

G304D Series Sub-miniature Sealed 2Pin Micro Switch

■ Features

- Small compact size, 2Pin switch, with lever
- Can install lock cover and operate at the various operating bodies (cams, etc.)
- The operating force does not depend on the operating travel structure.
- High-reliability switch for tiny loads
- High-sealed switch, resistance to the environment (IP67)
- Mute structure with sliding contacts



■ Parameters

| | | |
|------------------------------------|---|--|
| Operating Speed | | 30~500 mm/s |
| Operating Frequency | | 120 cycles/minute |
| Insulation Resistance | | 100MΩ Min (DC 500V) |
| Contact Resistance (Initial value) | with terminals type | 500mΩ Max |
| | with wire type | 800mΩ Max (300mm wires length) |
| Voltage Resistance | Between terminals | AC500V, 50/60HZ, 1min. |
| | Between terminals and uncharged metal parts | AC1500V, 50/60HZ, 1min. |
| Service Life | Electrical | 300,000 cycles (30 cycles/min) DC12V 0.1A 50μA 5VDC |
| | Mechanical | 300,000 cycles (60 cycles/min) |
| Protection Type | | IEC IP67 (Except terminal part) |
| Operating Temperature | | -40~+85°C |
| Storage Humidity | | 95%RH Max (+5~+35° C) |

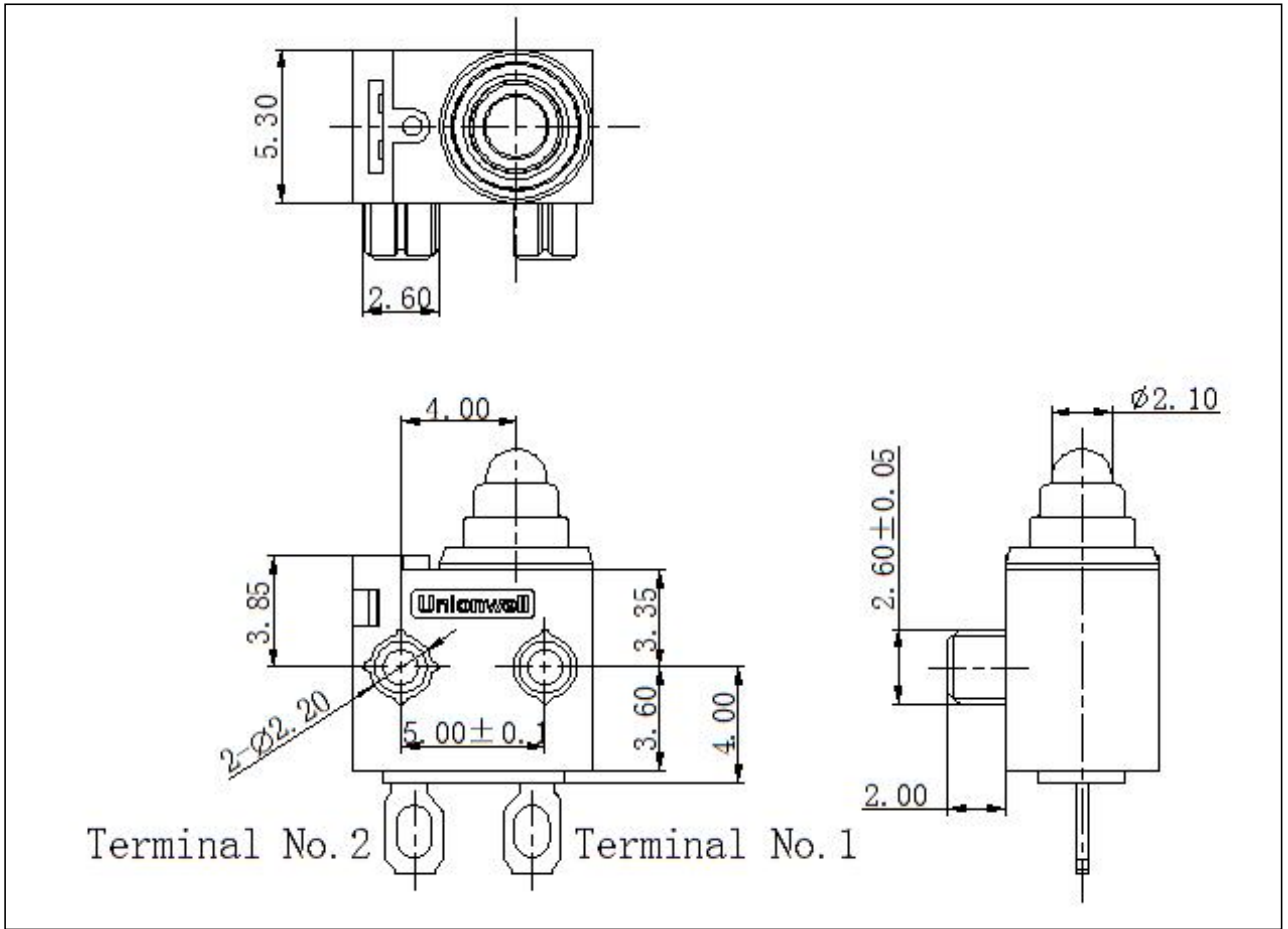
■ Posts Direction Define

| Posts Direction | Mounting Dimensions |
|---|---|
| <p>Pin Plunger Position</p> <p>Left Right</p> | <p>$2-\text{Ø}2.65^{+0.05}_{-0}$</p> <p>$5.00 \pm 0.05$</p> |

