

# Precision Potentiometer

## Model A Series



### Features:

- 1-13/16" diameter
- 10-turn
- Wirewound

### ELECTRICAL

|  |   |
|--|---|
| Resistance Range, Ohms                       | 10 to 500K  |
| Standard Resistance Tolerance                | < 100 Ohms = $\pm 5\%$ , $\geq 100$ Ohms = $\pm 3\%$  |
| Minimum Practical Resistance Tolerance       | $\pm 1\%$   |
| Independent Linearity                        | < 300 Ohms = $\pm 0.50\%$ , $\geq 300$ Ohms = $\pm 0.25\%$  |
| Minimum Practical Independent Linearity      | $\pm 0.15\%$ , $\leq 20$ Ohms<br>$\pm 0.10\%$ , < 100 Ohms<br>$\pm 0.075\%$ , < 300 Ohms<br>$\pm 0.05\%$ , $\geq 300$ Ohms    |
| Power Rating, Watts                          | 5.0 at 40°C derating to 0 at 85°C   |
| Input Voltage, Maximum                       | 1,000Vdc not to exceed power rating   |
| Dielectric Strength                          | 1,000V rms  |
| Insulation Resistance, Minimum               | 1,000 Megohms   |
| Noise, Maximum                               | 500 Ohms: RT $\leq 2613.7$ Ohms<br>250 Ohms: RT > 2613.7 Ohms   |
| Actual Electrical Travel                     | 3600° + 4° - 0°   |
| Tap Tolerance                                | $\leq 20$ Ohms = $\pm 3^\circ$ , < 100 Ohms = $\pm 2^\circ$<br>< 300 Ohms = $\pm 1.5^\circ$ , $\geq 300$ Ohms = $\pm 1^\circ$ |
| End Voltage, Maximum<br>(% of input voltage) | 10 Ohms = 3%, 25 Ohms = 1.2%<br>50 Ohms = 0.6%, $\geq 100$ Ohms = 0.25%   |

This model available in a hybrid version – contact factory for details.

### ENVIRONMENTAL (MIL-R-12934)

|                             |  |
|-----------------------------|--|
| Operating Temperature Range | Static: -65°C to +85°C<br>Dynamic: -40°C to +85°C                      |
| Temperature Cycling         | 5 cycles, -65°C to +85°C (5% $\Delta R$ )                              |
| Shock, 6ms Sawtooth         | 100G's (0.1ms discontinuity max.)                                      |
| Vibration                   | 6 hours, 10 to 55 Hz (5% $\Delta R$ , 0.1ms discontinuity max.)        |
| Moisture Resistance         | Ten 24 hour cycles (3% $\Delta R$ )                                    |
| High Temperature Exposure   | 1,000 hours at 85°C (5% $\Delta R$ )                                   |
| Rotational Load Life        | 2 mil. shaft rev. + 900 hrs. at rated wattage at 40°C (5% $\Delta R$ ) |

#### General Note

TT Electronics reserves the right to make changes in product specification without notice or liability. All information is subject to TT Electronics' own data and is considered accurate at time of going to print.

TT Electronics | BI Technologies  
4200 Bonita Place, Fullerton, CA USA 92835 | Ph: +1 714 447 2345  
www.ttelectronics.com | sensors@ttelectronics.com

# Precision Potentiometer

## Model A Series



### MECHANICAL

|  |                 |
|--|-----------------|
| Total Mechanical Travel                | 3600° + 4° – 0° |
| Number of Gangs, Maximum               | 3               |
| Weight, Nominal (Single Gang)          | 4.4 oz.         |
| Static Stop Strength                   | 550 oz.-in.     |
| Backlash, Maximum                      | 1°              |
| Panel Nut Tightening Torque, Maximum   | 25 lb.-in.      |
| Shaft End Play, Maximum                | .005"           |
| Shaft Runout, T.I.R., Maximum          | .0005"          |
| Pilot Diameter Runout, T.I.R., Maximum | .002"           |
| Lateral Runout, T.I.R., Maximum        | .003"           |
| Shaft Radial Play, Maximum             | .003"           |
| Start/Run Torque, Maximum (per gang)   | 3.0 oz.-in.     |

