

SERIES X25

Dynapar™ brand

For Hazardous Location Application

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**



SPECIFICATIONS

STANDARD OPERATING CHARACTERISTICS

Code: Incremental
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)
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: 9.0×10^{-4} oz-in-sec²

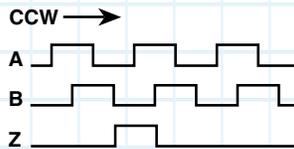
ENVIRONMENTAL

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)

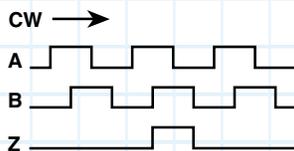
OUTPUT FORMAT

Below 2540PPR

Format A

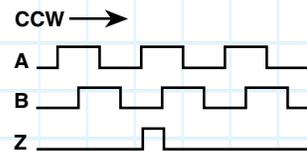


Format C

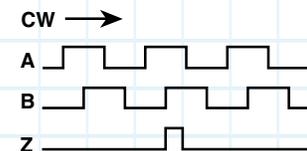


2540PPR and Above

Format A



Format C



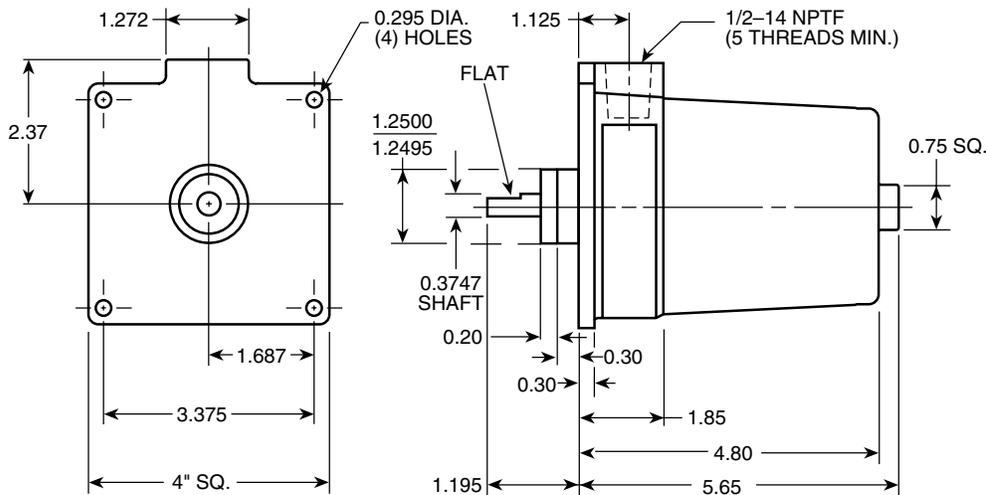
Ordering Information

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

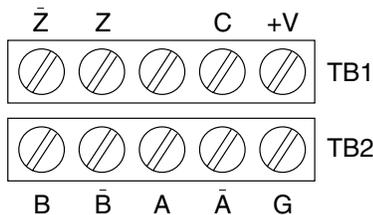
Code 1: Model	Code 2: Pulses/Rev	Code 3: Mechanical	Code 4: Output	Code 5: Electrical
X25	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
X25 Explosion Proof, Shielded Bearings 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.