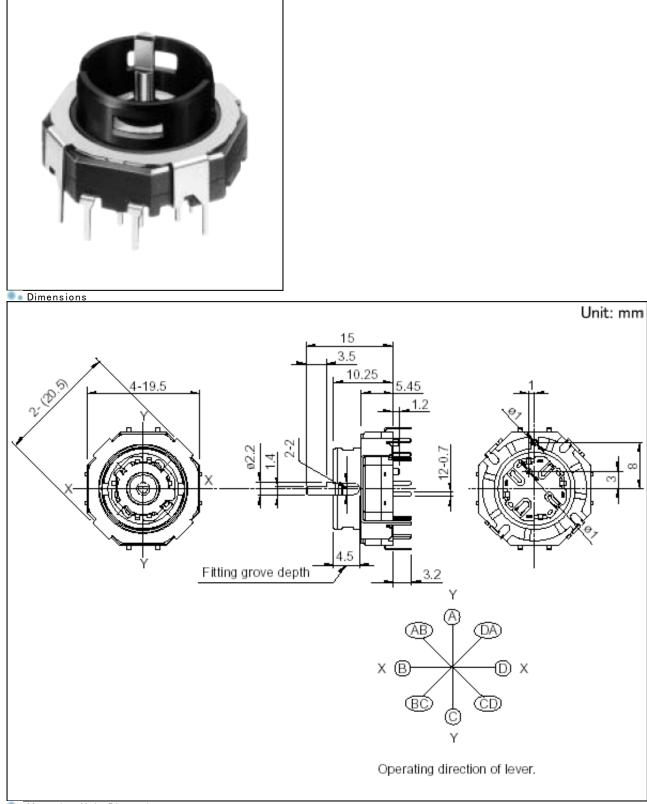


ALPS Manufacturer of Electronic Components/Parts Catalog

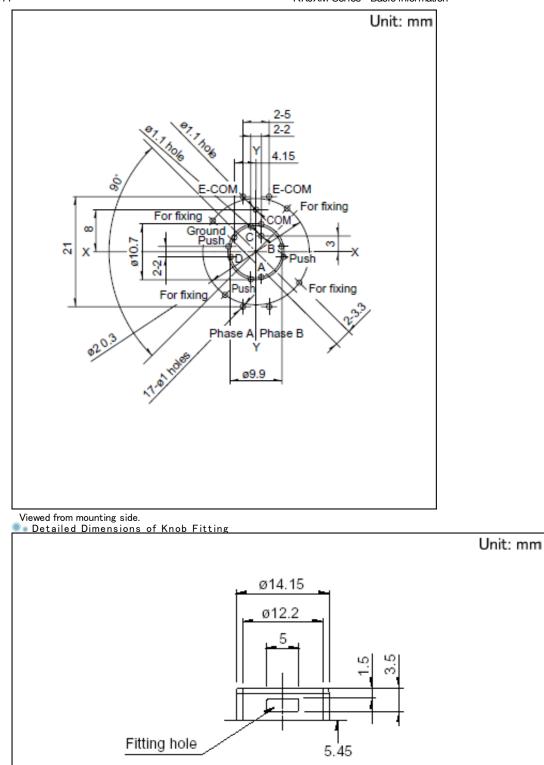
8-directional Stick Switch (with Center-push Function) RKJXM Series