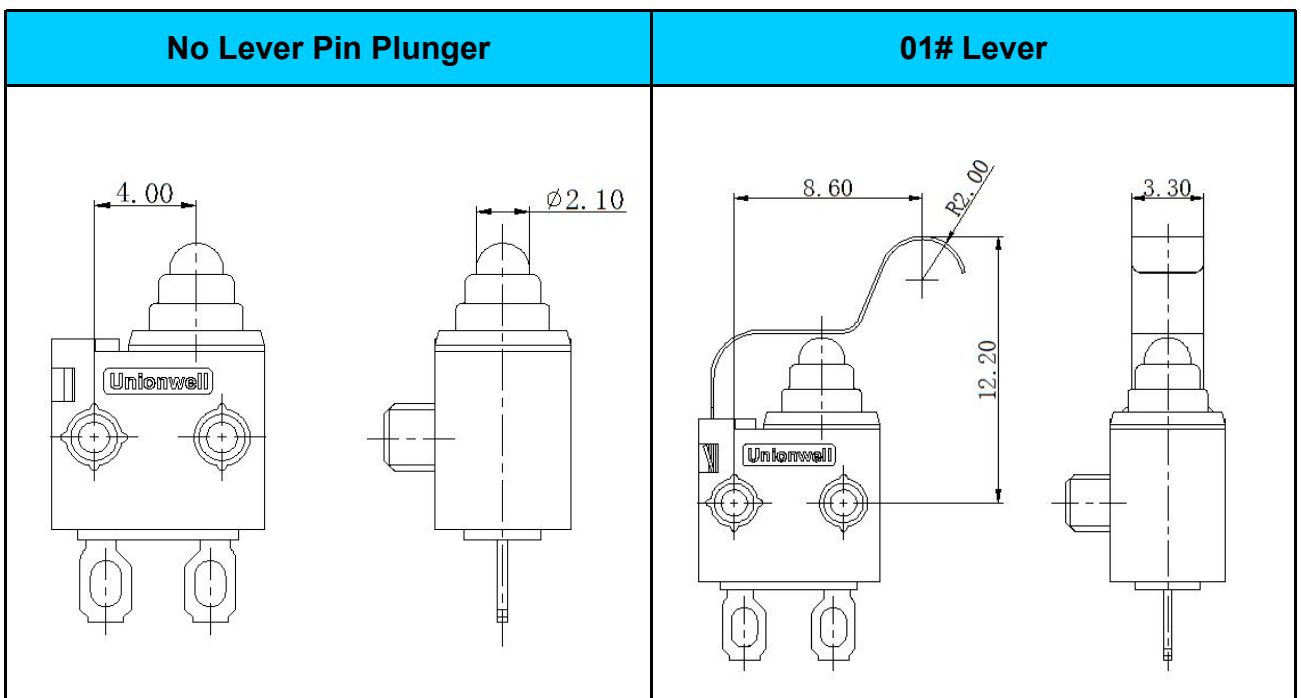
■ Circuit

| B:SPST-NC | C:SPST-NO |
|--------------------------|--------------------------|
| <p>2 NC</p> <p>1 COM</p> | <p>3 NO</p> <p>1 COM</p> |

■ Dimensions (mm)



■ Switch Lever Type



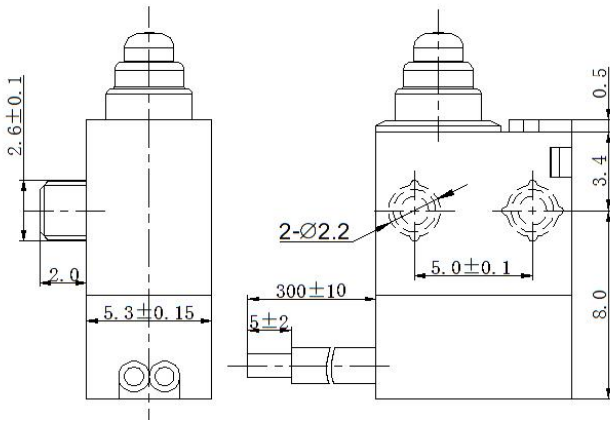
| 02# Lever | 03# Lever |
|--|---|
| <p>Technical drawing of the 02# Lever. The front view shows a total width of 11.09 and a distance of 9.70 from the left edge to the start of the lever arm. The lever arm height is 12.50. The side view shows a diameter of 3.30.</p> | <p>Technical drawing of the 03# Lever. The front view shows a distance of 7.25 from the left edge to the start of the lever arm. The lever arm has a radius of R2.00. The total height is 9.90. The side view shows a diameter of 3.30.</p> |
| 04# Lever | 05# Lever |
| <p>Technical drawing of the 04# Lever. The front view shows a total width of 10.00 and a distance of 7.50 from the left edge to the start of the lever arm. The lever arm height is 9.70. The side view shows a diameter of 3.30.</p> | <p>Technical drawing of the 05# Lever. The front view shows a total width of 10.60 and a distance of 8.80 from the left edge to the start of the lever arm. The lever arm has a radius of R1.80 and a height of 9.95. The side view shows a diameter of 3.30.</p> |
| 06# Lever | |
| <p>Technical drawing of the 06# Lever. The front view shows a total width of 10.9 and a distance of 5.9 from the left edge to the start of the lever arm. The lever arm has a radius of R0.9 and a height of 11.30. The side view shows a diameter of 3.3.</p> | <p>.....</p> |

