1mm, tolerance should be ±0.2mm; outline dimension > 1mm and ≤ 5mm, tolerance should be ±0.3mm; outline dimension > 5mm, tolerance should be ±0.4mm.

Reference Data

Contact Switching Capacity

Coil Operating Range(DC)

Notes: The use of a relay with an energising voltage other than the rated coil voltage may lead to reduced electrical endurance. An energising voltage over the above range may damage the insulation of relay coil.