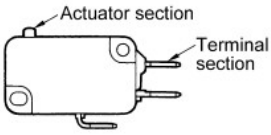
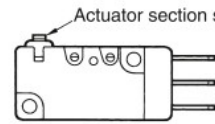
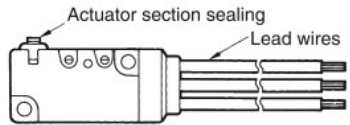


## Selecting PCB Basic Switches

### Selecting PCB Basic Switches According to Environmental Conditions

Use the Basic Switch with the sealing and grade that are suitable to the dirt, gas, dust, and water droplets conditions.

#### Basic Switches

Dirt and dust	Gas	Water droplets	Degree of protection	Models	Environmental resistance	Sealing	
Δ	×	×	IP00	D2A D3C D2X D3D	D3DC	Dirt and dust hardly enter the Switch. No protection is provided against gas, water, oil, or other liquids.	
Δ	×	×	IP40	V D3V-01 VX D2RV D2MC D3M SS SS-P	D2S D2F J D2MQ D2D	If there is a possibility that the Switch will be subject to water or other liquid, use a Basic Switch with IP67 protection or use a Limit Switch.	Dirt and dust hardly enter the Basic Switches by reducing the gaps at the actuator section (the pushbutton and case), between the case and cover, and at terminal section by means of giving mating sections interlocking shapes.
O	Δ	O (except terminal sections)	IP67 (except terminal sections)	D2VW models with terminals D2SW models with terminals D2SW-P models with terminals D2HW models with terminals D2JW models with terminals D2QW models with terminals		These Switches provide superior dust resistance and water resistance because they have no gaps inside the Switches, for example, at the actuator section or between the case and cover. The terminal sections are exposed, so if there is a possibility that the Switch will be subject to water or other liquid, use a model with lead wires.	
O	Δ	O	IP67	D2VW models with lead wires D2SW models with lead wires D2SW-P models with lead wires D2HW models with lead wires D2JW models with lead wires D2FW-G models		The actuator, between the case and cover, and the terminal section are all sealed to keep out dirt, dust, gas, and water.	

**Note: 1.** O: Can be used, Δ: Some models can be used (check which models.), ×: Cannot be used.  
**2.** Also refer to *Safety Precautions for All Basic Switches*.

#### Temperature and Humidity

- Check the ambient operating temperature range for each model. (with no icing or condensation)

#### Shock and vibration resistance

- In the characteristics specifications, malfunction due to vibration or shock means that the contacts open for longer than 1 ms.
- Select Switches that have wide contact gaps and lightweight operating sections.

#### Selecting Microload Models

If you are switching a microload, we recommend Basic Switches that have contact specifications suited to the application zone in the microload range, as shown in the following figure.