### STANDARD RESISTANCE VALUES, OHMS

| Total Resistance | Theoretical Resolution (% Nominal) | Tempco of Wire |
|------------------|------------------------------------|----------------|
| 10               | 0.082                              | +800 ppm/°C *  |
| 25               | 0.040                              | +800 ppm/°C *  |
| 50               | 0.031                              | +800 ppm/°C *  |
| 100              | 0.040                              | ±20 ppm/°C     |
| 200              | 0.031                              | ±20 ppm/°C     |
| 500              | 0.024                              | ±20 ppm/°C     |
| 1K               | 0.021                              | ±20 ppm/°C     |
| 2K               | 0.016                              | ±20 ppm/°C     |
| 5K               | 0.014                              | +130 ppm/°C *  |
| 10K              | 0.011                              | +130 ppm/°C *  |
| 20K              | 0.009                              | +130 ppm/°C *  |
| 50K              | 0.007                              | +130 ppm/°C *  |
| 100K             | 0.006                              | ±20 ppm/°C     |
| 200K             | 0.005                              | ±20 ppm/°C     |
| 300K             | 0.005                              | ±20 ppm/°C     |
| 500K             | 0.005                              | ±20 ppm/°C     |

\* Lower tempco available as a special model.

#### General Note

TT Electronics reserves the right to make changes in product specification without notice or liability. All information is subject to TT Electronics' own data and is considered accurate at time of going to print.

TT Electronics | BI Technologies  
 Circulo de la Amistad #102 PIMSA IV Mexicali B.C. Mexico C.P 21210  
 Ph: +1 714 447 2345  
[www.ttelectronics.com/bi-technologies](http://www.ttelectronics.com/bi-technologies)

# Precision Potentiometer

## Model A Series



### METRIC CONVERSIONS

|       |         |
|-------|---------|
| 1 in. | 25.4mm  |
| 1 oz. | 28.4 gm |

|           |           |
|-----------|-----------|
| 1 oz.-in. | 0,007 N-m |
| 1 lb.-in. | 0,113 N-m |

General Note  
 TT Electronics reserves the right to make changes in product specification without notice or liability. All information is subject to TT Electronics' own data and is considered accurate at time of going to print.

TT Electronics | BI Technologies  
 Circulo de la Amistad #102 PIMSA IV Mexicali B.C. Mexico C.P 21210  
 Ph: +1 714 447 2345  
 www.ttelectronics.com/bi-technologies

# Precision Potentiometer

## Model A Series



### SPECIAL FEATURE CODES

|                      |          |
|----------------------|----------|
| Center Tap           | CT       |
| Linearity Tape       | LT       |
| Rear Shaft Extension | RS       |
| Flatted Shaft        | FS       |
| Slotted Shaft        | SS       |
| Shaft Lock           | SL       |
| Color Coded          | CC       |
| Additional Gangs     | 2G or 3G |

### ORDERING INFORMATION



### MATCHING TURNS COUNTING DIALS

2606, 2607, 2626, 2627, 2646, 2647, 2126, 2606S, 2607S, 2646S, 2647S, RB

### 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

General Note  
 TT Electronics reserves the right to make changes in product specification without notice or liability. All information is subject to TT Electronics' own data and is considered accurate at time of going to print.

Компания «Life Electronics» занимается поставками электронных компонентов импортного и отечественного производства от производителей и со складов крупных дистрибьюторов Европы, Америки и Азии.

С конца 2013 года компания активно расширяет линейку поставок компонентов по направлению коаксиальный кабель, кварцевые генераторы и конденсаторы (керамические, пленочные, электролитические), за счёт заключения дистрибьюторских договоров

Мы предлагаем:

- Конкурентоспособные цены и скидки постоянным клиентам.
- Специальные условия для постоянных клиентов.
- Подбор аналогов.
- Поставку компонентов в любых объемах, удовлетворяющих вашим потребностям.
- Приемлемые сроки поставки, возможна ускоренная поставка.
- Доставку товара в любую точку России и стран СНГ.
- Комплексную поставку.
- Работу по проектам и поставку образцов.
- Формирование склада под заказчика.
- Сертификаты соответствия на поставляемую продукцию (по желанию клиента).
- Тестирование поставляемой продукции.
- Поставку компонентов, требующих военную и космическую приемку.
- Входной контроль качества.
- Наличие сертификата ISO.

В составе нашей компании организован Конструкторский отдел, призванный помогать разработчикам, и инженерам.

Конструкторский отдел помогает осуществить:

- Регистрацию проекта у производителя компонентов.
- Техническую поддержку проекта.
- Защиту от снятия компонента с производства.
- Оценку стоимости проекта по компонентам.
- Изготовление тестовой платы монтаж и пусконаладочные работы.



Тел: +7 (812) 336 43 04 (многоканальный)  
Email: [org@lifeelectronics.ru](mailto:org@lifeelectronics.ru)