

# 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 $\pm 0.10\%$ , < 100 Ohms $\pm 0.075\%$ , < 300 Ohms $\pm 0.05\%$ , $\geq 300$ 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 250 Ohms: RT > 2613.7 Ohms
Actual Electrical Travel	3600° + 4° - 0°
Tap Tolerance	$\leq 20$ Ohms = $\pm 3^\circ$ , < 100 Ohms = $\pm 2^\circ$ < 300 Ohms = $\pm 1.5^\circ$ , $\geq 300$ Ohms = $\pm 1^\circ$
End Voltage, Maximum (% of input voltage)	10 Ohms = 3%, 25 Ohms = 1.2% 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 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 «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

**Телефон:** 8 (812) 309 58 32 (многоканальный)

**Факс:** 8 (812) 320-02-42

**Электронная почта:** [org@eplast1.ru](mailto:org@eplast1.ru)

**Адрес:** 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.