



BOURNS

7/8" DIAMETER/5-TURN/WIREWOUND AND HYBRITRON® ELEMENT

- Servo mount
- Shaft supported front and rear by precision ball bearings
- High temperature, moisture resistant, thermosetting plastic housing

- Special rotor and slider design assures excellent wiper stability
- Non-standard features and specifications available
- Gangable

FOR ORDERING INFORMATION SEE PAGE 43 .

Models 3570/3571

Bourns® Precision Potentiometers

3570 Wirewound

3571 Hybritron®

Electrical Characteristics¹

Standard Resistance Range	50 to 100KΩ	500 to 50KΩ
Resistance Tolerance	± 3%	± 10%
Independent Linearity	± 0.25%	± 0.25%
Resolution	See ordering information	Essentially infinite
Effective Electrical Angle	1800° + 10°, -0°	1800° + 10°, -0°
End Voltage	1Ω or 0.1%	0.1% maximum
	(whichever is greater)	

Noise 100Ω ENR maximum Output smoothness 0.1%

Power Rating

+70°C	2.0 watts	2.0 watts
+125°C	0 watt	0 watt

Dielectric Strength

Sea Level	1,000 VAC minimum	1,000 VAC minimum
80,000 Feet	300 VAC minimum	300 VAC minimum

Insulation Resistance

(500 VDC)	1,000 megohms minimum	1,000 megohms minimum
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Environmental Characteristics¹

Operating Temperature Range -65°C to +125°C -65°C to +125°C

Temperature Coefficient² ±20ppm/°C maximum ±100ppm/°C maximum

Humidity MIL-R-12934 MIL-R-39023

Humidity cycling Humidity cycling

Vibration MIL-R-12934, 20G MIL-R-39023, 20G

Wiper Bounce 0.1 millisecond maximum 0.1 millisecond maximum

Wiper Shift 0.2% maximum 0.1% maximum

Shock MIL-R-12934, 100G MIL-R-39023, 100G

Wiper Bounce & Wiper Shift Same as Vibration Same as Vibration

Load Life 1,000 hours 1,000 hours

Total Resistance Shift ±2% maximum ±5% maximum

Mechanical Characteristics¹

Mechanical Angle 1800° + 10°, -0° 1800° + 10°, -0°

Shaft Runout 0.001 in. T.I.R. 0.001 in. T.I.R.

Lateral Runout 0.003 in. T.I.R. 0.003 in. T.I.R.

Pilot Diameter Runout 0.0015 in. T.I.R. 0.0015 in. T.I.R.

Shaft End Play 0.003 in. T.I.R. 0.003 in. T.I.R.

Shaft Radial Play 0.002 in. T.I.R. 0.002 in. T.I.R.

Rotational Life 1,000,000 shaft revolutions 4,000,000 shaft revolutions

Stop Strength 96 oz-in. minimum 96 oz-in. minimum

Torque

Starting 0.4 oz-in. maximum 0.4 oz-in. maximum

Running 0.3 oz-in. maximum 0.4 oz-in. maximum

Moment of Inertia 0.28g cm² 0.28g cm²

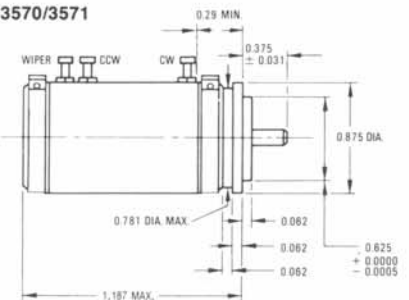
Ganging 3 cups maximum 3 cups maximum

Weight Approximately 25g Approximately 25g

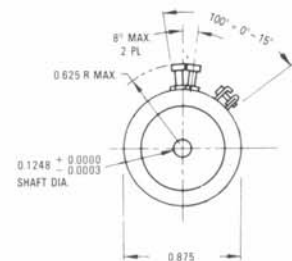
Terminals Gold-plated turret type Gold-plated turret type

Markings Manufacturer's name and part number, resistance value and tolerance, linearity tolerance, wiring diagram, date code

3570/3571



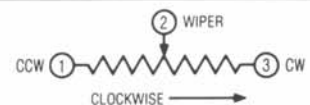
ADD 0.060" MAX. FOR EACH ADDITIONAL CUP



TOLERANCES: EXCEPT WHERE NOTED

DECIMALS: .XX ± .010, .XXX ± .005

DIMENSIONS: IN.



¹At room ambient: +25°C nominal and 50% relative humidity nominal, except as noted.