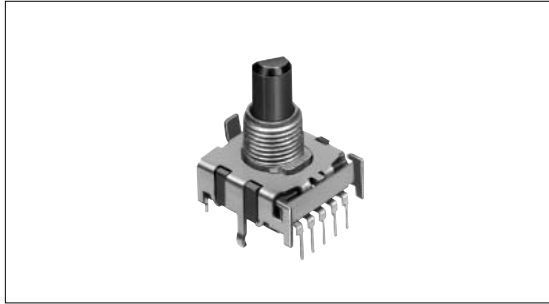


# Rotary Switch 8-position Low-profile Vertical Type

SRBV Series



Low-profile 7.5mm height contributes to flexibility in set design.



## Typical Specifications

Items		Specifications
Rating (max.) (min.) (Resistive load)		0.3A 16V DC/50 $\mu$ A 3V DC
Contact resistance (Initial/After operating life)		50m max./150m max.
Rotational torque		30 $\pm$ 15 mN·m
Operating life	Without load	10,000cycles
	With load	10,000cycles( 0.3A 16V DC )

## Product Line

Poles	Positions	Changeover angle	Changeover timing	Actuator configuration	Actuator length (mm)	Minimum order unit (pcs.)	Product No.
1	3	30 $\pm$ 3 °	Non shorting	Flat	L=15	330	SRBV131803
					L=20		SRBV131502
	4				L=15		SRBV141404
					L=20		SRBV141201
	5				L=15		SRBV151102
					L=20		SRBV150901
	6				L=15		SRBV160803
					L=20		SRBV170701
	7				L=15		SRBV170501
					L=20		SRBV181004
	8				L=15		

## Notes

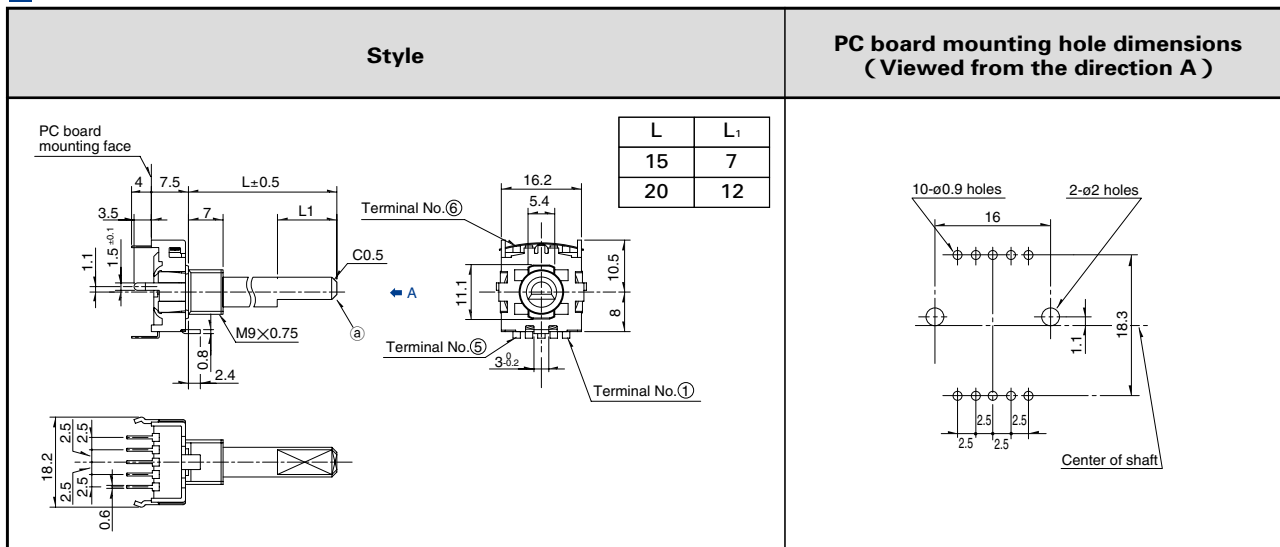
1. Products other than those listed in the above chart are also available. Please contact us for details.
2. Please place purchase orders per minimum order unit(integer).

Refer to P.171 for shaft configurations.  
Refer to P.173 for attached parts.

