

Features

- Bushing mount
- Optional center tap and rear shaft extension
- Optional AR lug feature
- Gangable with common or concentric shafts
- High torque available
- Non-standard features and specifications available

■ RoHS compliant*

3540/3541 - Precision Potentiometer

Electrical Characteristics ¹	3540 Wirewound Element	3541 Hybritron® Element
Standard Resistance Range		
Total Resistance ToleranceIndependent Linearity		
Effective Electrical Angle	.3600 ° +10 °, -0 °	.3600 ° +10 °, -0 °
Absolute Minimum Resistance/		.0.2 % maximum
Minimum Voltage Noise/Output Smoothness	. (whichever is greater) . 100 ohms ENR maximum	0.1 % maximum
Dielectric Withstanding Voltage (MIL-	STD-202, Method 301)	
Sea Level Power Rating (Voltage Limited By Pov	. 1,000 VAC minimum	1,000 VAC minimum
+70 °C	.2 watts	2 watts
+125 °C		
Insulation Resistance (500 VDC) Resolution		
110001411011	. Coc recommended part nos	Looomiany milling

Environmental Characteristics¹

Environmental Characteristi	C2.	
Operating Temperature Range		
Storage Temperature Range	55 °C to +125 °C	55 °C to +125 °C
Temperature Coefficient Over		
Storage Temperature Range ²	±50 ppm/°C maximum/unit	±100 ppm/°C maximum/unit
Vibration	15 G	15 G
Wiper Bounce	0.1 millisecond maximum	0.1 millisecond maximum
Shock	50 G	50 G
Wiper Bounce	0.1 millisecond maximum	0.1 millisecond maximum
Load Life	1,000 hours, 2 watts	1,000 hours, 2 watts
Total Resistance Shift		
Rotational Life (No Load)	1,000,000 shaft revolutions 2 .	5,000,000 shaft revolutions ²
Total Resistance Shift	±5 % maximum	±5 % maximum
Moisture Resistance (MIL-STD-202,		
Total Resistance Shift	±2 % maximum	±5 % maximum
IP Rating	IP 40	IP 40

Mechanical Characteristics¹

Stop Strength	53 N-cm (75 oz-in.) minimum
Mechanical Angle	3600 ° +10 °, -0 °
Torque	
Starting & Running @ +25 °C	0.35 N-cm (0.5 ozin.) max.
Starting & Running @ -40 °C	1.76 N-cm (2.5 ozin.) max.
Mounting	
Shaft Runout	
Chaft Dadiol Dlay	0.00 mm (0.002 in.) T.I.D.
Dilat Diameter Durant	
	0.08 mm (0.003 in.) T.I.R.
Backlash	
Weight	Approximately 21 gm
	Gold-plated solder lugs
Soldering Condition	
Manual Soldering	96.5Sn/3.0Ag/0.5Cu solid wire or no-clean
-	rosin cored wire; 370 °Č (700 °F) max. for 3 seconds
Wave Soldering 96.5S	n/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 Pote)	
danging (multiple section rots.)	2 cups maximum

is shipped with each potentiometer.

1At room ambient: +25 °C nominal and 50 % relative humidity nominal, except as noted.

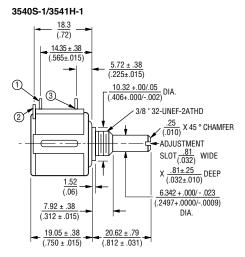
2Consult manufacturer for complete specification details.

Recommended Part Numbers

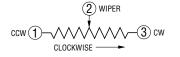
Part Number	Resistance (Ω)	Resolution
3540S-1-201L	200	.042
3540S-1-501L	500	.031
3540S-1-102L	1,000	.027
3540S-1-202L	2,000	.021
3540S-1-502L	5,000	.021
3540S-1-103L	10,000	.019
3540S-1-203L	20,000	.014
3540S-1-503L	50,000	.011
3540S-1-104L	100.000	.008

Part Number	Resistance (Ω)
3541H-1-102L	1,000
3541H-1-202L	2,000
3541H-1-502L	5,000
3541H-1-103L	10,000
3541H-1-203L	20,000
3541H-1-503L	50,000
3541H-1-104L	100,000

Product Dimensions



 $\label{eq:continuous} \begin{array}{l} \text{TOLERANCES: EXCEPT WHERE NOTED} \\ \text{DECIMALS: } XX \pm \frac{25}{(010)}, XXX \pm \frac{.13}{(.005)} \\ \text{FRACTIONS: } \pm 1/64 \\ \text{DIMENSIONS: } \frac{MM}{(III.)} \\ \end{array}$



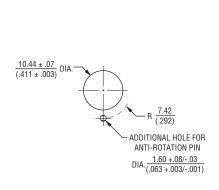
BOLDFACE LISTINGS ARE IN STOCK AND READILY AVAILABLE THROUGH DISTRIBUTION.
FOR OTHER OPTIONS CONSULT FACTORY.
ROHS IDENTIFIER:
L = COMPLIANT

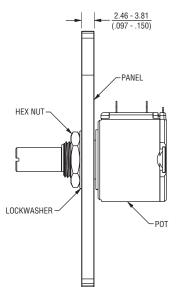
*RoHS Directive 2002/95/EC Jan 27, 2003 including Annex.
Specifications are subject to change without notice.
Customers should verify actual device performance in their specific applications.

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BOURNS

Panel Thickness Dimensions





Anti-rotation pin hole is shown at six o'clock position for reference only. The actual location is determined by the customer's application. Refer to the front view of the potentiometer to see the location of the optional A/R pin.

Panel thickness and hole diameters are recommended for best fit. However, customers may adjust the dimensions to suit their specific application.

DIMENSIONS: $\frac{\text{MM}}{\text{(INCHES)}}$ TOLERANCES: $\pm \frac{0.127}{(.005)}$