

Military 1 - 1/16" (26.9mm) Single Turn Wirewound Precision Potentiometer



FEATURES

- 1 - 1/16" Diameter
- Servo
- Military
- Style RR1100 per MIL-R-12934
- 100Ω to 20KΩ

ELECTRICAL SPECIFICATIONS	
PARAMETER	
Total Resistance	Standard range: 100Ω to 20KΩ
Tolerance	± 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) 100Ω to 2KΩ 2KΩ and above	± 1.0% and ± 0.5% ± 1.0%, ± 0.5% and ± 0.25%
Noise	100Ω ENR
Electrical Rotation	350° ± 2°
Power Rating: Section 1: 125°C Unit Section 1: 150°C Unit Additional Sections	1.50 watts @ 70°C derated to zero @ 125°C 1.50 watts @ 85°C derated to zero @ 150°C 75% of rating of sections 1 (1.125 watts)
Insulation Resistance	1000MΩ minimum, 500VDC
Dielectric Strength	1000V _{RMS} , 60Hz
Taps (Extra)	STANDARD ± 1% SPECIAL 9
Phasing (CCW End Points)	Additional sections phased to section 1 within ± 1°

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

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

MARKING	
Unit Identification	Each section shall be marked with Spectrol name, model number, type designator and terminal identification

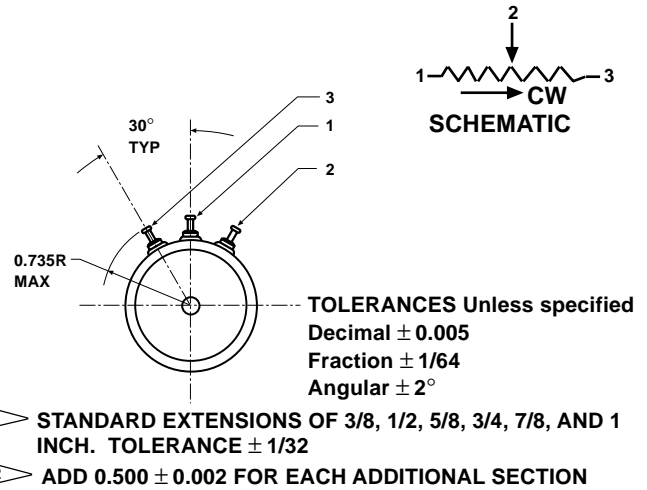
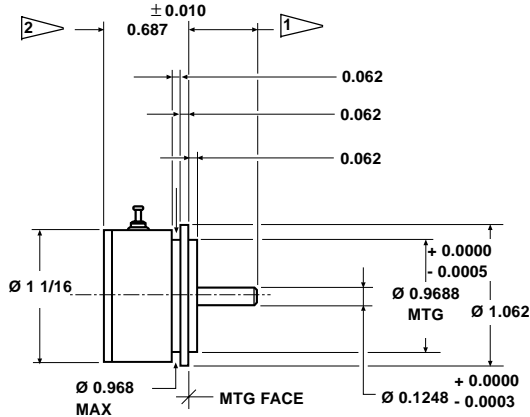
ORDERING INFORMATION
Please order Model 121, Style RR1100, in accordance with the type designations as outlined in MIL-R-12934

Model 121

Spectrol

1-1/16" (26.9mm) Single Turn Wirewound Precision Potentiometer

DIMENSIONS in inches

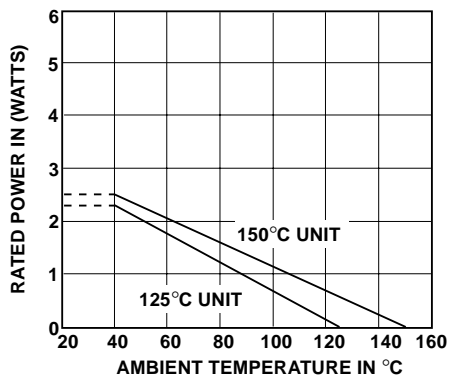


MECHANICAL SPECIFICATIONS		
PARAMETER		
Mechanical Rotation	360° (continuous)	
Bearing Type	Ball bearing	
Ganging	3 sections maximum terminal alignment, added sections, within $\pm 10^\circ$ of section 1 terminals	
Torque (Maximums)	STARTING	RUNNING
1 Section	0.25 oz - in	0.15 oz - in
Each Additional Section	0.20 oz - in	0.15 oz - in
Mechanical Runouts (Maximums):		
Shaft Runout, (Housing Fixed) (TIR)	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	0.8 oz maximum	
Each Additional Section	0.4 oz maximum	

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	0.232	0.231	122	12.2	20
200	0.194	0.389	86.6	17.3	20
500	0.168	0.841	54.8	27.4	20
1K	0.156	1.56	38.7	38.7	20
2K	0.109	2.18	27.4	54.8	20
5K	0.088	4.38	17.3	86.5	20
10K	0.076	7.64	12.2	122	20
15K	0.070	10.5	10.0	150	20
20K	0.071	14.2	8.66	173	20