

# 8 Series Pushbutton Switches

## ■ Features

- 1. Contacts**  
Silver or gold-plated contacts.
- 2. Epoxy resin case**  
UL94V-0 self-extinguishing epoxy.
- 3. Actuator style**  
Over 30 actuator variations.
- 4. Insulation between terminal and ground:  
4 mm minimum.**
- 5. Prevention of flux entry**  
The epoxy resin seal on bottom of the switch helps prevent the entry of solder and flux.
- 6. Insulation barrier:**  
Insulation barrier design between poles helps prevent short-circuiting between poles ensuring high reliability.

## ■ Specifications

Rating	Max. rating	6A 125VAC/3A 250VAC/4A 30VDC	
Initial contact resistance	10mΩmax. (1A 2~4VDC)		
Initial dielectric strength	1,500VAC 1 minute		
Initial insulation resistance	1,000MΩ min. (500VDC)		
Electrical life (Excluding <b>8R</b> & <b>8W</b> )	Alternate type	40,000 operations	
	Momentary type	25,000 operations	
Operating temperature range	-30°C~+85°C		
Storage temperature range	-40°C~+85°C		

(Excluding **8R** & **8W**. Specifications on 8R and 8W series are specified separately on P.264 and P.269.)

## ■ Terminal Styles

Solder (Style:1)	Straight (Style:2)
<p>t=0.8</p>	<p>t=0.8</p>

**UL-Recognized, CSA certified Products**  
(Pushbutton type Only)

## ■ Eight Switch Series


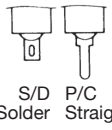





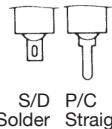

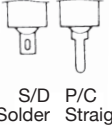
Poles	Switching function	UL (※2.)			CSA (※3.)		
		8N	8P	8Y	8N	8P	8Y
1 pole	<b>1011-Z</b> ON - ON	○	○	○	○	○	○
	<b>1012-Z</b>	○	○		○	○	
	<b>1021-Z</b> ON - (ON)	○		○	○		○
	<b>1022-Z</b>	○	○		○	○	
2 poles	<b>2011-Z</b> ON - ON	○	○	○	○	○	○
	<b>2012-Z</b>	○	○		○	○	
	<b>2021-Z</b> ON - (ON)	○	○	○	○	○	○
	<b>2022-Z</b>	○	○		○	○	
3 poles	<b>3011-Z</b> ON - ON	○	○	○	○	○	○
	<b>3021-Z</b> ON - (ON)	○	○	○	○	○	○
4 poles	<b>4011-Z</b> ON - ON	○	○	○	○	○	○
	<b>4021-Z</b> ON - (ON)	○	○	○	○	○	○

(※2.) **UL File No.E43275**

(※3.) **CSA File No.LR38341**

If **UL** or **CSA** marking is required, please specify when ordering.

# 8 Series Pushbutton Switches Selection Table

Part No.	Name	Actuator shape	Number of poles	Switching function	Terminal style	Page
<b>8N</b>	Standard Pushbutton		1.2.3.4	ON — ON ON — (ON)	 S/D Solder P/C Straight	<b>261</b>
<b>8P</b>	Splash Proof Pushbutton		1.2	ON — ON ON — (ON)	 S/D Solder	<b>263</b>
<b>8Y</b>	Mustang Pushbutton		1.2.3	ON — ON ON — (ON)	 S/D Solder	<b>265</b>
<b>8R-N</b>	Soft Touch Pushbutton		1.2	ON — ON ON — (ON)	 S/D Solder P/C Straight	<b>267</b>
<b>8W-N</b>	Snap-in Pushbutton		1.2	ON — (ON)	 S/D Solder P/C Straight	<b>269</b>

## Part Numbering

**8**      **N**      **1**      **01**      **1**      **B** — **Z**

Series code      Actuator shape      Number of poles      Switching function      Terminal style      (※1) Contact plating and material

Code	Actuator
<b>N</b>	Standard
<b>P</b>	Splash proof
<b>Y</b>	Mustang
<b>R</b>	Soft Touch
<b>W</b>	Snap-in

Fig.	Number of poles
<b>1</b>	1
<b>2</b>	2
<b>3</b>	3
<b>4</b>	4

Fig.	Switching function
<b>01</b>	ON — ON
<b>02</b>	ON — (ON)

Fig.	Terminal style
<b>1</b>	Solder
<b>2</b>	PC/Straight

Code	Contact material	Plating
None	Bs+Ag or Cu+Ag	Ag
<b>B</b>	Bs or Cu	Ni+Au
<b>C</b>	Bs+Ag or Cu+Ag	Ni+Au

Note : Some combinations may not be available. Please check the "Table of Part Numbers" for each series.

