1/4" [6.35mm] Sq. Wirewound Trimmers

FEATURES

- Precious metal wiper.
- 0.25 watt to + 85°C.
- TCR < 50PPM/°C.
- Solderable leads.
- Special configurations available.
- Military quality at affordable prices.

APPLICATIONS

Wirewound trimmers are particularly useful in those applications where any combination of high power, low temperature coefficient of resistance and/or excellent long term life stability are important design considerations.

ELECTRICAL SPECIFICATIONS

Electrical Travel: 22 ± 4 turns.
Resistance Range: 10 ohms to 5 kilohms. Extended range available in non MIL-Spec product.
Resistance Tolerance: ± 5% standard. Closer tolerances available.
Temperature Coefficient: (- 65°C to + 150°C) ± 50PPM/°C.
Power Rating: 0.5 watt at + 85°C derated to 0 watt at + 150°C. These specifications exceed MIL-Spec.
End Resistance: 1 ohm or 2%, whichever is greater.
Equivalent Noise Resistance (ENR): 100 ohms maximum.
Dielectric (DWV): 1000 VAC at atmospheric pressure. These specifications exceed MIL-Spec.
Insulation Resistance: > 100,000 Megohms (500 VDC). These specifications exceed MIL-Spec.

MECHANICAL SPECIFICATIONS

Operating Torque: 3 ounce inch maximum, 17S and 18S. 5 ounce inch maximum, 12S, 14S and 15S.
Rotation: Clutch stop, wiper idles.
Weight: 0.935 grams maximum.
Resistive Element: Nickel chromium.
Rotational Life: 200 cycles minimum.
Terminal Strength: 2 pounds for 10 seconds.

ENVIRONMENTAL SPECIFICATIONS

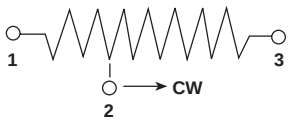
Temperature Limits: - 65°C to + 175°C.
Sealing: Fully sealed case (non-hermetic).

STANDARD RESISTANCE VALUES

RESISTANCE* (Ohms)	NOMINAL RESOLUTION (%)
10	1.65
20	1.35
50	1.13
100	.82
200	.62
500	.62
1k	.49
2k	.34
5k	.27
10k	.21
20k	.17
25k	.16

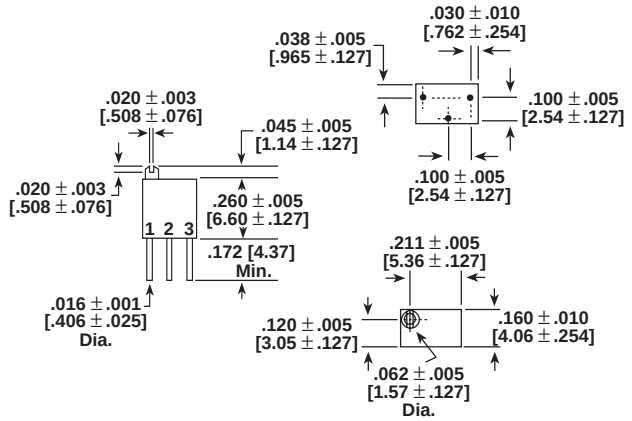
*Other resistances available upon request.

CIRCUIT DIAGRAM

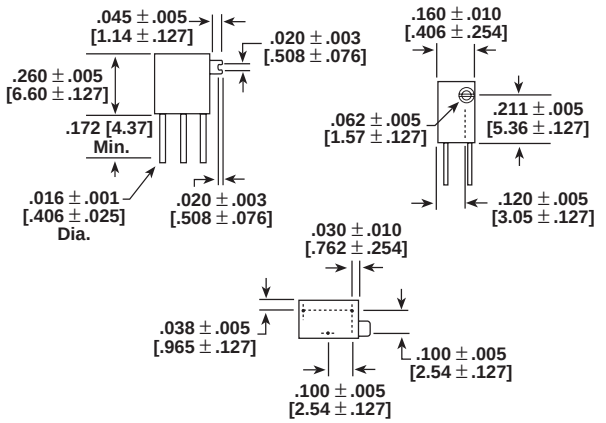


DIMENSIONAL CONFIGURATIONS 1/4" [6.35mm] Square [Numbers in brackets indicate millimeters]

