



1/2" Ø 5-, 10-TURN BUSHING MOUNT POTENTIOMETERS WIREWOUND ELEMENT

- Miniature size
- Outstanding resistance to humidity
- Housing: high temperature, moisture resistant, thermosetting plastic.
- SILVERWELD® termination eliminates vulnerable single-wire termination
- 100% contact pressure control assures low noise and long rotational life
- Performance is guaranteed by Bourns Reliability Program
- Available with Hybritron® element.

STANDARD SPECIFICATIONS	MODEL 3700 10 Turn	MODEL 3705 5 Turn
Electrical Characteristics		
Resistance Range	100Ω – 100KΩ	50Ω – 50KΩ
Resistance Tolerance	±5%	
Linearity (Independent)	±0.25%	±0.5%
Resolution	See ordering information	
Effective Electrical Angle	3600° + 20°–0°	1800° + 10°–0°
Absolute Minimum Resistance	1 Ω or 0.1%, whichever is greater	
Noise	100 Ω ENR max.	
Power Rating	70°C 125°C	0.75 W
	1.0 W	0 W
Dielectric Strength MIL-R-12934		
Sea Level	1000 V ~ min.	
80,000 feet	400 V ~ min	
Insulation Resistance 500 V =	1000 Meg. Ω 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, 20 G	
Wiper Bounce	0.1 millisecond max.	
Wiper Shift	0.5% max.	
Shock	MIL-R-12934, 100 G	
Wiper Bounce and Wiper Shift	Same as Vibration	
Load Life MIL-R-12934	1000 hours	
Resistance Shift	2.0% max.	
Sand, Dust, Fungus	MIL-E-5272	
Salt Spray	MIL-R-12934	
Mechanical and Physical Characteristics		
Mechanical Angel	3600° + 20° – 0°	1800° + 20° – 0°
Shaft Runout	0.002 in. T.I.R.	
Shaft End Play	0.005 in. T.I.R.	
Shaft Radial Play	0.003 in. T.I.R.	
Rotational Life, shaft revolutions	1.000.000	500.000
Stop Strength	20 oz.-in. max.	
Torque Starting/Running	0.6 oz.-in. max.	
Stop Strength	20 oz.-in.-max.	
Torque Starting	0.6 oz.-in. max.	0.6 oz.-in. max. 0.5 oz.-in. max.
Terminals	Gold plated solder lugs	
Weight	approx. 28 g	approx. 20 g
Markings	Manufacturer's name and part number, resistance value and tolerance, linearity tolerance, wiring diagram and date code.	

NOTES: ① Consult Bourns representative for specification details for resistance below 100 Ω
Specifications are subject to change without notice.

ORDERING INFORMATION

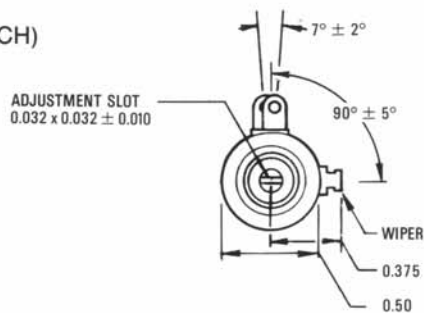
Resistance Ω	Part Number*	Resolution %	Part Number*	Resolution %
50	—	—	3705S-1-500	0.16
100	3700S-1-101	0.090	3705S-1-101	0.14
200	3700S-1-201	0.075	3705S-1-201	0.10
500	3700S-1-501	0.060	3705S-1-501	0.09
1,000	3700S-1-102	0.050	3705S-1-102	0.07
2,000	3700S-1-202	0.040	3705S-1-202	0.08
5,000	● 3700S-1-502	0.040	● 3705S-1-502	0.05
10,000	● 3700S-1-103	0.035	● 3705S-1-103	0.04
20,000	3700S-1-203	0.025	3705S-1-203	0.03
50,000	3700S-1-503	0.020	3705S-1-503	0.03
100,000	3700S-1-104	0.020	—	—

● Preferred resistance values

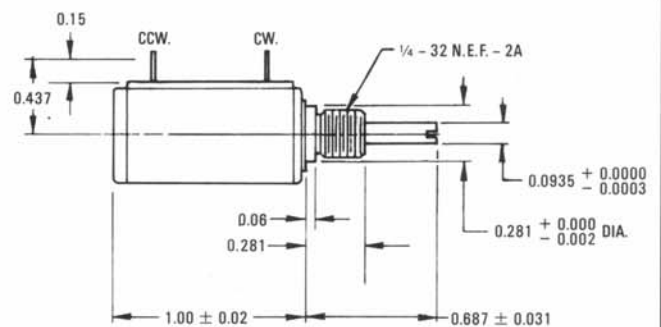
*The last three digits of the part number represent the resistance value in standard code.

DIMENSIONS (INCH)

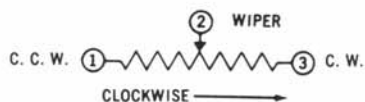
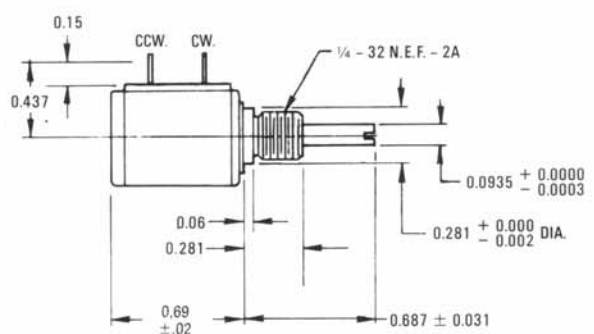
3700



LOCKWASHER AND MOUNTING NUT
TO BE SUPPLIED WITH EACH UNIT



3705



TOLERANCES:
DECIMAL .XX ± 0.010 .XXX ± 0.005

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