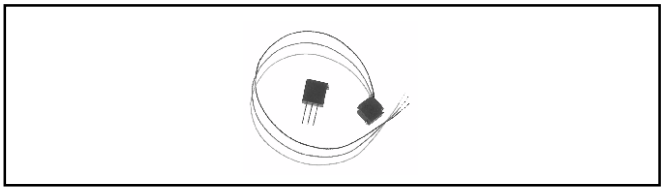
3/8" [9.52mm] Sq. Wirewound Trimmers



FEATURES

- Precious metal wiper.
- 1.0 watt to + 85°C.
- TCR ± 50PPM/°C.
- Solderable leads.
- 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 10 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: 1.0 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: 5 ounce inch maximum.
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

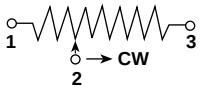
Temperature Limits: - 65°C to + 150°C.
Sealing: Fully sealed case (non-hermetic).

STANDARD RESISTANCE VALUES

RESISTANCE* (Ohms)	NOMINAL RESOLUTION (%)
10	1.10
20	.85
50	.65
100	.51
200	.40
500	.45
1k	.34
2k	.27
5k	.20
10k	.16
20k	.13
25k	.12
35k	.11
50k	.10

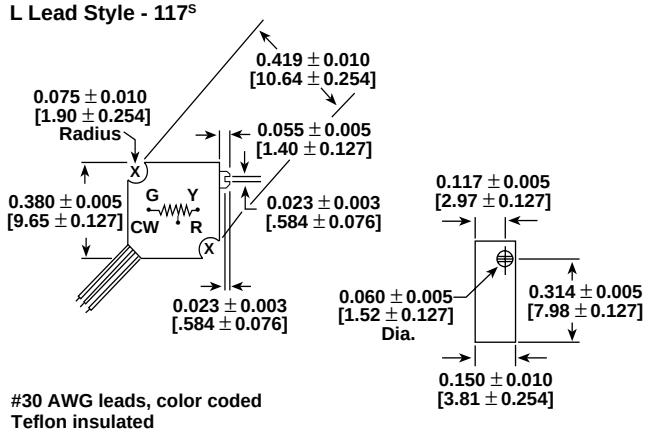
*Other resistances available upon request.

CIRCUIT DIAGRAM



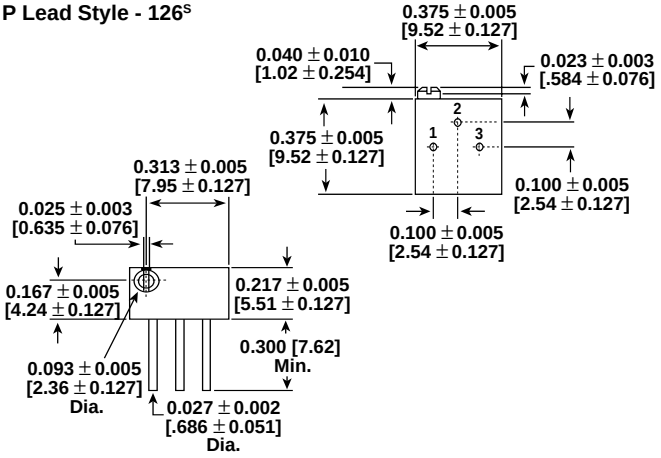
DIMENSIONAL CONFIGURATIONS 3/8" [9.52mm] Square [Numbers in brackets indicate millimeters]

L Lead Style - 117S



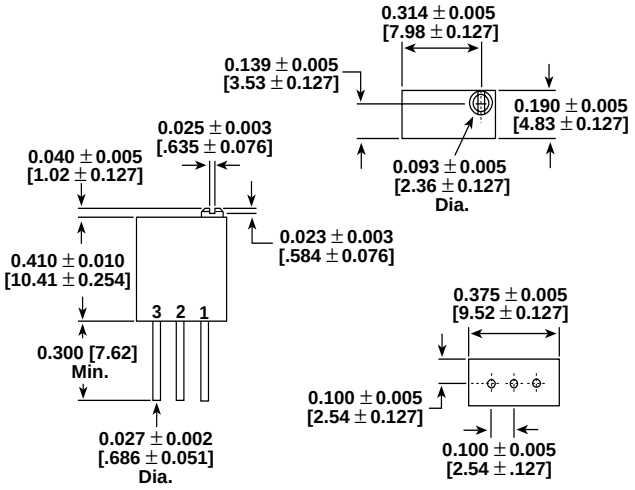
#30 AWG leads, color coded
Teflon insulated
6" [152.40mm] minimum length

