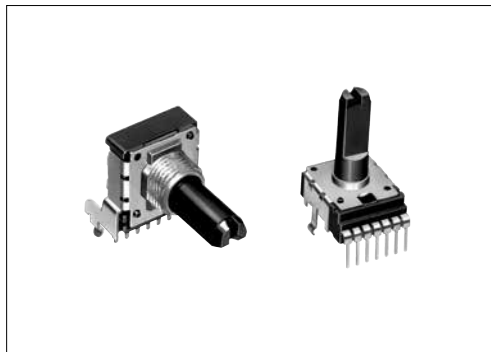


A 14mm wide potentiometer for audio, visual, electronic musical instruments and various applications



Typical Specifications



Items	Specifications
Total resistance tolerance	±20%
Maximum operating voltage	50V AC for AC only
Total rotational angle	300° ±5°
Rotational torque	3 to 20mN·m
Operating life	15,000 cycles
Operating temperature range	-10°C to +70°C

Product Line

Number of resistor elements	Mounting direction	Bushing	Shaft type	Length of the shaft LM _i (mm)	Center detent	Total resistance (k Ω)	Resistance taper	Application	Minimum order unit (pcs.)		Products No.	Drawing No.	
									Japan	Japan			
Dual-unit (Not applicable to DC)	Vertical type	Without	Flat	15	Without	10	1B	For tone	1,200	2,400	RK14K1230A2X	2	
				25			800	1,600	RK14K1230A0X				
				20		15A	For vol.	1,000	2,000	RK14K12C0A1S			
				25				800	1,600	RK14K12C0A0T			
		With		20	With	100	1B	For tone	1,000	2,000	RK14K1240062	4	
				25		10			RK14K1240036				
				27.5		100			RK14K1240D04				
				32.5	Without	10			15A	For vol.	800		1,600
	27.5	50	RK14K12D0A1X										
	Horizontal type	Without	15	10		1,200	2,400	RK14K12A0A3C					
			25	50		1B	800	1,600				RK14K1210A1B	
			With	22.5	10	15A	For tone	1,000	2,000	RK14K1220A0F	3		
					With	20				1B		RK14K1220024	
	Without	50			15A	For vol.				RK14K1220A25			
		10								RK14K12B0A0E			
	Without	50					RK14K12B0A0R						

Notes

- Other varieties are also available. Refer to "Other Specifications" (P.362).
- Nut and washer are not attached. Please specify if required.

Packing Specifications

Tray

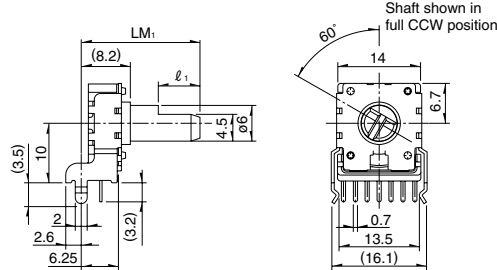
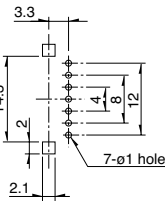
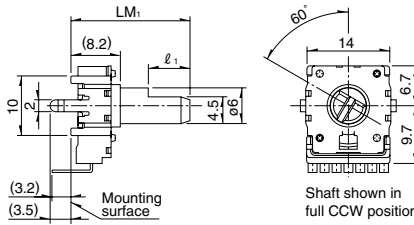
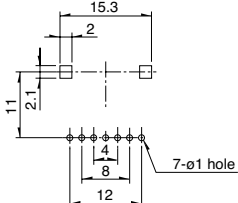
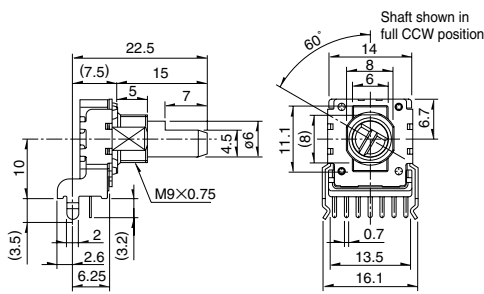
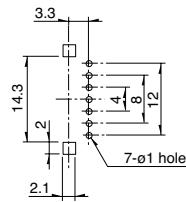
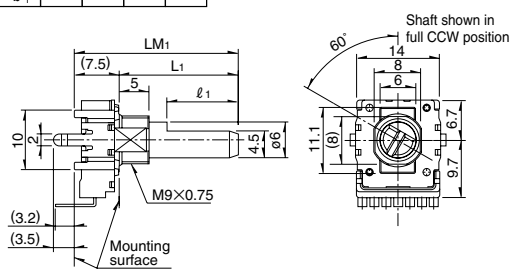
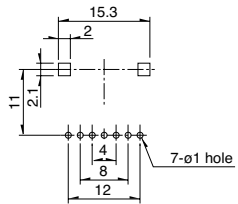
Length of the shaft LM _i (mm)	Number of packages (pcs.)		Export package measurements (mm)
	1 case / Japan	1 case / export packing	
15	1,200	2,400	543×377×250
20 to 22.5	1,000	2,000	
25 or more	800	1,600	