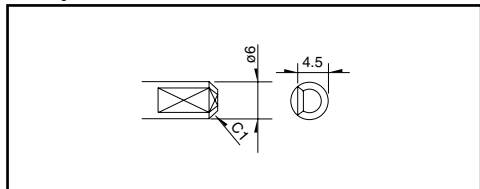
# Rotary Switch 8-position Low-profile Vertical Type | SRBV Series

## Dimensions

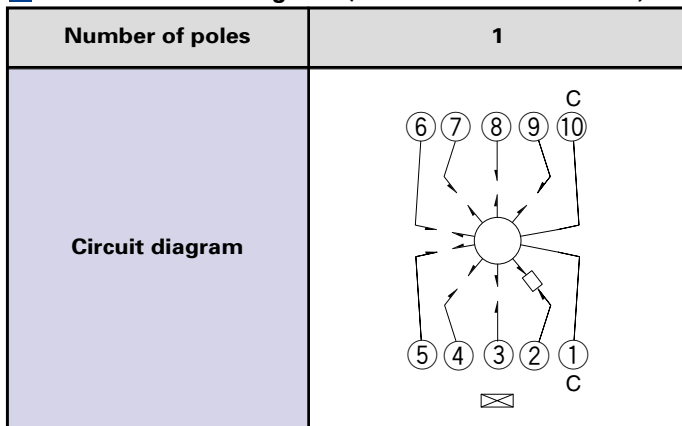
Unit:mm



## Operation Part Details ① Unit:mm











## Standard Circuit Diagram (Viewed from Direction A)



## Dummy Terminals

3-positions	
4-positions	
5-positions	
6-positions	
7-positions	
8-positions	-

List of Varieties

Series		SRBD	SRBQ		SRRM	SRBV	SRBM		SRRN				
			Insertion	Reflow type			Rotary	Pulse					
Photo													
Outline specifications	Step angle	36 °	40 ± 3 °		30 ± 3 °			18 ± 3 °	30 ± 3 °				
	Number of poles	1		1 2 3 4	1	1 2	2 3 4						
Dimensions (mm)		W	11.4		16.2		12.5		—				
		D	12.4		18.5		10						
		H	3.5		7.5		11.5						
Operating temperature range		-25 to +85		-10 to +60		-40 to +85		-10 to +60					
Rating(max)/(min) (Resistive load)		1mA 5V DC 50µA 3V DC		0.1A 16V DC 50µA 3V DC		0.25A 30V DC 50µA 3V DC		0.3A 16V DC 50µA 3V DC		0.1A 16V DC 50µA 3V DC		0.15A 12V DC 50µA 3V DC	
Electrical performance	Initial contact resistance	100M min. 100V DC			100M min. 500V DC		100M min. 100V DC			100M min. 500V DC			
	Insulation resistance	100V AC for 1minute			500V AC for 1minute		100V AC for 1minute			500V AC for 1minute			
	Voltage proof	3N for 1minute		5N for 1minute		10N for 1minute		5N for 1minute					
Mechanical performance	Actuator strength	Rotational direction	—		1N·m		0.6N·m		0.5N·m		1N·m		
		Push direction	50N		20N		100N						
	Wobble of actuator	Load at the tip of shaft SRRM : 5N SRBV, SRBQ : 1N		The below table shows for SRBQ (Unit : mm)			The below table shows for SRBV (Unit : mm)			Measuring position from mounting surface	Shaft wobble (max. value)	Applicable mounting dimension	
		(Unit : mm)		Distance from mounting surface to the tip of shaft	Shaft wobble (max. value)	(Unit : mm)			10mm	0.17 mm	15 mm		
		Measuring position from mounting surface	Shaft wobble (max. value)	Applicable mounting dimension	below 5	0.5 max.	Measuring position from mounting surface	Shaft wobble (max. value)	Applicable mounting dimension	15mm	0.25 mm	20 mm	
		10	0.17	15	above 5 and below 10	0.9 max.	10	0.2	15	Load at the tip of shaft : 5N			
		15	0.25	20	above 10 and below 15	1.2 max.	15	0.3	20				
Durability	Operating life without load	10,000cycles 250m max.		10,000cycles 100m max.		10,000cycles 40m max.		10,000cycles 100m max.		30,000cycles 100m max.		10,000cycles 70m max.	
	Operating life with load Load : (at rated load)	10,000cycles 250m max.		10,000cycles 100m max.		10,000cycles 60m max.		10,000cycles 150m max.		10,000cycles 100m max.			
Environmental performance	Cold	-40 ± 2 for 500h		-20 ± 2 for 96h									
	Dry heat	85 ± 2 for 500h		85 ± 2 for 96h									
	Damp heat	60 ± 2 , 90 to 95%RH for 500h		40 ± 2 , 90 to 95%RH for 96h									
Soldering	Manual soldering	—		350 ± 10 3 <sup>+</sup> 1s	350 ± 5 3s max.	350 ± 10 , 3 <sup>+</sup> 1s							
	Dip soldering	—		260 ± 5 5 ± 1s	—	260 ± 5 10 ± 1s		260 ± 3 5s max.		260 ± 5 10 ± 1s			
	Reflow soldering	Please see P.172											
Page		158		160		167		165		162		169	