Part number		RKJXM2E13001			
Number of operating shafts			Dual-shaft		
Shaft material			The inner shaft: Metal The outer shaft: Resin		
	Contact resistance 8-direction & Center push		1Ω max.		
Stick switches	Operating angle (8-direction)		A, B, C, D direction: 10° max. AB, BC, CD, DA direction: 12° max.		
	Travel (Center push)		0.3±0.2mm		
Encoder	Number of detent		15		
	Number of pulse		15		
Operating temperature range	3	-40°C to +85°C			
Ratings (max.) (Resistive load)			10mA 5V DC		
	Directional resolution		8-direction		
	Encoder resolution		15pulses / 360°		
Electrical performance	Insulation resistance		100MΩ min. 250V DC		
	Voltage proof		300V AC for 1 minute or 360V AC for 2s		
	Directional operating force		Direction A, B, C, D 30±20mN·m Direction AB, BC, CD, DA 25±20mN·m		
	Push operating force		3±1.5N		
Mechanical performance	Encoders detent torque		12±8mN·m		
	Actuator strength	Push/pull directions	100N (Push), 50N (Pull)		
		Operating direction	0.3N [.] m		
	Operating life	Directions	Total with 8-direction 100,000 cycles		
Durability		Center push	100,000 cycles		
		Encoder	15,000 cycles		
	Cold		-40±2°C for 500h		
Environmental performance	Dry heat		85±2°C for 500h		
	Damp heat		$60\pm2^{\circ}C$, 90 to 95%RH for 500h		
	Japan		800		
Minimum order unit (pcs.)	Export		1,600		
3D CAD (STEP)					
Certificate of Compliance to RoHS regulations					

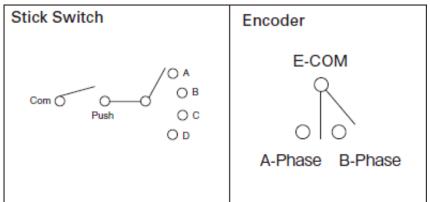
Photo



Mounting Hole Dimensions

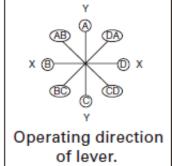


💵 Circuit Diagram

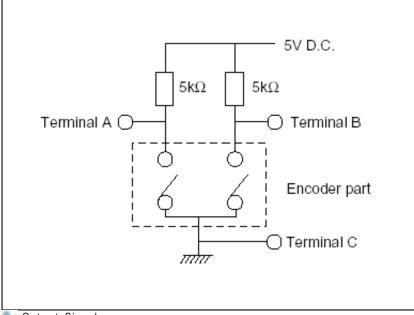


Output Relation Chart between Lever Position and ON Position.

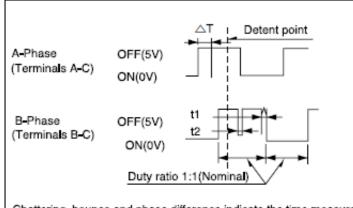
	Operation procedure								
Terminal	Α	AB	В	BC	С	CD	D	DA	Center Push
Com-A	ON	ON						ON	
Com-B		ON	ON	ON					
Com-C				ON	ON	ON			
Com-D						ON	ON	ON	
Com-Push	ON	ON	ON	ON	ON	ON	ON	ON	ON



Encoder Test Circuit



💵 Output Signal



Chattering, bounce and phase difference indicate the time measured at constant 60rpm. Phase difference \triangle T: above 5ms. Chattering t1: below 4ms. Bounce t2: below 2ms.

Packing Specifications Trav

	Number of realizing (real)	1 case / Japan	800	
Number of packages (pcs.)		1 case / export packing	1,600	
	Export package mea	380 × 545 × 205		

Soldering Condition

Reference for Dip Soldering					
Preheating	Soldering surface temperature	100°C max.			
Freneating	Heating time	2 min. max.			
Dip soldering	Soldering temperature	260±5°C			
Dip soldering	Soldering time	5±1s			
No. of solders		2 time max.			

Reference for Hand Soldering

Tip temperature	350±5°C
Soldering time	3s max.
No. of solders	1 time

» NOTE Notes are common to this series/models.

- 1. This site catalog shows only outline specifications. When using the products, please obtain formal specifications for supply.
- 2. Please place purchase orders per minimum order unit (integer).
- 3. This products can be used in vehicles.
- Although these products are designed to perform over a wide operating temperature range, please ensure that you receive and read the formal delivery specifications before use.

Inquiries about Products

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For more information please contact: $\ensuremath{\mathsf{Products}}$ Information Center.

1-7, Yukigaya-otsukamachi, Ota-ku, Tokyo, 145-8501, Japan

Phone: +81 (3) 5499-8154

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