

SERIES EN44

NorthStar™ brand

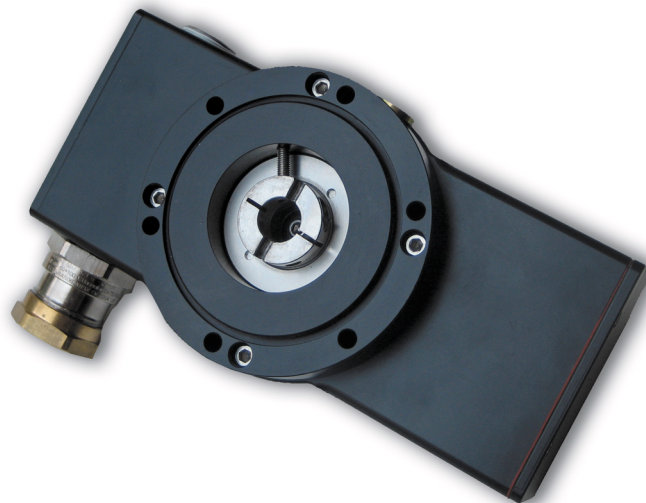
Extreme Heavy Duty Encoder

Key Features

- Encapsulated Electronics with Increased Safety Interface for Zone 1 Use
- Innovative Design Eliminates Need for I.S. Barriers
- Industry-leading -50 to +100°C Temperature Range
- High current line driver for long cable runs
- Perfect for use in Oilfield Drilling Motor Applications



Ex ia mb e IIC T4 Gb



SPECIFICATIONS

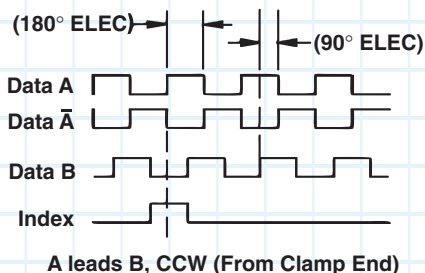
STANDARD OPERATING CHARACTERISTICS

Code: Incremental
Resolution: 1024, 2048 PPR
Format: Two channel quadrature (AB) with optional Index (Z, ungated), and complementary outputs
Phase Sense: A leads B for CCW shaft rotation viewing the shaft clamp end of the encoder
Quadrature Phasing: For resolutions to 1200 PPR: 90° ± 15° electrical; For resolutions over 1250 PPR: 90° ± 30° electrical
Symmetry: 180° ± 18° electrical
Waveforms: Squarewave with rise and fall times less than 1 microsecond into a load capacitance of 1000 pf
Electrical Immunity: 500VAC hypot from encoder shaft/frame to all connector pins

ELECTRICAL

Input Voltage: 5-15VDC, 5-26VDC (see ordering information)
Input Current: 65mA max., not including output loads
Outputs: TC4428, 125mA Max per channel W/ ATEX output format 0, 2 (See ordering information); 10mA max per channel @100C, 15mA max per channel @95C w/ATEX output format 1, 3 (See Ordering Information)
Frequency Response: 125 kHz (data & index)
Termination: Terminal block - Ex screwless w/ spring cage-clamp; Optional Ex gland with "S" seal for armored or non-armored cables .33" to .53" O.D. (See ordering information)

DATA AND INDEX Not all complements shown A shown for reference



ELECTRICAL CONNECTIONS

Encoder Function	Terminal Box Connection
Sig. A	1
Sig. \bar{A}	2
Sig. B	3
Sig. \bar{B}	4
Sig. Z	5
Sig. \bar{Z}	6
Power +V	7
Com	8

MECHANICAL

Mechanical Interface: Stainless steel shaft clamp
Mating Shaft Length: 0.47" to 0.625" (11.9mm to 15.9mm)
Coupling: 16mm or 5/8", flexible
Shaft Speed: 6000 RPM, max.
Bearings: 6107
Bearing life: 5 x 10⁸ revs at rated shaft Loading, 5 x 10¹¹ revs at 10% of rated shaft loading. (manufacturers' specs)
Housing Material: Aluminum Alloy, Black Anodized
Disc material: Stainless steel
Weight: 6 lb. 6 oz, typical

ENVIRONMENTAL

Operating Temperature: -50 to 100°C
Storage temperature: -50 to 100°C
Shock: 50G's for 11msec duration
Vibration: 5 to 2000Hz @ 20 G's
Humidity: 100%
Enclosure Rating: IP67

* Specifications are for base models with standard features only unless otherwise noted. Specifications subject to change without notice in accordance with our DBS policy of continuous improvement. All product and brand names are trademarks of their respective owners. All rights reserved.

