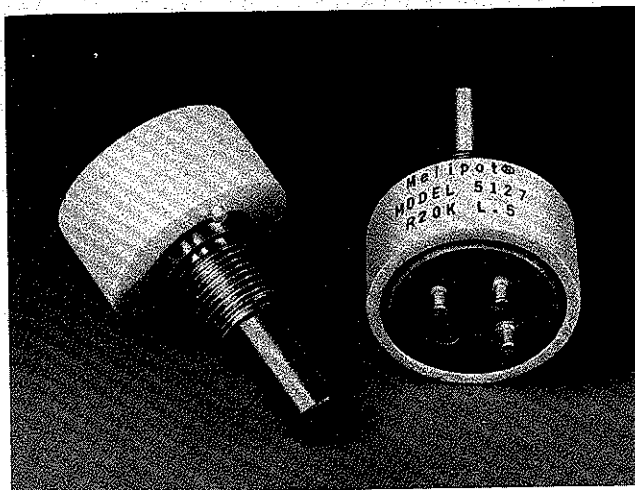




Helipot Series 5120 precision potentiometers provide:

- Low temperature coefficient—20 ppm/°C (p/10⁶/°C) for most resistance values.
- High performance at low cost.
- 1-watt power rating at 70°C.
- 125°C maximum operating temperature.
- Stops optional.

Model:

5121 1/4" (6,350 mm) bushing mount with 1/8" (3,175 mm) shaft
 5126 3/8" (9,525 mm) bushing mount with 1/8" (3,175 mm) shaft
 5127 3/8" (9,525 mm) bushing mount with 1/4" (6,350 mm) shaft

SPECIFICATIONS

Electrical

Standard resistance range, ohms	100 to 15.0 K continuous model 100 to 14.0 K stop model
Standard resistance tolerance	±5%
Min. practical resistance tolerance	±2%
Standard linearity* (independent)	±0.5%
Min. practical independent linearity	±0.3%
Power rating, watts	1W at 70°C, 0 at +125°C
Input voltage, max.	400V DC
Dielectric strength	750 rms
Insulation resistance	1,000 MΩ min.
Actual electrical travel nominal	340° ±2° continuous model 310° ±2° stop model
Electrical continuity travel	340° nominal continuous model 320° ±3° stop model
Noise, max.	100Ω
End voltage, max.	within standard linearity tolerance
*Linearity is measured between 1.0% and 99% of the input voltage.	

Mechanical

Number of turns	1
Total mechanical travel	360° cont. on continuous model 320° ±3° stop model
Starting torque, max.	1.0 oz-in. (0,0071 N*m)
Running torque, max.	1.0 oz-in. (0,0071 N*m)
Number of cups, max.	1
Weight, single cup, approx.	0.53 oz (15 g)
Static stop strength, max.	40 oz-in. (0,28 N*m)
Housing	Plastic
Rear Lid	Plastic
Bushing	Brass
Shaft	Brass, nickel-plated
Terminals	Solderable

Environmental

Ambient temperature range	-65°C to +125°C
Temperature cycling	5 cy.; -65°C to +125°C
Shock	100 G's sawtooth
Vibration	10 to 500Hz 10G
Humidity	Five 24-hour cycles
Temperature storage	1000 hours at 125°C
High and low temperature operations	Mechanical operation -65°C and +125°C
Rotational life	1,000,000 shaft rev.

Series 5120 7/8" (22,225mm) Diameter Single-Turn Wirewound

Standard Resistance Values Available without Setup Charge

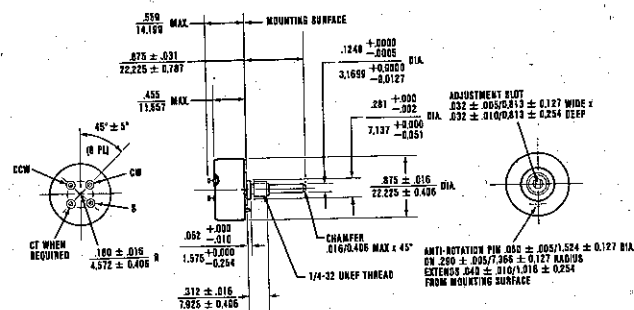
Total Resistance (ohms)	Theoretical Resolution Cont. Model	(% nominal) Stop Model	Wire Tempco (p/10 ⁶ /°C)
100	.3622	.3622	±130
200	.3083	.3416	±20
500	.2236	.2540	±20
1,000	.1876	.2087	±20
2,000	.1708	.1708	±20
5,000	.1227	.1366	±20
10,000	.1030	.1148	±20
14,000	—	.1066	±20
15,000	.0995	—	±20

