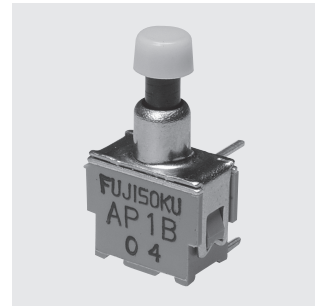


# AP

## Subminiature Pushbutton Switches



RoHS Compliant

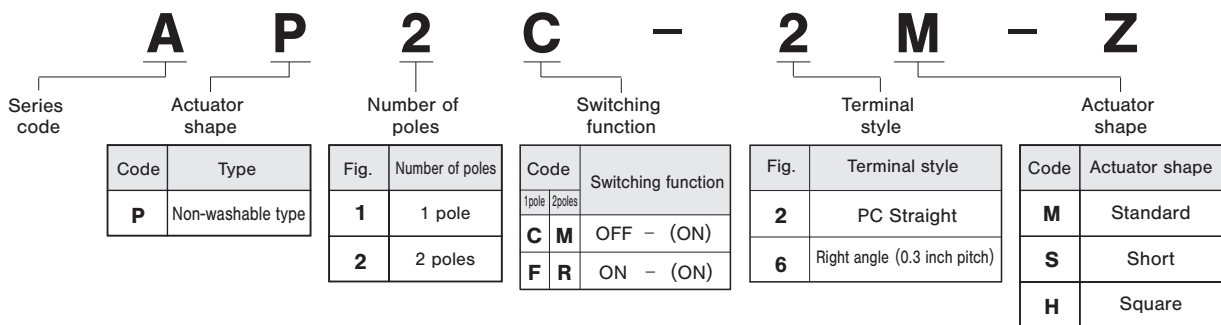
### ■ Features

1. Gold-plated contacts.
2. Terminal pin pitch: 2.54 mm.

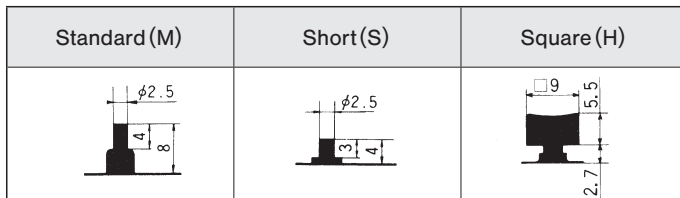
### ■ Specifications

Rating	Max.:50 mA 48 VAC/DC Min.:1 $\mu$ A 20 mVAC/DC
Initial contact resistance	50 m $\Omega$ max. (1.5 mA 200 $\mu$ VAC)
Dielectric strength	500 VAC 1 minute
Insulation resistance	10,000 M $\Omega$ min. (250 VDC)
Electrical life	10,000 operations at maximum rating. 50,000 operations at 0.4 VA.
Operating temperature range	-20~+85 °C
Storage temperature range	-40~+85 °C

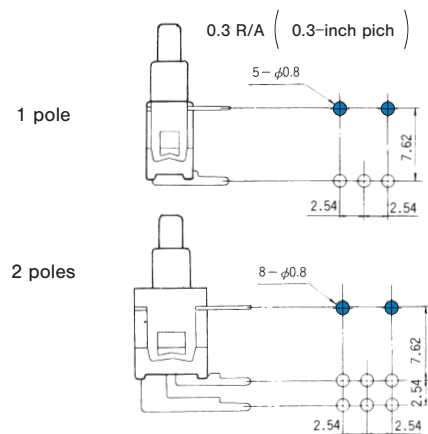
### ■ Part Numbering



### ■ Actuator Shape

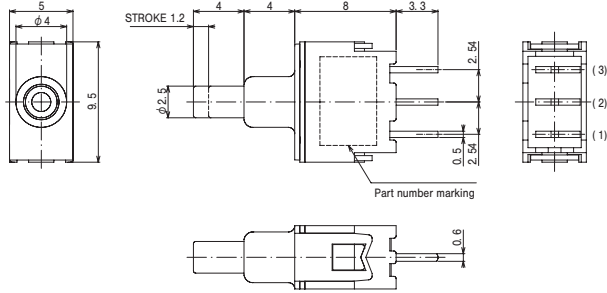
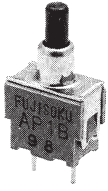


