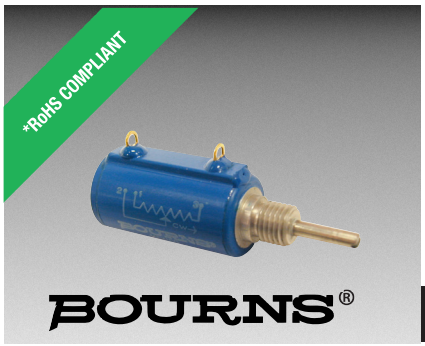


Features

- 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	2 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	100 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 Characteristics[1]		
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 Characteristics[1]	
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.

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

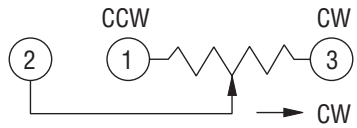
CALIFORNIA WARNING: Can expose you to lead, a carcinogen and reproductive toxicant. See www.P65Warnings.ca.gov

Additional Information

Click these links for more information:

PRODUCT | TECHNICAL LIBRARY | INVENTORY | SAMPLES | CONTACT

Schematic



Recommended Part Numbers

Part Number	Resistance (Ω)	Resolution (% Max.)
3700S-1-202L	**2,000**	**0.04**
3700S-1-502L	**5,000**	**0.04**
3700S-1-103L	**10,000**	**0.03**

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

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FOR OTHER OPTIONS CONSULT FACTORY.

ROHS IDENTIFIER:
L = COMPLIANT*

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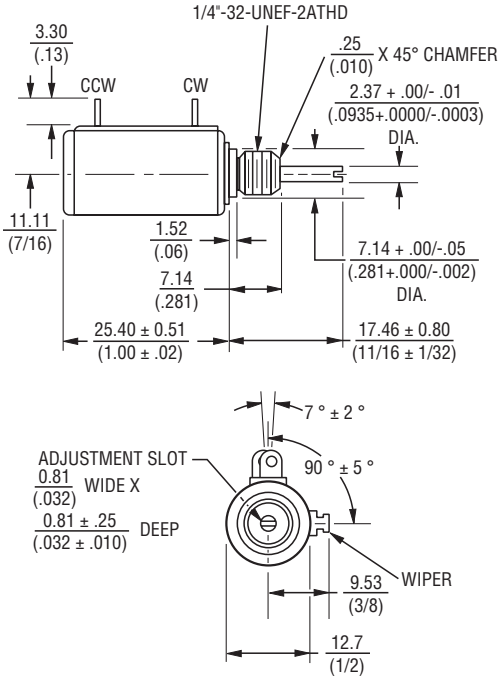
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*RoHS Directive 2015/863, Mar 31, 2015 and Annex.
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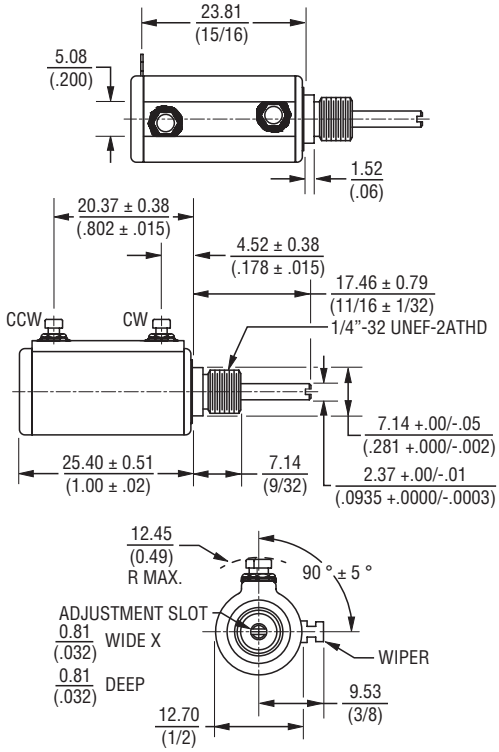
Product Dimensions

3700S-1



LOCKWASHER AND MOUNTING NUT
TO BE SUPPLIED WITH EACH UNIT

3701H-1



LOCKWASHER AND MOUNTING NUT
TO BE SUPPLIED WITH EACH UNIT

TOLERANCES: EXCEPT WHERE NOTED
DECIMALS: .XX $\frac{.25}{(.010)}$ .XXX $\frac{.13}{(.005)}$
FRACTIONS: 1/64
DIMENSIONS: $\frac{MM}{(IN)}$

REV. 05/26

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