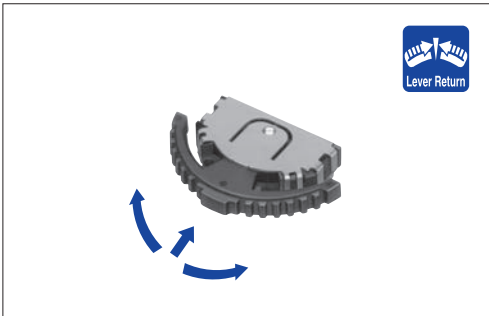# SLLB5 Lever and Push Operation Type Switch

Compact two-way input device approximately 50% smaller than our conventional models

■ Typical Specifications

Items		Specifications
Rating (max.)/(min.) (Resistive load)		10mA 5V DC/50μA 3V DC
Contact resistance		1Ω max.
Operating force	Lever portion	0.65±0.3N
	Push portion	2.5±1N
Travel (Push operation)		0.7mm
Operating life	Without load	100,000 cycles
	With load	100,000 cycles (10mA 5V DC)

■ Product Line

Product No.	Actuator configuration	Push-on switch	Location lug	Minimum order unit (pcs.)		Drawing No.
				Japan	Export	
SLLB510100	Mounting knob integrated	With	With	1,500	6,000	1
SLLB510200			Without			
SLLB520100	Mounting knob		With			2
SLLB520200			Without			

■ Packing Specifications
Taping

Number of packages (pcs.)			Tape width (mm)	Export package measurements (mm)
1 reel	1 case / Japan	1 case / export packing		
1,500	3,000	6,000	24	428×413×172

Unit:mm

Reel size

ø380   25.4
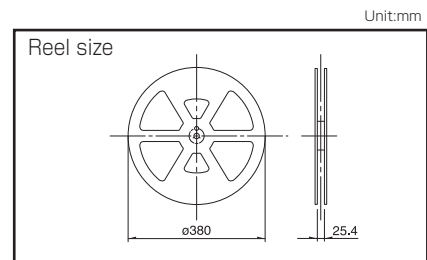
Note
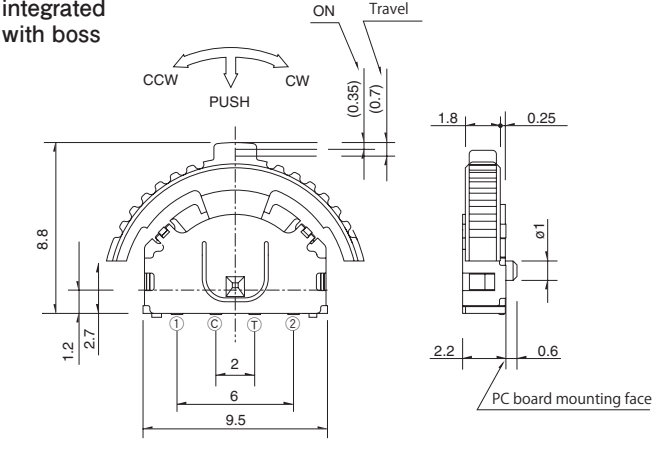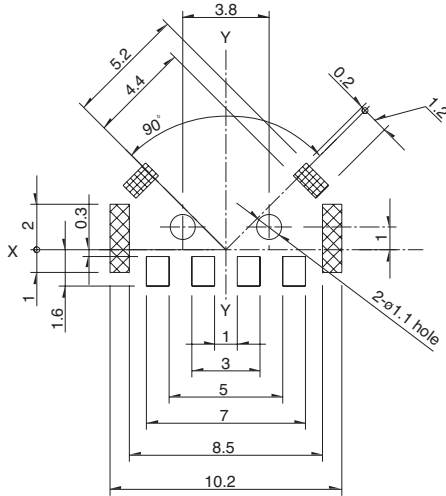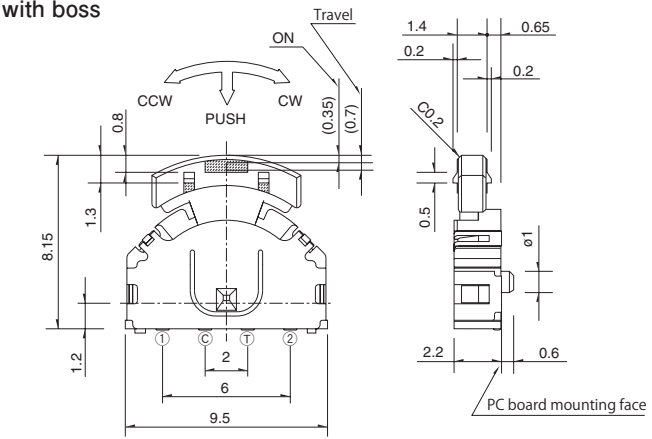
For automotive use, please contact us.