Detector  
Push  
Slide  
Rotary  
Encoders  
Power  
Dual-in-line Package Type  
TACT Switch™  
Custom-Products

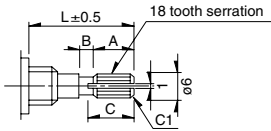
Rotary Switches Shaft Style .....171  
 Rotary Switches Soldering Conditions .....172  
 Rotary Switches Attached Parts .....173  
 Rotary Switches Cautions .....174

# Shaft Configurations

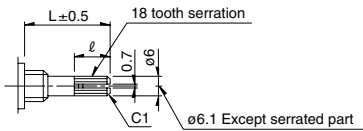
## 18-tooth Serration Shaft

The shaft shows the position in which it is turned fully counterclockwise.

### Cutting Shaft



### Die Casting Shaft



Unit:mm

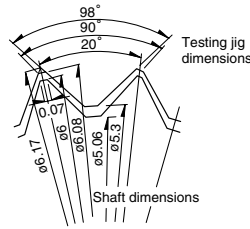
Shaft length L	A	B	C
15	6	1	7
20	10	2	11

Unit:mm

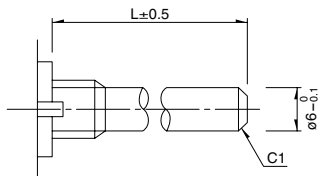
Shaft length L	ℓ
15	8
20	12

### Details About Serration

- (1) The mold dimensions of standard serration and the dimensions of test jigs are as shown in the figure at left.
- (2) Position of the serration bottom  
When the shaft is turned fully counterclockwise, the position of the serration bottom is on the AA line.
- (3) Slitting angle  
The slitting angle (position) is not specified.

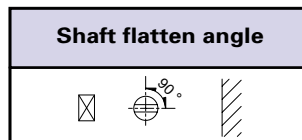
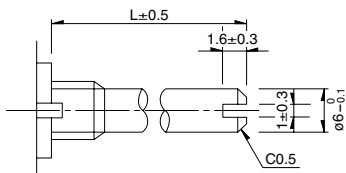


## Round Shaft



## Round Shaft with Groove

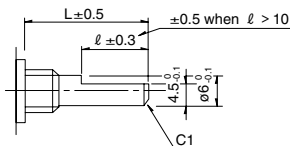
The shaft shows the position in which it is turned fully counterclockwise.



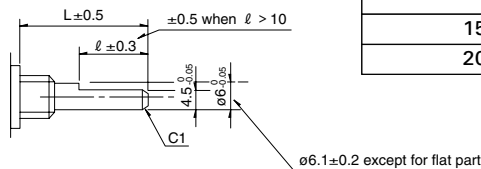
## Flat Shaft

The shaft shows the position in which it is turned fully counterclockwise.

### Cutting Shaft

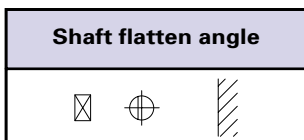


### Die Casting Shaft



Unit:mm

Shaft length L	ℓ
15	7
20	12



### Note

SRBM Series are based on (printed terminal direction). SRRM, SRRN, SRBV Series are based on (panel lug).

