

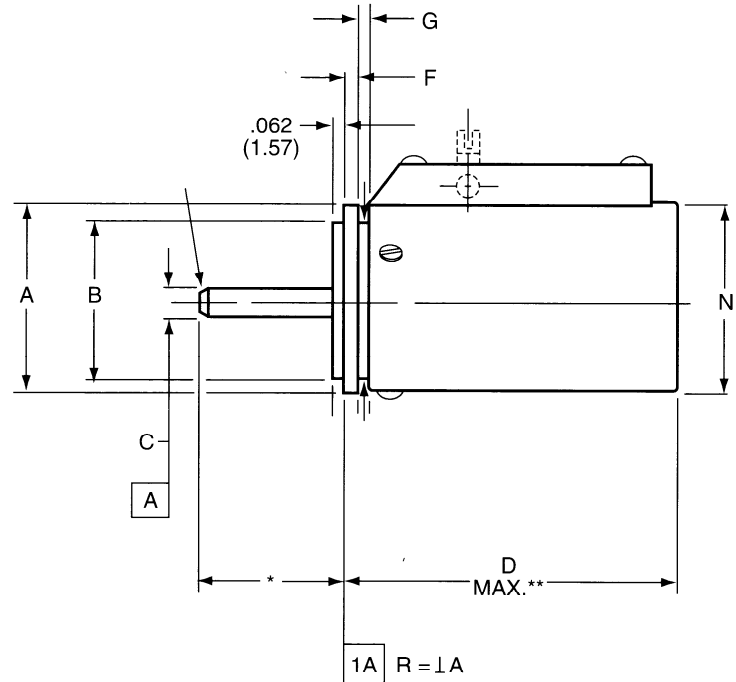
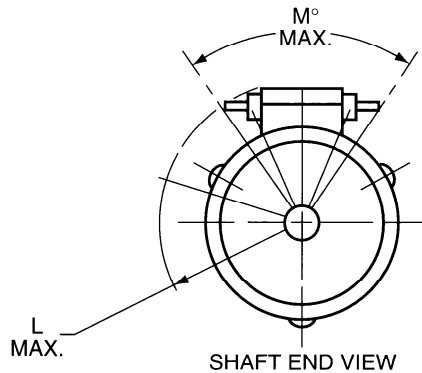


SYSTEMS, L. L. C.  
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# ROTARY PRECISION POTENTIOMETERS

## MD & MS SERIES

### WIREWOUND, MULTI-TURN SINGLE & MULTI-SECTION



**\*\*Note:** Dimension "D" is the overall Length for Single Section 10 Turn Units. For Multi-Sections or Units with up to 40 Turns Consult Factory for Specifications.

\*Standard Shaft Length: .625±.031 (15.87±0.8mm) Other Lengths Optional

SIZE	MAX. SECTIONS	MAXIMUM TURNS/SECTION		A	B	C	D	F	G	L	M	N	R
		SINGLE	MULTI										
MD 05	1	10	10	.500 (12.7)	.375 (9.525)	.1248 (3.170)	1.00 (25.40)	.062 (1.575)	.062 (1.575)	.450 (11.43)	60° (60°)	.510 (12.95)	.001 (0.025)
MD 09	3	40	10	.875 (22.22)	.750 (19.05)	.1248 (3.170)	1.50 (38.10)	.062 (1.575)	.062 (1.575)	.800 (20.32)	55° (55°)	.880 (22.35)	.001 (0.025)
MS 19	4	40	10	1.812 (46.07)	1.562 (39.67)	.2498 (6.345)	1.375 (34.92)	.062 (1.575)	.078 (1.98)	1.095 (27.81)	45° (45°)	1.825 (46.36)	.0018 (0.045)
MD 20	4	40	10	2.00 (50.80)	1.875 (47.62)	.2498 (6.345)	1.810 (45.97)	.093 (2.365)	.078 (1.98)	1.320 (33.53)	50° (50°)	1.825 (46.36)	.002 (0.051)
MD 30	2	40	10	3.00 (76.20)	2.875 (73.02)	.2498 (6.345)	2.280 (57.91)	.093 (2.365)	.078 (1.98)	1.800 (45.72)	45° (45)	3.010 (76.45)	.003 (0.076)

NOTE: Metric Conversion in mm in Brackets

-- An Electromotive Solutions Company --

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# MD & MS Series WIREWOUND, MULTI-TURN SINGLE & MULTI-SECTION

## SPECIFICATIONS

SIZE		05	09	19	20	30
Case Diameter	inch	1/2	7/8	1-7/8	2"	3"
(Nominal)	mm.	13	22	48	51	76

## ELECTRICAL

Resistance Range	Std.	60-30K	100-50K	250-900K	250-1.5meg	500-3 meg
(Ohms)	Max. Avail.	50K	125K	-	-	-
Resistance Tolerance		±5% Standard			±1% Available	
Linearity	(± %)	.04-.10	.015-.05	.010-.020	.010-.020	.006-.010
Resolution	(± %)	.015-.055	.008-.035	.0017-.013	.0018-.013	.001-.0067
Electrical Angle		3600°	3600° (10 Turn) to 14,400° (40 Turn)			
Power Rating (Watts @ 40°C)		1 Max.	2.5	2.5	5.0	8.0
Insulation Resistance		500 Megohms @ 500 V DC				
Dielectric Strength		500 VRMS	750 VRMS			
Noise (ENR)		100 Ohms Standard — Lower Available				
WIRE T/C (PPM/° C)		± 20 to +750				

## MECHANICAL

Mechanical Angle		3780°	3780° (10 Turn) to 14,580° (40 Turn)			
Max. No. Sections		1	3	4	4	2
Torque	Single	.30	.5	1.0	1.0	2.0
(Oz. In.)	Add./Section	.20	.5	1.0	1.0	2.0
Moment of	Single	1.0	4.5	25	30	110
Inertia (gcm <sup>2</sup> )	Add/Section	-	4.5	25	30	110
Weight	Single	.6	1.5	2.7	6.0	14.0
(Oz.)	Add./Section	-	1.0	1.8	2.0	2.0
Additional Taps	(Max.)	2	21	29	29	40
Temperature Range		-65°C to +125°C				
Stop Strength	In-lbs.	1.88	12.5	12.5	30-100	30-100
Mechanical Life	(10 Turn)	2,000,000 Shaft Rotations ( <i>Dependent upon Application and Failure Criteria</i> )				

**NOTE:** All specifications shown above are for 10 turn potentiometers. Consult factory for other specifications.

**Shaft is ball bearing mounted both front and rear**



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