

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)

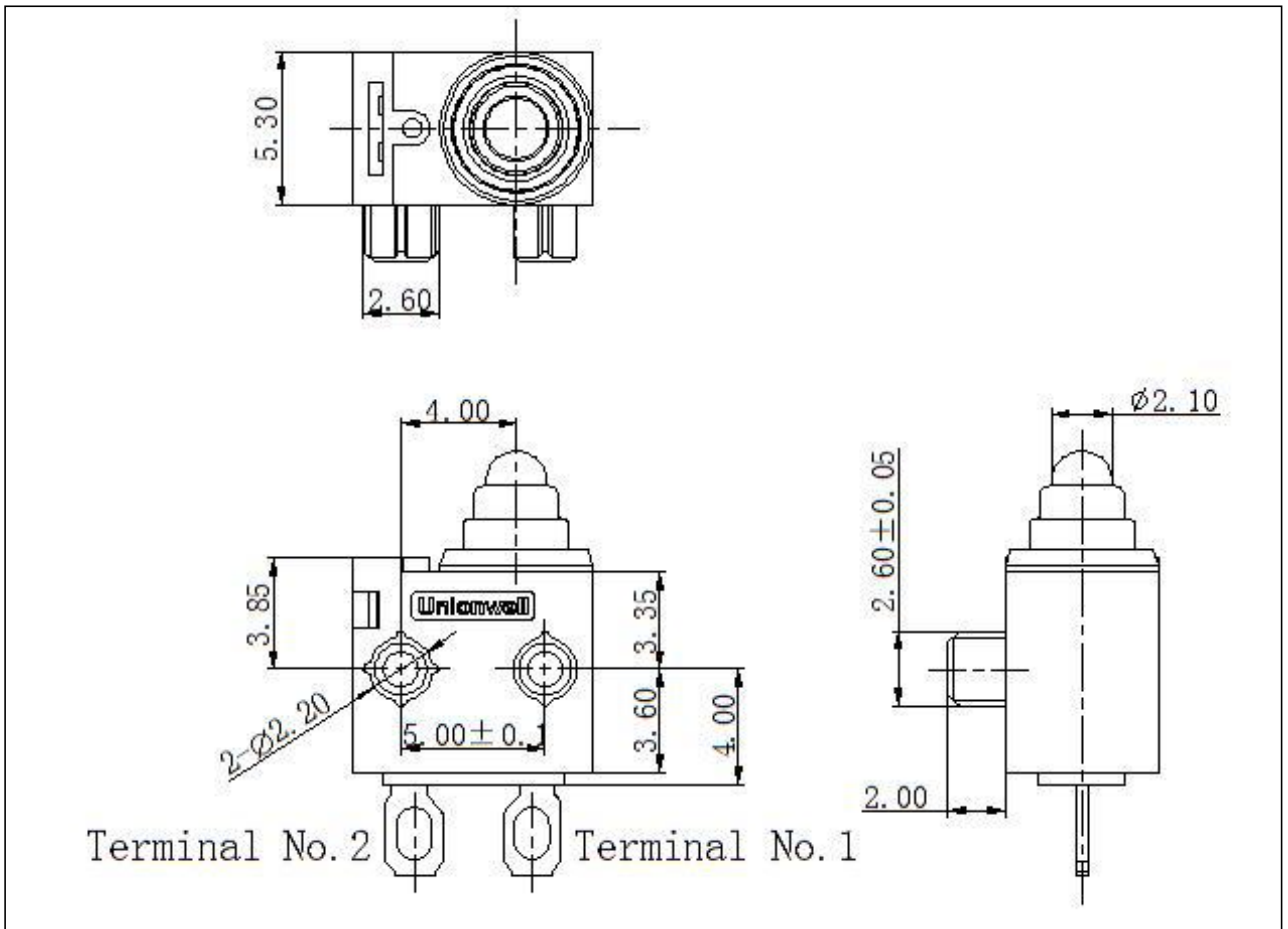
■ Posts Direction Define

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>

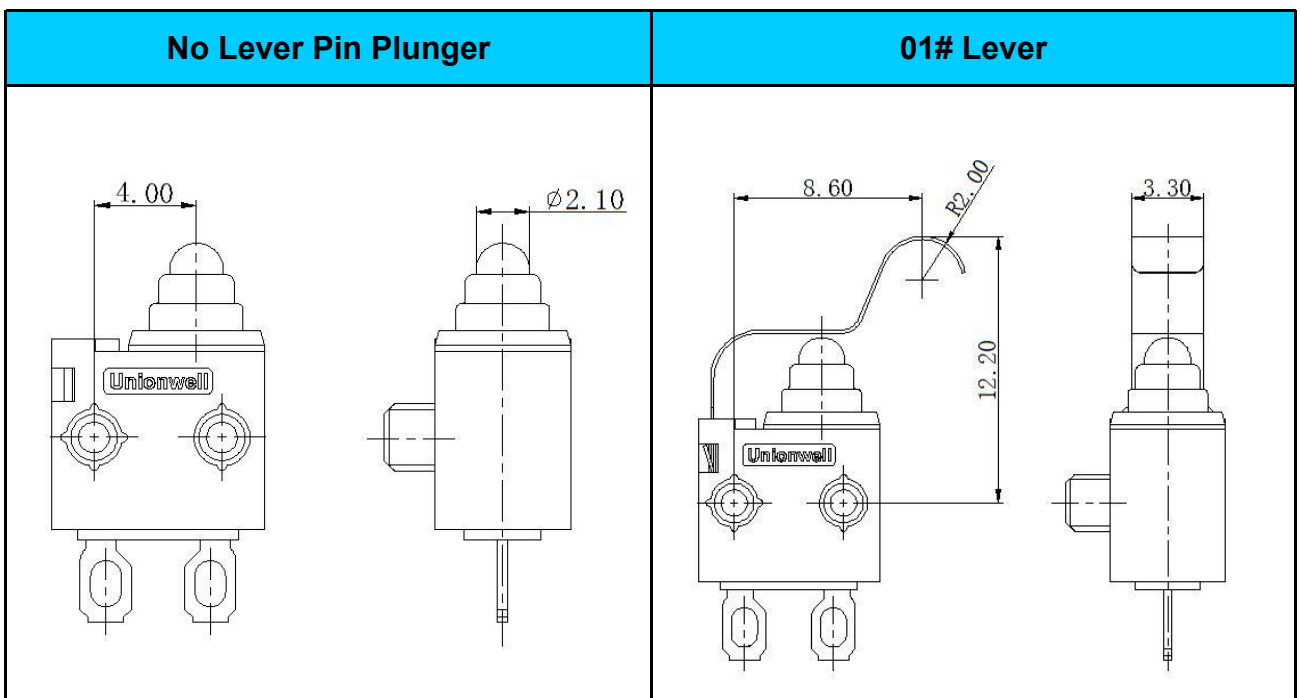
■ Circuit

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

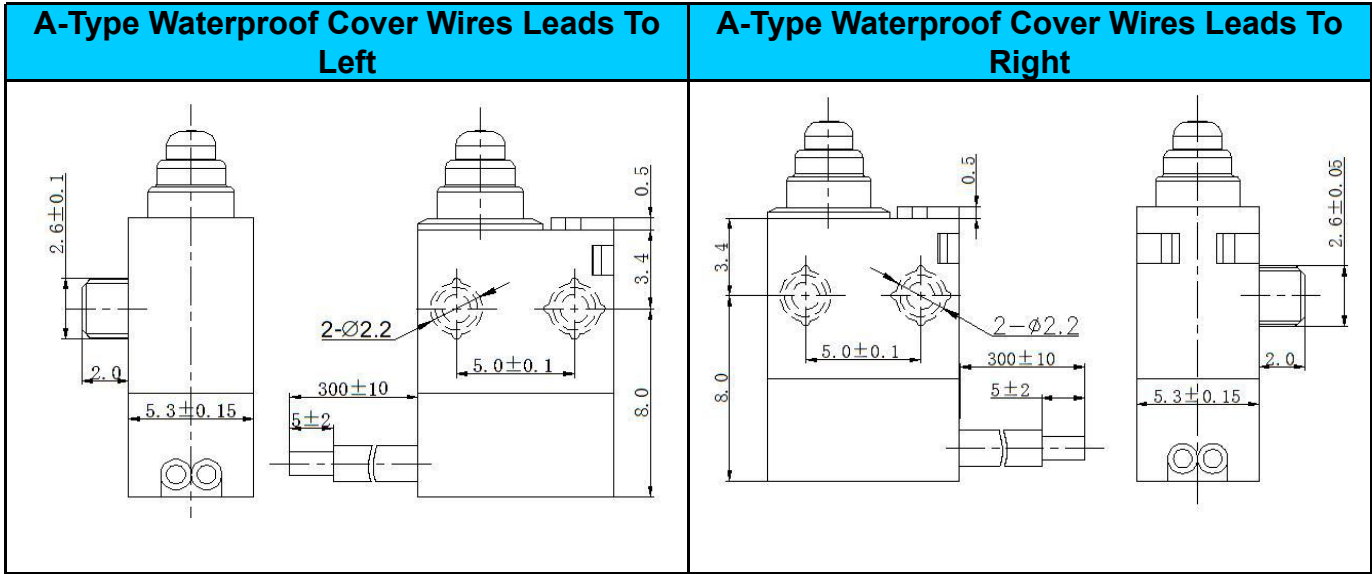


02# Lever	03# Lever
<p>Technical drawing of the 02# Lever. The front view shows a total width of 11.09 and a distance of 9.70 from the left edge to the start of the lever arm. The lever arm height is 12.50. The side view shows a width of 3.30.</p>	<p>Technical drawing of the 03# Lever. The front view shows a total width of 7.25 and a distance of 9.90 from the bottom of the main body to the start of the lever arm. The lever arm has a radius of R2.00. The side view shows a width 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 width 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 width 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 width of 3.3.</p>	<p>.....</p>

