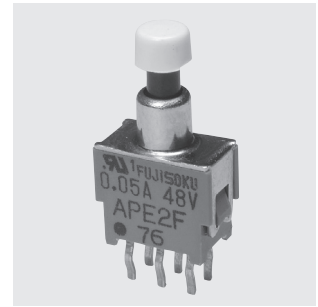


# APE

Washable

RoHS Compliant

## Subminiature Pushbutton Switches



UL

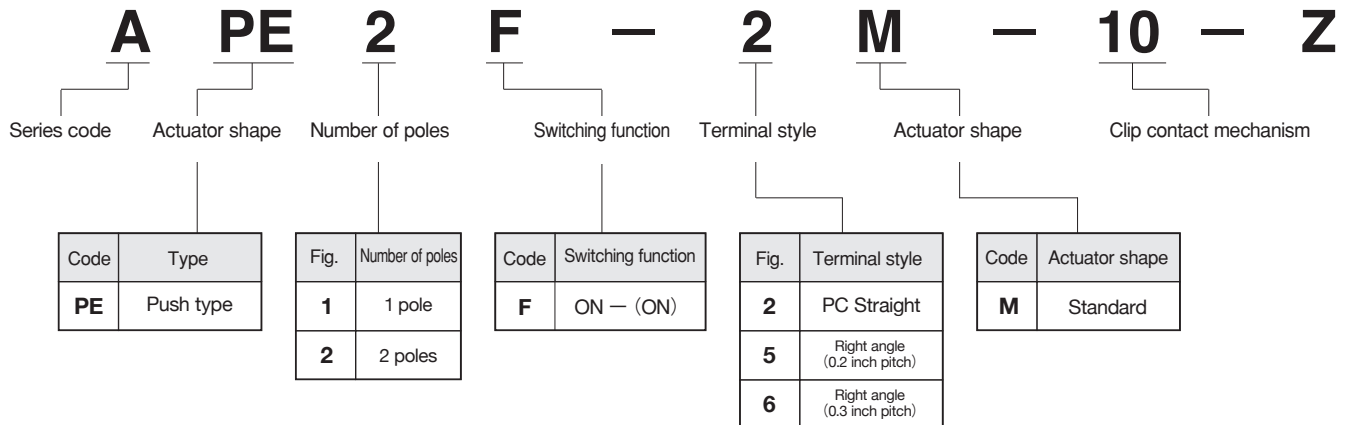
### ■ Features

1. Twin-contact clip mechanism for high reliability.
2. Process sealed structure
3. Gold-plated contacts.
4. Terminal pin pitch: 2.54 mm.
5. UL recognized

### ■ Specifications

Rating	0.4VA AC, DC Max:50mA 60VAC/DC Min:1μA 20mVAC/DC UL:48VAC/DC 50mA
Initial contact resistance	50mΩ max. (1.5mA 200μVAC)
Dielectric strength	250VAC 1 minute
Initial Insulation resistance	500MΩ min. (500VDC)
Electrical life	10,000 operations at maximum rating. 30,000 operations at 0.4VA
Operating force	0.78~2.94N
Operating temperature range	-20~+85°C
Storage temperature range	-40~+85°C

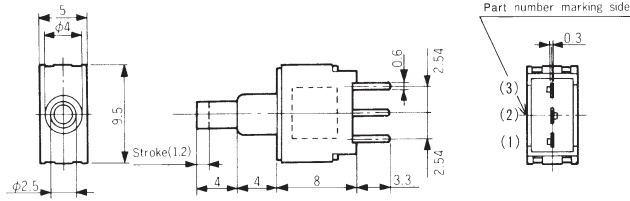
### ■ Part Numbering



■ Optional Accessories..... Page 253.

