PowerFlex 525 Incremental Encoder Input

Catalog Number: 25-ENC-1

1. Wait three minutes after shutdown for capacitors to discharge to safe voltage levels.

2. Voltage DIP switch

3. Mount the Incremental Encoder onto the Control Module Back Cover

4. Lock the Incremental Encoder onto the Control Module Back Cover

Note: Incremental Encoder Input is for PowerFlex 525 only. You can install both the communication adapter and optional Incremental Encoder Input on the same Control Module Back Cover.
### Wiring the Incremental Encoder

<table>
<thead>
<tr>
<th>No.</th>
<th>Signal</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Encoder A</td>
<td>Single channel, pulse train or quadrature A input.</td>
</tr>
<tr>
<td>A-</td>
<td>Encoder A (NOT)</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>Encoder B</td>
<td>Quadrature B input.</td>
</tr>
<tr>
<td>B-</td>
<td>Encoder B (NOT)</td>
<td></td>
</tr>
<tr>
<td>Cm</td>
<td>Power Return</td>
<td>Internal power source 250 mA (isolated).</td>
</tr>
<tr>
<td>+V</td>
<td>5...12V Power(1)</td>
<td></td>
</tr>
</tbody>
</table>

1. Output
   - DIP switch selects 12 or 5 volt power supplied at terminals “+V” and “Cm” for the encoder.

(1) If Encoder requires 24V power, it must be supplied by an external power source.

### Maximum Wire Size

<table>
<thead>
<tr>
<th>I/O</th>
<th>Minimum Wire Size</th>
<th>Torque</th>
</tr>
</thead>
<tbody>
<tr>
<td>Encoder Power – Internal Drive Power</td>
<td>2.08 mm² (14 AWG)</td>
<td>0.18...0.22 Nm (1.56...1.9 lb-in)</td>
</tr>
<tr>
<td>Encoder Signal – Single-Ended, Dual Channel</td>
<td>0.08 mm² (28 AWG)</td>
<td></td>
</tr>
</tbody>
</table>

### Connectors

- **Encoder Power**
  - Internal (drive)
  - 12V DC, 250mA
- **Encoder Signal**
  - Single-Ended, Dual Channel
- **Encoder Power**
  - External Power Source
- **Encoder Signal**
  - Differential, Dual Channel

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