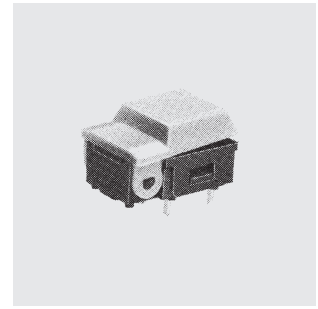


# DP1 • 2

## Directing Switches



RoHS Compliant

### ■ Features

#### 1. PC Board Mount

Direct mounting to PC board. The terminal pin layout is in inch pitch.

#### 2. High Contact Reliability

Self-cleaning, twin contact mechanism provides high contact reliability.

#### 3. Light Tactile Feel

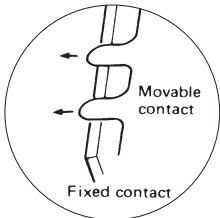
Metal contacts provide light tactile feel.

#### 4. Designed For High Density Mounting

The height to the top of the cap from the PCB surface is as low as 11 to 11.5 mm, and the case profile is designed to allow side-by-side mounting.

#### 5. Wide Variations

The cap style, color are available in many variations. A clear cap is available for DP1 to insert a label or letter printing inside. (Recommended label size and thickness: 7 x 7 mm and 0.3 mm for DP1-100 and 10 x 10 mm and 0.3 mm for DP1-120)



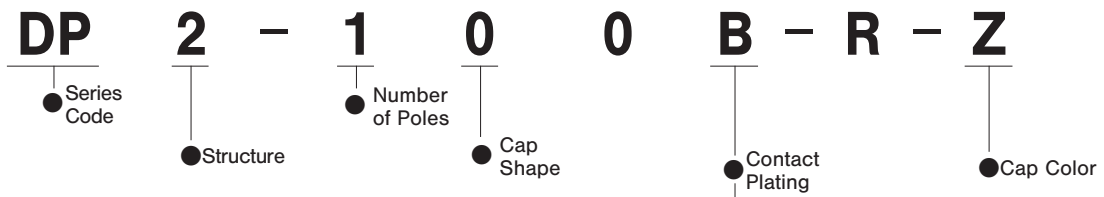
- Twin contacts
- Self cleaning mechanism

When the switch is activated, movable contacts slide in the direction of the arrow to clean the contact points.

### ■ Specifications

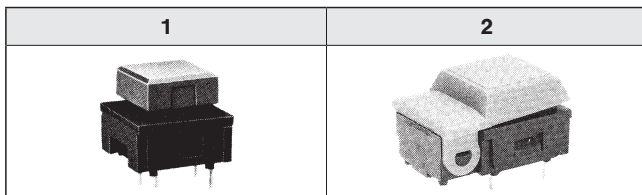
Rating	Max.	50 mA 24 VDC
	Min.	0.5 mA 20 mVDC (Silver plated contacts) 10 $\mu$ A 20 mVDC (Gold plated contacts)
Initial Contact Resistance		20 m $\Omega$ max. (1.5 mA 200 $\mu$ VAC)
Dielectric Strength		250 VAC 1 minute
Insulation Resistance		100 M $\Omega$ min. (250 VDC)
Electrical Life		200,000 operations
Travel		DP1 : 0.8 $\pm$ 0.3 mm DP2 : 1 $\pm$ 0.3 mm
Operating Force		0.93 $\pm$ 0.29 N
Operating Temperature Range		-25 $\sim$ +75 $^{\circ}$ C
Storage Temperature Range		-25 $\sim$ +85 $^{\circ}$ C