W Lead Style - 17S

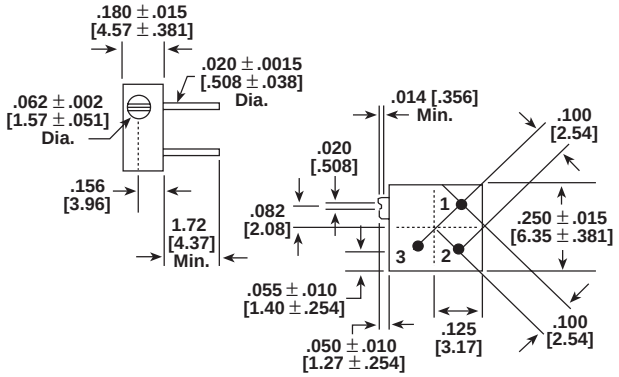


X Lead Style - 18S

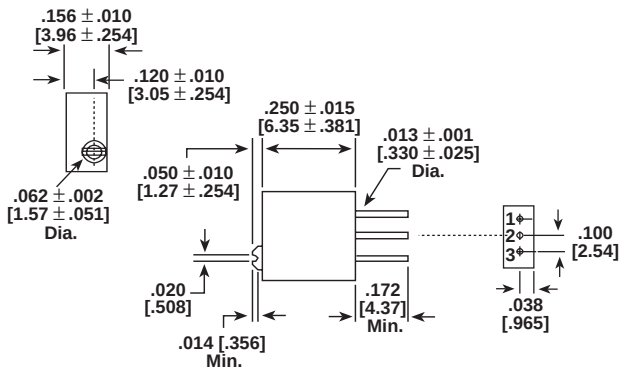


DIMENSIONAL CONFIGURATIONS 1/4" [6.35mm] Square [Numbers in brackets indicate millimeters]

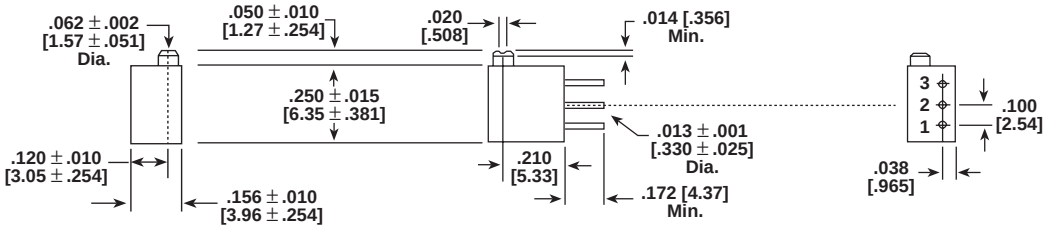
P Lead Style - 15S



W Lead Style - 12S



X Lead Style - 14S



ENVIRONMENTAL PERFORMANCE

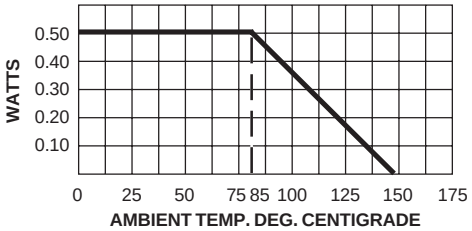
TEST[1]		CONDITIONS	MIL-R-27208 REQUIREMENT	TYPICAL CHANGE
Thermal Shock	(107)	5 cycles, - 55°C to + 125°C	ΔR ≤ 1.0%[2]	ΔR < 0.02%
Low Temperature Operation		1 hour storage, 45 minutes rated power at - 55°C	ΔR ≤ 1.0%[2, 3]	ΔR < 0.01%
High Temperature Exposure		250 hours, no load at + 150°C	ΔR ≤ 1.0%[2, 3]	ΔR < 0.03%
Moisture Resistance	(106)	240 hours at rated power with humidity ranging from 80% RH to 98% RH	ΔR ≤ 1.0%[2]	ΔR < 0.02%
Resistance to Soldering Heat	(210)	+ 350°C for 3 seconds	ΔR ≤ 1.0%[2]	ΔR < 0.01%
Shock	(213)	18 shocks, 100g, 6 ms, sawtooth, 3 axes	ΔR ≤ 1.0%[2, 3]	ΔR < 0.07%
Vibration	(204)	10 to 2000 Hz, 20g, 12 hours, 3 axes	ΔR ≤ 1.0%[2, 3]	ΔR < 0.02%
Rotational Life		200 cycles	ΔR ≤ 2.0%	ΔR < 0.04%
Load Life	(108)	1000 hours at rated power at + 85°C	ΔR ≤ 2.0%	ΔR < 0.12%

[1]Numbers in parenthesis refer to test method MIL-STD-202 as modified by the detail specification.

[2]For values below 100 ohms, add 0.05 ohm to the allowable change.

[3]The referenced tests also require that setting stability change shall not exceed ± 1.0 percent plus the specified maximum resolution and operating torque shall not exceed 150% of the specified maximum.

DERATING



HOW TO ORDER

12S
MODEL

- 12S = Top Adjustment Screw
- 14S = Side Adjustment Screw
- 15S = PC Mount
- 17S = Top Adjustment Screw
- 18S = Side Adjustment Screw

501
VALUE

First two digits are significant figures. Last digit specifies number of zeros to follow.