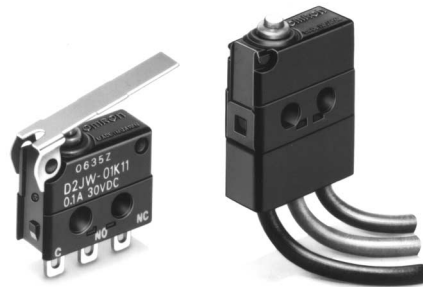


Sealed Ultra Subminiature Basic Switch

D2JW

Ultra-small and Highly Sealed

- Degree of protection for the molded lead wire models conforms to IEC IP67.
- Wide range of operating temperature from -40°C to 85°C.
- Gold-alloy crossbar contact and coil spring offer long life expectancy and high contact reliability.



Ordering Information

■ **Model Number Legend**

D2JW-01□-□-□
1 2 3 4

1. Ratings

01: 0.1 A at 30 VDC

2. Actuator

None: Pin plunger

K1A: Short hinge lever

K1: Hinge lever

K3: Simulated roller lever

K2: Hinge roller lever

3. Contact Form

1: SPDT

2: SPST-NC








3: SPST-NO

4. Terminal

None: Solder terminal

MD: Molded lead wire terminal

■ **List of Models**

Actuator	Model	
	Solder 	Molded lead wire 
Pin plunger 	D2JW-011	D2JW-011-MD
Short hinge lever 	D2JW-01K1A1	D2JW-01K1A1-MD
Hinge lever 	D2JW-01K11	D2JW-01K11-MD
Simulated roller lever 	D2JW-01K31	D2JW-01K31-MD
Hinge roller lever 	D2JW-01K21	D2JW-01K21-MD

- Note:**
1. The standard lengths of the lead wires (AVS0.3f) of models incorporating them are 30 cm.
 2. Contact your OMRON representative for details on SPST-NO and SPST-NC models.

Specifications

■ Ratings

Electrical ratings	0.1 A at 30 VDC (resistive load)
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The ratings values apply under the following test conditions:

Ambient temperature: 20±2°C

Ambient humidity: 65±5%

Operating frequency: 30 operations/min

■ Characteristics

Operating speed	1 mm to 250 mm/s (see note 1)
Operating frequency	Mechanical: 240 operations/min Electrical: 30 operations/min
Insulation resistance	100 MΩ min. (at 500 VDC)
Contact resistance (initial value)	100 mΩ max. (molded lead wire models: 140 mΩ max.)
Dielectric strength	600 VAC, 50/60 Hz for 1 min between terminals of the same polarity 1,000 VAC, 50/60 Hz for 1 min between current-carrying metal parts and ground (see note 2), and between each terminal and non-current-carrying metal parts
Vibration resistance	Malfunction: 10 to 55 Hz, 1.5-mm double amplitude (see note 3)
Shock resistance	Destruction: 1,000 m/s ² {approx. 100G} max. Malfunction: 200 m/s ² {approx. 20G} max. (see note 3)
Life expectancy	Mechanical: 1,000,000 operations min. Electrical: 100,000 operations min.
Degree of protection	IP67 for molded lead wire terminal models IP50 for solder terminal models
Degree of protection against electric shock	Class I
Proof tracking index (PTI)	175
Ambient temperature	Operating: -40°C to 85°C (at ambient humidity of 60% max.) (with no icing or condensation)
Ambient humidity	Operating: 35% to 98% (5°C to 35°C)
Weight	Approx. 7 g (molded lead wire models, pin plunger models)

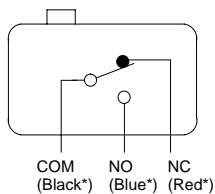
- Note:**
1. The operating speed value shown is for pin plunger models. (For different models, contact your OMRON representative.)
 2. The dielectric strength values shown apply for use with Separator (terminal type).
 3. The values shown apply for malfunctions of 1 ms max.

■ Contact Specifications

Contact	Specification	Crossbar
	Material	Gold alloy
Gap (standard value)	0.5 mm	
Inrush current	NC	0.1 A max.
	NO	0.1 A max.
Minimum applicable load		1 mA at 5 VDC

■ Contact Form

SPDT

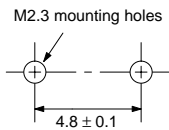


*Indicates the color of the lead wire.

Dimensions

■ Mounting Holes

Note: All units are in millimeters unless otherwise indicated.

