

■ Typical Specifications

Items		Specifications
Rating (max.)/(min.) (Resistive load)		10mA 5V DC/50 $\mu$ A 3V DC
Output voltage		1V max. at 1mA 5V DC (Resistive load)
Operating force	Lever portion	0.65 $\pm$ 0.3N
	Push portion	2 $\pm$ 1N
Travel (Push operation)		Refer to the dimensions.
Operating life	Without load	100,000 cycles
	With load	100,000 cycles (10mA 5V DC)

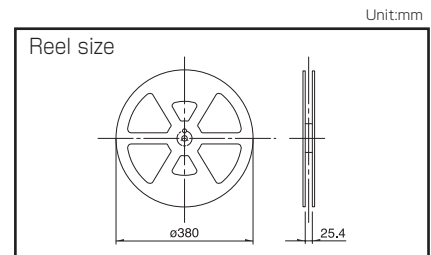
■ Product Line

Product No.	Actuator configuration	Push-on switch	Actuator color	Location lug	Minimum order unit (pcs.)	
					Japan	Export
<b>SLLB120100</b>	Standard type Mounting knob	With	Black	With	1,350	5,400
<b>SLLB120200</b>	Standard type Mounting knob integrated		Gray			
<b>SLLB120300</b>			Black			

■ Packing Specifications

Taping

Number of packages (pcs.)			Tape width (mm)	Export package measurements (mm)
1 reel	1 case / Japan	1 case / export packing		
1,350	2,700	5,400	24	428 $\times$ 413 $\times$ 172



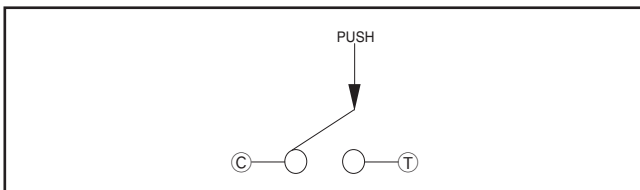
Multi Control Devices  
Variable Resistor Type  
Switch Type

■ Dimensions

Unit:mm

Style	PC board mounting hole and land dimensions (Viewed from switch mounting face)
<p><b>Mounting knob with push-on switch</b></p>	
<p><b>Mounting knob integrated with push-on switch</b></p>	

■ Circuit Diagram (Push Portion)



■ Code Table

Code Table (■ = ON)



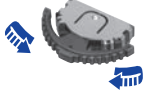



Standard type

Lever circuit	25°		0°		25°	
	(21.5°)	(11°)	(11°)	(21.5°)	(11°)	(21.5°)
Terminal ①	■					
Terminal ②	■					
Terminal ③						
Terminal ④					■	■
Terminal C	■	■	■	■	■	■

CCW ← → CW

# Multi Control Devices

## List of Varieties

Type		Switch type		
Series		SRBE	SLLB	SLLB5 Small type
Photo				
Dimensions (typical value) (mm)	W	—	11.8	9.5
	D	—	8.7	5.5
	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°C to +60°C	-40°C to +85°C	-10°C to +60°C
Operating life	Operating life without load	100,000 cycles	100,000 cycles	100,000 cycles
	Operating life with load (at max. rated load)	—	100,000 cycles	100,000 cycles
Automotive use		—	—	—
Life cycle (availability)				
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)	—
	Encoder resolution	6 pluses/360°	—	
	Insulation resistance	10MΩ min. 50V DC	100MΩ min. 100V DC	
	Voltage proof	50V AC for 1min.	100V AC for 1min.	
Mechanical performance	Push operating force	—	0.65±0.3N	
	Encoder detent torque	3.5±1.5N	2±1N	2.5±1N
	Terminal strength	3±2mN·m	—	—
	Terminal strength	—	3N for 1min.	
Actuator strength	Push / pull directions	50N		
	Operating direction	—	10N	
Environmental performance	Cold	-30°C 96h	-40°C 96h	-20°C 96h
	Dry heat	85°C 96h		
	Damp heat	40°C, 90 to 95%RH 96h		
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# Switch Type / Soldering Conditions

## Reference for Manual Soldering

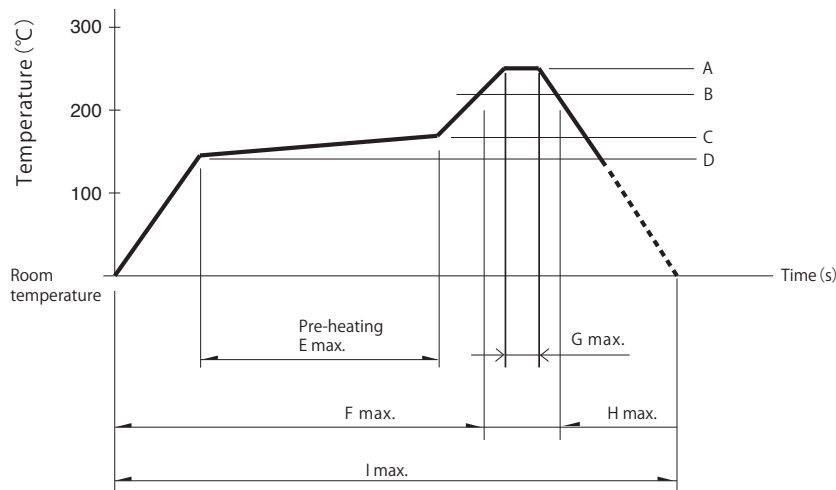
Series	Tip temperature	Soldering time	No. of solders
<b>RKJXT1F, RKJXM, RKJXL, SLLB, SLLB5, SRBE, SKRV, SKRH</b>	350±5℃	3s max.	1 time
<b>RKJXS</b>	350±10℃	3 <sup>+1</sup> <sub>-0</sub> s	2 time max.

## Reference for Dip Soldering

Series	Preheating		Dip soldering		No. of solders
	Soldering surface temperature	Heating time	Soldering temperature	Soldering time	
<b>RKJXT1F, RKJXM</b>	100℃ max.	2 min. max.	260±5℃	5±1s	2 time max.
<b>RKJXL</b>	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
<b>RKJXS</b>	260℃	230℃	150℃	150℃	2 min.	—	10s	40s	4 min.	1 time
<b>SLLB5</b>	250℃	230℃	150℃	150℃	—	2 min.	—	30s	—	1 time
<b>SKRV, SKRH, SLLB, SRBE</b>	260℃	230℃	180℃	150℃	2 min.	—	—	40s	—	1 time

## Notes

- 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.
- Soldering conditions differ depending on reflow soldering machines. Prior verification of soldering condition is highly recommended.