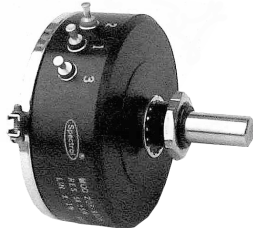


Model 208

Spectrol

1 - 3/4" (44.5mm) Single Turn Conductive Plastic Precision Potentiometer



FEATURES

- Rotational Life Exceeds 20 Million Shaft Revolutions
- Virtually Infinite Resolution
- Designed - in Reliability
- Co - Molded Element & Multi - Finger Wiper Provide Low Noise Operation
- Bushing or Servo
- 500Ω to 50KΩ

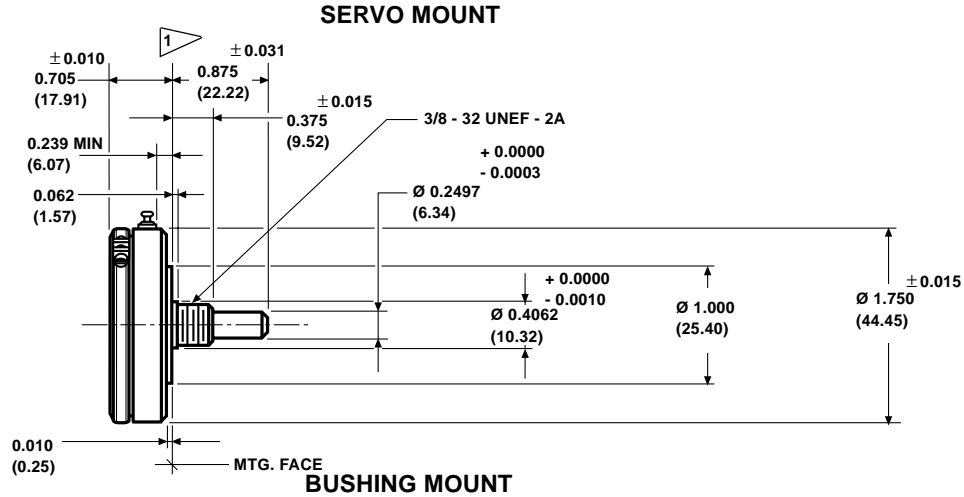
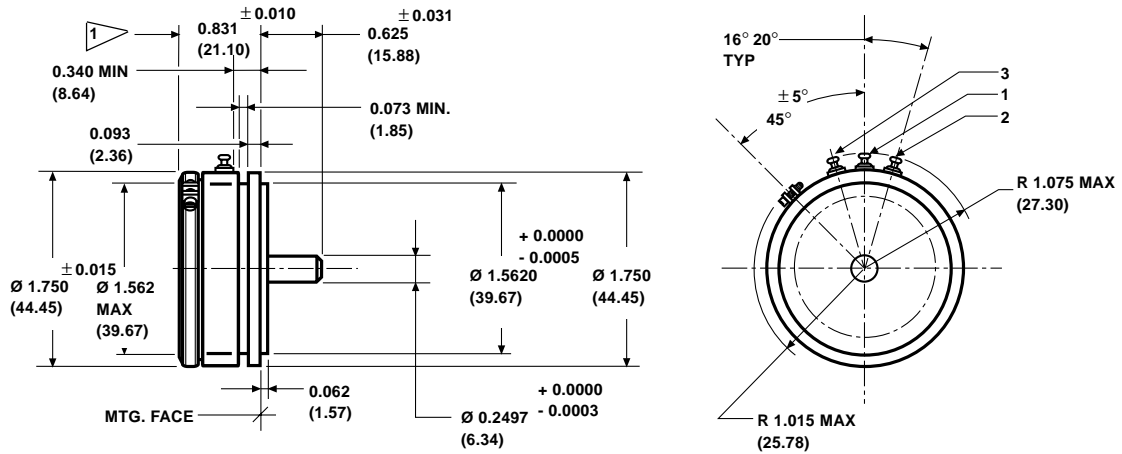
ELECTRICAL SPECIFICATIONS		
PARAMETER		
Total Resistance Tolerance:	STANDARD 500Ω to 50KΩ ± 10%	SPECIAL - ± 5%
Linearity (Independent)	STANDARD ± 0.3%	SPECIAL ± 0.1%
Electrical Rotation	350° ± 3°	
Power Rating: Section 1: 1.75 watts at Additional Sections	70°C ambient derated to zero @ 125°C 75% of the rating of sections 1	
Minimum Voltage	0.5% maximum	
Output Smoothness	0.1% maximum	
Insulation Resistance	1000MΩ minimum, 500VDC	
Dielectric Strength	1000V _{RMS} , 60Hz	
Taps (Extra)	Extra taps available as special	
Phasing	Points at which output ratio is 0.5 aligned ± 1° (Ref. to Section 1)	
Temperature Coefficient of Resistance	± 400ppm/°C maximum	

