The TQ513 Series are designed to measure the rotating torque using shaft-to-shaft in-line placement. Heavy-duty silver slip rings provide secure transmission of power and signal from the rotating shaft to your instrumentation. An optional 1024 ppr optical encoder is available to measure angle or speed.

**SPECIFICATIONS:**
- Excitation Voltage: 20 Vdc maximum
- Bridge Resistance: 1000 Ω
- Output at Full Scale: 2.0 mV/V nominal
- Linearity: 0.10% FS
- Hysteresis: 0.10% FS
- Zero Balance: 1.0% FS
- Operating Temperature: -54 to 121°C (-65 to 250°F)
- Compensated Temperature: 21 to 76°C (70 to 170°F)
- Thermal Effects:
  - Zero: 0.0036% FS/°C
  - Span: 0.0036% FS/°C
- Overload Capacity: 150% FS

**Material:**
- <100 in-lb: SS shafts, aluminum sensor
- ≥100 in-lb: Steel shaft and sensor

**Maximum Shaft Speed:** 5000 RPM

**Electrical Connection:**
- 4-pin twist lock connector (mating connector supplier)
- 10-pin twist lock connector with optional optical encoder (mating connector supplied)

**To Order**

<table>
<thead>
<tr>
<th>MODEL NO.</th>
<th>CAPACITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>TQ513-003</td>
<td>50 in-oz, 3.125 in-lb, 0.35 N-M</td>
</tr>
<tr>
<td>TQ513-006</td>
<td>100 in-oz, 6.25 in-lb, 0.71 N-M</td>
</tr>
<tr>
<td>TQ513-012</td>
<td>200 in-oz, 12.5 in-lb, 1.41 N-M</td>
</tr>
<tr>
<td>TQ513-030</td>
<td>500 in-oz, 31.25 in-lb, 3.53 N-M</td>
</tr>
<tr>
<td>TQ513-062</td>
<td>1000 in-oz, 62.5 in-lb, 7.06 N-M</td>
</tr>
</tbody>
</table>

**OPTIONS (Additional Cost)**

<table>
<thead>
<tr>
<th>ORDER SUFFIX</th>
<th>DESCRIPTION</th>
</tr>
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<tbody>
<tr>
<td>-EN1024</td>
<td>Integral 1024 ppr optical encoder</td>
</tr>
<tr>
<td>-MB</td>
<td>Foot mounting bracket</td>
</tr>
</tbody>
</table>

**OPTIONS (Additional Cost)**

-EN1024 - Integral 1024 ppr optical encoder
-MB - Foot mounting bracket