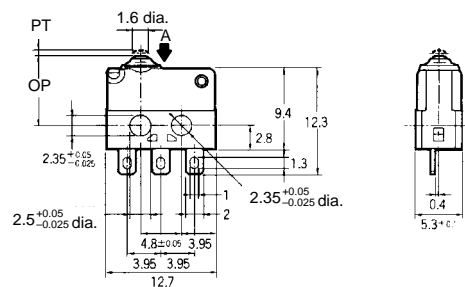
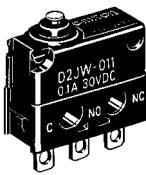


■ Dimensions and Operating Characteristics

- Note:**
- All units are in millimeters unless otherwise indicated.
 - Unless otherwise specified, a tolerance of ± 0.4 mm applies to all dimensions.
 - Actuators of the molded lead wire terminals are omitted here. The dimensions (other than the terminals) and operating characteristics of the molded lead wire terminals are the same as those for the solder terminals.
 - The operating characteristics are for operation in the A direction (▼).

Pin Plunger

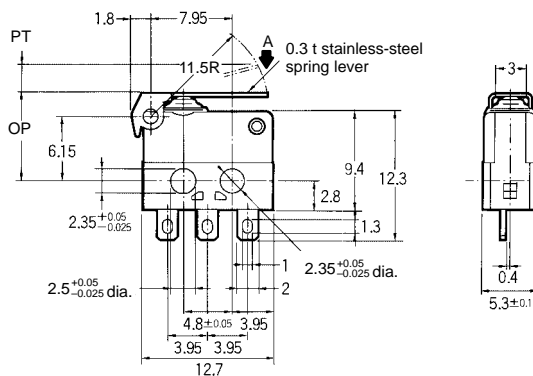
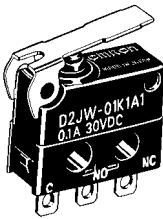
D2JW-011



OF max.	2.45 N {250 gf}
RF min.	0.98 N {100 gf}
PT max.	0.6 mm
OT min.	0.3 mm
MD max.	0.1 mm
OP	8.1 ± 0.3 mm

Short Hinge Lever

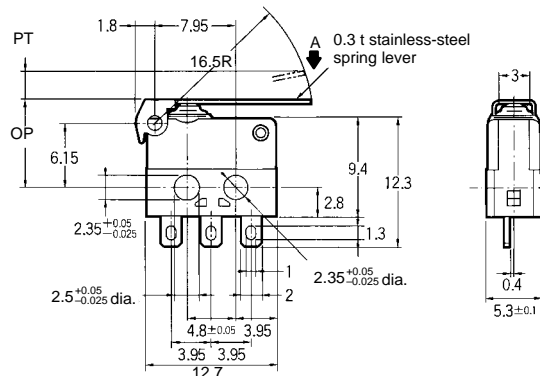
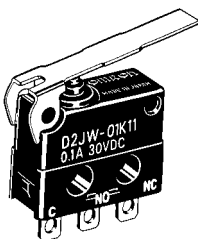
D2JW-01K1A1



OF max.	1.15 N {117 gf}
RF min.	0.23 N {23 gf}
PT max.	5.4 mm
OT min.	0.7 mm
MD max.	0.5 mm
OP	8.4 ± 0.8 mm

Hinge Lever

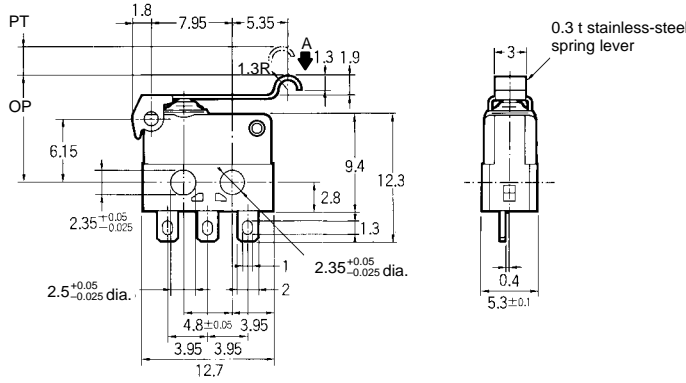
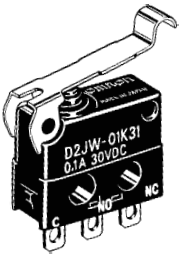
D2JW-01K11



OF max.	0.80 N {82 gf}
RF min.	0.15 N {16 gf}
PT max.	6.4 mm
OT min.	1.4 mm
MD max.	0.7 mm
OP	8.4 ± 0.8 mm

