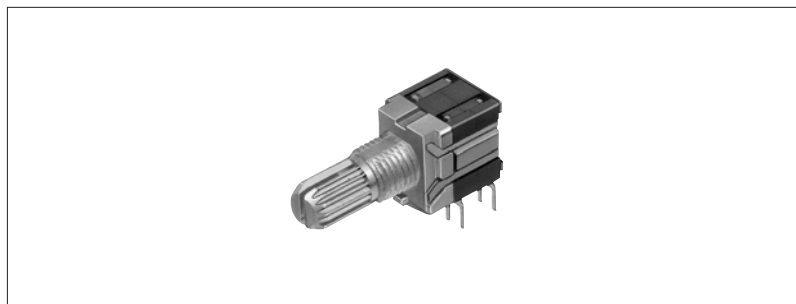


6position Horizontal Type Rotary Switch

SRBM Series

Fully compatible with a pulse switch.



Car Use

Features

- Rotary switch with up to 6 positions are available.

Applications

- Communication devices including transceivers
- In-vehicle devices, including car radios and car stereo systems

Typical Specifications

Items	Specifications	
	Rotary switch	Pulse switch
Rating (max.) (Resistive load)	0.1A 16V DC	
Contact resistance (Initial performance / After lifetime)	50mΩ max. / 150mΩ max.	
Rotational torque	40±20 mN·m	15±7 mN·m
Operating life	Without load	10,000 cycles
	With load	30,000 cycles
		10,000 cycles (0.1A 16V DC)

Power

Push

Slide

Rotary

Encoders

Jog Shuttle

Telephone-hook

Detector

Vibration Sensors

Dual-in-line Package Type

Multi Control Devices

TACT

For other detailed specifications, see P.169

Products Line

Number of wafer	Poles	Positions	Changeover angle	Changeover timing	Operating section style	Length of operating section (mm)	Minimum packing unit (pcs.)	Products No.	Drawing No.
1	2	2	$30^\circ \pm 3^\circ$	Non shorting	18-tooth serration	L=15	100	SRBM120700	1
					Flat			SRBM121300	
		3			18-tooth serration	L=20		SRBM131300	
					Flat	L=15		SRBM131400	
		4			18-tooth serration	L=20		SRBM140700	
					Flat	L=15		SRBM140800	
	1	5	$18^\circ \pm 3^\circ$	-	18-tooth serration	L=15	SRBM149501		
					Flat		SRBM150500		
		6			18-tooth serration	L=15	SRBM154002		
					Flat	L=15	SRBM160700		
		20 Pulse			18-tooth serration	L=15	SRBM160700		
					Flat	L=15	SRBM1L0800		
							SRBM1L1400	2	

Note

Additional switches not included in the above list are also available. Contact us for details.

Dimensions

Single-shaft Type

Unit : mm

No.	Style	PC board mounting hole dimensions (Viewed from the direction A)
1	<p>Rotary switch</p>	
2	<p>Pulse switch</p>	

For shaft style, see P.171
For attached parts, see P.173

Power

Push

Slide

Rotary

Encoders

Jog Shuttle

Telephone-hook

Detector

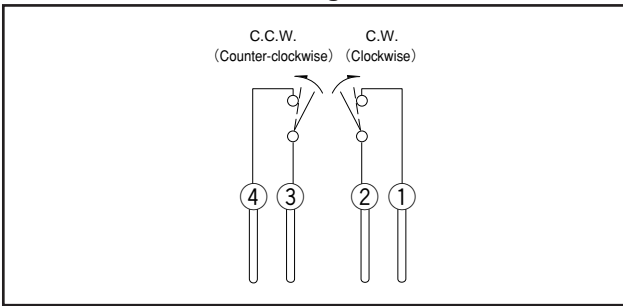
Vibration Sensors

Dual-in-line Package Type

Multi Control Devices

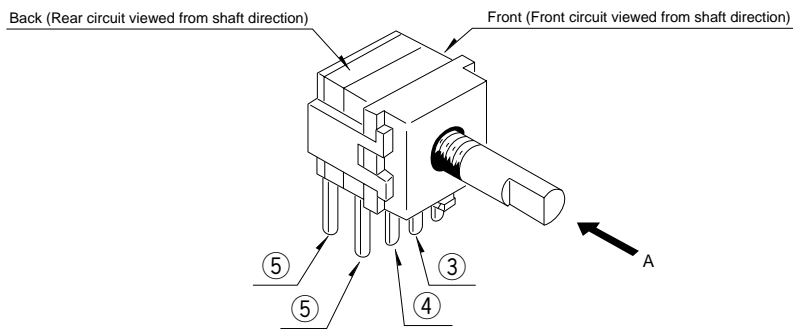
TACT

Pulse Switch Circuit Diagram



C.W. : ①② ON during changeover only
 C.C.W. : ③④ ON during changeover only

Rotary Switch Circuit Diagram (Viewing the following diagram from Direction A)



2 to 4-positions		5-position ※1		6-position ※2	
Rear	Front	Rear	Front	Rear	Front

※1 : Circuit steps are positions 2 to 5 at front, and positions 1 to 4 at rear.
 ※2 : Circuit steps are positions 3 to 6 at front, and positions 1 to 4 at rear.
 ※1, ※2 : External connection to common terminals is needed .

