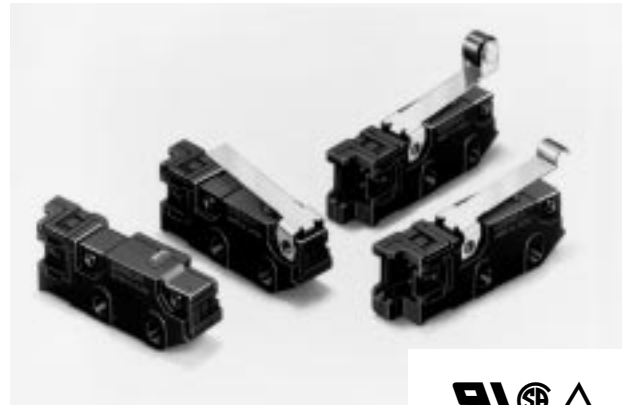


### Saves Wiring Effort, Production Steps, and Time

- Easy wiring ensured through the quick-connect terminals.
- External actuator mounts in either of two directions and increases Switch mounting flexibility.
- Horizontal layout of terminals saves mounting space.
- Same mounting pitch as the OMRON SS Subminiature Basic Switch.



### Ordering Information

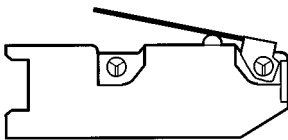
#### ■ Model Number Legend

D3M-01□□□  
1 2 3

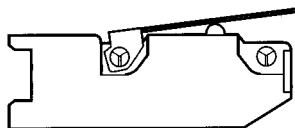
#### 1. Actuator Mounting Position

None: No actuator

K: Pushbutton close to actuator fulcrum



L: Pushbutton far from actuator fulcrum



#### 2. Actuator

None: Pin plunger

1: Hinge lever

2: Hinge roller lever

3: Simulated hinge lever

#### 3. Contact Form

None: SPST-NC (with red pushbutton)

-3: SPST-NO (with black pushbutton)

**Note:** For details about models with a low operating force, contact your OMRON sales representative.

■ List of Models

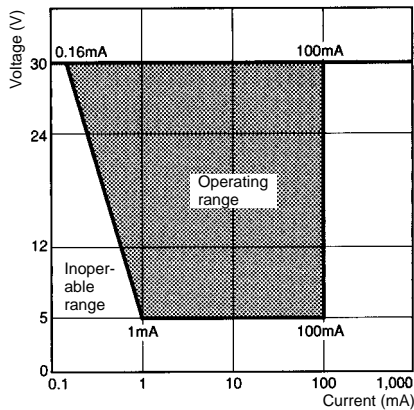
Actuator	Actuator mounting position	Contact type	Model
Pin plunger	---	SPST-NC	D3M-01
		SPST-NO	D3M-01-3
Hinge lever	K	SPST-NC	D3M-01K1
		SPST-NO	D3M-01K1-3
	L	SPST-NC	D3M-01L1
		SPST-NO	D3M-01L1-3
Hinge roller lever	K	SPST-NC	D3M-01K2
		SPST-NO	D3M-01K2-3
	L	SPST-NC	D3M-01L2
		SPST-NO	D3M-01L2-3
Simulated hinge lever	K	SPST-NC	D3M-01K3
		SPST-NO	D3M-01K3-3
	L	SPST-NC	D3M-01L3
		SPST-NO	D3M-01L3-3

Specifications

■ Ratings

Rated voltage	Resistive load
30 VDC	0.1 A

Use the D3M in the following permissible operating range.



Minimum Applicable Load (Level N)

Voltage	Resistive load
5 VDC	1 mA

Refer to *Minute Load* on page 18 for details.