ORDERING INFORMATION			
The Model 208 can be ordered from this data sheet with a variety of alternate characteristics, as shown above. For most rapid service on your order, please state:			
208	1	3	XXX
MODEL	MOUNTING	TOTAL RESISTANCE OF EACH SECTION	NUMBER OF SECTIONS
	1. Servo 2. Bushing	Beginning with the section nearest the mounting end	
Example: Model 208, Servo, 15K/1500Ω/5K 3 section			
Example: Model 208, Bushing, 10K, single section			
Example: 208 - 1 - 3 - XXX			
Other characteristics will be standard as described on this data sheet. If special characteristics are required, such as: special linearity tolerance, special resistance tolerance, extra taps, non-linear functions, etc., please state these on your order and allow additional lead time for delivery.			

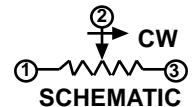
1 - 3/4" (44.5mm) Single Turn Conductive Plastic Precision Potentiometer

Spectrol

DIMENSIONS in inches (millimeters)



1 ADD 0.500 ± 0.002 (12.70) FOR EACH ADDITIONAL SECTION
TOLERANCES: UNLESS OTHERWISE NOTED
DECIMALS ± 0.005 ANGLES ± 2°



MECHANICAL SPECIFICATIONS		
PARAMETER		
Rotation	360° continuous	
Bearing Type	SERVO Ball Bearing	BUSHING MOUNT Sleeve bearing
Ganging	6 sections maximum Terminal alignment, added sections within ± 10° of section 1 terminals	
Torque (Maximums)	STARTING	RUNNING
Servo Section 1	0.7 oz - in (50.40gm - cm)	0.4 oz - in (28.80gm - cm)
Bushing Section 1	1.0 oz - in (72.00gm - cm)	0.7 oz - in (50.40gm - cm)
Each additional section	0.4 oz - in (28.80gm - cm)	0.3 oz - in (21.60gm - cm)
Mechanical Runouts (Maximums):	SERVO	BUSHING
Shaft (TIR/in)	0.002 in (0.05cm)	0.002 in (0.05cm)
Pilot Dia. (TIR)	0.002 in (0.05cm)	0.002 in (0.05cm)
Lateral (TIR)	0.003 in (0.08cm)	0.005 in (0.13cm)
Shaft End Play	0.005 in (0.13cm)	0.005 in (0.13cm)
Shaft Radial Play	0.002 in (0.05cm)	0.003 in (0.08cm)
Moment of Inertia	1.0gm - cm ² per section maximum	
Weight:		
Single Section	3.0 oz (85.05gm)	
Each Additional Section	1.0 oz (28.35gm)	

Model 208

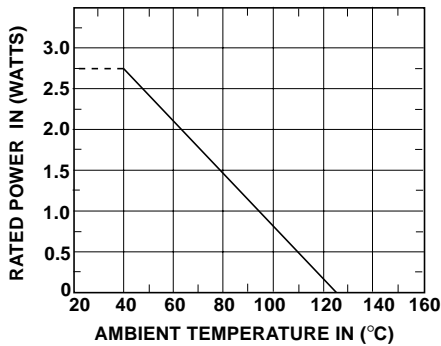
Spectrol 1 - 3/4" (44.5mm) Single Turn Conductive Plastic Precision Potentiometer

MATERIAL SPECIFICATIONS	
Housing and Lids	Aluminum, anodized
Shaft And Clamp Rings	Stainless steel, non-magnetic non-passivated
Terminals	Brass, plated for solderability
Bushing Mount Hardware Lockwasher Internal Tooth: Panel nut:	Steel, nickel plated Brass, nickel plated

MARKING	
Unit Identification	Units shall be marked with Spectrol name, model number and data code on each section, resistance, resistance tolerance, linearity and terminal identification

ENVIRONMENTAL SPECIFICATIONS	
Vibration	15g thru 2000 Hz
Shock	50g
Salt Spray	96 Hours
Rotational Life	Servo: 20 million shaft revolutions Bushing: 5 million shaft revolutions
Load Life	900 Hours
Operating Temperature Range	- 55°C to + 125°C
Moisture Resistance	-

POWER RATING CHART
(Ratings for cup No. 1.
Additional cups 75% of values shown)



RESISTANCE ELEMENT DATA	
RESISTANCE VALUE (Ω)	MAXIMUM VOLTAGE ACROSS COIL (V)
500	30
1K	42
2K	59
5K	94
10K	132
20K	187
50K	299