

SERIES E12

Dynapar™ brand

Miniature Encoder

Key Features

- Rugged Metal Housing
- Sub-Compact 1.2" Diameter
- Up to 1024PPR with Optional Index



SPECIFICATIONS

STANDARD OPERATING CHARACTERISTICS

Code: Incremental

Resolution: 100 to 1024 PPR (pulses/ revolution)

Format: Two channel quadrature (AB)with optional Index (Z) outputs

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

Accuracy: $\pm 3 \times (360^\circ \div \text{PPR})$ or ± 2.5 arc-min worst case pulse to any other pulse, whichever is less

Quadrature Phasing: $90^\circ \pm 36^\circ$ electrical

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

Index: $90^\circ \pm 25^\circ$ (gated with A and B high)

Waveforms: Squarewave with rise and fall times less than 1 microsecond into a load capacitance of 1000 pf

ELECTRICAL

Input Power: 5 VDC $\pm 5\%$ at 80 mA max.; 12 or 15 VDC $\pm 10\%$ at 80 mA max.; not including output loads

Outputs: 7272 line driver (or equivalent), 40 mA sink and source

Frequency Response: 100 kHz min.

ENVIRONMENTAL

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

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

Humidity: to 98% without condensation

Enclosure Rating: NEMA12/IP54 (dirt tight, splashproof)

Electrical Connections

Function (If Used)	Wire Color Code
Supply	Red
Common	Black
Signal A	White
Signal B	Green
Signal Z	Orange
Floating	Shield

MECHANICAL

Mechanical Bearing Life: 16×10^6 revolutions at max. load

Shaft Loading: 1 lb. radial, 1 lb. axial max.

Shaft Speed: 5,000 RPM max.

Starting Torque:

Shielded Bearing: 0.1 oz-in max. at 25°C

Sealed Bearing: 0.3 oz-in max. at 25°C

Running Torque:

Shielded Bearing: 0.08 oz-in max. at 25°C ;

Sealed Bearing: 0.2 oz-in max. at 25°C

Moment of Inertia: 1.13×10^{-5} oz $\text{-in} \text{-sec}^2$

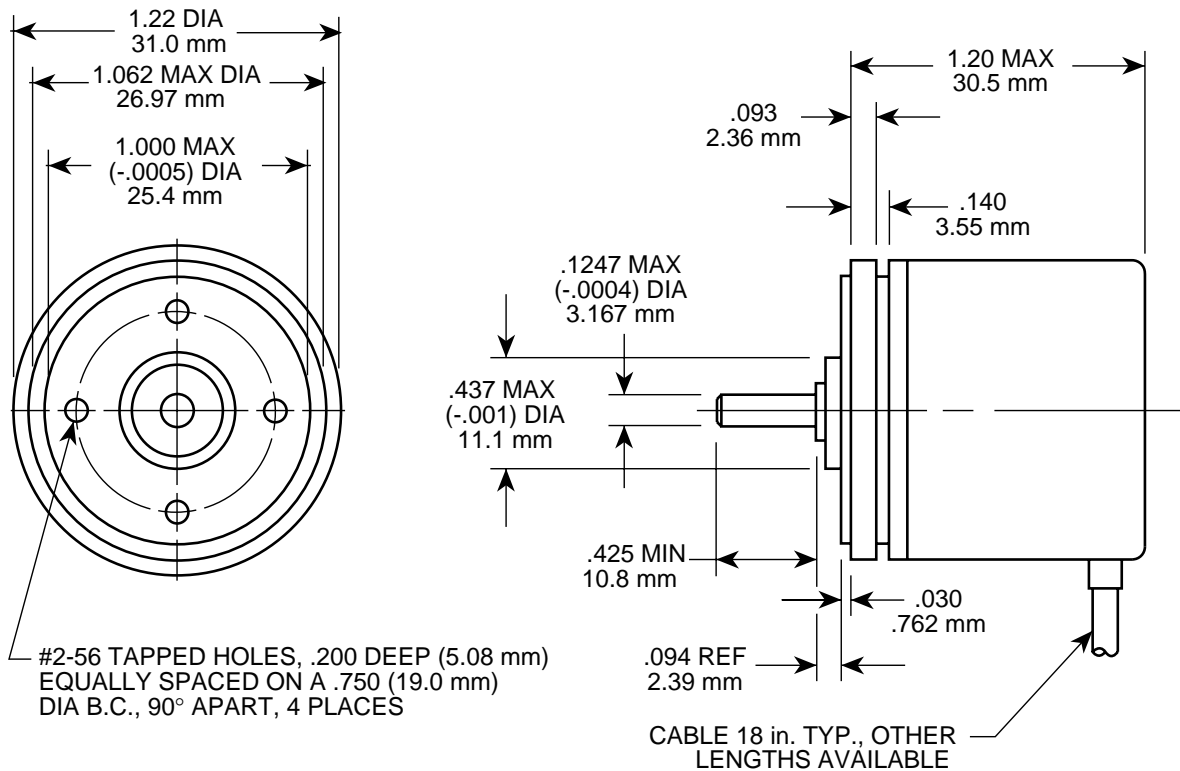
Weight: 3.0 oz. max.

Ordering Information

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

Code 1: Model	Code 2: Pulses/Rev	Code 3: Mechanical	Code 4: Output	Code 5: Voltage	Code 6: Termination
E12	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
E12 Size 12, Light Duty Enclosed	0100 0250 0256 0360 0500 0600 1000 1024	0 Sealed Bearing 1 Shielded Bearing	0 Unidirectional 2 Bidirectional, no Index 3 Bidirectional, with Index	0 5 VDC 1 12 VDC 2 15 VDC	0 18' Cable 1 3' Cable 2 6' Cable 3 10' Cable 4 15' Cable

Dimensions (inches/mm)



Satellite Locations:

- **North America:** North Carolina, South Carolina, Connecticut, Massachusetts, New York, Canada, British Virgin Islands
- **West Indies:** St. Kitts • **Europe:** United Kingdom, Italy, France, Germany, Spain, Slovakia
- **South America:** Brazil • **Asia:** China, Japan, Korea, Singapore

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