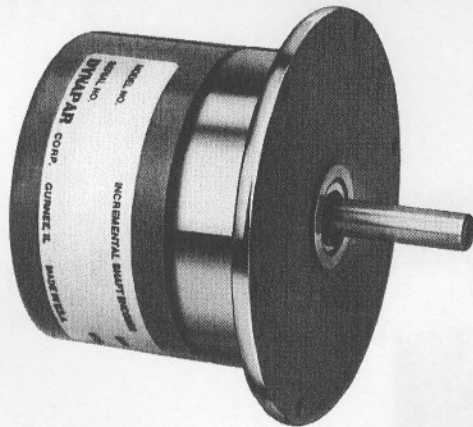


This product has been discontinued.  
Please contact Dynapar for assistance.  
1-800-873-8731  
www.dynapar.com



- **2.0" diameter economy model**
- **Up to 1024 PPR**
- **Unidirectional or bidirectional outputs**
- **Pre-wired shielded cable with optional connector**

The Series EC80 is an ideal solution for applications requiring economical measurement of speed, length, travel, direction of rotation, etc. It features convenient flange mount installation with a choice of six mounting holes on a 2.5" diameter bolt circle.

The EC80 is designed to be the economical encoder of choice for OEM applications where there is limited exposure to moisture and dirt.

#### Features

- Choice of 5, 12, or 15 VDC
- Wide selection of PPR's
- Rugged 1/4" diameter stainless steel shaft and precision bearings
- Solid state LED light source
- Compact — only 1.88" high from the mounting surface
- Side exit cable included

#### SPECIFICATIONS

##### Electrical

**Code:** Incremental

**PPR:** 20, 25, 50, 100, 180, 200, 250, 350, 400, 500, 600, 720, 900, 1000, 1024 (Other counts available; consult factory.)

**Accuracy:** ( $\pm 360$ /PPR) x 3 or  $\pm 2.5$  arc minutes worst case pulse to any other pulse, whichever is less

**Output Signals:** Squarewave

**TTL (Vcc = 5 VDC  $\pm 5\%$ ):** Logic "1" 2.5V min. with 10 TTL gate loads, 10 mA source; Logic "0" 0.4V max. at 20 mA sink

**CMOS (Vcc = 12 VDC  $\pm 10\%$ ) OR (Vcc = 15 VDC  $\pm 10\%$ ):** Logic "1" Vcc minus 1.5V min. at 200 ohms, 10 mA source; Logic "0" 0.4V max. at 20 mA sink

**Input Power Requirements:**

**TTL (+5 VDC):** 130 mA max.

**CMOS (+12 or +15 VDC):** 100 mA max.

**Frequency Response:** Up to 50 kHz max.

**Quadrature:**  $90^\circ \pm 45^\circ$

**Phase Sense:** Channel A leads B for CW rotation as viewed from the end of the shaft

**Symmetry:**  $180^\circ \pm 18^\circ$

**Cable:** 18" shielded, jacketed, 4-conductor, 28 AWG

**Connector:** AMP #126-220

**Mating Connector:** Amphenol #126-221 or

order Dynapar #EC80-N1

##### Mechanical

**Weight:** 10.0 oz. max.

**Starting Torque at 25°C:** 0.1 oz-in max.

**Running Torque at 25°C:** 0.09 oz-in max.

**Moment of Inertia:**  $1.4 \times 10^{-4}$  oz-in sec.<sup>2</sup> max.

**Shaft Rotation:** Continuous and reversible

**Slew Speed:** 5000 RPM max.

**Shaft:** 1/4" dia. stainless steel

**Shaft Loading:**

Axial: 5 lb. max.

Radial: 5 lb. max.

**Bearings:** Precision instrument

**Bearing Life:**  $20 \times 10^6$  rev./RPM = hours min.

##### Environmental

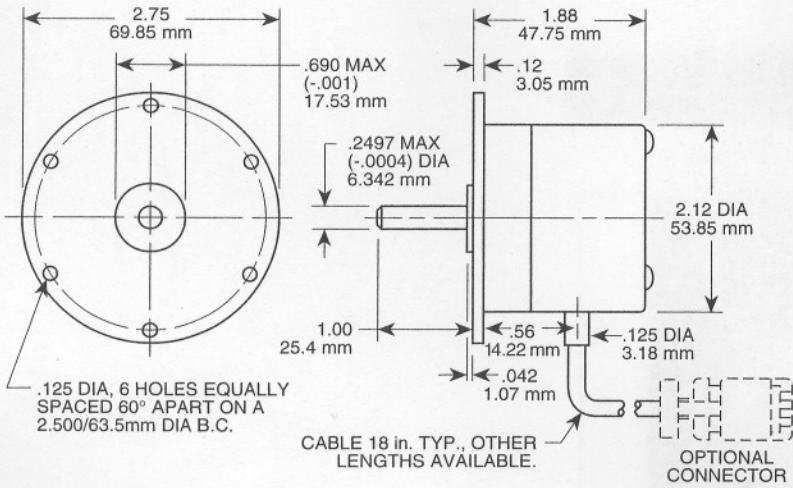
**Operating Temperature:**  $0^\circ$  to  $+70^\circ\text{C}$

**Storage Temperature:**  $-25^\circ$  to  $+70^\circ\text{C}$

**Relative Humidity:** to 98% non-condensing

**Enclosure Rating:** NEMA 12 / IP54

### Approximate Dimensions (inches/mm)



### Electrical Connections

Function (If Used)	Wire Color Code	Pin
VCC	Red	E
Common	Black	C
Signal A	White	A
Signal B	Green	H
Floating	Shield	K

### Ordering Information

To order, complete the model number with code numbers from the table below:

Code 1: Model	Code 2: Pulses/Rev	Code 3: Voltage	Code 4: Termination
<b>EC82</b> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> <b>00</b>
<b>EC82</b> Economical, Light Duty Enclosed	<b>0020</b> <b>0400</b> <b>0025</b> <b>0500</b> <b>0050</b> <b>0600</b> <b>0100</b> <b>0720</b> <b>0180</b> <b>0900</b> <b>0200</b> <b>1000</b> <b>0250</b> <b>1024</b> <b>0350</b>	<b>0</b> 5 VDC <b>1</b> 12 VDC <b>2</b> 15 VDC	<b>0</b> 18" Cable <b>1</b> 18" Cable with Connector <b>2</b> 3' Cable <b>3</b> 6' Cable <b>4</b> 10' Cable <b>5</b> 15' Cable