Notes

1. For positions 2 to 4, 1section consists of 2 poles.
2. For positions 5 and 6, 1 section consists of 1 pole.

Dummy Terminals

Number of positions	2	3	4	5	6
Front	④ ⑤	⑤	—	—	—
Rear	③ ④	④	—	—	—

Products Specifications

Items		Series	SRRM	SRBQ		SRBV	SRBM		
				Insertion	Reflow type		Rotary	Pulse	
Operating temperature range		-10°C to +60°C							
Rating (max.) (Resistive load)		0.25A 30V DC	0.1A 16V DC		0.3A 16V DC	0.1A 16V DC			
Electrical performance	Initial contact resistance	20mΩ max.	50mΩ max.						
	Insulation resistance	100MΩ min. 500V DC	100MΩ min. 100V DC						
	Voltage proof	500V AC for 1 min.	100V AC for 1 min.						
Robustness of terminal		10N for 1 min.	5N for 1 min.						
Robustness of actuator	Rotational direction	1N·m	—		0.6N·m	0.5N·m	—		
	Push direction	100N	20N		100N				
Mechanical performance	Wobble of actuator	Load at the tip of shaft SRBM, SRRM : 5N SRBV, SRBQ : 1N (Unit : mm)		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	Distance from mounting surface to the tip of shaft	Shaft wobble (max. value)	Measuring position from mounting surface	Shaft wobble (max. value)	Applicable mounting dimension
		10	0.17	15	below 5	0.5 max.	10	0.2	15
		15	0.25	20	above 5 and below 10	0.9 max.	15	0.3	20
	Vibration		10 to 55 to 10Hz/min., the amplitude is 1.5mm for all the frequencies, in the 3 direction of X, Y and Z for 2 hours respectively						
	Solderability		230±5°C, 3±0.5s						
Resistance to soldering heat	Manual soldering	350±10°C 3 ⁺¹ ₀ s		350±5°C 3s max.		350±10°C 3 ⁺¹ ₀ s			
	Dip soldering	260±5°C 10±1s	260±5°C 5±1s	—		260±5°C 10±1s	260±3°C 5s max.		
	Reflow soldering	—		Please see P.172		—			
Durability	Operating life without load	10,000 cycles 40mΩ max.	10,000 cycles 100mΩ max.				30,000 cycles 100mΩ max.		
	Operating life with load Load : As rating	10,000 cycles 60mΩ max.	10,000 cycles 100mΩ max.		10,000 cycles 150mΩ max.				
Environmental performance	Cold	-20±2°C for 96h							
	Dry heat	85±2°C for 96h							
	Damp heat	40±2°C, 90 to 95%RH for 96h							

Power

Push

Slide

Rotary

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Jog Shuttle

Telephone-hook

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Vibration Sensors

Dual-in-line Package Type

Multi Control Devices

TACT

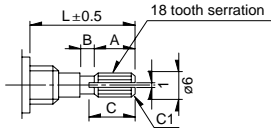
Shaft Style

18-Tooth Serration Shaft

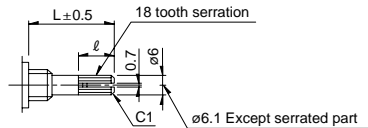
The shaft shows the position in which it is turned fully counterclockwise.

Unit : mm

① Cutting Shaft



② Die Casting Shaft



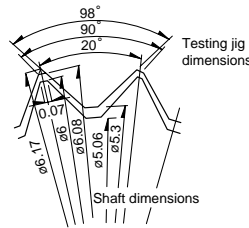
Shaft length L	A	B	C
15	6	1	7
20	10	2	11

Unit : mm

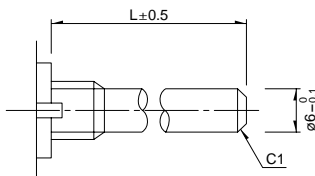
Shaft length L	l
15	8
20	12

Details About Serration

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

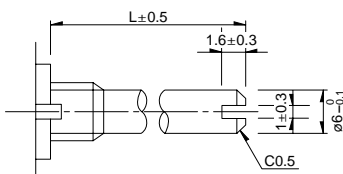


Round Shaft



Round Shaft with groove

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



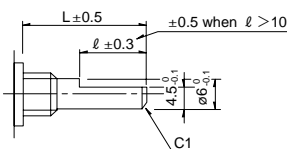
Shaft flatten angle	Type
	S26

Flat Shaft

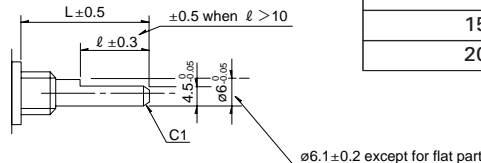
The shaft shows the position in which it is turned fully counterclockwise.

