

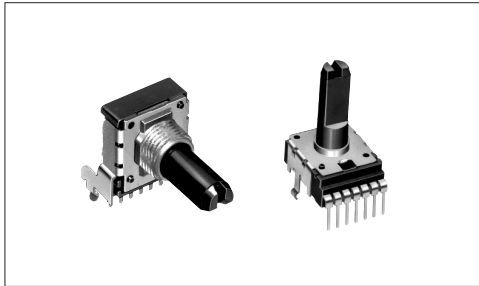
Insulated Shaft Potentiometer 14mm Size Insulated Shaft Snap-in Type

RK14K Series



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

Rotary
Potentiometers
Slide
Potentiometers



Typical Specifications

Items	Specifications
Total resistance tolerance	±20%
Total rotational angle	300±5°
Rotational torque	3 to 20mN·m
Operating life	15,000cycles
Operating temperature range	−10°C to +70°C

Metal
Shaft

Insulated
Shaft

Knob
Operating

Ring Type
Devices

Product Line

Number of resistor elements	Mounting direction	Bushing	Shaft type	Length of the shaft LM ₁ (mm)	Center detent	Total resistance (kΩ)	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	2,400	RK14K1230A2X	2					
				25				1,600	RK14K1230A0X							
				20			15A	For vol.	2,000	RK14K12C0A1S						
				25					1,600	RK14K12C0A0T						
		With		20	With	100	1B	For tone	2,000	RK14K1240062	4					
				25					10	1,600		RK14K1240036				
				27.5					100			RK14K1240D04				
				32.5	Without	10			15A	For vol.		RK14K1240A4S				
				27.5			50	RK14K12D0A1X								
							10	RK14K12D0A18								
				15				10	1B				2,400	RK14K12A0A3C	1	
				25	50	1,600				RK14K1210A1B						
	Horizontal type	Without		22.5						10	15A		For tone	2,000	RK14K1220A0F	3
															With	
							50	RK14K1220A25								
							Without	10	15A			For vol.				
		50			RK14K12B0A0R											

Packing specifications

Tray

Length of the shaft LM ₁ (mm)	Number of packages (pcs.)		Export package measurements (mm)
	1 case /Japan	1 case/export packing	
15	1,200	2,400	374 × 532 × 240
20 to 22.5	1,000	2,000	
25 or more	800	1,600	

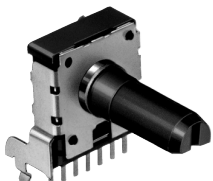
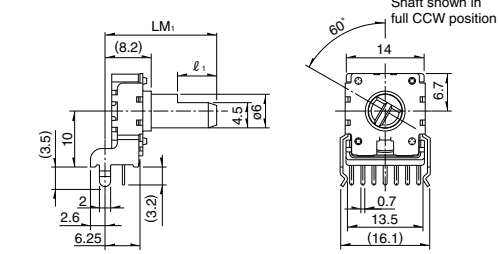
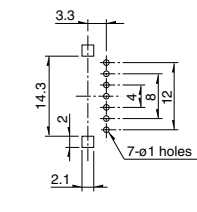
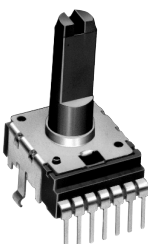
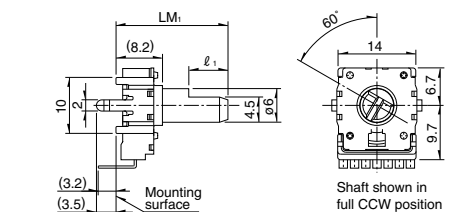
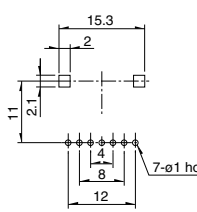
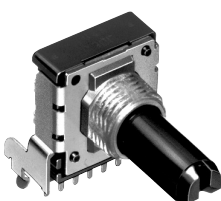
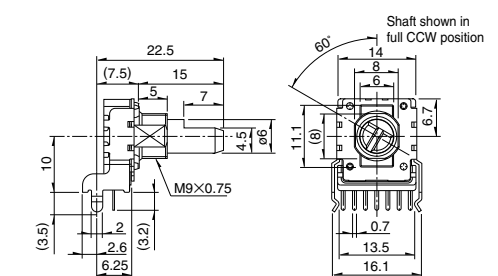
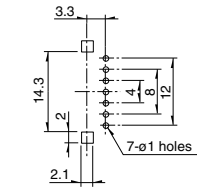
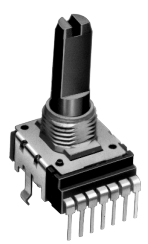
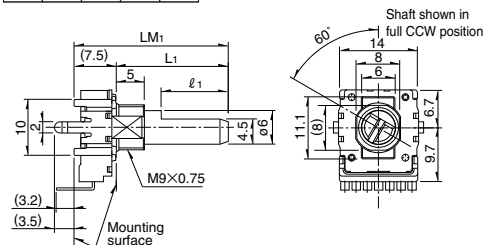
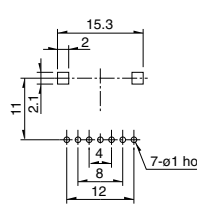
Notes

- Products other than those listed in above products are also available. Please contact us for details.
- Nut and washer are not attached. Please specify if required.
- Please place purchase orders per minimum order unit N (integer).

