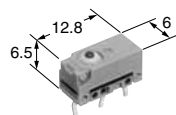


**FEATURES**

- **Ultra-miniature size (12.8×6.5×6 mm)**
- **Sealed construction for use in adverse environment-Sealed construction by epoxy resin and rubber cap greatly reduces possible miscontact due to contaminants such as dust. Conforming to IP67\* of IEC protective construction classification**
- **Elastomer double molding technology, an industry first and ultrasonic swaging technology contribute to uniform sealing in high production quantities**
- **UL/CSA approved**
- **Long stroke type is available**  
Since the repeatability is excellent and the play distance (overtravel) from the operating position is ample, the task of performing adjustments during installation is easy.  
Operating position accuracy ±0.4 mm  
Overtravel= Min. 2.0 mm  
As wide range of high pressure is achieved, a stable reliability is ensured
- **Leaf lever side wire leads type added. We now offer two types.**  
M3 type installation hole  
Fixed pin type



Dust protected type



(Mounting hole 2.3mm type)



Immersion protected type (wire leads bottom type)



(Mounting hole 2.3mm type)



Immersion protected (wire leads side type)



Long stroke type

**TYPICAL APPLICATIONS**

- **Industrial use video jack**
  - **Automotive (ex. Device for opening and shutting of automobile doors)**
- \* Based on the protective construction classification of IEC, items which satisfy the test requirements are denoted with an IP designation.

**ORDERING INFORMATION**

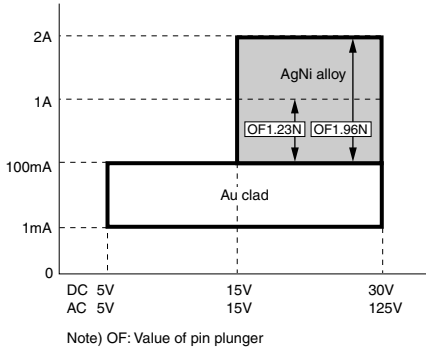
Ex. ABJ 1 4 1 0 4 0 9

| Type of switch                     | Size of mounting hole  | Terminal   | Contact arrangement   | Actuator  | Operating force by pin plunger (max.)                       | Contact                                  | Agency standard                     |
|------------------------------------|--|--|---|---|---|--|-------------------------------------|
| ABJ:<br>Turquoise switch<br>J type | 1: 1.2 mm<br>2: 2.3 mm<br>3: 3 mm<br>4: Fixed pin (right side pin) type<br>5: Fixed pin (left side pin) type | 4: Solder terminal<br>5: PC board terminal<br>6: Wire leads (bottom type)<br>7: Wire leads (right side type)<br>8: Wire leads (left side type) | 1: SPDT<br>2: SPST-NC (Wire leads type only)<br>3: SPST-NO (Wire leads type only) | 0: Pin plunger<br>2: Hinge lever<br>4: Simulated roller lever<br>6: Roller lever<br>8: Leaf lever (Mounting hole 3 mm lead wire type only)<br>L: Long stroke type | 4: 1.23 N<br>6: 1.96 N<br>7: 2.45 N (Long stroke type only) | 0: AgNi alloy<br>1: AgNi alloy + Au clad | 9: UL/CSA 6 × 10 <sup>3</sup> rated |

Remarks: 1. Standard packing: Dust protected type 100 pcs./carton, 2,000 pcs./case; Immersion protected type 50 pcs./case.  
2. Not every combination is available. Please refer to the following table, "PRODUCT TYPES".

# ABJ1,2,3,4,5

## APPLICABLE CURRENT RANGE (reference)



## PRODUCT TYPES

### 1. Dust protected type (Terminal type)

Mounting hole 1.2mm type / Mounting hole 2.3mm type

AgNi alloy

| Actuator               | Operating force Max. | Mounting hole 1.2 mm type |                   | Mounting hole 2.3 mm type |
|------------------------|----------------------|---------------------------|-------------------|---------------------------|
|                        |                      | Solder terminal           | PC board terminal | Solder terminal           |
| Pin plunger            | 1.23 N               | ABJ1410409                | ABJ1510409        | ABJ2410409                |
|                        | 1.96 N               | ABJ1410609                | ABJ1510609        | ABJ2410609                |
| Hinge lever            | 0.39 N               | ABJ1412409                | ABJ1512409        | ABJ2412409                |
|                        | 0.64 N               | ABJ1412609                | ABJ1512609        | ABJ2412609                |
| Simulated roller lever | 0.39 N               | ABJ1414409                | ABJ1514409        | ABJ2414409                |
|                        | 0.64 N               | ABJ1414609                | ABJ1514609        | ABJ2414609                |
| Roller lever           | 0.39 N               | ABJ1416409                | ABJ1516409        | ABJ2416409                |
|                        | 0.64 N               | ABJ1416609                | ABJ1516609        | ABJ2416609                |

AgNi alloy + Au clad

| Actuator               | Operating force Max. | Mounting hole 1.2 mm type |                   | Mounting hole 2.3 mm type |
|------------------------|----------------------|---------------------------|-------------------|---------------------------|
|                        |                      | Solder terminal           | PC board terminal | Solder terminal           |
| Pin plunger            | 1.23 N               | ABJ1410419                | ABJ1510419        | ABJ2410419                |
|                        | 1.96 N               | ABJ1410619                | ABJ1510619        | ABJ2410619                |
| Hinge lever            | 0.39 N               | ABJ1412419                | ABJ1512419        | ABJ2412419                |
|                        | 0.64 N               | ABJ1412619                | ABJ1512619        | ABJ2412619                |
| Simulated roller lever | 0.39 N               | ABJ1414419                | ABJ1514419        | ABJ2414419                |
|                        | 0.64 N               | ABJ1414619                | ABJ1514619        | ABJ2414619                |
| Roller lever           | 0.39 N               | ABJ1416419                | ABJ1516419        | ABJ2416419                |
|                        | 0.64 N               | ABJ1416619                | ABJ1516619        | ABJ2416619                |

