

NINGBO HUAGUAN ELECTRONICS CO.,LTD.



































Features

- DIL Pitch Terminals .High Sensitivity :0.14W or 0.10W Nominal Power。
 Conforms to FCC Part 68 1.5kV Surge and Dielectric 1000VAC。
- Monostable or bistable relays Single and double Coil magnet latching Type available.
- Application for Telecommunication Equipment,Office Equipment,Security Alarm Systems, Measuring instruments, Medical Monitoring Equipment,Audio Visual Equipment, Flight Simulator,Sensor Control.

| Or | Ordering Information | | | | | | | |
|--|------------------------|----------------|------------------------|--|---|--|--|--|
| $\frac{\mathbf{P}}{1}$ | $\frac{\mathbf{L}}{2}$ | $\frac{12}{3}$ | $\frac{\mathbf{W}}{4}$ | | | | | |
| 1 Part number: P 2 Operating function: NIL: Single Side Stable; L:1 Coil Latching; K:2 Coil Latching | | | | | 3 Coil rated voltage(V): DC:3,4.5,5,6,9,12,24 4 Contact material: NIL: AgPd; W: AgNi | | | |

Contact Data

| - CONTRACT D | utu | | | | |
|------------------------------------|----------------|--|---|---|--|
| Contact Arrangement | | 2C (DPDT(B-M)) (Bifurcated Crossbar) | | | |
| Contact Mate | erial | AgPd(Stationary Contact: Gold clad) AgNi(Gold clad) | | | |
| Contact Ratir | ng (resistive) | 1A,2A/30 | VDC; 0.5A/125VAC | | |
| Max. Switching Power | | 60W | 62.5VA | Min. Switching load: 0.01mA/10mV (Reference Value | |
| Max. Switchin | ng Voltage | 220VDC | 250VAC | Max. Switching Current:2A | |
| Contact Resistance or Voltage drop | | ≤50m Ω | | Item 3.12 of IEC255-7 | |
| Operation life | Electrical | 1A/30VDC 0.5A/125\ | C: 2×10 ⁵ (Ag Ni: 1×10 ⁵ VAC: 1×10 ⁵ |) Item 3.30 of IEC255-7 | |
| 1110 | Mechanical | 10 ⁸ | | Item 3.31 of IEC255-7 | |

CAUTION:

Relays previously tested or used above 10mA resistive at 6V maximum (DC or peak AC) open circuit are not recommended for subsequentuse in lowlevel applications.

