

TOKYO SOKUTEIKIZAI CO., LTD.

Rotary Switch Catalogue

RS300	_____	P . 0 3
high blocking voltage model available		
RS400	_____	P . 0 3
compact, shorting/non shorting selectable		
RS500	_____	P . 0 3
various step angles: 15/20/30/45/60 degrees		
MR8A	_____	P . 0 5
8mm square tiny rotary switch, waterproof model available		

RS300/400/500 Series

Outline

Our RS series embody the manufacturing history of our company. All series are sturdy and solid with high dependability designed for control units of plants, installations, audio equipments, etc.

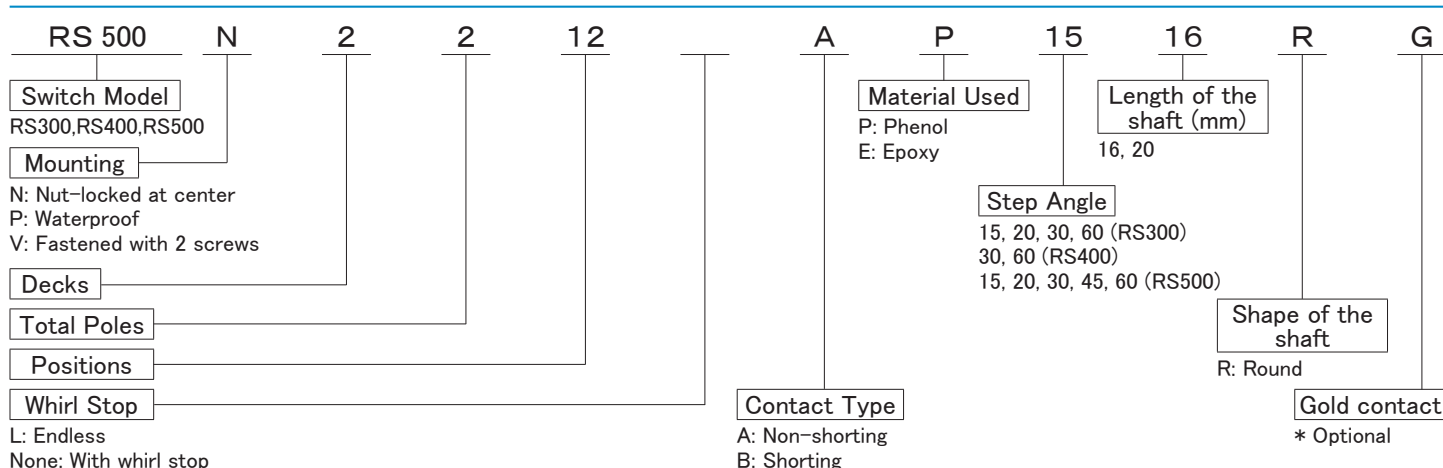
Features

- Free to change the number of switch positions by replacing self-tapping screws
- Various combinations of double shafted model available
- RoHS compliant

Specifications

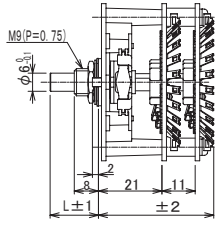
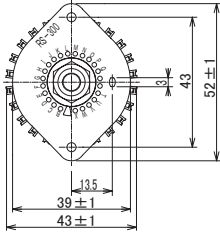
	RS300	RS400	RS500
Step Angles	15/20/30/60	30/60	15/20/30/45/60
Switching Mechanism	15/20: Shorting 30/60: Non-shorting	Shorting and Non-shorting selectable	15/20: Shorting 30/45/60: Non-shorting
Water Proofing	-----	Adapter panel and rubber o-rings provided at requests	
Gold Contacts	Available		
High-Voltage Withstanding	Available (Up to 6,000V)	-----	
Operating Temperature	-20℃ +70℃		
Storage Temperature	-40℃ +C70℃		
Rotational Torque	0.12N · m ~ 0.35N · m	0.10N · m ~ 0.25N · m	
Terminal Strength	10N		
Nut Tightening Torque	2N · m		
Vibration Resistance	10Hz ~ 55Hz ~ 10Hz/min (vibrated for 1.5mm to each XYZ direction) No defect found under conditions above		
Heat Resistance of Solder	350±10℃ , 3 seconds ±1		
Contact Resistance	(1kHz±200Hz of voltage 20mV. 50mA or less)		
	5mΩ max.	15mΩ max.	10mΩ max.
Insulation Resistance	After 1 min. of 500VDC Phenol 1,000MΩ ≤ Epoxy 50,000MΩ ≤		
Withstanding Voltage	1,000VAC 1min.	500VAC 1min.	
Rated Value	AC	30V 3.0A/200V 0.5A	30V 1.5A/200V 0.2A
	DC	20V 3.0A/200V 0.2A	20V 1.0A/200V 0.1A
Durability	at least 50,000 strokes		