Unit : mm

Cutting Shaft



Die Casting Shaft



Shaft length L	l
15	7
20	12

Shaft flatten angle	Type
	F00

Note

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

Power

Push

Slide

Rotary

Encoders

Jog Shuttle

Telephone-hook

Detector

Vibration Sensors

Dual-in-line Package Type

Multi Control Devices

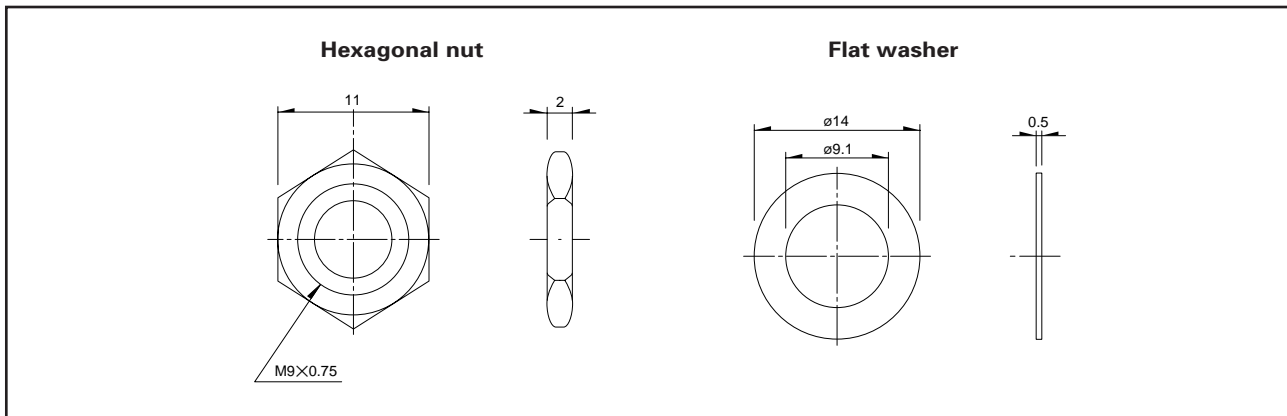
TACT

Attached Parts

These parts are attached to the following products.

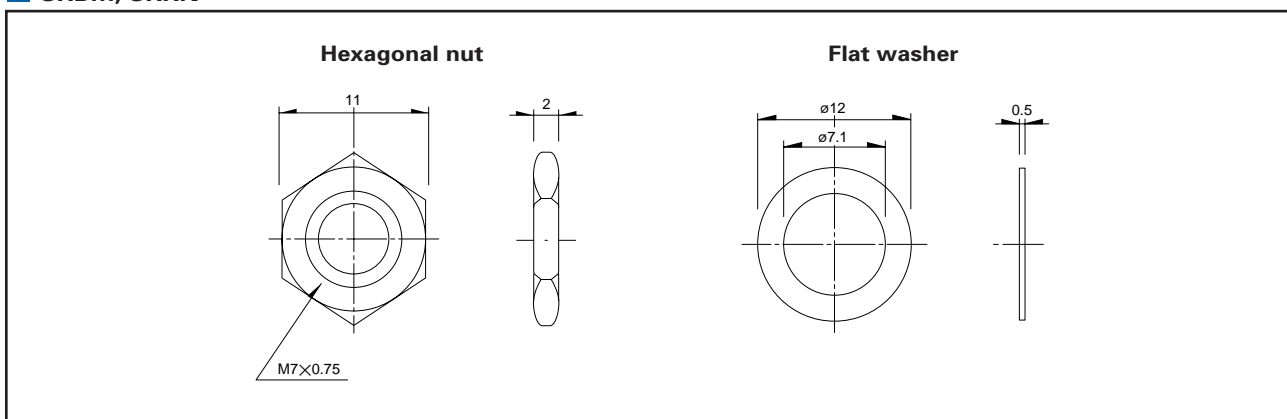
SRRM, SRBV

Unit : mm



SRBM, SRRN

Unit : mm

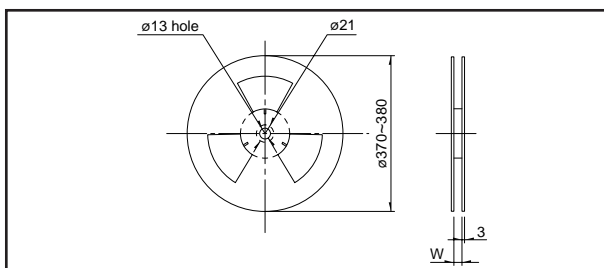


Taping Specifications

Taping Packaging

Reel Size

Unit : mm



Series	Number of packages (pcs.)			Reel width W (mm)	Tape width (mm)
	1 reel	1 case / domestic	1 case / export packing		
SRBQ	1,200	2,400	4,800	24.4	24

Note

Order products in N minimum packing units (1 reel or 1 case).

Power

Push

Slide

Rotary

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Jog Shuttle

Telephone-hook

Detector

Vibration Sensors

Dual-in-line Package Type

Multi Control Devices

TACT