※1 Bs= Brass  
 Cu= Copper  
 Ag= Silver  
 Ni= Nickel  
 Au= Gold

# 8Y

## Mustang Pushbutton Switches



RoHS Compliant

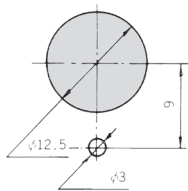
### Features

The 8Y series is a sub-miniature pushbutton switch with a larger, rugged actuator and a larger bushing. Suitable for applications where panel space is limited and a larger actuator is needed.

### Table of Part Numbers

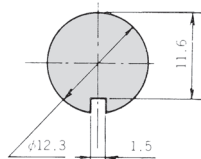
Terminal style	No. of ploe		1 pole	2 poles	3 poles
	Switching function				
Solder Lug	ON	- ON	<b>8Y1011-Z</b>	<b>8Y2011-Z</b>	<b>8Y3011-Z</b>
	ON	- (ON)	<b>8Y1021-Z</b>	☆ <b>8Y2021-Z</b>	★ <b>8Y3021-Z</b>

### Panel Cut-Out Dimensions



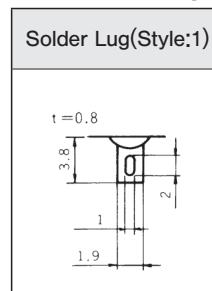
With Locking Ring

Panel thickness : 5 mm max.



Without

### Terminal Styles



### Standard Accessories

《Supplied with switch》

Hex Nut	Lockwasher	Locking Ring
<b>140008010243</b>	<b>140008030055</b>	<b>140008020067</b>
Nickel plated	Zinc plated	Zinc plated

### Optional Accessories

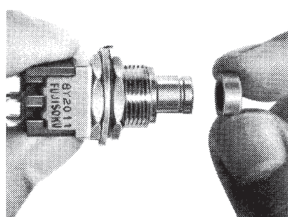
《Sold separately》

Color Cap		
Dimensions	Color	Part No.
	White	<b>140000470023</b>
	Red	<b>140000470052</b>
	Black	<b>140000470051</b>
	Gray	<b>140000470057</b>

● Specify the Color Cap by part number if Color Cap is desired.

### Color Cap Mounting

Snap in the color button on to the actuator.



Optional Accessories.

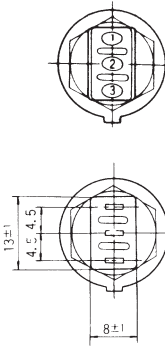
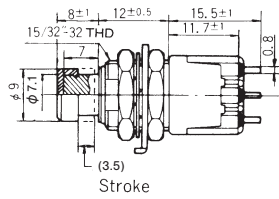
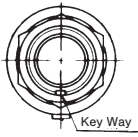
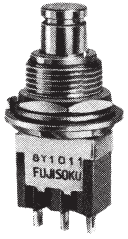
★ : Made to order products.

☆ : Semi-standard products.

(ON) : Momentary.

# 8Y

## SPDT



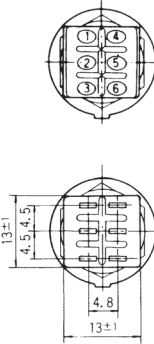
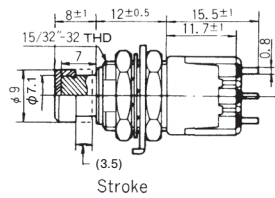
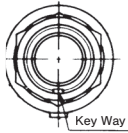
Switching function		
Part No.		
※ 8Y1011-Z	ON	ON
8Y1021-Z	ON	(ON)
Connecting terminals	2-3	2-1

※ : The circuit switches each time the switch button is pressed.

S/D

Terminal numbers are not shown on the switch.