Coil Parameter

| Dash | Coil voltage VDC | | Coil resistance | Pick up voltage VDC(max) | Release voltage VDC(min) | Coil | Operate | Release /Reset | |
|------------------|---------------------|---------------------|-----------------|-----------------------------|-----------------------------|------------------------|--------------|-------------------|------------|
| numbers | Rated | Max. | Ω ± | ±10% | (75%of rated voltage) | (10% of rated voltage) | power W | Time ms | Time ms |
| P-003 | 3 | 7.5 | | 64.3 | 2.25 | 0.3 | 0.14 | | |
| P-004 | 4.5 | 11.25 | 1 | 144.6 | 3.38 | 0.45 | 0.14 | | |
| P-005 | 5 | 12.5 | | 178 | 3.75 | 0.5 | 0.14 | | |
| P-006 | 6 | 15.0 | | 257 | 4.50 | 0.6 | 0.14 | Approx.2 | Approx.1 |
| P-009 | 9 | 22.5 | | 579 | 6.75 | 0.9 | 0.14 | | |
| P-012 | 12 | 30.0 | | 1028 | 9.00 | 1.2 | 0.14 | | |
| P-024 | 24 | 48.0 | : | 2880 | 18.0 | 2.4 | 0.20 | | |
| 1 Coil Latch | 1 Coil Latching | | | | | Reset(Max) | | Reset | |
| PL-003 | 3 | 8.7 | | 90 | 2.25 | -2.25 | 0.10 | | |
| PL-004 | 4.5 | 13.0 | 2 | 202.5 | 3.38 | -3.38 | 0.10 | | |
| PL-005 | 5 | 14.5 | | 250 | 3.75 | -3.75 | 0.10 | | |
| PL-006 | 6 | 17.4 | | 360 | 4.50 | -4.50 | 0.10 | Approx.2 | Approx.1 |
| PL-009 | 9 | 26.1 | | 810 | 6.75 | -6.75 | 0.10 | | |
| PL-012 | 12 | 34.8 | | 1440 | 9.00 | -9.00 | 0.10 | | |
| PL-024 | 24 | 57.6 | ; | 3840 | 18.0 | -18.0 | 0.15 | | |
| 2 Coil Latching | | Set Coil Reset Coil | | | Reset(Max) | | | Reset | |
| PK-003 | 3 | 6 | 45 | 45 | 2.25 | 2.25 | 0.20 | | |
| PK-004 | 4.5 | 9 | 101 | 101 | 3.38 | 3.38 | 0.20 | | |
| PK-005 | 5 | 10 | 125 | 125 | 3.75 | 3.75 | 0.20 | | |
| PK-006 | 6 | 12 | 180 405 | 180 | 4.50 | 4.50 | 0.20 | Approx.2 | Approx.1 |
| PK-009 PK-012 | 9 12 | 18 24 | 720 | 405 720 | 6.75 9.00 | 6.75 9.00 | 0.20 0.20 | | |
| PK-024 | 24 | 36 | 1920 | 1920 | 18.0 | 18.0 | 0.20 | | |

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(reset) voltage are for test purposes only and are not to be used as design

> 3. When latching relays are installed in equipment, the latch and reset coil should not be pulsed simultaneously. Coil should not be pulsed with less than the nominal coil voltage and pulse width should be a minimum of three times the specified operate time of the relay. If these conditions are not followed, it is possible for the relay to be in the magnetically neutral position

Characteristics

| Electrostatic capacitance | | | | |
|---------------------------|--|----------------------------|--|--|
| Between open Contacts | Approx.0.4pF | Item 3.41 of IEC255-7 | | |
| Between coil & Contacts | Approx.0.9pF | Item 3.41 of IEC255-7 | | |
| Between Contact Poles | Approx.0.2pF | Item 3.41 of IEC255-7 | | |
| Insulation Resistance | 1000M Ω min (at 500VDC) | Item 7 of IEC255-5 | | |
| Dielectric Strength | | | | |
| Between open Contacts | 1000VAC 1min | Item 6 of IEC255-5 | | |
| Between coil & Contacts | 1000VAC 1min | Item 6 of IEC255-5 | | |
| Between Contact Poles | 1000VAC 1min | Item 6 of IEC255-5 | | |
| Surge Withstand Voltage | | | | |
| Between open Contacts | 1500V | FCC68 | | |
| Between coil & Contacts | 1500V | FCC68 | | |
| Between Contact Poles | 2500V | FCC68 | | |
| Shock resistance | Functional:500m/s ² 11ms; Survival:1000 m/s ² 6ms | IEC68-2-27 Test Ea | | |
| Vibration resistance | 10~55Hz Double amplitude Functional: 3mm Survival:5mm | IEC68-2-6 Test Fc | | |
| Terminals strength | 5N | IEC68-2-21 TestUa1 | | |
| Solderability | 235℃ ±2℃ 3±0.5s | IEC68-2-20 Test Tamethod 1 | | |
| Temperature Range | -40~70℃(-40~158°F) | | | |
| Mass | 1.5g | | | |

Qualification inspection:

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

Safety approvals

| Safety approval | UL&CUR | TüV | | |
|-----------------|--------------------------|-----------------------|--|--|
| Load | 1A,2A/30VDC, 0.5A/125VAC | 1A/30VDC, 0.5A/125VAC | | |