Switch Terminal Type

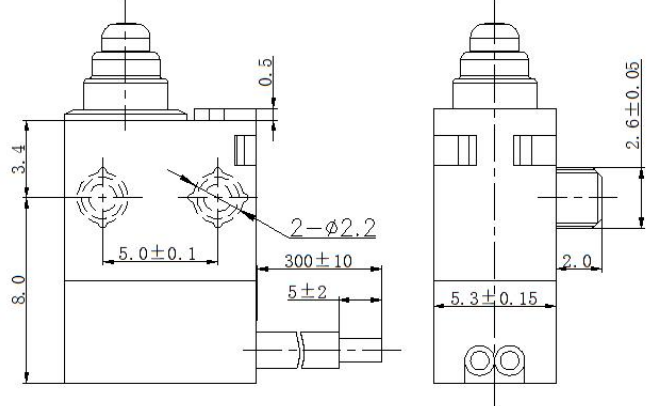
| Solder Terminal | PCB Terminal |
|--------------------------------|---------------------------------|
| | |
| Left Side PCB Terminal | Right Side PCB Terminal |
| | |
| Left Side Fork-shaped Terminal | Right Side Fork-shaped Terminal |
| | |

■ Wires Leads Type

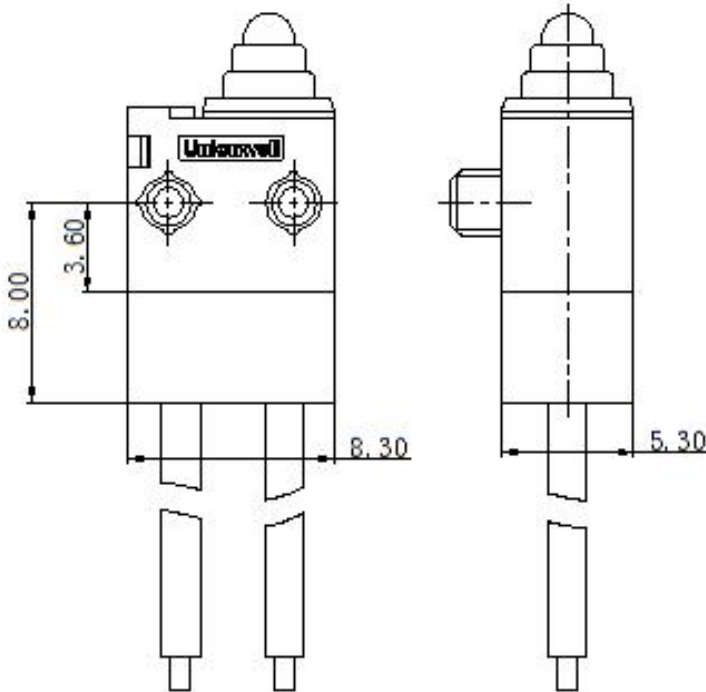
A-Type Waterproof Cover Wires Leads To Left



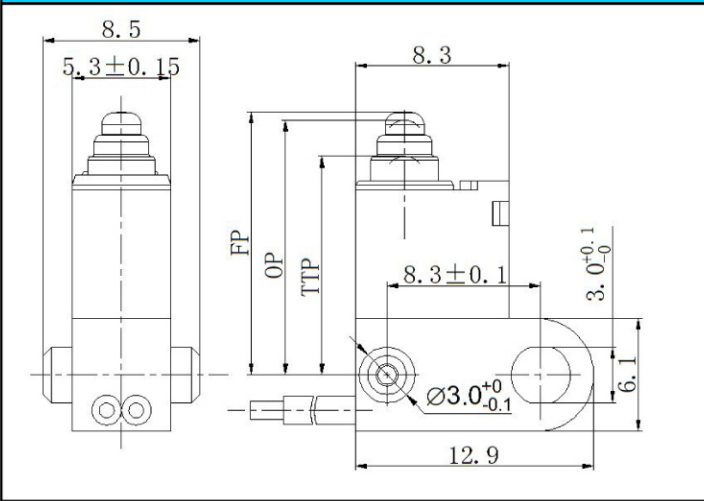
A-Type Waterproof Cover Wires Leads To Right



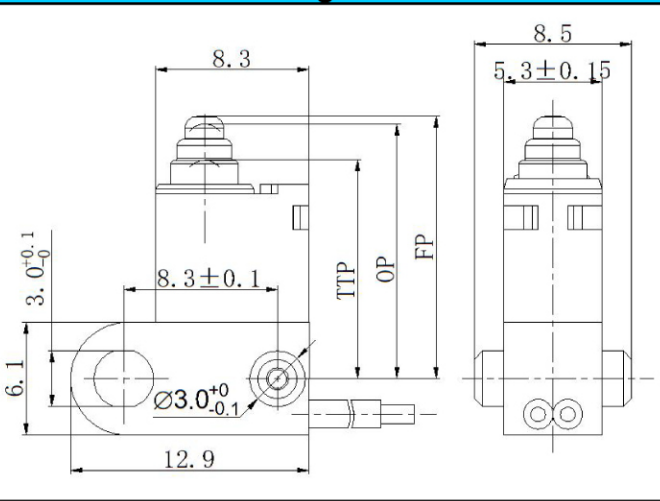
A-Type Waterproof Cover Wires Leads To Bottom



