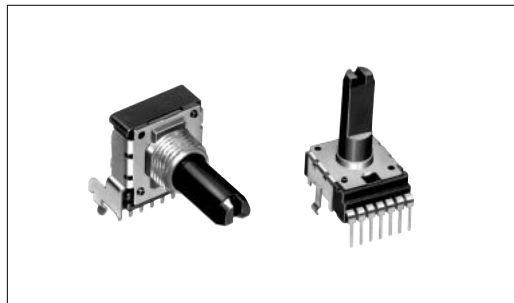


Insulated Shaft Potentiometer 14mm Size Insulated Shaft Snap-in Type

RK14K Series



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



Typical Specifications

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

Rotary Potentiometers
Slide Potentiometers

Metal Shaft
Insulated Shaft
Knob Operating

Product Line

Number of resistor elements	Mounting direction	Bushing	Shaft type	Length of the shaft LM:(mm)	Center detent	Total resistance (k)	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			15A	For vol.	1,000	RK14K12C0A1S						
				25					800	RK14K12C0A0T						
		With		20	With	100	1B	For tone	800	1,000	RK14K1240062	4				
				25							RK14K1240036					
				27.5							RK14K1240D04					
				32.5							RK14K1240A4S					
	Horizontal type	Without	Flat	Without	27.5	Without	10	15A	For vol.	1,200	RK14K12D0A1X	1				
					25						RK14K12D0A18					
					15						10		15A	For tone	800	RK14K12A0A3C
					25						50		1B	For tone	800	RK14K1210A1B
		With		22.5	With	20	1B	For tone	1,000	1,000	RK14K1220A0F	3				
											Without		50	15A	For vol.	RK14K1220024
													10	15A	For vol.	RK14K1220A25
											50		15A	For vol.	RK14K12B0A0E	
											RK14K12B0A0R					

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.

Insulated Shaft Potentiometer
14mm Size Insulated Shaft Snap-in Type | RK14K Series

Dimensions

Unit:mm

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No.	Photo	Style	PC board mounting hole dimensions (Viewed from mounting side)															
1	<p>Horizontal type without bushing RK14K121(For tone control) RK14K12A(For vol. control)</p>	<table border="1"> <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	<p>Vertical type without bushing RK14K123(For tone control) RK14K12C(For vol. control)</p>	<table border="1"> <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	<p>Horizontal type with bushing RK14K122(For tone control) RK14K12B(For vol. control)</p>	<table border="1"> <tr> <td>LM₁</td> <td>22.5</td> <td>15</td> <td>7</td> </tr> <tr> <td>ℓ₁</td> <td>4.5</td> <td>0.6</td> <td></td> </tr> </table>	LM ₁	22.5	15	7	ℓ ₁	4.5	0.6									
LM ₁	22.5	15	7															
ℓ ₁	4.5	0.6																
4	<p>Vertical type with bushing RK14K124(For tone control) RK14K12D(For vol. control)</p>	<table border="1"> <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														

Product Varieties

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

Total Resistance Variety

Total resistance(k)	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											
		LM ₁ = 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

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 (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		

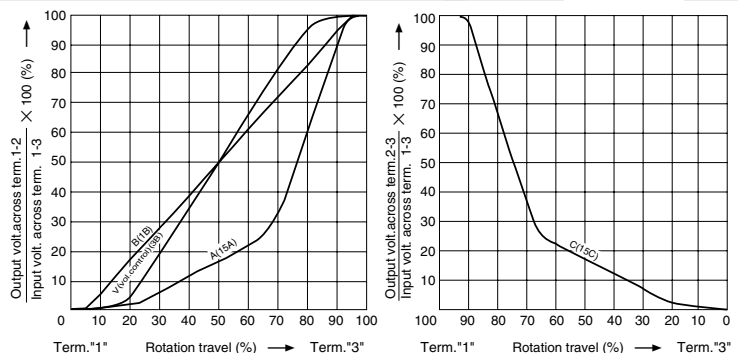
Detent

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.

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List of Varieties

Items	Type		9mm Size Insulated Shaft Snap-in	11mm Size Insulated Shaft Snap-in	12mm Size 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 performance	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		100M min. 250V DC		100M min. 500V DC	100M 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	
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Rotary Potentiometers

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Insulated Shaft Potentiometers Cautions386, 387