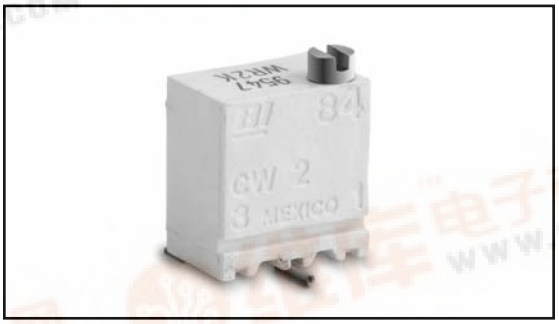
MODEL 84

1/4" Square Multiturn Surface Mount Cermet Trimming Potentiometer



ELECTRICAL

Standard Resistance Range, Ohms	10 to 1Meg
Standard Resistance Tolerance	±10%
Input Voltage, Maximum	200 Vdc or rms not to exceed power rating
Slider Current, Maximum	100mA or within rated power, whichever is less
Power Rating, Watts	0.25 at 85°C derating to 0 at 150°C
End Resistance, Maximum	2 Ohms
Actual Electrical Travel, Turns, Nominal	12
Dielectric Strength	900 Vrms
Insulation Resistance, Minimum	1,000 Megohms
Resolution	Essentially infinite
Contact Resistance Variation, Maximum	1% or 1 Ohms, whichever is greater

ENVIRONMENTAL

Seal	85°C Fluorinert® (No Leaks)
Temperature Coefficient, Maximum	±100ppm/°C (<100 Ohms = ±250ppm/°C)
Operating Temperature Range	–65°C to +150°C
Thermal Shock	5 cycles, –65°C to +150°C (1% ΔRT, 1% ΔVR)
Moisture Resistance	Ten 24 hour cycles (1% ΔRT, IR 100 Megohms Min.)
Shock, 6ms Sawtooth	100G's (1% ΔRT, 1% ΔVR)
Vibration	20G's, 10 to 2,000 Hz (1% ΔRT, 1% ΔVR)
High Temperature Exposure	250 hours at 150°C (2% ΔRT, 2% ΔVR)
Rotational Life	200 cycles (3% ΔRT)
Load Life at 0.5 Watts	1,000 hours at 85°C (2% ΔRT)
Resistance to Solder Heat	260°C for 10 sec. (1% ΔRT)
Temperature Exposure, Maximum	215°C for 3 min. (1% ΔRT)

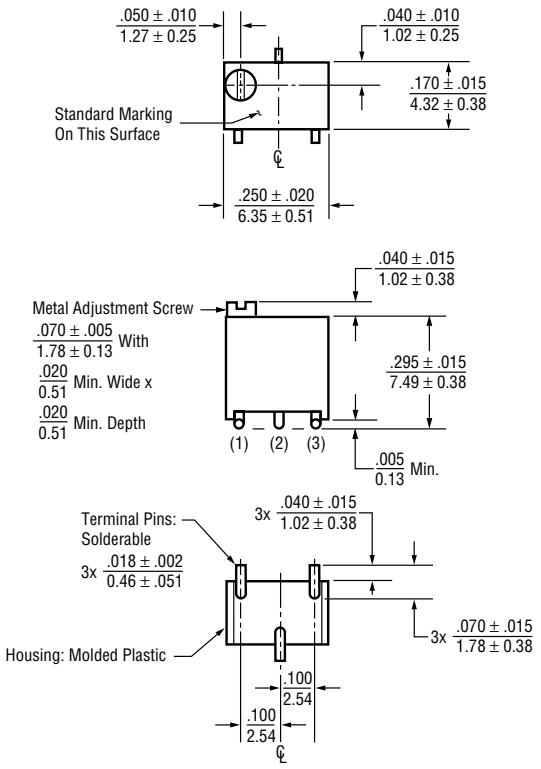
MECHANICAL

Mechanical Stops	Clutch action, both ends
Torque, Starting Maximum	3 oz.-in. (0.021 N-m)
Weight, Nominal	.014 oz. (.40 grams)

Fluorinert® is a registered trademark of 3M Company.
Specifications subject to change without notice.