# APE-M (Standard type)

## SPDT

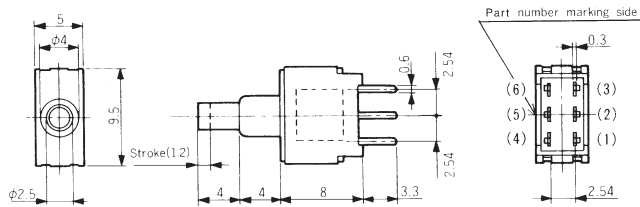


Switching function		Push 
Part No.	<b>APE1F-2M-10-Z</b>	(ON)
Connecting terminals	2-3	2-1

PC Straight

Terminal numbers are not shown on the switch.

## DPDT

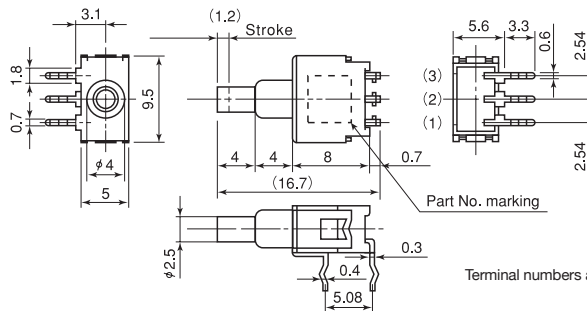
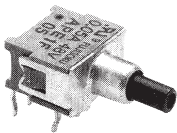


Switching function		Push 
Part No.	<b>APE2F-2M-10-Z</b>	(ON)
Connecting terminals	2-3 5-6	2-1 5-4

PC Straight

Terminal numbers are not shown on the switch.

## SPDT

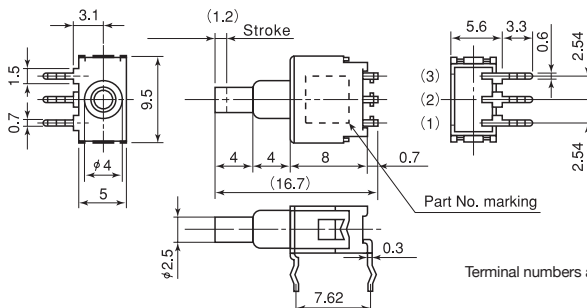
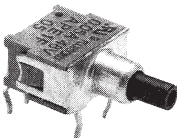


Switching function		Push 
Part No.	<b>APE1F-5M-10-Z</b>	(ON)
Connecting terminals	2-3	2-1

0.2R/A

Terminal numbers are not shown on the switch.

## SPDT

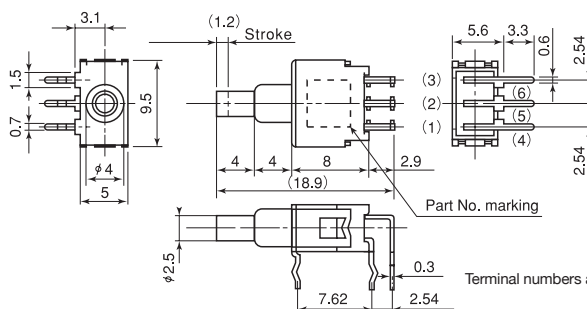
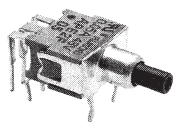


Switching function		Push 
Part No.	<b>APE1F-6M-10-Z</b>	(ON)
Connecting terminals	2-3	2-1

0.3R/A

Terminal numbers are not shown on the switch.

## DPDT

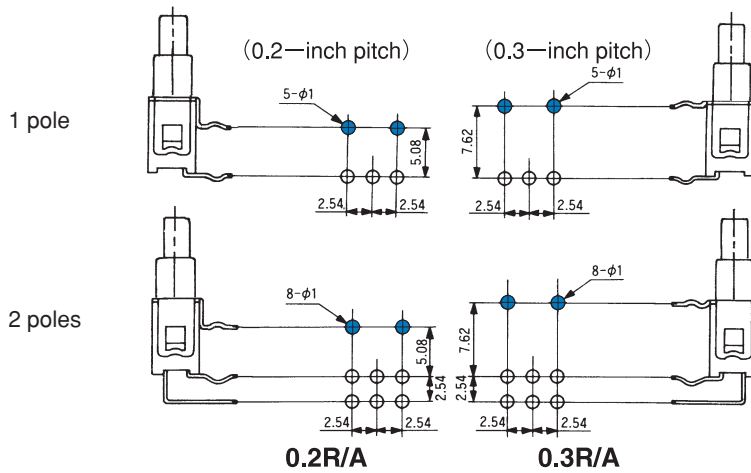


Switching function		Push 
Part No.	<b>APE2F-6M-10-Z</b>	(ON)
Connecting terminals	2-3 5-6	2-1 5-4

