

Low-profile type with excellent operability adds flexibility in set design



■ Typical Specifications

Items		Specifications
Total resistance tolerance		±20%
Maximum operating voltage		150V AC (RS60N Series) 350V AC (RSA0N Series)
Operating force	Single-unit	0.3 ^{+0.5} _{-0.25} N
	Dual-unit	0.4 ^{+0.5} _{-0.35} N
Operating life		30,000 cycles
Operating temperature range		-10°C to +60°C

■ Product Line

Number of resistor elements	Travel (mm)	Lever type	Length of lever (mm)	Total resistance (k Ω)	Resistance taper	Terminal style	Minimum order unit (pcs.)		Products No.	Drawing No.
							Japan	Export		
Single-unit	60	9-T (T-Bar)	8.2	10	15A	For PC board	300	600	RS60N111900H	1
	100						200	400	RSA0N111900Q	2
Dual-unit	60						300	600	RS60N1219A04	3
	100						200	400	RSA0N1219A03	4

Note

Other varieties are also available. Refer to "Other Specifications" (P.372).

■ Packing Specifications

Tray

Travel (mm)	Number of packages (pcs.)		Export package measurements (mm)
	1 case /Japan	1 case /export packing	
60	300	600	517×377×371
100	200	400	

Refer to P.372 for other specifications.
Refer to P.372 for details of lever types.
Refer to P.373 for ordering products not listed.
Refer to P.383 for soldering conditions

■ Dimensions

Unit:mm

No.	Style	PC board mounting hole dimensions (Viewed from mounting side)
1		
2		
3		
4		

Rotary
Potentiometers

Slide
Potentiometers

General-use

Mixer

Low-profile Master Type (N Fader) / Other Specifications

In addition to the Product Line, we accommodate the following specifications. Combinations not included in the Product Line are treated as semi-standard products.

Total Resistance Variety

Total resistance (k Ω)	10	50	100	250
------------------------	----	----	-----	-----

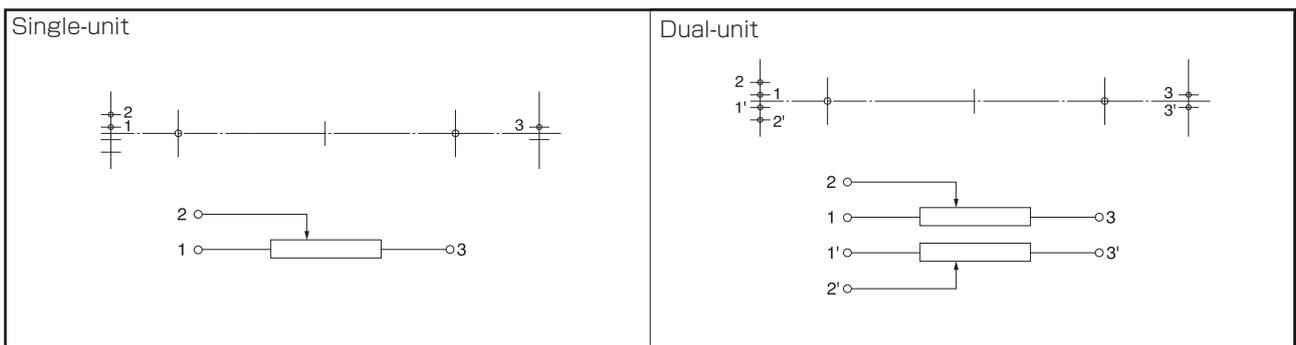
Resistance Taper

Resistance taper	15A	1B	10A
------------------	-----	----	-----

Lever Types

Configuration code	1	4	9-T (T-Bar)
Dimensions			

Terminal Layout / Circuit Diagram (Viewed from Mounting Side)



Corresponding Specification

Dust cover	Available
------------	-----------

Note

Marked are specifications recommended by Alps Alpine.

Rotary
Potentiometers

Slide
Potentiometers

General-Use

Mixer

Low-profile Master Type (N Fader) / Ordering Products Not Listed

In addition to the Product Line, we accommodate the following specifications. Combinations not included in the Product Line are treated as semi-standard products. Please refer to the notation example below.

Sample Part Number

R S 6 0 N 1 1 1 - 9 T - A 1 0 3

Travel

Code	Travel(mm)
60	60
A0	100

Number of resistor elements

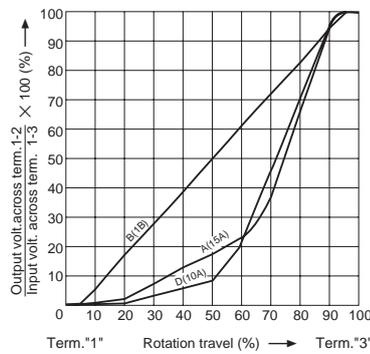
Code	Number of resistor elements
1	Single-unit
2	Dual-unit

Lever types

Code	Configuration code
01	1
04	4
9T	9-T (T-Bar)

