

Insulated Shaft Potentiometer 11mm Size Insulated Shaft Snap-in Type

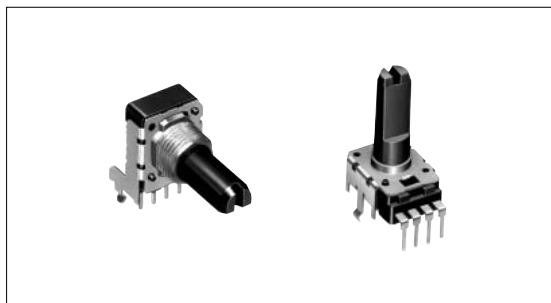
RK11K Series



A 11mm width potentiometer for audio, visual, electronic musical instruments and various applications.

Rotary
Potentiometers

Slide
Potentiometers



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

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 Ω)	Resistance taper	Minimum order unit (pcs.)	Products No.	Drawing No.
Single-unit (20V DC)	Vertical type	Without	Flat	15	Without	10	1B	1,200	RK11K1130A2X	2
				20	With			1,000	RK11K1130A0M	
					Without				RK11K1130040	
				25	Without	20		800	RK11K1130A07	
					With				RK11K113002F	
		With		20	10	1,000		RK11K114003Y	4	
				22.5				Without		RK11K1140A9L
				25		With		800		RK11K1140A23
					Without	RK11K114001Z				
				27.5		20				RK11K1140A3L
	30	RK11K1140A4Q								
	Horizontal type	Without		32.5	10	1,000			RK11K1140A2S	1
				25				RK11K1110A3D		
		With		22.5	20	800		RK11K1120060	3	
				25	10			RK11K1120A5T		
				27.5	20			RK11K1120A31		
					15A					

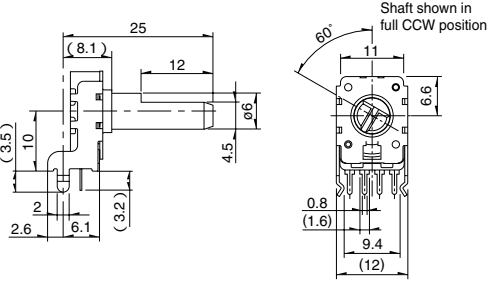
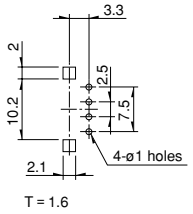
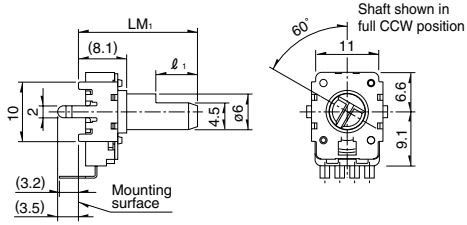
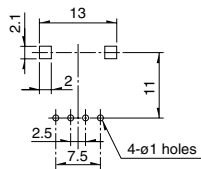
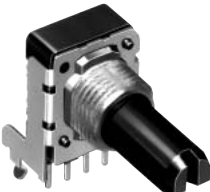
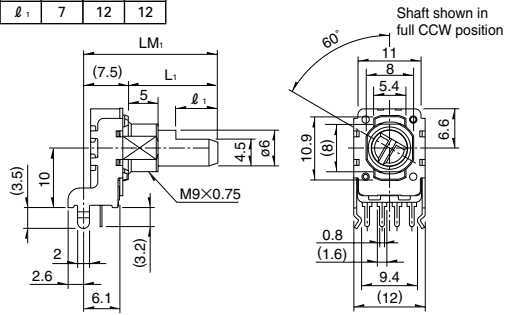
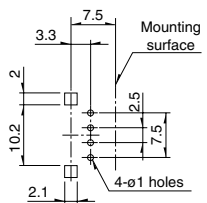
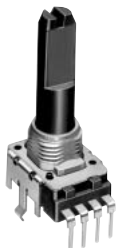
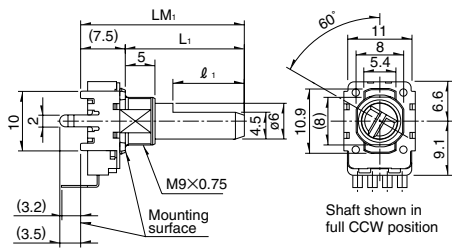
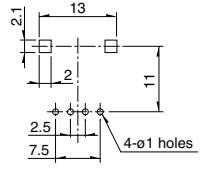
Notes

- 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.