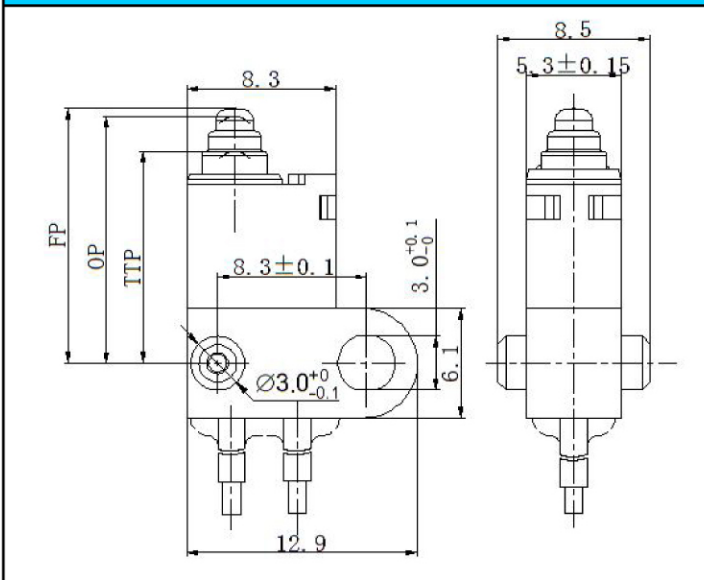
B-Type Waterproof Cover Wires Leads To Left



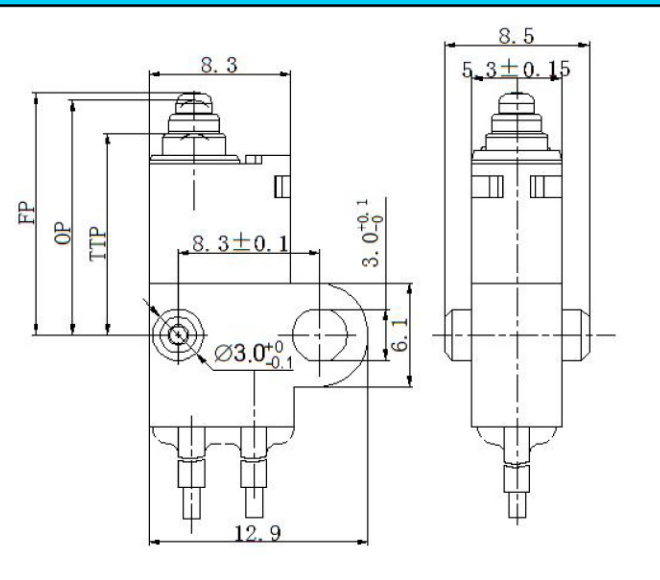
B-Type Waterproof Cover Wires Leads To Right



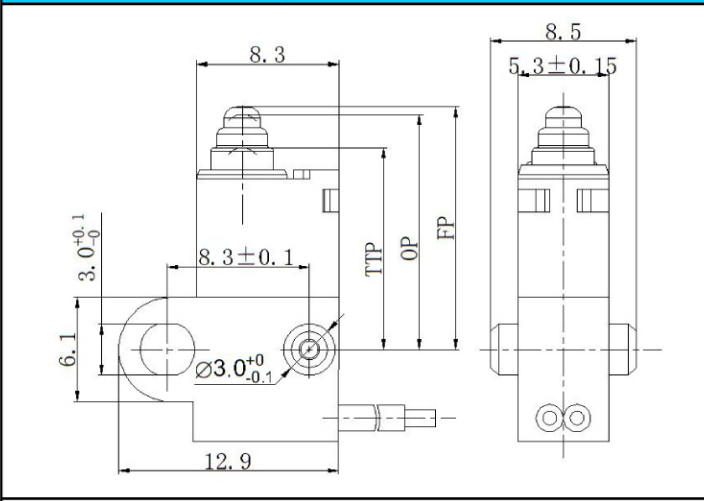
B-Type Waterproof Cover Wires Leads To Bottom



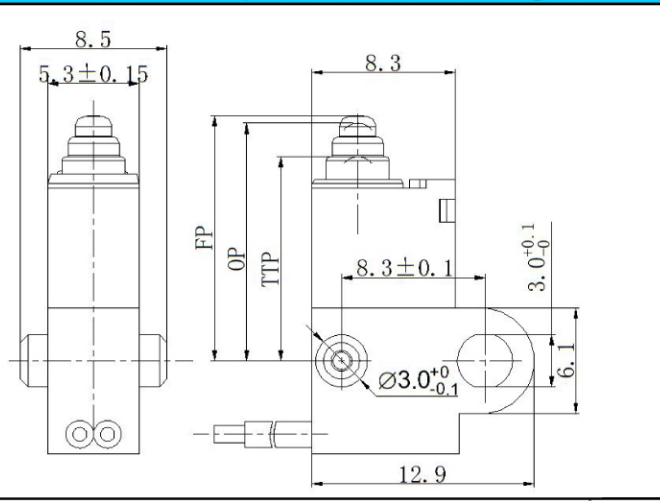
C-Type Waterproof Cover (Build-in Resistance) Wires Leads To Bottom