### ■ Right angle Terminals



AP

SPST/SPDT

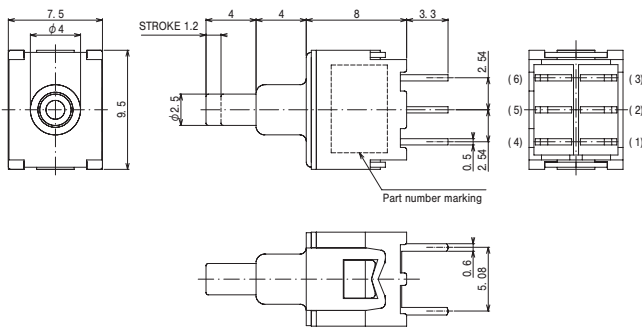


Switching function		
Part No.	OFF	(ON)
Connecting terminals	-	1-3
☆AP1F-2M-Z	ON	(ON)
Connecting terminals	2-3	2-1

PC

Terminal numbers are not shown on the switch. ※ Terminal pin No.2 is not available in switches with Switching Function "C".

DPST/DPDT

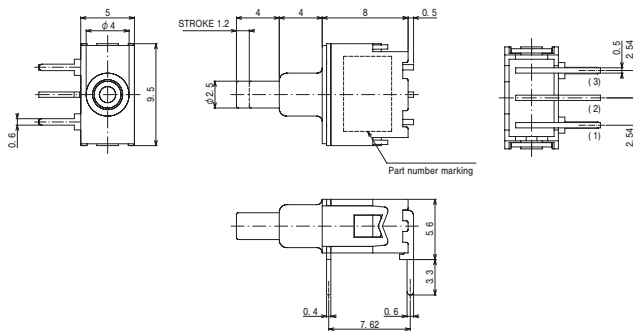
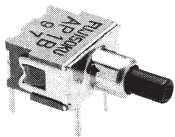


Switching function		
Part No.	ON	(ON)
Connecting terminals	2-3 5-6	2-1 5-4
★AP2R-2M-Z	ON	(ON)
Connecting terminals	2-3 5-6	2-1 5-4

PC

Terminal numbers are not shown on the switch.

SPST/SPDT

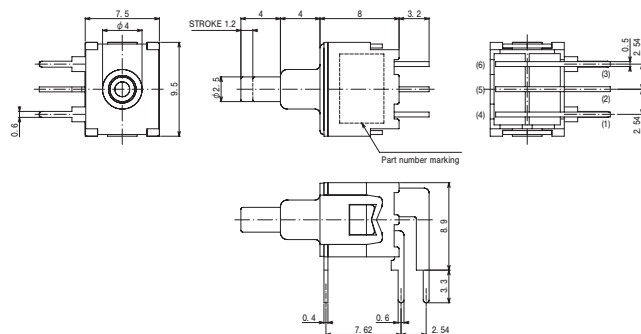
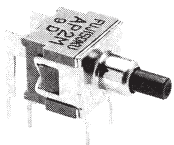


Switching function		
Part No.	OFF	(ON)
Connecting terminals	-	1-3
★※AP1F-6M-Z	ON	(ON)
Connecting terminals	2-3	2-1
※AP1C-6M-Z	OFF	(ON)
Connecting terminals	-	1-3

0.3R/A

Terminal numbers are not shown on the switch. ※ Terminal pin No.2 is not available in switches with Switching Function "C".

DPST/DPDT



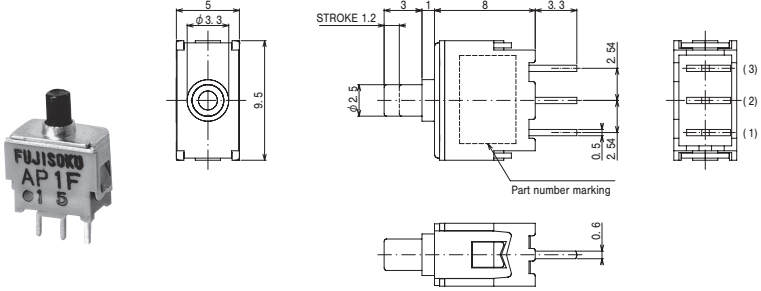
Switching function		
Part No.	OFF	(ON)
Connecting terminals	-	1-3 4-6
★AP2R-6M-Z	ON	(ON)
Connecting terminals	2-3 5-6	2-1 5-4
☆※AP2M-6M-Z	OFF	(ON)
Connecting terminals	-	1-3 4-6

0.3R/A

Terminal numbers are not shown on the switch. ※ Terminal pins No.2 and 5 are not available in switches with Switching Function "M".

