

FEATURES

- Performance guaranteed by Bourns Reliability Assurance Program.
- SILVERWELD® termination eliminates vulnerable single wire termination.
- Extended temperature performance —65°C to +125°C.
- Shaft supported front and rear by precision ball bearings.*
- Gangable up to 24 cups within 6 inches.
- Outstanding resistance to humidity. Exceeds humidity cycling requirements of MIL-R-12934C.
- Housing: high temperature, moisture resistant, thermo setting plastic.
- Dual wiper pick-off assures outstanding vibration and shock performance.
- Individual inspection of each potentiometer to guaranteed electrical and physical characteristics.



MODEL 3580

**BOURNS® POTENTIOMETER
SINGLE-TURN, 7/8" DIAMETER
SERVO MOUNT**

OBSOLETE 1980

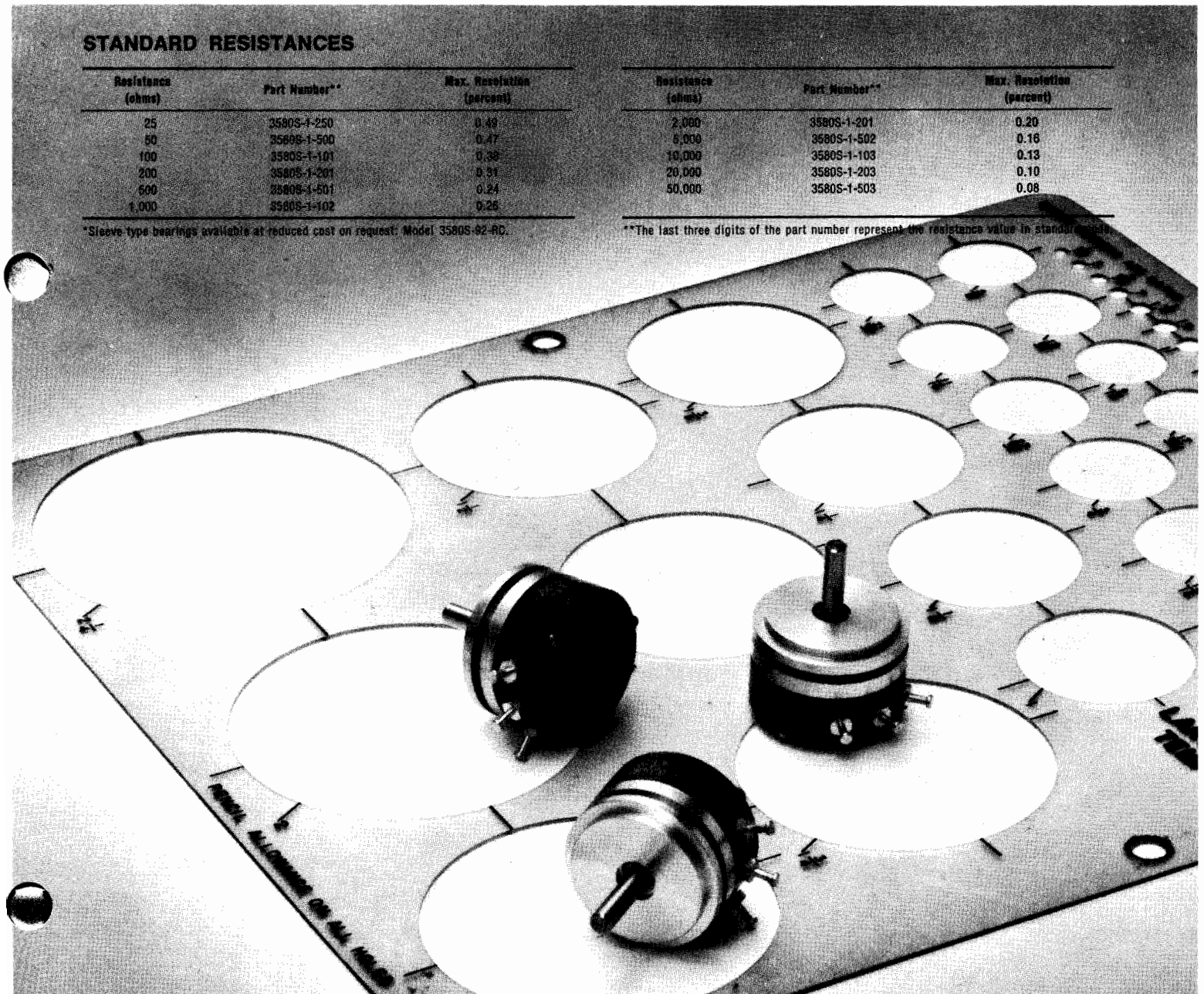
STANDARD RESISTANCES

Resistance (ohms)	Part Number**	Max. Resolution (percent)
25	3580S-1-250	0.49
50	3580S-1-500	0.47
100	3580S-1-101	0.36
200	3580S-1-201	0.31
500	3580S-1-501	0.24
1,000	3580S-1-102	0.26

*Sleeve-type bearings available at reduced cost on request. Model 3580S-02-RC.