Part Number Designation



RS300_Dimensions (mm)

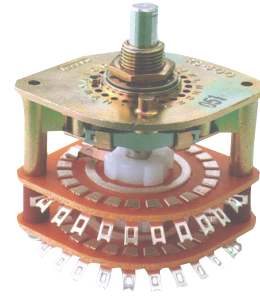
Bushing



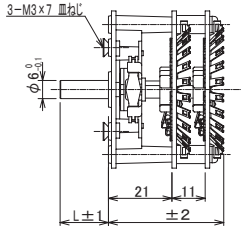
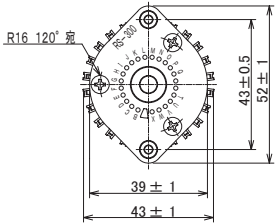
Panel Mounting Hole Dimensions (mm)



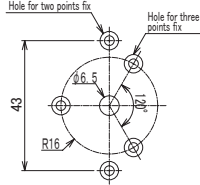
RS300/400/500N accessories
M9 Nut ($t=2\text{mm}$)
M9 Toothed lock washer ($t=1\text{mm}$)
Washer ($t=0.5\text{mm}$)



Two screws fix



Panel Mounting Hole Dimensions (mm)



RS300V accessory
Three M3x7 screws
(for two points fix, with two screws)

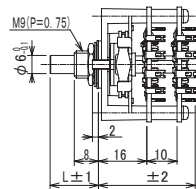
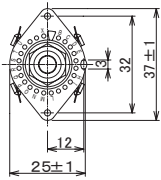
Length

	(mm)		
	Standard shaft length		
L	16	18	20

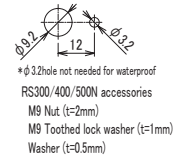
Number of Layers (mm)	1	2	3	4
	27	38	49	60

RS400_Dimensions (mm)

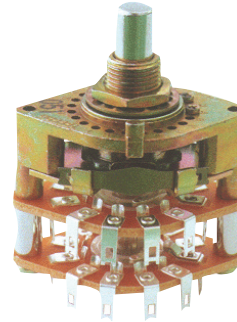
Bushing



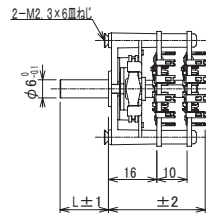
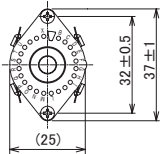
Panel Mounting Hole Dimensions (mm)



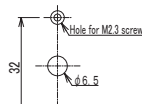
* $\phi 3.2$ hole not needed for waterproof
RS300/400/500N accessories
M9 Nut ($t=2\text{mm}$)
M9 Toothed lock washer ($t=1\text{mm}$)
Washer ($t=0.5\text{mm}$)



Two screws fix



Panel Mounting Hole Dimensions (mm)



RS400V accessory
Two M2.3x6 screw

Length

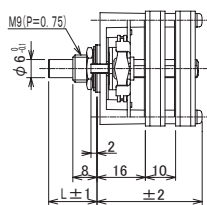
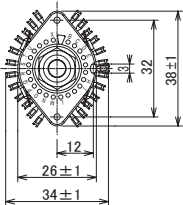
	(mm)		
	Standard shaft length		
L	16	18	20

Number of Layers (mm)	1	2	3	4
	22(26)	32(41)	42(56)	52(71)

() : for all contacts type

RS500_Dimensions (mm)

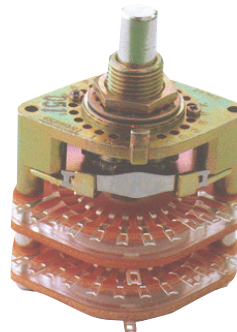
Bushing



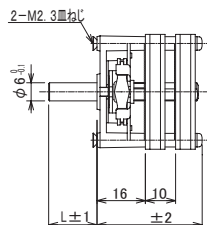
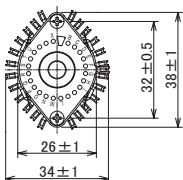
Panel Mounting Hole Dimensions (mm)