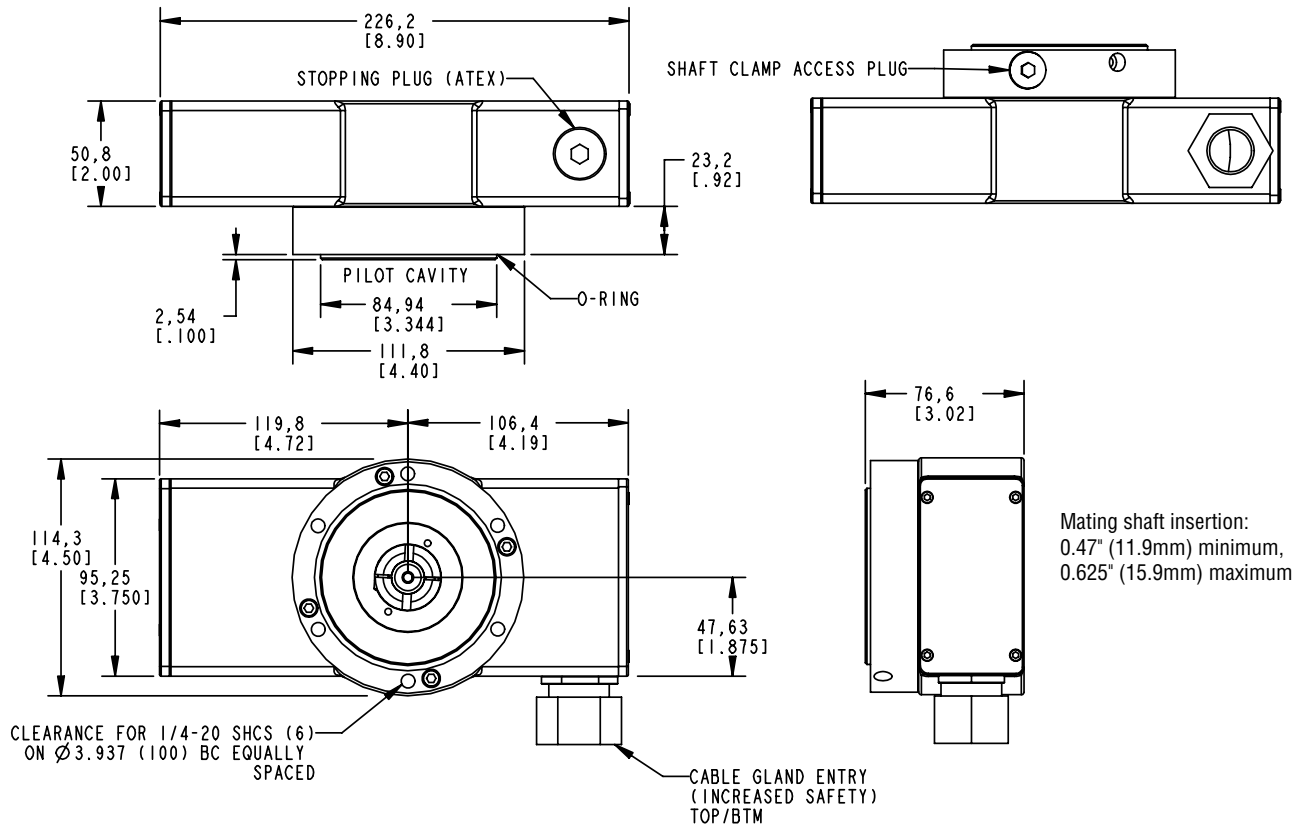
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Ordering Information

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

Code 1: Model	Code 2: PPR	Code 3: Bore Size	Code 4: ATEX Output Format	Code 5: Termination
EN44	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ordering Information				
EN44 ATEX Zone 1 Barrier-Less Hubshaft Encoder	1024 2048	A 16mm (5/8")	0 Differential AB, 5-15V in, 5-15V out 1 Differential AB, 5-26V in, 5V out 2 Differential ABZ, 5-15V in, 5-15V out 3 Differential ABZ, 5-26V in, 5V out	0 Dual Exit Terminal block, no gland 1 Dual Exit Terminal block, 3/4" NPT, with Ex gland including S seal for .33" to .53" o.d. non-armored cables 2 Dual Exit Terminal block, 3/4" NPT, with Ex gland including S seal for .33" to .53" o.d. armored cables

DIMENSIONS (Inch [metric])



Satellite Locations:

North America: North Carolina, South Carolina, Connecticut, Massachusetts, New York, Canada, St. Kitts • Europe: United Kingdom, Italy, France, Germany, Spain, Slovakia • Latin America: Brazil • Asia: China, Japan, Korea, Singapore

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