



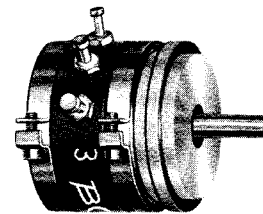
Model 3585
BOURNS Potentiometer
7/8" Diameter Single-Turn Servo Mount
WIREWOUND ELEMENT

OBSOLETE 1995

FEATURES

- Extended Temperature Range: -65 to +125°C.
- Outstanding resistance to humidity. Exceeds humidity cycling requirements of MIL-R-12934.
- Dual collector pick-off assures outstanding vibration and shock performance.
- Shaft supported front and rear by precision ball bearings.
- Housing: high temperature, moisture resistant, thermosetting plastic.
- Performance of the Model 3585 is guaranteed by the Bourns Reliability Program, which includes individual inspection to published electrical and physical characteristics.
- Custom design capability is available to satisfy your most demanding and difficult special requirements.

Actual Size



STANDARD RESISTANCES

Resistance (Ohms)	Part Number**	Resolution (Percent)
25	3585S-1-250	.465
50	3585S-1-500	.370
100	3585S-1-101	.307
200	3585S-1-201	.260
500	3585S-1-501	.233
1,000	3585S-1-102	.189

Resistance (Ohms)	Part Number**	Resolution (Percent)
2,000	3585S-1-202	.162
5,000	3585S-1-502	.119
10,000	3585S-1-103	.097
20,000	3585S-1-203	.080

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

BOURNS Potentiometer Model 3585

STANDARD SPECIFICATIONS

THE SPECIFICATIONS LISTED BELOW ARE FOR THE STANDARD MODEL. MODIFICATIONS OF ALL TYPES (MECHANICAL, ELECTRICAL AND ENVIRONMENTAL) CAN BE CUSTOM ENGINEERED TO YOUR SPECIFIC REQUIREMENTS.

ELECTRICAL CHARACTERISTICS

Resistance Range	25 ohms to 20K ohms
Resistance Tolerance*	±3%
Linearity (Independent)*	±0.5%
Resolution	See Standard Resistance Table
Effective Electrical Angle*	350° ±2°
Absolute Minimum Resistance*	1 ohm or 0.1%, whichever is greater
Noise During Adjustment*	100 ohms ENR maximum
Power Rating	
70°C	1.0 watt
125°C	0 watt
Dielectric Strength	MIL-R-12934
Sea Level	1000 volts AC minimum
70,000 feet	300 volts AC minimum
Insulation Resistance, 500 volts DC*	1000 megohms minimum

ENVIRONMENTAL CHARACTERISTICS

Operating Temperature Range	-65 to +125°C
Temperature Coefficient of Wire①	20 ppm/°C maximum
Humidity	MIL-R-12934, Humidity Cycling
Vibration	MIL-R-12934, 15G
Wiper Bounce	0.1 millisecond maximum
Wiper Shift	1.0% 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

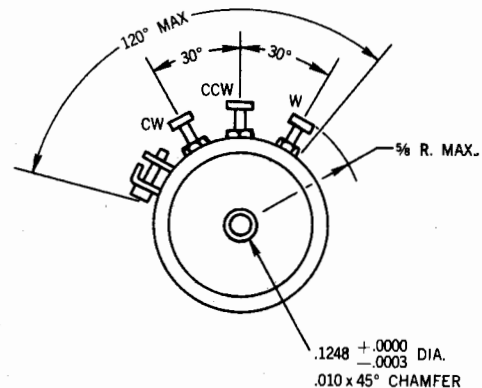
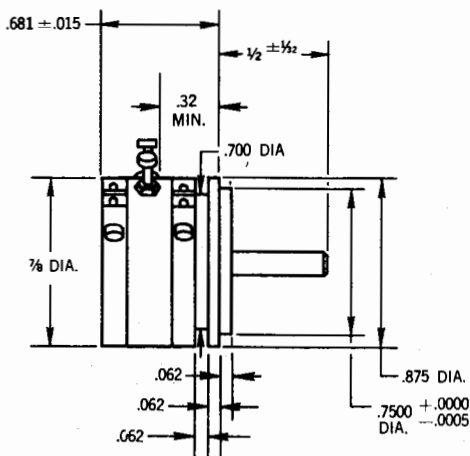
MECHANICAL AND PHYSICAL CHARACTERISTICS

Mechanical Angle	Continuous
Shaft Runout*001 in. T.I.R.
Shaft End Play*003 in. T.I.R.
Shaft Radial Play*002 in. T.I.R.
Pilot Diameter Runout*0015 in. T.I.R.
Lateral Runout*002 in. T.I.R.
Rotational Life	2,000,000 shaft revolutions
Moment of Inertia	0.10 gm cm ²
Torque*	
Starting	0.1 oz.-in. maximum
Running	0.1 oz.-in. maximum
	(Add 75% for each additional cup)
Ganging	8 cups maximum
Weight	Approximately 0.6 oz.
Terminals	Gold-plated turrets
Markings*	Manufacturer's name and part number, resistance value and tolerance, linearity tolerance, wiring diagram and date code.

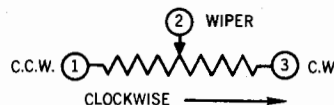
NOTES

- * 100% or statistical sampling inspection performed to insure highest quality.
 - ① Consult manufacturer for complete specification details for resistances below 100 ohms.
- Specifications are subject to change without notice.

3585



NOTE:
ADD .405 TO .681 FOR EACH ADDITIONAL CUP



TOLERANCES: EXCEPT WHERE NOTED
DECIMALS: .XX = .010, .XXX = .005
FRACTIONS: ± 1/4