### 2-(1). Immersion protected type (Bottom wire leads type)

Mounting hole 1.2mm type

AgNi alloy

| Actuator               | Operating force Max. | Mounting hole 1.2 mm type |            |            |
|------------------------|----------------------|---------------------------|------------|------------|
|                        |                      | SPDT                      | SPST-NC    | SPST-NO    |
| Pin plunger            | 1.23 N               | ABJ1610409                | ABJ1620409 | ABJ1630409 |
|                        | 1.96 N               | ABJ1610609                | ABJ1620609 | ABJ1630609 |
| Hinge lever            | 0.39 N               | ABJ1612409                | ABJ1622409 | ABJ1632409 |
|                        | 0.64 N               | ABJ1612609                | ABJ1622609 | ABJ1632609 |
| Simulated roller lever | 0.39 N               | ABJ1614409                | ABJ1624409 | ABJ1634409 |
|                        | 0.64 N               | ABJ1614609                | ABJ1624609 | ABJ1634609 |
| Roller lever           | 0.39 N               | ABJ1616409                | ABJ1626409 | ABJ1636409 |
|                        | 0.64 N               | ABJ1616609                | ABJ1626609 | ABJ1636609 |

Mounting hole 2.3mm type  
AgNi alloy + Au clad

| Actuator               | Operating force Max. | Mounting hole 1.2 mm type |            |            |
|------------------------|----------------------|---------------------------|------------|------------|
|                        |                      | SPDT                      | SPST-NC    | SPST-NO    |
| Pin plunger            | 1.23 N               | ABJ1610419                | ABJ1620419 | ABJ1630419 |
|                        | 1.96 N               | ABJ1610619                | ABJ1620619 | ABJ1630619 |
| Hinge lever            | 0.39 N               | ABJ1612419                | ABJ1622419 | ABJ1632419 |
|                        | 0.64 N               | ABJ1612619                | ABJ1622619 | ABJ1632619 |
| Simulated roller lever | 0.39 N               | ABJ1614419                | ABJ1624419 | ABJ1634419 |
|                        | 0.64 N               | ABJ1614619                | ABJ1624619 | ABJ1634619 |
| Roller lever           | 0.39 N               | ABJ1616419                | ABJ1626419 | ABJ1636419 |
|                        | 0.64 N               | ABJ1616619                | ABJ1626619 | ABJ1636619 |

Mounting hole 2.3mm type  
AgNi alloy

| Actuator               | Operating force Max. | Mounting hole 2.3 mm type |            |            |
|------------------------|----------------------|---------------------------|------------|------------|
|                        |                      | SPDT                      | SPST-NC    | SPST-NO    |
| Pin plunger            | 1.23 N               | ABJ2610409                | ABJ2620409 | ABJ2630409 |
|                        | 1.96 N               | ABJ2610609                | ABJ2620609 | ABJ2630609 |
| Hinge lever            | 0.39 N               | ABJ2612409                | ABJ2622409 | ABJ2632409 |
|                        | 0.64 N               | ABJ2612609                | ABJ2622609 | ABJ2632609 |
| Simulated roller lever | 0.39 N               | ABJ2614409                | ABJ2624409 | ABJ2634409 |
|                        | 0.64 N               | ABJ2614609                | ABJ2624609 | ABJ2634609 |
| Roller lever           | 0.39 N               | ABJ2616409                | ABJ2626409 | ABJ2636409 |
|                        | 0.64 N               | ABJ2616609                | ABJ2626609 | ABJ2636609 |

AgNi alloy + Au clad

| Actuator               | Operating force Max. | Mounting hole 2.3 mm type |            |            |
|------------------------|----------------------|---------------------------|------------|------------|
|                        |                      | SPDT                      | SPST-NC    | SPST-NO    |
| Pin plunger            | 1.23 N               | ABJ2610419                | ABJ2620419 | ABJ2630419 |
|                        | 1.96 N               | ABJ2610619                | ABJ2620619 | ABJ2630619 |
| Hinge lever            | 0.39 N               | ABJ2612419                | ABJ2622419 | ABJ2632419 |
|                        | 0.64 N               | ABJ2612619                | ABJ2622619 | ABJ2632619 |
| Simulated roller lever | 0.39 N               | ABJ2614419                | ABJ2622419 | ABJ2634419 |
|                        | 0.64 N               | ABJ2614619                | ABJ2624619 | ABJ2634619 |
| Roller lever           | 0.39 N               | ABJ2616419                | ABJ2626419 | ABJ2636419 |
|                        | 0.64 N               | ABJ2616619                | ABJ2626619 | ABJ2636619 |

Mounting hole 3mm type (Leaf lever type)  
AgNi alloy

| Actuator   | Operating force Max. | Mounting hole 3 mm type |            |            |
|------------|----------------------|-------------------------|------------|------------|
|            |                      | SPDT                    | SPST-NC    | SPST-NO    |
| Leaf lever | 0.98 N               | ABJ3618409              | ABJ3628409 | ABJ3638409 |
|            | 1.27 N               | ABJ3618609              | ABJ3628609 | ABJ3638609 |

