

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 $+105^{\circ}$ C (-67° to $+221^{\circ}$ 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	$\pm 10\%$
Electrical Angle	$320^{\circ} \pm 5^{\circ}$
Wiper Assembly	Precious Metal
Independent Linearity	$\pm 1\%$
Resolution	Essentially ∞

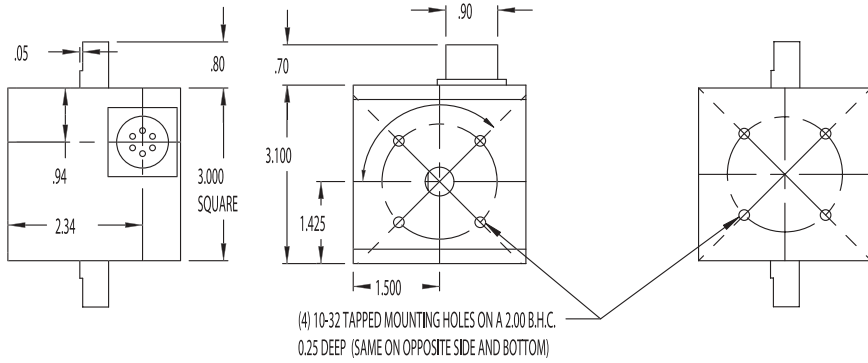
Environmental

Operating Temp.	-55° to $+105^{\circ}$ C
Temperature Coefficient	± 400 ppm/ $^{\circ}$ 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

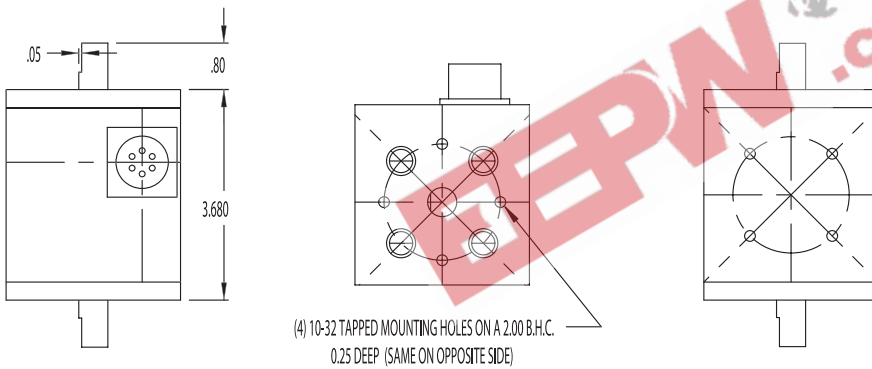


Dimensional Drawings

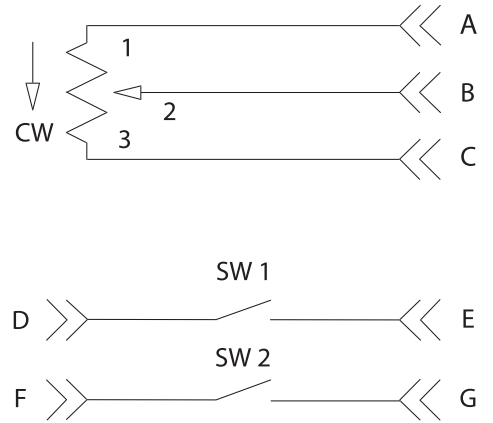
Series 7000 Standard



Series 7000 Standard



Wire Drawings



WE RECOMMEND THE CURRENT SINKING MODE

Ordering Information

7 3 1 2 — **1K** — **XXXX** — **C** — **SW1**

Shaft Extension

- 1=Single
- 2=Double

Mounting Type

- 1=10-32 BHC on shaft ends and base
- 2=Flanged base (BHC on shaft ends)

Housing Type

- Blank=Standard Housing
- S=Sealed (Elastomer)
- T=Sealed (PTFE)

Pot Resistance

- 1K=1K OHM, 1 Watt
- 5K=5K OHM, 1 Watt
- 10K=10K OHM, 1Watt
- X=Customer Specified

Gear Ratio

- Blank=1:1 (Standard)
- X=Customer Specified (Consult Factory)

Connector

- Blank=MS 3-Pin (Standard)
- 6=MS 6 Pin
- C=Cable Out

Limit Switches

- SW1=One Adjustable Limit Switch
- SW2=Two Adjustable Limit Switches

*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.