


BOURNS
INC

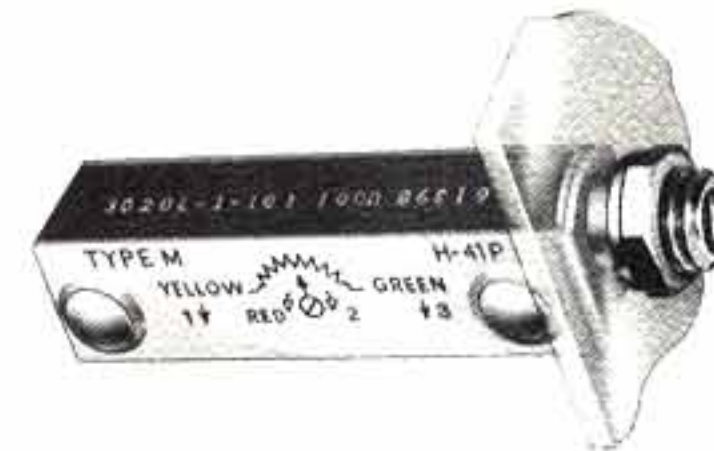
TRIMPOT® Potentiometer
Model 3020
High Power, Humidity-Proof
Wirewound Element

OBSOLETE

FEATURES

- High power dissipation in conventional size:
5.00 watts at 25°C;
3.75 watts at 70°C;
2.00 watts at 130°C.
- Excellent temperature stability to 200°C.
- Outstanding Mil Spec humidity performance. Meets applicable requirements of MIL-R-27208.
- Ceramic element mandrel has thermal expansion coefficient similar to resistance wire eliminating breakage and strain gage effects.
- SILVERWELD® termination alloys with multiple resistance wires eliminate vulnerable single wire termination.
- Wiper assembly idles at both ends of travel preventing damage from forced adjustments.
- Each instrument individually inspected for guaranteed electrical and physical characteristics.

Actual Size



Panel Mount Model 3020
Available with leads ①

STANDARD RESISTANCES

Resistance (ohms)	Part Number * 3020L Stranded Insulated Leads	Nominal Resolution (Percent)
100	3020L-1-101	1.23
200	3020L-1-201	0.99
500	3020L-1-501	0.74
1,000	3020L-1-102	0.59
2,000	3020L-1-202	0.48

SPECIAL RESISTANCES AVAILABLE FROM 100 TO 50,000 OHMS

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

Resistance (ohms)	Part Number * 3020L Stranded Insulated Leads	Nominal Resolution (Percent)
5,000	3020L-1-502	0.36
10,000	3020L-1-103	0.30
20,000	3020L-1-203	0.25
25,000	3020L-1-253	0.24
50,000	3020L-1-503	0.20

(1) When ordering panel mount model, add "M" to part number. Example: 3020L-1-103M. See Panel Mount Bulletin for additional details.

Model 3020 TRIMPOT® Potentiometer

SPECIFICATIONS

ELECTRICAL CHARACTERISTICS

Standard Resistance Range	100 to 50,000 ohms
Resistance Tolerance*	±5% Standard, closer tolerances available
Absolute Minimum Resistance*	
100 to 50,000 ohms	0.1% or 2.0 ohms, whichever is greater
Continuity*	Maintained for full mechanical range
Noise During Adjustment*	100 ohms ENR maximum
Insulation Resistance, 500 volts DC*	1,000 megohms minimum
Resolution (See chart on front)	0.20 to 1.23%

ENVIRONMENTAL CHARACTERISTICS

Power Ratings:	
25°C	5.0 watts
70°C	3.75 watts
130°C	2.0 watts
200°C	0 watt
Operating Temperature Range	-65° to +200°C
Temperature Coefficient (per MIL-R-27208)	50 ppm/°C maximum
Moisture Resistance, MIL-R-27208	100 megohms minimum, insulation resistance after removal from chamber
Vibration	Exceeds MIL-R-27208, 20Gs
Contact Bounce	0.1 millisecond maximum
Wiper Shift, maximum	1.0% or resolution
Shock	Exceeds MIL-R-27208, 50Gs
Contact Bounce and Wiper Shift	Same as vibration
Sand and Dust	Meets MIL-E-5272, Procedure 1

Salt Spray	Meets MIL-R-27208
Fungus	Materials meet MIL-E-5272
Load Life	1,000 hours per MIL-R-27208
Resistance Shift, maximum	2.0%
Mechanical Life	200 cycles without discontinuity
Dielectric Strength	MIL-R-27208
Room Conditions	800 volts AC
80,000 Feet (0.8" Hg)	300 volts AC