AgNi alloy + Au clad

| Actuator   | Operating force Max. | Mounting hole 3 mm type |            |            |
|------------|----------------------|-------------------------|------------|------------|
|            |                      | SPDT                    | SPST-NC    | SPST-NO    |
| Leaf lever | 0.98 N               | ABJ3618419              | ABJ3628419 | ABJ3638419 |
|            | 1.27 N               | ABJ3618619              | ABJ3628619 | ABJ3638619 |

**2-(2). Immersion protected type (Side wire leads type)**

Fixed pin (right side pin) type  
AgNi alloy

| Actuator   | Operating force Max. | Wire leads direction | Wire leads type |            |
|------------|----------------------|----------------------|-----------------|------------|
|            |                      |                      | SPST-NC         | SPST-NO    |
| Leaf lever | 1.27 N               | Right                | ABJ4728409      | ABJ4738409 |
|            | 1.27 N               | Left                 | ABJ4828409      | —          |
|            | 1.76 N               | Right                | ABJ4728609      | ABJ4738609 |
|            | 1.76 N               | Left                 | ABJ4828609      | —          |

# ABJ1,2,3,4,5

AgNi alloy + Au clad

| Actuator   | Operating force Max. | Wire leads direction | Wire leads type |            |
|------------|----------------------|----------------------|-----------------|------------|
|            |                      |                      | SPST-NC         | SPST-NO    |
| Leaf lever | 1.27 N               | Right                | ABJ4728419      | ABJ4738419 |
|            | 1.27 N               | Left                 | ABJ4828419      | —          |
|            | 1.76 N               | Right                | ABJ4728619      | ABJ4738619 |
|            | 1.76 N               | Left                 | ABJ4828619      | —          |

Fixed pin (left side pin) type

AgNi alloy

| Actuator   | Operating force Max. | Wire leads direction | Wire leads type |            |
|------------|----------------------|----------------------|-----------------|------------|
|            |                      |                      | SPST-NC         | SPST-NO    |
| Leaf lever | 1.27 N               | Right                | ABJ5728409      | ABJ5738409 |
|            | 1.27 N               | Left                 | ABJ5828409      | —          |
|            | 1.76 N               | Right                | ABJ5728609      | ABJ5738609 |
|            | 1.76 N               | Left                 | ABJ5828609      | —          |

AgNi alloy + Au clad

| Actuator   | Operating force Max. | Wire leads direction | Wire leads type |            |
|------------|----------------------|----------------------|-----------------|------------|
|            |                      |                      | SPST-NC         | SPST-NO    |
| Leaf lever | 1.27 N               | Right                | ABJ5728419      | ABJ5738419 |
|            | 1.27 N               | Left                 | ABJ5828419      | —          |
|            | 1.76 N               | Right                | ABJ5728619      | ABJ5738619 |
|            | 1.76 N               | Left                 | ABJ5828619      | —          |

Mounting hole 3mm type

AgNi alloy

| Actuator   | Operating force Max. | Wire leads direction | Wire leads type |         |
|------------|----------------------|----------------------|-----------------|---------|
|            |                      |                      | SPST-NC         | SPST-NO |
| Leaf lever | 1.27 N               | Right                | ABJ3828409      | —       |
|            | 1.27 N               | Left                 | ABJ3828419      | —       |
|            | 1.76 N               | Right                | ABJ3828609      | —       |
|            | 1.76 N               | Left                 | ABJ3828619      | —       |

AgNi alloy + Au clad

| Actuator   | Operating force Max. | Wire leads direction | Wire leads type |         |
|------------|----------------------|----------------------|-----------------|---------|
|            |                      |                      | SPST-NC         | SPST-NO |
| Leaf lever | 1.27 N               | Left                 | ABJ3828419      | —       |
|            | 1.76 N               |                      | ABJ3828619      | —       |

### 3. Immersion protected type (Bottom wire leads type) Long stroke type

Mounting hole 2.3mm type

AgNi alloy

| Actuator                 | Operating force Max. | Mounting hole 2.3 mm type |            |            |
|--------------------------|----------------------|---------------------------|------------|------------|
|                          |                      | SPDT                      | SPST-NC    | SPST-NO    |
| Pin plunger (Horizontal) | 2.45 N               | *ABJ261L709               | ABJ262L709 | ABJ263L709 |

AgNi alloy + Au clad

| Actuator                 | Operating force Max. | Mounting hole 2.3 mm type |            |            |
|--------------------------|----------------------|---------------------------|------------|------------|
|                          |                      | SPDT                      | SPST-NC    | SPST-NO    |
| Pin plunger (Horizontal) | 2.45 N               | *ABJ261L719               | ABJ262L719 | ABJ263L719 |

## SPECIFICATIONS

### 1. Contact rating

| Type   | Operating force Max.             | Standard rating                 | Low-level circuit rating                    |
|--|----------------------------------|---------------------------------|---|
| AgNi alloy contact                               | 1.76 N, 1.96 N                   | 2 A 125 V AC<br>2 A 30 V DC     | —   |
|  | 1.23 N, 1.27 N                   | 1 A 125 V AC<br>1 A 30 V DC     | —   |
| Long stroke type<br>AgNi alloy contact           | 2.45 N                           | 1 A 125 V AC<br>1 A 30 V DC     | —   |
| AgNi alloy + Au clad contact                     | 1.23 N, 1.27 N<br>1.76 N, 1.96 N | 0.1 A 125 V AC                  | 5 mA 6 V DC<br>2 mA 12 V DC<br>1 mA 24 V DC |
| Long stroke type<br>AgNi alloy + Au clad contact | 2.45 N                           | 0.1 A 125 V AC<br>0.1 A 30 V DC | 5 mA 6 V DC<br>2 mA 12 V DC<br>1 mA 24 V DC |

