



14.0x9.0x5.0

c **RL** <sup>us</sup> E158859

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- 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.

**Contact Data**

|                                    |            |  |
|------------------------------------|------------|--|
| Contact Arrangement                |            | 2C (Bifurcated Crossbar)   |
| Contact Material                   |            | Ag-Pd (Stationary Contact: Gold clad)  |
| Contact Rating (resistive)         |            | 1A/30VDC; 0.5A/125VAC  |
| Max. Switching Power               |            | 30W 62.5VA Min. Switching load: 0.01mA/10mV(Reference Value)   |
| Max. Switching Voltage             |            | 220VDC 250VAC Max. Switching Current:1A  |
| Contact Resistance or Voltage drop |            | ≤50mΩ<br>IEC255-7 Item 3.12 of   |
| Operation life                     | Electrical | 1A/30VDC : 2x10 <sup>5</sup> (Ag Alloy : 1x10 <sup>5</sup> )<br>0.5A/125VAC:1x10 <sup>5</sup><br>IEC255-7 Item 3.30 of |
|                                    | Mechanical | 10 <sup>8</sup><br>IEC255-7 Item 3.31 of   |

**CAUTION:**

Relays previously tested or used above 10mA resistive at 6VDC maximum or peak AC open circuit are not recommended for subsequent use in low level applications.

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| Coil voltage VDC |      | Coil resistance<br>Ω ±10% | Pickup voltage<br>VDC(max)<br>(75% of rated voltage) | Release Voltage<br>VDC(min)<br>(10% of rated voltage) | Coil power<br>W | Operate Time<br>ms | Release Time<br>ms |
|------------------|------|---------------------------|--|---|-----------------|--------------------|--------------------|
| Rated            | Max. |                           |  |   |                 |                    |                    |
| 3                | 7.5  | 64.3                      | 2.25   | 0.3   | 0.14            | ≤2                 | ≤1                 |
| 5                | 12.5 | 178                       | 3.75   | 0.5   | 0.14            |                    |                    |
| 6                | 15.0 | 257                       | 4.50   | 0.6   | 0.14            |                    |                    |
| 9                | 22.5 | 579                       | 6.75   | 0.9   | 0.14            |                    |                    |
| 12               | 30.0 | 1028                      | 9.00   | 1.2   | 0.14            |                    |                    |
| 24               | 48.0 | 2880                      | 18.0   | 2.4   | 0.20            |                    |                    |

| 1 Coil Latching  |      |           |      | Reset (Max) |      |    | Reset |
|--|------|-----------|------|-------------|------|----|-------|
| 3  | 8.7  | 90        | 2.25 | -2.25       | 0.10 | ≤2 | ≤2    |
| 5  | 14.5 | 250       | 3.75 | -3.75       | 0.10 |    |       |
| 6  | 17.4 | 360       | 4.5  | -4.5        | 0.10 |    |       |
| 9  | 26.1 | 810       | 6.75 | -6.75       | 0.10 |    |       |
| 12   | 34.8 | 1440      | 9.00 | -9.00       | 0.10 |    |       |
| 24   | 57.6 | 3840      | 18.0 | -18.0       | 0.15 |    |       |
| 2 Coil Latching  |      |           |      | Reset (Max) |      |    | Reset |
| 3  | 6.0  | 45/45     | 2.25 | 2.25        | 0.20 | ≤2 | ≤2    |
| 5  | 10.0 | 125/125   | 3.75 | 3.75        | 0.20 |    |       |
| 6  | 12.0 | 180/180   | 4.50 | 4.50        | 0.20 |    |       |
| 9  | 18.0 | 405/405   | 6.75 | 6.75        | 0.20 |    |       |
| 12   | 24.0 | 720/720   | 9.00 | 9.00        | 0.20 |    |       |
| 24   | 40.8 | 1290/1290 | 18.0 | 18.0        | 0.30 |    |       |
| <b>CAUTION:</b><br>1.The use of any coil voltage less than the rated coil voltage will compromise the operation of the relay.<br>2.Pickup and release voltage are for test purposes only and are not to be used as design criteria.<br>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 threetimes the specified operate time of the relay. If these conditions are not followed, it is possible for the relay to in be the magnetically neutral position . |      |           |      |             |      |    |       |
| <b>Qualification inspection:</b><br>Perform the qualification test as specified in the table IV of IEC255-19-1 and minimum sample size 24.   |      |           |      |             |      |    |       |

