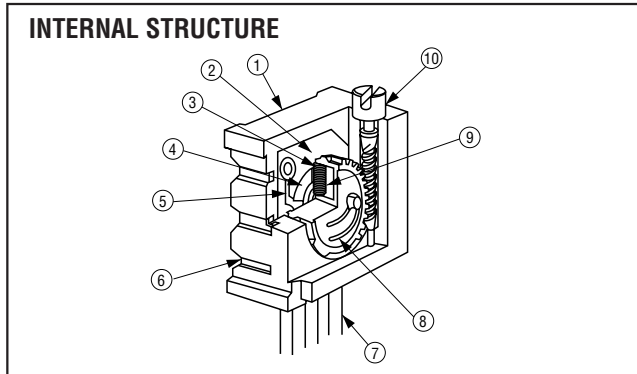




FEATURES

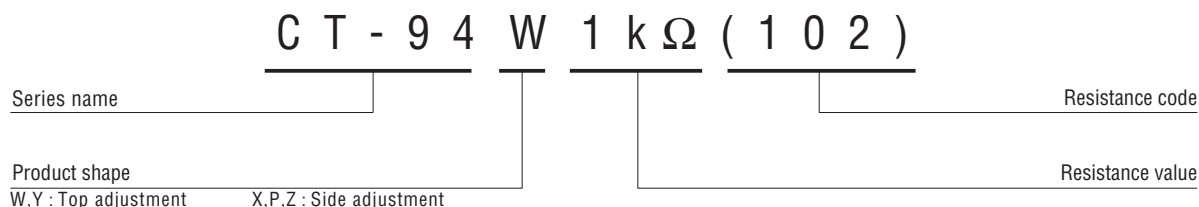
- Thin body design (4.8 mm thick)
- 18 turn, sealed, precision type



	Part name	Material	Flammability
①	Housing	PBT (Polybutyleneterephthalate)	UL-94V-0
②	Base element	Ceramic	—
③	Wiper	Multi metal alloy	
④	Resistive element	RuO ₂ cermet	
⑤	Electrode	Ag-Pd cermet	
⑥	Adhesive	Epoxy	UL-94V-0
⑦	Terminal pin	Copper, Solder-plated	—
⑧	Rotor gear	PA (Polyamide)	UL-94HB
⑨	Rubber cushion	Silicone rubber	—
⑩	Shaft	Brass, Nickel-plated	



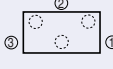
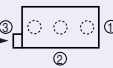

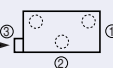

CFCs, Halon, Carbon tetrachloride and designated bromic flame retardant PBBOs and PBBs are not used in our products.

PART NUMBER DESIGNATION



✳ Please refer to the LIST OF PART NUMBERS when placing orders.

LIST OF PART NUMBERS

Adjustment position	Shape of terminal (Top view)	Form of packaging	Pieces in package
		Bulk packaging	
Top adjustment 		CT-94W	50 pcs./pack
		CT-94Y	
Side adjustment (↑ Adjustment direction)		CT-94X	
		CT-94P	
		CT-94Z	
			

ELECTRICAL CHARACTERISTICS

Nominal resistance range	10 Ω ~ 2 MΩ
Total resistance tolerance	± 10 %
Power ratings	0.5 W (70 °C) 0 W (125 °C)
Resistance law	Linear law
Maximum input voltage	DC300 V or power rating, whichever is smaller
Maximum wiper current	100 mA or power rating, whichever is smaller
Effective electrical turn	15 turns
End resistance	1 % or 2 Ω, whichever is greater
C.R.V.	1 % or 3 Ω, whichever is greater
Operating temp. range	-55 ~ 125 °C
Temp. coefficient	10 Ω, 20 Ω ± 250 10 ⁻⁶ /°C maximum 50 Ω ~ 2 MΩ ± 100 10 ⁻⁶ /°C maximum
Insulation resistance	1000 MΩ minimum (DC500 V)
Dielectric strength	AC900 V, 60 s
Net weight	Approx. 0.88 g (CT-94P) Approx. 0.92 g (CT-94X, W, Y, Z)

<Nominal resistance values>

⊕ 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	200 kΩ	⊕ 250 kΩ	500 kΩ	1 MΩ	2 MΩ

Fig.1

- * The above part numbers are all available with the respective combination of <Nominal resistance values> (Fig. 1).
- * Verify the above part numbers when placing orders.