Resistance (ohms)	Part Number**	Max. Resolution (percent)
2,000	3580S-1-201	0.20
5,000	3580S-1-502	0.18
10,000	3580S-1-103	0.13
20,000	3580S-1-203	0.10
50,000	3580S-1-503	0.08

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



ELECTRICAL CHARACTERISTICS

Resistance Range	25Ω to 50K ohms
Resistance Tolerance*	±3%
Linearity (Independent)*	±0.50% max.
Resolution	See Standard Resistance Table
Effective Electrical Angle*	350° (±2°)
Absolute Minimum Resistance*	1Ω or 0.1%, whichever is greater
Noise During Adjustment*	100Ω ENR max.
Power Rating	
70°C	1.0 watt
125°C	0 watt
Dielectric Strength	MIL-R-12934C
Sea Level	750 VAC min.
70,000 feet	250 VAC min.
Insulation Resistance 500 VDC*	1000 megohms min.

ENVIRONMENTAL CHARACTERISTICS

Operating Temperature Range	-65°C to +125°C
Temperature Coefficient of Wire ¹	20 PPM/°C max.
Humidity	MIL-R-12934, Humidity Cycling
Vibration	MIL-R-12934, 15G
Wiper Bounce	0.1 millisecond max.
Wiper Shift	1.0% max.
Shock	MIL-R-12934, 50G
Wiper Bounce and Wiper Shift	Same as vibration
Load Life	MIL-R-12934, 1000 hours
Resistance Shift	2.0% max.
Sand and Dust	MIL-E-5272
Fungus	MIL-E-5262
Salt Spray	MIL-STD-202, Method 101A

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 ¹	2,000,000 shaft revolutions
Torque*	
Starting	0.1 oz.-in. max.
Running	0.1 oz.-in. max.
Ganging	24 cups max.
Tap Location Tolerance	±2° max.
Weight	Approximately 0.5 oz.
Terminals	Gold plated turrets
Markings*	Manufacturer's name and part number resistance value and tolerance, linearity tolerance, wiring diagram, and date code.

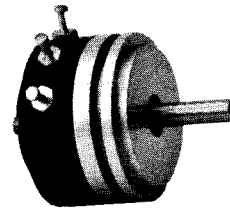
NOTES

*100% and statistical sampling performed to insure foremost quality.
¹Consult manufacture for complete specification details for resistances below 100Ω.
 Specifications are subject to change without notice.

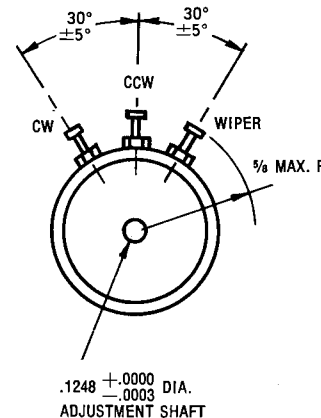
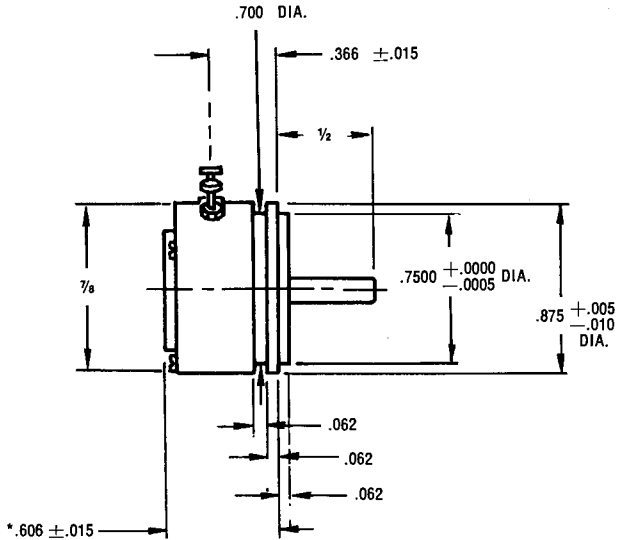
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 SINGLE-TURN, 7/8" DIAMETER
 SERVO MOUNT**

MODEL 3580

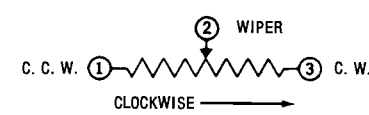
Actual Size



3580



* ADD .230 TO DIM. .606 FOR EACH ADDITIONAL CUP



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



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