

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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Multi-Turn Precision Potentiometer

Model 7200 Series



Features:

- 7/8" diameter
- 10-turn
- Wirewound



Model Styles Available

7216, 7221	Bushing Mount, Sleeve Bearing
7223	Servo Mount, Ball Bearing

Electrical

Resistance Range, Ohms	10 to 125K
Standard Resistance Tolerance	±3%
Minimum Practical Resistance Tolerance	±1%
Independent Linearity	±0.25%
Minimum Practical Independent Linearity	±0.25%, ≤ 20 Ohms
	±0.15%, 21-49 Ohms
	±0.10%, 50-99 Ohms
	±0.075%, 100-999 Ohms
	±0.05%, ≥ 1K 0hms
Power Rating, Watts	2.0 at 70°C derating to 0 at 125°C
Dielectric Strength	1,000V rms
Insulation Resistance, Minimum	1,000 Megohms
Noise, Maximum	100 Ohms
Actual Electrical Travel	3600° + 10° - 0°, > 25 Ohms
	$3600^{\circ} + 10^{\circ} - 5^{\circ}, \leq 25 \text{ Ohms}$
Tap Tolerance	±5°, ≤20 0hms
	±3°, 21-49 Ohms
	±2°, ≥50 Ohms
End Voltage, Maximum (% of input voltage)	0.5%, <100 Ohms
	0.25%, ≥100 Ohms

Specifications subject to change without notice.

Available in a Hybrid version – contact factory for details.

Multi-Turn Precision Potentiometer



Environmental

Operating Temperature Range	Static: -65°C to +125°C
AND THE STATE OF STAT	Dynamic: -40°C to +125°C
Temperature Cycling	5 cycles, -65°C to +125°C (5% ΔR)
Shock, 6ms Sawtooth	50G's (0.1ms discontinuity max.)
Vibration	15G's, 10 to 2,000 Hz (5% ΔR, 0.1ms discontinuity max.)
Moisture Resistance	Ten 24 hour cycles (3% Δ R)
High Temperature Exposure	1,000 hours at 125°C (5% AR)
Rotational Load Life	2 mil. shaft rev. + 900 hrs. at rated wattage at 70°C (5% ΔR)*

^{*} Model 7216 - Rotational Load Life = 1 mil. shaft rev.+900 hrs. at rated wattage at 70°C (5% Δ R)

Mechanical

Total Mechanical Travel			3600° + 10° - 0°
Number of Gangs, Maximum			2
Weight, Nominal (single Gang)			1.25 oz.
Static Stop Strength			128 ozin.
Backlash, Maximum			1.5°
	7216	7221	7223
Panel Nut Tightening Torque, Maximum	25 lbin.	25 lbin.	N/A
Shaft End Play, Maximum	.0085"	.005"	.005"
Shaft Runout, T.I.R., Maximum	.001"	.001"	.001"
Pilot Diameter Runout, T.I.R., Maximum	.001"	.001"	.0015"
Lateral Runout, T.I.R., Maximum	.003"	.003"	.003"
Shaft Radial Play, Maximum	.003"	.003"	.002"
Start/Run Torque, Maximum (per Gang)		0.6 0	zin / 0.5 ozin.

Special Features

Center Tap	CT
Linearity Tape	LT
Rear Shaft Extension	RS
Flatted Shaft	FS
Slotted Shaft	SS
Shaft Lock (7216, 7221 only)	SL
Additional Gangs	2G

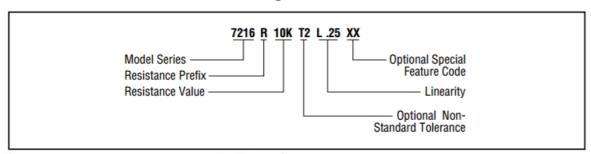
Multi-Turn Precision Potentiometer



STANDARD RESISTANCE VALUES, OHMS

Total	Theoretical Resolution	Tempco
Resistance	(% Nominal)	of Wire
10	0.083	+ 800 ppm/°C *
25	0.055	+ 800 ppm/°C *
50	0.048	+ 800 ppm/°C *
100	0.040	+ 800 ppm/°C *
200	0.033	+ 800 ppm/°C *
500	0.031	± 20 ppm/°C
1K	0.028	± 20 ppm/°C
2K	0.025	± 20 ppm/°C
5K	0.020	+ 130 ppm/°C *
10K	0.018	+ 130 ppm/°C *
20K	0.016	+ 130 ppm/°C *
50K	0.012	± 20 ppm/°C
100K	0.011	± 20 ppm/°C
	Lower tempco available as a special mo	odel

Ordering Information

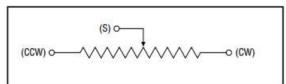


MATCHING TURNS COUNTING DIALS

7216: 2606, 2606S, 2607, 2607S, 2626, 2627, 2646, 2646S, 2647, 2647S, RB

7221: RBJ, 2601, 2641

CIRCUIT DIAGRAM



NOTES

Metric equivalents, based on 1 inch = 25.4mm are rounded to the same number of significant figures as in the original English units and are provided for general information only.

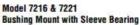
Tolerances unless otherwise specified: Linear = ± .01 inches (.25mm) Angular = ± 2 degrees

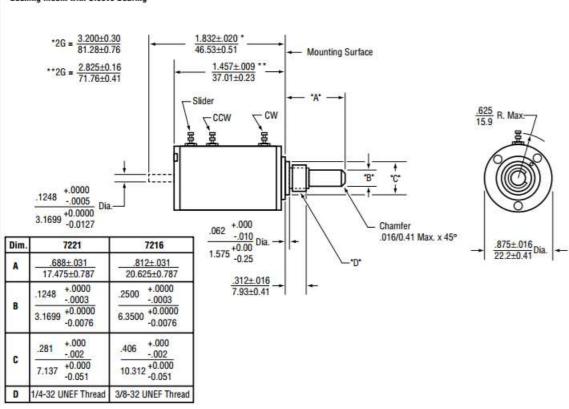


Multi-Turn Precision Potentiometer



Outline Drawing





METRIC CONVERSIONS

1 in.	25.4 mm
1 oz.	28.4 gm

1 ozin.	0,007 N-m
1 lbin.	0,113 N-m

Multi-Turn Precision Potentiometer



Outline Drawing

Model 7223 Servo Mount with Ball Bearing