**2. Characteristics**

|   |                                     |  |
|---|-------------------------------------|--|
| Mechanical life<br>(O.T.: Specified value)          | Leaf lever, Long stroke type        | Min. $5 \times 10^5$ (at 60 cpm)   |
|   | Wire leads (right & left side type) | Min. $3 \times 10^5$ (at 60 cpm)   |
|   | Other types                         | Min. $10^6$ (at 60 cpm)  |
| Electrical life at rated load<br>(O.T.: max.)       | AgNi alloy contact type             | Min. $3 \times 10^4$ (at 20 cpm)   |
|   | AgNi alloy + Au clad contact type   | Min. $10^5$ (at 20 cpm)  |
| Insulation resistance                               |                                     | Min. 100 M $\Omega$ (at 500 V DC insulation resistance meter)  |
| Dielectric strength                                 |                                     |  |
| Between non-continuous terminals                    |                                     | 600 Vrms   |
| Between each terminal and other exposed metal parts |                                     | 1,500 Vrms   |
| Between each terminal and ground                    |                                     | 1,500 Vrms   |
| Vibration resistance (Pin plunger type)             |                                     | 10 to 55 Hz at single amplitude of 0.75 mm (Contact opening max. 1 msec.)  |
| Shock resistance (Pin plunger type)                 |                                     | Min. 294 m/s <sup>2</sup> {30 G} (Contact opening max. 1 msec.)  |
| Contact resistance (Initial)                        | Silver contact type                 | Dust protected type (IP50): Max. 50 m $\Omega$<br>Immersion protected type (IP67): Max. 100 m $\Omega$<br>(By voltage drop 1 A 6 to 8 V DC)    |
|   | Gold clad contact type              | Dust protected type (IP50): Max. 100 m $\Omega$<br>Immersion protected type (IP67): Max. 150 m $\Omega$<br>(By voltage drop 0.1 A 6 to 8 V DC) |
| Allowable operating speed (at no load)              |                                     | 1 to 500 mm/sec.   |
| Max. operating cycle rate (at no load)              |                                     | Other type: 120 cpm<br>Long stroke type: 60 cpm  |
| Ambient temperature                                 |                                     | -40°C to +85°C   |
| Unit weight   |                                     | Approx. 0.5 g (IP50 type)  |

**3. Operating characteristics**

| Type of actuator       | Operating force,<br>Max. | Release force,<br>Min | Pretravel,<br>Max. mm | Movement<br>differential,<br>Max. mm | Overtravel,<br>Min. mm | Operating position,<br>mm   |
|------------------------|--------------------------|-----------------------|-----------------------|--------------------------------------|------------------------|---|
| Pin plunger            | 1.23N                    | 0.15N                 | 0.6                   | 0.12                                 | 0.25                   | Mounting hole: 1.2<br>5.5 $\pm$ 0.2                                       |
|                        | 1.96N                    | 0.25N                 |                       |                                      |                        | Mounting hole: 2.3<br>7.0 $\pm$ 0.2                                       |
| Hinge lever            | 0.39N                    | 0.029N                | 3.0                   | 0.5                                  | 0.5                    | Mounting hole: 1.2<br>6.8 $\pm$ 1.0                                       |
|                        | 0.64N                    | 0.049N                |                       |                                      |                        | Mounting hole: 2.3<br>8.3 $\pm$ 1.0                                       |
| Simulated roller lever | 0.39N                    | 0.029N                | 3.0                   | 0.5                                  | 0.5                    | Mounting hole: 1.2<br>9.8 $\pm$ 1.0                                       |
|                        | 0.64N                    | 0.049N                |                       |                                      |                        | Mounting hole: 2.3<br>11.3 $\pm$ 1.0                                      |
| Roller lever           | 0.39N                    | 0.029N                | 3.0                   | 0.5                                  | 0.5                    | Mounting hole: 1.2<br>13.1 $\pm$ 1.0                                      |
|                        | 0.64N                    | 0.049N                |                       |                                      |                        | Mounting hole: 2.3<br>14.6 $\pm$ 1.0                                      |
| Leaf lever             | 0.98N                    | 0.20N                 | 6.0                   | 1.0                                  | 2.5                    | Mounting hole: 3.0<br>16.0 $\pm$ 2.0                                      |
|                        | 1.27N                    | 0.22N                 | 2.6                   | 0.5                                  | 1.4                    | Fixed pin type<br>10.7 $\pm$ 0.7<br>Mounting hole: 3.0<br>16.25 $\pm$ 0.7 |
|                        | 1.76N                    | 0.26N                 | 2.6                   | 0.5                                  | 1.4                    | Fixed pin type<br>10.7 $\pm$ 0.7<br>Mounting hole: 3.0<br>16.25 $\pm$ 0.7 |
|                        | 1.27N                    | 0.29N                 | 6.0                   | 1.0                                  | 2.5                    | Mounting hole: 3.0<br>16.0 $\pm$ 2.0                                      |
| Long stroke type       | 2.45N                    | 0.20N                 | —                     | 0.5                                  | 2.0                    | 2.5 $\pm$ 0.4   |

Note: The O.P. differs between the 1.2 mm and 2.3 mm dia. installation hole types.