Refer to P.376 for product varieties.

■ Dimensions

Unit:mm

No.	Photo	Style	PC board mounting hole dimensions (Viewed from mounting side)																					
1	Horizontal type without bushing RK11K111(Single-unit) 																							
2	Vertical type without bushing RK11K113(Single-unit) 	<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	Horizontal type with bushing RK11K112(Single-unit) 	<table border="1"><tr><td>LM₁</td><td>22.5</td><td>25</td><td>27.5</td></tr><tr><td>L₁</td><td>15</td><td>17.5</td><td>20</td></tr><tr><td>ℓ₁</td><td>7</td><td>12</td><td>12</td></tr></table> 	LM ₁	22.5	25	27.5	L ₁	15	17.5	20	ℓ ₁	7	12	12										
LM ₁	22.5	25	27.5																					
L ₁	15	17.5	20																					
ℓ ₁	7	12	12																					
4	Vertical type with bushing RK11K114(Single-unit) 	<table border="1"><tr><td>LM₁</td><td>20</td><td>22.5</td><td>25</td><td>27.5</td><td>30</td><td>32.5</td></tr><tr><td>L₁</td><td>12.5</td><td>15</td><td>17.5</td><td>20</td><td>22.5</td><td>25</td></tr><tr><td>ℓ₁</td><td>7</td><td>7</td><td>12</td><td>12</td><td>12</td><td>12</td></tr></table> 	LM ₁	20	22.5	25	27.5	30	32.5	L ₁	12.5	15	17.5	20	22.5	25	ℓ ₁	7	7	12	12	12	12	
LM ₁	20	22.5	25	27.5	30	32.5																		
L ₁	12.5	15	17.5	20	22.5	25																		
ℓ ₁	7	7	12	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(kΩ)	5	10	20	50	100	200
----------------------	---	----	----	----	-----	-----

Resistance Taper

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

Tapped Types are Also Available

RK11K(single-unit)is also available with tap.

Shaft Variety

Unit:mm

Style		Without bushing				With bushing					
		Horizontal type		Vertical type		Horizontal type			Vertical type		
Shaft variety	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
Detail dimensions LM ₁ =15 only application											

Terminal Layout/Circuit Diagram

Without tap 	With tap
------------------------	---------------------

Note

marked are specifications recommended by ALPS.

Refer to P.377, 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 1 K 1 1 4 0 — **F 2 2** — **C 0** — **B 1 0 3**

Model type

Code	Model type
1	Horizontal type without bushing
2	Horizontal type with bushing
3	Vertical type without bushing
4	Vertical type with bushing

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		

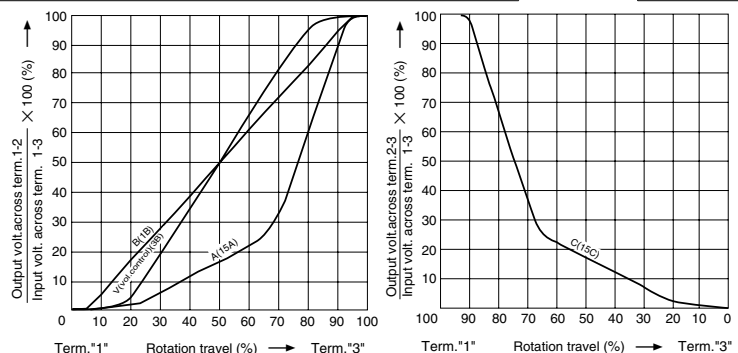
Detent

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
V: For vol.



Total resistance

Code	Total resistance (kΩ)	Code	Total resistance (kΩ)
502	5	503	50
103	10	104	100
203	20	204	200

Note

marked are specifications recommended by ALPS.

Rotary
Potentiometers
Slide
Potentiometers

Metal
Shaft
Insulated
Shaft
Knob
Operating

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