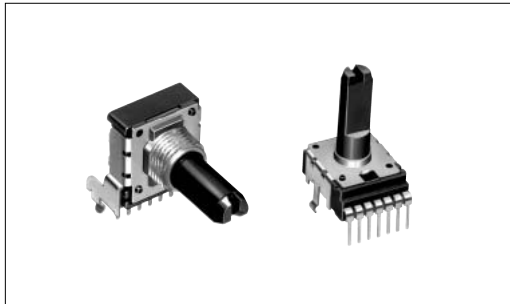


Insulated Shaft Potentiometer 14mm Size Insulated Shaft Snap-in Type

RK14K Series



A 14mm width potentiometer for audio, visual, electronic musical instruments and various applications.



Typical Specifications

Items	Specifications
Total resistance tolerance	$\pm 20\%$
Total rotational angle	$300 \pm 5^\circ$
Rotational torque	3 to 20mN·m
Operating life	15,000cycles
Operating temperature range	- 10 to + 70

Rotary
Potentiometers
Slide
Potentiometers

Product Line

Number of resistor elements	Mounting direction	Bushing	Shaft type	Length of the shaft LM.(mm)	Center detent	Total resistance (k Ω)	Resistance taper	Application	Minimum order unit (pcs.)	Products No.	Drawing No.
Dual-unit (Not applicable to DC)	Vertical type	Without	Flat	15	Without	10	1B	For tone	1,200	RK14K1230A2X	2
				25				800	RK14K1230A0X		
				20		50	15A	For vol.	1,000	RK14K12C0A1S	
				25					800	RK14K12C0A0T	
		With		20	With	100	1B	For tone	1,000	RK14K1240062	4
				25		10			800	RK14K1240036	
				27.5		100				RK14K1240D04	
				32.5	Without	10	15A	For vol.	800	RK14K1240A4S	
	27.5	50		RK14K12D0A1X							
		15		10		1,200				RK14K12A0A3C	
	Horizontal type	Without		25		50	1B	800	RK14K1210A1B	1	
					10	15A					
		With		22.5	With	20	1B	1,000	RK14K1220A0F	3	
						50			RK14K1220024		
					Without	10	15A		For vol.		RK14K1220A25
						50		RK14K12B0A0E			
								RK14K12B0A0R			

Metal
Shaft
Insulated
Shaft
Knob
Operating

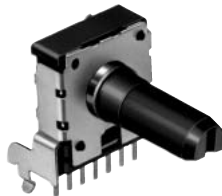
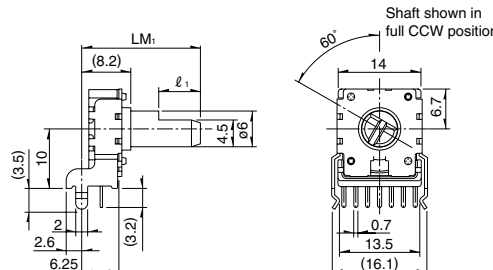
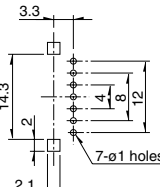
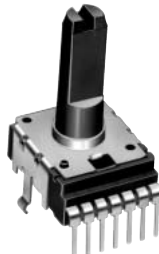
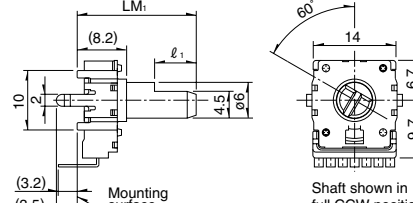
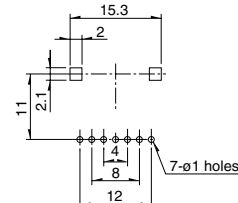
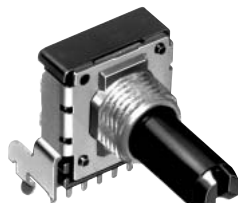
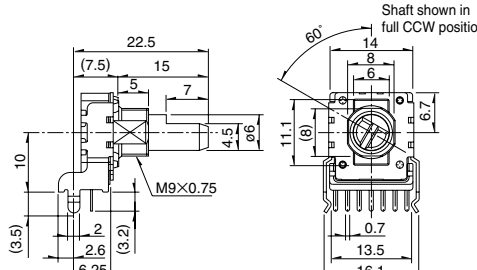
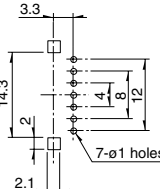
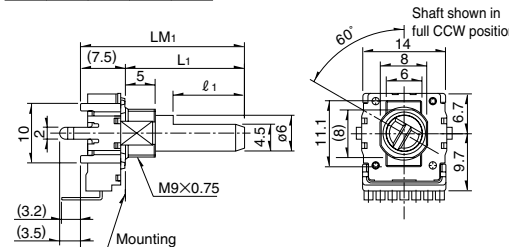
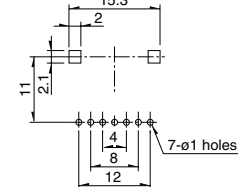
Notes

1. Products other than those listed in above products are also available. Please contact us for details.
2. Nut and washer are not attached. Please specify if required.

