

Rotary Switch

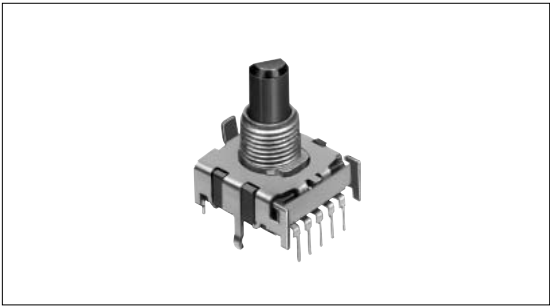
8-position Low-profile Vertical Type

SRBV Series

www.DataSheet4U.com



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 μ A 3V DC
Contact resistance (Initial/After operating life)		50m Ω max./150m Ω max.
Rotational torque		30 $\pm$ 15 mN $\cdot$ 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 ± 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
							SRBV170701
	7				L=20		SRBV170501
					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).

Detector

Push

Slide

Rotary

Encoders

Power

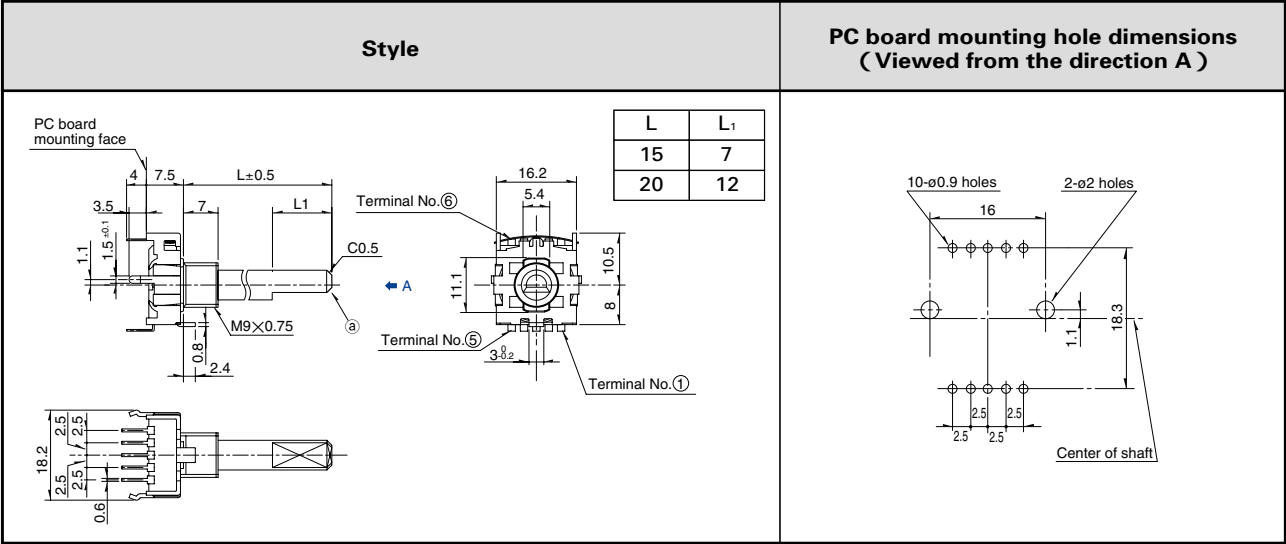
Dual-in-line
Package Type

TACT Switch™

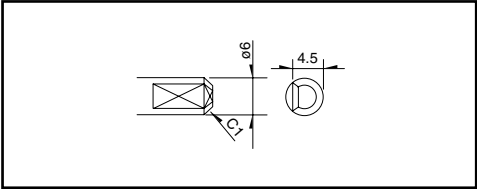
Custom-
Products

■ Dimensions

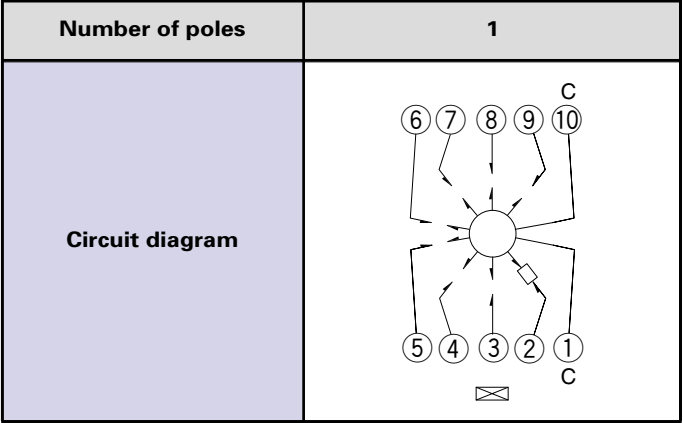
Unit:mm



■ Operation Part Details ① Unit:mm



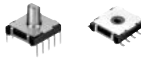
■ Standard Circuit Diagram (Viewed from Direction A)



■ 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	10	11.4	—————	16.2	12.5	—————			
		D		12.4		18.5	10				
		H		1.7		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	100MΩ min. 100V DC			100MΩ min. 500V DC	100MΩ min. 100V DC		100MΩ 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
									10mm	0.17 mm	15 mm
