Series 8140
Model 8141, 8143, 8146, 8148
7/8" Diameter
10-Turn*, Hybrid
Precision Potentiometer / Position Sensor

For more information about this product, visit our website at: www.potentiometers.com

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¹ Specifications subject to change without notice.
² Linearity is measured between 1% and 99% of input voltage.
³ Measured with 10 VDC CW to CCW and slider at 50% of electrical travel.
* Model available in 3 & 5 turn versions.

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**Mechanical Specifications**

- **Total Mechanical Travel**: 3600° +15° -0°
- **Number of Gangs**: 2 maximum
- **Weight (single gang)**: 0.75 oz. nominal
- **Backlash**: 1° maximum

**8141, 8146**

- **Static Stop Strength**: maximum 60 oz.-in.
- **Panel Nut Tightening Torque**: maximum 25 lb.-in.
- **Shaft End Play**: maximum 0.010”
- **Shaft Runout**: maximum T.I.R. 0.003”
- **Pilot Diameter Runout**: maximum T.I.R. 0.004”
- **Lateral Runout**: maximum T.I.R. 0.003”
- **Shaft Radial Play**: maximum 0.003”
- **Start/Run Torque (per gang)**: maximum 0.8 oz.-in.

**8143**

- **Static Stop Strength**: 36 oz.-in.
- **Panel Nut Tightening Torque**: n/a
- **Shaft End Play**: 0.005”
- **Shaft Runout**: 0.002”
- **Pilot Diameter Runout**: 0.002”
- **Lateral Runout**: 0.004”
- **Shaft Radial Play**: 0.002”
- **Start/Run Torque (per gang)**: 0.6 oz.-in.

**Ordering Information**

```
8146  R  10K  T5  L0.25  xx  LF

Model Series  Resistance Prefix  Resistance Value

Optional RoHS Compliant Product Code
Optional Feature Code (see table)
Linearity
Optional Non-standard Tolerance
```

**Special Features**

- Center Tap: CT
- Linearity Tape: LT
- Flattened Shaft: FS
- Slotted Shaft (standard on single gang 8146 without RS feature): SS
- Rear Shaft Extension (8143, 8146 single cup only): RS
- Shaft Lock (8141, 8146 only): SL
- High Torque 2-6 oz.-in. (8146 only): HT
- Additional Gang: 2G
- Gold Plated Solder Lug Terminals (see optional terminal configuration): FT

**Circuit Diagram**

```
(CCW) - (S) - (CW)
```

**Standard Resistance Values, Ohms**

- 1K, 2K, 5K, 10K, 20K, 50K, 100K
Series 8140 - Model 8141, 8143, 8146, 8148

Matching Turns Counting Dials

8141: RBJ, 2601, 2641
8146: 2606, 2607, 2626, 2627, 2646, 2126, 2606S, 2607S, 2646S, 2647S, RB

Outline Drawings

Models 8141 & 8146
Bushing Mount with Sleeve Bearing

Optional Terminal Configuration

Use Special Feature Code “FT” to order.

Enlarged View B

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**Outline Drawings**

**Model 8143**

**Servo Mount with Ball Bearing**

![Outline Drawing](image)

**Optional Terminal Configuration**

![Optional Terminal Configuration](image)

Use Special Feature Code “FT” to order.

Enlarged View B