Refer to P.399 for product varieties.
Refer to P.399, 400, 470 for resistance taper.

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
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Operating

Ring Type
Devices

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

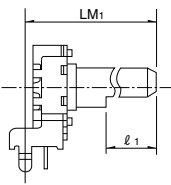
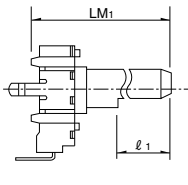
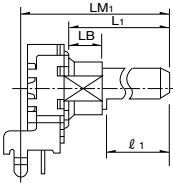
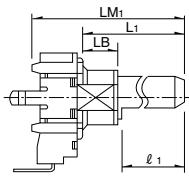
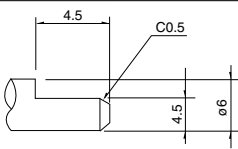
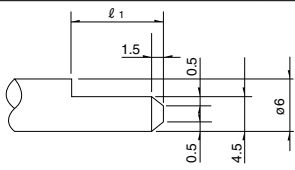
Resistance taper	15A	1B	3B	15C
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Tapped Types are Also Available

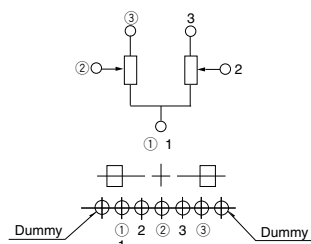
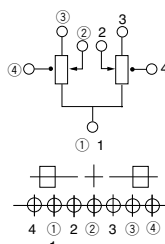
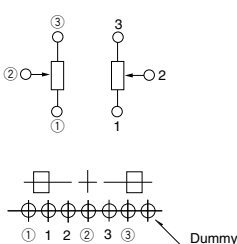
RK14K12 (for audio volume control) is also available with tap.

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.400, 470 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

R **K** **1** **4** **K** **1** **2** **4** **0** — **F** **2** **5** — **C** **0** — **B** **1** **0** **3**

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 (LM₁) (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		

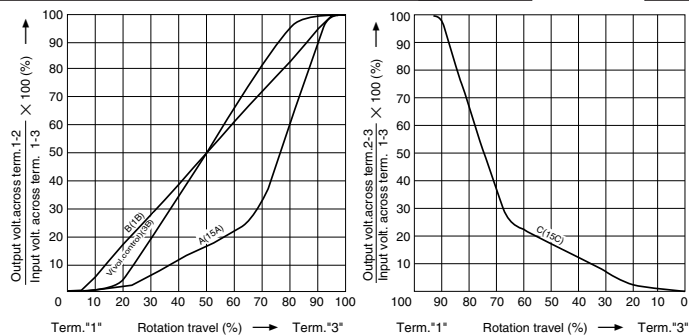
Detent

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.

Rotary
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Slide
Potentiometers

Metal
Shaft
Insulated
Shaft
Knob
Operating
Ring Type
Devices

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	12mm Size Insulated shaft Snap-in
			Model	RK09K11□ RK09D11□	RK09K12□	RK11K11□	RK12L12□	RK14K12□	RK09Y11L	RK12L115
				Single-unit	Dual-unit	Single-unit	Dual-unit		Single-unit	
Photo										
Bushing			Without		With/With out	Without	With/With out	Without	With	
Operating temperature range			−10℃ to +70℃							−40℃ to +85℃
Automotive use			_____							○
Electrical performance	Total resistance tolerance		±20%	±30%	±20%			±30%	±20%	
	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	50V AC 20V 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	300V 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	—	0.5N·m	
		Push-pull strength	50N max.		80N max.			30N max.	80N 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	−40±3℃ for 96h	
	Dry heat		70±2℃ for 96h			70±2℃ for 240h	70±2℃ for 96h	70±2℃ for 240h	85±3℃ for 96h	
	Damp heat		40±2℃, 90 to 95% RH for 96h					40±2℃, 90 to 95% RH for 240h	40±2℃, 90 to 95% RH for 96h	
Page			384		390	394	397	401	402	

● Insulated Shaft Potentiometers Cautions404, 405

Note

○marks 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.