

- ### Features
- Bushing mount
 - Excellent resolution
 - Non-standard features and specifications available
 - Small diameter
 - High rotational life
 - RoHS compliant*

3700/3701 - Precision Potentiometer

| Electrical Characteristics ¹ | 3700 Wirewound Element | 3701 Hybritron® Element |
|---|--|------------------------------------|
| Standard Resistance Range..... | 100 to 100 K ohms..... | 1 K to 100 K ohms |
| Total Resistance Tolerance..... | ±5 %..... | ±10 % |
| Independent Linearity..... | ±0.25 %..... | ±0.25 % |
| Effective Electrical Angle..... | 3600 ° +10 °, -0 °..... | 3600 ° +10 °, -2 ° |
| Absolute Minimum Resistance/ Minimum Voltage..... | 1 ohm or 0.1 % maximum (whichever is greater) | Minimum voltage 0.2 % maximum |
| Noise..... | 500 ohms ENR maximum..... | Output smoothness 0.1 % maximum |
| Dielectric Withstanding Voltage (MIL-STD-202, Method 301) | | |
| Sea Level..... | 1,000 VAC minimum..... | 1,000 VAC minimum |
| Power Rating (Voltage Limited By Power Dissipation or 315 VAC, Whichever Is Less) | | |
| +70 °C..... | 1 watt..... | 1 watt |
| +125 °C..... | 0 watt..... | 0 watt |
| Insulation Resistance (500 VDC)..... | 1,000 megohms minimum..... | 1,000 megohms minimum |
| Resolution..... | See recommended part nos. | Essentially infinite |

Environmental Characteristics¹

| | | |
|--|--|--|
| Operating Temperature Range..... | +1 °C to +125 °C..... | +1 °C to +105 °C |
| Storage Temperature Range..... | -65 °C to +125 °C..... | -55 °C to +105 °C |
| Temperature Coefficient Over | | |
| Storage Temperature Range ² | ±50 ppm/°C maximum/unit..... | ±100 ppm/°C maximum/unit |
| Vibration..... | 20 G..... | 20 G |
| Wiper Bounce..... | 0.1 millisecond maximum..... | 0.1 millisecond maximum |
| Shock..... | 100 G..... | 100 G |
| Wiper Bounce..... | 0.1 millisecond maximum..... | 0.1 millisecond maximum |
| Load Life..... | 1,000 hours, 1 watt..... | 1,000 hours, 1 watt |
| Total Resistance Shift..... | ±2 % maximum..... | ±5 % maximum |
| Rotational Life (No Load)..... | 1,000,000 shaft revolutions ² | 4,000,000 shaft revolutions ² |
| Total Resistance Shift..... | ±5 % maximum..... | ±5 % maximum |
| Moisture Resistance (MIL-STD-202, Method 103, Condition B) | | |
| Total Resistance Shift..... | ±2 % maximum..... | ±5 % maximum |
| IP Rating..... | IP 40..... | IP 40 |

Mechanical Characteristics¹

| | |
|---------------------------------------|---|
| Stop Strength..... | 14 N-cm (20 oz-in.) minimum |
| Mechanical Angle..... | 3600 ° +20 °, -0 ° |
| Torque (Starting & Running)..... | 0.45 N-cm (0.6 oz-in.) max. |
| Mounting..... | 170-200 N-cm (15-18 lb-in.) max. |
| Shaft Runout..... | 0.05 mm (0.002 in.) T.I.R. |
| Lateral Runout..... | 0.13 mm (0.005 in.) T.I.R. |
| Shaft End Play..... | 0.13 mm (0.005 in.) T.I.R. |
| Shaft Radial Play..... | 0.08 mm (0.003 in.) T.I.R. |
| Pilot Diameter Runout..... | 0.05 mm (0.002 in.) T.I.R. |
| Backlash..... | 1.0 ° maximum |
| Weight..... | Approximately 28 gm |
| Terminals..... | Gold-plated solderlugs (3700) or gold-plated turret lugs (3701) |
| Soldering Condition | |
| Manual Soldering..... | 96.5Sn/3.0Ag/0.5Cu solid wire or no-clean rosin cored wire 370 °C (700 °F) max. for 3 seconds |
| Wave Soldering..... | 96.5Sn/3.0Ag/0.5Cu solder with no-clean flux 260 °C (500 °F) max. for 5 seconds |
| Wash processes..... | Not recommended |
| Marking..... | Manufacturer's name and part number, resistance value and tolerance, linearity tolerance, wiring diagram, and date code |
| Ganging (Multiple Section Pots.)..... | 1 cup maximum |
| Hardware..... | One lockwasher (H-37-1) and one mounting unit (H-38-1) is shipped with each potentiometer. |

