

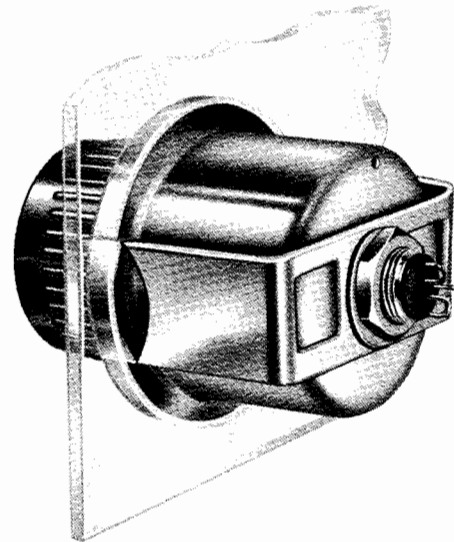


Model 3650
 Digital KNOBPOT® Potentiometer
 10-Turn 1¼" Diameter

OBSOLETE 2002
Actual Size

FEATURES

- Integral digital readout, knob, and potentiometer
- Requires less front panel space than most dials alone
- Readability — 1 part in 10,000
- Accuracy — Relationship of readout to wiper output within 0.1% of the total applied voltage
- Repeatability — Within 0.05% of total applied voltage
- SILVERWELD® termination eliminates vulnerable single-wire termination
- Individual inspection of each potentiometer to guaranteed electrical and physical specifications
- Performance guaranteed by Bourns Reliability Assurance Program



STANDARD RESISTANCES

Resistance (Ohms)	Part Numbers*	Resolution (Percent)
100	3650S-1-101	.053
200	3650S-1-201	.036
500	3650S-1-501	.026
1,000	3650S-1-102	.022
2,000	3650S-1-202	.017
5,000	3650S-1-502	.012
10,000	3650S-1-103	.010

Resistance (Ohms)	Part Numbers*	Resolution (Percent)
20,000	3650S-1-203	.011
50,000	3650S-1-503	.009
75,000	3650S-1-753	.008
100,000	3650S-1-104	.008
200,000	3650S-1-204	.005
250,000	3650S-1-254	.005
500,000	3650S-1-504	.004

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

Model 3650 Digital KNOBPOT® Potentiometer

SPECIFICATIONS

ELECTRICAL CHARACTERISTICS

Resistance Range	100Ω to 500K ohms
Resistance Tolerance*	±3%
Readout Accuracy* (correlation of Digital Readout to voltage ratio output)	
100 & 200Ω	±0.20% voltage ratio
500 to 5KΩ	±0.15% voltage ratio
10K to 20K	±0.12% voltage ratio
50K to 500KΩ	±0.10% voltage ratio
Readability of Reading*	±0.05% voltage ratio
Resolution	See Standard Resistance Table
Effective Electrical Angle*	3600° nominal
Absolute Minimum Resistance*	1.0Ω or 0.1%, whichever is greater
Noise*	100Ω maximum
Power Rating	
25°C	2.5 watts
85°C	0 watt
Dielectric Strength	MIL-R-12934
Sea Level	1000 volts AC minimum
70,000 feet	250 volts AC minimum
Insulation Resistance, 500 volts DC*	1000 megohms minimum

ENVIRONMENTAL CHARACTERISTICS

Operating Temperature Range	-25°C to +85°C
Temperature Coefficient of Wire	20 PPM/°C maximum
Humidity	MIL-STD-202, Method 103

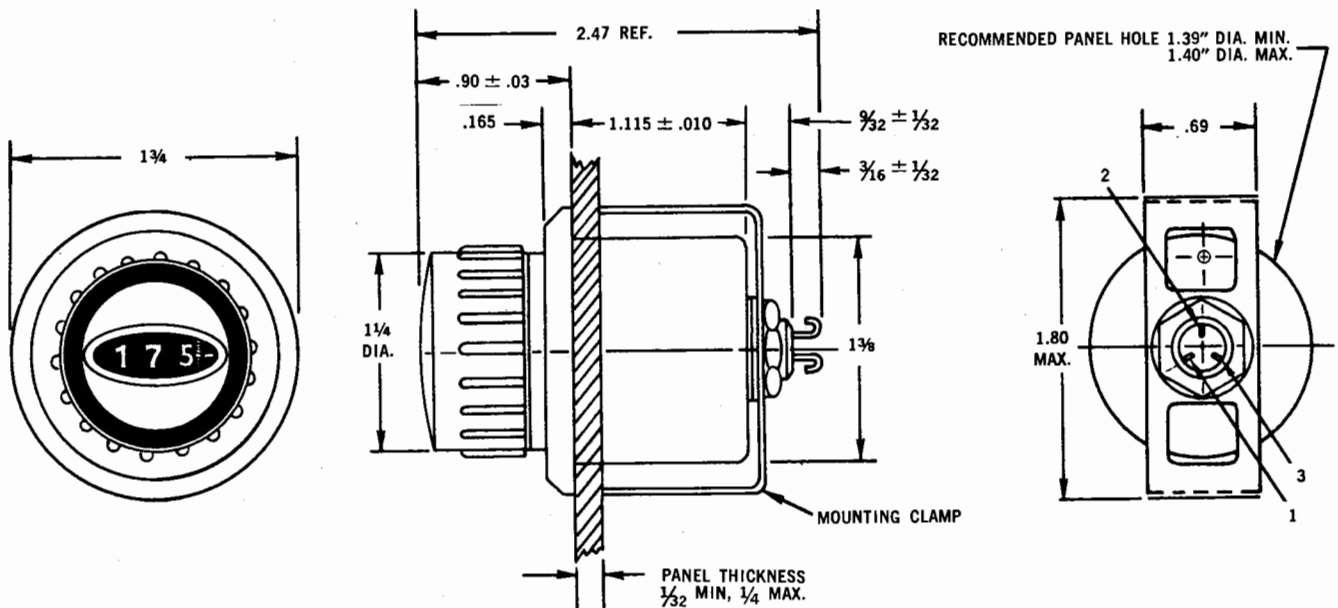
Vibration	MIL-R-12934, 10G
Wiper Bounce	0.1 millisecond maximum
Wiper Shift	0.2% maximum
Shock	MIL-R-12934, 50G
Wiper Bounce and Wiper Shift	Same as vibration
Load Life	MIL-R-12934, 1000 hours
Resistance Shift	2.0% maximum
Sand and Dust	MIL-E-5272
Fungus	MIL-E-5272
Salt Spray	MIL-R-12934

MECHANICAL AND PHYSICAL CHARACTERISTICS

Mechanical Angle*	3600° (+10°, -0°)
Rotational Life	200,000 revolutions
Stop Strength	48 oz.-in. minimum
Torque*	
Starting	1.0 to 15.0 oz.-in.
Running	15.0 oz.-in. maximum
Weight	Approximately 4 oz.
Terminals	Gold-plated hooks
Markings*	Manufacturer's name, part number, resistance value and date code.

* 100% or statistical sampling inspection performed to insure highest quality.
Specifications are subject to change without notice.

3650



TOLERANCES: EXCEPT WHERE NOTED
DECIMALS: .XX ± .010, XXX ± .005
FRACTION: ±1/64

NOTE: LOCKWASHER, HEX NUT, AND 2 MOUNTING STRAPS SUPPLIED WITH EACH UNIT.



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