



Model 220 Industrial Wirewound Potentiometer 1" Long

FEATURES

- Meets or exceeds all requirements of MIL-R-27208 Style RT10.
- Subminiature size — .18 x .315 x 1.0
- High power dissipation — 1.0 watt at 70°C.
- Maximum operating temperature 175°C.
- SILVERWELD® termination eliminates vulnerable single wire termination.
- Wiper assembly idles at both ends of travel preventing damage from forced adjustments.
- Excellent shock and vibration stability due to self-locking adjustment screw.

Actual Size



220 P



220 L



220 W



Panel Mount Model 220 available ①

OBSOLETE

STANDARD RESISTANCES

Resistance (ohms)	Part Numbers*			Nominal Resolution (percent)
	1 1/2" solid wire (W)	6" stranded Teflon insulated leads (L)	Printed circuit pins (P)	
10	220W-1-100	220L-1-100	220P-1-100	.59
20	220W-1-200	220L-1-200	220P-1-200	1.30
50	220W-1-500	220L-1-500	220P-1-500	.96
100	220W-1-101	220L-1-101	220P-1-101	.86
200	220W-1-201	220L-1-201	220P-1-201	.85
500	220W-1-501	220L-1-501	220P-1-501	.65

① When ordering Panel Mount Model add "M" to part number. Example 220L-1-103M. See Panel Mount Bulletin for additional details.

Resistance (ohms)	Part Numbers*			Nominal Resolution (percent)
	1 1/2" solid wire (W)	6" stranded Teflon insulated leads (L)	Printed circuit pins (P)	
1,000	220W-1-102	220L-1-102	220P-1-102	.51
2,000	220W-1-202	220L-1-202	220P-1-202	.39
5,000	220W-1-502	220L-1-502	220P-1-502	.30
10,000	220W-1-103	220L-1-103	220P-1-103	.26
20,000	220W-1-203	220L-1-203	220P-1-203	.21
30,000	220W-1-303	220L-1-303	220P-1-303	.18

* The last three digits of the part number represent the resistance in standard code.

Model 220 TRIMPOT® Potentiometer

SPECIFICATIONS

ELECTRICAL CHARACTERISTICS

Standard Resistance Range (See chart on front)	10 to 30,000 ohms
Resistance Tolerance	±5% standard, closer tolerances available
Absolute Minimum Resistance	0.1% or 1.0 ohm, whichever is greater
Continuity	Maintained for full mechanical range
Noise During Adjustment	100 ohms maximum
Insulation Resistance, 500 volts DC	1,000 megohms minimum
Resolution (See chart on front)	.18 to 1.58%

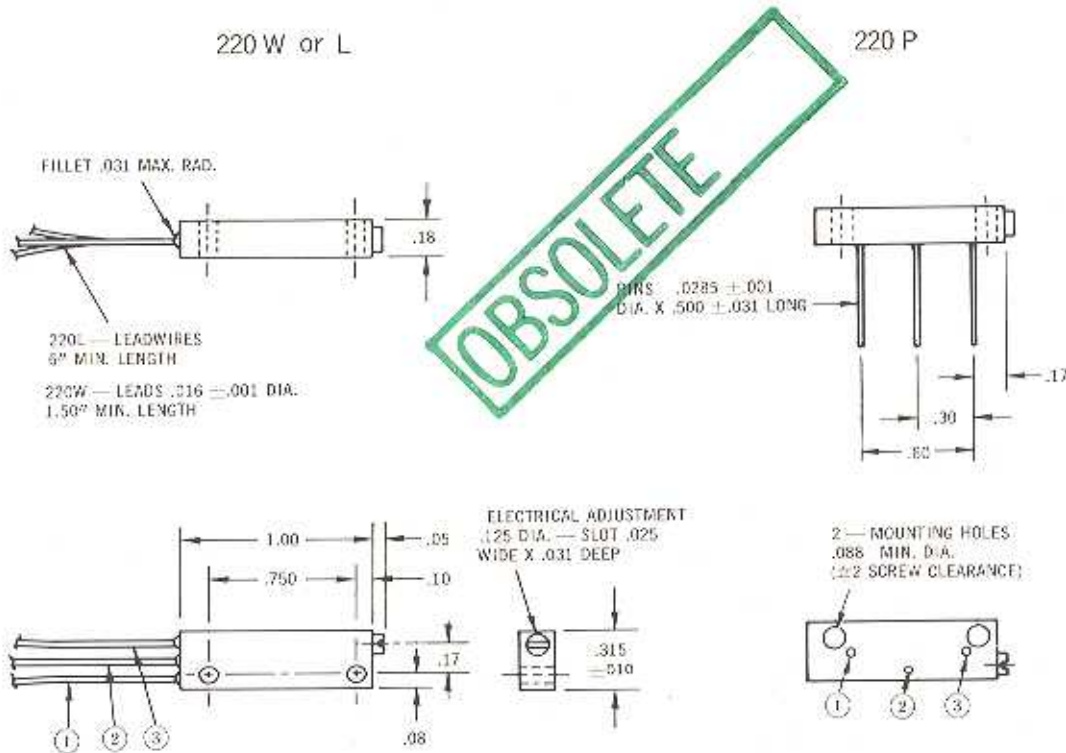
ENVIRONMENTAL CHARACTERISTICS

Power Ratings:	
70°C	1.0 watt
125°C	0.5 watt
175°C	0 watt
Operating Temperature Range	
	-55° to +175°C
Temperature Coefficient (per MIL-R-27208)	
100Ω-30K	±50 ppm/°C maximum
10Ω-50Ω	±70 ppm/°C maximum
Moisture Resistance, MIL-R-27208	
	100 megohms minimum insulation resistance
Vibration:	
	MIL-R-27208, 30Gs
Contact Bounce	0.1 millisecond maximum
Wiper Shift, Maximum	0.5% of resolution, whichever is greater

Shock	MIL-R-27208, 100Gs
Contact Bounce and Wiper Shift	Same as vibration
Salt Spray	Meets MIL-R-27208
Load Life	
	1,000 hours per MIL-R-27208
Resistance Shift, Maximum	
	100Ω to 30K, 2%
	Below 100Ω, 3%
Mechanical Life	
	200 cycles without discontinuity
Dielectric Strength	
	MIL-R-27208
Room Conditions	
	1,000 volts AC
80,000 Feet (0.8" Hr)	
	400 volts AC

PHYSICAL CHARACTERISTICS

Shaft Torque	5 oz.-in. maximum
Markings	Manufacturer's trademark, wiring diagram, date code, resistance, and manufacturer's part number (customer's part number optional)
Mechanical Adjustment	15 turns nominal
Mechanical Steps	Wiper assembly idles
Weight	Approximately 0.05 oz.
Terminals:	
L	Teflon insulated stranded leads, 30 AWG (0.021 O.D.) 7 strands/38 AWG
W	Solderable printed circuit pins
P	Solderable printed circuit pins
Specification Note: Closer performance tolerances can be supplied upon request. Specifications are subject to change without notice.	



INCHES	MILLIMETERS
.001	0.025
.005	0.127
.010	0.254
.016	0.406
.020	0.510
.025	0.635
.0285	0.724
.031	0.784
.05	1.270
.08	2.032
.088	2.235
.10	2.540
.125	3.175
.18	4.604
.17	4.318
.18	4.572
.30	7.620
.315	8.001
.500	12.700
.600	15.240
.750	19.050
1.00	25.400
1.5	38.100
6.0	152.400

TOLERANCE
DECIMAL .XX = .010
XXX = .005
EXCEPT WHERE NOTED