Simulated Roller Lever

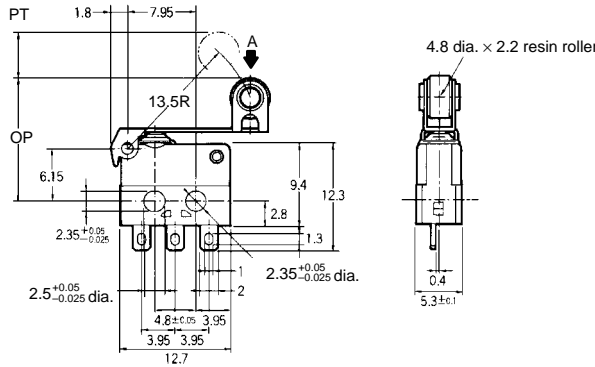
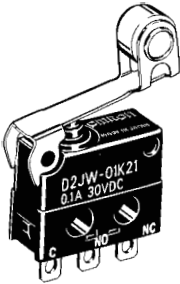
D2JW-01K31



OF max.	0.95 N {97 gf}
RF min.	0.19 N {20 gf}
PT max.	5.5 mm
OT min.	1.1 mm
MD max.	0.6 mm
OP	10.3±0.8 mm

Hinge Roller Lever

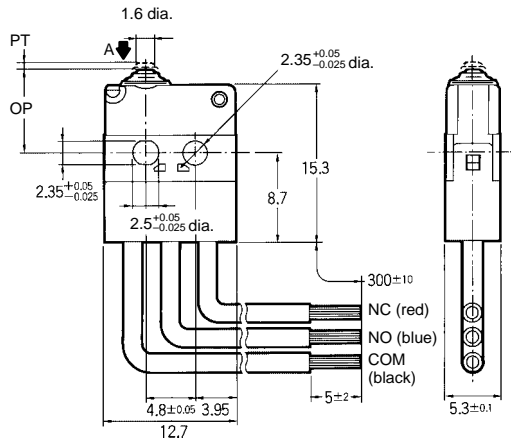
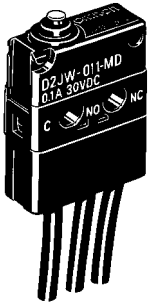
D2JW-01K21



OF max.	0.98 N {100 gf}
RF min.	0.19 N {20 gf}
PT max.	5.2 mm
OT min.	1.1 mm
MD max.	0.5 mm
OP	14.6±0.8 mm

Molded Lead Wire

D2JW-01□□□-MD



OF max.	2.45 N {250 gf}
RF min.	0.98 N {100 gf}
PT max.	0.6 mm
OT min.	0.3 mm
MD max.	0.1 mm
OP	8.1±0.3 mm

Note: Letters and numbers are inserted in □ by the actuator.

Precautions

Refer to pages 26 to 33 for common precautions.

■ Cautions

Terminal Connection

When soldering, make sure that the capacity of the soldering iron is 30 W maximum (temperature of soldering iron: 250°C max.). Do not take more than 3 s to solder the switch terminal.

If soldering is not carried out under the proper conditions there is a danger of over-heating and subsequent heat damage.

Applying a soldering iron for more than 3 s or using one that is rated at more than 30 W may deteriorate the Switch characteristics.

Degree of Protection

Do not use the Switch underwater. The Switch was tested and found to meet the conditions necessary to meet the following standard. The test checks for water intrusion after immersion for a specified time period. The test does not check for switching operation underwater.

IEC Publication 529, degree of protection IP67.

Protection Against Chemicals

Prevent the Switch from coming into contact with oil and chemicals. Otherwise, damage to or deterioration of Switch materials may result.

■ Correct Use

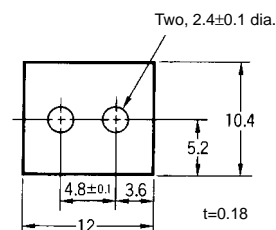
Use M2.3 mounting screws with plane washers or spring washers to securely mount the Switch. Tighten the screws to a torque of 0.20 to 0.29 N•m {2 to 3 kgf•cm}.

Separator

When mounting the Switch on a metallic surface, be sure to provide a Separator between the Switch and the mounting plate.

■ Separator (Sold Separately)

Model	Separator for D2JW
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ALL DIMENSIONS SHOWN ARE IN MILLIMETERS.

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

Cat. No. B040-E1-01C