# ABJ1,2,3,4,5

## DIMENSIONS

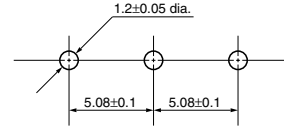
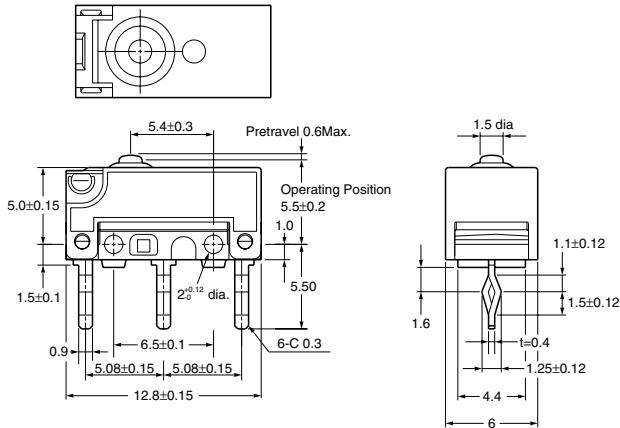
mm General tolerance:  $\pm 0.25$

### 1. Dust protected type

1-(1) PC board terminal

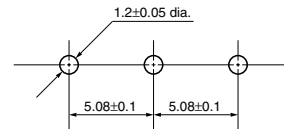
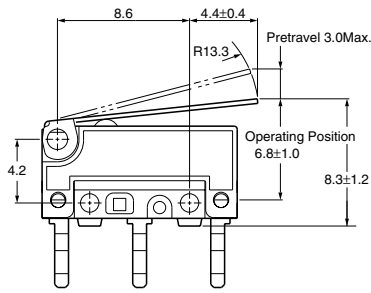
Mounting hole 1.2 mm type

Pin plunger



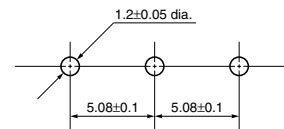
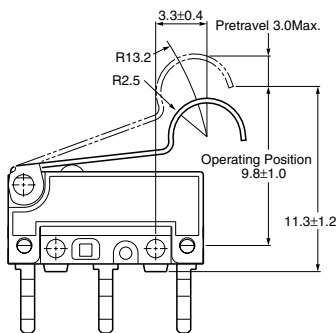
|                                |                                 |         |
|--------------------------------|---------------------------------|---------|
| Pretravel, Max. mm             | 0.6                             |         |
| Movement differential, Max. mm | 0.12                            |         |
| Overtravel, Min. mm            | 0.25                            |         |
| Operating position             | Distance from mounting hole, mm | 5.5±0.2 |
|                                | Distance from stand-off, mm     | 7±0.3   |

### Hinge lever



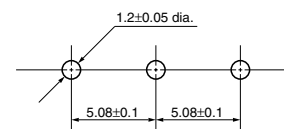
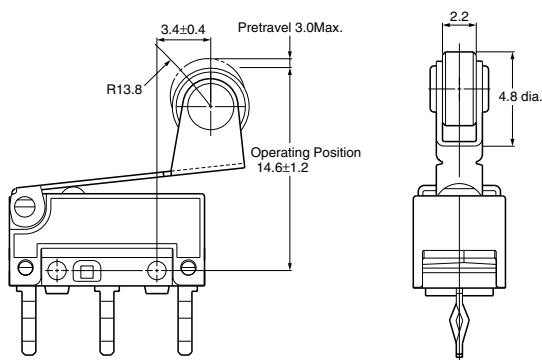
|                                |                                 |         |
|--------------------------------|---------------------------------|---------|
| Pretravel, Max. mm             | 3.0                             |         |
| Movement differential, Max. mm | 0.5                             |         |
| Overtravel, Min. mm            | 0.5                             |         |
| Operating position             | Distance from mounting hole, mm | 6.8±1.0 |
|                                | Distance from stand-off, mm     | 8.3±1.2 |

### Simulated roller lever



|                                |                                 |          |
|--------------------------------|---------------------------------|----------|
| Pretravel, Max. mm             | 3.0                             |          |
| Movement differential, Max. mm | 0.5                             |          |
| Overtravel, Min. mm            | 0.5                             |          |
| Operating position             | Distance from mounting hole, mm | 9.8±1.0  |
|                                | Distance from stand-off, mm     | 11.3±1.2 |

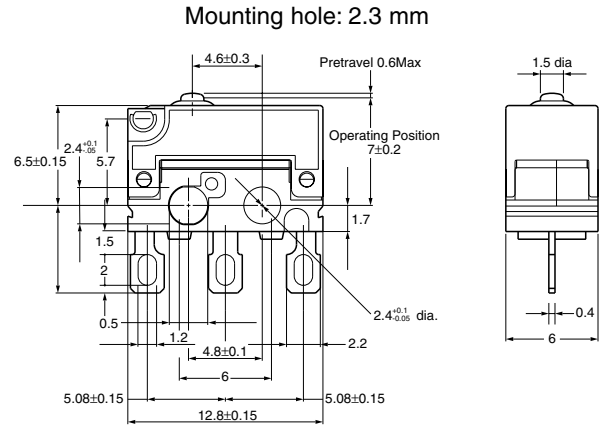
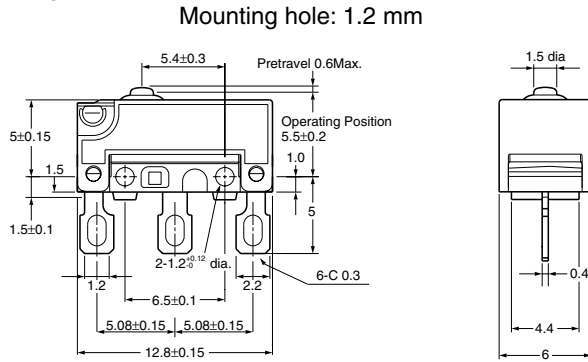
### Roller lever



|                                |                                 |          |
|--------------------------------|---------------------------------|----------|
| Pretravel, Max. mm             | 3.0                             |          |
| Movement differential, Max. mm | 0.5                             |          |
| Overtravel, Min. mm            | 0.5                             |          |
| Operating position             | Distance from mounting hole, mm | 13.1±1.0 |
|                                | Distance from stand-off, mm     | 14.6±1.0 |