## ■ Characteristics

Permissible operating speed (see note 1)	0.1 mm/s to 1 m/s
Permissible operating frequency	Mechanical: 400 operations/min max.
	Electrical: 60 operations/min max.
Insulation resistance	100 M $\Omega$ min. at 500 VDC
Contact resistance (initial value)	100 m $\Omega$ max. including connector and 50-mm AWG28 lead-wire resistance
Dielectric strength	1,000 VAC at 50/60 Hz for 1 min between terminals of the same polarity
	1,500 VAC at 50/60 Hz for 1 min between charged metal part and ground
	1,500 VAC at 50/60 Hz for 1 min between non-charged metal part and each terminal
Vibration resistance (see note 2)	Malfunction: 10 to 55 Hz, 1.5-mm double amplitude for 1 ms max. with contacts closed or open.
Shock resistance (see note 2)	Destruction: 1,000 m/s <sup>2</sup> (approx. 100G) max.
	Malfunction: 300 m/s <sup>2</sup> (approx. 30G) for 1 ms max. with contacts closed or open.
Life expectancy	Mechanical: 500,000 operations (at full-stroke operating speed of 10 mm/s at a frequency of 60 operations/min)
	Electrical: 200,000 operations (at full-stroke operating speed of 10 mm/s at a frequency of 30 operations/min)
Enclosure rating	IP00
Degree of protection against electric shock	Class I
Proof tracking index (PTI)	175
Ambient temperature	Operating: -25°C to 85°C (with no icing)
Ambient humidity	Operating: 85% max. (5°C to 35°C)
Weight	Approx. 2 g (pin plunger models)

**Note:** 1. The permissible operating speed applies to pin plunger models.  
2. If a lever actuator model is used, the above values apply for use at the total travel position.

## ■ Approved Standards

UL1054 (File No. E41515)

CSA C22.2 No. 55 (File No. LR21642)

TÜV EN61058-1 (File No. R9750979)

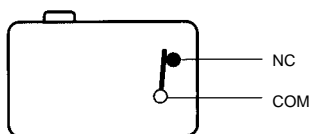
Rated voltage	Rated current
30 VDC	0.1 A

## ■ Contact Specifications

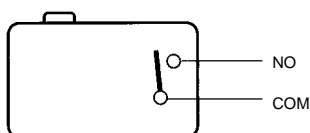
Contact	Crossbar
Material	Gold alloy
Distance between contacts	0.5 mm

## ■ Contact Form

### SPST-NC



### SPST-NO



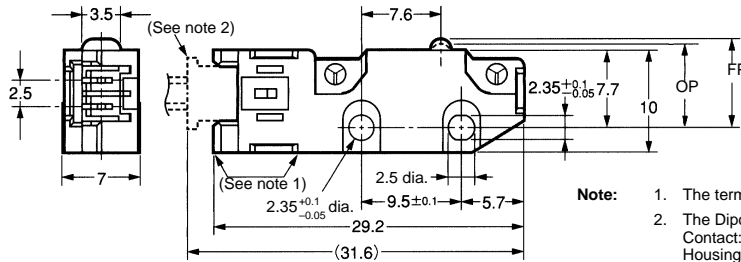
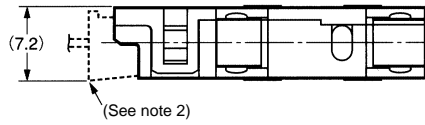
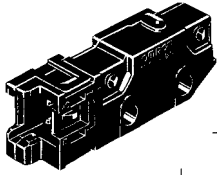
# Dimensions

- Note:** 1. All units are in millimeters unless otherwise indicated.  
 2. Unless otherwise specified, a tolerance of  $\pm 0.4$  mm applies to all dimensions.

## ■ Dimensions and Operating Characteristics

### Pin Plunger

D3M-01  
D3M-01-3

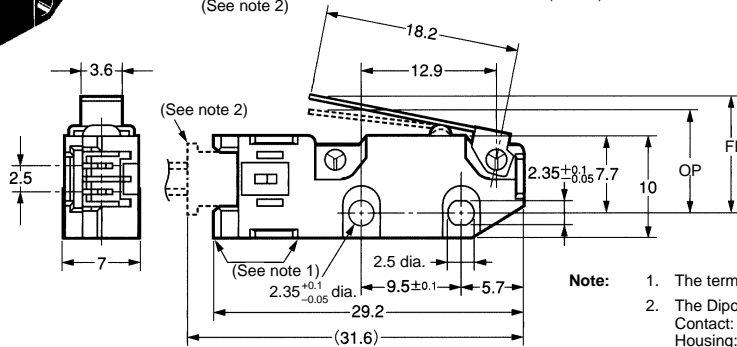
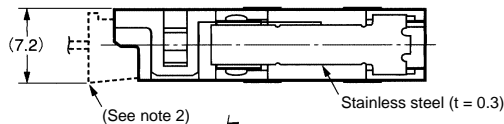
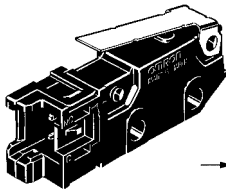