(ON) : Momentary. ☆ : Semi-standard products. ★ : Made to order products.

**SPST/SPDT**

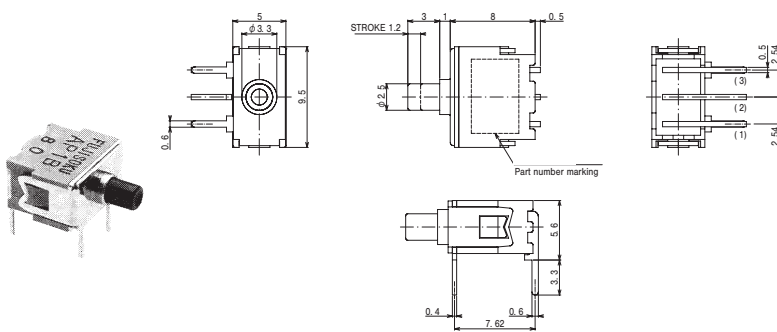


Switching function		Push 
Part No.		
※AP1C-2S-Z	OFF	(ON)
Connecting terminals	-	1-3
AP1F-2S-Z	ON	(ON)
Connecting terminals	2-3	2-1

Terminal numbers are not shown on the switch. ※ Terminal pin No.2 is not available in switches with Switching Function "C".

**PC**

**SPST/SPDT**

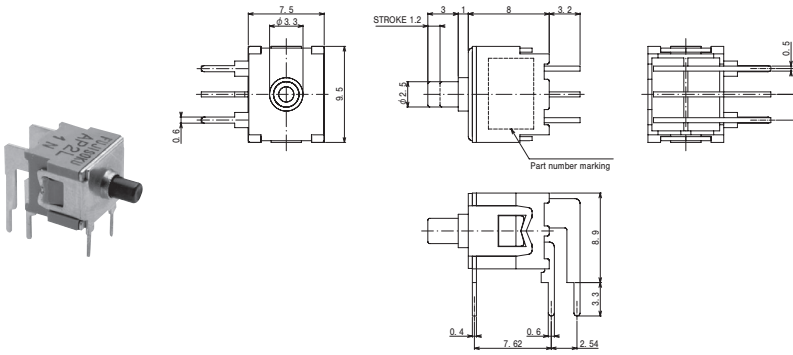


Switching function		Push 
Part No.		
※AP1C-6S-Z	OFF	(ON)
Connecting terminals	-	1-3
AP1F-6S-Z	ON	(ON)
Connecting terminals	2-3	2-1

Terminal numbers are not shown on the switch. ※ Terminal pin No.2 is not available in switches with Switching Function "C".

**0.3R/A**

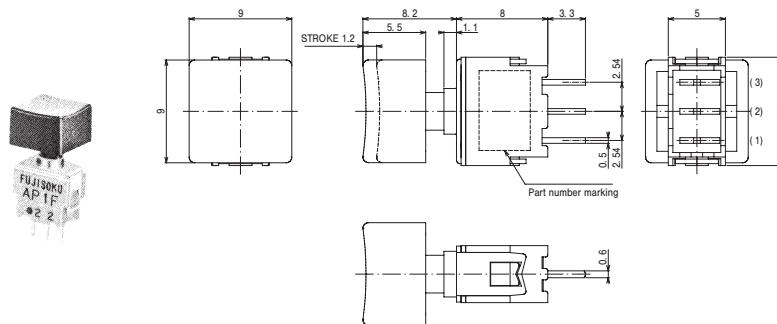
**DPST/DPDT**



Switching function		Push 
Part No.		
☆AP2R-6S-Z	ON	(ON)
Connecting terminals	2-3 5-6	2-1 5-4

**0.3R/A**

**SPST/SPDT**



Switching function		Push 
Part No.		
※AP1C-2H-Z	OFF	(ON)
Connecting terminals	-	1-3
AP1F-2H-Z	ON	(ON)
Connecting terminals	2-3	2-1

Terminal numbers are not shown on the switch. ※ Terminal pin No.2 is not available in switches with Switching Function "C".