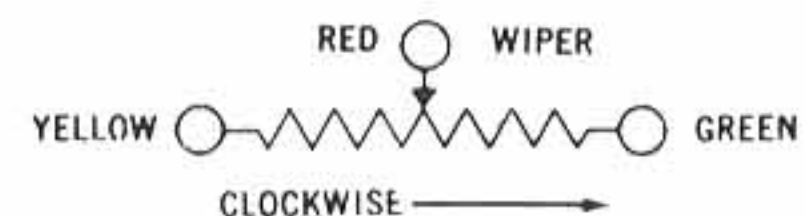
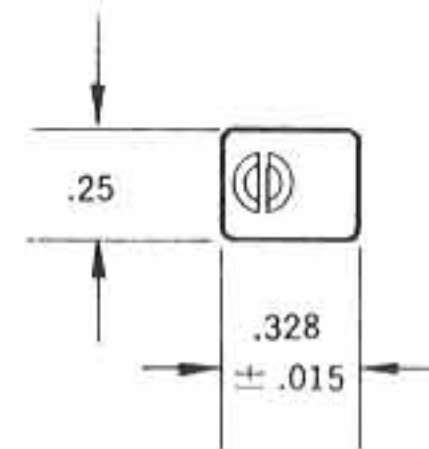
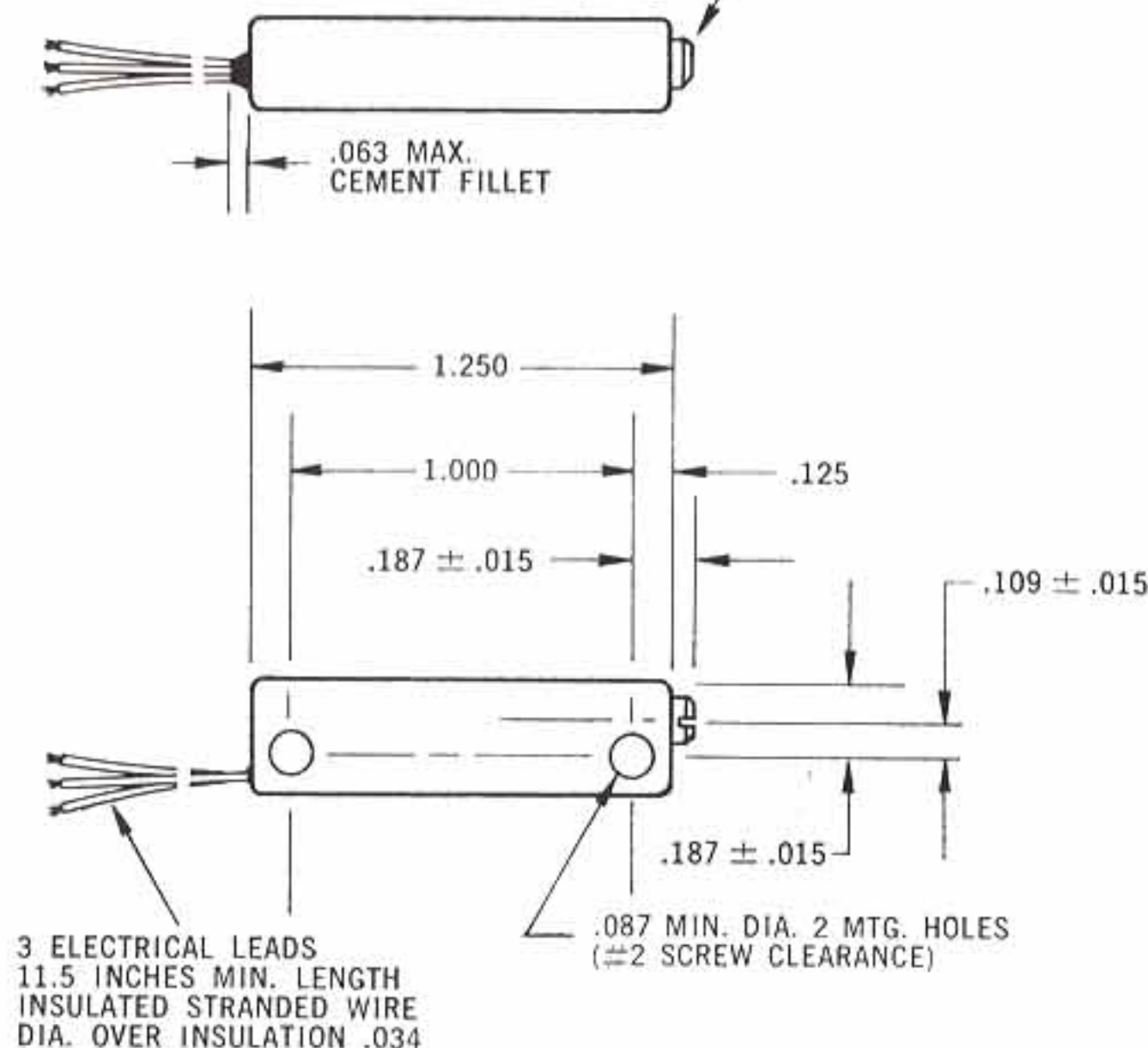
PHYSICAL CHARACTERISTICS

Immersion Leak Test*	No leaks
Shaft Torque*	5.0 oz.-in. maximum
Markings*	Manufacturer's name, wiring diagram, date code, resistance and manufacturer's part number (customer's part number optional).
Appearance*	Legible markings, no physical defects
Mechanical Adjustment	25 turns nominal
Mechanical Stops*	Wiper assembly idles
Weight	Approximately 0.19 oz.
Terminals:	
(L)	Teflon insulated stranded leads, 30 AWG (0.024 O.D.) 7 strands/38AWG
*Inspection Note: Applicable 100% or statistical sampling inspection performed to insure highest quality.	
Specification Note: Closer performance tolerances can be supplied upon request. Specifications are subject to change without notice.	

OBSOLETE

3020L

ELECTRICAL ADJUSTMENT
.125 ± .015 DIA. WITH .025 WIDE SLOT



TOLERANCES EXCEPT AS SHOWN:
DECIMAL .XX ± .010 .XXX ± .005

BOURNS