



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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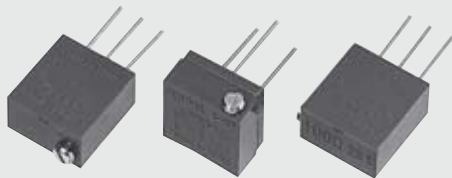
Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



19 TURNS WIREWOUND TRIMMERS



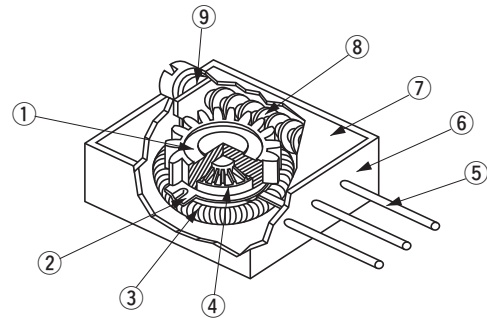
RoHS compliant



FEATURES

- Low temperature coefficient of resistance
- Low contact resistance

INTERNAL STRUCTURE



	Part name	Material	Flammability
①	Wheel gear	Polybutyleneterephthalate	UL-94HB
②	Wiper	Copper alloy, Palladium-plated	—
③	Resistive element	—	
④	Clutch board	Polybutyleneterephthalate	UL-94HB
⑤	Terminal pin	Nickel, Gold-plated	—
⑥	Housing	DAP	UL-94HB
⑦	Cover	Aluminium	—
⑧	Screw shaft	Brass, Nickel-plated	
⑨	“O” ring	Silicone rubber	UL-94HB

PART NUMBER DESIGNATION

K - 9
(1 3 0 9)

Series name

※ “K” may be replaced by 13 for type writing conveniences.

W 2 0 Ω

Resistance value

Product shape

W : Top adjustment

X : Side adjustment

P : Side adjustment

LIST OF PART NUMBERS

Adjustment position	Shape of terminal (Top view)	Product shape
Top adjustment 		K-9W (1309W)
Side adjustment (↑ Adjustment direction)		K-9X (1309X)
		K-9P (1309P)

※ Verify the above part numbers <Nominal resistance values> (Fig. 1) when placing orders.

<Nominal resistance values>

	K-9 (1309)		
	W	X	P
10 Ω	●	●	⊕ ●
20 Ω	●	●	⊕ ●
50 Ω	●	●	⊕ ●
100 Ω	●	●	⊕ ●
200 Ω	●	●	⊕ ●
500 Ω	●	●	⊕ ●
1 kΩ	●	●	⊕ ●
2 kΩ	●	●	⊕ ●
5 kΩ	●	●	⊕ ●
10 kΩ	●	●	⊕ ●
20 kΩ	●	●	⊕ ●
25 kΩ	⊕ ●	⊕ ●	⊕ ●
50 kΩ	●	●	⊕ ●

Fig. 1

The products indicated by ⊕ mark are manufactured upon receipt of order basis.

ELECTRICAL CHARACTERISTICS

Nominal resistance range	10 Ω ~ 50 kΩ
Resistance tolerance	± 10 %
Power rating ※1	0.5 W (70 °C), 0 W (120 °C)
Electrical continuity	Continuous for full mechanical range
End resistance	2 % or 1 Ω, whichever is greater
Absolute minimum resistance	0.5 % or 1 Ω, whichever is greater
Resolution	1.22 ~ 0.10 %
Peak noise	100 Ω (ENR) maximum
Operating temp. range	-55 ~ 120 °C
Temp. coefficient	± 50 10 ⁻⁶ /°C maximum
Insulation resistance	1000 MΩ minimum (DC500 V)
Dielectric strength	900 Vrms, 1 min (Room conditions)
Net weight	Approx. 0.80 g (κ-9P) Approx. 0.88 g (κ-9W) Approx. 0.86 g (κ-9X)

※1 Rated power is given for the maximum input voltage (V) and maximum wiper current (mA) for the resistance value.

