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.

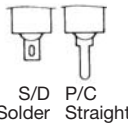**7. For UL-recognized and CSA-approved products, please refer to P.276.**
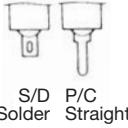
■ Specifications
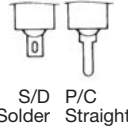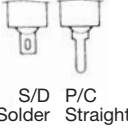
Rating	Max. rating	6A 125VAC/3A 250VAC/4A 30VDC	
Initial contact resistance		10mΩmax. （1A 2～4VDC）	
Initial dielectric strength		1,500VAC 1 minute	
Initial insulation resistance		1,000MΩ min. （500VDC）	
Electrical life （Excluding **8R** & **8W**）		Alternate type	40,000 operations
		Momentary type	25,000 operations
Operating temperature range		−30℃～+85℃	
Storage temperature range		−40℃～+85℃	

（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**）
t=0.8 3.8 2 1 1.9	t=0.8 4.8 6.4 1.1

8 Series Pushbutton Switches Selection Table

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

■Part Numbering

8 N 1 01 1 B — Z

- Series code: 8
- Actuator shape: N
- Number of poles: 1
- Switching function: 01
- Terminal style: 1
- (※1) Contact plating and material: B — Z

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

Fig.	Number of poles
1	1
2	2
3	3
4	4

Fig.	Switching function	
01	ON — ON
02	ON — (ON)

Fig.	Terminal style
1	Solder
2	PC/Straight

Code	Contact material	Plating
None	Bs+Ag or Cu+Ag	Ag
B	Bs or Cu	Ni+Au
C	Bs+Ag or Cu+Ag	Ni+Au

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

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

(ON)：Momentary.

8N

Standard Pushbutton Switches

■Features

The **8N** standard pushbutton switch is the basic type of "8" Series. Momentary and alternate functions are available.
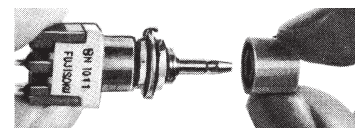**Color button** is available in 8mm, 10mm and 15mm diameter and in eight colors.

■Table of Part Numbers

Terminal style	No. of pole / Switching function	1 pole	2 poles	3 poles	4 poles
Solder Lug	ON － ON	**8N1011－Z** ★ **8N1011C－Z**	☆ **8N2011－Z** ▲ **8N2011C－Z**	★ **8N3011－Z**	▲ **8N4011－Z**
	ON － (ON)	**8N1021－Z** ▲ **8N1021C－Z**	**8N2021－Z** ★ **8N2021C－Z**	★ **8N3021－Z**	★ **8N4021－Z**
Straight PC	ON － ON	★ **8N1012－Z**	★ **8N2012－Z**	――	――
	ON － (ON)	☆ **8N1022－Z**	☆ **8N2022－Z**	――	――

■PC Hole Layouts ——————— Page 275.

■Standard Accessories

《Supplied with switch》

Hex Nut	Lockwasher	Locking Ring
140008010241	140008030051	140008020062
1/4"－40 THD 8 / 1.5	6.6 / t=0.5 / 10.2 / 1	6.4 / 1 / 12 / 2.1
Nickel plated	Zinc plated	Zinc plated

■Color Button Mounting

Snap in the color button on to the actuator.

■Panel Cut-Out Dimensions

t=1.5mmMAX.

φ6.5 / φ2.2 / 6.2

With **Locking Ring**

t=2.5mmMAX.

φ6.4 / 0.7 / 5.9

Without **Locking Ring**
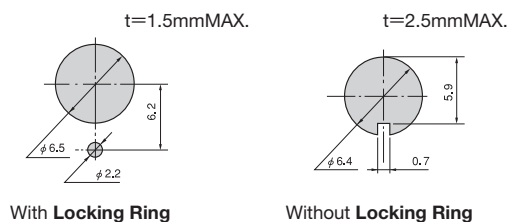
Part name	Color Button		
Dimension **A**	φ8	φ10	φ15
Dimension **B**	7.5	8	10
White	**140000481420**	**140000480082**	**140000480088**
Red	**140000481421**	**140000480083**	**140000480089**
Black	**140000481422**	**140000480081**	**140000480090**
Gray	**140000481423**	**140000480084**	**140000480091**
Green	**140000481424**	**140000480085**	**140000480092**
Blue	**140000481425**	**140000480086**	**140000480093**
Orange	**140000481426**	**140000480087**	**140000480094**
Yellow	**140000481427**	**140000480371**	**140000480372**

(Material : PA)