## DPDT



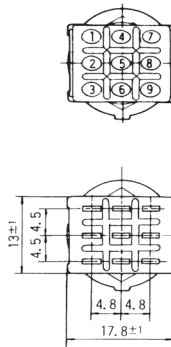
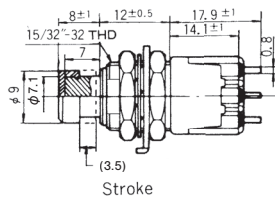
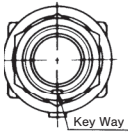
Switching function		
Part No.		
※ 8Y2011-Z	ON	ON
☆ 8Y2021-Z	ON	(ON)
Connecting terminals	2-3 5-6	2-1 5-4

※ : The circuit switches each time the switch button is pressed.

S/D

Terminal numbers are not shown on the switch.

## 3PDT



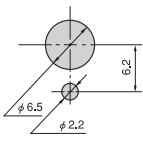
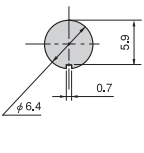
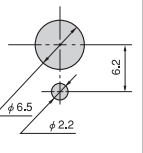
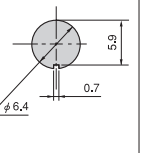
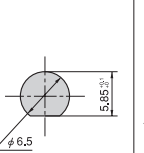
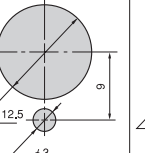
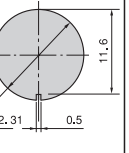
Switching function		
Part No.		
※ 8Y3011-Z	ON	ON
★ 8Y3021-Z	ON	(ON)
Connecting terminals	2-3 5-6 8-9	2-1 5-4 8-7

※ : The circuit switches each time the switch button is pressed.

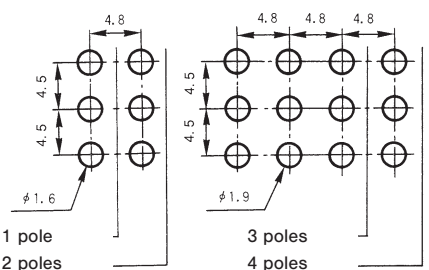
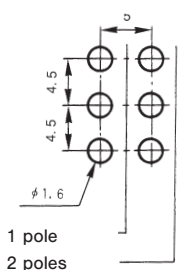
S/D

Terminal numbers are not shown on the switch.

**Panel Cut-Out Dimensions**

Series	8N		8R		8P	8Y	
Panel thickness	1.5 mm Max.	2.5 mm Max.	2 mm Max.	3 mm Max.	4.5 mm Max.	5 mm Max.	6 mm Max.
Dimensions	 With Locking Ring	 Without Locking Ring	 With Locking Ring	 Without Locking Ring	 With Locking Ring	 With Locking Ring	 Without Locking Ring

**PC Hole Layouts**

Series	8N • 8P	8R • 8W
Dimensions	 <p>1 pole 2 poles</p> <p>3 poles 4 poles</p>	 <p>1 pole 2 poles</p>

**Precautions (8N•8P•8R•8W•8Y)**

**1. Soldering Specifications**

(1)Manual soldering

Device : Solder iron

①420°C Max. 3 sec. Max.

(2)Auto soldering

②275°C ±10°C 5 sec. Max.

The above-stated soldering conditions shall apply only to switches with straight terminals. Auto soldering is not possible with right-angle terminals. Switches with right-angle terminals should be soldered manually according to the conditions specified in (1) above.

(3)When putting the switches through an aging process after they were soldered onto the printing board or after installed into a complete end product, be sure to remove the buttons ofthe switches.,

**2. Mounting**

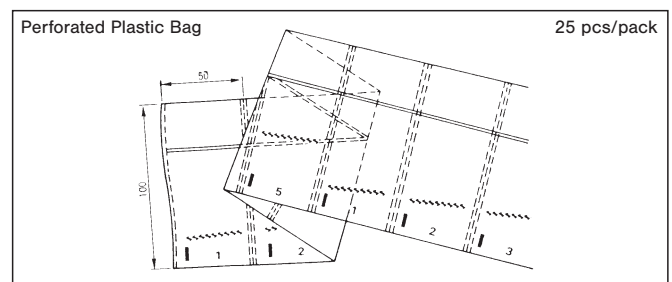
- Do not bend the terminals before mounting the switch on the PC board.
- After mounting the switch, do not place the device in such a way that the device weight will be applied on to the actuator of the switch.
- For switches with straight terminals, solder the switch on the PC board after fixing the switch on the panel with a nut.

**3. Flux Cleaning**

(1)Solvent : Fluorine or Alcohol type.

(2)8A/B/C/D/E/F/J/S 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 Specification**



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