

Non-contacting Sensors



Magnepot 6120

- **Position Sensor**
- **7/8" Diameter**
- **Non-Contacting Hall Effect Single Turn**



Model Styles Available

6121	1/8" Shaft, 1/4" Bushing
6124	6 mm Shaft, 3/8" Bushing
6126	1/8" Shaft, 3/8" Bushing
6127	1/4" Shaft, 3/8" Bushing
612x-XXXX	Custom models are available; Contact Customer Service for special features

Electrical

Output Voltage	0.2 Vdc (4%) to 4.8 Vdc (96%) Typical (see Feature Codes table)
Output Overvoltage Limits	10 Vdc to -0.3 Vdc; output may be shorted to ground or supply without damage
Output Current	±8 mA Max.
Output Load	1 kΩ Min., 10 kΩ Typical
Input Voltage	4.5 to 5.5 Vdc
Supply Voltage Absolute Limits	20 Vdc Max., -10 Vdc Min.
Independent Linearity ¹	±0.5% (0.25% Available)
Hysteresis	0.2% Max.
Resolution	0.088° for 360° travel, 0.011° for 45° travel
Supply Current	8.5 mA Typical, 12 mA Max.
Dielectric Strength	750 V rms
Insulation Resistance	1,000 MegΩ Min.
Electrostatic Discharge (ESD)	Passes 2 kV human body model and 15 kV air discharge
Bulk Current Injection (BCI)	Passes 2-500 MHz at 200 mA
Actual Electrical Travel	360° Typical (see Ordering Information)
Temperature Coefficient of Output Voltage	± 20 ppm/°C

1 Linearity is measured between 1% and 99% of input voltage.

General Note

TT electronics reserves the right to make changes in product specification without notice or liability.
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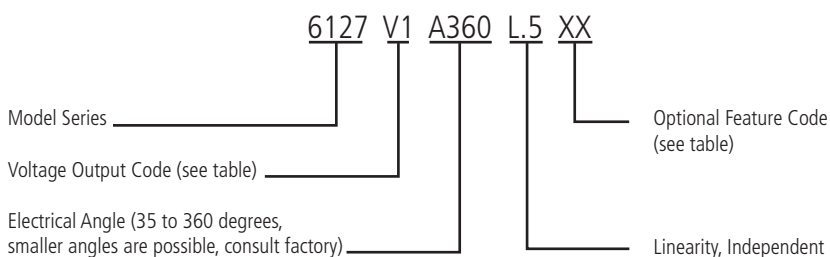
Mechanical

Total Mechanical Travel	360° Continuous (320° with stop feature)
Bearing	Bearing Bronze Bushing
Weight	0.6 oz. Typical
Static Stop Strength	40 in. oz.
Panel Nut Tightening Torque	25 in. lb. Max.

Environmental

Operating Temperature Range	-40°C to +125°C
Shock	Per MIL R-39023, 6 ms Saw-tooth 100 G's
Vibration	Per MIL R-39023, 10 G's, 100 to 500 Hz
Moisture Resistance, Powered	Powered Per MIL 202G, Method 106G
Rotational Life	10 million shaft revolutions
Storage Temperature Range	-55°C to +125°C

Ordering Information



Feature Codes

Voltage Output Codes		Optional Feature Codes	
V0	≤ 3% to ≥ 96%	ST	Stop (320°)
V1	4% to 96%	FS	Flatted Shaft (slot standard)
V2	5% to 95%	LT	Linearity Data
V3	10% to 90%	SL	Shaft Lock
V4	15% to 85%	CW	Reverse Direction
V5	20% to 80%		

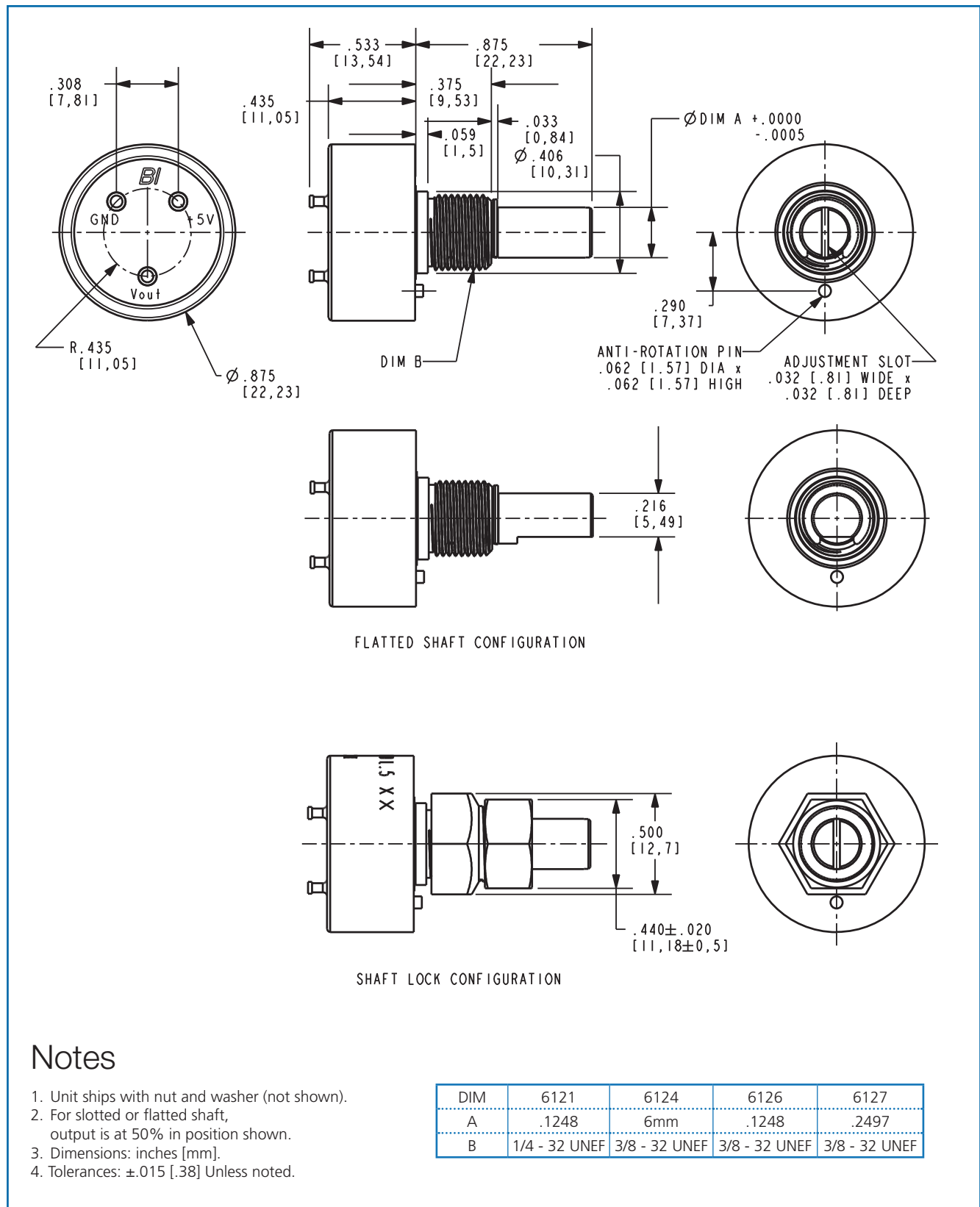
When V0 is used the angle specified is the theoretical angle over which the output would vary if the output could actually reach 0% and 100% of Vcc.

When multiple Optional Feature codes are used the P/N shall be in the same sequence as listed in this table (top to bottom).

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Outline Drawing



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