

# MRB(45° Step)

Washable



## Super-Miniature Rotary Switches

RoHS Compliant

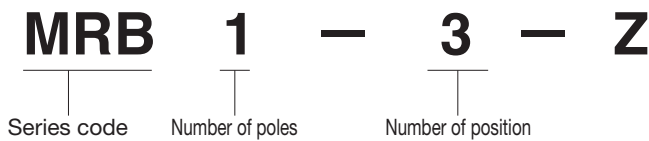
### ■ Features

1. High contact reliability assured (Twin contact type)
2. Selection of various circuits is flexible.
3. Fully-sealed structure protects the contacts from environmental contamination.
4. Immersion cleaning is possible.
5. Best suited for use in dry circuit since the contacts and terminals are gold-plated.

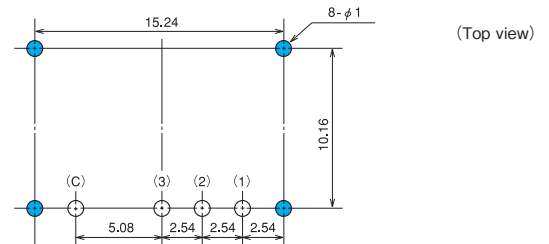
### ■ Specifications

Rating	0.4VA max. (12VDC max.)
Initial contact resistance	200mΩ max. (1,5mA 200μVAC)
Dielectric strength	250VAC 1 minute
Insulation resistance	100MΩ min. (100VDC)
Electrical life	10,000 cycles
Operating force	1.96~5.88N·cm
Operating temperature range	-20~+70°C
Storage temperature range	-40~+85°C

### ■ Part Numbering

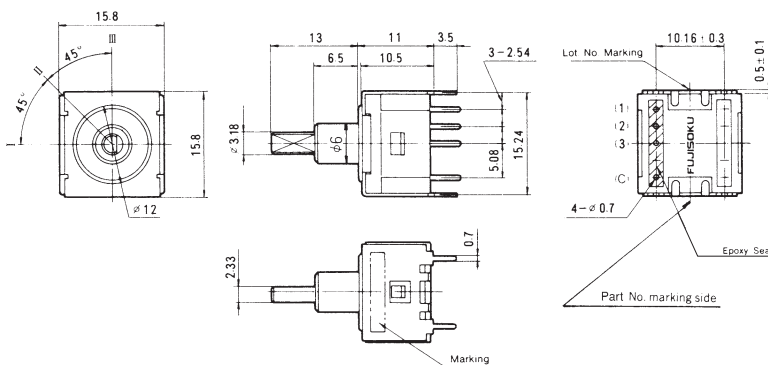


### ■ PC Hole Layouts



### MRB series

#### ★MRB1-3-Z 1-pole 3-position



Terminal numbers are not shown on the switch.

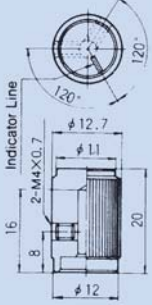
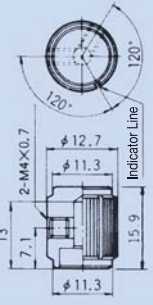
Switching function			
Circuit arrangement			Circuit diagram
Position I	Position II	Position III	
ON	ON	ON	
C-1	C-2	C-3	

The shaft fully rotates 360 degrees. In the shaft positions other than I, II and III, the contacts are in the OFF state.

★ : Made to order products.

**MRB** Washable**Optional Accessories**

《Sold separately》

Part Name		Knob			
		FB		FN	
Dimensions					
Part No.		140000050598	140000051012	140000050956	140000050601
Color	Body	Silver	Black	Silver	Black
	Indicator Line	Black	White	Black	White
Body Material		Aluminium		Aluminium	

● For the hexagon wrench for **FB/FN** types, choose the M4 wrench (2 mm) available on the market.

**Handling Precautions****1. Soldering Specifications**

## (1) Manual Soldering

Device : Soldering iron

360°C, Max.; 3 seconds, Max.

## (2) Auto Soldering

Device: Jet wave type or dip type

275°C, Max.; 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 the solder resist to solder them independently.

**2. Flux Cleaning**

## (1) For the solvent, use the fluorine-based or alcohol-based solvent.

Solvent: Fluorine or Alcohol type

## (2) Do not use the ultrasonic cleaning system.

**3. Mounting of Switch**(1) Use the PC boards of  $\phi$  1 holes.

## (2) Do not bend the terminals before mounting the switch on the PC board.

## (3) After mounting the switch, do not place the device in such a way that the device weight will be applied on the knob, etc. of the switch.

## (4) Do not apply a load exceeding 29.4 N (3 kgf) to the knob.

 :Optional Accessories.