

16, 22 TURNS WIREWOUND TRIMMERS

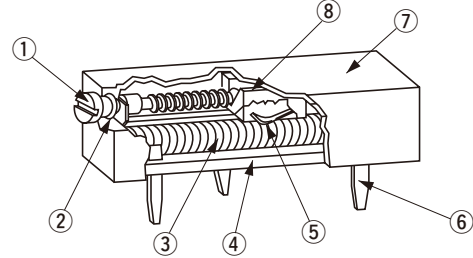
μ-8/μ-11

RoHS compliant



INTERNAL STRUCTURE

μ-8



Part name	Material	Flammability
① Screw shaft	Brass, Nickel-plated	—
② “O” ring	Silicone rubber	UL-94HB
③ Resistive element	—	—
④ Base	DAP	UL-94HB
⑤ Wiper	Copper, Palladium-plated	—
⑥ Terminal pin	Nickel, Gold-plated	
⑦ Housing	DAP	UL-94HB
⑧ Slider block	Polyoxymethylene	

FEATURES

- Low temperature coefficient of resistance
- Low contact resistance

PART NUMBER DESIGNATION

μ - 1 1
(1 2 1 1)

P B 2 0 Ω

Series name
 μ-8 : 19.0 × 4.2 × 6.7 mm (1208)
 μ-11 : 31.8 × 7.0 × 8.2 mm (1211)

Resistance value

Product shape (Shape of terminal)

※ “μ” may be replaced by 12 for type writing conveniences.

P : Through hole pins
 PB : Panel mount (Through hole pins)
 L : Flexible lead
 LB : Panel mount (Flexible lead)

LIST OF PART NUMBERS

Series name	Product shape			
	P	L	PB	LB
μ-8 (1208)	μ-8P (1208P)			
μ-11 (1211)	μ-11P (1211P)	μ-11L (1211L)	μ-11PB (1211PB)	μ-11LB (1211LB)

☐ : Not manufactured
 ※Verify the above part numbers <Nominal resistance values> (Fig. 1) when placing orders.

<Nominal resistance values>

Fig.1

	μ-8 (1208)		μ-11 (1211)		
	P	P	L	PB	LB
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	●	●	☞ ●	●	☞ ●
100 kΩ		●	☞ ●	●	☞ ●

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

Specifications are subject to change without notice. Specifications in this catalog are for reference. The formal specification sheets will be submitted upon request.

■ ELECTRICAL CHARACTERISTICS

	μ -8 (1208)	μ -11 (1211)
Nominal resistance range	10 Ω ~ 50 k Ω	10 Ω ~ 100 k Ω
Resistance tolerance	$\pm 10\%$	$\pm 5\%$
Power ratings ※1	0.5 W (70 °C) 0 W (120 °C)	0.75 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 %	0.25 %
	Or 1 Ω , whichever is greater	
Resolution	1.66 ~ 0.19 %	1.43 ~ 0.12 %
Peak noise	100 Ω (ENR) maximum	
Operating temp. range	-55 ~ 120 °C	
Temp. coefficient	± 50 10 ⁻⁶ /°C maximum	
Insulation resistance	1000 M Ω minimum (DC500 V)	
Dielectric strength	900 Vrms, 1 min (Room conditions)	
Net weight	Approx. 1.08 g	Approx. 3.19 g (μ -11P) Approx. 3.49 g (μ -11L) Approx. 9.13 g (μ -11PB) Approx. 9.31 g (μ -11LB)

※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 (%)	
	μ -8 (1208)	μ -11 (1211)
10	1.66	1.43
20	1.35	1.13
50	1.18	0.91
100	0.90	0.76
200	0.73	0.57
500	0.52	0.49
1 k	0.62	0.51
2 k	0.47	0.39
5 k	0.39	0.28
10 k	0.28	0.25
20 k	0.22	0.18
25 k	0.21	0.16
50 k	0.19	0.13
100 k	—	0.12

■ MECHANICAL CHARACTERISTICS

	μ -8 (1208)	μ -11 (1211)
Mechanical turn	16 turns	22 turns
Operating torque	7.85 mN·m {80 gf·cm} maximum	56.88 mN·m {580 gf·cm} maximum
Mechanical stop	Clutch action	
Rotational life	200 cycles [$\Delta R/R \leq 2\%$]	
Terminal strength	8.89 N {907 gf} minimum (Tensile strength MIL-R-27208)	

{ } : Reference only

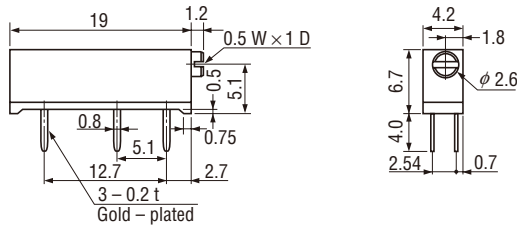
■ ENVIRONMENTAL CHARACTERISTICS

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

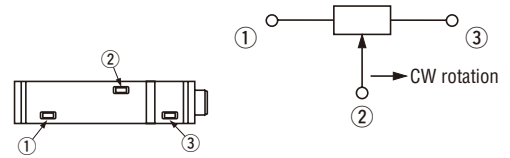
$\Delta R/R$: Change in total resistance
S.S. : Setting stability

OUTLINE DIMENSIONS

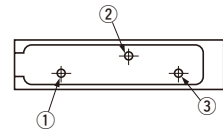
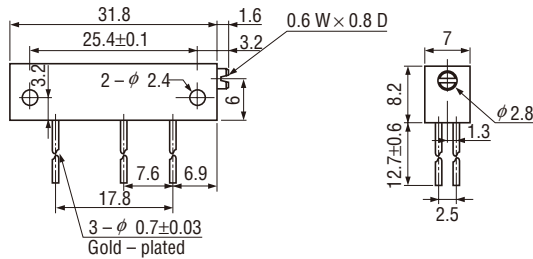
● **μ-8P (1208P)**
Through hole pins



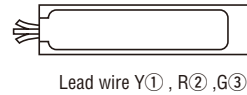
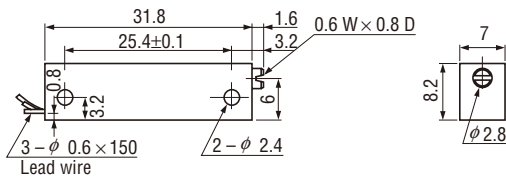
Unless otherwise specified, tolerance : ± 0.2 (Unit : mm)
(Except for adhesive thickness)



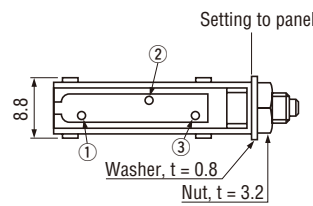
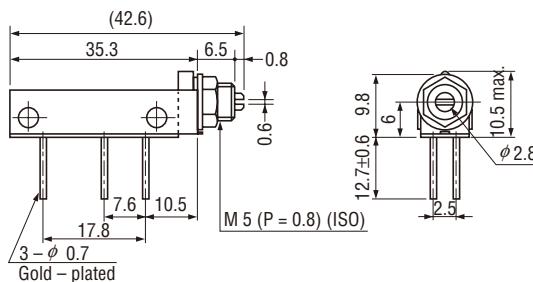
● **μ-11P (1211P)**
Through hole pins



● **μ-11L (1211L)**
Flexible lead



● **μ-11PB (1211PB)**
Panel mount (Through hole pins)



μ-11PB, LB mounting dimensions (suggested)

● **μ-11LB (1211LB)**
Panel mount (Flexible lead)