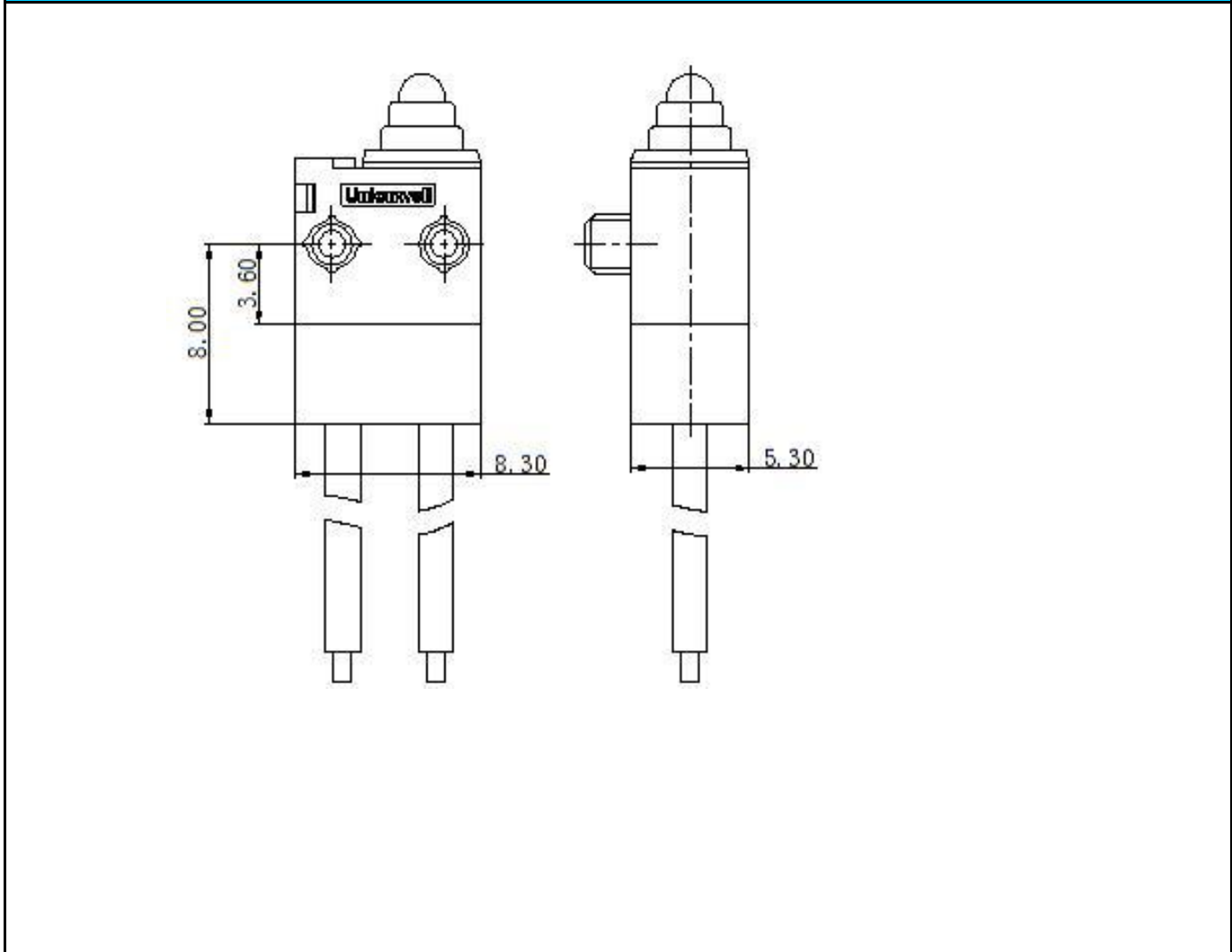
Switch Terminal Type

Solder Terminal	PCB Terminal
<p>Technical drawings of the Solder Terminal switch. Front view shows a width of 4.08 and terminal spacing of 1.20 and 2.00. Side view shows a height of 1.80 and a base width of 0.40. A detail view shows a diameter of $\text{Ø}1.35$ and a distance of 5.50 from the center to the terminal edge.</p>	<p>Technical drawings of the PCB Terminal switch. Front view shows a terminal offset of 2.45 and a distance of 0.60 from the center to the terminal edge. The total width is 5.05. Side view shows a base width of 0.40. A detail view shows a diameter of $\text{Ø}1.35$ and a distance of 5.50 from the center to the terminal edge.</p>
Left Side PCB Terminal	Right Side PCB Terminal
<p>Technical drawings of the Left Side PCB Terminal switch. Top view shows a diameter of $\text{Ø}1.35$ and a distance of 5.50 from the center to the terminal edge. Side view shows a terminal offset of 0.4 and a distance of 2.3 from the center to the terminal edge. Front view shows a total width of 7.9 and a base width of 5.7.</p>	<p>Technical drawings of the Right Side PCB Terminal switch. Top view shows a diameter of $\text{Ø}1.35$ and a distance of 5.50 from the center to the terminal edge. Side view shows a terminal offset of 2.3 and a distance of 0.4 from the center to the terminal edge. Front view shows a total width of 7.9 and a base width of 5.7.</p>
Left Side Fork-shaped Terminal	Right Side Fork-shaped Terminal
<p>Technical drawings of the Left Side Fork-shaped Terminal switch. Top view shows a diameter of $\text{Ø}1.35$ and a distance of 5.50 from the center to the terminal edge. Side view shows a terminal offset of 0.4 and a distance of 2.3 from the center to the terminal edge. Front view shows a total width of 4.5 and a base width of 6.1. A detail view shows a distance of 1.3 from the center to the fork edge.</p>	<p>Technical drawings of the Right Side Fork-shaped Terminal switch. Top view shows a diameter of $\text{Ø}1.35$ and a distance of 5.50 from the center to the terminal edge. Side view shows a terminal offset of 2.3 and a distance of 0.4 from the center to the terminal edge. Front view shows a total width of 4.5 and a base width of 6.4. A detail view shows a distance of 1.0 from the center to the fork edge.</p>

