**Incremental Optical Encoder**

**Encoder Types**

<table>
<thead>
<tr>
<th>Model</th>
<th>PPR</th>
<th>Resolution</th>
</tr>
</thead>
<tbody>
<tr>
<td>N256</td>
<td>1024</td>
<td>0.001171875</td>
</tr>
<tr>
<td>N500</td>
<td>2000</td>
<td>0.0006</td>
</tr>
<tr>
<td>N1000</td>
<td>4000</td>
<td>0.0003</td>
</tr>
<tr>
<td>N2000</td>
<td>8000</td>
<td>0.00015</td>
</tr>
</tbody>
</table>

**Sealed Bearing Unit Encoders**

For use on lines with excessive lubrication.

<table>
<thead>
<tr>
<th>Model</th>
<th>PPR</th>
<th>Accuracy</th>
</tr>
</thead>
<tbody>
<tr>
<td>S1000</td>
<td>4000</td>
<td>+/- 2.7 arc min</td>
</tr>
<tr>
<td>S2000</td>
<td>8000</td>
<td>+/- 1.35 arc min</td>
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</tbody>
</table>

* Other models available by special request. Lead time will vary.

**SPECIFICATIONS**

**Mechanical**
- **Shaft Diameter:** 3/8”
- **Shaft Loading:** 10 pounds radial recommended; 50 lbs max.; double bearings, 0.55” separation
- **Shaft Runout:** 0.0005 T.I.R.
- **Shaft Material:** 416 Stainless Steel
- **Bearing Housing:** 6063 Aluminum
- **Cover:** 0.050” thick, 1100-0 Aluminum
- **Maximum RPM:** 4,000 RPM
- **Weight:** 19 oz. Typical
- **Starting Torque at 25° C:** 0.25 in-oz (max.)
- **Mating Connector:** MS style connector

**Electrical**
- **Code:** Incremental
- **Output Format:** 2 Channel Quadrature, RS422 Line Driver, 5 VDC TTL Differential, Index Pulse Gated with A- and B-
- **Supply Voltage:** 5 to 40 VDC
- **Current Requirements:** 200mA @ 5 to 40 VDC, 1 Watt max.
- **Frequency Response:** 500 KHz

**Environmental**
- **Enclosure Rating:** NEMA 4
- **Operating Temperature:** 0° - 57°C (32° - 135° F)
AMS Controls offers a full line of encoder accessories including:
- Cables
- Brackets
- Phenolic wheels
- Knurled wheels

For a detailed listing of available products, visit [www.amscontrols.com](http://www.amscontrols.com).