



ROTARY MOTION | PRECISION SENSOR

MODELS 1202 / 1302 / 1502 / 1602 / 1702 / 1802

INDUSTRIAL MODELS 1232 / 1632



Features

- Bushing mount / Sleeve Bearing
- 7/8" to 3" diameter bushing mount
- Wirewound single-turn precision potentiometers

SPECIFICATIONS

Electrical

	1202	1302	1502	1602	1702	1802	1232	1632
Actual Electrical Travel	354°±2°			354°±1°	354°±1°	358°±1°	354°±2°	
Normal Resistance Range	100Ω to 25K	100Ω to 30K	100Ω to 50K	100Ω to 60K	100Ω to 75K	100Ω to 100K	100Ω to 25K	100Ω to 60K
Extended Resistance Range ⁽¹⁾	15Ω to 75K	25Ω to 100K	25Ω to 125K	25Ω to 150K	25Ω to 200K	25Ω to 250K	15Ω to 50K	25Ω to 100K
Resistance Tolerance: Standard %	±3						±5	
Best Practical %	±1							
Power Rating At 70°C, Derating to 0 At 125°C (Watts)	1.25	2.0	3.0	4.0	5.0	7.0	1.25	4.0
Linearity, Independent, Tolerance, Standard%	±0.5	±0.4	±0.3	±0.25	±0.2	±0.15	±0.5	±0.3
Best Practical%	±0.2	±0.15	±0.12	±0.09	±0.08	±0.05	±0.25	±0.15
Equivalent Noise Resistance (ENR) Max. (Ohms)	100							
End Voltage Max. (% Of Total Applied Voltage)	Within linearity tolerance							
Insulation Resistance At 500 VDC, Min. (Megohms)	1000							
Dielectric Withstanding Voltage (Volts RMS)	1000							
Max. Applied Voltage(Volts DC)⁽²⁾	400							
Temperature Coefficient Of Potentiometer, Max. % / °C	±.007							

Mechanical

	1202	1302	1502	1602	1702	1802	1232	1632
Total Mechanical Travel	360° Continuous							
Mechanical Life, Shaft Revolutions	2 million							
Ganged Cups, Max. (Number)	6		8				6	
Taps, Max., Excluding End Terminations	9		19	24	26	41	9	24
Moment Of Inertia, Per Cup (gm-cm²)	0.2		4.0	4.5	5.0	8.5	0.2	5.0
Weight: Single Cup (oz.)	0.6	0.8	2.2	2.8	3.3	6.5	0.2	3.0
Each Additional Cup (oz.)	0.2	0.5	0.7	0.9	1.0	1.4	0.3	2.0
Torque, Max. Per Cup (oz.-in)	0.2		1.3	1.4	1.5	1.7	.002	
Pilot Diameter Runout, Max.	.0015							
Lateral Runout, Max.	.002		.003		.004	.005	.003	.004
Shaft Runout, Max.	.001						.002	
Shaft Radial Play, Max.	.003						.004	
Shaft End Play, Max	.005						.007	
Dimension For Each Additional Cup	.500±.002		.537±.002	.562±.002			.500±.002	.562±.002

Environmental

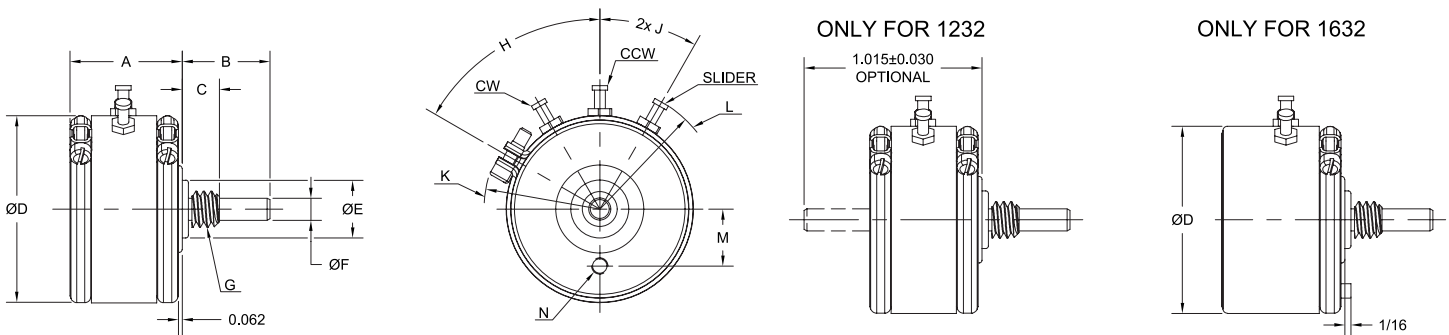
Temperature Range (°C) Standard	-55 to + 125
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THEORETICAL RESOLUTION- For typical coil characteristics by model number and resistance value, see Resolution Tables.
 ALL MODELS are manufactured to meet or exceed applicable characteristics of MIL-R-12934. For MILITARY-APPROVED (QPL) Listings.



DIMENSIONS

TOLERANCES UNLESS OTHERWISE SPECIFIED:
 FRACTIONAL: ±1/64" DECIMAL: ±.005" ANGULAR: ±1°
 Dimensions are in in

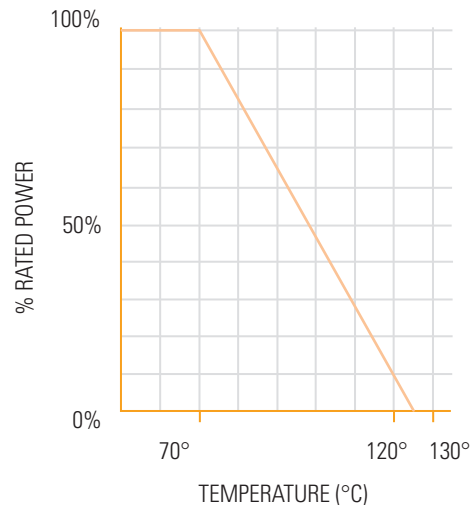


DIM / SERVO MODEL	1202	1232	1302	1502	1602	1632	1702	1802
A	0.640 ± 0.006			0.954 ± 0.008	0.970 ± 0.008	0.920 ± 0.008	0.970 ± 0.008	
B	11/16 ± 1/32			7/8 ± 1/32				
C	5/16			3/8		5/16	3/8	
D	0.875		1.062	1.437	1.750	1.750	2.000	3.000
E	0.281 +0/-0.001			0.406 +0/-0.001				0.5937 +0/0.001
F	0.1248 +0/-0.003			0.2497 +0/0.0003				
G	1/4-32 NEF-2A THREAD			3/8-32 NEF-2A THREAD				1/2-32 NEF-2A THREAD
H	60° ± 10°			55° ± 10°	45° ± 10°			
J	30°			20°	16°		15°	9°
K (Radius MAX)	9/16		43/64	59/64	1-5/64		1-13/64	1-45/64
L (Radius MAX)	5/8		23/32	29/32	1-1/16		1-3/16	1-11/16
M	N/A			17/32		0.562	17/32	
N	N/A			Ø 0.129x0.0625 DEEP		0.125 (LUG)		

Notes:

(1) All specifications listed apply to units with a total resistance within the normal resistance range. Higher or lower resistances may require some degradation of listed specifications because of resistance wire composition or size

(2) Not to exceed specified power rating.



Specifications subject to change without notice.

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