0.3R/A

Terminal numbers are not shown on the switch.

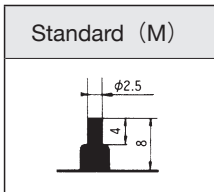
■ Right angle terminals



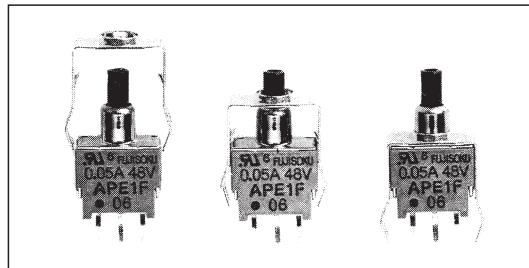
● The space between the terminal rows are available in two dimensions: 0.2 inches (5.08 mm) and 0.3 inches (7.62 mm).

[Example] 0.2-inch pitch : **APE1F-5M-10-Z**  
0.3-inch pitch : **APE1F-6M-10-Z**

■ Button Shape



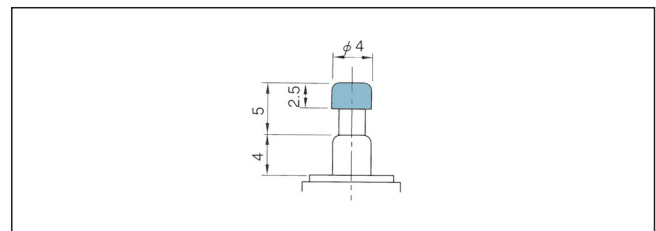
■ Bracket Installation Procedure



■ Mounting of Switch

- Use PC boards with hole diameter of 1mm.
- Do not bend the terminal pins before mounting the switch on the PC board.
- After mounting the switch, do not place the device in such a way that the device weight will be applied on to the actuator of the switch.
- Do not apply load exceeding 12.7 N to the actuator. If load exceeding 12.7 N is expected to be applied to the actuator, please use a **Bracket** (optional accessory sold separately). Maximum load will be 29.4 N when a **Bracket** is used.
- Use **Bracket 140000640314** or **140000640318** for side-by-side mounting.
- To increase mounting strength, use **Bracket 140000640315**.
- PC Hole Layouts will change depending on the **Bracket**. Please refer to P.245.

■ Color Cap Mounting



Refer to P.249.

**Soldering Specifications**

- (1)Manual Soldering
  - Device : Soldering iron
  - 380°C, Max.; 3 seconds, Max.
- (2)Auto Soldering
  - Device : Jet wave type or dip type
  - 275°C, Max.; 6 seconds, Max.
- Pre-heating should be done at temperatures ranging from 80° C to 120°C and within 120 seconds.

**Flux Cleaning**

- (1)Solvent :Fluorine or Alcohol type.
- (2)Cleaning after soldering should be done after the terminal temperature falls to 90°C or below, or after leaving the switch for five minutes or longer at room temperature.
- (3)Do not use ultrasonic cleaning.

**PC Hole Layouts (AP · APE)**

**PC Straight**

Mounting Type		Without <b>Bracket</b>	When optional <b>Bracket</b> is used.		
			140000640314	140000640315	140000640318
AP-M AP-S AP-H APE	1 pole				
	2 poles				
	APE				

**Right-angle Terminal**

Terminal Type		0.2-inch pitch	0.3-inch pitch
		1 pole	
AP-M AP-S APE	2 poles		

**Packaging Specification**