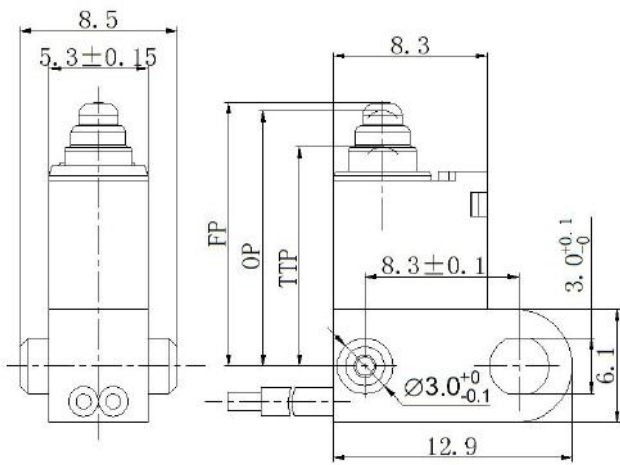
■ Wires Leads Type



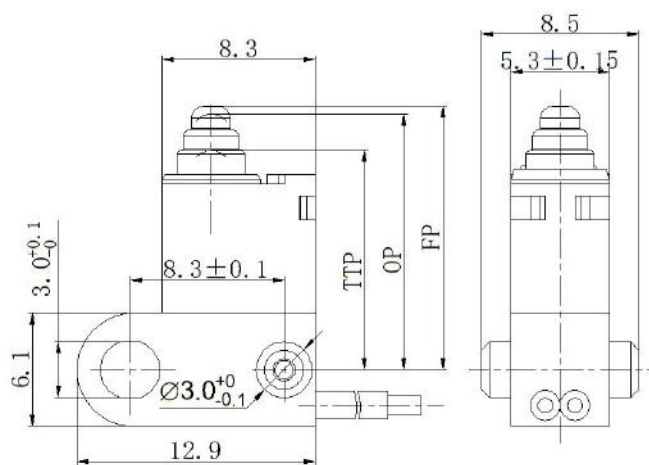
A-Type Waterproof Cover Wires Leads To Bottom



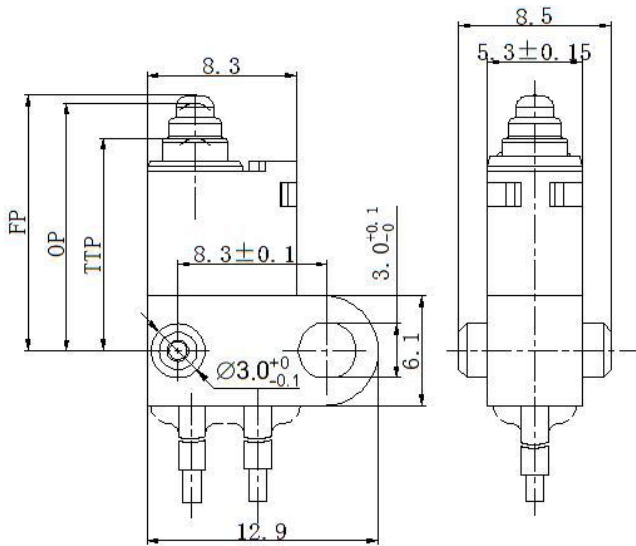
B-Type Waterproof Cover Wires Leads To Left