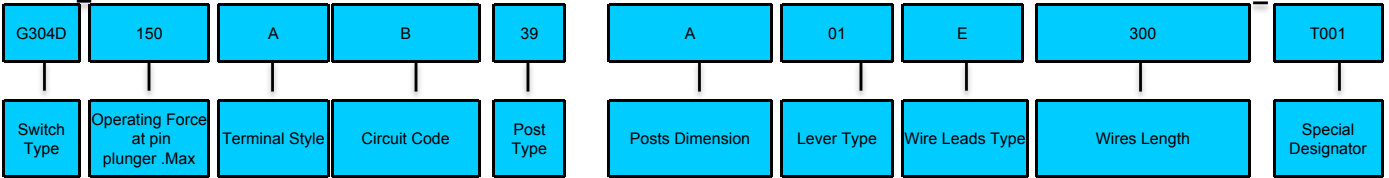
C-Type Waterproof Cover (Build-in Resistance) Wires Leads To Left



C-Type Waterproof Cover (Build-in Resistance) Wires Leads To Right



■ G304D Series Micro Switch Ordering Instruction



| | | | | | | | | | | | | | | | | | |
|-----|-----------|-----|-------------------------|---|---------|-----|-----------------|-----|-----------------|-----|----------------------|---|-------------------------------|-----|---|------|----------------------|
| 150 | 150gf Max | A | Solder Terminal | B | SPST-NC | 39 | No Post | N | No Post | 00 | No Lever Pin Plunger | N | No Wires | 000 | No Wires | T001 | Special Customized 1 |
| | | B | PCB Terminal | C | SPST-NO | 40 | Left Post | A | Φ 2.6*2.0 Posts | 01 | 01# Lever | E | A Cover Wires Leads To Bottom | 300 | 300mm Wires Length AVSS 0.3MM* (Black Wire COM terminal, White Wire NC/NO terminal) | ... | Other |
| | | C | Left Side PCB Terminal | | | 41 | Right Post | ... | Other | 02 | 02# Lever | F | A Cover Wires Leads To Left | | | | |
| | | D | Right Side PCB Terminal | | | 42 | Two Sides Posts | | | 03 | 03# Lever | G | A Cover Wires Leads To Right | ... | Other | | |
| | | ... | Other | | | ... | Other | | | 04 | 04# Lever | H | B Cover Wires Leads To Bottom | | | | |
| | | | | | | | | | | 05 | 05# Lever | J | B Cover Wires Leads To Left | | | | |
| | | | | | | | | | | 06 | 06# Lever | K | B Cover Wires Leads To Right | | | | |
| | | | | | | | | | | ... | Other | L | C Cover Wires Leads To Bottom | | | | |
| | | | | | | | | | | | | M | C Cover Wires Leads To Left | | | | |
| | | | | | | | | | | | | P | C Cover Wires Leads To Right | | | | |