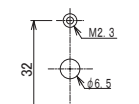
* $\phi 3.2$ hole not needed for waterproof
RS300/400/500N accessories
M9 Nut ($t=2\text{mm}$)
M9 Toothed lock washer ($t=1\text{mm}$)
Washer ($t=0.5\text{mm}$)



Two screws fix



Panel Mounting Hole Dimensions (mm)



RS500V accessory
Two M2.3x6 screw

Length

	(mm)		
	Standard shaft length		
L	16	18	20

Number of Layers (mm)	1	2	3	4
	26	36	46	56

Ultra Compact Rotary Switch

MR8A Series



Outline

MR8A is our tiniest rotary switch designed for compact devices, used for many different equipments which has very limited space inside.

Features

- 8mm square compact (8.0x8.0 mm)
- Gold plated contacts
- Monolithic sealed structure of the terminals to prevent entry of a soldering flux
- RoHS compliant
- Waterproofed model available

Specifications

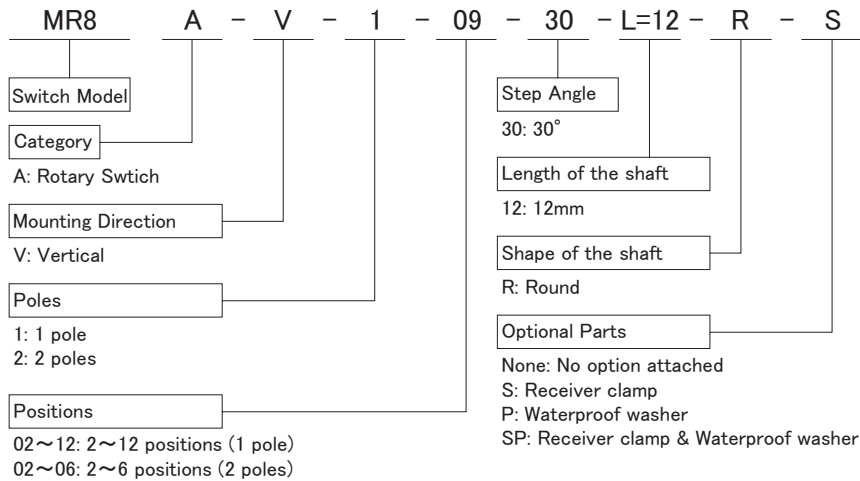
Operating temperature		-20℃ ~ +70℃ -4F ~ 158F	Keep the body unfrozen
Storage temperature		-40℃ ~ +70℃ -40F ~ 158F	
Mechanical Specification	Rotational Torque	0.02±0.01N・m	
	Terminal Strength	3N (of static load applied to the tip of the terminal once and in any direction)	
	Rotation Stopper Strength	0.4N・m	
	Panel Nut Tightening Torque	0.8N・m	
	Heat Resistance of Solder	300℃ ±10℃ , 3±1 sec.	
	Water Resistance	Water resistant through the mounted panel (2m deep in the water for 2h)	
Electrical Specification	Contact Capacity	0.4VA (AC&DC)	
	Maximum Voltage	25V (AC&DC)	
	Working Electric Current	0.1mA ~ 50mA (AC&DC)	
	Contact Resistance	80mΩ max.	

Electrical Specification	Insulation Resistance	500MΩmin. (250VDC): Between terminals		
		1000MΩmin. (500VDC): Between Terminals and Ground		
	Withstanding Voltage	300VAC 1min.: Between terminals		
		300VAC 1min.: Between terminals and ground		
Insulation Resistance		DC100V (1min later)	terminal – terminal	100MΩ ≤
		DC500V (1minLater)	terminal – ground	500MΩ ≤
Weight		5.5g		
Durability		50,000 strokes (Rotational Torque: ±20% the initial value, Contact Resistance: Not more than 100mΩ, Insulation Resistance: After 1min 250VDC electrification)		
Humidity Proof		Temperature : +40 ± 2℃ Relative Humidity : 90 ~ 95% (Duration : 48 ± 2h)		

Warranty

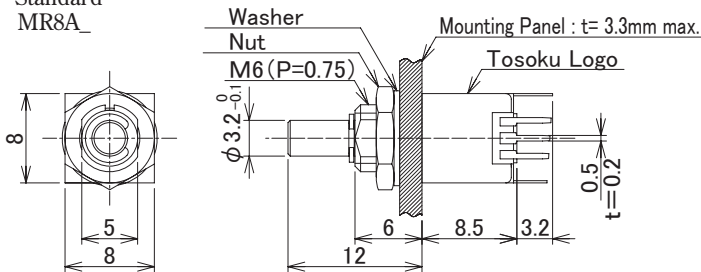
- 1 year from the date of shipment.

