# **Hercules Encoders** Series 500

**Hall Effect Incremental Rotary Shaft Encoders** 

- Enclosure: Low profile 3" L x 1.25" W x 2"
- NEMA 12/13 Dust-, Oil-tight
- Inherent Anti-Jitter Circuitry prevents false outputs due to machine vibration
- Low Supply Current Requirement 15 milliamps typical per encoder, at 24Vdc
- Ideally suited for low PPR needs in dirty environments, wide temperature ranges



**Specifications** 

#### Mechanical

Shaft Speed 4000 RPM maximum Shaft Direction Bidirectional Standard Shaft Sizes (Dia.) .2497", .3125" 1.17" with .50x.05" flat Shaft Extension(s) Mounting Refer to dimensional drawings Bearings ABEC 7 Shielded Radial Loading 15 lbs. Operating **Axial Loading** 7 lbs. Operating ±1.0° of Shaft Rotation Typical Accuracy Black Anodized Aluminum Housing 7 oz. Weight Connector (Side) Wire Out (Strip/Tin or Mate-n-Lok)

#### Electrical

Pulse Rate 10 kHz Outputs NPN w/ pullup; NPN open collector; PNP sourcing **Output Rating Open Collector Transistor** 40 Vdc maximum Supply Voltage 8 to 28 Vdc 5 Vdc with 5V TTL output Supply Current 15 mA maximum **Current Sinking** 250 mA maximum Output Duty Cycle  $50/50 \text{ w}/\pm20\%$  typical tolerance Rise/Fall Times

1 µsec typical

### **Environmental**

 $-20^{\circ}$  to  $+70^{\circ}$  C  $(-4^{\circ}$  to  $+158^{\circ}$  F) Operating Temp. Shock 20 g's for 11 Milliseconds Vibration 5 to 1000 Hertz at 10 g's Enclosures NEMA 12/13 equiv. — Dust-, Oil-Tight

## **Electrical Connections**

#### **Function**

Supply Voltage (-) A Supply Voltage (+) В Channel "A" D Channel "B" E Cable Shield S

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For the latest specifications visit our website www.herculesencoders.com

# **Dimensional Drawings**





