

# Hercules Encoders

## Series 7000

### Industrial Potentiometer

- Enclosure: 3" Cube
- NEMA 12/13 or NEMA 4 type Sealing
- Flush or Flange Base
- Double Shielded ABEC 5 Ball Bearings, Internal mount provides higher level of reliability
- Steel Gear Drive protects against Shock and Vibration
- 1:1 Standard Ratio, Others available
- 1K, 5K, 10K Ohm 1W Pots, Continuous Mechanical Rotation
- Ideal for Dancer Applications
- Limit Switches Option - Rated at 5 amp - 115VAC standard Gold Crosspoint Contacts Standard
- Operating Temperature Rating: -55° to +105° C (-67° to +221° F) for harsh industrial environments

## Specifications

### Mechanical

Standard Shaft Size (Dia.)	.3747"
Shaft Extension(s)	0.80" with .50x.05" flat
Shaft Seals	Neoprene or PTFE Options
Mounting	Refer to dimensional drawings
Bearings	3/8" ID, ABEC 5P Shielded
Radial Loading	30 lbs. Operating
Axial Loading	15 lbs. Operating
Mechanical Angle	Continuous
Rotational Life	10,000,000 Cycles Typical
Standard Gear Ratio	1:1 (Others available)
Housing	Black Anodized Aluminum
Weight	Standard: 24 oz., Sealed: 34 oz.
Connector	3, 6 Pin MS3102 or 18" Cable Out

### Electrical

Power Rating at 40° C	1 Watt
Dielectric Strength	500 Vac
Resistance Element	Conductive Plastic
Standard Resistance Values	1K, 5K, 10K Ohm
Resistance Tolerance	±10%
Electrical Angle	320° ±5°
Wiper Assembly	Precious Metal
Independent Linearity	±1%
Resolution	Essentially <sup>∞</sup>

### Environmental

Operating Temp.	-55° to +105° C
Temperature Coefficient	±400 ppm/°C
Vibration	10 to 2000 Hertz at 15 g's
Humidity	100% Relative Humidity
Enclosures (Sealed)	NEMA 4 type - Watertight
(Standard)	NEMA 12/13 equiv. — Dust-, Oil-Tight

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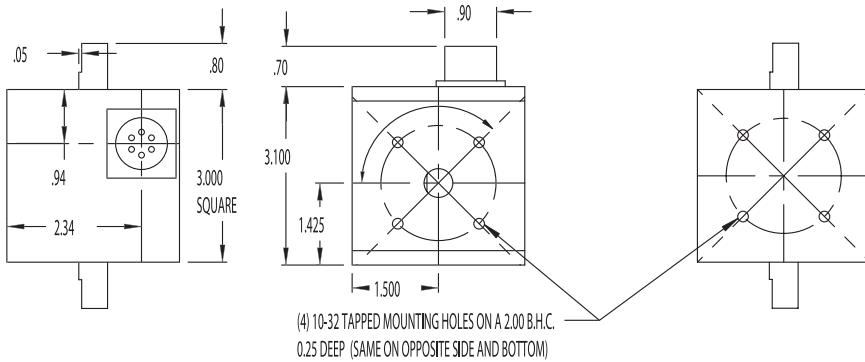
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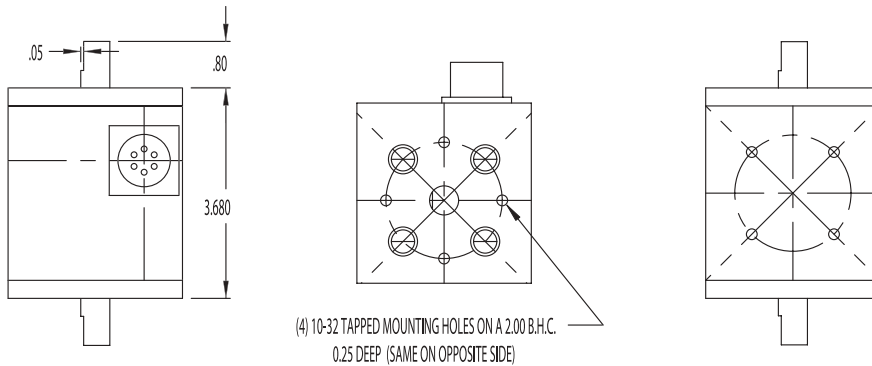
For the latest specifications visit our website  
[www.herculesencoders.com](http://www.herculesencoders.com)

# Dimensional Drawings

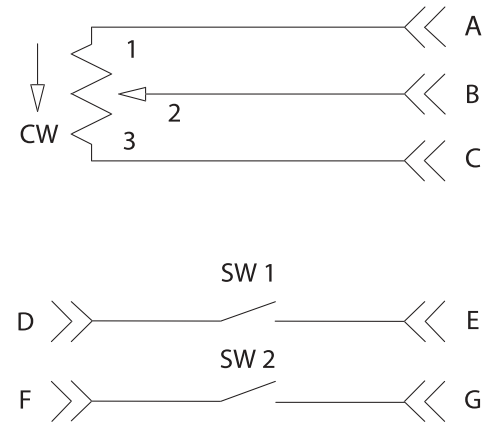
## Series 7000 Standard



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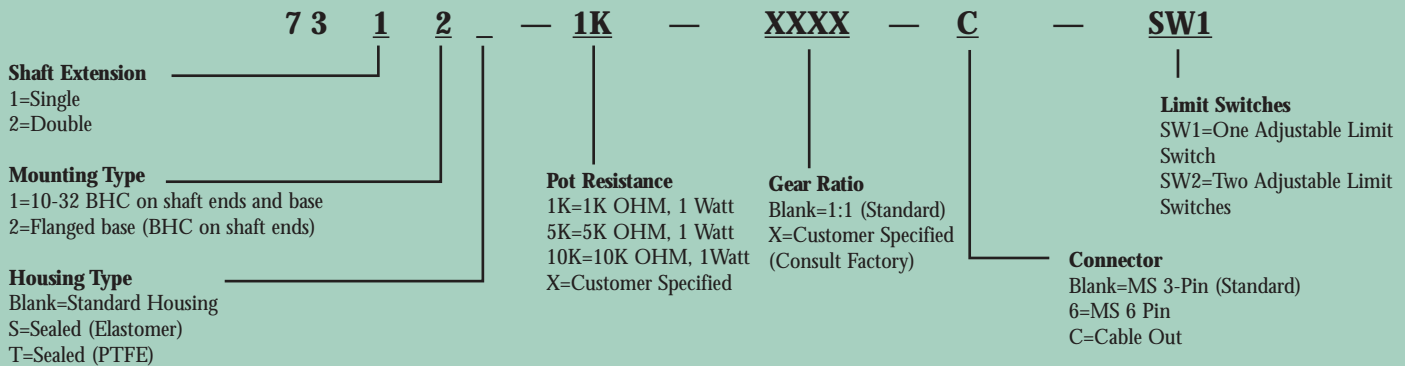


# Wire Drawings



WE RECOMMEND THE CURRENT SINKING MODE

# Ordering Information



\*Gear ratio is available to 1:4.57, i.e.,  $70^\circ \pm 1^\circ$  = full pot travel Engineering assistance is available for determining requirements.  
Gear ratio= external shaft rotation: internal potentiometer shaft rotation.