

### TOGGLE SWITCH

## T-10 SERIES SWITCHES

12 dia.



RoHS compliant

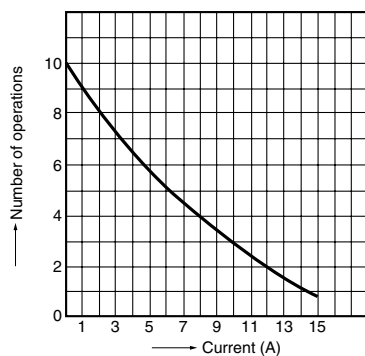
### FEATURES

**1. Capable of high capacity switching (10 A 250 V AC and 15 A 125 V AC)**  
Ag alloy contacts are used to prevent temperature rises and allow high capacity switching.

**2. Terminals constructed for easy implementation**  
A unique terminal construction facilitates soldering.

### DATA (Life curve)

Tested condition: 250 V AC, Power factor: 0.6 and 10 cpm



### PRODUCT TYPES

Number of poles	Kind of operation		Solder terminal
	Left	Right	Product No.
1-pole	ON	OFF	T110A-F
	ON	ON	T110D-F
2-pole	ON	OFF	T210K-F
	ON	ON	T210N-F

Remark: The product comes with standard installation accessories. However, keying washer is sold separately.

## SPECIFICATIONS

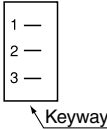
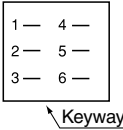




### 1. Contact rating

Kind of load	AC	DC
Resistive load	10A 250V AC 15A 125V AC	8A 30V DC 0.8A 125V DC 0.4A 250V DC
Inductive load	10A 250V AC (Power factor: 0.6) 15A 125V AC (Power factor: 0.6)	5A 30V DC (Time constant: 7 msec.) 0.4A 125V DC (Time constant: 7 msec.) 0.2A 250V DC (Time constant: 7 msec.)
Lamp load (incandescent)	300W 100V AC 500W 200V AC Inrush current: Max. 30 A	—
Motor load (single phase)	200W 125V AC 300W 250V AC	—

### 2. Characteristics

Mechanical expected life	Min. 10 <sup>5</sup>
Electrical expected life	Min. 3×10 <sup>4</sup> (10 cpm) at rated load
Overload life	Min. 50 (5 cpm) (Rated load×1.5)
Insulation resistance	Min. 100 MΩ (at 500 V DC measured by insulation resistive meter)
Dielectric strength	1500 Vrms (at detection current: 10mA)
Vibration resistance	10 to 55 Hz at double amplitude of 1.5 mm (contact opening: Max. 1 ms)
Contact resistance	Initial, Max. 20 mΩ (By voltage drop at 1 A, 2 to 4 V DC)
Actuator strength (static load)	112.7N for 1 min.
Terminal strength (static load)	24.5N for 1 min.
Ambient temperature	-25°C to +70°C (Not freezing below 0°C)
Contact material	AgZnO alloy

## ELECTRICAL CIRCUIT DIAGRAM

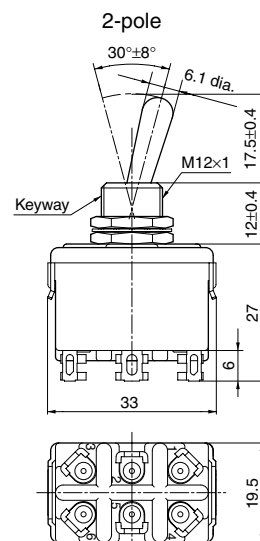
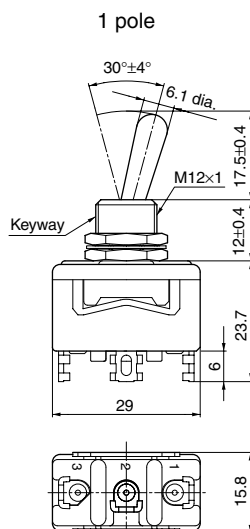
Terminal arrangement (As seen from terminal side)			1-pole	2 pole
				
Actuator position and contact terminal number	ON-OFF	 Keyway	1-3	1-3, 4-6
		—	—	—
	ON-ON	 Keyway	—	—
		 Keyway	2-3	2-3, 5-6
		—	—	—
	 Keyway	1-2	1-2, 4-5	
Remark			ON-OFF type does not have a terminal No. 2.	ON-OFF type does not have terminal No. 2 and 5.

## DIMENSIONS

The CAD data of the products with a **CAD Data** mark can be downloaded from: <http://industrial.panasonic.com/ac/e/>

mm General tolerance:  $\pm 0.5$

### CAD Data



Remark: ON-OFF type does not have terminal No. 2 and 5.

## MOUNTING DIMENSIONS

Panel cutout (mm)			
Panel thickness	Max. 4.6 mm* (Using separately sold keying washer.)	Max. 5.6 mm	Max. 5.6 mm

Remarks: 1. For panel installations, use the back hex nut.

2. \* Keying washer (separately sold) Part No.: AJ3083

## Accessories (Option)

Product name	Indication plate (aluminum)* <sup>3</sup>		Rubber cap* <sup>1, 2, 4</sup>	
	ON-OFF	ON-ON	EP rubber type	Silicone rubber type
Dimensions (mm)				
Part No.	WD1901	WD1902	WD1911	WD1811*

Remarks: 1. The asterisk in the part number WD1811\* for the silicon rubber type rubber cap is where the letter representing the color should be inserted.  
(B: black; R: red; Z: grey; Y: yellow; G: green.)

2. EP rubber cap is available in black only.

3. Letters on the display panel are aluminum colored and the area surrounding the letters is black.

4. Indication plate and rubber cap are compatible with the T-15 series switch, T-10 series switch, and T-03/T-06 series switches (when plate thickness is 2.7 mm or less).

### • Using the different rubber caps

We recommend silicon rubber and EP rubber caps for the following applications.

#### 1) Silicon rubber caps

- When it is necessary to differentiate by color.
- When using in applications that require resistance to heat and cold. Ambient temperature:  $-25^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$  (EP rubber type is  $0^{\circ}\text{C}$  to  $+40^{\circ}\text{C}$ .)
- When compactness is required.

#### 2) EP rubber type

When cost is the primary consideration.

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