

This product has been discontinued.
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1-800-873-8731
www.dynapar.com



- **Heavy duty industrial enclosure with 1/2" dia. conduit entry**
- **Up to 5000 PPR with optional marker**
- **Approved for National Electrical Code (NEC) Class I, Divisions 1 & 2, Group D hazardous environments**



File No. E116133, Control No. 11X6

These rugged, high-performance, incremental, optical encoders feature environmentally sealed, cast aluminum housings with 4-inch square flange mounting, and 1/2" conduit entry. A stainless steel shaft and a clear anodized housing help provide corrosion resistance. They are electronically compatible with most counters, instruments, and PLC's. Differential line driver outputs are available for long cable runs (hundreds of feet) and/or higher electrical noise immunity for the signals.

Series EX625 encoders are designed for use in National Electrical Code (NEC) Class I, Divisions 1 & 2, Group D environments. The rugged enclosure design makes the EX625 very popular for heavy duty industrial applications, even in non-hazardous environments.

Hazardous Duty Application Note:

For position and speed control in atmospheres typically associated with refining, gasoline storage and dispensing, chemical coatings, plating, dry-cleaning, painting and spraying, etc. Typical Group D atmospheres include: acetone, alcohol, ammonia, benzene, benzol, butane, gasoline, hexane, lacquer solvent vapors, naphtha, natural gas, propane, and gas or vapors of equivalent hazard. Refer to Article 500 of the NEC.

Note: Classifications of hazardous locations are subject to the approval of the authority having jurisdiction. Refer to the NEC.

Mechanical & Environmental Features

- Large stainless steel shaft (1/4" or 3/8") and VITON™ shaft seal
- Heavy-duty cast aluminum and clear anodized housing, and an O-ring seal
- Heavy-duty ABEC precision bearings standard
- Up to 5000 RPM slew speed

Electrical Features

- Wide selection of resolutions up to 5000 PPR
- 100 kHz frequency response operating speed
- Bidirectional gated marker available
- LED light source

SPECIFICATIONS

Electrical

Resolution: See Ordering Information; other counts available; contact factory.

Code: Incremental

Power Supply:

Open Collector, TTL Totem Pole or TTL Line Driver outputs: 5 to 26 VDC; 120 mA max.

CMOS Line Driver: 5 to 15 VDC; 70 mA max.

Output:

Open Collector: 7406; 40 mA sink at 0.5V

TTL Totem Pole: 7404

TTL Line Driver: 8830

CMOS Line Driver: 88C30; 8 mA sink/22 mA Source at 5 VDC; 22 mA sink/40 mA source at 15 VDC

Output Format: Two channel quadrature with optional zero reference and complementary outputs.

Quadrature Phasing: 90° ± 18°

Symmetry: 180° ± 9°

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

Zero Reference: .5 cycles wide

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

Frequency Response: Count channel 100 kHz. Zero reference 75 kHz relative to count channel

Illumination: Single gallium-aluminum-arsenide LED

Mechanical

Bearings: ABEC precision bearings

Shaft Loading: 40 lbs. axial and radial

Starting Torque: 5.0 oz-in

Shaft Tolerance: - 0.0003/ - 0.0007

Moment of Inertia: 3.7 x 10⁻⁴ oz-in sec² max.

Weight: 4 lbs.

Slew Speed: 5000 RPM max.

Environmental

Classification Rating: Class I, Divisions 1 and 2, Group D

Operating Temperature Range: 0° to +70°C

Storage Temperature Range: -40°C to +90°C

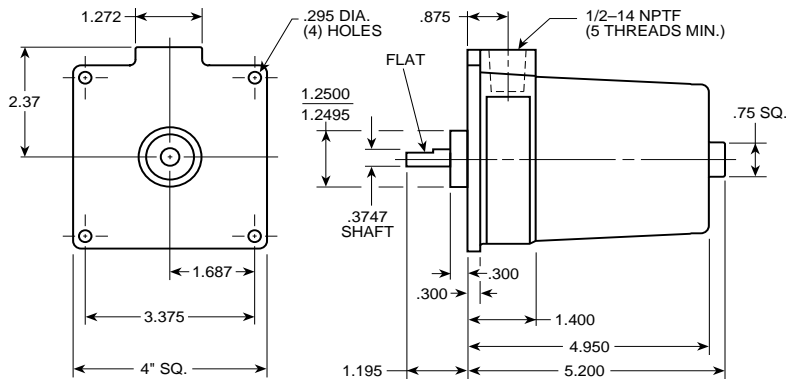
Shock: 50 G's for 11 milliseconds duration

Vibration: 5 to 2000 Hz @ 2 G's

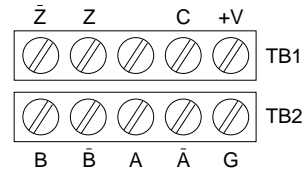
Humidity: to 98% RH without condensation

Enclosure Rating: NEMA 4, 13; IP56

Approximate Dimensions (in inches)



Terminal Board Connections



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



Code 1: Model	Code 2: Pulses/Rev	Code 3: Mechanical	Code 4: Output	Code 5: Electrical
EX 6 2 5	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
625 Explosion Proof, Shielded Bearings with Shaft Seal	0001 0300 1200 0005 0344 1250 0010 0360 1270 0012 0400 1500 0050 0500 1600 0060 0512 1800 0100 0600 1968 0120 0625 2000 0150 0635 2048 0180 0720 2500 0200 0800 2540 0240 0900 3000 0250 1000 3600 0256 1024 4096 5000	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 5-26 VDC in; 7406 Open Collector with 2.2kΩ Pullup out 1 5-26 VDC in; 7406 Open Collector out 2 5-26 VDC in; 7404 TTL Totem Pole out 3 5-26 VDC in; 8830 TTL Line Driver out 4 5-15 VDC in; 88C30 CMOS Line Driver out