

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 Ohms |
| 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° + 10° - 5°, ≤ 25 Ohms |
| Tap Tolerance | ±5°, ≤20 Ohms ±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.

General Note

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Environmental

| | |
|-----------------------------|--|
| Operating Temperature Range | Static: -65°C to +125°C 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% ΔR) |
| High Temperature Exposure | 1,000 hours at 125°C (5% ΔR) |
| 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% ΔR)

Mechanical

| | | | |
|--|--------------------------|-------------|-------------|
| Total Mechanical Travel | 3600° + 10° - 0° | | |
| Number of Gangs, Maximum | 2 | | |
| Weight, Nominal (single Gang) | 1.25 oz. | | |
| Static Stop Strength | 128 oz.-in. | | |
| Backlash, Maximum | 1.5° | | |
| | 7216 | 7221 | 7223 |
| Panel Nut Tightening Torque, Maximum | 25 lb.-in. | 25 lb.-in. | 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 oz.-in / 0.5 oz.-in. | | |

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 |

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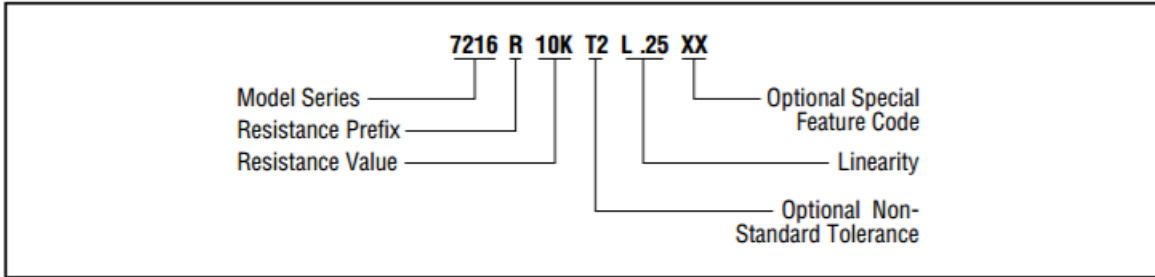


STANDARD RESISTANCE VALUES, OHMS

| Total Resistance | Theoretical Resolution (% Nominal) | Tempco 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 model.

