Multi Control Device TACT Switch™ Low-profile 4-direction with Center-push Function (Surface Mount Type)

SKRV Series

Compact, low-profile type with height of 1.55mm.





Product Line

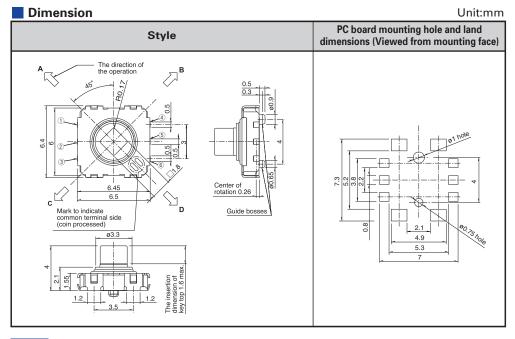
Dun dund No	Operating force		Travel (mm)		Rating	Rating	Operating life	Initial		Minimum order unit
Product No.	4-direction	Center- push	4-direction	Center- push	(max.)	(min.)	(5mA 5V DC)	contact resistance	Variety	(pcs.)
SKRVAAE010	1.2N	2.4N	0.25m	0.15m	50mA	10 <i>μ</i> Α	for each direction	500mΩ	Without guide bosses	12.000
SKRVABE010	1.211	2.414	m m	m	12V DC	1V DC	200,000cycles	may With guide	12,000	

Packing Specifications

Taping Unit:mm Reel size

Numbe	er of packages	Tape width	Export package measurements		
1 reel	1 reel 1 case 1 case /Japan /export packing			(mm)	
1,500	12,000	12,000	16	401×401×214	

Variable Resistor Type **Switch** Type



Circuit Diagram Center 2-> 5 Common

- 1. Please always solder the frame to secure switch intensity.
- 2. Please place purchase orders for taping products per minimum order unit (1 reel or 1 case).

List of Varieties

Series		eries	Switch type								
Items			RKJXT1F	RKJXM	RKJXL	RKJXS	SKRV	SKRH SKRHAA, SKRHAC, SKRHAB SKRHAD			
Photo				9							
Function			4-direction Encoder & Push	8-direction Encoder & Push	8-direction Center-Push	8-direction Center-Push 4-direction Center-Push 6.45		4-direction Center-Push			
Dimensions (typical value) D (mm)		D	17	20.5	13	11.7	7.35/7.45 7.5				
		Н	10.5	5.45	6.4	2.3	4	5			
I -		operating shafts	Single-shaft	Single-shaft/Dual-shaft		Single	e-shaft				
5	Shaft material			Metal		Resin					
le o	Directional resolution		4-direction		8-direction	4-direction					
ica-	Directional operating feeling (tactle feeling)		W	ith	Without	With					
ಈ ଅଧା		rn mechanism		With							
ns	SV	er-push vitch	NACC: I	1000	W						
	End	oder	With Without/With		With		nout	I			
		ature range ve use		o +85°C	-30°C to +70°C	–20°C to	-30°C to +85°C				
			0	0 0 0							
Rating (ma	x.) (Resi	istive load)		10mA	5V DC	Φ	50mA 12V DC				
Electri		itput Itage	_		_	Measuring ☐SKΩ circuit Measuring terminal → Measuring terminal					
cal	Directional resolution		4-direction		(Hesistive load)	4-dire	ection				
þe	Insulation resistance			4-direction 8-direction 100MΩ min. 250V DC				n. 100V DC			
ř	Voltage proof			for 1min. or 360V		50MΩ min. 50V DC 50V AC for 1min.		for 1min.			
Electrical performance	Directional operating force		40±25mN⋅m	Direction A, B, C, D 30±20mN · m DirectionAB, BC, CD, DA 25±20mN · m	10±7mN∙m	0.8±0.5N	1.2±0.6N	1.23 1.2 ±0.69N ±0.69N			
	Push operating force		5±2N	3±1.5N	4.5±1N	2.5±1.5N	2.4±0.69N	2.35±0.69N			
peı≤	Encoder detent torque		15±8mN∙m	12±8mN⋅m							
Mechanical performance		minal ength	5N for 1min.	_				_			
nical ance	Actual Pushing direction Operating direction			100N		30N					
	strength	Operating direction	0.4N·m	0.3N ⋅ m	0.15N ⋅ m	20N					
End		ration		200 ± 4 to 8.3 ± 1 Hz,4 and 3 direction of X, Y and			de is 1.5mm for all the frequencies, d Z for 2 hours respectively				
Endurance	Operating life without load										
псе		g life with load ated load)									
Envir perf	С	old		-40±2℃ for 500h		-40±2°C for 96h	for 96h				
Environmental performance	Dry heat			85±2℃ for 500h		85±2°C for 96h 80±2°C for 96h					
ental	Dam	p heat	60±2°	C, 90 to 95%RH fo	r 500h	60±2°C,90 to 95%RH for 96h					
Solderin g	Manua	l soldering		350±5°C 3s max.		350±10°C 3 ⁻¹ s 350°C max. 3s max.					
9 bld	Dip s	oldering	260±5°	260±5°C, 5±1s 260°C max. 6s max.			<u>. </u>				
ri.	Reflow	soldering				Please see P.495					
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Multi Control Devices

Variable Resistor Type

Switch Type

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Note

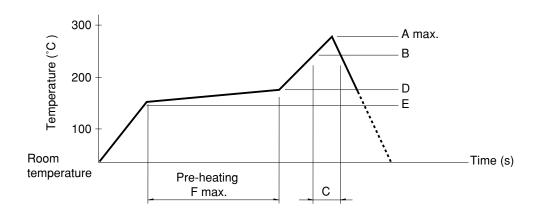
Omarks in "Available for automotive use" indicate that some of the series products can work at the operating temperature range from -40°C to +85°C.

Soldering Conditions

Example of Reflow Soldering Condition

- 1. Heating method: Double heating method with infrared heater.
- 2. Temperature measurement: Thermocouple 0.1 to 0.2ϕ CA (K) or CC (T) at solder joints copper foil surface). A heat resistive tape should be used to fix thermocouple.
- 3. Temperature profile

Multi Control Devices



Series(Reflow type)	A (℃) 3s max.	B (℃)	C (s)	D (℃)	E (°C)	F(s)
RKJXS	260		40	- 150	150	120
SLLB, SLLB5	240	230	20			
SKRV/SKRH/SKQUBA,DB/SSAF/SRBE	260		40	180		

Variable Resistor Type

Switch Type

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.