TOP ADJUSTMENT (Inch/mm)

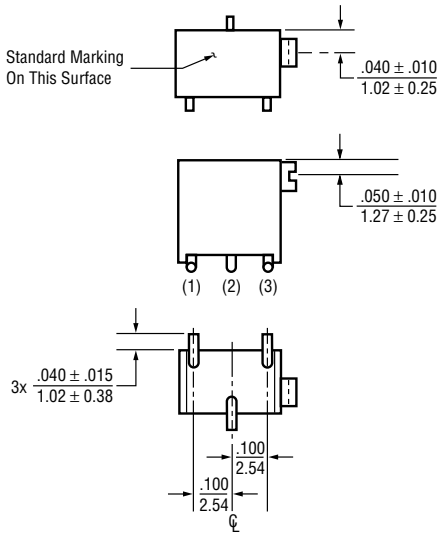
Model 84W



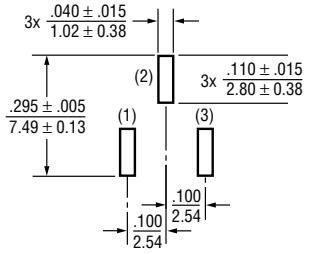
Note: Model 84W dimensions applicable to all models except as noted.

SIDE ADJUSTMENT (Inch/mm)

Model 84X

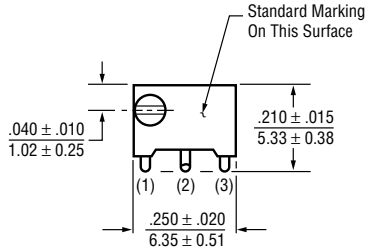


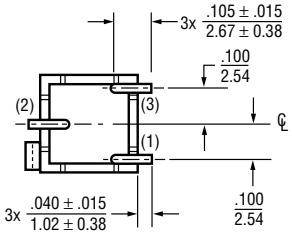
Recommended PCB Layout - Models 84W and 84X



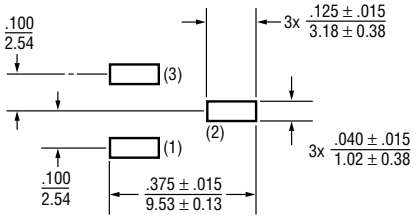
SIDE ADJUSTMENT (Inch/mm)

Model 84P





Recommend PCB Layout - Model 84P



STANDARD RESISTANCE VALUES, OHMS

10	100	1K	10K	50K	250K
20	200	2K	20K	100K	500K
50	500	5K	25K	200K	1Meg

PACKAGING

Standard: Tubes
All units oriented with #1 pin to same side.

	Pin Style		P	W/X
Magazine	Width	=	0.47"(11.93mm)	0.37"(9.39mm)
	Height	=	0.32"(8.13mm)	0.47"(11.93mm)
	Length	=	14.5"(368mm)	14.5"(368mm)
				16.5"(429mm)
	Capacity	=	50 Units	50 Units

Option: Embossed Tape & Reel (84P & 84W only)
All units oriented with #1 pin to the right of the direction of feed.

	Pin Style	=	P	W/X
Tape	Width	=	16 mm	24mm
	Sprocket	=	4 mm pitch	4mm pitch
	Capacity	=	500 Units	400 Units
Reel	Diameter	=	13" (330 mm)	13" (330mm)

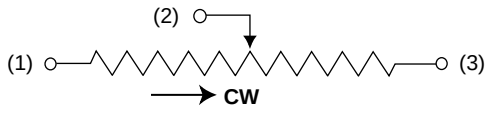
ORDERING INFORMATION

Standard:

84 P R 10K LF TR

- 84 — Model Series
- P — Pin Style
- R — Resistance Prefix
- 10K — Resistance Value
- LF — RoHS Compliant Product Code - Optional
- TR — Packaging Option:
  TR = Tape & Reel
  (No code used for tubes)

CIRCUIT DIAGRAM



NOTES

Metric equivalents, based on 1 inch = 25.4mm are rounded to the same number of significant figures as in the original English units and are provided for general information only.

Tolerances unless otherwise specified:
Linear = ± .01 inches (.25mm)
Angular = ± 2 degrees