<b>OF max.</b>	1.50 N {153 gf}
<b>RF min.</b>	0.25 N {25 gf}
<b>PT max.</b>	0.6 mm
<b>OT min.</b>	0.4 mm
<b>MD max.</b>	0.1 mm
<b>OP</b>	8.4±0.3 mm

- Note:** 1. The terminals connect to JST's Dipole XA Connector.  
 2. The Dipole XA Connector consists of the following components.  
 Contact: SXA-001T-P0.6  
 Housing: XAP-02V-1

### Hinge Lever

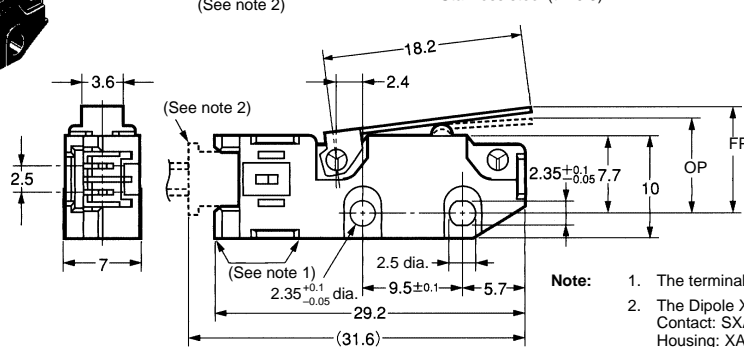
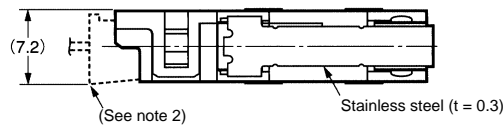
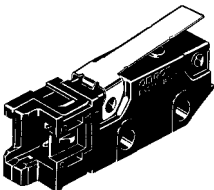
D3M-01K1  
D3M-01K1-3



<b>OF max.</b>	0.50 N {51 gf}
<b>RF min.</b>	0.06 N {6 gf}
<b>OT min.</b>	1.2 mm
<b>MD max.</b>	0.8 mm
<b>FP max.</b>	14.0 mm
<b>OP</b>	10.0±0.8 mm

- Note:** 1. The terminals connect to JST's Dipole XA Connector.  
 2. The Dipole XA Connector consists of the following components.  
 Contact: SXA-001T-P0.6  
 Housing: XAP-02V-1

D3M-01L1  
D3M-01L1-3

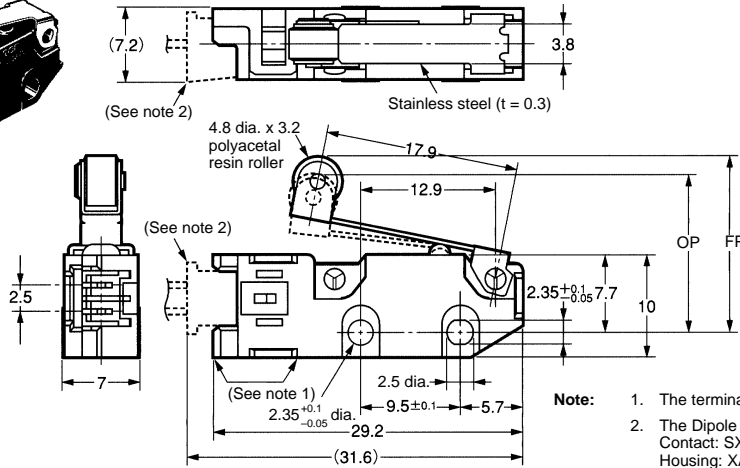
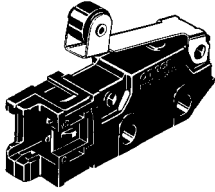