¹At room ambient: +25 °C nominal and 50 % relative humidity nominal, except as noted.
²Consult manufacturer for complete specification details.

Recommended Part Numbers

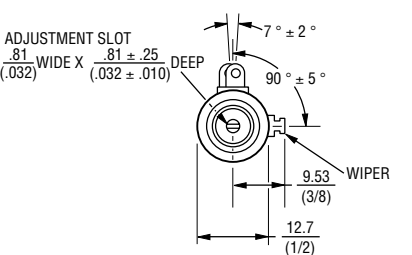
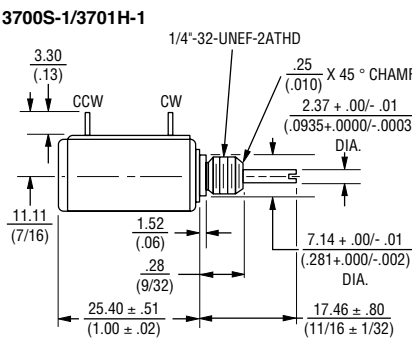
| Part Number | Resistance (Ω) | Resolution |
|--------------|----------------|------------|
| 3700S-1-102L | 1,000 | 0.43 |
| 3700S-1-202L | 2,000 | 0.35 |
| 3700S-1-502L | 5,000 | 0.34 |
| 3700S-1-103L | 10,000 | 0.26 |

| Part Number | Resistance (Ω) |
|--------------|----------------|
| 3701H-1-102L | 1,000 |
| 3701H-1-202L | 2,000 |
| 3701H-1-502L | 5,000 |
| 3701H-1-103L | 10,000 |

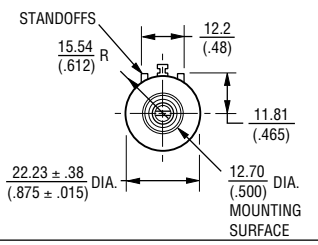
BOLDFACE LISTINGS ARE IN STOCK AND READILY AVAILABLE THROUGH DISTRIBUTION.
 FOR OTHER OPTIONS CONSULT FACTORY.

ROHS IDENTIFIER:
 L = COMPLIANT*

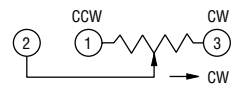
Product Dimensions



LOCKWASHER AND MOUNTING NUT TO BE SUPPLIED WITH EACH UNIT



TOLERANCES: EXCEPT WHERE NOTED
 DECIMALS: .XX ± .25 (.010), .XXX ± .13 (.005)
 FRACTIONS: ±1/64
 DIMENSIONS: MM (IN)



REV. 06/12

"Hybritron" is a registered trademark of Bourns, Inc.
 *RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011.
 Specifications are subject to change without notice.
 Customers should verify actual device performance in their specific applications.

Данный компонент на территории Российской Федерации

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Вы можете разместить у нас заказ для любого Вашего проекта, будь то серийное производство или разработка единичного прибора.

В нашем ассортименте представлены ведущие мировые производители активных и пассивных электронных компонентов.

Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

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