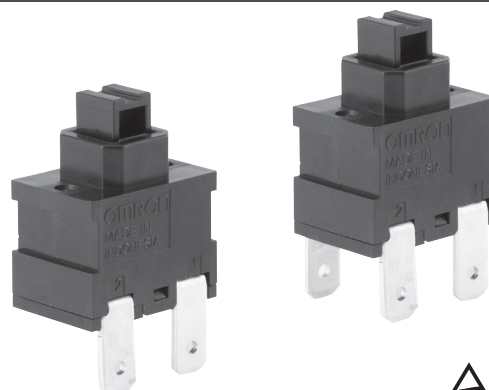


# Miniature Power Switch C4V

## Contact gap of 3 mm minimum Miniature Power Switch

- Unique snap-action mechanism allows large-capacity switching.
- Sharp feeling with firm switching action.
- Contact gap of 3 mm minimum.
- UL and cUL standards approved. Conforms to EN standards.
- RoHS Compliant



## Ordering Information

Operating mechanism	Contact form		Part number
Momentary	SPST		C4V-811M-D
	DPST		C4V-821M
Alternate	SPST		C4V-811A-D
	DPST		C4V-821A

## Specifications

### ■ Characteristics

<b>Electrical Rating</b>	8 A, 125/250 VAC
<b>Contact resistance</b>	50 mΩ max. (at 1 A, 6 VDC )
<b>Insulation resistance</b>	100 MΩ min. (at 500 VDC)
<b>Dielectric strength</b>	3,000 VAC 50/60 Hz for 1 min between different pole terminals 3,000 VAC 50/60 Hz for 1 min between terminals and non-current-carrying parts 3,000 VAC 50/60 Hz for 1 min between terminals and ground
<b>Vibration resistance</b>	Malfunction: 10 to 55 Hz, 1.5 mm double amplitude
<b>Shock resistance</b>	Malfunction: 147 m/s <sup>2</sup> min.
<b>Ambient operating temperature</b>	-10 to 55°C (at 60% RH max.) with no condensation or icing
<b>Ambient operating humidity</b>	45% to 85% (at 5 to 35°C)
<b>Life expectancy</b>	Mechanical: 10,000 operations min. Electrical: 10,000 operations min.

Note: Data shown are of initial value.

### ■ Approved Standards

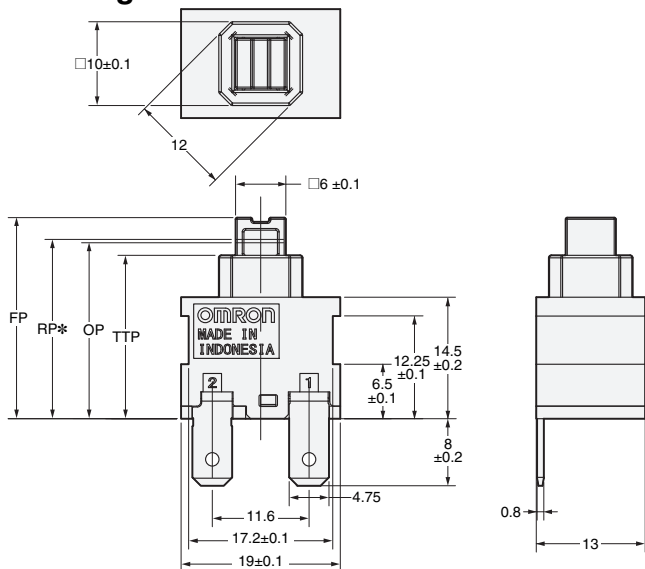
UL(UL1054/CSA C22.2 No.55)  
8A, 250VAC

TUV(EN61058-1)  
8A, 250VAC

# Dimensions

Note: Unless otherwise specified, all units are in millimeters.

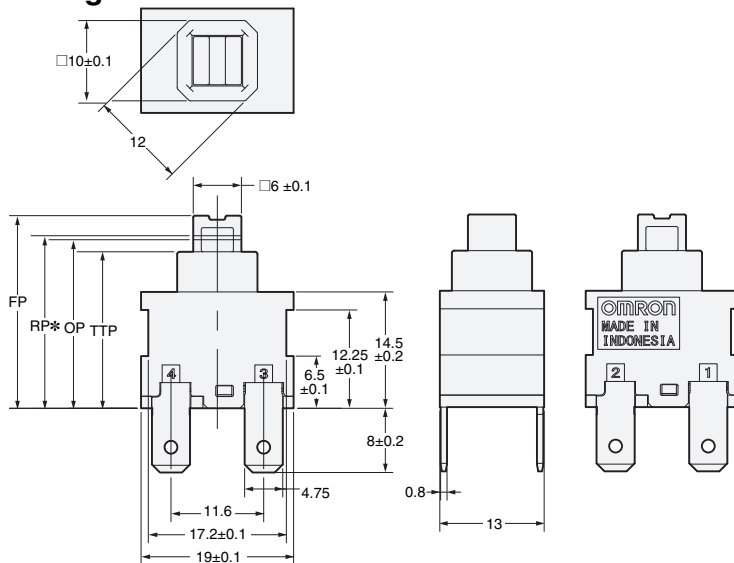
## Single Pole Single Throw



Characteristic	Model with posts
OF max.	7N
FP	24.0 ± 0.2mm
OP min.	21 mm
TTP	19.5 ± 0.2 mm
RP min.	21.5 mm
SP	21.4 ± 0.3 mm