**PC**

**Standard Accessories**

《Sold separately》

Color Button for AP-H series		
Dimensions	Color	Part No.
	White	<b>140000470198</b>
	Red	<b>140000470200</b>
	Black	<b>140000470199</b>
	Gray	<b>140000470204</b>

A Color Button is supplied with the switch. Please select from the above 9 part numbers.

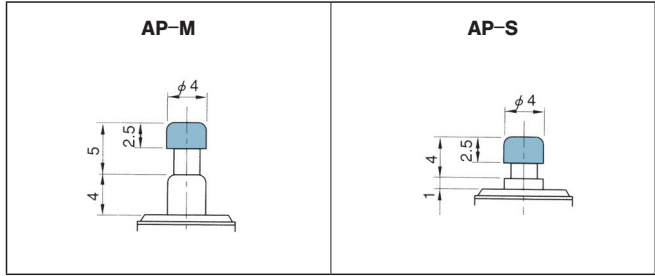
**Optional Accessories(10pcs./pack)**

(AP•APE)

《Sold separately》

Color Cap for AP-M, APE-M & AP-S series		
Dimensions	Color	Part No.
	White	<b>140000481402</b>
	Red	<b>140000481404</b>
	Black	<b>140000481403</b>
	Gray	<b>140000481408</b>

**Color Cap Mounting**



**Optional Accessories (AP • APE)**

《Sold separately》

Part name	Bracket		
	Single pole	Double poles	
Poles	Single pole	Double poles	
Box size	5 mm	7.5 mm	5 mm
Type	<b>AP-M•APE-M•AP-H</b>	<b>AP-M•AP-H•APE-M</b>	<b>APE-M</b>
Dimensions			
Part No.	<b>140000640314</b>	<b>140000640315</b>	<b>140000640318</b>

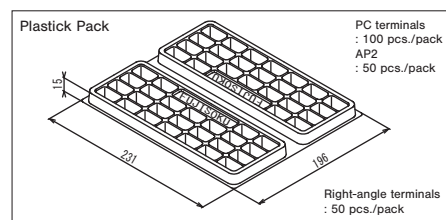
**Soldering Specifications**

- (1)Manual Soldering
  - Device : Soldering iron
  - ①380°C, Max.; 3 seconds, Max.
- (2)Auto Soldering (PC types only)
  - Device : Jet wave type or dip type
  - ①275°C, 6 seconds, Max.
  - Pre-heating should be done at temperatures from 80 to 120°C and within 120 seconds.
- (3)When soldering two or more terminals to the common land, use solder resist to solder them independently.

**Flux Cleaning**

- (1) Solvent :Fluorine or Alcohol type
- (2) The AP series are not washable. To wash the PC board, clean the soldering surface of the PC board with a brush so that the switch is not exposed to the cleaning solution.

**Packaging Specifications**



■ PC Hole Layouts (AP • APE)

PC Straight

Mounting Type		Without Bracket	When optional Bracket 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	
2 poles			

■ Table of Part Numbers

Term.style	Poles	Switching function	AP-M	AP-S	AP-H
PC	1 pole	OFF - (ON)	AP1C-2M-Z	AP1C-2S-Z	AP1C-2H-Z
		ON - (ON)	☆AP1F-2M-Z	AP1F-2S-Z	AP1F-2H-Z
	2 poles	ON - (ON)	★AP2R-2M-Z	—	—
0.3R/A	1 pole	OFF - (ON)	AP1C-6M-Z	AP1C-6S-Z	—
		ON - (ON)	★AP1F-6M-Z	AP1F-6S-Z	—
	2 poles	OFF - (ON)	☆AP2M-6M-Z	—	—
		ON - (ON)	★AP2R-6M-Z	☆AP2R-6S-Z	—

★ : Made to order products. ☆ : Semi-standard products. (ON):Momentary