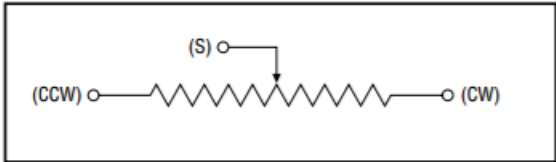
Ordering Information



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

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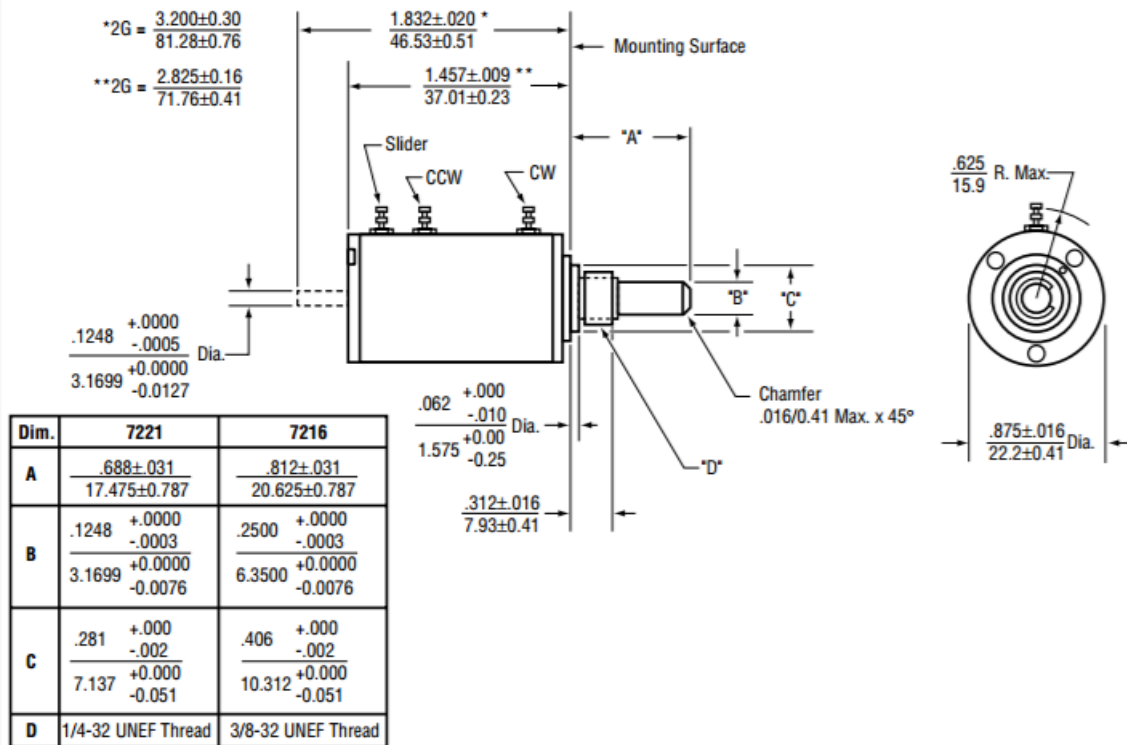
Multi-Turn Precision Potentiometer

Model 7200 Series



Outline Drawing

Model 7216 & 7221
Bushing Mount with Sleeve Bearing



METRIC CONVERSIONS

| | | | |
|-------|---------|-----------|-----------|
| 1 in. | 25.4 mm | 1 oz.-in. | 0,007 N-m |
| 1 oz. | 28.4 gm | 1 lb.-in. | 0,113 N-m |

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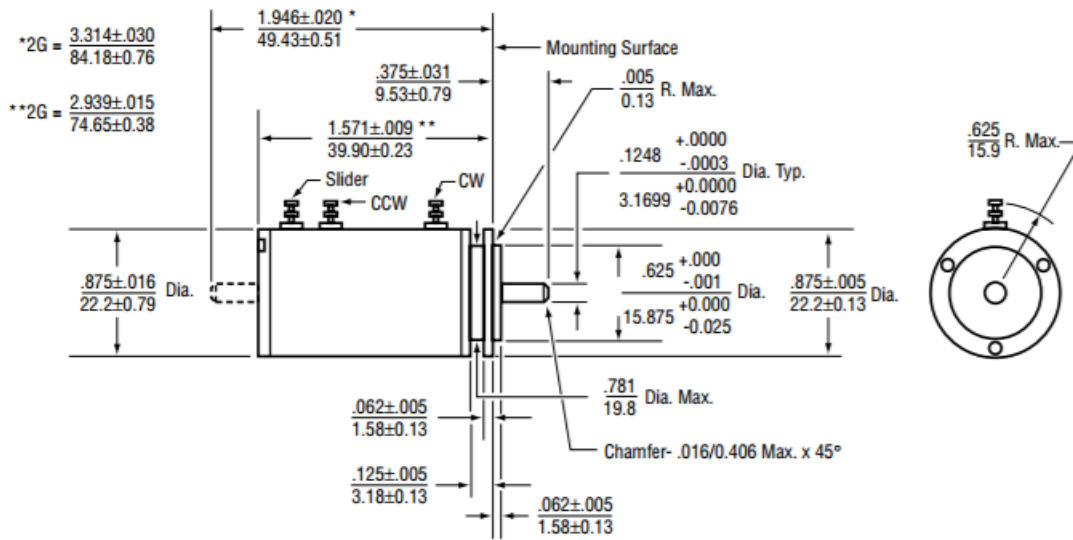
Multi-Turn Precision Potentiometer

Model 7200 Series



Outline Drawing

Model 7223
Servo Mount with Ball Bearing



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- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

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