

11mm Size Metal Shaft Low-profile Potentiometer

RK117 Series

7.55mm high, featuring a 1.5mm travel push-on switch.

Rotary Potentiometers

Slide Potentiometers

Trimmer Potentiometers

Multi Control Devices

Position Sensors

Metal Shaft

Insulated Shaft

Knob Operating



Car Use

Features

- Low-profile (only 7.55mm in height) with a 1.5mm travel push-on switch.
- Rear mounting configuration permits direct mounting on the front side of a PC board.
- Solderable with auto dipping.
- The center control part can have up to 41 detents.

Applications

- Sound volume, quality and balance controls for car audio systems and other audio players.
- Controls for accessories including dimmers and wipers in vehicle cabins.
- Level controls for communication devices including transceivers.
- Controls for home appliances.

Typical Specifications

Items	Specifications
Total resistance tolerance	$\pm 20\%$
Maximum operating voltage	50V AC
Total rotational angle	$300 \pm 10^\circ$
Rotational torque	2 to 25 mN·m
Operating life	15,000 cycles
Operating temperature range	-10°C to $+70^\circ\text{C}$

Recommended Products List

Single-shaft without switch type

Number of resistor elements	Mounting direction	Products No.	Shaft type	Length of the shaft (mm)	Center detent	Total resistance (k Ω)	Resistance taper	Minimum packing unit (pcs.)	Drawing No.
Single-unit	Vertical type	RK117111000N	Flat	15	Without	10	1B	100	1
		RK1171110W04			With				
		RK1171110W0D			Without	20	15A		
		RK1171110W0L			With	50			
		RK1171110W03		20	Without	10	1B		2
		RK117111000A				20			

Recommended Products List

Single-shaft push-on (0.5mm travel)switch type

Number of resistor elements	Mounting direction	Products No.	Shaft type	Length of the shaft (mm)	Center detent	Total resistance (kΩ)	Resistance taper	Minimum packing unit (pcs.)	Drawing No.
Single-unit	Vertical type	RK117111400C	Flat	20	Without	10	1B	100	3
		RK1171114D01			With				

Single-shaft push-on (1.5mm travel)switch type

Number of resistor elements	Mounting direction	Products No.	Shaft type	Length of the shaft (mm)	Detent	Total resistance (kΩ)	Resistance taper	Minimum packing unit (pcs.)	Drawing No.
Single-unit	Vertical type	RK1171114V02	Flat	15	41points	50	1B	100	4

Note

Additional products other than the above recommended products are available. For inquiries, contact our Sales Department.

Product Specifications

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

Total Resistance Variety

Total resistance (kΩ)	10	20	50
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Resistance Taper

Resistance taper	15A	1B	3B
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Detent and Attached switch

Variety	Items	Detent			Attached switches travel
		Without	Center	41	0.5, 1.5mm
Single-shaft, Single-unit					

Dimensions of Shaft

Flat type

Unit : mm

Shaft shown in full CCW position.

Detail dimensions (mm)

L ₁	※L _B	ℓ
(15)	7	5
(20)	7	10
(25)	7	12

Note

※LB is only available in 7mm, and does not support M7 (with screws).

For resistance taper, see P.30, 217
For other detailed specifications, see P.48, 49

Specification for Switch

Mechanical Characteristics

Switch type		Pole-position	Rating	Chageover torque (Operating force)	Chageover angle (travel) (mm)
Momentary push type	5R4411	SPST	3A 16V DC	6±3N	0.5
	5R4511			5±2N	1.5

Electrical Characteristics

Model	Contact resistance		Insulation resistance	Voltage proof
5R4411, 5R4511	100mΩ max.	Measured by a 1A 5V DC voltage drop method.	100MΩ min. Measured with a 250V DC megger.	300V AC 1 minute min.

Durability

Operating life under load	The switch under a rated resistive load shall be subjected to a total of 10,000 cycles of operation at a speed of 600 to 1,000 cycles per hour. The contact resistance after testing should not exceed 200mΩ.
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Note

The operating current should be 10mA or greater.

Orders other than for recommended products

Specify orders for varieties that are not listed in the Recommended Product List, referring to the following example.

Sample part number

R	K	1	1	7	1	1	1	0	F	1	5	C	0	B	1	0	3
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Switch

Code	Switch
0	Without switch
4	With push-on switch (0.5mm travel)

Length of the shaft (L1) (mm)

Code	Length of the shaft	Code	Length of the shaft
15	15	25	25
20	20		

Detent

Code	Detent	Code	Detent
C0	Without	41	41
C1	Center		

Resistance taper

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

Total resistance

Code	Total resistance (kΩ)	Code	Total resistance (kΩ)
103	10	503	50
203	20		

Notes

- Shows the specification recommended by us.
- Please specify if you need a 1.5mm push-on switch.

Dimensions

Unit : mm

No.	Model	Style	PC board mounting hole dimensions (View from mounting side)
1	Single-shaft, single-unit RK1171110		
2	Single-shaft, single-unit RK1171110		
3	Single-shaft, single unit with push-on switch travel 0.5mm RK1171114-5R4411		
4	Single-shaft, single unit with push-on switch travel 1.5mm RK1171114-5R4511		