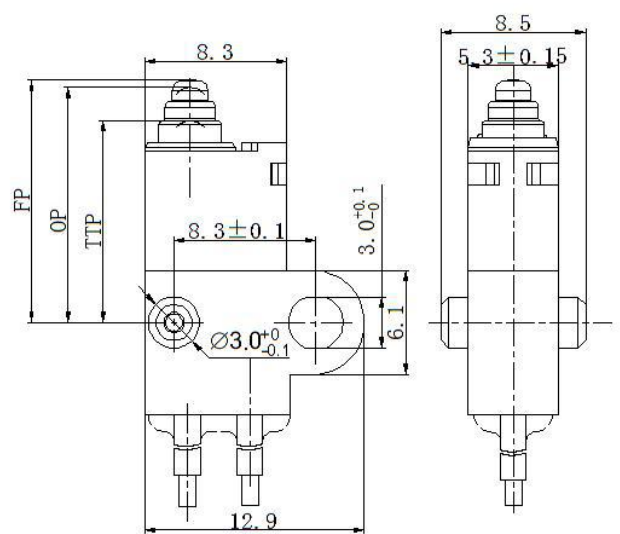
B-Type Waterproof Cover Wires Leads To Right



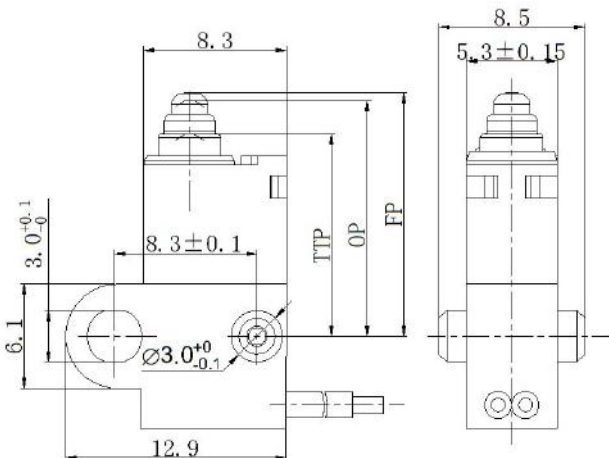
B-Type Waterproof Cover Wires Leads To Bottom



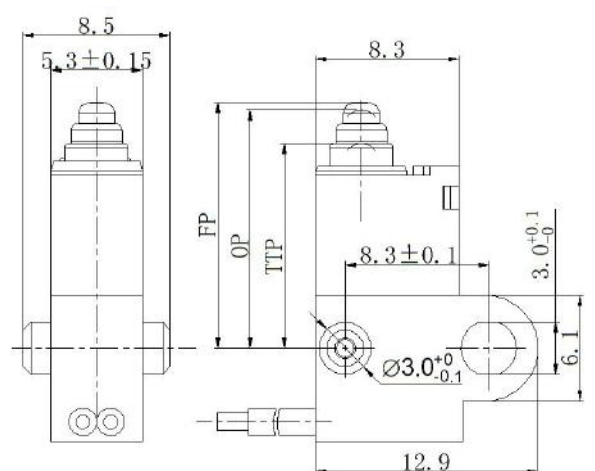
C-Type Waterproof Cover (Build-in Resistance) Wires Leads To Bottom



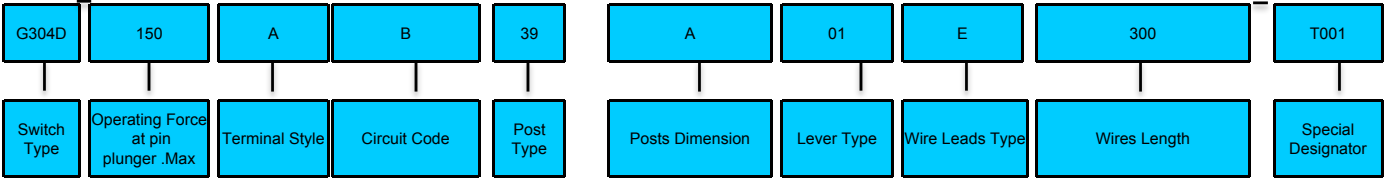
C-Type Waterproof Cover (Build-in Resistance) Wires Leads To Left



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

Waterproof Design
Protection Type: IP67

Tight Configuration

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

Operating Parameters

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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.
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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											
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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.
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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.
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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.
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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.)