⊕ : Semi-standard

MECHANICAL CHARACTERISTICS

Mechanical turn	18 turns
Operating torque	35 mN·m {357 gf·cm} maximum
Mechanical stop	Clutch action
Rotational life	200 cycles [$\Delta R/R \leq \pm (2 \Omega + 3 \%)$]
Terminal strength	10 N {1.02 kgf} minimum (Tensile strength)
Thrust to shaft	10 N {1.02 kgf} minimum
Solderability	235 °C, 2 s

{ } : Reference only

ENVIRONMENTAL CHARACTERISTICS

Test item	Test conditions	Specifications
Thermal shock	-65 ~ 125 °C (0.5 h), 5 cycles	[$\Delta R/R \leq 1 \%$] [S.S. $\leq 1 \%$]
Humidity	-10 ~ 65 °C (Relative humidity 80 ~ 98 %), 10 cycles, 240 h	[$\Delta R/R \leq 2 \%$]
Shock	981 m/s ² , 6 ms 6 directions for 3 times each	[$\Delta R/R \leq 1 \%$] [S.S. $\leq 1 \%$]
Vibration	Amplitude of 1.52 mm or Acceleration of 196 m/s ² , 10~2000 Hz, 3 directions, 12 times each	[$\Delta R/R \leq 1 \%$] [S.S. $\leq 1 \%$]
Load life	70 °C, 0.5 W, 1000 h	[$\Delta R/R \leq 3 \%$] [S.S. $\leq 1 \%$]
Low temp. operation	-55 °C, 2 h	[$\Delta R/R \leq 2 \%$] [S.S. $\leq 2 \%$]
High temp. exposure	125 °C, 250 h	[$\Delta R/R \leq 3 \%$] [S.S. $\leq 2 \%$]
Immersion seal	85 °C, 60 s	No leaks (No continuous bubbles)
Soldering heat	350 °C, 3 s	[$\Delta R/R \leq 1 \%$]

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

CT-94 CERMET TRIMMERS

MAXIMUM INPUT RATINGS

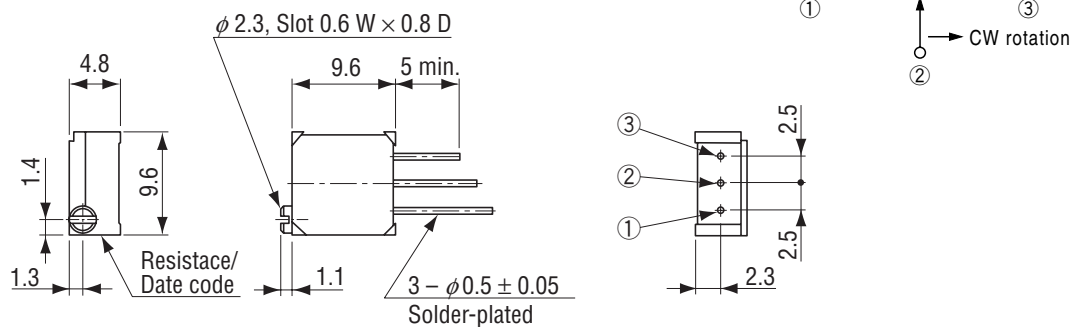
Nominal resistance values (Ω)	Resistance code	Maximum input voltage (V)	Maximum wiper current (mA)
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<ul style="list-style-type: none"> 1 k 2 k 5 k 10 k 20 k ⊕ 25 k 50 k 	<ul style="list-style-type: none"> 102 202 502 103 203 253 503 	<ul style="list-style-type: none"> 22.4 31.6 50.0 70.7 100 112 158 	<ul style="list-style-type: none"> 22.4 15.8 10.0 7.07 5.00 4.48 3.16
<ul style="list-style-type: none"> ⊕ 100 k 200 k 250 k 500 k 1 M 2 M 	<ul style="list-style-type: none"> 104 204 254 504 105 205 	<ul style="list-style-type: none"> 224 300 300 300 300 300 	<ul style="list-style-type: none"> 2.24 1.50 1.20 0.60 0.30 0.15

