

Motor-driven Master Type (Motor N Fader, Motor K Fader)

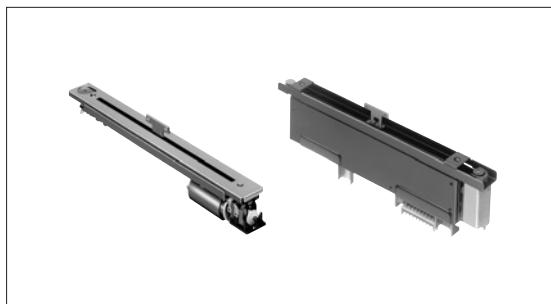
RS□□N1□M/RSA0K1□V Series



Provides a superior operational feel with high-speed tracking in motor drive mode.

Rotary
PotentiometersSlide
PotentiometersMulti Control
Devices

Sensors



Features

- Motor driven, low-profile type with a thickness of 22mm.
- Timing belt drive ensures superior trackability in motor drive mode and an excellent operational feel in manual mode.
- Compatible to touch sense track

Applications

- For fader control in mixing consoles

General-use

Mixer

Typical Specifications

Items	Specifications	
	Motor N fader	Motor K fader
Total resistance tolerance	$\pm 20\%$	
Maximum operating voltage	10V DC, 200V AC (Travel : 60mm) 10V DC, 500V AC (Travel : 100mm)	
Operating force	0.3 to 1.3N	0.15 to 0.65N
Operating life	30,000cycles	CP type : 300,000cycles
Operating temperature range	-10°C to $+60^{\circ}\text{C}$	
Rated voltage of motor	10V DC	
Maximum current of motor	800mA or less (at 10V DC)	

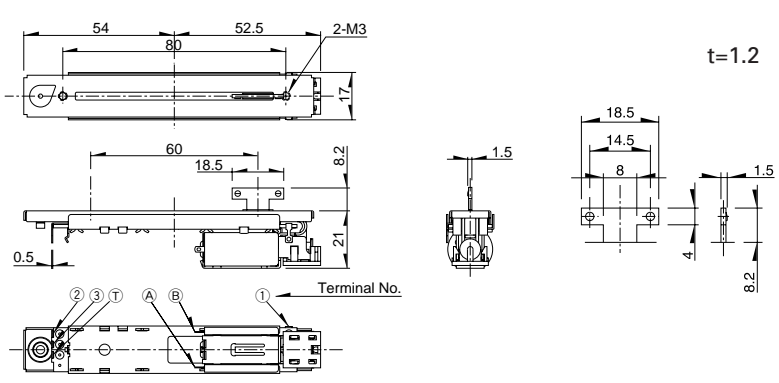
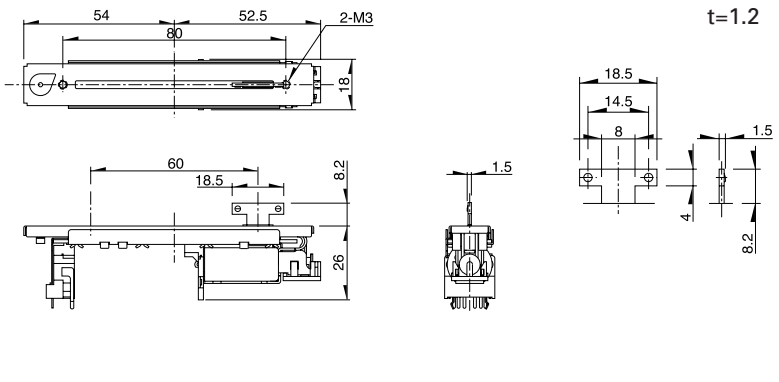
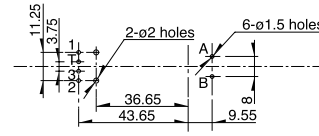
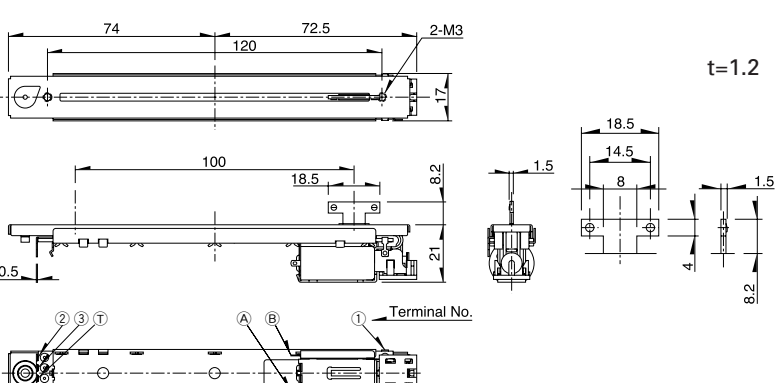
Recommended Products List

