

**Incremental Encoder Series TRDA-2E**

**Operation Manual**

Thank you for purchasing this TRDA-2E Incremental Encoder. Please read this Operation Manual carefully before applying this product.

**KEEP THIS MANUAL IN A SAFE PLACE.**

**Sales:** 800-633-0405  
**Tech Support:** 770-844-4200

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**Electrical Specifications**

- **Open Collector Connections (TRDA-2ExxxBD)**
  - Cable shield is connected to the encoder body (frame ground)

- **Line Driver Connections (TRDA-2ExxxVD)**
  - Cable shield is connected to the encoder body (frame ground)

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**Output Circuits**

- **Open Collector Output (BD)**
  - Power supply: 10.8–26.4 VDC
  - Outputs: A, B, Z
  - Protection: against short circuit between each output and 0V

- **Line Driver Output (VD)**
  - Power supply: 10.8–22.5 VDC
  - Outputs: A, B, Z
  - Protection: against short circuit between each output and 0V

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**Channel Timing Charts**

- **Open Collector Models (BD)**
  - Normal revolution (CW)
  - Normal revolution (CCW)

- **Line Driver Models (VD)**
  - Normal revolution (CW)
  - Normal revolution (CCW)

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**Dimensions – TRDA-2E Encoder**

- **Dimensions – F-2D Flange**
- **Dimensions – F-7D Flange**
- **Dimensions – F-3D Flange**

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**Dimensions – ZET-035D Bracket**

- **Dimensions – FJ-3D Flange**
- **Dimensions – FJ-5D Flange**
- **Dimensions – FJ-7D Flange**

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**Safety Considerations**

- **Negative logic (active low)**
- **11 ms with 490 m/s²**

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**Mechanical Specifications**

- **Starting torque**: Max 0.01 Nm (20°C)
- **Maximal linear or linear rate of change**: 5.0 mm/s (20°C)

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**Environmental Specifications**

- **Ambient temperature**: -25 to 85 °C (-13 to 185 °F)
- **Storage temperature**: -10 to 70 °C (14 to 158 °F)

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**Warnings for Use**

- **Do not use this product for applications related to human safety.**
- **Do not use this product in an application where an accident or incorrect use will not immediately cause danger to human.**

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**Dimensions – ( dimensions = in [mm] )**
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### Mounting Screw Information

<table>
<thead>
<tr>
<th>Part #</th>
<th>Quantity</th>
<th>Fastener Type</th>
<th>Size</th>
<th>Tightening Torque</th>
</tr>
</thead>
<tbody>
<tr>
<td>2ET-035D</td>
<td>4</td>
<td>socket head screw</td>
<td>M3 x 0.5 x 10 mm</td>
<td>4.0 lb·in [0.45 N·m]</td>
</tr>
<tr>
<td>F-2D</td>
<td>6</td>
<td>#4-40 x 0.375” lg</td>
<td>#4-40 x 0.375” lg</td>
<td></td>
</tr>
<tr>
<td>F-3D</td>
<td>3</td>
<td>#4-40 x 0.375” lg</td>
<td>#4-40 x 0.375” lg</td>
<td></td>
</tr>
<tr>
<td>F-6D</td>
<td>6</td>
<td>#4-40 x 0.375” lg</td>
<td>#4-40 x 0.375” lg</td>
<td>4.0 lb·in [0.45 N·m]</td>
</tr>
<tr>
<td>F-7D</td>
<td>7</td>
<td>#4-40 x 0.375” lg</td>
<td>#4-40 x 0.375” lg</td>
<td></td>
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<tr>
<td>F-8D</td>
<td>3</td>
<td>#4-40 x 0.375” lg</td>
<td>#4-40 x 0.375” lg</td>
<td>4.0 lb·in [0.45 N·m]</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>#6-32 x 0.375” lg</td>
<td>#6-32 x 0.375” lg</td>
<td>8.1 lb·in [0.92 N·m]</td>
</tr>
</tbody>
</table>