Resistance taper

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



Total resistance

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

Rotary
Potentiometers

Slide
Potentiometers

General-use

Mixer

Slide Potentiometers

List of Varieties

Type		Low-profile Master Type		Motor-driven Master Type		
		N Fader	P Fader	Motor N Fader	Motor K Fader	Motor V Fader
Series		RS □□ N	RS6011 □ P	RS □□ N1 □ M	RSA0K1 □ V	RSA0V11M
		Single-unit/Dual-unit	Single-unit/Dual-unit	Single-unit/Dual-unit	Single-unit/Dual-unit	Single-unit
Photo						
Travel (mm)		60, 100	60	60, 100	100	
Direction of lever		Vertical				
Lever material		Metal				Resin
Operating temperature range		-10°C to +60°C				
Operating life		30,000 cycles			300,000 cycles	100,000 cycles
Available for automotive use		—	—	—	—	—
Life cycle						
Electrical performance	Total resistance (k Ω)	10, 50, 100, 250	10, 20, 50	10, 50, 100, 250	10	
	Resistance taper	15A, 1B, 10A		Single-unit: 1B Dual-unit: Servo 1B Audio 15A, 1B, 10A	1B	
	Rated Power	0.1W (RS60N) 0.25W (RSA0N)	0.2W (Single-unit) 0.1W (Dual-unit)	0.2W (RS60N1□M) 0.5W (RSA0N1□M)	0.5W	
	Insulation resistance	100MΩ min. 250V DC				
	Voltage proof	250V AC for 1 minute				
	Center-taps	Without				
Mechanical performance	Operating force	Single-unit: $0.3^{+0.5}_{-0.25}$ N Dual-unit: $0.4^{+0.5}_{-0.35}$ N	$0.5^{+1.0}_{-0.4}$ N	0.8±0.5N	Single-unit: 0.4±0.25N Dual-unit: 0.25 to 0.9N	—
	Center detent	Without				
	Stopper strength	100N				10N
	Lever push-pull strength	50N				20N
	Lever wobble (mm) ※ Both sides	$\frac{2(2 \times L)}{25}$				
	Lever deviation (mm)	0.5 max. (One side)				
Terminal style		Insertion		Lead, Insertion	Connector (Fader) Lead (Motor)	Connector
Page		370	374	377		

Slide Potentiometers Soldering Conditions	383
Potentiometer Cautions	384
Potentiometers Measurement and Test Methods	386
Potentiometers Resistance Taper	388

Notes

1. Attenuation is specified for residual resistance.
2. "L" in the "Lever Wobble" column of the above table indicates the length of lever.

Reference for Manual Soldering

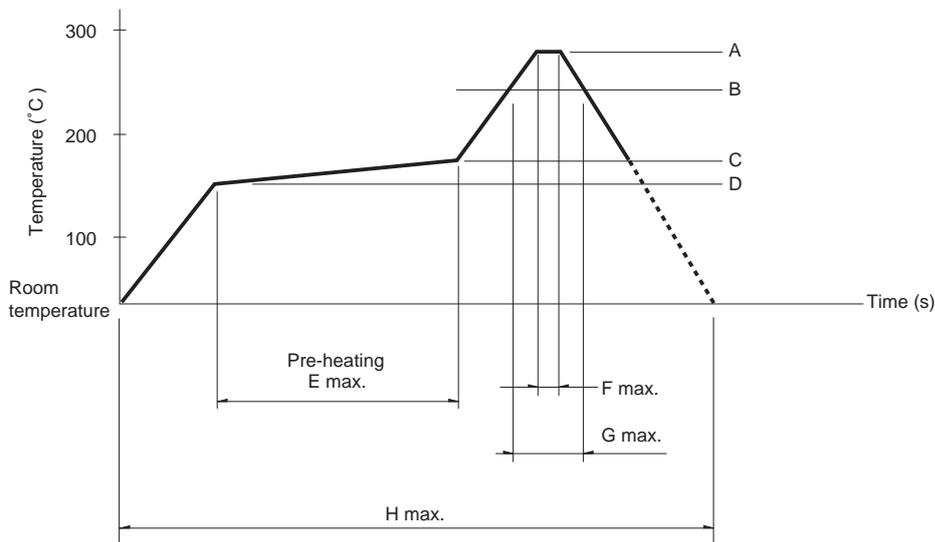
Series	Tip temperature	Duration of Soldering time	No. of solders
RS□□1, RS□□H, RS08U, RS□□K (Standard), RS□□N, RS6011□P, RS□□N1□M, RSA0K1□V (Motor terminal)	350°C max.	3s max.	1 time

Reference for Dip Soldering

Series	Preheating		Dip soldering		Number of soldering
	Soldering surface temperature	Heating time	Soldering temperature	Soldering time	
RS□□1, RS□□H, RS□□N, RS6011□P, RS□□N1□M	100°C max.	1 min. max.	260°C	5s max.	1 time

Example of Reflow Soldering Condition

Temperature profile



Series	A	B	C	D	E	F	G	H	No. of reflows
RS08U	250°C	200°C	150°C	150°C	2 min.	3s	40s	4 min.	1 time

Notes

1. When using an infrared reflow oven, solder may sometimes not be applied. Be sure to use a hot air reflow oven or a type that uses infrared rays in combination with hot air.
2. The temperatures given above are the maximum temperatures at the terminals of the products when employing a hot air reflow method. The temperature of the PC board and the surface temperature of the products may vary greatly depending on the PC board material, its size and thickness. Ensure that the surface temperature of the products does not rise to 250°C or greater.
3. Conditions vary to some extent depending on the type of reflow bath used. Be sure to give due consideration to this prior to use.