<b>OF max.</b>	1.00 N {102 gf}
<b>RF min.</b>	0.10 N {10 gf}
<b>OT min.</b>	0.7 mm
<b>MD max.</b>	0.6 mm
<b>FP max.</b>	11.5 mm
<b>OP</b>	9.2±0.6 mm

- Note:** 1. The terminals connect to JST's Dipole XA Connector.  
 2. The Dipole XA Connector consists of the following components.  
 Contact: SXA-001T-P0.6  
 Housing: XAP-02V-1

**Hinge Roller Lever**

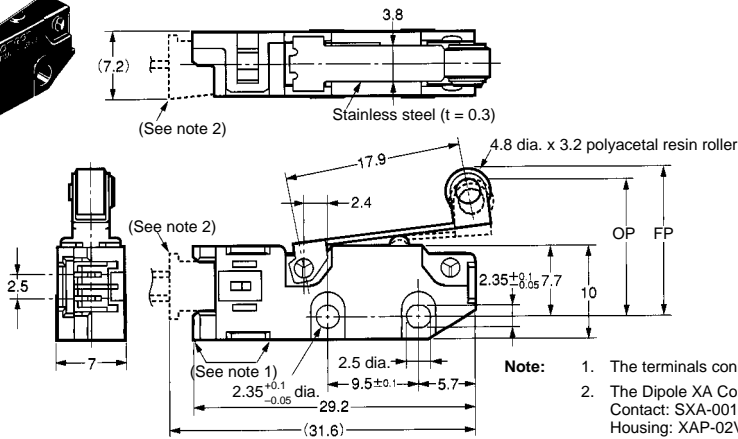
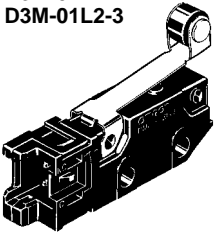
D3M-01K2  
D3M-01K2-3



- Note:**
1. The terminals connect to JST's Dipole XA Connector.
  2. The Dipole XA Connector consists of the following components.  
Contact: SXA-001T-P0.6  
Housing: XAP-02V-1

<b>OF max.</b>	0.50 N {51 gf}
<b>RF min.</b>	0.06 N {6 gf}
<b>OT min.</b>	1.2 mm
<b>MD max.</b>	0.8 mm
<b>FP max.</b>	19.7 mm
<b>OP</b>	15.7±0.8 mm

D3M-01L2  
D3M-01L2-3

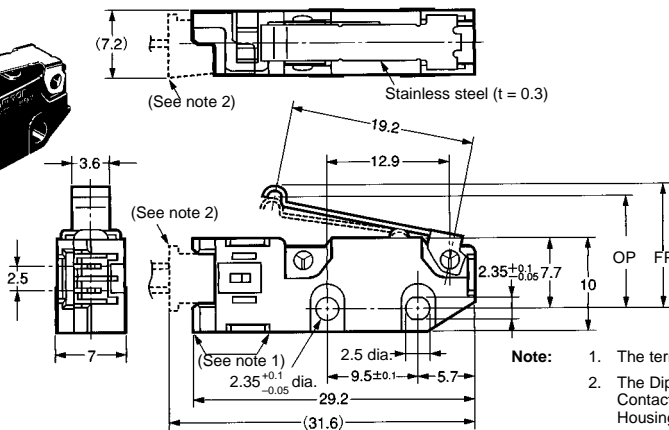
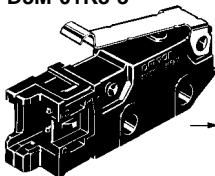


- Note:**
1. The terminals connect to JST's Dipole XA Connector.
  2. The Dipole XA Connector consists of the following components.  
Contact: SXA-001T-P0.6  
Housing: XAP-02V-1

<b>OF max.</b>	1.00 N {102 gf}
<b>RF min.</b>	0.10 N {10 gf}
<b>OT min.</b>	0.7 mm
<b>MD max.</b>	0.6 mm
<b>FP max.</b>	17.2 mm
<b>OP</b>	14.9±0.6 mm