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| 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  | 1000MΩ min (at 500VDC)  | Item 7 of IEC255-5   |
| Dielectric Strength<br>Between open Contacts<br>Between coil & Contacts<br>Between Contact Poles     | 1000VAC 1min<br>1000VAC 1min<br>1000VAC 1min                                | Item 6 of IEC255-7<br>Item 6 of IEC255-7<br>Item 6 of IEC255-7 |
| Surge Withstand Voltage<br>Between open Contacts<br>Between coil & Contacts<br>Between Contact Poles | 1500V<br>1500V<br>2500V   | FCC68<br>FCC68<br>FCC68  |
| Shock resistance   | Functional:500m/s <sup>2</sup> 11ms;<br>Endurance:1000 m/s <sup>2</sup> 6ms | IEC68-2-27 Test Ea   |
| Vibration resistance   | 10~55Hz Double amplitude<br>Functional:3mm Endurance:5mm                    | IEC68-2-6 Test Fc  |
|  |   |  |

|                    |                     |                             |
|--------------------|---------------------|-----------------------------|
| Terminals strength | 5N                  | IEC68-2-21 Test Ua1         |
| Solderability      | 230°C±2°C 10±0.5s   | IEC68-2-20 Test Ta method 1 |
| Temperature Range  | -40~70°C(-40~158°F) |                             |
| Weight             | 1.5g                |                             |

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### Ordering Information

**P L 12**

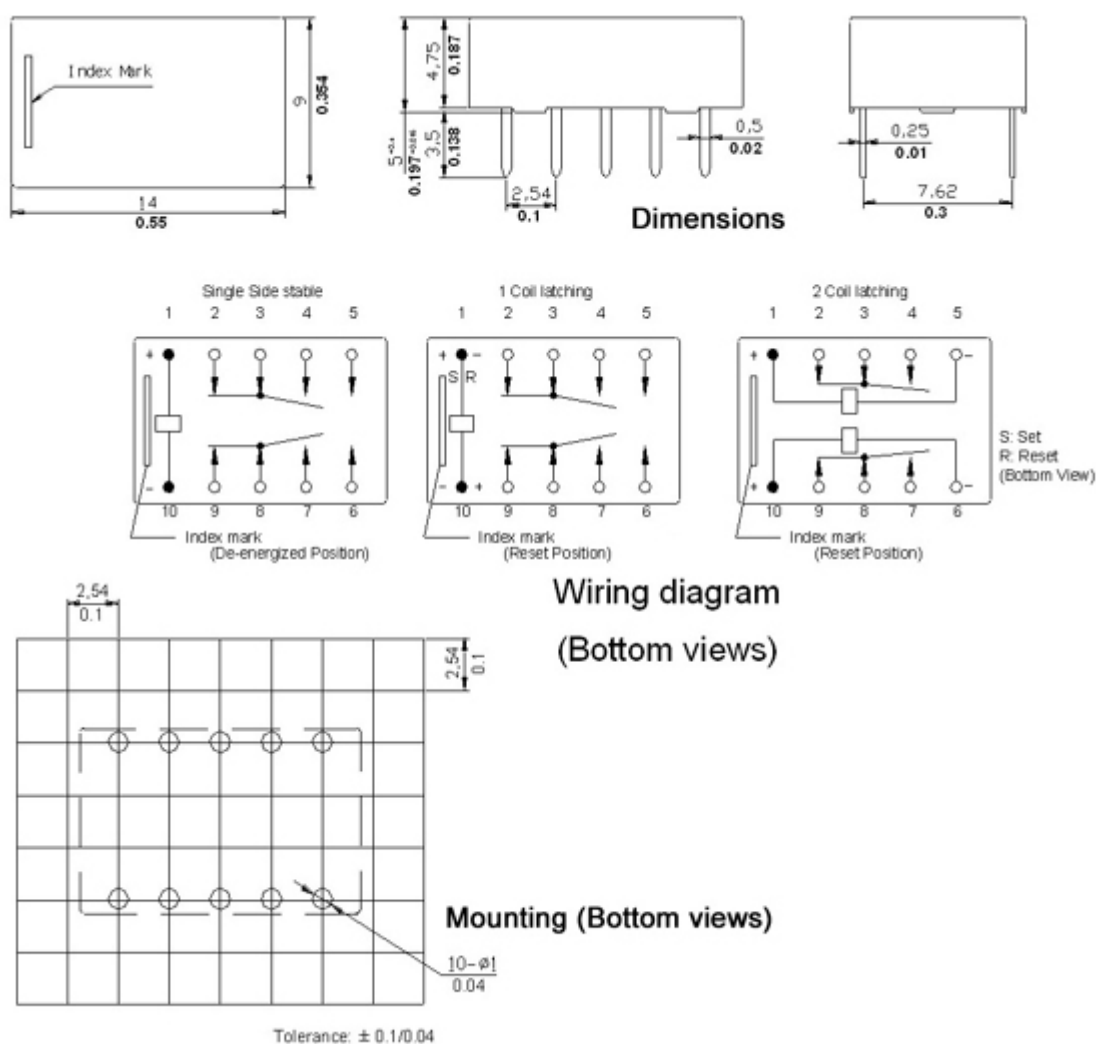
Nominal coil voltage: 3V, 5V, 6V, 9V, 12V, 24V

Operating Function: Nil:Single Side Stable; L:1 Coil Latching; K:2 Coil Latching

Type: P

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### Dimensions (mm/inch)



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### NOTES:

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

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