## 1-(2) Solder terminal Pin plunger

mm General tolerance:  $\pm 0.25$

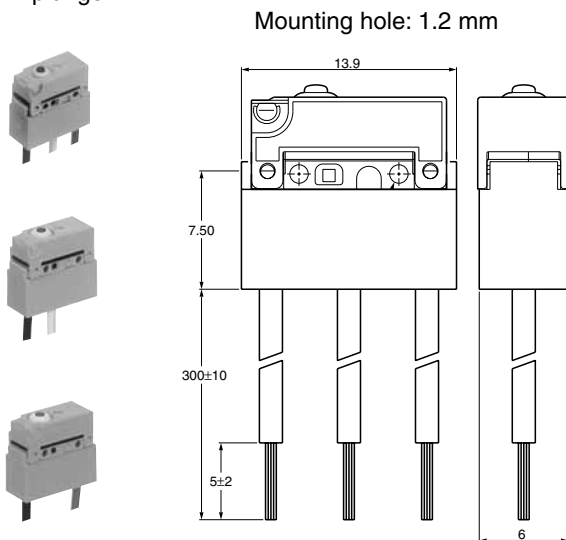


Remarks: Dimensions of the actuator type are the same as corresponding PC board terminal types.

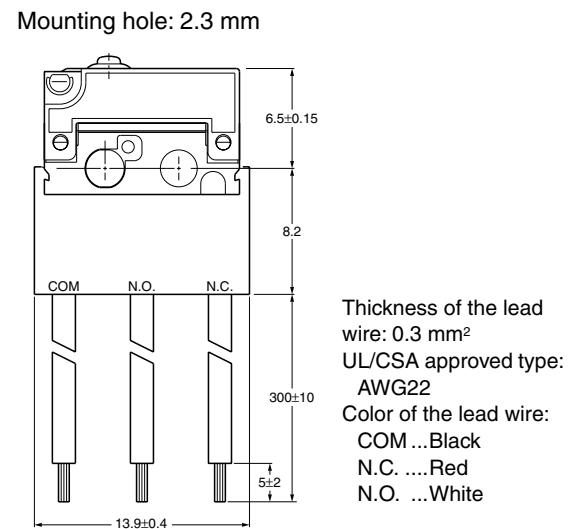
## 2. Immersion protected type

### 2-(1) Bottom wire leads type

#### Pin plunger



Thickness of the lead wire: 0.3 mm<sup>2</sup>  
UL/CSA approved type: AWG22  
Color of the lead wire:  
COM ...Black  
N.C. ...Red  
N.O. ...White



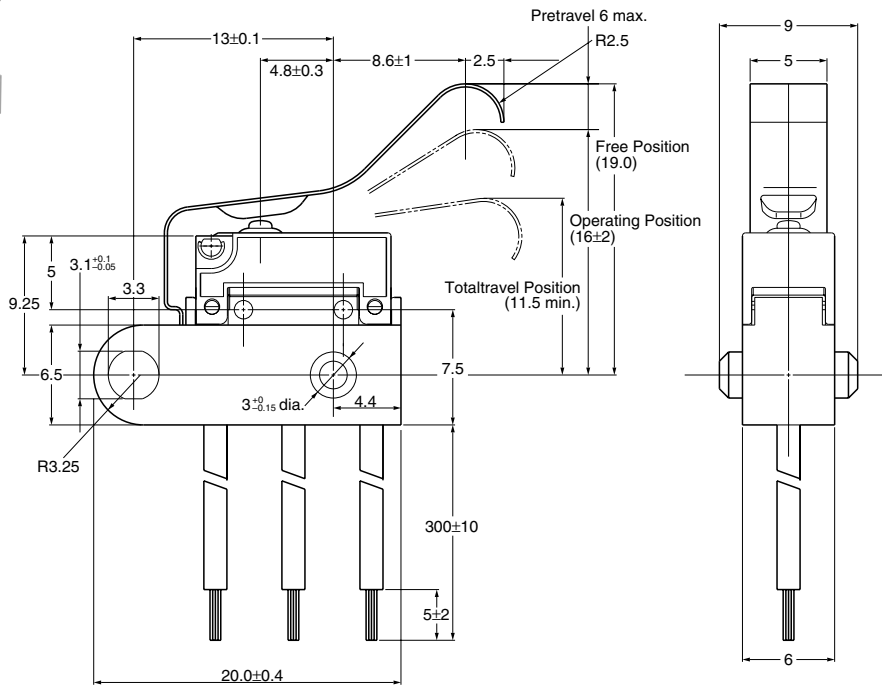
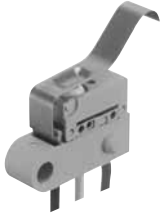
Thickness of the lead wire: 0.3 mm<sup>2</sup>  
UL/CSA approved type: AWG22  
Color of the lead wire:  
COM ...Black  
N.C. ....Red  
N.O. ...White

Remarks: 1. As for M1.2 type, other dimensions are the same as those of corresponding PC board terminal types.  
As for M2.3 type, other dimensions are the same as those of corresponding solder terminal types.  
2. Dimensions of the actuator type are the same as corresponding PC board terminal types.