**Simulated Hinge Lever**

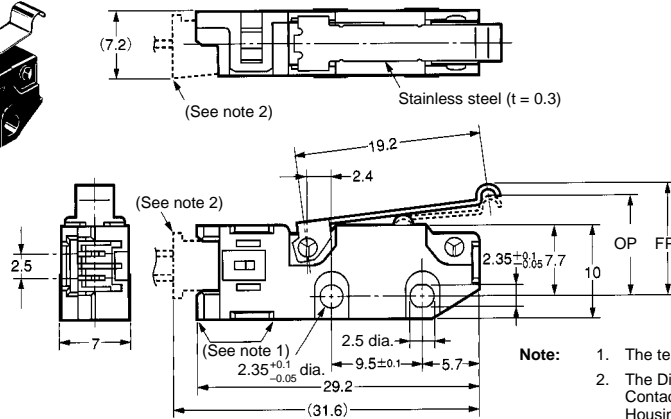
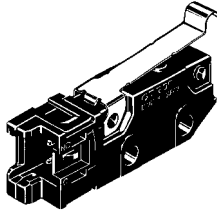
D3M-01K3  
D3M-01K3-3



- Note:**
1. The terminals connect to JST's Dipole XA Connector.
  2. The Dipole XA Connector consists of the following components.  
Contact: SXA-001T-P0.6  
Housing: XAP-02V-1

<b>OF max.</b>	0.50 N {51 gf}
<b>RF min.</b>	0.06 N {6 gf}
<b>OT min.</b>	1.2 mm
<b>MD max.</b>	0.8 mm
<b>FP max.</b>	16.2 mm
<b>OP</b>	12.2±0.8 mm

D3M-01L3  
D3M-01L3-3



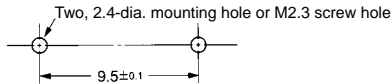
<b>OF max.</b>	1.00 N {102 gf}
<b>RF min.</b>	0.10 N {10 gf}
<b>OT min.</b>	0.7 mm
<b>MD max.</b>	0.6 mm
<b>FP max.</b>	13.6 mm
<b>OP</b>	11.3±0.6 mm

- Note:**
1. The terminals connect to JST's Dipole XA Connector.
  2. The Dipole XA Connector consists of the following components.  
Contact: SXA-001T-P0.6  
Housing: XAP-02V-1

## Precautions

### ■ Mounting Dimensions

Use M2.3 screws, flat washers, and spring washers to mount the D3M securely. Make sure that the tightening torque applied to each screw is within a range from 0.23 to 0.26 N • m {2.3 to 2.7 kgf • cm}.



### Operating Stroke

Make sure that the dog is separated from the actuator when the actuator is in the free position and that the actuator is pressed appropriately when the D3M is actuated. The actuator must not be pressed excessively to reach the maximum overtravel position, otherwise the D3M may be damaged.

Make sure the actuator is pressed in the direction where the D3M is actuated.

### ■ Correct Use

Refer to pages 22 to 29 for common precautions.

#### Wiring Connectors

The terminals connect to JST's Dipole XA Connector.

The Dipole XA Connector consists of the following components.  
Contact: SXA-001T-P0.6  
Housing: XAP-02V-1

OMRON does not sell the Dipole XA Connector. Contact the following.

J.S.T. Manufacturing Co., Ltd. (Japan)  
Tel: (81)45-543-1271  
Fax: (81)45-544-1503

J.S.T. (U.K.) Ltd. (United Kingdom)  
Tel: (44)1986-874131  
Fax: (44)1986-874276

J.S.T. Corporation (U.S.A.)  
Tel: (1)847-473-1957  
Fax: (1)847-473-0144

J.S.T. (H.K.) Co. Ltd. (Hong Kong)  
Tel: (852)24137979  
Fax: (852)24111193

**ALL DIMENSIONS SHOWN ARE IN MILLIMETERS.**

To convert millimeters into inches, multiply by 0.03937. To convert grams into ounces, multiply by 0.03527.