

**FEATURES**

- Extended Temperature Range:  $-65^{\circ}$  to  $+125^{\circ}$  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 3465 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.



**MODEL 3465**

**BOURNS® POTENTIOMETER  
2" DIAMETER SINGLE-TURN SERVO MOUNT  
WIREWOUND ELEMENT**

**OBSOLETE** 2002

**STANDARD RESISTANCES**

Resistance (ohms)	Part Number**	Resolution (percent)
50	3465S-1-500	0.233
100	3465S-1-101	0.186
200	3465S-1-201	0.159
500	3465S-1-501	0.116
1,000	3465S-1-102	0.095
2,000	3465S-1-202	0.084

\*Sleeve-type bearings available at reduced cost (Model 3465S-92-RC).

Resistance (ohms)	Part Number**	Resolution (percent)
5,000	3465S-1-502	0.076
10,000	3465S-1-103	0.062
20,000	3465S-1-203	0.047
50,000	3465S-1-503	0.036
100,000	3465S-1-104	0.030

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



**ELECTRICAL CHARACTERISTICS**

Standard Resistance Range	50Ω to 100K ohms
Resistance Tolerance*	±3%
Linearity (Independent)*	±0.3%
Resolution	See Standard Resistance Table
Effective Electrical Angle*	350° ±2°
Absolute Minimum Resistance*	1Ω or 0.1%, whichever is greater
Noise*	100Ω maximum
Power Ratings:	
70°C	4 watts
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 Resistance Wire	20 PPM/°C maximum
Humidity	MIL-R-12934, humidity cycling
Vibration	MIL-R-12934, 15Gs
Wiper Bounce	0.1 millisecond maximum
Wiper Shift	1.0% maximum
Shock	MIL-R-12934, 50Gs
Wiper Bounce and Wiper Shift	Same as vibration
Load Life	MIL-R-12934 4.6.20.2, 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**

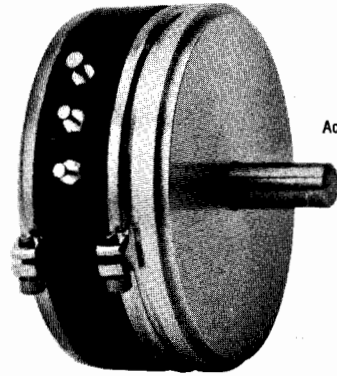
Mechanical Angle	Continuous
Shaft Runout*	.001 in. T.I.R.
Shaft End Play*	.003 in. T.I.R.
Shaft Radial Play*	.0015 in. T.I.R.
Pilot Diameter Runout*	.002 in. T.I.R.
Lateral Runout*	.003 in. T.I.R.
Rotational Life	1,000,000 shaft revolutions
Torque*	
Starting	1.0 oz.-in. maximum
Running	0.6 oz.-in. maximum
	(Add 75% for each additional cup)
Moment of Inertia	1.67 gm. cm <sup>2</sup>
Ganging	8 cups maximum
Weight	Approximately 3 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 sample inspection performed to insure highest quality.  
 Specifications are subject to change without notice.

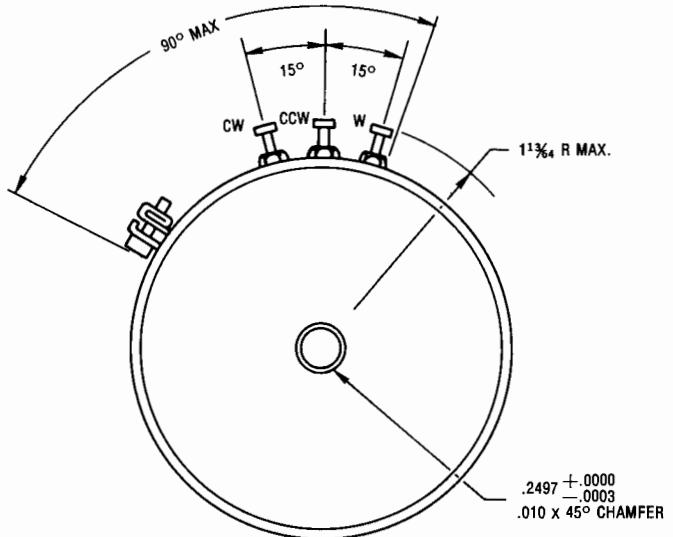
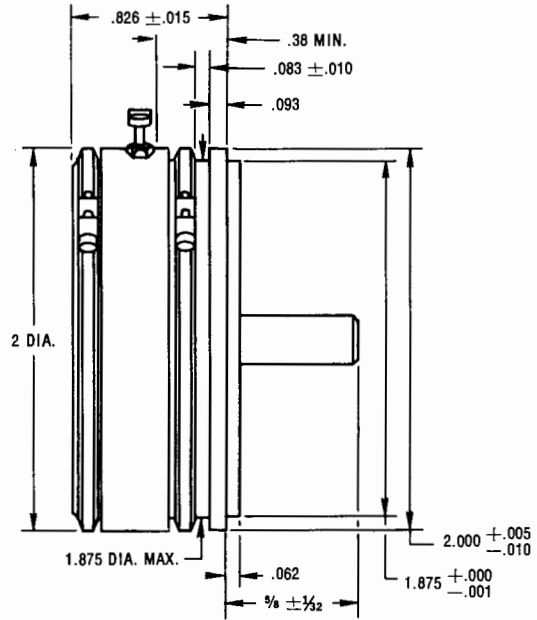
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 SERVO MOUNT WIREWOUND ELEMENT**

**MODEL 3465**

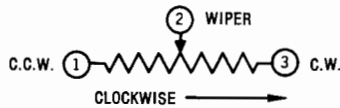


Actual Size

3465



NOTE:  
 ADD .500 TO .826 DIM FOR EACH ADDITIONAL CUP.



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



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