勝特力電材超市-龍山店 886-3-5773766
 勝特力電材超市-光復店 886-3-5729570
 勝特力電子(上海) 86-21-34970699
 勝特力電子(深圳) 86-755-83298787
<http://www.100y.com.tw>

Refer to P.362 for other specifications.
 Refer to P.363 for ordering products not listed.
 Refer to P.366 for soldering conditions.

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														

14mm Size Insulated Shaft Snap-in Type / Other Specifications

In addition to the products listed, we can accommodate the follow specifications.

Total Resistance Variety

Total resistance (k Ω)	5	10	20	50	100
--------------------------------	---	----	----	----	-----

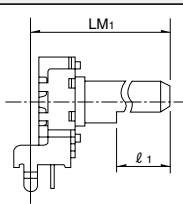
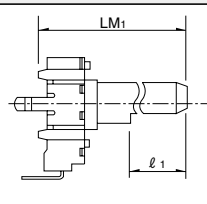
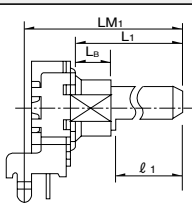
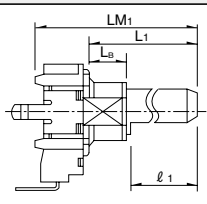
Resistance Taper

Resistance taper	15A	1B	3B	15C
------------------	-----	----	----	-----

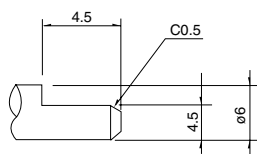
Tapped Types are Also Available

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

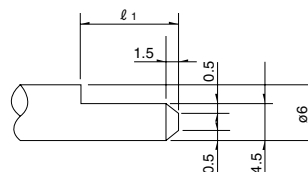
Shaft Variety

		Without bushing				With bushing						Unit:mm
Style		 				 						
		Horizontal type				Horizontal type						
		Vertical 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	
	L _B	—	—	—	—	5	5	5	5	5	5	

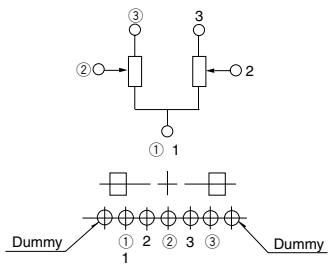
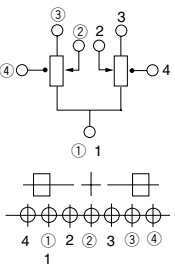
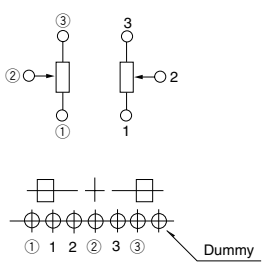
Detail dimensions



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 Alpine.

Refer to P.363 for ordering products not listed.

