

Ultra Compact Code Switch



MR8C Series



Outline

MR8C is an ultra compact rotary code switch with resin enclosure designed especially for – but not limited to - usage in devices with limited space for switch units inside.

Features

- 8mm square compact (8.0x8.0 mm)
- Two different step angles; (22.5°, 30°)
- Gold plated contacts
- Monolithic sealed structure of the terminals to prevent entry of a soldering flux
- RoHS compliant
- Dripproofed model available

Specifications

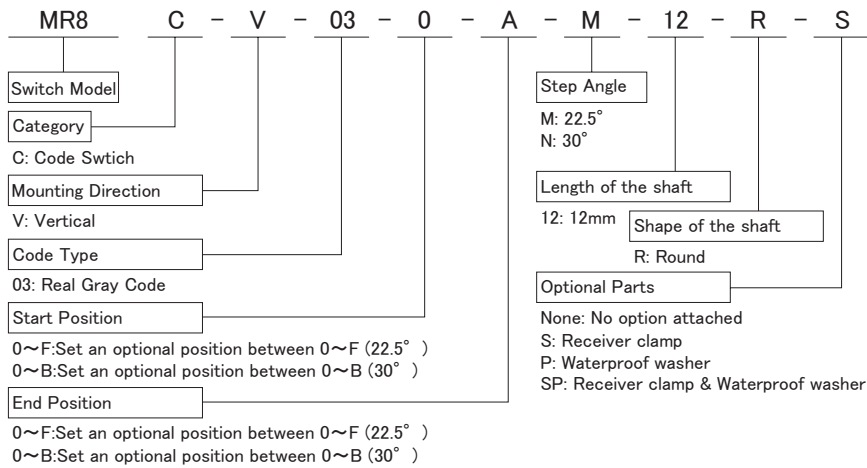
Operating temperature		-20°C ~ +70°C -4F ~ 158F	Keep the body unfrozen
Storage temperature		-40°C ~ +70°C -40F ~ 158F	
Mechanical Specification	Rotational Torque	0.02±0.01N·m	
	Terminal Strength	5N (of static load applied to the tip of the terminal once and in any direction)	
	Rotation Stopper Strength	0.4N·m	
	Panel Nut Tightening Torque	0.6N·m	
	Heat Resistance of Solder	350°C ±10°C , 3±1 sec.	
	Water Resistance	Water resistant through the mounted panel (1m deep in the water for 2h)	
Electrical Specification	Contact Capacity	0.2VA (AC&DC)	
	Maximum Voltage	15V (AC&DC)	
	Working Electric Current	0.1mA ~ 20mA (AC&DC)	
	Contact Resistance	200mΩ max.	

Electrical Specification	Insulation Resistance	100MΩ minimum (100VDC 1min.): Between terminals
		500MΩ minimum (500VDC 1min.): Between Terminals and Ground
	Withstanding Voltage	100VAC 1min.: Between terminals
		500VAC 1min.: Between terminals and ground
Weight		3.5g
Durability		30,000 strokes (Rotational Torque: ±50% the initial value, Contact Resistance: Not more than 1Ω, Insulation Resistance: After 1min 100VDC electrification)
Humidity Proof		Temperature : +40 ± 2°C Relative Humidity : 90 ~ 95% (Duration : 48 ± 2h)

Warranty

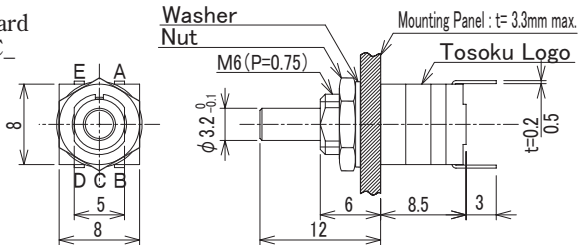
- 1 year from the date of shipment

Part Number Designation

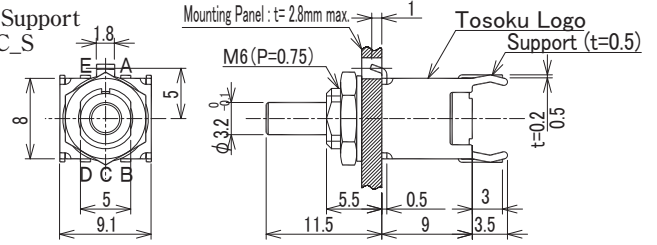


Dimensions (mm)

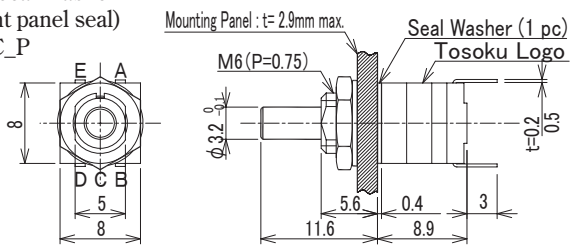
Standard
MR8C_



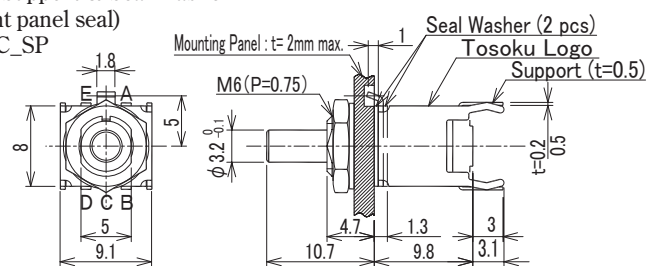
With Support
MR8C_S



With Seal Washer
(Front panel seal)
MR8C_P



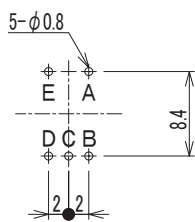
With Support & Seal Washer
(Front panel seal)
MR8C_SP



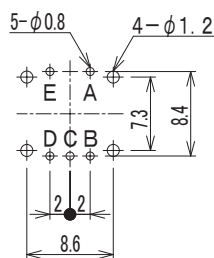
※Use 2 seal washers

PWB Mounting Hole Dimensions (mm)

Standard / With Seal Washer

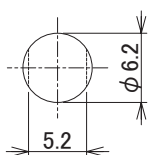


With Support (+ Seal Washer)

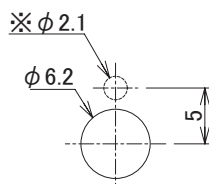


Mounting Hole Dimension (mm)

Standard / With Seal Washer



With Support (+ Seal Washer)



With seal washer,
keep the hole closed.

Code table

22.5° Step angle

Code Type 03 (Real gray code) ● indicates terminal connection to common

Terminal No.	Bit No.	Switch Position															
		0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
A	1		●														
E	2			●													
B	4				●												
D	8					●											
C	common						●										

30° Step angle

Code Type 03 (Real gray code) ● indicates terminal connection to common

Terminal No.	Bit No.	Switch Position											
		0	1	2	3	4	5	6	7	8	9	A	B
E	1		●										
A	2			●									
B	4				●								
D	8					●							
C	common						●						

Code Type 01 (Real binary code) ● indicates terminal connection to common

Terminal No.	Bit No.	Switch Position											
		0	1	2	3	4	5	6	7	8	9	A	B
D	1		●										
B	2			●									
E	4				●								
A	8					●							
C	common						●						

Attention: Terminal A and E of 30° is reverse to 22.5°.