**ROTECH Rotary Shaft Encoder**

**Heavy Duty Aluminum Shaft Monitor/Encoder**

**APPLICATION**
The 4B heavy duty aluminum Rotech rotary shaft encoder is used primarily for protecting equipment and personnel from dangerous underspeed/belt slip conditions in extreme environments. Other applications include accurate speed control, direction of rotation detection, gate position indication and counting the number of revolutions of the shaft.

**METHOD OF OPERATION**
An inductive sensing device in the body of the encoder detects a steel rotor. On slow speed or accurate position control, a photodiode detects the slots on a steel disk. One pulse is created for each rotor or slot so the unit can be connected directly to a PLC/computer or 4B control module. The shaft to be monitored is drilled and tapped to take the 1/2 in. UNC Rotech Bolt. The unit is secured to the shaft with this bolt and is able to move with the shaft. No guards are required as the rotating components are encased inside the housing of the encoder. No brackets are required as the encoder couples directly to the end of the shaft and floats with the shaft.

**FEATURES**
- Cast Aluminum Construction
- Totally Self Contained (No Guards Required)
- Ultra Heavy Duty Design
- 1 to 1,000 Pulses Per Revolution
- Multiple Outputs AC/DC
- Intrinsically Safe Version Available
- CSA / NRTL Class II Div 1 Approved Version Available

**PART NUMBERS/ACCESSORIES**
- RSE Rotech Encoder - Aluminum
- RSEHT High Temperature Version (Up to +212° F)
- RSEHHT High Temperature Version (Up to +302° F)
- RSE4VBF-40 Low Temperature Version (Down to -40° F)
- MAG2000 Mag-Con™ Magnetic Connector
- SR2V1-1 Speed Relay
- TACH3V5 Tachometer

Detailed specification, wiring diagrams and installation/operating instructions available upon request.
Rotech Encoder

DIMENSIONS

NOTE: All Dimensions In Inches

<table>
<thead>
<tr>
<th>DIMENSIONS</th>
<th>Rotech Encoder - Aluminum</th>
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<tbody>
<tr>
<td>Enclosure</td>
<td>Cast Aluminum</td>
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<tr>
<td>Maximum Operating Speed:</td>
<td>1,000 RPM - Standard</td>
</tr>
<tr>
<td>Thread Size:</td>
<td>Up To 10,000 RPM - High Speed Versions</td>
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<tr>
<td>Thread Size:</td>
<td>1/2&quot; UNC or 12 mm</td>
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<tr>
<td>Temperature:</td>
<td>-13°F To +158°F (Standard)</td>
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<tr>
<td>Weight:</td>
<td>4 lbs.</td>
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<td>Protection:</td>
<td>IP67</td>
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<td>Approved Versions Available:</td>
<td>CSA / NRTL Class II Div 1 (U.S. &amp; Canada) Intrinsically Safe</td>
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Mag-Con™ (Over 150 lbs. Pulling Force)

FLEXIBLE SECURING STRAP 12" LONG

Rotech Mounted on Shaft with Mag-Con™ Magnetic Connector
**ROTECH SELECTION GUIDE**

**Type VN (NAMUR) 8.2 VDC**
Intrinsically Safe Circuits

- Brown
- Blue

1 - 60 Pulses Per Revolution
Max. Frequency = 2,000 Hz

**Type VA (NPN) 10 - 30 VDC**

- Brown
- Blue

1 - 60 Pulses Per Revolution
Max. Frequency = 600 Hz

**Type VB (PNP) 10 - 30 VDC**

- Brown
- Blue

FM / CSA Class II Div.1
Versions Available

**Type VC (NPN & PNP - 3 Wire) 10 - 30 VDC**

- Brown
- Blue

1 - 1,000 Pulses Per Revolution
Max. Frequency = 1,000 Hz

**Type VD (NPN & PNP - 2 Wire) 10 - 30 VDC**

- Brown (L+)
- Blue (L-)

1 - 60 Pulses Per Revolution
Max. Frequency = 1,300 Hz

**Type VE 20 - 240 VAC / VDC**

- Brown
- Blue

1 - 30 Pulses Per Revolution
Max. Frequency = 30 Hz (AC) - 1,000 Hz (DC)

**Type VA, VB Q (Quadrature*) 10 - 30 VDC**

- Brown
- Blue

1 - 40 Pulses Per Revolution
Max. Frequency = 600 Hz

**Type VC Q (Quadrature*) 10 - 30 VDC**

- Red (+ VE Supply)
- White (A)
- Green (B)
- Black (- VE Supply)
- Ground

1 - 1,000 Pulses Per Revolution
Max. Frequency = 1,000 Hz

*NOTE: Quadrature versions provide both speed & direction of rotation.

Available Pulse Rates (PPR) - 1,2,4,5,6,8,10,12,16,20,30,32,40,50,60,100,120,180,240,250,300,360,500,1000 (Dependent Upon Output Type)

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**PRODUCT TYPE**
Output Type is Dependent Upon Chosen Pulse Rate

**ORDER CODE EXAMPLE:**
RSE-4-VA
- Model = RSE
- Pulses Per Revolution = 4
- Electrical Outputs = VA

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