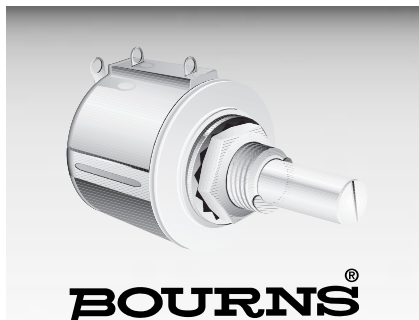


For technical assistance use the Sensors/
Controls Products number on the back cover.



Features

- Bushing mount
- Optional center tap and rear shaft extension
- Optional AR lug feature
- Gangable with common or concentric shafts
- High torque available
- Optional 0.1% linearity
- Non-standard features and specifications available

3540/3541 - Precision Potentiometer

3540 Wirewound Element **3541** Hybritron® Element

Electrical Characteristics¹

Standard Resistance Range	100 to 100K ohms	1K to 100K ohms
Resistance Tolerance	±5%	±10%
Independent Linearity	±0.25%	±0.25%
Resolution	See recommended part numbers	Essentially infinite
Effective Electrical Angle	3600° +10°, -0°	3600° +10°, -0°
Absolute Minimum Resistance/	1 ohm or 0.1% maximum	Minimum voltage
Minimum Voltage	(whichever is greater)	0.2% maximum
Noise	100 ohms ENR maximum	Output smoothness 0.1% maximum

Power Rating (Voltage Limited)

By Power Dissipation or
447 VAC, Whichever Is Less)

+70°C	2 watts	2 watts
+125°C	0 watt	0 watt
Dielectric Withstanding Voltage	MIL-STD-202, Method 301	MIL-STD-202, Method 301
Sea Level	1,000 VAC minimum	1,000 VAC minimum
Insulation Resistance		
(500 VDC)	1,000 megohms minimum	1,000 megohms minimum

Environmental Characteristics¹

Operating Temperature

Static Operation Temp Range.....-55°C to +125°C-55°C to +125°C

Dynamic Temp Range.....+1°C to +125°C+1°C to +125°C

Temperature Coefficient²±50ppm/°C maximum/unit±100ppm/°C maximum/unit

Vibration.....15G15G

Wiper Bounce0.1 millisecond maximum0.1 millisecond maximum

Shock.....50G50G

Wiper Bounce0.1 millisecond maximum0.1 millisecond maximum

Load Life1,000 hours, 2 watts1,000 hours, 2 watts

Total Resistance Shift±2%±5%

Rotational Life (No Load)1,000,000 shaft revolutions²5,000,000 shaft revolutions²

Total Resistance Shift±5% maximum±5% maximum

Moisture ResistanceMIL-STD-202, Method 103, Condition BMIL-STD-202, Method 103, Condition B

Total Resistance Shift±2% maximum±5% maximum

Mechanical Characteristics¹

Mechanical Angle3600° +10°, -0°3600° +10°, -2°

Shaft Runout0.003 in. (0.08mm) T.I.R.0.003 in. (0.08mm) T.I.R.

Lateral Runout0.005 in. (0.13mm) T.I.R.0.005 in. (0.13mm) T.I.R.

Pilot Diameter Runout0.003 in. (0.08mm) T.I.R.0.003 in. (0.08mm) T.I.R.

Shaft End Play0.012 in. (0.30mm) T.I.R.0.012 in. (0.30mm) T.I.R.

Shaft Radial Play0.003 in. (0.08mm) T.I.R.0.003 in. (0.08mm) T.I.R.

Stop Strength75 oz.-in. (53 Ncm) minimum75 oz.-in. (53 Ncm) minimum

Torque (Starting & Running).....0.6 oz.-in. (0.35 Ncm) max.0.6 oz.-in. (0.35 Ncm) max.

Backlash1.0° maximum1.0° maximum

WeightApproximately 21GApproximately 22.5G

TerminalsGold-plated solder lugsGold-plated solder lugs

Ganging2 cups maximum2 cups maximum

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

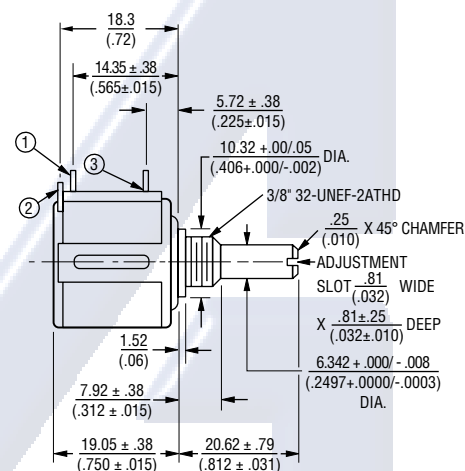
²Consult manufacturer for complete specification details.

Recommended Part Numbers

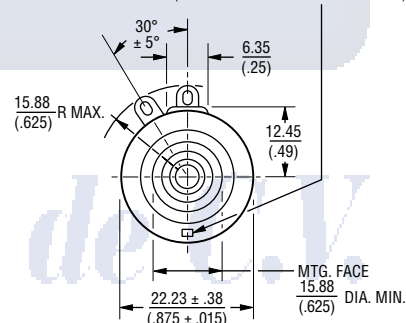
Part Number	Resistance	Resolution
3540S-1-201	200	.042
3540S-1-501	500	.031
3540S-1-102	1,000	.027
3540S-1-202	2,000	.021
3540S-1-502	5,000	.021
3540S-1-103	10,000	.019
3540S-1-203	2,000	.014

Part Number	Resistance	Resolution
3540S-1-103	10,000	.019
3540S-1-203	20,000	.014
3540S-1-503	50,000	.011
3540S-1-104	100,000	.008
3541H-1-102	1,000	.027
3541H-1-502	5,000	.021
3541H-1-103	10,000	.019

3540S-1/3541H-1



OPTIONAL ANTIROTATION LUG
(-.91) 1.42 X .50 ON 7.4 RADIUS.
LENGTH 1.27 FROM MOUNTING SURFACE.
(SUGGESTED PANEL HOLE 1.6 DIA.)

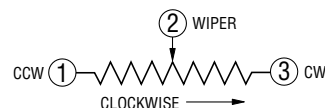


TOLERANCES: EXCEPT WHERE NOTED

DECIMALS: .XX ± .25 (.010), .XXX ± .13 (.005)

FRACTIONS: ±1/64

DIMENSIONS: MM (IN.)



BOLD-FACE LISTINGS ARE IN STOCK AND READILY
AVAILABLE THROUGH DISTRIBUTION.

FOR OTHER OPTIONS CONSULT FACTORY.