

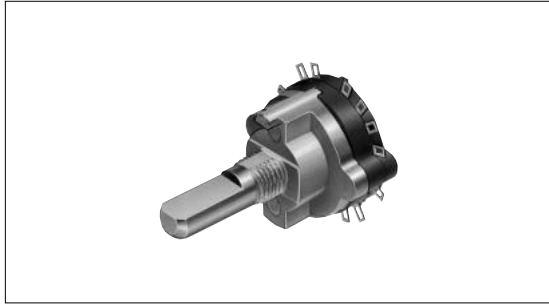
Rotary Switch

6-position Vertical Type

SRRN Series



Lead wiring compatible switch.



Typical Specifications

Items		Specifications
Rating(max.)(min.) (Resistive load)		0.15A 12V DC/50 μ A 3V DC
Contact resistance (Initial/After operating life)		50m max./100m max.
Rotational torque		70 \pm 30mN·m
Operating life	Without load	10,000cycles
	With load	10,000cycles(0.15A 12V DC)

Product Line

Number of wafers	Poles	Positions	Changeover angle	Changeover timing	Actuator configuration	Actuator length (mm)	Minimum order unit(pcs.)	Product No.	
1	2	5	30 \pm 3°	Non shorting	Round	20	600	SRRN151800	
		6			Flat	15		SRRN152000	
	3	4			20	18-tooth serration		15	SRRN161100
		3				Round			SRRN142100
	4	3			18-tooth serration	15		SRRN134300	

Notes

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

Detector

Push

Slide

Rotary

Encoders

Power

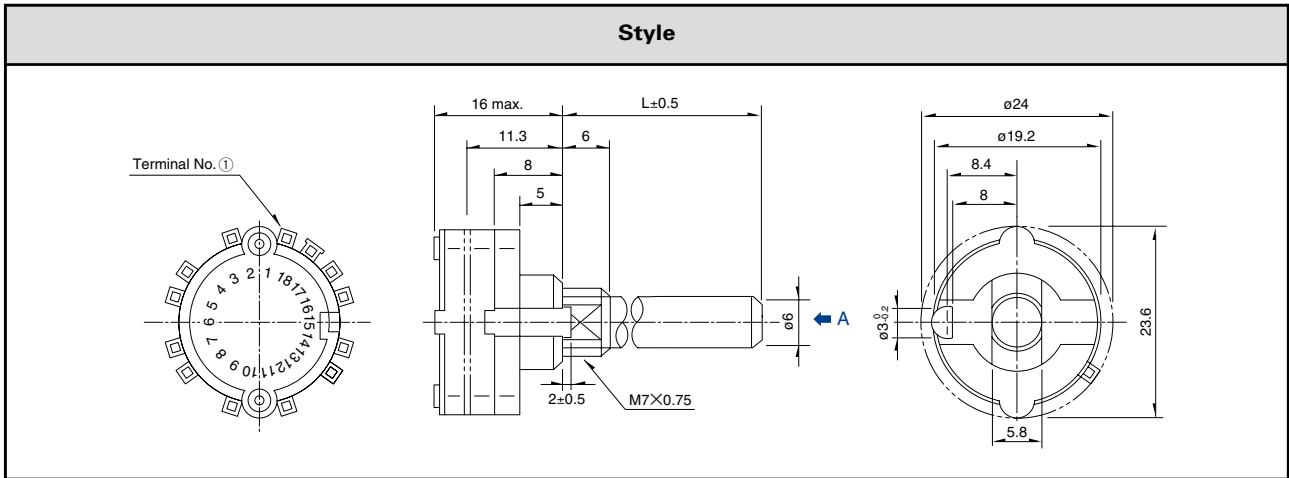
Dual-in-line
Package Type

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Dimensions

Unit:mm



- Detector
- Push
- Slide
- Rotary**
- Encoders
- Power

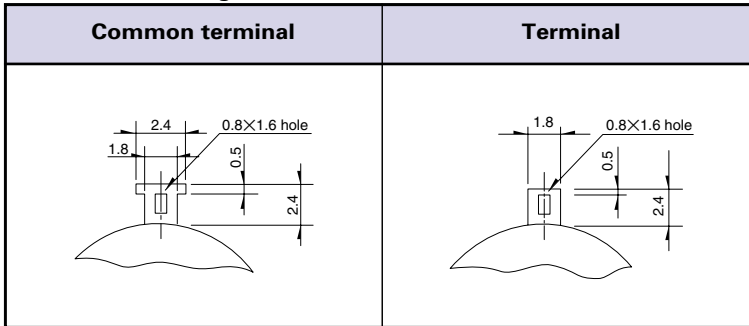
Dual-in-line
Package Type

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Terminal Configuration

Unit:mm



Standard Circuit Diagram(Standard Poles Per Step)









Number of poles	2		3		4	
Circuit diagram						
Dummy terminals	5-positions		4-positions	—	3-positions	—
	6-positions	—				

Note

The ☒ mark in the above table indicate a stopper with the shaft turned fully counterclockwise when viewed from direction A of the diagrams.

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

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				
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 ⁺ 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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Detector
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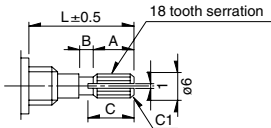
Shaft Configurations

18-tooth Serration Shaft

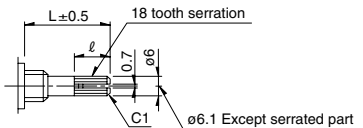
The shaft shows the position in which it is turned fully counterclockwise.