Multi Control Devices

Variable Resistor Type

Switch Type

ALPS

■ Dimensions

Unit:mm

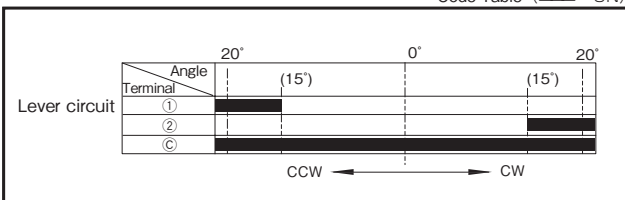| No.	Style	PC board mounting hole and land dimensions
1	**Mounting knob integrated with boss** ON Travel CCW CW PUSH (0.35) (0.7) 1.8 0.25 ø1 8.8 1.2 2.7 ① ⓒ ⓣ ② 2 6 9.5 2.2 0.6 PC board mounting face	3.8 Y 5.2 4.4 0.2 1.2 90° X 2 0.3 1 1.6 Y 1 3 5 7 8.5 10.2 1 2-ø1.1 hole
2	**Mounting knob with boss** Travel ON CCW CW PUSH (0.35) (0.7) 1.4 0.65 0.2 0.2 0.8 1.3 8.15 C0.2 0.5 ø1 1.2 ① ⓒ ⓣ ② 2 6 9.5 2.2 0.6 PC board mounting face	

Note

Dimensions drawing is for type with location lugs.

■ Circuit Diagram (Push Portion)
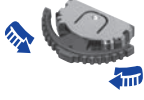
PUSH

ⓒ —○   ○— ⓣ

■ Code Table

Code Table（ ▬ = ON）

		20°	(15°)	0°	(15°)	20°
Lever circuit	Terminal / Angle					
	①	▬▬				
	②					▬▬
	ⓒ	▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬				

CCW ◄—— ——► CW

ALPS

Type	Switch type		
Series	**SRBE**	**SLLB**	**SLLB5** Small type
Photo			
Dimensions (typical value) (mm) — W	—	11.8	9.5
Dimensions (typical value) (mm) — D	—	8.7	5.5
Dimensions (typical value) (mm) — H	—	3	2.2
Number of operating shafts	Single-shaft		
Shaft material	Resin		
Directional resolution	—	2-direction	
Directional operating feeling (tactile feeling)	With	Without	
Lever return mechanism	Without	With	
Center-push switch	With	With／Without	With
Encoder	With	Without	
Operating temperature range	−10℃ to +60℃	−40℃ to +85℃	−10℃ to +60℃
Operating life — Operating life without load	100,000 cycles	100,000 cycles	100,000 cycles
Operating life — Operating life with load (at max. rated load)	—	100,000 cycles	100,000 cycles
Automotive use	—	—	—
Life cycle (availability)	⭐3	⭐3	⭐3
Rating (max.) (Resistive load)	1mA 5V DC	10mA 5V DC	
Electrical performance — Output voltage	1V max. at 1mA 5V DC (Resistive load)	1V max. at 1mA 5V DC (Resistive load) 5V 5K Measuring circuit Measurir terminal	—
Electrical performance — Encoder resolution	6 pluses/360°	—	
Electrical performance — Insulation resistance	10MΩ min. 50V DC	100MΩ min. 100V DC	
Electrical performance — Voltage proof	50V AC for 1min.	100V AC for 1min.	
Mechanical performance — Push operating force	—	0.65±0.3N	
Mechanical performance — Encoder detent torque	3.5±1.5N	2±1N	2.5±1N
Mechanical performance — Terminal strength	3±2mN·m	—	—
Mechanical performance — Terminal strength	—	3N for 1min.	
Mechanical performance — Actuator strength — Push / pull directions	50N		
Mechanical performance — Actuator strength — Operating direction	—	10N	
Environmental performance — Cold	−30℃ 96h	−40℃ 96h	−20℃ 96h
Environmental performance — Dry heat	85℃ 96h		
Environmental performance — Damp heat	40℃, 90 to 95%RH 96h		
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■ Reference for Manual Soldering