Seal ring by hot riveting

Seal bottom by sealant

Tight Configuration

Waterproof Design
Protection Type: IP67

A-Type Waterproof Cover B-Type Waterproof Cover C-Type Waterproof Cover

Operating Parameters

| Lever No. | Lever Type | Dimensions | Operating Characteristics | | | | | | | | | | | | |
|-----------------------------|------------|------------|---|----------------------|----------------------|----------------------|------------|--------------------|--------------|------------------------------|-------------|----------------------------|-------------|-----------------------------|------------|
| N | No Post | | <table border="1"> <tr> <td>Model</td> <td>G304D-150A□39N00N000</td> </tr> <tr> <td>Operating Force (OF)</td> <td>150gf Max.</td> </tr> <tr> <td>Free Position (FP)</td> <td>4.5mm Max.</td> </tr> <tr> <td>Operating Position NC/NO(OP)</td> <td>3.7±0.3mm</td> </tr> <tr> <td>Release Position NO/NO(RP)</td> <td>3.8±0.4mm</td> </tr> <tr> <td>Total Travel Position (TTP)</td> <td>2.0mm Min.</td> </tr> </table> | Model | G304D-150A□39N00N000 | Operating Force (OF) | 150gf Max. | Free Position (FP) | 4.5mm Max. | Operating Position NC/NO(OP) | 3.7±0.3mm | Release Position NO/NO(RP) | 3.8±0.4mm | Total Travel Position (TTP) | 2.0mm Min. |
| | | | Model | G304D-150A□39N00N000 | | | | | | | | | | | |
| | | | Operating Force (OF) | 150gf Max. | | | | | | | | | | | |
| | | | Free Position (FP) | 4.5mm Max. | | | | | | | | | | | |
| | | | Operating Position NC/NO(OP) | 3.7±0.3mm | | | | | | | | | | | |
| | | | Release Position NO/NO(RP) | 3.8±0.4mm | | | | | | | | | | | |
| Total Travel Position (TTP) | 2.0mm Min. | | | | | | | | | | | | | | |
| Ø2.6 | Post | | <table border="1"> <tr> <td>Model</td> <td>G304D-150A□41A00N000</td> </tr> <tr> <td>Operating Force (OF)</td> <td>150gf Max.</td> </tr> <tr> <td>Free Position (FP)</td> <td>7.70mm Max.</td> </tr> <tr> <td>Operating Position NC/NO(OP)</td> <td>7.1±0.3mm</td> </tr> <tr> <td>Release Position NO/NO(RP)</td> <td>7.2±0.3mm</td> </tr> <tr> <td>Total Travel Position (TTP)</td> <td>5.1mm Min.</td> </tr> </table> | Model | G304D-150A□41A00N000 | Operating Force (OF) | 150gf Max. | Free Position (FP) | 7.70mm Max. | Operating Position NC/NO(OP) | 7.1±0.3mm | Release Position NO/NO(RP) | 7.2±0.3mm | Total Travel Position (TTP) | 5.1mm Min. |
| | | | Model | G304D-150A□41A00N000 | | | | | | | | | | | |
| | | | Operating Force (OF) | 150gf Max. | | | | | | | | | | | |
| | | | Free Position (FP) | 7.70mm Max. | | | | | | | | | | | |
| | | | Operating Position NC/NO(OP) | 7.1±0.3mm | | | | | | | | | | | |
| | | | Release Position NO/NO(RP) | 7.2±0.3mm | | | | | | | | | | | |
| Total Travel Position (TTP) | 5.1mm Min. | | | | | | | | | | | | | | |
| 01 | 1# Lever | | <table border="1"> <tr> <td>Model</td> <td>G304D-150A□41A01N000</td> </tr> <tr> <td>Operating Force (OF)</td> <td>150gf Max.</td> </tr> <tr> <td>Free Position (FP)</td> <td>13.40mm Max.</td> </tr> <tr> <td>Operating Position NC/NO(OP)</td> <td>10.8±0.70mm</td> </tr> <tr> <td>Release Position NO/NO(RP)</td> <td>11.1±0.80mm</td> </tr> <tr> <td>Total Travel Position (TTP)</td> <td>7.9mm Min.</td> </tr> </table> | Model | G304D-150A□41A01N000 | Operating Force (OF) | 150gf Max. | Free Position (FP) | 13.40mm Max. | Operating Position NC/NO(OP) | 10.8±0.70mm | Release Position NO/NO(RP) | 11.1±0.80mm | Total Travel Position (TTP) | 7.9mm Min. |
| | | | Model | G304D-150A□41A01N000 | | | | | | | | | | | |
| | | | Operating Force (OF) | 150gf Max. | | | | | | | | | | | |
| | | | Free Position (FP) | 13.40mm Max. | | | | | | | | | | | |
| | | | Operating Position NC/NO(OP) | 10.8±0.70mm | | | | | | | | | | | |
| | | | Release Position NO/NO(RP) | 11.1±0.80mm | | | | | | | | | | | |
| Total Travel Position (TTP) | 7.9mm Min. | | | | | | | | | | | | | | |
| 02 | 2# Lever | | <table border="1"> <tr> <td>Model</td> <td>G304D-150A□41A02N000</td> </tr> <tr> <td>Operating Force (OF)</td> <td>150gf Max.</td> </tr> <tr> <td>Free Position (FP)</td> <td>10.2mm Max.</td> </tr> <tr> <td>Operating Position NC/NO(OP)</td> <td>8.7±0.3mm</td> </tr> <tr> <td>Release Position NO/NO(RP)</td> <td>8.9±0.3mm</td> </tr> <tr> <td>Total Travel Position (TTP)</td> <td>5.7mm Min.</td> </tr> </table> | Model | G304D-150A□41A02N000 | Operating Force (OF) | 150gf Max. | Free Position (FP) | 10.2mm Max. | Operating Position NC/NO(OP) | 8.7±0.3mm | Release Position NO/NO(RP) | 8.9±0.3mm | Total Travel Position (TTP) | 5.7mm Min. |
| | | | Model | G304D-150A□41A02N000 | | | | | | | | | | | |
| | | | Operating Force (OF) | 150gf Max. | | | | | | | | | | | |
| | | | Free Position (FP) | 10.2mm Max. | | | | | | | | | | | |
| | | | Operating Position NC/NO(OP) | 8.7±0.3mm | | | | | | | | | | | |
| | | | Release Position NO/NO(RP) | 8.9±0.3mm | | | | | | | | | | | |
| Total Travel Position (TTP) | 5.7mm Min. | | | | | | | | | | | | | | |
| 03 | 3# Lever | | <table border="1"> <tr> <td>Model</td> <td>G304D-150A□41A03N000</td> </tr> <tr> <td>Operating Force (OF)</td> <td>150gf Max.</td> </tr> <tr> <td>Free Position (FP)</td> <td>12.8mm Max.</td> </tr> <tr> <td>Operating Position NC/NO(OP)</td> <td>10.9±0.7mm</td> </tr> <tr> <td>Release Position NO/NO(RP)</td> <td>11.1±0.8mm</td> </tr> <tr> <td>Total Travel Position (TTP)</td> <td>6.8mm Min.</td> </tr> </table> | Model | G304D-150A□41A03N000 | Operating Force (OF) | 150gf Max. | Free Position (FP) | 12.8mm Max. | Operating Position NC/NO(OP) | 10.9±0.7mm | Release Position NO/NO(RP) | 11.1±0.8mm | Total Travel Position (TTP) | 6.8mm Min. |
| | | | Model | G304D-150A□41A03N000 | | | | | | | | | | | |
| | | | Operating Force (OF) | 150gf Max. | | | | | | | | | | | |
| | | | Free Position (FP) | 12.8mm Max. | | | | | | | | | | | |
| | | | Operating Position NC/NO(OP) | 10.9±0.7mm | | | | | | | | | | | |
| | | | Release Position NO/NO(RP) | 11.1±0.8mm | | | | | | | | | | | |
| Total Travel Position (TTP) | 6.8mm Min. | | | | | | | | | | | | | | |