■ Part Numbering



Code	Contact Plating
None	Silver Plated
B	Gold Plated

■ Structure



■ Cap Shape

Fig.	Cap shape
0	Standard
2	DP1 Wide cap

■ Cap Color

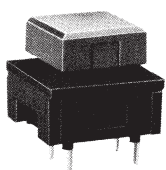
Code	C	G	B
Color	Clear	Gray	Blue

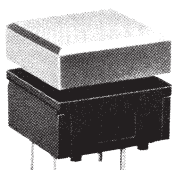
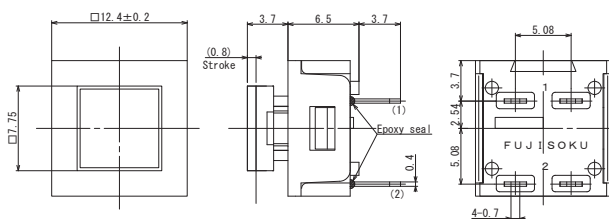
Code	R	K	W
Color	Red	Black	White

DP1

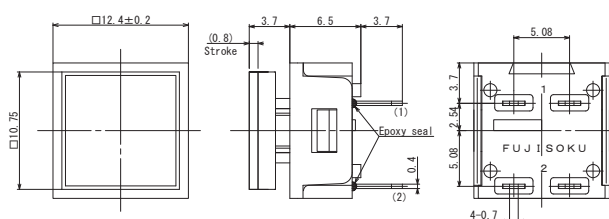
SPST  
Without LED (Non-illuminated)



DP1-100-Z



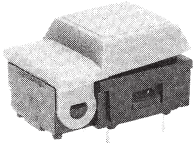
DP1-120-Z



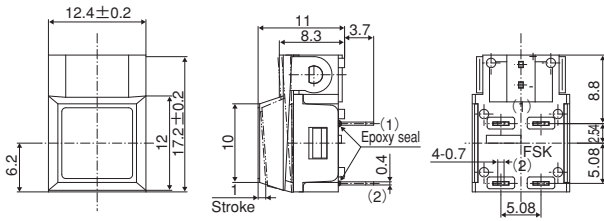
Part No.	Switching function	
DP1-100-Z ☆ DP1-100B-Z DP1-120-Z ★ DP1-120B-Z	OFF	(ON)
Connecting terminals	—	1-2

DP1~2

**DP2** SPST



DP2-100-Z



Part No.	Switching function	
DP2-100-□-Z	OFF	(ON)
Connecting terminals	—	1-2

**Table of Part Numbers**

Series	DP1-100		DP1-120		DP2-100-□-Z
Contact plating	Silver	Gold	Silver	Gold	Silver
Part number	DP1-100-Z	☆DP1-100B-Z	DP1-120-Z	★DP1-120B-Z	★ DP2-100-G-Z ★ DP2-100-K-Z ☆ DP2-100-R-Z ☆ DP2-100-W-Z

**Notes Upon Ordering**

Caps for DP1 are standard accessories. Please designate a cap upon ordering the switch.  
Clear cap is not available for DP2.

**Standard Accessories**

《Supplied with switch》

Part Name	Cap		Color code
	DP1-100-Z	DP1-120-Z	
Type			
Dimensions Materials : Polycarbonate resin			
Clear	140000470157	140000470188	C
White	140000470184	140000470217	W
Red	140000470158	140000470189	R
Black	140000470166	140000470216	K
Gray	140000470159	140000470190	G
Blue	140000470160	140000470191	B

**PCB Footprints & Mounting**

Part No.	DP1-100-Z	DP1-120-Z	DP2-100-Z
Footprint Dimensions			
	: panel cut-out dimensions		
Mounting			
	Reference	Reference	

**Precautions**

Effective operating range	To operate DP1-120-Z, depress the center of the cap.
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★ : Made to order products. ☆ : Semi-standard products. □ : Cap color code.

**■ Soldering (DP1 ~ 2)**

## 1. Manual soldering

Device : Soldering iron  
380°C, Max. 3 seconds, Max.

## 2. Auto soldering

Device: Jet wave or dip type  
275±10°C 6 sec, Max.

- Preheat time shall be 120 seconds max. at 80~120°C max.

**■ Flux Cleaning (DP1 ~ 2)**

- (1) Solvents : Fluorine or Alcohol type
- (2) DP1~2 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.
- (3) After soldering, wait until the temperature of the terminals cool down to 90°C or below or until the parts are exposed to room temperature for more than 5 min. before washing.

**■ Packaging Specifications**