# ABJ1,2,3,4,5

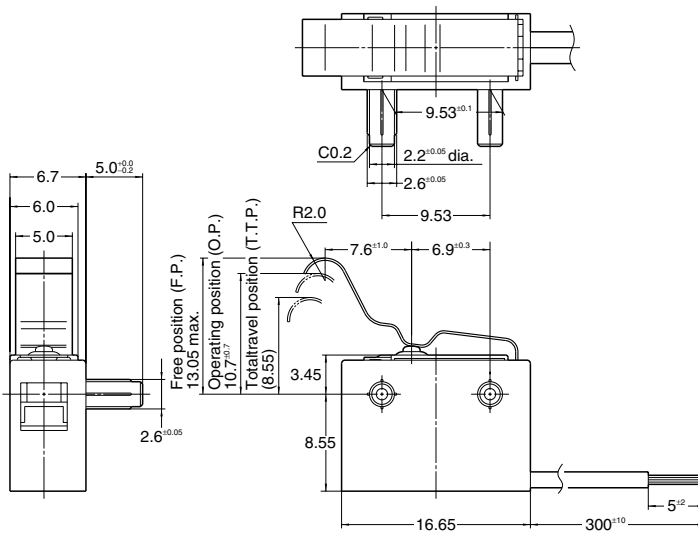
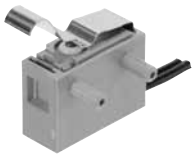
Leaf lever  
Mounting hole: 3 mm

mm General tolerance:  $\pm 0.25$



|                                |                                 |
|--------------------------------|---------------------------------|
| Pretravel, Max. mm             | 6.0                             |
| Movement differential, Max. mm | 1.0                             |
| Overtravel, Min mm             | 2.5                             |
| Operating position             | Distance from mounting hole, mm |
|                                | 16.0 $\pm 2.0$                  |

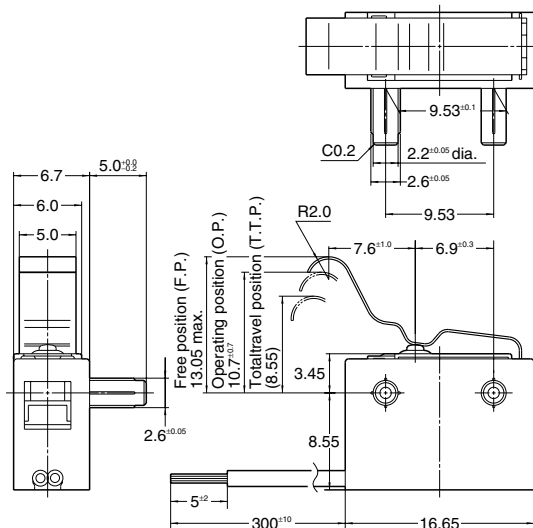
2-(2) Side wire leads type  
Fixed pin type  
Right side pin type  
Right wire leads type



|                                |                                 |
|--------------------------------|---------------------------------|
| Pretravel, Max. mm             | 2.6                             |
| Movement differential, Max. mm | 0.5                             |
| Overtravel, Min mm             | 1.4                             |
| Operating position             | Distance from mounting hole, mm |
|                                | 10.7 $\pm 0.7$                  |

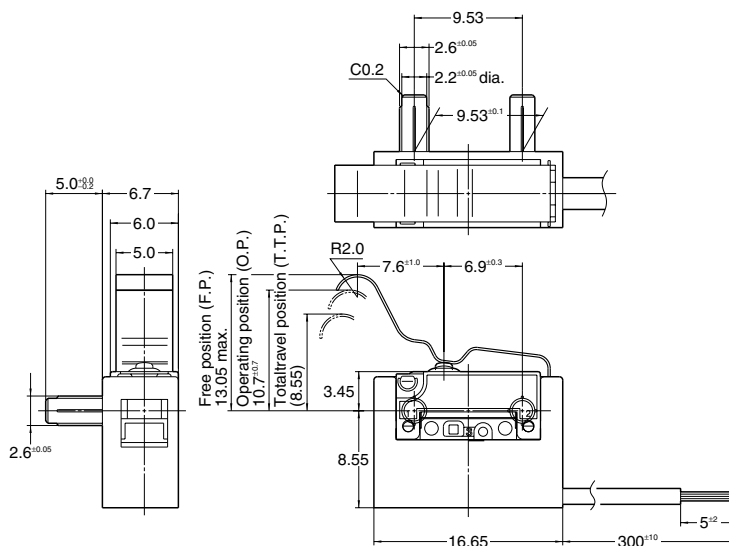
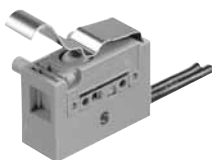


## Left wire leads type



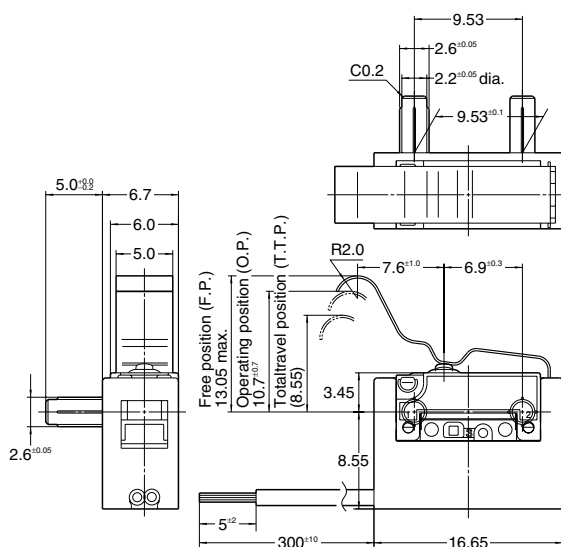
|                                |                                 |          |
|--------------------------------|---------------------------------|----------|
| Pretravel, Max. mm             |                                 | 2.6      |
| Movement differential, Max. mm |                                 | 0.5      |
| Overtravel, Min mm             |                                 | 1.4      |
| Operating position             | Distance from mounting hole, mm | 10.7±0.7 |