Operating Parameters

| Lever No. | Lever Type | Dimensions | Operating Characteristics | | | | | | | | | | | | |
|-----------------------------|---------------------------|------------|--|----------------------|----------------------|----------------------|------------|--------------------|--------------|------------------------------|------------|----------------------------|-------------|-----------------------------|------------|
| 04 | 4# Lever | | <table border="1"> <tr> <td>Model</td> <td>G304D-150A□41A04N000</td> </tr> <tr> <td>Operating Force (OF)</td> <td>150gf Max.</td> </tr> <tr> <td>Free Position (FP)</td> <td>10.2mm Max.</td> </tr> <tr> <td>Operating Position NC/NO(OP)</td> <td>8.5±0.7mm</td> </tr> <tr> <td>Release Position NO/NO(RP)</td> <td>8.8±0.8mm</td> </tr> <tr> <td>Total Travel Position (TTP)</td> <td>5.7mm Min.</td> </tr> </table> | Model | G304D-150A□41A04N000 | Operating Force (OF) | 150gf Max. | Free Position (FP) | 10.2mm Max. | Operating Position NC/NO(OP) | 8.5±0.7mm | Release Position NO/NO(RP) | 8.8±0.8mm | Total Travel Position (TTP) | 5.7mm Min. |
| | | | Model | G304D-150A□41A04N000 | | | | | | | | | | | |
| | | | Operating Force (OF) | 150gf Max. | | | | | | | | | | | |
| | | | Free Position (FP) | 10.2mm Max. | | | | | | | | | | | |
| | | | Operating Position NC/NO(OP) | 8.5±0.7mm | | | | | | | | | | | |
| | | | Release Position NO/NO(RP) | 8.8±0.8mm | | | | | | | | | | | |
| Total Travel Position (TTP) | 5.7mm Min. | | | | | | | | | | | | | | |
| 05 | 5# Lever | | <table border="1"> <tr> <td>Model</td> <td>G304D-150A□41A05N000</td> </tr> <tr> <td>Operating Force (OF)</td> <td>150gf Max.</td> </tr> <tr> <td>Free Position (FP)</td> <td>10.3mm Max.</td> </tr> <tr> <td>Operating Position NC/NO(OP)</td> <td>7.8±0.7mm</td> </tr> <tr> <td>Release Position NO/NO(RP)</td> <td>8.1±0.8mm</td> </tr> <tr> <td>Total Travel Position (TTP)</td> <td>6.1mm Min.</td> </tr> </table> | Model | G304D-150A□41A05N000 | Operating Force (OF) | 150gf Max. | Free Position (FP) | 10.3mm Max. | Operating Position NC/NO(OP) | 7.8±0.7mm | Release Position NO/NO(RP) | 8.1±0.8mm | Total Travel Position (TTP) | 6.1mm Min. |
| | | | Model | G304D-150A□41A05N000 | | | | | | | | | | | |
| | | | Operating Force (OF) | 150gf Max. | | | | | | | | | | | |
| | | | Free Position (FP) | 10.3mm Max. | | | | | | | | | | | |
| | | | Operating Position NC/NO(OP) | 7.8±0.7mm | | | | | | | | | | | |
| | | | Release Position NO/NO(RP) | 8.1±0.8mm | | | | | | | | | | | |
| Total Travel Position (TTP) | 6.1mm Min. | | | | | | | | | | | | | | |
| 06 | 6# Lever | | <table border="1"> <tr> <td>Model</td> <td>G304D-150A□41A06N000</td> </tr> <tr> <td>Operating Force (OF)</td> <td>150gf Max.</td> </tr> <tr> <td>Free Position (FP)</td> <td>11.30mm Max.</td> </tr> <tr> <td>Operating Position NC/NO(OP)</td> <td>9.8±0.70mm</td> </tr> <tr> <td>Release Position NO/NO(RP)</td> <td>10.1±0.80mm</td> </tr> <tr> <td>Total Travel Position (TTP)</td> <td>7.5mm Min.</td> </tr> </table> | Model | G304D-150A□41A06N000 | Operating Force (OF) | 150gf Max. | Free Position (FP) | 11.30mm Max. | Operating Position NC/NO(OP) | 9.8±0.70mm | Release Position NO/NO(RP) | 10.1±0.80mm | Total Travel Position (TTP) | 7.5mm Min. |
| | | | Model | G304D-150A□41A06N000 | | | | | | | | | | | |
| | | | Operating Force (OF) | 150gf Max. | | | | | | | | | | | |
| | | | Free Position (FP) | 11.30mm Max. | | | | | | | | | | | |
| | | | Operating Position NC/NO(OP) | 9.8±0.70mm | | | | | | | | | | | |
| | | | Release Position NO/NO(RP) | 10.1±0.80mm | | | | | | | | | | | |
| Total Travel Position (TTP) | 7.5mm Min. | | | | | | | | | | | | | | |
| 07 | A Waterpro of Cover | | <table border="1"> <tr> <td>Model</td> <td>G304D-150A□41A00■□□□</td> </tr> <tr> <td>Operating Force (OF)</td> <td>150gf Max.</td> </tr> <tr> <td>Free Position (FP)</td> <td>7.70mm Max.</td> </tr> <tr> <td>Operating Position NC/NO(OP)</td> <td>7.1±0.3mm</td> </tr> <tr> <td>Release Position NO/NO(RP)</td> <td>7.2±0.3mm</td> </tr> <tr> <td>Total Travel Position (TTP)</td> <td>5.1mm Min.</td> </tr> </table> | Model | G304D-150A□41A00■□□□ | Operating Force (OF) | 150gf Max. | Free Position (FP) | 7.70mm Max. | Operating Position NC/NO(OP) | 7.1±0.3mm | Release Position NO/NO(RP) | 7.2±0.3mm | Total Travel Position (TTP) | 5.1mm Min. |
| | | | Model | G304D-150A□41A00■□□□ | | | | | | | | | | | |
| | | | Operating Force (OF) | 150gf Max. | | | | | | | | | | | |
| | | | Free Position (FP) | 7.70mm Max. | | | | | | | | | | | |
| | | | Operating Position NC/NO(OP) | 7.1±0.3mm | | | | | | | | | | | |
| | | | Release Position NO/NO(RP) | 7.2±0.3mm | | | | | | | | | | | |
| Total Travel Position (TTP) | 5.1mm Min. | | | | | | | | | | | | | | |

