# Lever and Push Operation Type Switch

# Compact and low-profile horizontal type for various applications



#### ■ Typical Specifications

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

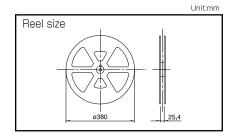
#### Product Line

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

#### Packing Specifications

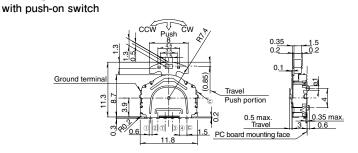
#### Taping

Numb	er of packages	Tape width	Export package	
1 reel	1 case / Japan 1 case / export packing		(mm)	measurements (mm)
1,350	2,700	5,400	24	428×413×172



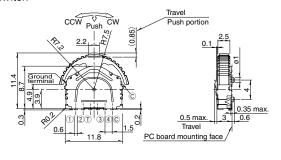
(Viewed from switch mounting face)

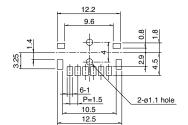
Mounting knob



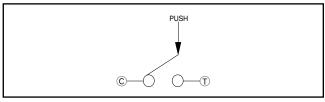
Style

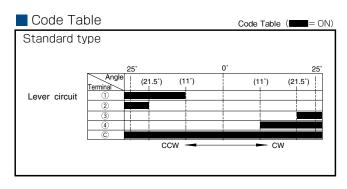
Mounting knob integrated with push-on switch





Circuit Diagram (Push Portion)





	Туре		Switch type						
(	Series		SRBE	SLLB5 Small type	SLLB				
Photo									
Dimensions	V	/	_	9.5	11.8				
(typical value	(typical value) D		_	- 8.8					
(mm)	F	1	_	2.2	3				
Number of	operating sh	nafts		Single-shaft					
Shaf	t material			Resin					
Direction	nal resolut	tion	_	2-dir	ection				
Directional (tact	operating f ile feeling)	eeling	With	Wit	hout				
Lever ret	urn mechani	sm	Without	W	/ith				
Center-push switch				With					
Е	Encoder With			Wit	hout				
Operating temperature range		-	-10℃ to +60℃						
Operating Operating life without load			100,000 cycles						
life Operating life with load (at max. rated load)		with load ed load)	_	— 100,000 cycles					
Autor	motive use	Э	_	_	_				
Life cycl	e (availabi	lity)	<b>*</b> 3	*3	*3				
Rating (ma	x.) (Resistive	load)	1mA 5V DC	10mA	5V DC				
Electrical	Output vo	ltage	1V max. at 1mA 5V DC (Resistive load)	_	1V max. at 1MA 5V DC Measuring Sisk Sisk Circuit Measuring terminal				
performance	Encoder res	olution	6 pluses/360°		_				
	Insulation res	istance	10MΩ min. 50V DC	100MΩ m	in. 100V DC				
	Voltage	proof	50V AC for 1min.	100V A0	C for 1min.				
	Push operatir	ng force	=	0.65	±0.3N				
	Encoder deten	t torque	3.5±1.5N	2.5±1N	2±1N				
Mechanical	Terminal st	rength	3±2mN⋅m	_	_				
performance	Terminal st		_	3N for 1min.					
Actuator Push / pull directions				50N					
		direction			N				
Environmental	Cold —30°C 96h		-30°C 96h	-20℃ 96h -40℃ 96h					
performance Dry heat				85°C 96h					
Damp heat				40°C, 90 to 95%RH 96h					
Page 445 447				447	449				

### Switch Type / Soldering Conditions

#### Reference for Manual Soldering

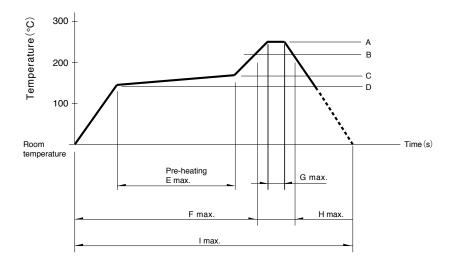
Series	Tip temperature	Soldering time	No. of solders	
RKJXT1F, RKJXM, RKJXL, SLLB, SLLB5, SRBE, SKRH	350±5℃	3s max.	1 time	
<b>RKJXS</b> 350±10℃		3 <sup>+1</sup> s	2 time max.	

#### Reference for Dip Soldering

Series	Prehe	ating	Dip so	No. of solders	
Jelles	Soldering surface temperature	Heating time	Soldering temperature	Soldering time	No. or soluers
RKJXT1F, RKJXM	100°C max.	2 min. max.	260±5℃	5±1s	2 time max.
RKJXL	120°C max.	70s max.	260°C max.	6s max.	2 time max.

#### Example of Reflow Soldering Condition

- 1. Heating method: Double heating method with infrared heater.
- 2. Temperature measurement: Thermocouple  $\phi$ 0.1 to 0.2 CA (K) or CC (T) at soldering portion (copper foil surface). A heat resisting tape should be used for fixed measurement.
- 3. Temperature profile



Series	А	В	С	D	Е	F	G	Н	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
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.

# **Mouser Electronics**

**Authorized Distributor** 

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

# ALPS:

SLLB120100 SLLB120200 SLLB120300