S1 & S2 Optical Shaft Encoders

Description:
The S1 and S2 series optical shaft encoders are non-contacting rotary to digital converters. Useful for position feedback or manual interface, the encoders convert real-time shaft angle, speed, and direction into TTL-compatible quadrature outputs with or without index. The encoders utilize an unbreakable mylar disk, metal shaft and bushing, LED light source, and monolithic electronics. It may operate from a single +5VDC supply.

The S1 and S2 encoders are available with ball bearings for motion control applications or torque-loaded to feel like a potentiometer for front-panel manual interface.

Electrical Specifications:
B leads A for clockwise shaft rotation, A leads B for counter clockwise shaft rotation viewed from the shaft/bushing side of the encoder. For complete details see our HEDS data sheet.

Ordering Information:

<table>
<thead>
<tr>
<th>Series:</th>
<th>S1</th>
<th>S2</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPR:</td>
<td>50</td>
<td>100</td>
</tr>
<tr>
<td>S1</td>
<td>1024</td>
<td>2048</td>
</tr>
<tr>
<td>S2</td>
<td>100</td>
<td>200</td>
</tr>
</tbody>
</table>

Options:
I = Index (3rd channel).
B = Ball bearings (free spinning).
HS = Sealed housing.
M6 = Metric 6mm diameter shaft.
NT = Light static drag.

Notes:
1. Index option not available.
2. Specify options in order show above.

Cost Modifiers:
- Add $8 for ball bearing option (added torque applies to the sleeve bushing version only).
- Add $5 for metric 6mm diameter shaft.
- Add $14 for HS-option (sealed housing).
- On S1, add $9 for index and/or resolutions =>1000 CPR.
- On S2, add $9 for index and/or resolutions =>2000 CPR.

S1 & S2 Price:
- $49 / 1
- $45 / 10
- $41 / 50
- $39 / 100
- $38 / 500
- $35 / 1000

Notes:
- When M6-option is not specified the default is .250” diameter shaft.
- When B-option or NT-option is not specified the default is static drag, like a potentiometer.

Technical Data, Rev. 01.10.01, January 2001
All information subject to change without notice.