Number of resistor elements	Travel (mm)	Type	Lever type	Length of lever (mm)	Total resistance (kΩ)	Resistance taper	Terminal style	Touch sense track	Minimum packing unit (pcs.)	Products No.	Drawing No.					
Single-unit	60	Motor N Fadar	9-T (T-bar)	8.2	10	1B	Lead	With	100	RS60N11M9A05	1					
							For PC board			RS60N11M9A08	2					
	100						Lead			RSA0N11M9A06	3					
							For PC board			RSA0N11M9A07	4					
	Motor K Fadar (CP type)						Connector			RSA0K11V900C	5					

Note

Products other than those listed in above recommended products are also available. Please contact us for details.

Refer to **P.151** for product varieties.
Refer to **P.154** for product specifications.

Dimensions		Unit:mm
No.	Style	
1		
2		<div>PC board mounting hole dimensions</div> 
3		

Dimensions

Unit:mm

No.	Style	PC board mounting hole dimensions
4	<p>Top view dimensions: 74, 120, 72.5, 2-M3, 18.</p> <p>Side view dimensions: 100, 18.5, 8.2, 26, 1.5.</p> <p>Detail view dimensions: 18.5, 14.5, 8, 1.5, 4, 8.2.</p> <p>Material: t=1.2</p>	<p>Mounting hole dimensions: 11.25, 3.75, 2, 56.65, 63.65, 29.55, 6-ø1.5 holes, 2-ø2 holes, A, B, 8.</p>
5	<p>Top view dimensions: 157, 83, 120, 14.5, 2-M3.</p> <p>Side view dimensions: 100, 18.5, 8.2, 7, 39, 9.6, 13.7, 3.5, 12.4, 2.5X3=7.5, 43.4, 20.3, 37, 39.5, 75, 3, 1, 2, T.</p> <p>Detail view dimensions: 1.5, 18.5, 14.5, 8, 1.5, 4, 8.2.</p> <p>Material: t=1.2</p> <p>Terminal No. 3 1 2 T</p>	

Product Varieties

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

Products Specifications

Type	Travel (mm)	Model	Touch sense track	Terminal
Single-unit	60	RS60N11M	Available	For PC board for auto dipping Lead
	100	RSA0N11M		Fader Terminal : Connector Motor Terminal : Lead
		RSA0K11V		
	60	RS60N12M		Printed wiring for auto dipping Lead
Dual-unit (Servo+ Audio track)	100	RSA0N12M	Available	Fader Terminal : Connector Motor Terminal : Lead
		RSA0K12V		
	60	RS60N12M		Printed wiring for auto dipping Lead

Rotary Potentiometers

Slide Potentiometers

Multi Control Devices

Sensors

General-use

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Lever Types

Unit:mm

Configuration code	9-T (T-Bar)
Dimensions	

Total Resistance Variety

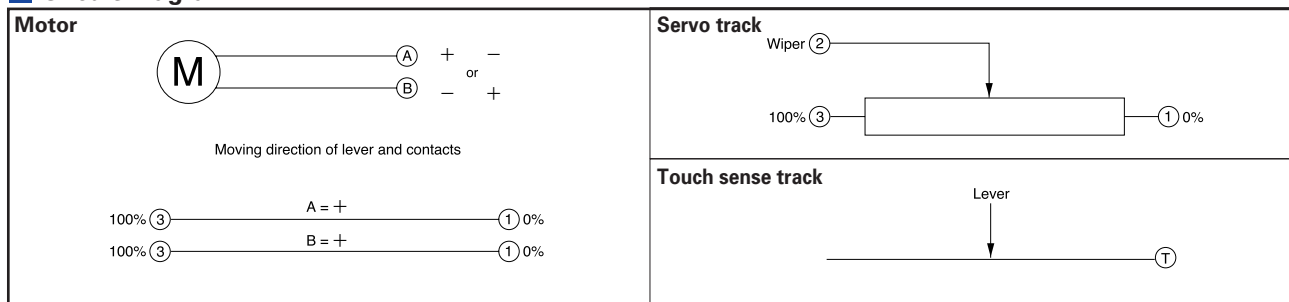
Total resistance (k Ω)	10※	50	100	250
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※ Motor K fader: Only 10k Ω

Resistance Taper

Resistance taper	Servo	1B		
	Audio	15A	1B	10A

Circuit Diagram



Notes

1. () marked are specifications recommended by ALPS.
2. Products other than those listed in the above list are also available. Please contact us for details.