									15mm	0.25 mm	20 mm
									Load at the tip of shaft : 5N		
Durability	Operating life without load	10,000cycles 250mΩ max.	10,000cycles 100mΩ max.	10,000cycles 40mΩ max.	10,000cycles 100mΩ max.		30,000cycles 100mΩ max.	10,000cycles 70mΩ max.			
	Operating life with load Load : (at rated load)	10,000cycles 250mΩ max.	10,000cycles 100mΩ max.	10,000cycles 60mΩ max.	10,000cycles 150mΩ max.			10,000cycles 100mΩ 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 ⁺ 1s	350 ± 5 3s max.	350 ± 10 , 3 ⁺ 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			—————						
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Push

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TACT Switch™

Custom-
Products

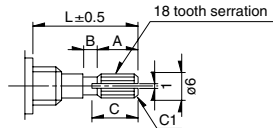
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Shaft Configurations

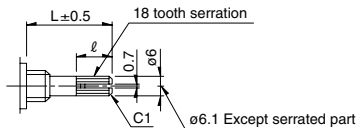
18-tooth Serration Shaft

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

Cutting Shaft



Die Casting Shaft



Unit:mm

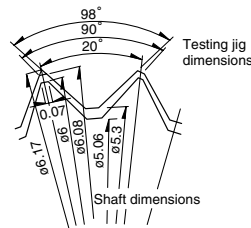
Shaft length L	A	B	C
15	6	1	7
20	10	2	11

Unit:mm

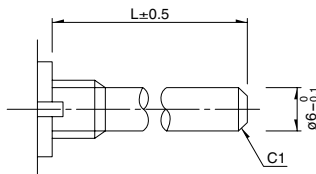
Shaft length L	l
15	8
20	12

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.