⊕ : Semi-standard

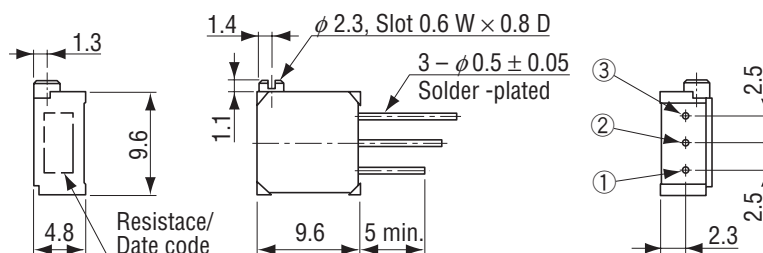
OUTLINE DIMENSIONS

Unless otherwise specified, tolerance: ± 0.3 (Unit: mm)

CT-94W Top adjustment



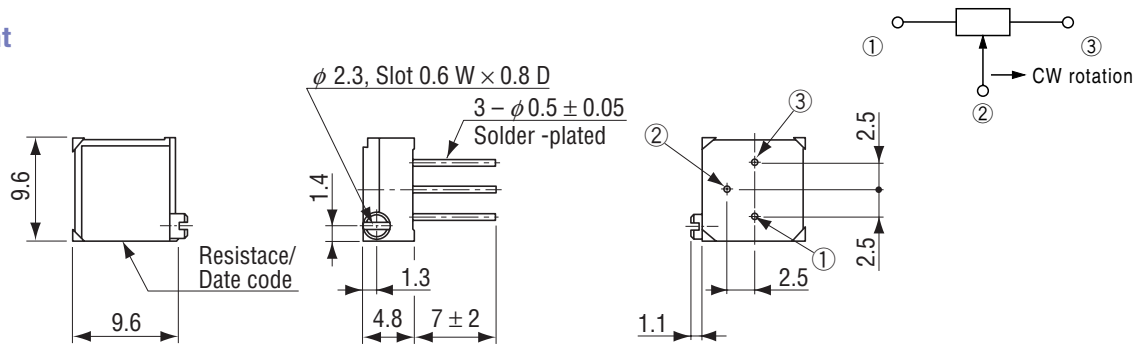
CT-94X Side adjustment



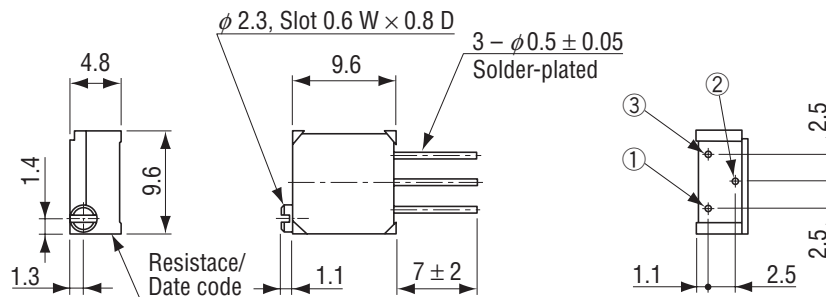
OUTLINE DIMENSIONS

Unless otherwise specified, tolerance: ± 0.3 (Unit: mm)

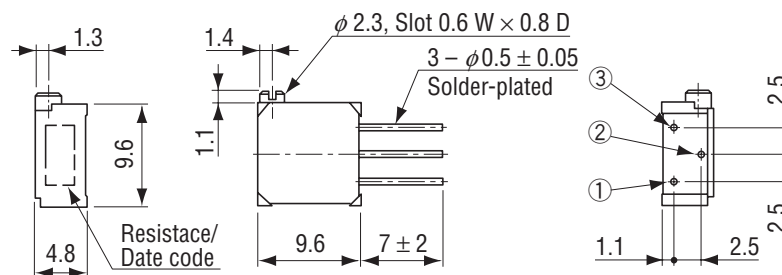
CT-94P Side adjustment



CT-94Y TOP adjustment



CT-94Z Side adjustment



PACKAGING SPECIFICATIONS

<Bulk packaging specifications>

- Unit of bulk in vinyl bag packaging is 50 pcs. per pack.
- Boxing of bulk in vinyl bags is performed with 100 pcs. per box.