## Left side pin type Right wire leads type



|                                |                                 |          |
|--------------------------------|---------------------------------|----------|
| Pretravel, Max. mm             |                                 | 2.6      |
| Movement differential, Max. mm |                                 | 0.5      |
| Overtravel, Min mm             |                                 | 1.4      |
| Operating position             | Distance from mounting hole, mm | 10.7±0.7 |

## Left wire leads type

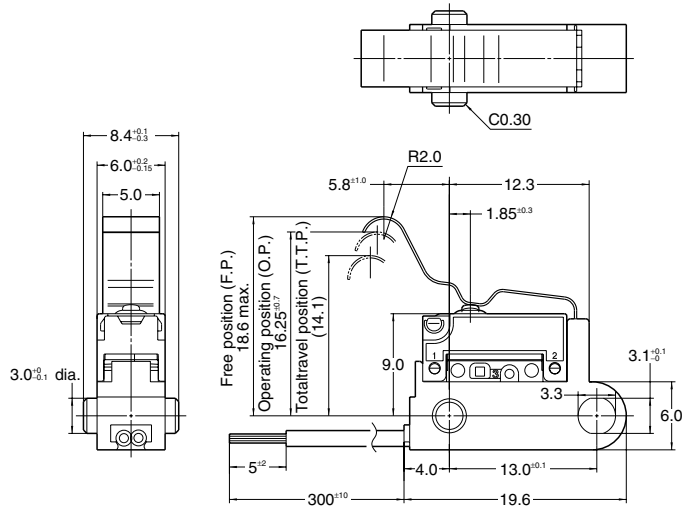


|                                |                                 |          |
|--------------------------------|---------------------------------|----------|
| Pretravel, Max. mm             |                                 | 2.6      |
| Movement differential, Max. mm |                                 | 0.5      |
| Overtravel, Min mm             |                                 | 1.4      |
| Operating position             | Distance from mounting hole, mm | 10.7±0.7 |

# ABJ1,2,3,4,5

Mounting hole 3mm type

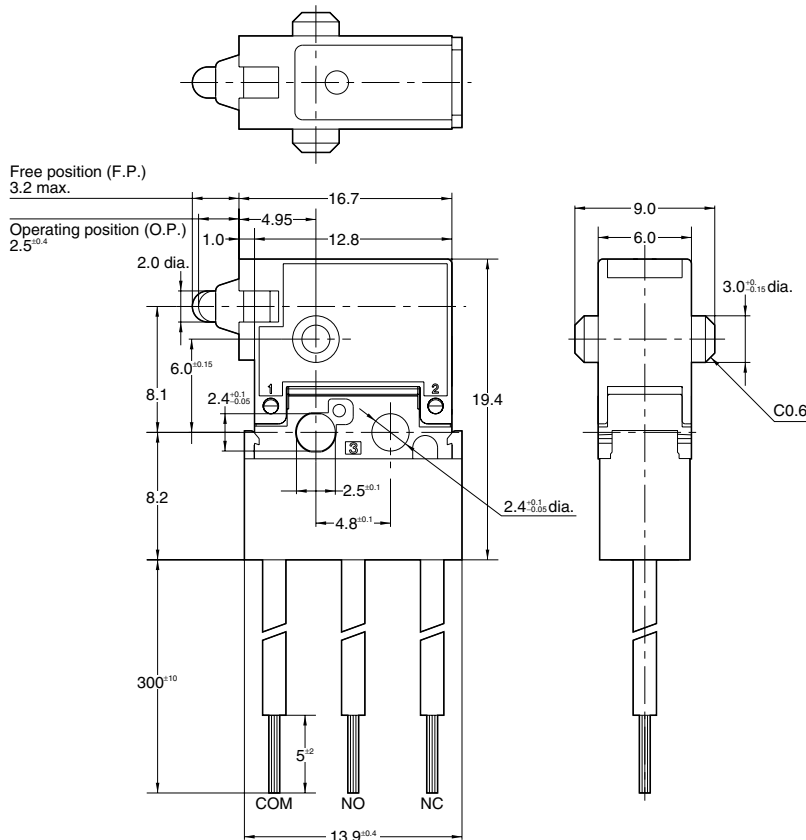
mm General tolerance:  $\pm 0.25$



|                                |                                 |
|--------------------------------|---------------------------------|
| Pretravel, Max. mm             | 2.6                             |
| Movement differential, Max. mm | 0.5                             |
| Overtravel, Min mm             | 1.4                             |
| Operating position             | Distance from mounting hole, mm |
|                                | 16.25 $\pm$ 0.7                 |

## 3. Immersion protected type (Bottom wire leads type) Long stroke type

Mounting hole: 2.3 mm



|                                |               |
|--------------------------------|---------------|
| Movement differential, Max. mm | 0.5           |
| Overtravel, Min mm             | 2.0           |
| Operating position             | 2.5 $\pm$ 0.4 |