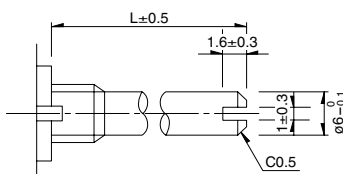


Round Shaft

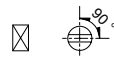


Round Shaft with Groove

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



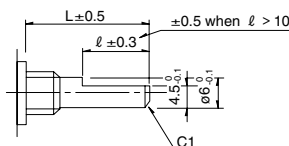
Shaft flatten angle



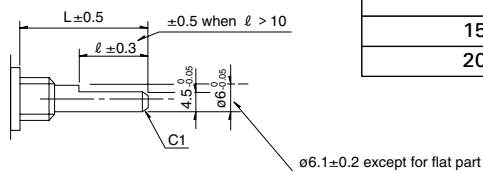
Flat Shaft

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

Shaft flatten angle



Note

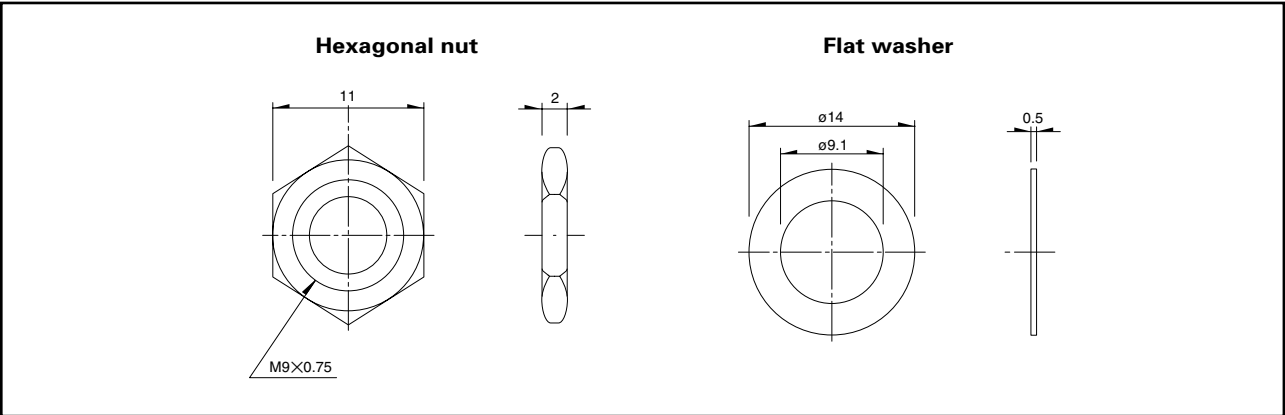
SRBM Series are based on (printed terminal direction). SRRM, SRRN, SRBV Series are based on (panel lug).

Attached Parts

The following parts are included with the product.

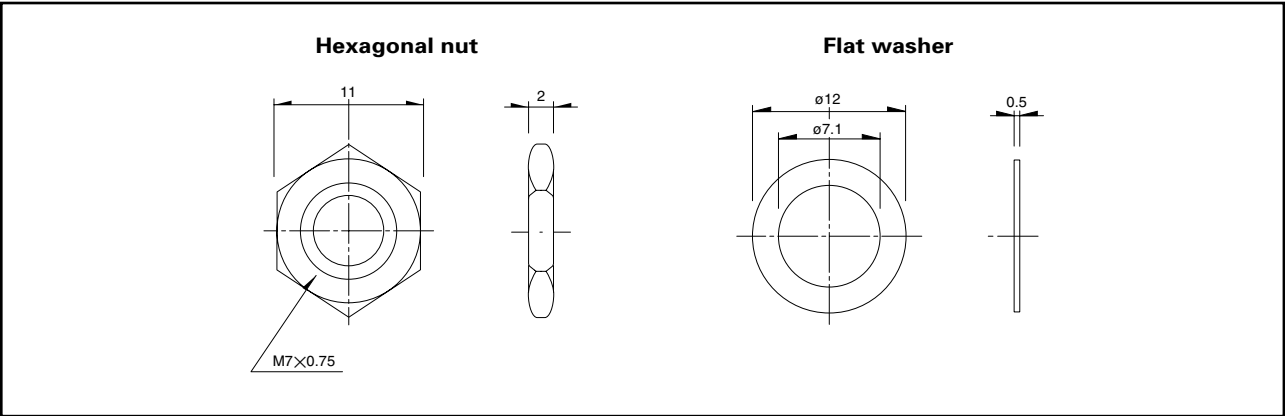
SRRM, SRBV

Unit:mm



SRBM, SRRN

Unit:mm



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