Special Features

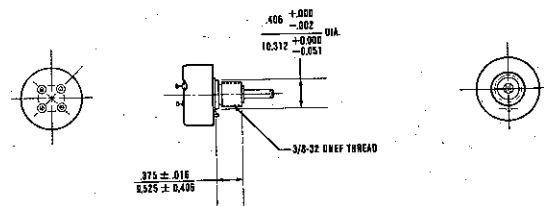
CT - center tap
 LT - linearity tape

SL - shaft lock
 ST - stop

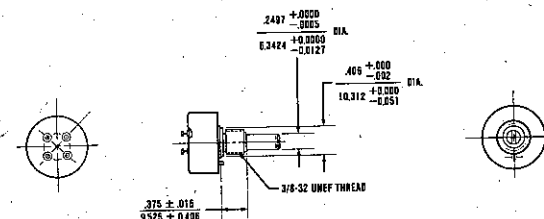
Model 5121

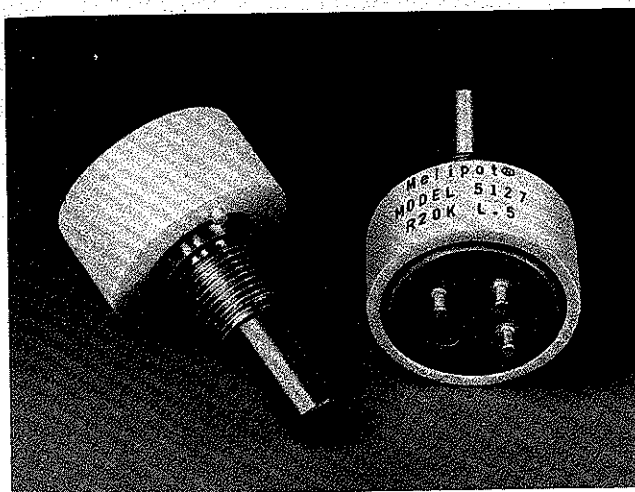


Model 5126



Model 5127





Helipot Series 5120 precision potentiometers provide:

- Low temperature coefficient—20 ppm/°C (p/10⁶/°C) for most resistance values.
- High performance at low cost.
- 1-watt power rating at 70°C.
- 125°C maximum operating temperature.
- Stops optional.

Model:

5121 1/4" (6,350 mm) bushing mount with 1/8" (3,175 mm) shaft
 5126 3/8" (9,525 mm) bushing mount with 1/8" (3,175 mm) shaft
 5127 3/8" (9,525 mm) bushing mount with 1/4" (6,350 mm) shaft

SPECIFICATIONS

Electrical

Standard resistance range, ohms 100 to 15.0 K continuous model
 100 to 14.0 K stop model

Standard resistance tolerance ±5%
 Min. practical resistance tolerance ±2%
 Standard linearity* (independent) ±0.5%
 Min. practical independent linearity ±0.3%
 Power rating, watts 1W at 70°C, 0 at +125°C
 Input voltage, max. 400V DC
 Dielectric strength 750 rms
 Insulation resistance 1,000 MΩ min.
 Actual electrical travel nominal 340° ±2° continuous model
 310° ±2° stop model

Electrical continuity travel 340° nominal continuous model
 320° ±3° stop model

Noise, max. 100Ω
 End voltage, max. within standard linearity tolerance

*Linearity is measured between 1.0% and 99% of the input voltage.

Mechanical

Number of turns 1
 Total mechanical travel 360° cont. on continuous model
 320° ±3° stop model

Starting torque, max. 1.0 oz-in. (0.0071 N*m)
 Running torque, max. 1.0 oz-in. (0.0071 N*m)

Number of cups, max. 1
 Weight, single cup, approx. 0.53 oz (15 g)
 Static stop strength, max. 40 oz-in. (0.28 N*m)

Housing Plastic
 Rear Lid Plastic
 Bushing Brass
 Shaft Brass, nickel-plated
 Terminals Solderable

Environmental

Ambient temperature range -65°C to +125°C
 Temperature cycling 5 cy.; -65°C to +125°C
 Shock 100 G's sawtooth
 Vibration 10 to 500Hz 10G
 Humidity Five 24-hour cycles
 Temperature storage 1000 hours at 125°C
 High and low temperature operations Mechanical operation
 -65°C and +125°C

Rotational life 1,000,000 shaft rev.

Series 5120 7/8" (22,225mm) Diameter Single-Turn Wirewound

Standard Resistance Values Available without Setup Charge

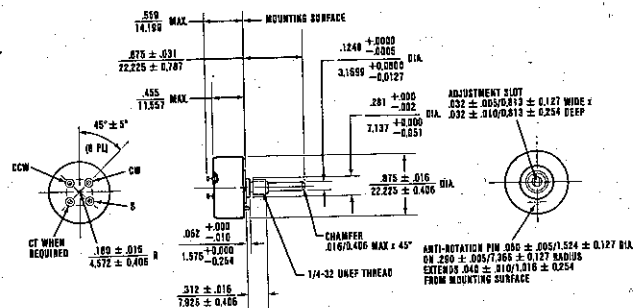
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15,000	.0995	—	±20

Special Features

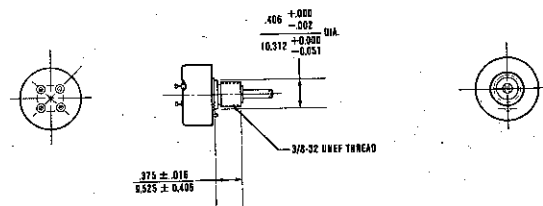
CT - center tap
 LT - linearity tape

SL - shaft lock
 ST - stop

Model 5121



Model 5126



Model 5127

