

## HAZARDOUS DUTY

## SERIES X25

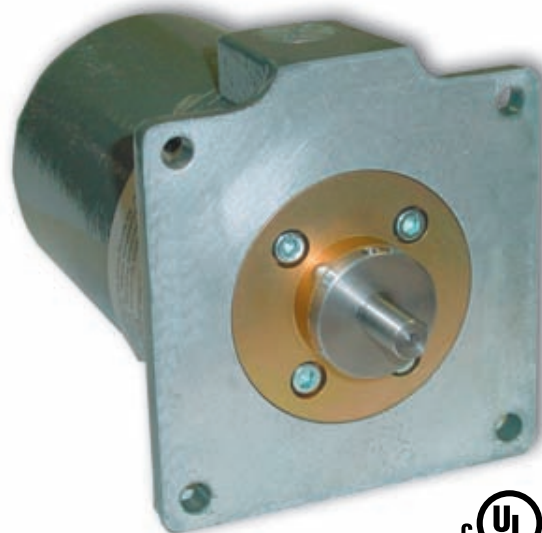
Dynapar™ brand

## For Hazardous Location Application

HAZ  
Hazardous Duty

## Key Features

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

File No. E116133,  
Control No. 11X6

## SPECIFICATIONS

## STANDARD OPERATING CHARACTERISTICS

**Code:** Incremental**Resolution:** 1 to 5000 PPR (pulses/revolution)**Accuracy:** (Worst case any edge to any other edge)  $\leq 1024$  PPR (metal disk):  $\pm 7.5$  arc-min.  
 $> 1024$  PPR (glass disk):  $\pm 2.5$  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)**Electrical Protection:** Overvoltage, reverse voltage and output short circuit protected**Noise Immunity:** Tested to EN50082-2 (Heavy Industrial) for Electro Static Discharge, Radio Frequency Interference, Electrical Fast Transients, Conducted and Magnetic Interference

## MECHANICAL

**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:**  $9.0 \times 10^{-4}$  oz-in-sec<sup>2</sup>

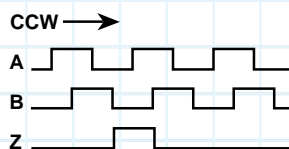
## ENVIRONMENTAL

**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:** to 98% without condensation**Weight:** 4.5 lbs. (2.0 kg)**Enclosure Rating:** NEMA4X/IP56 (dust proof, washdown)

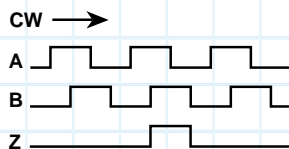
## OUTPUT FORMAT

## Below 2540PPR

## Format A

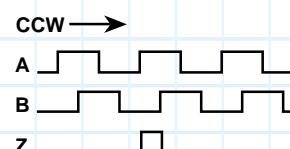


## Format C

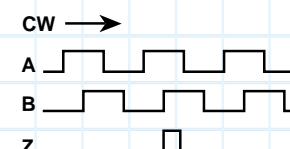


## 2540PPR and Above

## Format A



## Format C



**HAZARDOUS DUTY**



**SERIES X25**

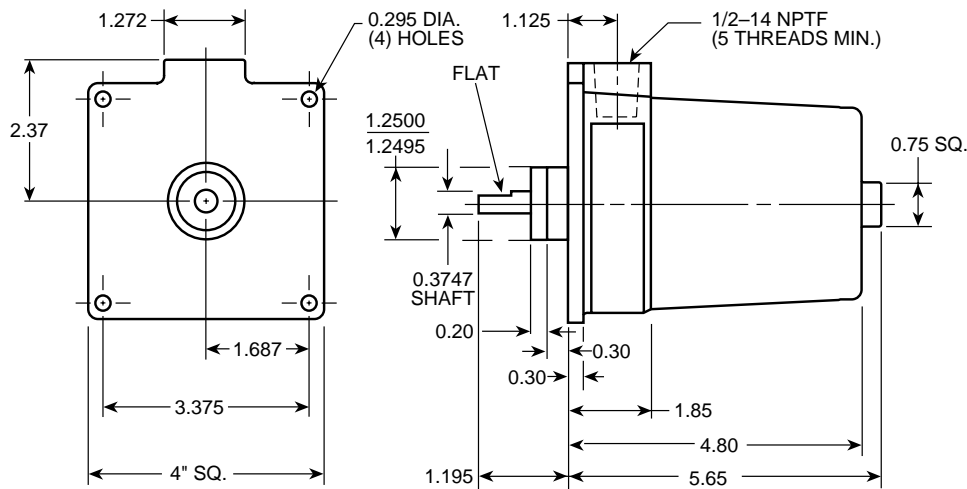
**Ordering Information**

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

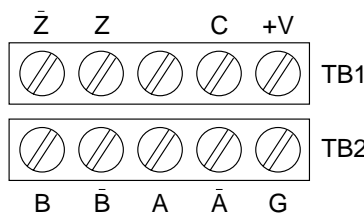
Code 1: Model	Code 2: Pulses/Rev	Code 3: Mechanical	Code 4: Output	Code 5: Electrical
<b>X25</b>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>X25</b> Explosion Proof, Shielded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