Detector

Push

Slide

Rotary

Encoders

Power

Dual-in-line  
Package Type

TACT Switch™

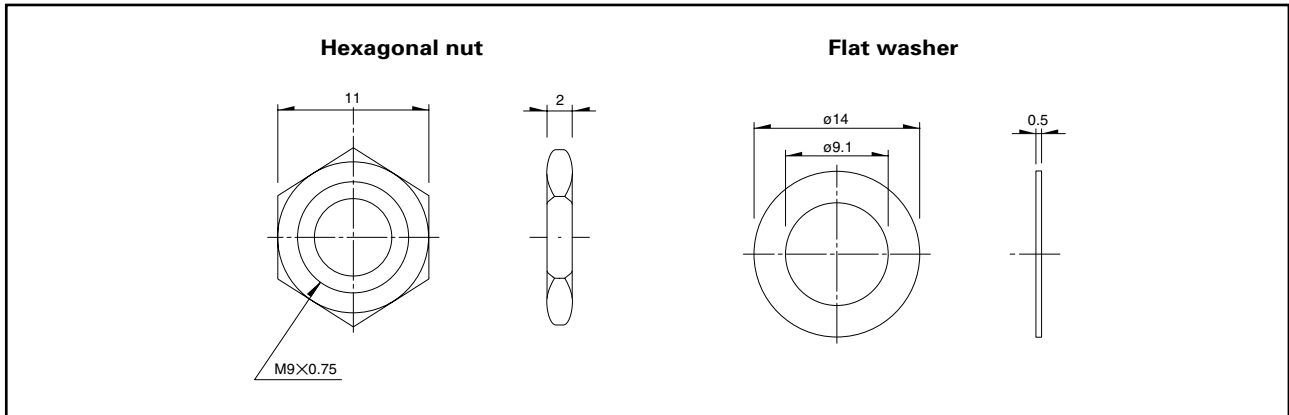
Custom-  
Products

## Attached Parts

The following parts are included with the product.

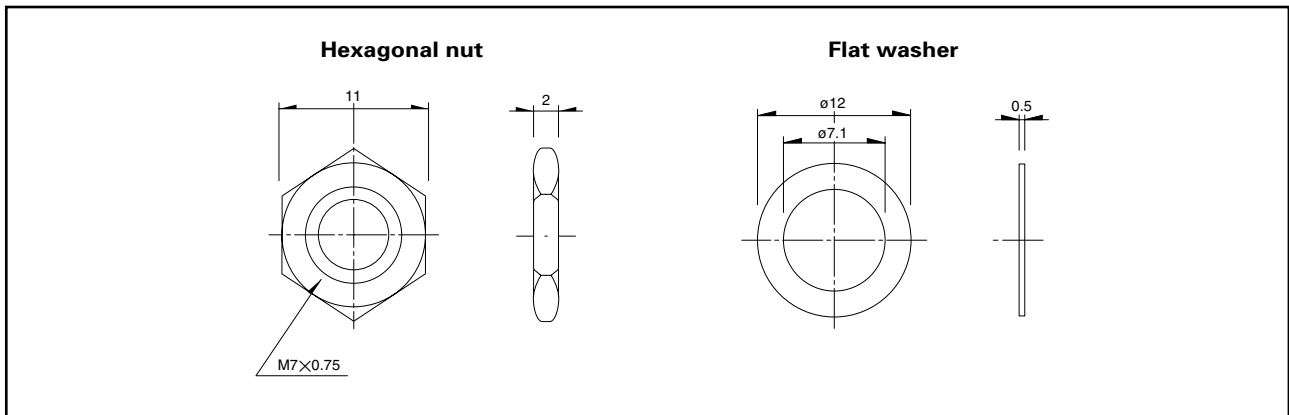
### ■ SRRM, SRBV

Unit:mm



### ■ SRBM, SRRN

Unit:mm



Detector

Push

Slide

**Rotary**

Encoders

Power

Dual-in-line  
Package Type

TACT Switch™

Custom-  
Products