14mm Size Insulated Shaft Snap-in Type / Ordering Products Not Listed

When ordering product varieties that are not listed, specify referring to the examples below.

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	—	—

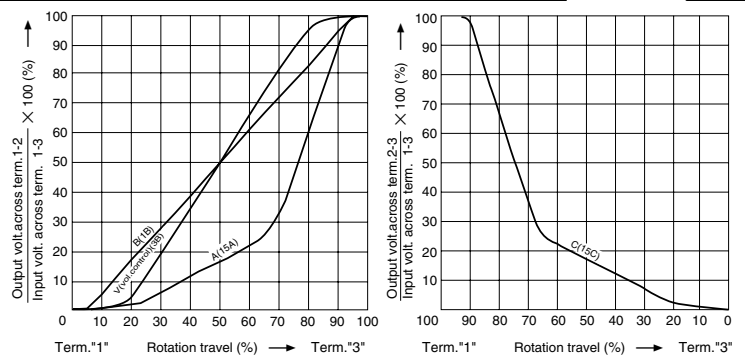
Detent

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 (k Ω)	Code	Total resistance (k Ω)
502	5	503	50
103	10	104	100
203	20	—	—

Note

Marked are specifications recommended by Alps Alpine.

Insulated Shaft Potentiometers

List of Varieties

Type		9mm size			11mm size	12mm size	14mm size
Series		RK09K11 RK09D11	RK09K12	RK09Y11L	RK11K	RK12L12	RK14K
		Single-unit	Dual-unit	Single-unit	Single-unit	Dual-unit	Dual-unit
Photo							
Terminal mounting		Vertical / Horizontal		Horizontal	Vertical / Horizontal		
Bushing		Without			With / Without	Without	With / Without
Operating temperature range		-10℃ to +70℃					
Operating life		5,000 cycles	10,000 cycles	1,000,000 cycles	15,000 cycles		
Available for automotive use		—	—	—	—	—	—
Life cycle							
Electrical performance	Total resistance (k Ω)	5, 10, 20, 50, 100, 200		10	5, 10, 20, 50, 100, 200		
	Resistance taper	15A, 1B, 3B, 15C		B	15A, 1B, 3B, 15C		
	Total resistance tolerance	±20%	±30%	±30%	±20%		
	Rated power	0.05W	0.03W	0.01W	0.05W		
	Maximum operating voltage	50V AC 20V DC	50V AC for AC only	50V AC 5V DC	50V AC 20V DC	50V AC for AC only	
	Gang error	—	-40dB to 0dB 3dB max.	—	—	Volume control -40dB to 0dB 3dB max. For tone control within 2dB at center	
	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	
	Center-taps	Without			Without / With	Without	Without / With (Volume control)
Mechanical performance	Detent	Without, Center		Without	Without, Center	Without	Without, Center
	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.		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					
Shaft configuration		Flat type, Knob type, Screwdriver type		Flat type			
Terminal style		Insertion					
Page		345 364(RK09D117)		352	353	357 364(RK12L12H, RK12L127)	360

Insulated Shaft Potentiometers Soldering Conditions	366
Potentiometers Cautions	418
Potentiometers Measurement and Test Methods	420
Potentiometers Resistance Taper	422

Note

● Indicates applicability to all products in the series.

■ Reference for Manual Soldering

Series	Tip temperature	Soldering time	No. of solders
RK09D, RK09K, RK09Y11L, RK11K, RK12L, RK14K	350°C max.	3s max.	1 time

■ Reference for Dip Soldering

Series	Preheating		Dip soldering		No. of solders
	Soldering surface temperature	Heating time	Soldering temperature	Soldering time	
RK12L	100°C	1 min. max.	260°C max.	5s max.	2 time max.

勝特力電材超市-龍山店 886-3-5773766
 勝特力電材超市-光復店 886-3-5729570
 勝特力電子(上海) 86-21-34970699
 勝特力電子(深圳) 86-755-83298787
<http://www.100y.com.tw>