

SERIES X25

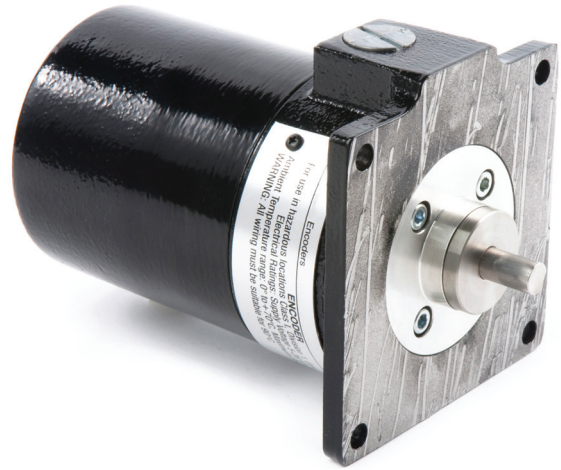
Dynapar™ brand

For Hazardous Location Application

HAZ
Hazardous Duty

Key Features

- Approved for NEC Class 1 Div 1&2 Groups C & D
- Approved for NEC Class 2, Div 1&2, Groups E, F, & G
- Rugged Enclosure with 1/2" Conduit Entry
- 5000 PPR Capability
- Environmentally Sealed and Corrosion Resistant



CE
EN 61326-1

UL US
File No. E116133,
Control No. 11X6

SPECIFICATIONS

STANDARD OPERATING CHARACTERISTICS

Code: Incremental, Optical

Resolution: 1 to 5000 PPR (pulses/revolution)

Accuracy: (Worst case any edge to any other edge) ≤ 1024 PPR (metal disk): ± 7.5 arc-min.
 > 1024 PPR (glass disk): ± 2.5 arc-min.

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

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

Quadrature Phasing: $90^\circ \pm 25^\circ$ electrical

Symmetry: $90^\circ \pm 25^\circ$ electrical

Index: 2540 PPR and below: $180^\circ \pm 25^\circ$ electrical; Greater than 2540 PPR: $90^\circ \pm 25^\circ$ electrical

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

ELECTRICAL

Input Power:

5 to 26 VDC at 80 mA max., not including output loads

Outputs:

7273 Open Collector: 30 VDC max., 40 mA sink max.

7272 Push-Pull and Differential Line Driver: 40 mA sink or source

Frequency Response: 100 kHz min. (index 75 kHz min. for extended temperature range)

Noise Immunity: Tested to EN61326-1

Electrical Immunity: Reverse polarity and short circuit protected

Termination: Cable Exit

MECHANICAL

Shaft Sizes: 1/4" or 3/8"

Shaft Loading: 40 lbs. radial, 40 lbs. axial

Shaft Speed: 5,000 RPM max.

Shaft Runout: 0.001" max. TIR

Starting Torque: (max at 25 °C) 2.0 oz.-in

Moment of Inertia: 9.0×10^{-4} oz.-in-sec²

Housing and Cover: Cast Aluminum

Shaft Material: Stainless Steel

Disc Material: Glass or Mylar (PPR Dependant)

Weight: 4.5 lbs. (2.0 kg)

ENVIRONMENTAL

Operating Temperature: 0 to +70 °C;

Storage Temperature: -40 to +90 °C

Shock: 50 G's for 11 milliseconds duration

Vibration: 5 to 2000 Hz at 2 G's

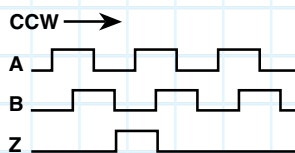
Humidity: Up to 98% (non-condensing)

Enclosure Rating: NEMA4X/IP66 (Dust Proof, Washdown)

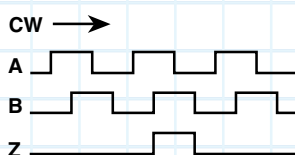
OUTPUT FORMAT

Below 2540PPR

Format A

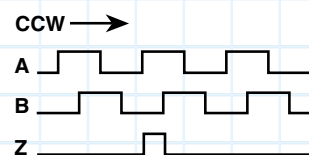


Format C

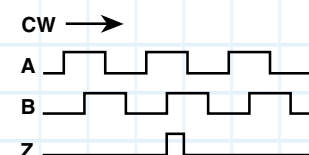


2540PPR and Above

Format A



Format C



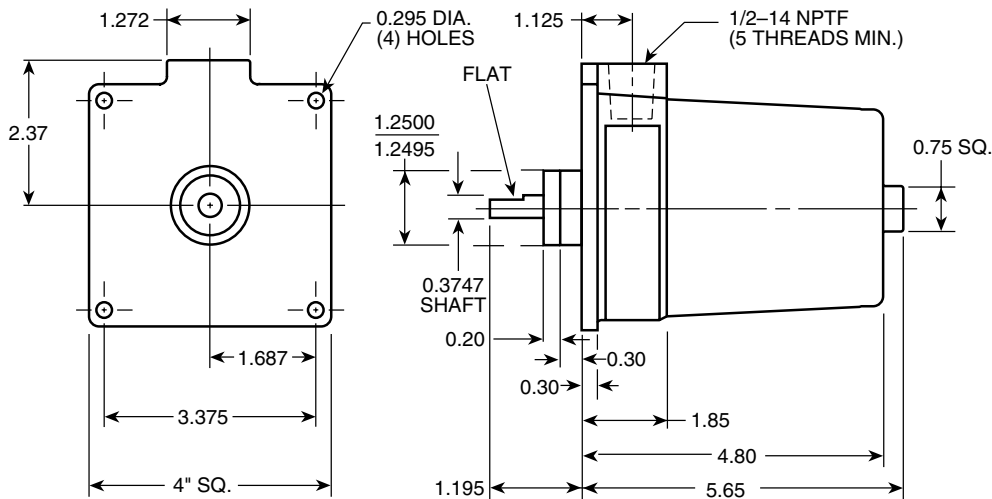
Ordering Information

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

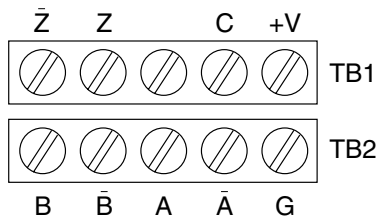
Code 1: Model	Code 2: Pulses/Rev	Code 3: Mechanical	Code 4: Output	Code 5: Electrical
X25	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
X25 Explosion Proof, Shielded Bearings with Shaft Seal	0001 0500 2000 0010 0600 2048 0012 0720 2400 0050 0768 2500 0060 0800 2540 0086 1000 3000 0100 1024 3400 0120 1200 3600 0200 1250 3750 0240 1270 4000 0250 1500 4096 0300 1600 4800 0360 1800 5000 0400 1968	0 3/8" Shaft 1 1/4" Shaft	0 Single Ended, no Index, Format C 1 Single Ended, with Index, Format C 2 Differential, no Index, Format C 3 Differential, with Index, Format C 4 Single Ended, with Index, Format A 5 Differential, with Index, Format A	0 5-26V in; 5-26V Open Collector with 2.2k Ω Pullup out 1 5-26V in; 5-26V Open Collector out 2 5-26V in; 5V Totem Pole out 3 5-26V in; 5V Line Driver out 4 5-26V in; 5-26V Line Driver out

DIMENSIONS

Approximate Dimensions (in inches)



Terminal Board Connections



Screw terminals with pressure plates that accept #14 AWG to #22 AWG.



Worldwide Brands: NorthStar™ • Dynapar™ • Hengstler™ • Harowe™

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