Unit:mm

Cutting Shaft



Die Casting Shaft



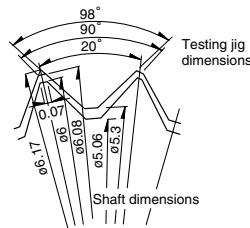
Shaft length L	A	B	C
15	6	1	7
20	10	2	11

Unit:mm

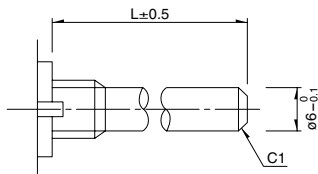
Shaft length L	ℓ
15	8
20	12

Details About Serration

- (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.

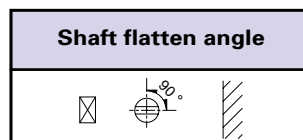
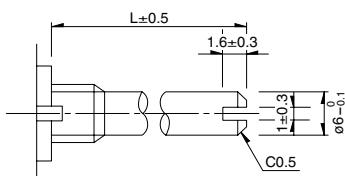


Round Shaft



Round Shaft with Groove

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

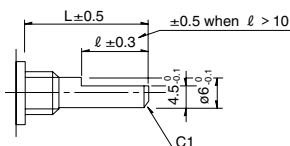


Flat Shaft

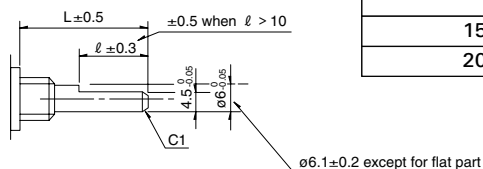
The shaft shows the position in which it is turned fully counterclockwise.

Unit:mm

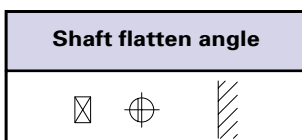
Cutting Shaft



Die Casting Shaft



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

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Power

Dual-in-line
Package Type

TACT Switch™

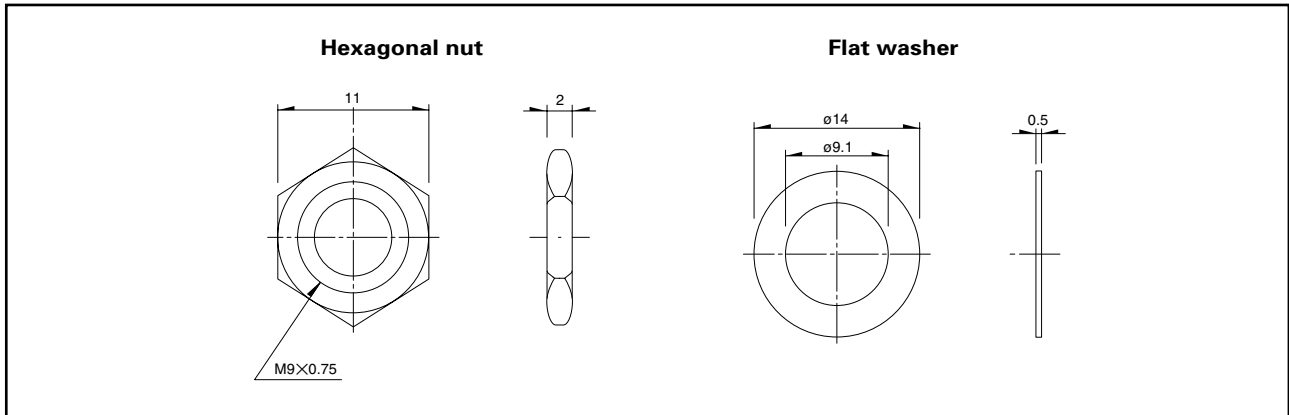
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Attached Parts

The following parts are included with the product.

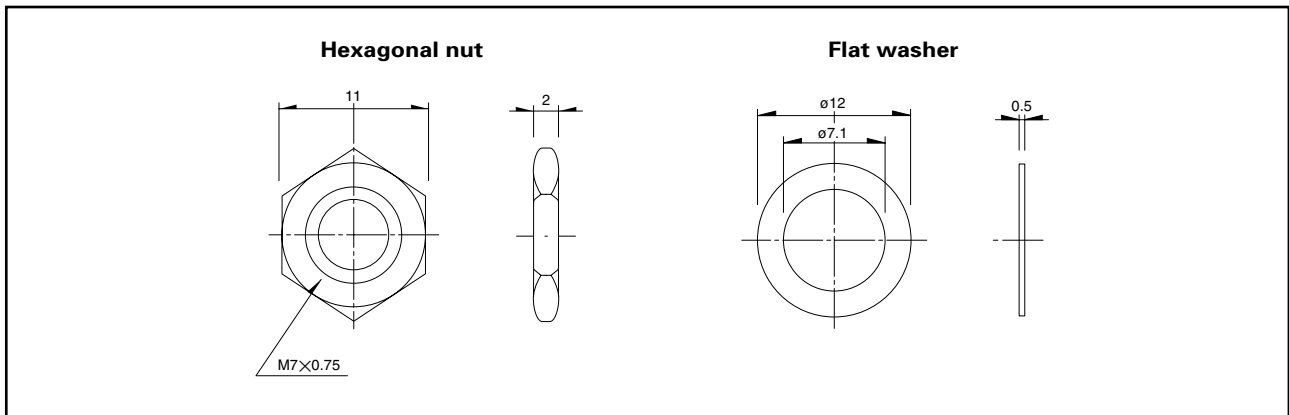
■ SRRM, SRBV

Unit:mm



■ SRBM, SRRN

Unit:mm



Detector

Push

Slide

Rotary

Encoders

Power

Dual-in-line
Package Type

TACT Switch™

Custom-
Products