Refer to P.152 for resistance taper.

Orders Other Than Recommended Products

When ordering product varieties that are not listed in the Recommended Product list, please specify by referring to the below example.

Sample Part Number

Rotary Potentiometers

Slide Potentiometers

Multi Control Devices

Sensors

General-use

Mixer

R	S	6	0	N	1	1	M
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Travel (mm)

60	60
A0	100

Number of resistor elements

Single-unit	1
Dual-unit	2

Touch sense track

Code	Touch sense track
T0	Without
T1	With

Resistance taper

Code	Resistance taper
B	1B
A	15A
D	10A

For dual-units specify the taper of the audio track. Servo track will always be 1B taper.

Output volt.across term.1-2
Input volt.across term. 1-3
× 100 (%)

Term."1" Rotation travel (%) Term."3"

Total resistance

Code	Total resistance (kΩ)
103	10
503	50
104	100
254	250

Note

marked are specifications recommended by ALPS.

Orders Other Than Recommended Products

When ordering product varieties that are not listed in the Recommended Product list, please specify by referring to the below example.

Sample part number

R S A 0 K 1 2 V — T 1 — A 1 0 3

Number of resistor elements

Single-unit	1
Dual-unit	2

Type

CP type	V
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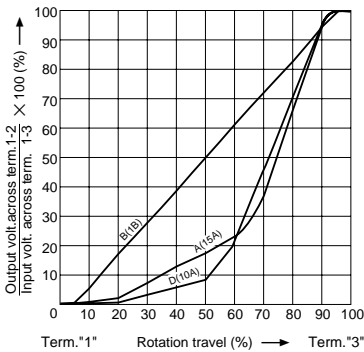
Touch sense track

Code	Touch sense track
T0	Without
T1	With

Resistance taper

Code	Resistance taper
B	1B
A	15A
D	10A

Appoint the taper of audio track in the case of dual-unit.
Servo track is surely 1B taper.



Total resistance

Code	Total resistance (kΩ)
103	10

Note

marked are specifications recommended by ALPS.

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Products Specifications

Item	Master type	Low-profile master type	Motor-driven master type
Model	RS□□K□□	RS□□N1 RS□□N11S RS6011□Y	RS□□N1□M RSA0K1□V

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Mechanical Performance

Operating temperature range		- 10 ℃ to +60℃		
Operating force		Standard : 0.1 to 0.6N CP Single-unit : 0.05 to 0.35N CP Dual-unit : 0.1 to 0.5N	RS□□N1□ Single-unit : 0.05 to 0.8N Dual-unit : 0.05 to 0.9N RS6011□Y 0.1 to 2.0N RS□□N11S 0.05 to 0.8N	RS□□N1□M 0.3 to 1.3N RSA0K1□V, Single-unit : 0.15 to 0.65N Dual-unit : 0.25 to 0.9N
Stopper strength		100N		
Lever push-pull strength		100N	50N	
Lever wobble (mm) ※Both side		$\frac{2(2 \times L)}{25}$		
Lever deviation		0.5mm max. (One side)		
Solder heat resistance	Manual soldering	350℃ max. 3s max.		
	Dip soldering		260℃ max. 5s max. RS□□N1□M (Lead type) , RSA0K1□V : not available	

Electrical Performance

Total resistance (kΩ)	10, 50, 100, 250	RS□□N1 : 10, 50, 100, 250 RS□□N11S : 10, 50, 100, 250 RS6011□Y : 10, 20, 50	RS□□N1□M : 10, 50, 100, 250 RSA0K1□V : 10
Total resistance tolerance	±20%		
Resistance taper	15A, 1B, 15C	RS□□N1 : 15A, 1B, 10A RS□□N1□S : 15A, 1B, 10A RS6011□Y : 15A, 1B, 10A	Single-unit : 1B Dual-unit : Servo 1B Audio 15A, 1B, 10A

Endurance

Sliding life	Standard : 100,000cycles C P : 300,000cycles	30,000cycles
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Environmental Test

Cold	-30±2℃ for 96h
Dry heat	70±2℃ for 240h
Damp heat	40±2℃, 90 to 95%RH for 96h

Notes

- "L" in the "Lever Wobble" column of the above table indicates the length of lever.
- Products other than those listed in the above list are also available. Please contact us for details.