

Model 7280 Series

Precision Potentiometer



Features:

- Lead-free
- RoHS 2 compliant
- 7/8" diameter
- 10 turn wirewound

Applications:

- Pedal position
- Joystick controls
- Valve control
- Wind vane
- Panel control
- Test and measurement
- Medical equipment
- Angular position

Model Styles Available

7281	1/8" shaft, 1/4" bushing
7283	1/8" shaft, servo
7284	6 mm shaft, 3/8" bushing
7286	1/4" shaft, 3/8" bushing
7288 (for heavy side load applications)	1/4" shaft, 3/8" bushing

Electrical

Resistance range	100 to 100K ohms
Standard resistance tolerance	±5%
Minimum practical resistance tolerance	±1%
Independent linearity	±0.25%
Minimum practical independent linearity	±0.15% (<300 ohms), ±0.075% (≥300 ohms)
Power rating	2.0 Watts at 70°C, derating to 0 at 125°C
Dielectric strength	1,000 V rms
Insulation resistance	1,000 Megohms minimum
Noise	100 ohms maximum
Actual electrical travel	3600° +10° -0° (>100 ohms), 3600° +10° -5° (≤100 ohms)
End voltage	Maximum 0.25% of input voltage
Tap tolerance	±3°

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 plc

TT Electronics | BI Technologies
413 Rood RD, Suite 7
Calexico, CA 92231
Ph: +1 714 447 2345
www.ttelectronics.com/bi-technologies

Model 7280 Series

Precision Potentiometer



Mechanical

Total mechanical travel	3600° +15° -0°	
Number of gangs	2 maximum	
Weight (single gang)	0.75 oz. nominal	
Backlash	1° maximum	
	7281, 7284, 7286, 7288	7283
Static stop strength	Maximum 48 oz.-in.	36 oz.-in.
Panel nut tightening torque	Maximum 25 lb.-in.	n/a
Shaft end play	Maximum 0.010"	0.005"
Shaft runout	Maximum T.I.R. 0.003"	0.002"
Pilot diameter runout	Maximum T.I.R. 0.004"	0.002"
Lateral runout	Maximum T.I.R. 0.005"	0.004"
Shaft radial play	Maximum 0.003"	0.002"
Start/run torque (per gang, ES option adds 0.5 oz.-in.)	Maximum 0.8 oz.-in.	0.6 oz.-in.

Environmental

Operating temperature range	-40°C to +125°C dynamic, -55°C to +125°C static	
Temperature cycling	5 cycles, -55°C to +125°C, maximum 5% ΔR	
Shock	6 ms saw-tooth, 100 G's, 0.1 ms maximum discontinuity	
Vibration	15 G's, 10 to 2,000 Hz, maximum 5% ΔR, 0.1 ms maximum discontinuity	
Moisture resistance	Five 24 hour cycles, maximum 3% ΔR	
High temperature exposure	1,000 hours at 125°C, maximum 5% ΔR	
Rotational load life (1 lb side load for 7288)	1M shaft revolutions + 900 hours at 2.0 Watts & 70°C, maximum 5% ΔR	
Ingress protection rating (IP Code)	IP50, IP66 available as option (feature code ES)	

Ordering Information



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
413 Rood RD, Suite 7
Calexico, CA 92231
Ph: +1 714 447 2345
www.ttelectronics.com/bi-technologies

Model 7280 Series

Precision Potentiometer



Feature Codes

7281, 7283 plain shaft; 7284, 7286, 7288 slotted shaft	No code
Center tap	CT
Linearity tape	LT
Flatted shaft	FS
Slotted shaft (standard on single cup 7284, 7286 & 7288 without RS feature)	SS
Rear shaft extension (7281, 7286, 7288 single cup only)	RS
Shaft lock (7286 & 7288 only)	SL
High torque 2-6 oz.-in. (7286 & 7288 only)	HT
Additional gang	2G
Gold plated solder lug terminals (see optional terminal configuration)	FT
Seal (IP66) 7284, 7286, or 7288 only	ES

When multiple feature codes are used the P/N shall be in the same sequence as listed in this table (top to bottom).

Standard Resistance Values

Total Resistance (Ohms)	Theoretical Resolution (% nominal)	Tempco of Wire (ppm/°C)
100	0.059	±20
200	0.037	±20
500	0.030	±20
1K	0.024	±20
2K	0.020	±20
5K	0.018	±20
10K	0.017	±20
20K	0.016	±20
50K	0.010	±20
100K	0.008	±20

Circuit Diagram



Feature Codes

7281: RBJ, 2601, 2641

7286, 7288: RB, 2126, 2606, 2606S, 2607, 2607S, 2626, 2627, 2646, 2646S, 2647, 2647S

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 plc

TT Electronics | BI Technologies
413 Rood RD, Suite 7
Calexico, CA 92231
Ph: +1 714 447 2345
www.ttelectronics.com/bi-technologies

Model 7280 Series

Precision
Potentiometer



Outline Drawing



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 plc

TT Electronics | BI Technologies
 413 Rood RD, Suite 7
 Calexico, CA 92231
 Ph: +1 714 447 2345
 www.ttelectronics.com/bi-technologies

Model 7280 Series

Precision
Potentiometer



Outline Drawing



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 plc

TT Electronics | BI Technologies
413 Rood RD, Suite 7
Calexico, CA 92231
Ph: +1 714 447 2345
www.ttelectronics.com/bi-technologies



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

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