Refer to P.383 for product varieties.

Dimensions

Unit:mm

No.	Photo	Style	PC board mounting hole dimensions (Viewed from mounting side)															
1	Horizontal type without bushing RK14K121(For tone control) RK14K12A(For vol. control) 	<table><tr><td>LM₁</td><td>15</td><td>25</td></tr><tr><td>ℓ₁</td><td>4.5</td><td>12</td></tr></table> 	LM ₁	15	25	ℓ ₁	4.5	12										
LM ₁	15	25																
ℓ ₁	4.5	12																
2	Vertical type without bushing RK14K123(For tone control) RK14K12C(For vol. control) 	<table><tr><td>LM₁</td><td>15</td><td>20</td><td>25</td></tr><tr><td>ℓ₁</td><td>4.5</td><td>7</td><td>12</td></tr></table> 	LM ₁	15	20	25	ℓ ₁	4.5	7	12								
LM ₁	15	20	25															
ℓ ₁	4.5	7	12															
3	Horizontal type with bushing RK14K122(For tone control) RK14K12B(For vol. control) 																	
4	Vertical type with bushing RK14K124(For tone control) RK14K12D(For vol. control) 	<table><tr><td>LM₁</td><td>20</td><td>25</td><td>27.5</td><td>32.5</td></tr><tr><td>L₁</td><td>12.5</td><td>17.5</td><td>20</td><td>25</td></tr><tr><td>ℓ₁</td><td>7</td><td>12</td><td>12</td><td>12</td></tr></table> 	LM ₁	20	25	27.5	32.5	L ₁	12.5	17.5	20	25	ℓ ₁	7	12	12	12	
LM ₁	20	25	27.5	32.5														
L ₁	12.5	17.5	20	25														
ℓ ₁	7	12	12	12														

Rotary
Potentiometers

Slide
Potentiometers

Metal
Shaft

Insulated
Shaft

Knob
Operating

Product Varieties

In addition to the recommended products, the following specifications can also be accommodated.

Total Resistance Variety

Total resistance(k Ω)	5	10	20	50	100
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Resistance Taper

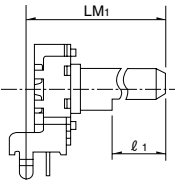
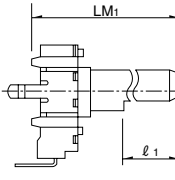
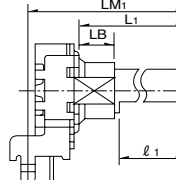
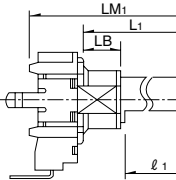
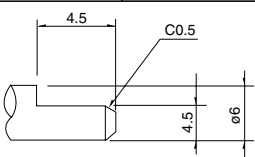
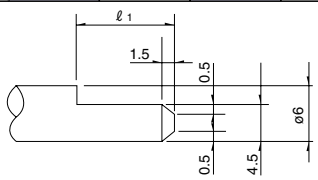
Resistance taper	15A	1B	3B	15C
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Tapped Types are Also Available

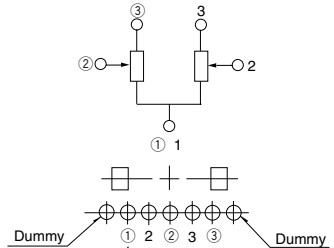
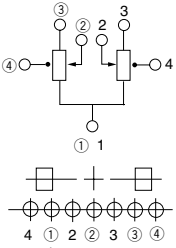
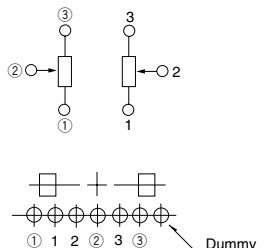
RK14K12(for audio volume control)is also available with tap.

Shaft Variety

Unit:mm

Style		Without bushing				With bushing					
		Horizontal type		Vertical type		Horizontal type		Vertical type			
											
Detail dimensions	LM ₁	15	20	25	30	20	22.5	25	27.5	30	32.5
	L ₁	—	—	—	—	12.5	15	17.5	20	22.5	25
	l ₁	4.5	7	12	12	7	7	12	12	12	12
	LB	—	—	—	—	5	5	5	5	5	5
Knob dimensions   LM₁ =15 only application											

Terminal Layout/Circuit Diagram

Without tap for volume	With tap for volume	For tone and for volume(15C)
		

Note

marked are specifications recommended by ALPS.

