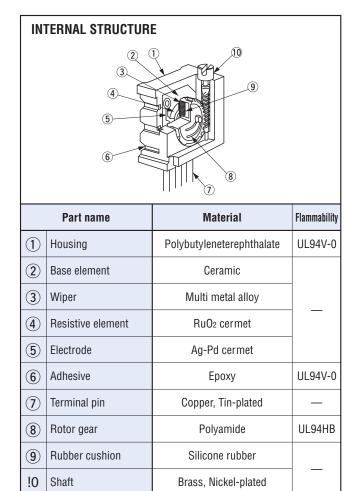


FEATURES

- RoHS compliant
- Thin body design (4.8 mm thick)
- 18 turns, sealed, precision type



PART NUMBER DESIGNATION

■ LIST OF PART NUMBERS

Adjustment	Shape of terminal	Form of packaging	Pieces in package	
position	(Top view)	Plastic bag		
Top adjustment	3 0 0	CT-94EW		
	@ 3 0	CT-94EY		
	③	CT-94EX	50 pcs./pack	
Side adjustment (↑ Adjustment direction)	0 3	CP-94EP		
	3 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	CT-94EZ		

■ ELECTRICAL CHARACTERISTICS

Nominal resistance range	10 Ω ~ 2 M Ω
Resistance tolerance	± 10 %
Power ratings	0.5 W (70 °C) 0 W (125 °C)
Resistance law	(B) 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 : \pm 250 10°/°C maximum 50 Ω ~ 2 M Ω : \pm 100 10°/°C maximum
Insulation resistance	1000 M Ω minimum (DC500 V)
Dielectric strength	AC900 V, 60 s
Net weight	Approx. 0.88 g (CT-94EP) Approx. 0.92 g (CT-94EW, EX, EY, EZ)

(Nominal resistance values)

♠ 10 Ω	→ 20 Ω		50 Ω	100 Ω	200 Ω		500 Ω	1 k Ω	2 k Ω	5 k Ω
10 k Ω	20 k Ω	25 k Ω	50 k Ω	100 k Ω	200 k Ω	→ 250 k Ω	500 k Ω	1 Μ Ω	2 M Ω	

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.

The products indicated by $\ensuremath{\ensuremath{\,\widehat{\oplus}}}$ mark are manufactured upon receipt of order basis.

■ MECHANICAL CHARACTERISTICS

Mechanical turn	18 turns
Operating torque	35 mN·m {357 gf·cm} maximum
Mechanical stop	Clutch action
Rotational life	200 cycles [\triangle R/R \leq \pm (2 Ω +3 %)]
Terminal strength	10 N {1.02 kgf} minimum (Tensile strength)
Thrust to shaft	10 N {1.02 kgf} minimum
Solderability	245 ± 3 °C, 2 ~ 3 s

{ }: Reference only

ENVIRONMENTAL CHARACTERISTICS

Test item	Test conditions	Specifications	
Thermal shock	— 65 ~ 125 °C (0.5 h), 5 cycles	[∆ R/R ≦ 1 %] [S.S. ≦ 1 %]	
Humidity	— 10 ~ 65 °C (80 ~ 98 %), 10 cycles, 240 h	[∆ R/R ≤ 2 %]	
Shock	981 m/s², 6 ms 6 directions for 3 times each	[A R/R < 1 %]	
Vibration	(Amplitude) 1.52 mm or (Acceleration) 196 m/s², 10 ~ 2000 Hz, 3 directions, 12 times each	[∆ R/R ≦ 1 %] [S.S. ≦ 1 %]	
Load life	70 °C, 0.5 W, 1000 h	[∆ R/R ≤ 3 %] [S.S. ≤ 1 %]	
Low temp. operation	— 55 °C, 2 h	$\begin{bmatrix} \triangle R/R \leq 2 \% \\ [S.S. \leq 2 \%] \end{bmatrix}$	
High temp. exposure	125 °C, 250 h	$\begin{bmatrix} \triangle R/R \leq 3 \% \\ [S.S. \leq 2 \%] \end{bmatrix}$	
Immersion seal	85 °C, 60 s	No leaks (No continuous bubbles)	
Soldering heat	Flow 260 \pm 3 °C, 5 ~ 6 s, two times maximum Manual soldering 380 \pm 10 °C, 3 ~ 4 s	[∆ R/R ≤ 1 %]	

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

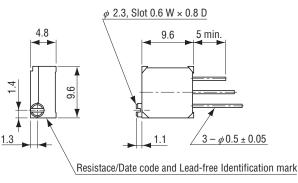
MAXIMUM INPUT RATINGS

Nominal resistance values (Ω)	Resistance code	Maximum input voltage (V)	Maximum wiper current (mA)
 → 10 → 20 50 100 200 500 	100	1.00	100
	200	2.00	100
	500	5.00	100
	101	7.07	70.7
	201	10.0	50.0
	501	15.8	31.6
1 k	102	22.4	22.4
2 k	202	31.6	15.8
5 k	502	50.0	10.0
10 k	103	70.7	7.07
20 k	203	100	5.00
→ 25 k	253	112	4.48
50 k	503	158	3.16
100 k 200 k 250 k 500 k 1 M 2 M	104 204 254 504 105 205	224 300 300 300 300 300 300	2.24 1.50 1.20 0.60 0.30 0.15

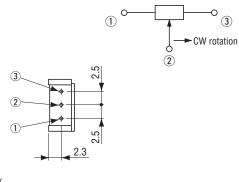
The products indicated by $\ \ \ \ \ \ \$ mark are manufactured upon receipt of order basis.

OUTLINE DIMENSIONS

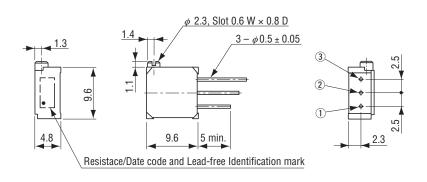
CT-94EWTop adjustment



Unless otherwise specified, tolerance: \pm 0.3 (Unit: mm)



CT-94EXSide adjustment



-o₃

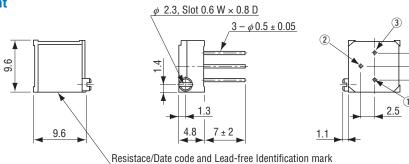
-CW rotation

OUTLINE DIMENSIONS

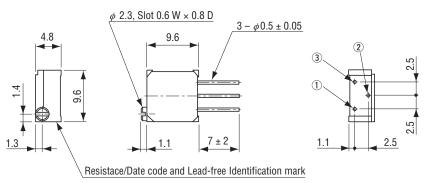
Unless otherwise specified, tolerance: \pm 0.3 (Unit: mm)

1

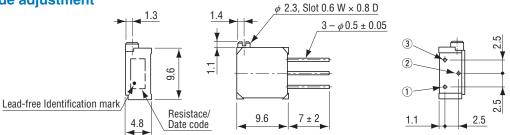
CT-94EPSide adjustment



CT-94EYTop adjustment



CT-94EZSide adjustment



PACKAGING SPECIFICATIONS

<Bulk pack specifications>

- Unit of bulk in a plastic bag is 50 pcs. per pack.
- Boxing of bulk in a plastic bag is performed with 100 pcs. per box.