

MRK

Key Switches



RoHS Compliant

■ Features

1. For PCB Mounting

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

2. High Contact Reliability

Gold-plated contact with self-cleaning, twin contact mechanism provides high contact reliability.

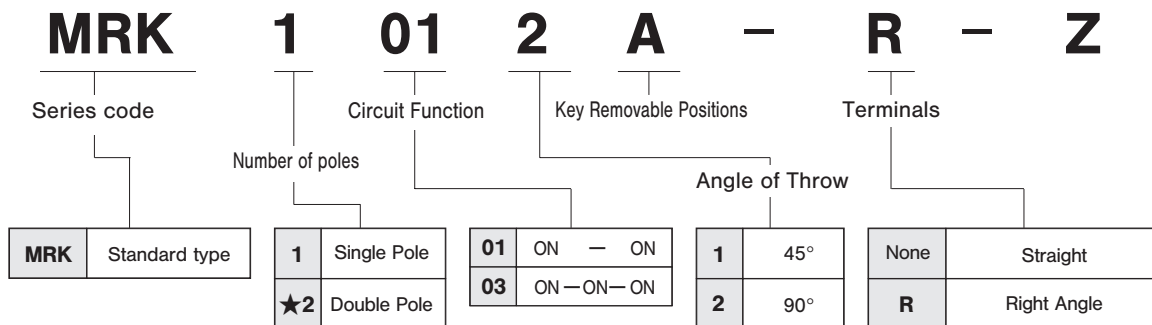
3. Smooth Operation

Steel ball adopted to click mechanism for smooth operation.

4. Improved Resistance to Soldering Heat

The resistance to soldering heat of contacts is improved by blocking heat from terminals by using the printed circuit board.

■ Part Numbering

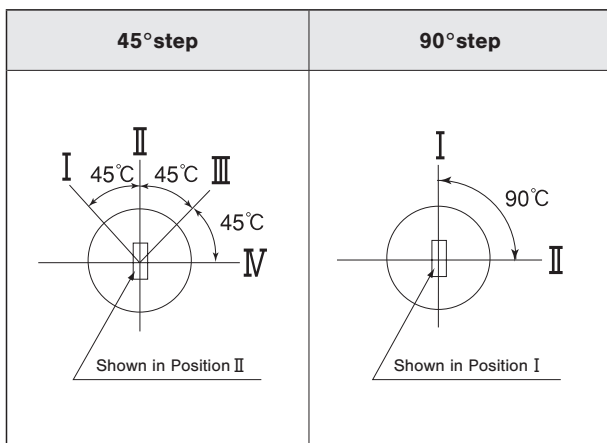


MRK

■ Specifications

Rating	0.4VA max. (20VDC max.)	
Initial contact resistance	200mΩ max.	(0.5mA 200μVAC)
Dielectric strength	250VAC 1 minute	
Insulation resistance	100MΩ min.	(100VDC)
Electrical life	10,000 cycles	
Operating force	2.94±0.98N·cm	
Operating temperature range	-20°C~+70°C	
Storage temperature range	-40°C~+80°C	

■ Angle of Throw



■ Key Removable Position

Code	Key position			
	I	II	III	IV
A	○	○	—	—
B	○	×	—	—
D	○	○	○	○
G	○	○	×	—
L	×	○	×	—

○ : Removable
 × : Not removable

■ Standard Accessories

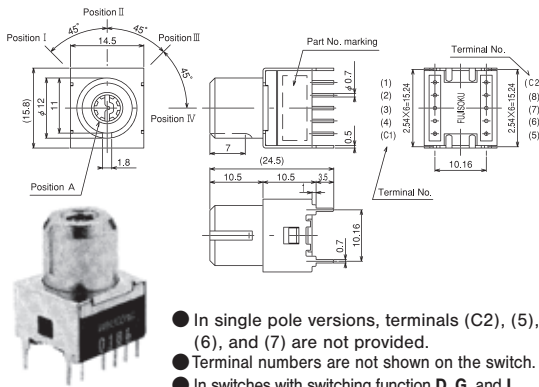
《Supplied with switch》

Part name	Key
Series	MRK
Part No.	140007050010
Dimensions	
Grip material	Plastic

● Each switch comes with two keys.