Series	Tip temperature	Soldering time	No. of solders
RKJXT1F, RKJXM, RKJXL, SLLB, SLLB5, SRBE, SKRV, SKRH	350±5℃	3s max.	1 time
RKJXS	350±10℃	3^{+1}_{-0} s	2 time max.

■ Reference for Dip Soldering

Series	Preheating		Dip soldering		No. of solders
	Soldering surface temperature	Heating time	Soldering temperature	Soldering time	
RKJXT1F, RKJXM	100℃ max.	2 min. max.	260±5℃	5±1s	2 time max.
RKJXL	120℃ max.	70s max.	260℃ max.	6s max.	2 time max.

■ Example of Reflow Soldering Condition
Temperature profile
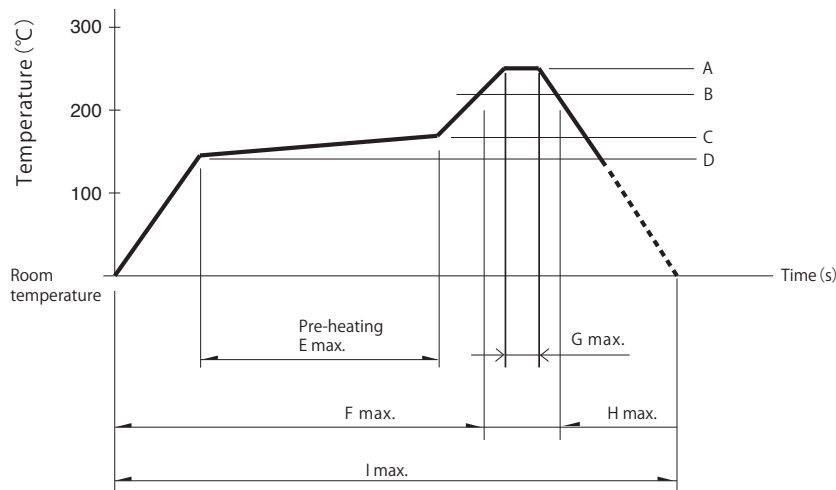
Series	A	B	C	D	E	F	G	H	I	No. of reflows
RKJXS	260℃	230℃	150℃	150℃	2 min.	—	10s	40s	4 min.	1 time
SLLB5	250℃	230℃	150℃	150℃	—	2 min.	—	30s	—	1 time
SKRV, SKRH, SLLB, SRBE	260℃	230℃	180℃	150℃	2 min.	—	—	40s	—	1 time

Notes
1. The above temperature shall be measured on the mounting surface of a PC board. There are cases where the PC board's temperature greatly differs from that of the switch, depending on the material, size thickness of PC boards and others. The above-stated conditions shall also apply to switch surface temperatures.
2. Soldering conditions differ depending on reflow soldering machines. Prior verification of soldering condition is highly recommended.

Multi Control Devices

Variable Resistor Type

Switch Type

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