RESOLUTION CHARACTERISTICS

Nominal resistance values (Ω)	Resolution (%)
10	1.22
20	0.98
50	0.70
100	0.54
200	0.44
500	0.48
1 k	0.37
2 k	0.27
5 k	0.22
10 k	0.17
20 k	0.15
25 k	0.12
50 k	0.10

MECHANICAL CHARACTERISTICS

Mechanical turn	19 turns
Operating torque	7.85 mN·m {80 gf·cm} maximum
Mechanical stop	Clutch action
Rotational life	200 cycles [ΔR/R ≤ 2 %]
Terminal strength	8.89 N {907 gf} minimum (Tensile strength MIL-R-27208)

ENVIRONMENTAL CHARACTERISTICS

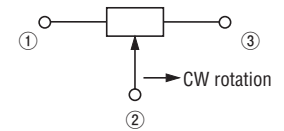
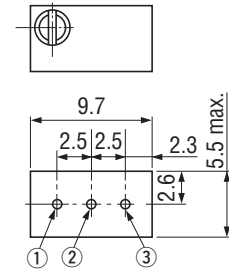
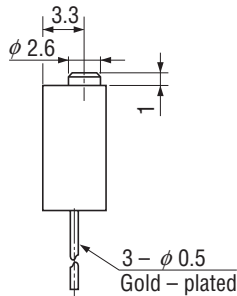
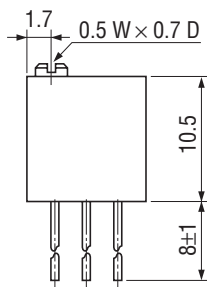
Test item	Test conditions	Specifications
Thermal shock	-65 ~ 125 °C	[ΔR/R ≤ 1 % + 0.05 Ω] [S.S. ≤ 1 % + Resolution]
Humidity	80 ~ 98 %, 240 h	[ΔR/R ≤ 1 % + 0.05 Ω]
Shock	981 m/s ²	[ΔR/R ≤ 1 % + 0.05 Ω] [S.S. ≤ 1 % + Resolution]
Vibration	Accelration 196 m/s ² , 10 ~ 2000 Hz	[S.S. ≤ 1 % + Resolution]
Load life	70 °C (Full load), 1000 h	[S.S. ≤ 2 % + Resolution]
Low temp. operation	-55 °C, 2 h	[ΔR/R ≤ 1 % + 0.05 Ω] [S.S. ≤ 1 % + Resolution]
High temp. exposure	120 °C, 250 h	[ΔR/R ≤ 1 % + 0.05 Ω] [S.S. ≤ 1 % + Resolution]
Immersion seal	85 °C	No leaks
Salt spray	No corrosion	—
Soldering heat	350 °C, 3 s	—

ΔR/R : Change in total resistance
S.S. : Setting stability

κ-9 WIREWOUND TRIMMERS

OUTLINE DIMENSIONS

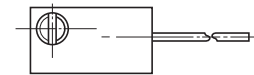
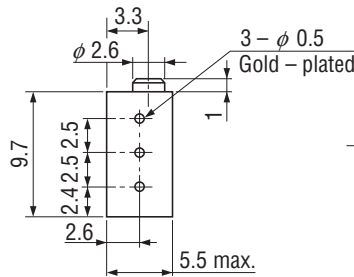
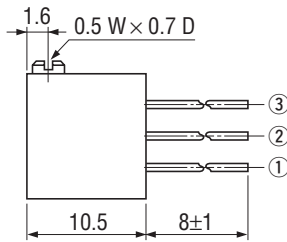
κ-9W (1309W) Top adjustment



Unless otherwise specified, tolerance : ± 0.2 (Unit : mm)

(Except for adhesive thickness)

κ-9X (1309X) Side adjustment



κ-9P (1309P) Side adjustment

