ENCODERS
SHAFT-TYPE

DataTorque™
RS23

Performance Benefits
Torque Systems is widely recognized for providing high performance shaft and motor-mounted DataTorque™ Encoder solutions. The CE compliant DataTorque RS23 is no exception.

By combining high performance, proven reliability and low cost, the DataTorque RS23 is an ideal instrument quality encoder where high volume and cost are primary concerns.

All DataTorque Encoders can be custom configured to meet specific, high volume OEM requirements. We can accommodate many specialized combinations of electrical and mechanical interfaces. Please consult our experienced team of application engineers for details on custom OEM products.

Design Features
The DataTorque RS23 Encoder is manufactured with precision surface-mount technology. It also includes VMOS and CMOS circuitry, providing the encoder with superior isolation between the output leads and the internal circuitry of the encoder.

The DataTorque RS23 is available with differential line driver output with terminal connections.

The DataTorque RS23 is an optical incremental encoder with resolution of 1-2500 CPR (cycles per revolution). It is accurate to ±6 arc seconds (pulse to adjacent pulse) and ±3 arc minutes (pulse to any other pulse).

Instrument Quality Optical Incremental Industrial Encoder
- High performance that costs less
- Precision surface mount technology
- VMOS and CMOS circuitry providing superior isolation between the output leads and internal circuitry
- Available with differential line driver options with terminal connections
- Numerous built-in design features and performance benefits enable the RS23 to meet or exceed any other competitive encoder on the market today.

- CE Compliant
DataTorque™
RS23

**Electrical Specifications**

<table>
<thead>
<tr>
<th>Pin Function: Standard</th>
<th>Pin Function: Differential Line Driver</th>
</tr>
</thead>
<tbody>
<tr>
<td>(With connector facing you, clockwise from the left)</td>
<td>(With connector facing you, clockwise from the left)</td>
</tr>
<tr>
<td>1 +VDC</td>
<td>1 Case Ground</td>
</tr>
<tr>
<td>2 DC Ground</td>
<td>2 +VDC</td>
</tr>
<tr>
<td>3 Case Ground</td>
<td>3 DC Ground</td>
</tr>
<tr>
<td>4 A out</td>
<td>4 A out</td>
</tr>
<tr>
<td>5 B out</td>
<td>5 B out</td>
</tr>
<tr>
<td>6 Z out/ N/C</td>
<td>6 Z out/ N/C</td>
</tr>
</tbody>
</table>

**MECHANICAL SPECIFICATIONS**

- Front End: All metal shaft and bearing housing--Face and servo mount standard
- Cover: Anodized Aluminum
- Bearings: Shielded, Instrument Quality
- Bearing Life: 2.8 X 10^6 revolutions
- Slew Speed: 6,000 RPM maximum
- Shaft Loading Max.: Axial 10 lbs., (4.54 Kg), Radial 10 lbs. (4.54 Kg)
- Shaft Rotation: Bi-directional and continuous
- Moment of Inertia: 4.0 x 10^3 oz.-in.-sec^2 (3.0 gm-cm^2)
- Starting Torque: 0.05 oz.-in. (36 gm cm)
- Weight: 6 ozs

**Environmental Specifications**

- Operating Ambient: -10 to +70 degrees C
- Storage Ambient: -35 to +80 degrees C
- Vibration: 50 Hz - 10 G - 1 Hr
- Shock: 30 G 11 ms

**Ordering Information**

RS23 - 1000 - 4 0 / 5 - 03 - LXX

- A. Encoder Series: (Up to 2500 CPR, many standards, please inquire)
- B. Resolution: 2 = Single Channel
- C. Output Configuration: 3 = Single Channel with Index Pulse
- D. Type of Output: 0 = Squarewave Output
- E. Power Input (specify): 2 = Open Collector
- F. Output Option: Blank = TTL
- G. Special Deviation: 03 = Differential line driver option

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