Operating Parameters

| Lever No. | Lever Type | Dimensions | Operating Characteristics | | | | | | | | | | | | |
|-----------------------------|----------------------------------|------------|---|----------------------|----------------------|----------------------|------------|--------------------|--------------|------------------------------|--------------|----------------------------|--------------|-----------------------------|--------------|
| 08 | B Waterpro of cover | | <table border="1"> <tr> <td>Model</td> <td>G304D-150A□39N00■□□□</td> </tr> <tr> <td>Operating Force (OF)</td> <td>150gf Max.</td> </tr> <tr> <td>Free Position (FP)</td> <td>14.45mm Max.</td> </tr> <tr> <td>Operating Position NC/NO(OP)</td> <td>13.75±0.35mm</td> </tr> <tr> <td>Release Position NO/NO(RP)</td> <td>13.80±0.40mm</td> </tr> <tr> <td>Total Travel Position (TTP)</td> <td>11.75mm Min.</td> </tr> </table> | Model | G304D-150A□39N00■□□□ | Operating Force (OF) | 150gf Max. | Free Position (FP) | 14.45mm Max. | Operating Position NC/NO(OP) | 13.75±0.35mm | Release Position NO/NO(RP) | 13.80±0.40mm | Total Travel Position (TTP) | 11.75mm Min. |
| | | | Model | G304D-150A□39N00■□□□ | | | | | | | | | | | |
| | | | Operating Force (OF) | 150gf Max. | | | | | | | | | | | |
| | | | Free Position (FP) | 14.45mm Max. | | | | | | | | | | | |
| | | | Operating Position NC/NO(OP) | 13.75±0.35mm | | | | | | | | | | | |
| | | | Release Position NO/NO(RP) | 13.80±0.40mm | | | | | | | | | | | |
| Total Travel Position (TTP) | 11.75mm Min. | | | | | | | | | | | | | | |
| 09 | C Waterpro of cover | | <table border="1"> <tr> <td>Model</td> <td>G304D-150A□39N00■□□□</td> </tr> <tr> <td>Operating Force (OF)</td> <td>150gf Max.</td> </tr> <tr> <td>Free Position (FP)</td> <td>14.45mm Max.</td> </tr> <tr> <td>Operating Position NC/NO(OP)</td> <td>13.75±0.35mm</td> </tr> <tr> <td>Release Position NO/NO(RP)</td> <td>13.80±0.40mm</td> </tr> <tr> <td>Total Travel Position (TTP)</td> <td>11.75mm Min.</td> </tr> </table> | Model | G304D-150A□39N00■□□□ | Operating Force (OF) | 150gf Max. | Free Position (FP) | 14.45mm Max. | Operating Position NC/NO(OP) | 13.75±0.35mm | Release Position NO/NO(RP) | 13.80±0.40mm | Total Travel Position (TTP) | 11.75mm Min. |
| | | | Model | G304D-150A□39N00■□□□ | | | | | | | | | | | |
| | | | Operating Force (OF) | 150gf Max. | | | | | | | | | | | |
| | | | Free Position (FP) | 14.45mm Max. | | | | | | | | | | | |
| | | | Operating Position NC/NO(OP) | 13.75±0.35mm | | | | | | | | | | | |
| | | | Release Position NO/NO(RP) | 13.80±0.40mm | | | | | | | | | | | |
| Total Travel Position (TTP) | 11.75mm Min. | | | | | | | | | | | | | | |

Application

- **Car** (Automotive door seal inspection, car shift lever position detection, shared helmet, charging gun, etc.)
- **Appliances** (Vacuum cleaners, air conditioners, washing machines, power tools, etc.)

