

## **Subminiature Pushbutton Switches**



**RoHS Compliant** 

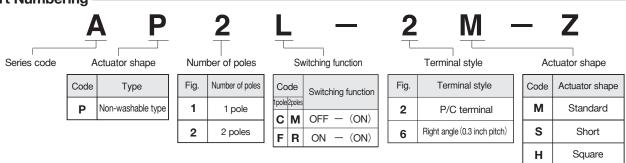
### Features -

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

### ■ Specifications

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



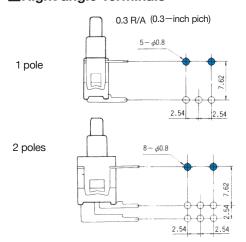


### ■ Actuator Shape

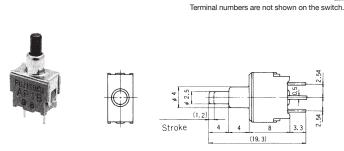
Standard (M)	Short (S)	Square (H)
\$2.5 \$\sqrt{\pi}_\infty\$	\$2.5	2.7

■PC Hole Layouts ·····Page 245.

### ■ Right angle Terminals-



### SPST/SPDT



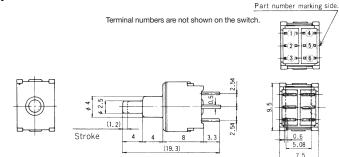
Switching function		Push
Part No.  *AP1C-2M-Z	OFF	(ON)
Connecting terminals	_	1-3
☆ AP1F−2M−Z	ON	(ON)
Connecting terminals	2-3	2-1

PC

% Terminal pin No.2 is not available in switches with Switching Function "B" and "C".

Part number marking side.

### **DPST/DPDT**

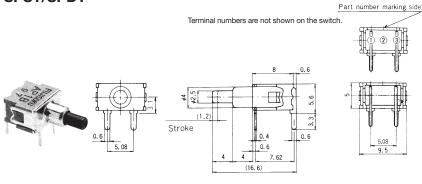


Switching function  Part No.	1	Push
★ AP2R-2M-Z	ON	(ON)
Connecting terminals	2-3 5-6	2-1 5-4

PC

 $\label{eq:continuous} \mbox{\% Terminal pins No.2 and 5 are not available in switches with Switching Function "L" and "M".}$ 

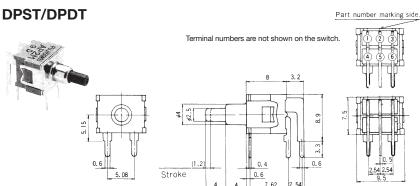
### SPST/SPDT



Switching function		Push
Part No.	1	
<b></b>	OFF	(ON)
Connecting terminals	_	1-3
★※AP1F-6M-Z	ON	(ON)
Connecting terminals	2-3	2-1

% Terminal pin No.2 is not available in switches with Switching Function "B" and "C".

0.3R/A



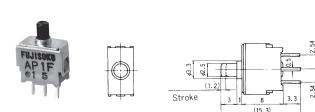
Switching function	_	Push
Part No.		
☆ <b>※AP2M</b> −6M−Z	OFF	(ON)
Connecting terminals	_	1-3 4-6
★ AP2R-6M-Z	ON	(ON)
Connecting terminals	2-3 5-6	2-1 5-4

0.3R/A

 $\label{eq:continuous} \mbox{\% Terminal pins No.2 and 5 are not available in switches with Switching Function "L" and "M".}$ 

### AP-S (Short type)

### SPST/SPDT



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

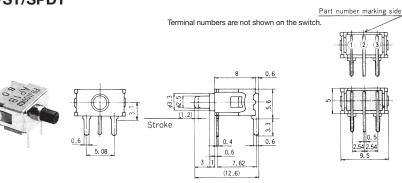
 $\mbox{\em \%}$  Terminal pin No.2 is not available in switches with Switching Function "B" and "C".

Terminal numbers are not shown on the switch.

Part number marking side

PC

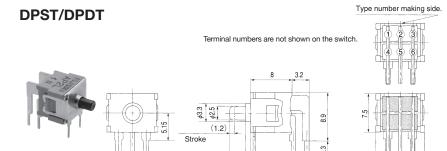
### SPST/SPDT



Switching function	1	Push
*AP1C-6S-Z	OFF	(ON)
Connecting terminals	_	1-3
AP1F-6S-Z	ON	(ON)
Connecting terminals	2-3	2-1

※ Terminal pin No.2 is not available in switches with Switching Function "B" and "C".

0.3R/A



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

(15.2)  $\mbox{\%}$  Terminal pins No.2 and 5 are not available in switches with Switching Function "L" and "M".

0.3R/A

# SPST/SPDT Terminal numbers are not shown on the switch. Stroke Stro

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

PC

\* Terminal pin No.2 is not available in switches with Switching Function "B" and "C".

### **■**Standard Accessories

《Sold separately》

Color Button for AP-H series		
Dimensions	Color	Part No.
ABS resin	White Red Black Gray	140000470198 140000470200 140000470199 140000470204

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

# Optional Accessories(10pcs./pack)

《Sold separately》

Color Cap for AP-M、APE-M & AP-S series		
Dimensions	Color	Part No.
PC resin	White Red Black Gray	140000481402 140000481404 140000481403 140000481408

### ■Optional Accessories(AP · APE用) —

《Sold separately》

部品名/Part name		Bracket						
ppm右/Part name	Bracket							
Poles	Single pole Double poles							
Box size	5 mm	7.5 mm	5 mm					
Туре	AP-M·APE-M·AP-H	AP-M·AP-H·APE-M	APE-M					
Dimensions	10.15 \$\delta 4.12 \$\delta 4.12 \$\delta 6.12 \$\delta 6.12 \$\d	10.15 44.12 9.5 11.5 0.7 5.08 7.5	10.15 64.12 8 9.5 11.5 2.54					
Part No.	140000640314	140000640315	140000640318					

### ■ 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

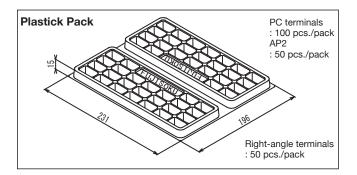
1)275°C, 6 seconds, Max.

- · 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.

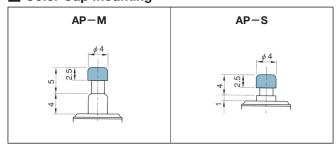
### **■** Flux Cleaning

- (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 -



### ■ Color Cap Mounting



Refer to P.253.

### ■ Table of Part Numbers

Term.style	Poles	Switching function	APE-M	AP-M	AP-S	АР-Н
PC ·	1 pole	OFF - (ON)		AP1C-2M-Z	AP1C-2S-Z	AP1C-2H-Z
		ON - (ON)	APE1F-2M-10-Z	☆AP1F-2M-Z	AP1F-2S-Z	AP1F-2H-Z
	2 poles	ON - (ON)	APE2F-2M-10-Z	★AP2R-2M-Z		
0.3R/A	1 pole	OFF - (ON)		AP1C-6M-Z	AP1C-6S-Z	
		ON - (ON)	APE1F-6M-10-Z	★AP1F-6M-Z	AP1F-6S-Z	
	2 poles	OFF - (ON)		☆AP2M-6M-Z	★AP2M-6S-Z	
		ON - (ON)	<b>☆APE2F</b> −6M−10−Z	★AP2R-6M-Z	☆AP2R-6S-Z	
0.2R/A	1 pole	ON - (ON)	APE1F-5M-10-Z			
			APE1F-5M-10-2-Z			