**DR735**
Direct Replacement Encoder for Heidenhain® ROD320

Designed as a drop-in replacement for the Heidenhain® ROD320 encoder, our DR735 meets or exceeds all OEM specifications, and is available with EPC’s competitive pricing, short lead-time, and 3 year warranty. The DR735 is designed to provide precision feedback control for Siemens® 1FT Series Simodrive® motors. It features an improved “Stay in Place” tapered shaft, custom flex mount, various different resolutions, 9” of cable, and a 17 pin connector with the correct Heidenhain® pinout. Replacing both the older ROD320.002 and the ROD 320.005 has never been faster, easier, or more economical thanks to the DR735!

**Features:**
- Low profile (1.19”) encoder body
- 2 piece construction — Unique “Stay in Place” shaft allows for easy removal of encoder
- 1000, 1250, 2000, 2500, 3000 and 5000 CPR available
- Line Driver output
- True flex arm mounting system makes installation easy — and allows for insulation and isolation from vibration, extending the life of the encoder
- 17-pin connector at the end of 9” of cable
- Advanced Opto-ASIC technology for superior noise immunity
- Withstands temperatures up to 100° C

**Typical Price: for Comparable Encoder: $975 - $1540**

**DR735 Price: $610** Additional discounts available for volume orders.

**CPR** | **Order Number**
---|---
1000  | DR735-04
1250  | DR735-06
2000  | DR735-03
2500  | DR735-01
3000  | DR735-05
5000  | DR735-02

Contact Customer Service for other disk resolutions.

Encoders shown mounted on Siemens® 1FT Series Simodrive

**The Accu-Coder™ Advantage**
- Get this encoder FAST — you’ll get your encoders in days, not weeks.
- Huge savings in price comparison — the DR735 is your economical solution
- The accuracy, reliability, and quality that only come from an Accu-Coder™
- Industry Best 3-year warranty!
Model DR735 Specifications

**Electrical**
- Input Voltage: 4.75 to 28 VDC (16 VDC Max at 100º C)
- Input Current: 100 mA max with no output load
- Output Format: Incremental – Two square waves in quadrature with channel A leading B for clockwise shaft rotation, as viewed from the mounting face. See Waveform Diagram below.
- Output Types: Line Driver – 20 mA max per channel (Meets RS 422 at 5 VDC supply)
- Freq. Response: 200 kHz standard
- Noise Immunity: Tested to BS EN61000-6-2; BS EN50081-2; BS EN61000-4-2; BS EN61000-4-3; BS EN61000-4-6, BS EN55011
- Quadrature: 67.5° electrical or better is typical, 54°
- Edge Separation: electrical minimum at temperatures > 99° C
- Accuracy: Within 0.01º mechanical from one cycle to any other cycle, or 0.6 arc minutes

**Mechanical**
- Max Shaft Speed: 7500 RPM
- User Shaft Tolerances
  - Radial Runout: 0.007” max
  - Axial Endplay: ±0.030” max
- Starting Torque: 0.50 oz-in
- Moment of Inertia: 3.9 X 10^-4 oz-in-sec^2
- Max Acceleration: 1 X 105 rad/sec^2
- Electrical Conn: 9” cable (foil and braid shield, 24 AWG conductors) with 17-pin connector
- Housing: All Metal Aluminum and Zinc Alloy
- Mounting: Flex Arm Mount standard
- Weight: 3.5 oz typical

**Environmental**
- Operating Temp: 0º to 100º C
- Storage Temp: -40º to 100º C
- Humidity: 98% RH non-condensing
- Vibration: 10 g @ 58 to 500 Hz
- Shock: 50 g @ 11 ms duration
- Sealing: IP64

---

**DR735 Waveform Diagram**

**DR735 Wiring Table**

<table>
<thead>
<tr>
<th>PIN</th>
<th>FUNCTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>CHANNEL A</td>
</tr>
<tr>
<td>B</td>
<td>CHANNEL B</td>
</tr>
<tr>
<td>C, J, K</td>
<td>+VDC</td>
</tr>
<tr>
<td>D</td>
<td>CHANNEL A’</td>
</tr>
<tr>
<td>E</td>
<td>CHANNEL B’</td>
</tr>
<tr>
<td>F</td>
<td>CHANNEL Z</td>
</tr>
<tr>
<td>G</td>
<td>CHANNEL Z’</td>
</tr>
<tr>
<td>H</td>
<td>SHIELD</td>
</tr>
<tr>
<td>N, P, T</td>
<td>COMMON</td>
</tr>
<tr>
<td>R, S</td>
<td>BRIDGE</td>
</tr>
<tr>
<td>L</td>
<td>N/C</td>
</tr>
</tbody>
</table>