

ED-19 QUADRATURE OUTPUT SERIES MAGNETIC ENCODER

Reliable and Consistent Rotational Feedback Sensor

DESCRIPTION

The **ED-19 Series Magnetic Encoder** is designed for medium duty feedback applications. Resolutions are available from 64 to 1024 counts per revolution. The magnetic technology used in the ED-19 series is plug-in compatible with existing encoder products, with the added advantages of an extended temperature range and fully sealed electronics. The ED-19 suffers no LED degradation, as with conventional optical encoders, meaning it has a virtually unlimited life.

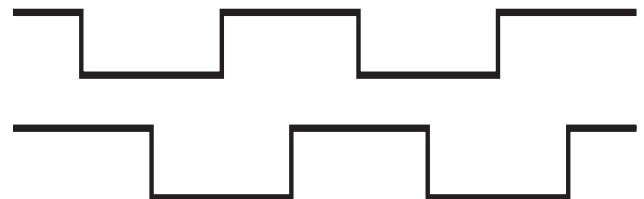


FEATURES

- ◆ Magnetic Sensing Technology
- ◆ Encapsulated Electronics/Sealed unit
- ◆ Harsh Environment Compatibility
- ◆ Quadrature Outputs
- ◆ Low Profile
- ◆ Consistent Rotational Torque
- ◆ Resistant to Contamination
- ◆ IP52 Sealing
- ◆ Metallic Threaded Bushing Mounting
- ◆ Wide Operational Temperature Range (-40°C to 85°C)
- ◆ Custom Housings, Shafts, Connectors Available in Most Cases with No Additional Tooling Required
- ◆ Sleeve Bearing
- ◆ Excellent Stability - No Optical Degradation

APPLICATIONS

- ◆ Marine, Avionics, Motor Speed and Position Control
- ◆ Marine Steering & Throttle Position Control/Feedback
- ◆ Monitor Pump Speed & Direction
- ◆ Camera Position and Control
- ◆ X/Y Stage Positioning
- ◆ Radio Controls
- ◆ Video and Sound Editing Equipment
- ◆ Syringe Pump
- ◆ Motor Feedback
- ◆ Valve Positioning



Sample Quadrature Output

Position Sensors Technical
Support:
Tel: 757-766-4348
Fax: 757-766-4297
Email: position@meas-spec.com

measurement
SPECIALTIES

ED-19 SERIES MAGNETIC ENCODER

performance specifications

Measurement Specialties reserves the right to update and change these specifications without notice.

Standard Resolution	1024, 512, 400, 256, 200, 128 and 64 counts per revolution (CPR) 4 counts=1 pulse
Operating Temperature	-40°C to +85°C (Extended temperature range available, contact factory for details)
Maximum Speed	300 RPM
Bearing Life	3,000,000 cycles
Bearings	Sleeve
Run Out	.010" max @ .75 from mounting surface
Bushing Mounting Torque	10 in-lb max

electrical

Maximum Current Draw	15 mA
Operating Voltage (VDC)	5 +/- 0.25 VDC
Output Type	Open Collector with with internal 10 kΩ pullup
Voltage Output High (Voh)	Minimum 4.75 Vdc
Voltage Output Low (Vol)	Maximum 125mV @ 16 mA
Duty Cycle	50 % +/- 25%
Phase Angle	90° +/-45° (Ch. A leads Ch. B Clockwise)

Note: All specifications are specified with Vdd @ 5.00 Vdc, and Ambient Temperature Ta @ 25 Degrees Celsius.

environmental

Vibration	MIL-STD-202F Method 204D Test Condition B
Shock	MIL-STD-202F Method 213B Test Condition C
Humidity	MIL-STD-202F Method 103B Test Condition A
Thermal Shock	MIL-STD-202F Method 107G Test Condition A
Operating Temperature	-40 to +85 °C
Storage Temperature	-55 to 125 °C

mechanical

Axial Load (lbs)	4.5 [20 N] Max.
Radial Load (lbs)	2.25 [10 N] Max.
Operating Speed (rpm)	300 = Sleeve
Shaft End Play (in)	.005 [.10] Max.
Shaft Radial Play (in)	.010 [.25] Max. @ .6 [15.2] from mounting surface
Shaft Push-in Force (lbs)	40 [9N]
Shaft Pull-out Force (lbs)	6 [1.3N]

ordering information

ED-19 - SB - RRRR - Q - P

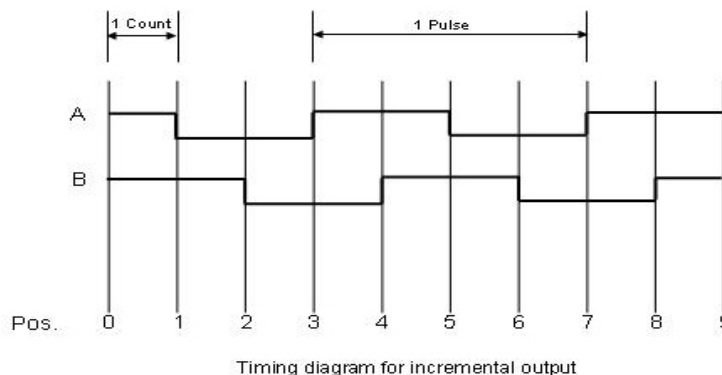
Connection
P= pin header

Output
Q= Quadrature

Range
0064= 64 counts/ rev
0128= 128 counts/ rev
0200= 200 counts/rev
0256= 256 counts/ rev
0400= 400 counts/rev
0512= 512 counts/ rev
1024= 1024 counts/ rev