Part Number Designation

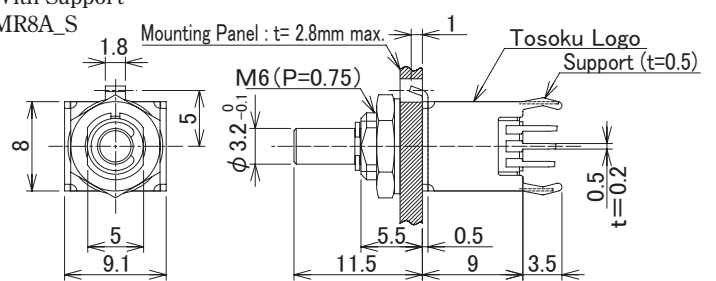


Dimensions (mm)

Standard
MR8A_

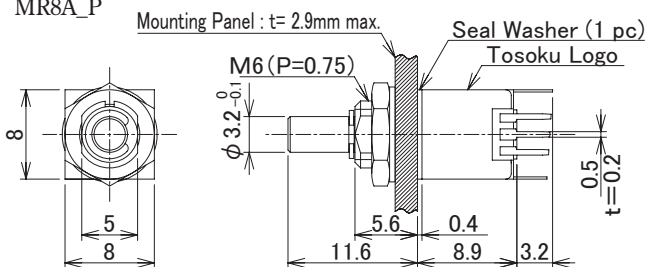


With Support
MR8A_S



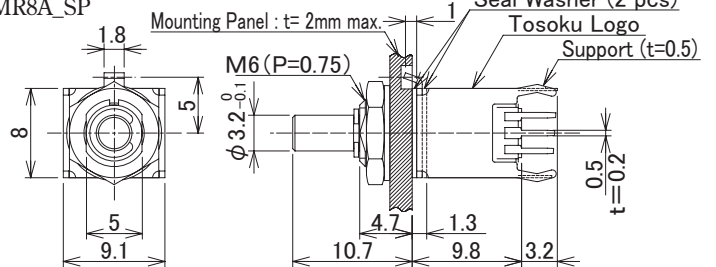
With Seal Washer (Front panel seal)

MR8A_P



With Support & Seal Washer (Front panel seal)

MR8A_SP



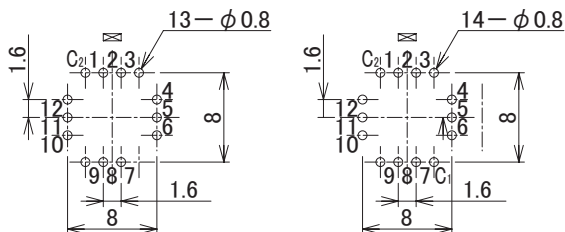
※Use 2 seal washers

PWB Mounting Hole Dimensions (mm)

Standard / With Seal Washer

Seal Washer (2 pcs)

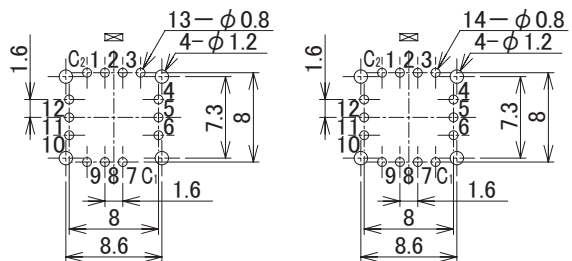
※Use 2 seal washers



With Support (& Seal Washer)

Seal Washer (2 pcs)

※Use 2 seal washers

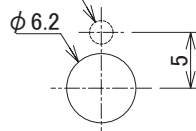


Mounting Hole Dimension (mm)

Standard / With Seal Washer

With Support (& Seal Washer)

※φ2.1



With seal washer,
keep the hole closed.

Accessories

Nut

Washer

Seal Washer (1 pc)

