

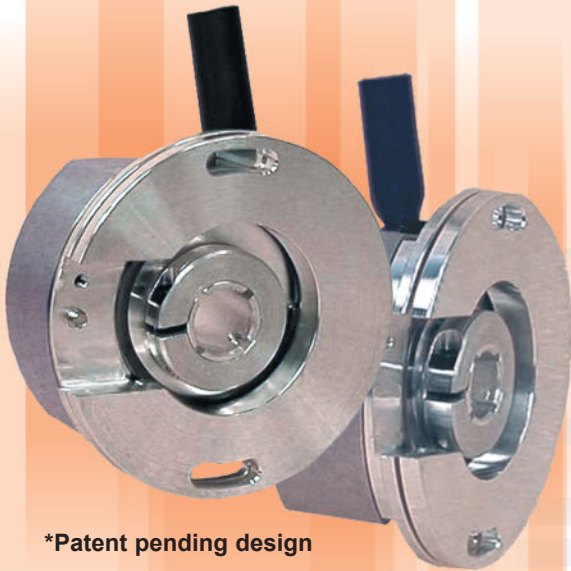
**SPOTLIGHT ON**

**THE MODEL 121 MODULAR ENCODER**

**AT LAST,  
SOMETHING TRULY NEW IN MODULARS!**

**Are You...**

- **Tired of unreliable modular encoders that are time consuming and difficult to install?**
- **Tired of fighting gapping and alignment for proper calibration?**



\*Patent pending design

**Then try EPC's Model 121 Modular Encoder. It's innovative design requires only 4 simple steps to install!**

- 1. Slide the encoder over the motor shaft**
- 2. Tighten the shaft clamp**
- 3. Tighten the mounting screws**
- 4. Use the time you just saved to enjoy a well deserved cup of coffee**

AT LAST! A reliable modular encoder that requires no calibration, gapping, or special tools to install! EPC has taken the performance of modular encoders to a new level with the Model 121 Auto-Aligning Modular Encoder. This new and innovative design, provides simple, reliable, hassle free installation. **Simply tighten the shaft clamp, install the mounting screws, and you're done!**

The Model 121 incorporates the latest Optical ASIC technology for greatly enhanced performance. Common problems with other modular encoder designs are warping and deflection, caused by their extensive use of plastic, both of which are virtually eliminated by the Model 121's all metal construction.

For brushless servo motor applications, the Model 121 can be specified with three commutation tracks to provide motor feedback. The optional 100P C temperature capability allows servo motors to operate at higher power outputs and duty cycles.

With its state-of-the-art technology and durable, all metal construction, you can be confident your Model 121 Accu-Coder™ is the finest modular encoder available anywhere!



**Encoder Products Company**

SUNSTAR 自动化 <http://www.sensor-ic.com/> TEL:0755-83376489 FAX:0755-83376182 E-MAIL:szss20@163.com

**Your Encoder Source for Over 30 Years**  
[www.encoder.com](http://www.encoder.com)

# Model 121 Specifications

## Electrical

### Input

Voltage .....5 or 12 VDC (Specify at time of order)  
 Current .....100 mA max with no output load

### Output

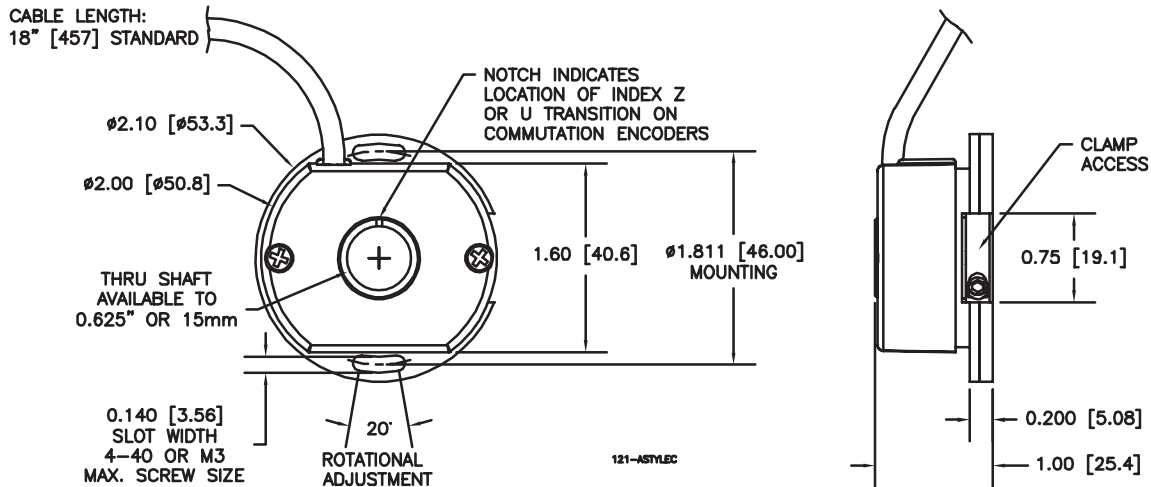
Type .....Two square waves in quadrature with channel A leading B for clockwise rotation. Index optional  
 Commutation .....Optional - three 120P electrical phase tracks for commutation feedback. (4, 6, 8, or 12-poles, others available upon request)  
 Circuits .....Open Collector (20 mA per channel max), Push-Pull (20 mA per channel max), Line Driver Output 5 or 12 VDC (meets RS 422 at 5 VDC supply)  
 Index.....Once per revolution gated to channel A. Contact Customer Service for additional gating options  
 Freq. Response .....100 kHz standard, 200 kHz and 300 kHz optional  
 Symmetry .....180P (±18P) electrical at 100 kHz  
 Quad. Phasing .....90P (±22.5P) electrical at 100 kHz  
 Min. Edge Sep. ....67.5P electrical at 100 kHz  
 Standard CPR .....200, 250, 256, 300, 360, 500, 512, 600, 1000, 1024, 1200, 1250 For higher resolutions of 2000, 2048, and 2500, contact Customer Service for review of application  
 Accuracy.....Within 0.1P mechanical from one cycle to any other cycle, or 6 arc minutes

## Mechanical

Max. Shaft Speed .....Determined by maximum frequency response  
 Bore Size.....0.250" through 0.625", 5mm through 15mm  
 Bore Tolerance .....+0.0007" (max) -0.0000" (Based on H7 bore fit for g<sup>6</sup> shaft Class LC5 per ANSI B-4.1 Standard)  
 User Shaft  
 Radial Runout .....0.002" max  
 Axial Endplay .....±0.015" for CPR ≤ 512, ±0.010" for CPR 513 - 1250, ±0.006" for CPR > 1250  
 Moment of Inertia .....2.5 x 10<sup>-4</sup> oz-in-sec<sup>2</sup>  
 Max. Acceleration .....5 X 10<sup>6</sup> rad/sec<sup>2</sup>  
 Electrical Conn.....18" long braided and foil shielded cable for EMC compliance. Cable is 24 gauge without commutation, 28 gauge with commutation  
 Housing .....All Metal Aluminum and Zinc Alloy  
 Mounting .....Two screws on a 1.812" Dia. B.C. (4-40 or M3 maximum through size)  
 Weight .....4 oz typical

## Environmental

Operating Temp.....0° to 70° C for standard models, 0P to 100P C for high temperature option  
 Storage Temp .....-25° to +100° C  
 Humidity.....98% RH non-condensing  
 Vibration .....10 g @ 58 to 500 Hz  
 Shock.....50 g @ 11 ms duration



Courtesy of Your Local Vendor