Catalogue Units
ED-19-SB-0064-Q-P
ED-19-SB-0128-Q-P
ED-19-SB-0256-Q-P
ED-19-SB-0512-Q-P
all others will be subject to minimum order quantities

quadrature timing

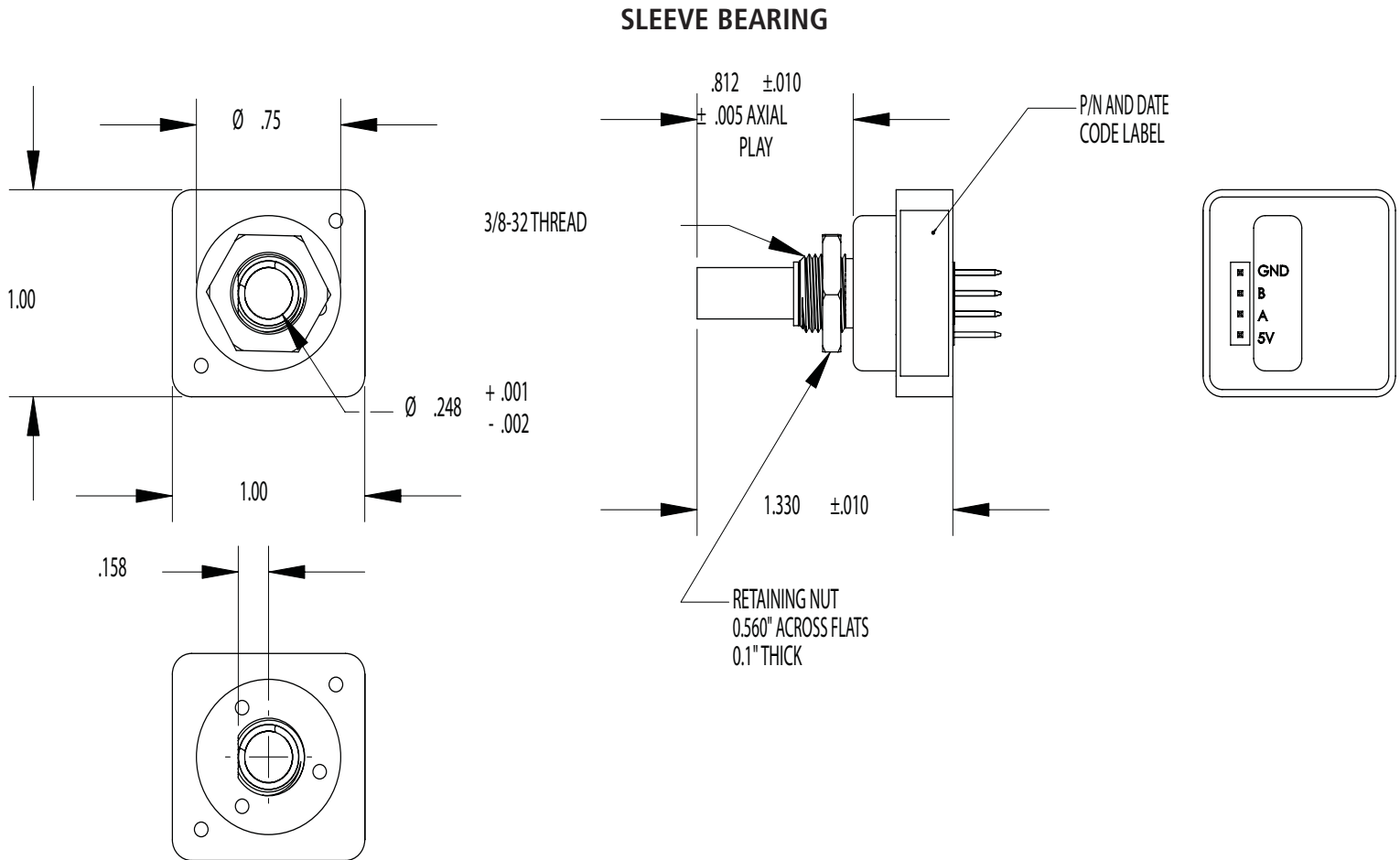


Channel A leads when Channel B shaft is rotated in Clockwise direction.

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dimensions



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Distribuidor

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