P Lead Style - 126S

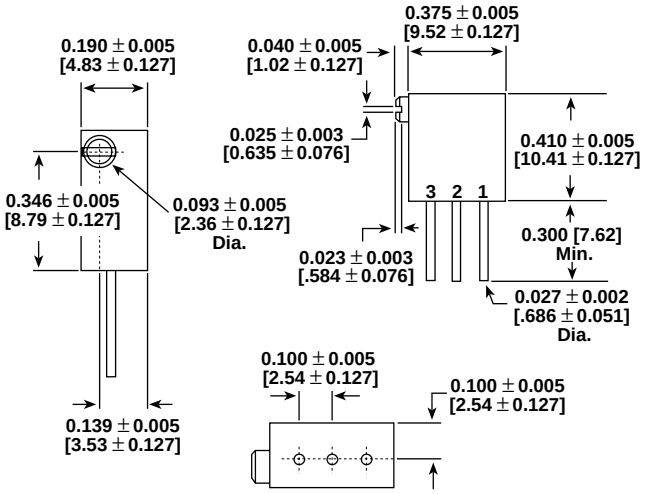


DIMENSIONAL CONFIGURATIONS 3/8" [9.52mm] Square [Numbers in brackets indicate millimeters]

W Lead Style - 151S



X Lead Style - 176S

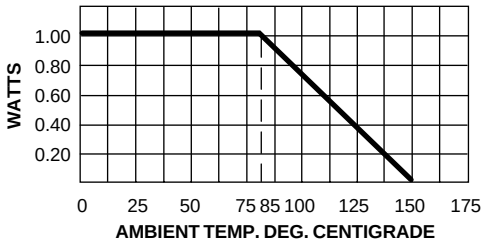


ENVIRONMENTAL PERFORMANCE

TEST[1]		CONDITIONS	MIL-PRF-39015 REQUIREMENT	TYPICAL CHANGE
Power Conditioning	(108)	50 hours at 1 watt at + 25°C	ΔR ≤ 0.5%[2]	ΔR < 0.08%
Thermal Shock	(107)	5 cycles, -55°C to + 125°C	ΔR ≤ 1.0%[2]	ΔR < 0.07%
Low Temperature Storage		72 hours, no load at - 65°C	ΔR ≤ 1.0%[2]	ΔR < 0.05%
Low Temperature Operation		1 hour storage, 45 minutes rated power at - 55°C	ΔR ≤ 1.0%[2,3]	ΔR < 0.08%
High Temperature Exposure		1000 hours, no load at + 150°C	ΔR ≤ 1.0%[2,3]	ΔR < 0.03%
Moisture Resistance	(106)	480 hours at rated power with humidity ranging from 80% RH to 98% RH	ΔR ≤ 1.0%[2]	ΔR < 0.22%
Resistance to Soldering Heat	(210)	+ 350°C for 3 seconds	ΔR ≤ 1.0%[2]	ΔR < 0.02%
Shock	(213)	18 shocks, 100g, 6 ms, sawtooth, 3 axes	ΔR ≤ 1.0%[2,3]	ΔR < 0.27%
Vibration	(204)	10 to 2000 Hz, 20g, 12 hours, 3 axes	ΔR ≤ 1.0%[2,3]	ΔR < 0.04%
Rotational Life		200 cycles	ΔR ≤ 2.0%	ΔR < 0.06%
Load Life	(108)	10,000 hours at rated power at + 85°C	ΔR ≤ 3.0%	ΔR < 0.23%

[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 ± 0.05 percent plus the specified maximum resolution.

DERATING



HOW TO ORDER

117S / MODEL

117S = Teflon Leadwire
126S = PC Mount
151S = Top Adjustment Screw
176S = Side Adjustment Screw

501 / VALUE

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

Disclaimer

All product specifications and data are subject to change without notice.

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