Note: "\*" mark part:  
In case of the alternative model,  
"RP" means "SP"

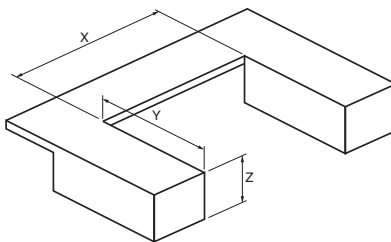
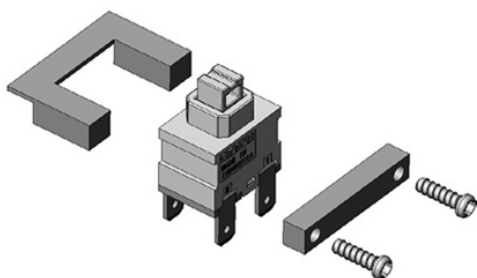
## Double Pole Single Throw



Characteristic	Model with posts
OF max.	7N
FP	24.0 ± 0.2mm
OP min.	21 mm
TTP	19.5 ± 0.2 mm
RP min.	21.5 mm
SP	21.4 ± 0.3 mm

Note: "\*" mark part:  
In case of the alternative model,  
"RP" means "SP"

## Installation method



Direction	Dimension (mm)
X	17.4 <sup>+0.15</sup> <sub>0</sub>
Y	13.2 <sup>+0.15</sup> <sub>0</sub>
Z	5.5 <sup>0</sup> <sub>-0.15</sub>

The above figure is an example of the mounting method.

# Precautions

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## ■ Warning

Electric shock may possibly occur, do not perform wiring or touch the charged parts of terminals while power is supplied to the Switch.

## ■ Cautions

Use the switch within the rated voltage and current ranges, otherwise the switch may have a shortened life expectancy, radiate heat, or burn out. This particularly applies to the instantaneous voltages and currents when switching.

## ■ Correct Use

### Insulation in switch mounting

Paying attention to creepage distance/clearance distance for insulation after wiring onto terminal when a mounting frame is made of metal.

### Wiring for switch

- Please use the receptacle that suits 4.8 × 0.8mm tab terminal (#187) when using it as a tab terminal.
- Be sure that the wires are thick enough for the load (current) to be applied.
- The performance of the Switch may be affected if the Switch is used under micro loads. Test the Switch under the actual operating conditions.

It is possible to use the terminals as soldering terminal. But, it is not in compliance with safety standards for use as solder connection. Only the quick-connect terminals is in compliance with Safety standards.

- When soldering terminals manually, perform soldering within 5 s using a 60W soldering iron (temperature at the tip of the soldering iron: 360 degC max). Do not apply excessive force to the terminals during soldering.
- Applying the tip of the soldering iron to the root side of the terminal can be a cause of deformation of the external portions that is the Housing and Base.
- This product doesn't correspond to the reflow solder and flow solder. It causes the malfunction by the infiltration of flux and the thermal deformation.

### Environment for Storage and Use

To prevent discoloration of the terminals and other problems during storage, do not store the switch in locations subject to the following conditions.

1. High temperatures or humidity
2. Corrosive gases
3. Direct sunlight
4. Sea wind

Also, the switch is not waterproof or splash-resistant. Do not install or use the switch in locations that are subject to contact with water.

Do not subject the switch to freezing or condensation.

## Handling

When handling the product, any shock like drop should not be applied to it. Shock can cause break or deformation of the product.

Do not apply excessive operating force to the switch. Otherwise the switch may be damaged or deformed, and the switch mechanism may malfunction as a result. Apply an operating force not exceeding 30N. Do not apply a load from an angle or from the side of the actuator.

## RoHS Compliant

The "RoHS Compliant" designation indicates that the listed models do not contain the six hazardous substances covered by the RoHS Directive.

Reference: The following standards are used to determine compliance for the six substances.

Lead:	1,000 ppm max.
Mercury:	1,000 ppm max.
Cadmium:	100 ppm max.
Hexavalent chromium:	1,000 ppm max.
PBB:	1,000 ppm max.
PBDE:	1,000 ppm max.

All sales are subject to Omron Electronic Components LLC standard terms and conditions of sale, which can be found at [http://www.components.omron.com/components/web/webfiles.nsf/sales\\_terms.html](http://www.components.omron.com/components/web/webfiles.nsf/sales_terms.html)

**ALL DIMENSIONS SHOWN ARE IN MILLIMETERS.**  
To convert millimeters into inches, multiply by 0.03937. To convert grams into ounces, multiply by 0.03527.

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Specifications subject to change without notice

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