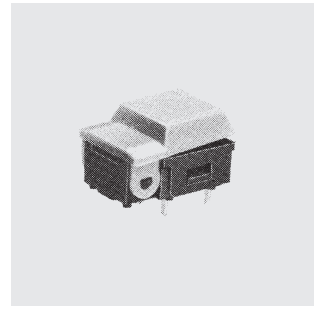


DP1•2

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 provides light tactile feel.

4. Designed For High Density Mounting

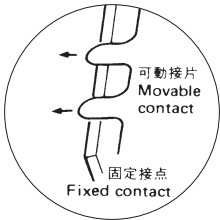
The height to the top of the cap from the PCB surface is as low as 11 to 11.5 mm, and the case profile is designed to allow side-by-side mounting.

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)

■ Specifications

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



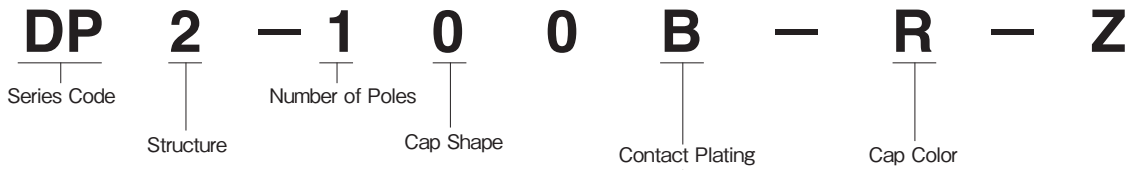
●Twin contacts

●Self cleaning mechanism

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

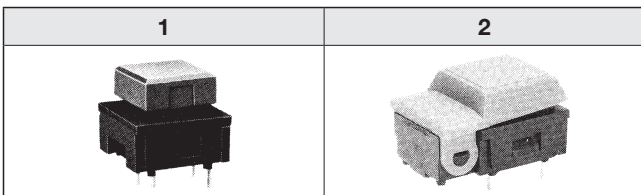
DP1~2

Part Numbering



| Code | ContactPlating |
|----------|----------------|
| None | Silver Plated |
| B | GoldPlated |

Structure



Cap Shape

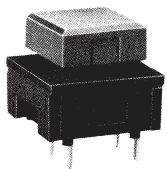
| Fig. | Cap shape |
|----------|---------------------|
| 0 | Standard |
| 2 | DP1 Wide cap |

Cap Color

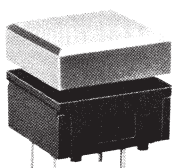
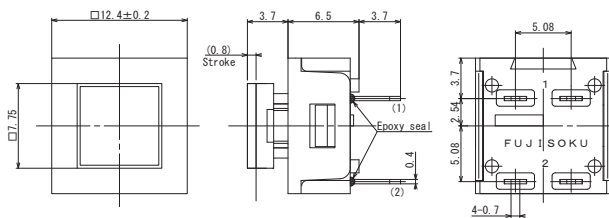
| | | | |
|-------|----------|----------|----------|
| Code | C | G | B |
| Color | Clear | Gray | Blue |
| Code | R | K | W |
| Color | Red | Black | White |

DP1

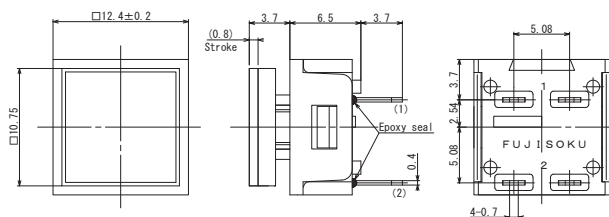
SPST Without LED (Non-illuminated)





DP1-100-Z



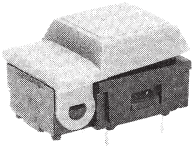
DP1-120-Z



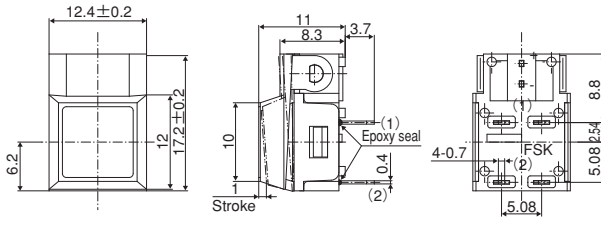
| Part No. | Switching function | |
|--|---|---|
| |  |  |
| DP1-100-Z ☆ DP1-100B-Z DP1-120-Z ★ DP1-120B-Z | OFF | (ON) |
| Connecting terminals | — | 1 - 2 |

DP2

SPST



DP2-100-Z



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

DP1~2

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. |
|---------------------------|--|

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 |

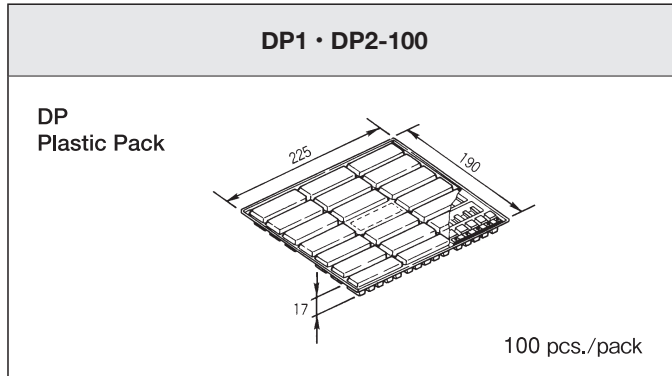
■Soldering (DP1 ~ 2)

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



■Table of Part Numbers

| Series | DP1-100 | | DP1-120 | | DP2-100-□-Z |
|-----------------|------------------|-------------|------------------|-------------|---------------|
| Contact plating | Silver | Gold | Silver | Gold | Silver |
| | DP1-100-Z | ☆DP1-100B-Z | DP1-120-Z | ★DP1-120B-Z | — |
| Non-illuminated | — | — | — | — | ★ DP2-100-G-Z |
| | — | — | — | — | ★ DP2-100-K-Z |
| | — | — | — | — | ☆ DP2-100-R-Z |
| | — | — | — | — | ☆ DP2-100-W-Z |

● In addition, please contact us for a combination not listed above.

☆ : Semi-standard products. ★ : Made to order products.