

Military, 7/8" (22.2mm) Single Turn Wirewound Precision Potentiometer



FEATURES

- 100Ω to 10KΩ
- Servo Mount Only
- Approved to MIL-R-12934 Style RR0900

ELECTRICAL SPECIFICATIONS	
PARAMETER	
Total Resistance: Standard Range Tolerance	100Ω to 10KΩ ± 3% and ± 1%
Absolute Minimum Resistance	Linearity x total resistance or 0.5Ω, whichever is greater
End Voltage	0.5% of total applied voltage
Linearity (Independent) Linearity 100Ω to 2KΩ Linearity 2KΩ and above	100Ω to 2KΩ ± 1.0% and ± 0.5% ± 1.0%, ± 0.5% and ± 0.25%
Noise	100Ω ENR
Rotation	350° ± 2°
Power Rating Section 1: 125°C unit 150°C unit: Additional Sections:	1.25 watts at 70°C derated to zero at 125° 1.25 watts at 85°C derated to zero at 150°C 75% of rating of section 1 (0.94 watts)
Insulation Resistance	1000MΩ minimum, 500VDC
Dielectric Strength	1000V _{RMS} 60Hz
Phasing (CCW end points)	Additional sections phased to section 1 within ± 1°
Taps (extra)	9 available as special, standard tolerance ± 2°

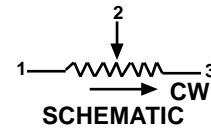
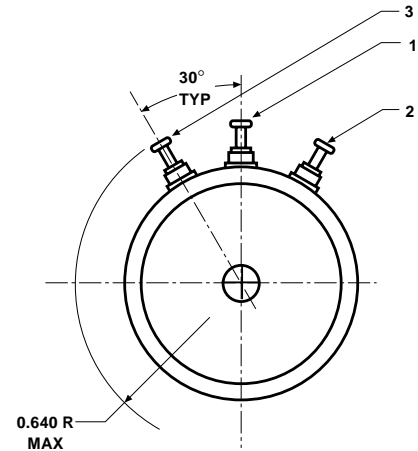
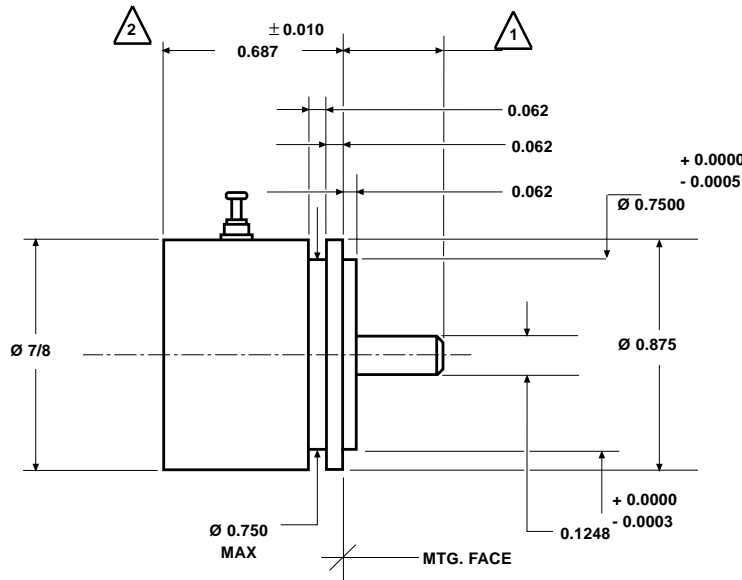
ORDERING INFORMATION
Please order Model 701, style RR0900, in accordance with the type designations as outlined in MIL-R-12934

Model 701

Spectrol

Military, 7/8" (22.2mm) Single Turn Wirewound Precision Potentiometer

DIMENSIONS in inches



- 1 STANDARD EXTENSIONS: 3/8, 1/2, 5/8, 3/4, 7/8 AND 1 INCH TOLERANCE $\pm 1/32$
- 2 ADD 0.500 FOR EACH ADDITIONAL SECTION ± 0.002

TOLERANCES: UNLESS SPECIFIED
 DECIMAL ± 0.005
 FRACTIONAL $\pm 1/64$
 ANGULAR $\pm 2^\circ$

MECHANICAL SPECIFICATIONS		
PARAMETER		
Rotation	360° continuous	
Bearing Type	Ball Bearing	
Ganging	3 sections maximum Terminal alignment, added sections within $\pm 10^\circ$ of section 1 terminals	
Torque (Maximums)	STARTING	RUNNING
Servo Section 1	0.10 oz - in	0.085 oz - in
Each Additional Section	0.10 oz - in	0.075 oz - in
Mechanical Runouts (Maximums):	SERVO	
Shaft Runout (housing fixed) (TIR/in)	0.002 in	
Pilot Dia. Runout (shaft fixed) (TIR)	0.001 in	
Lateral Runout (shaft fixed) (TIR)	0.001 in	
Shaft End Play	0.005 in	
Shaft Radial Play	0.002 in	
Moment of Inertia	0.12gm - cm ² per section maximum	
Weight:		
Single Section	0.6 oz	
Each Additional Section	0.2 oz	

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MATERIAL SPECIFICATIONS	
Housing and Lids	Aluminum, anodized
Shaft	Stainless steel, non-magnetic non-passivated
Terminals	Brass, plated for solderability

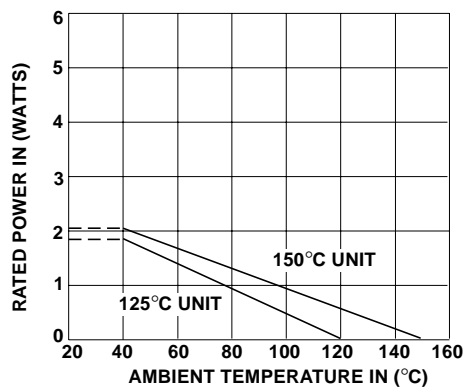
ENVIRONMENTAL SPECIFICATIONS	
Vibration	15g thru 2000Hz
Shock	50g
Salt Spray	96 Hours
Rotational Life	1 million shaft revolutions
Load Life	900 Hours
Operating Temperature Range	125° Unit: -65° to +125° 150° Unit: -65° to +150°
Moisture Resistant	-

MARKING	
Unit Identification	Each section shall be marked with Spectrol, Spectrol model no, type designation and terminal identification

POWER RATING CHART

(Ratings for cup No. 1.

Additional cups 75% of values shown)



RESISTANCE ELEMENT DATA					
STANDARD RESISTANCE VALUES (Ω)	RESOLUTION (%)	OHMS PER TURN	MAXIMUM CURRENT AT 70°C AMBIENT (mA)	MAXIMUM VOLTAGE ACROSS COIL (V)	WIRE TEMP. COEF. (ppm/°C)
100	0.271	0.271	112	11.20	20
200	0.235	0.478	79.1	15.8	20
500	0.206	1.03	50.0	25.0	20
1,000	0.156	1.56	35.4	35.4	20
2,000	0.127	2.55	25.0	50.0	20
5,000	0.101	5.07	15.8	79.0	20
10,000	0.085	8.50	11.2	112.0	20