Refer to P.384, 502 for resistance taper.

Orders Other Than Recommended Products

When ordering product varieties that are not listed in the Product Line, please specify by referring to the below example.

Sample Part Number

RK14K1240-F25-C0-B103

Model type

Code	Model type
1	Horizontal type without bushing for tone
2	Horizontal type with bushing for tone
3	Vertical type without bushing for tone
4	Vertical type with bushing for tone
A	Horizontal type without bushing for vol.
B	Horizontal type with bushing for vol.
C	Vertical type without bushing for vol.
D	Vertical type with bushing for vol.

Shaft type

Code	Shaft type
F	Flat

* Only available in flat format.

Length of the shaft (LM: X mm)

Code	Length of the shaft	Code	Length of the shaft
15	15	25	25
20	20	30	30
22	22.5	32	32.5
27	27.5		

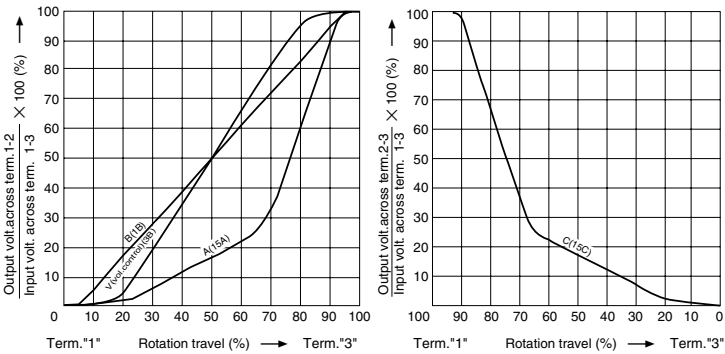
Detent

Code	Center detent
C0	Without
C1	With

Resistance taper

Code	Resistance taper	Code	Resistance taper
A	15A	C	15C
B	1B	V	3B

B: For tone & general (Model type : 1, 2, 3, 4)
V: For vol. (Model type : A, B, C, D)



Total resistance

Code	Total resistance (kΩ)	Code	Total resistance (kΩ)
502	5	503	50
103	10	104	100
203	20		

Note

marked are specifications recommended by ALPS.

List of Varieties

Items			Type	9mm Size Insulated Shaft Snap-in		11mm Size Insulated Shaft Snap-in	12mmSize Insulated Shaft Snap-in	14mm Size Insulated Shaft Snap-in	9mm Size Insulated shaft Long-life
			Model	RK09K11 □ RK09D11 □	RK09K12 □	RK11K11 □	RK12L12 □	RK14K12 □	RK09Y11L
			Single-unit	Dual-unit	Single-unit	Dual-unit		Single-unit	
Photo									
Bushing			Without		With/Without	Without	With/Without	Without	
Electrical performanceElectrical	Total resistance tolerance		± 20%	± 30%	± 20%			± 30%	
	Maximum operating voltage		50V AC 20V DC	50V AC For AC only	50V AC 20V DC	50V AC For AC only		50V AC 5V DC	
	Insulation resistance		100MΩ min. 250V DC		100MΩ min. 500V DC	100MΩ min. 250V DC			
	Voltage proof		250V AC for 1minute		500V AC for 1minute	300V AC for 1minute		250V AC for 1minute	
	Gang error		—	- 40dB to 0dB 3dB max.	—	Volume control -40dB to 0dB 3dB max. For tone control within 2dB at center		—	
Mechanical performance	Strength of the actuator	Stopper strength	0.3N・m		Without bushing 0.5N・m With bushing 0.6N・m	0.5N・m	0.6N・m	—	
		Push-pull strength	50N max.		80N max.			30N max.	
	Vibration		10 to 55 to 10Hz/min., the amplitude is 1.5mm for all the frequencies, in the 3 direction of X, Y and Z and for 2 hours respectively						
	Resistance to soldering heat	Manual soldering	350 max. 3s max.						
		Dip Soldering	—			260 max. 5s max.	—		
Environmental performance	Cold		- 30 ± 2 for 96h					- 30 ± 2 for 240h	
	Dry heat		70 ± 2 for 96h			70 ± 2 for 240h	70 ± 2 for 96h	70 ± 2 for 240h	
	Damp heat		40 ± 2 , 90 to 95% RH for 96h					40 , 90 to 95% RH for 240h	
Page			368		374	378	381	385	

Rotary Potentiometers

Slide Potentiometers

Metal Shaft

Insulated Shaft

Knob Operating

- Insulated Shaft Potentiometers Cautions386, 387