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

●**Hex Nut** (2 pcs), **Lockwasher** (1 pc), and **Locking Ring** (1 pc) are supplied with the switch. **A Color Button** is also supplied with the switch. Please specify the part number from the above table when ordering.
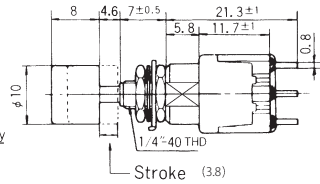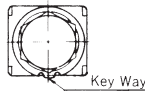
SPDT
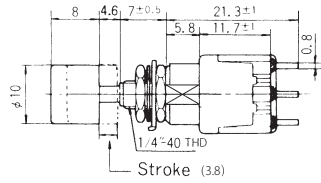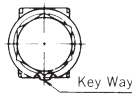
Switching function Part No.		
※ 8N101■−Z	ON	ON
8N102■−Z	ON	(ON)
Connecting terminals	2−3	2−1

■ : Please refer to "Table of Part Numbers" on P.261 for a list of full part numbers.
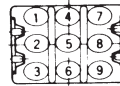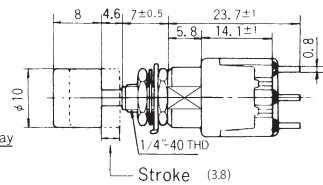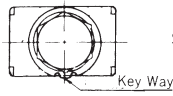
Terminal numbers are not shown on the switch.

DPDT

Switching function Part No.		
※ 8N201■−Z	ON	ON
8N202■−Z	ON	(ON)
Connecting terminals	2−3 5−6	2−1 5−4

■ : Please refer to "Table of Part Numbers" on P.261 for a list of full part numbers.

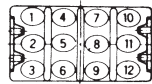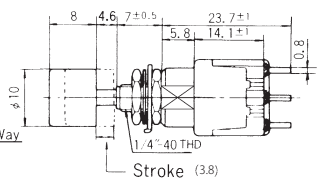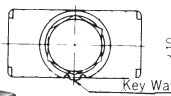Terminal numbers are not shown on the switch.

3PDT

Switching function Part No.		
※ 8N301■−Z	ON	ON
8N302■−Z	ON	(ON)
Connecting terminals	2−3 5−6 8−9	2−1 5−4 8−7

■ : Please refer to "Table of Part Numbers" on P.261 for a list of full part numbers.
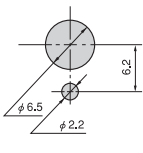
Terminal numbers are not shown on the switch.

4PDT
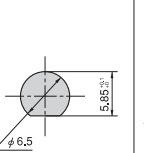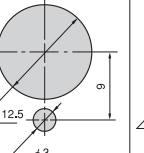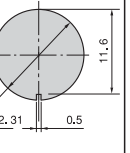
Switching function Part No.		
※ 8N401■−Z	ON	ON
8N402■−Z	ON	(ON)
Connecting terminals	2−3 5−6 8−9 11−12	2−1 5−4 8−7 11−10

■ : Please refer to "Table of Part Numbers" on P.261 for a list of full part numbers.
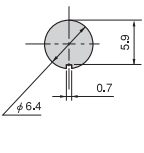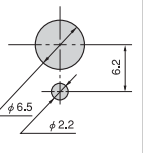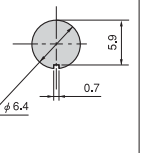
Terminal numbers are not shown on the switch.

(ON) : Momentary.

■Panel Cut-Out Dimensions

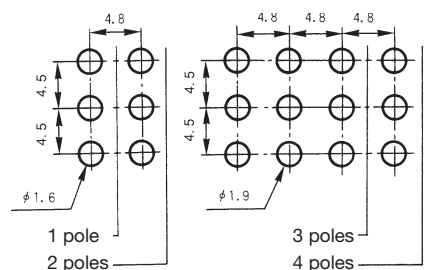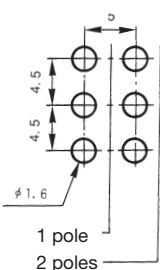| Series	8N		8R		8P	8Y	
Panel thickness	1.5 mm Max.	2.5 mm Max.	2 mm Max.	3 mm Max.	4.5 mm Max.	5 mm Max.	6 mm Max.
Dimensions	φ6.5 6.2 φ2.2	5.9 0.7 φ6.4	φ6.5 6.2 φ2.2	5.9 0.7 φ6.4	5.85 φ6.5	φ12.5 9 φ3	11.6 φ12.31 0.5
	With **Locking Ring**	Without **Locking Ring**	With **Locking Ring**	Without **Locking Ring**		With **Locking Ring**	Without **Locking Ring**

■PC Hole Layouts

Series	8N・8P	8R・8W
Dimensions	4.8 / 4.5 / 4.5 / φ1.6 — 1 pole / 2 poles · 4.8 4.8 4.8 / 4.5 / 4.5 / φ1.9 — 3 poles / 4 poles	5 / 4.5 / 4.5 / φ1.6 — 1 pole / 2 poles

■Precautions （8N・8P・8R・8W・8Y）

1. Soldering Specifications

（1）Manual soldering

　　Device : Solder iron

　　①420℃ Max. 3 sec. Max.

（2）Auto soldering

　　②The 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

Perforated Plastic Bag	25 pcs/pack
50 / 100 / 5 / 2 / 1 / 2 / 3	