● PC type
Straight

Single Pole, Double Pole



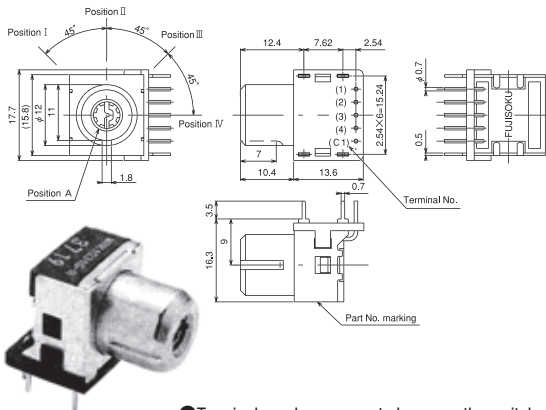
- In single pole versions, terminals (C2), (5), (6), and (7) are not provided.
- Terminal numbers are not shown on the switch.
- In switches with switching function D, G, and L, terminals (4) and (8) are not provided.

Part No.	Key removable position				A portion	Circuit function				Circuit diagram
	I position	II position	III position	IV position		Connecting position				
						I position	II position	III position	IV position	
★MRK1031D-Z ★MRK2031D-Z ★MRK1031D-R-Z	○	○	○	—						
★MRK1031G-Z	○	○		—		ON	ON	ON		
★MRK1031L-Z		○		—						
Connecting terminals		Single Pole			C1-1	C1-2	C1-3	C1-4		
		Double Pole			C1-1 C2-5	C1-2 C2-6	C1-3 C2-7	C1-4 C2-8		

(*) : C2 is not available in single pole versions.

● Right Angle

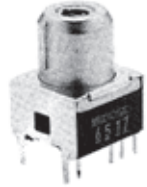
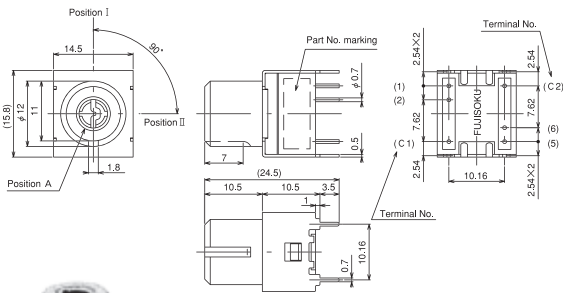
Single Pole



- Terminal numbers are not shown on the switch.

MRK (90° step 2-position)

● Straight Single Pole

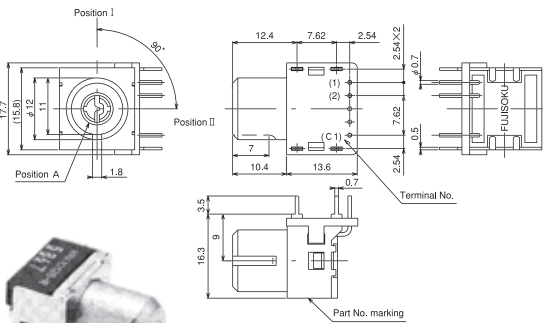


- In single pole versions, terminals (C2), (5), and (6) are not provided.
- Terminal numbers are not shown on the switch.

Part No.	Key removable position		A portion	Connecting position		Circuit diagram
	I position	II position		I position	II position	
☆MRK1012A-Z	○	○		ON	ON	
☆MRK1012B-Z	○					
Connecting terminals		Single Pole	C1-1	C1-2		

(*): C2 is not available in single pole versions.
(ON):Momentary

● Right Angle Single Pole



- Terminal numbers are not shown on the switch.

Part No.	Key removable position		A portion	Connecting position		Circuit diagram
	I position	II position		I position	II position	
★MRK1012A-R-Z	○	○		ON	ON	
☆MRK1012B-R-Z	○					
Connecting terminals		Single Pole	C1-1	C1-2		

(*): C2 is not available in single pole versions.
(ON):Momentary

■ PC Hole Layouts

(Top View)

		/Steps	2-step (90°)	3-step (45°)
Terminals				
Single pole	PC type Straight			
	Right angle			
Double poles	PC type Straight			

For stand-off pins
 For terminal pins

■ Mounting Dimensions

Series	MRK
Grip Material	Plastic
Dimensions	

■ Precautions

1. Soldering

- (1) Manual Soldering
 - Device : Solder iron.
 - 360°C Max. 3 sec. Max.
- (2) Auto Soldering
 - Method : Jet wave or dip type
 - 275°C Max. 6 sec. Max
- Preheat should be within 80~120°C, 130 sec.

2. Flux Cleaning

- (1) Solvent : Alcohol type.
- (2) MRK 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.