Model 25T Thru-Bore Encoder

Features
- 63.50mm Opto-Asic Encoder with a low profile (50mm)
- Bore Sizes Ranging From 0.50" to 28mm
- Resolutions to 10,000 PPR
- Versatile Flexible Mounting Options
- RoHS Compliant

Introducing the next generation of high performance encoders - the Model 25T. As contemporary as its appearance, the Model 25T features the largest thru-bore available in a 63.50mm encoder, mounting directly on shafts as large as 28mm. With resolutions of up to 10,000 PPR, and frequencies of up to 1MHz this industrial strength encoder is perfect for fast revving motors. The 25T features the next generation of proprietary Opto-ASIC sensor which provides superior accuracy and precision counts. The injection molded housing, made from a blend of nylon composites, is grooved with "cooling fins" and can take the extreme heat of the motion control industry. With sealing available of up to IP65 and many new rugged flexible mounting options, the Model 25T can perform in demanding industrial environments.

Common Applications
Motor-Mounted Feedback and Vector Control, Specialty Machines, Robotics
Web Process Control, Paper and Printing, High Power Motors

Model 25T Ordering Guide

Red type indicates price adder options. Not all configuration combinations may be available. Contact Customer Service for details.

Model 25T PPR Options
0010 0060 0100 0120 0240 0250 0256
0300 0360 0500 0512 0600 1000 1024
1200 2000 2048 2500 4096 5000 10,000

FOR SPECIFICATION ASSISTANCE CALL CUSTOMER SERVICE AT +44 (0)1978 262100

NOTES:
1 Contact Customer Service for additional options not shown.
2 Contact Customer Service for non-standard index gating.
3 With Input Voltage above 16 Vcc, Operating Temperature is limited to 85°C max.
Model 25T/H Specifications

**Electrical**

- **Input Voltage**: 4.75 to 24 VCC max
- **Input Current**: 100 mA max (65 mA typical) with no output load
- **Output Format**: Incremental - Two square waves in quadrature with channel A leading B for clockwise shaft rotation, as viewed from the encoder mounting face. See Waveform Diagrams below.
- **Output Types**: Push-Pull - 20 mA max per channel
  - Line Driver - 20 mA max per channel (Meets RS 422 at 5 VCC supply)
- **Index**: Once per revolution.
- **Freq. Response**: 200 kHz standard (up to 1MHz)
- **Noise Immunity**: Tested to BS EN61000-6-2; BS EN50081-2; BS EN61000-4-2; BS EN61000-4-3; BS EN61000-4-6; BS EN50081-1

**Mechanical**

- **Max Shaft Speed**: 6000 RPM (4000 RPM for IP65)
- **Bore Size**: 0.50” through 28 mm
- **Bore Tolerance**: H7 (Sliding fit for g6)
- **User Shaft Tolerances**
  - **Radial Runout**: 0.10mm max
  - **Axial Endplay**: ±0.75mm max
- **Starting Torque**: IP50 Thru-Bore: 7.0 x 10^-3 Nm
  - IP65: 28.0 x 10^-3 Nm (Note: Add 7.0 x 10^-3 Nm for 20°C Operation)
- **Max Acceleration**: 1 x 10^5 rad/sec^2
- **Electrical Conn**: 2M cable (foil and braid shield, 24 AWG conductors), 8-pin M12 Eurofast
- **Mounting**: 57.15mm to 69.85mm PCD 3-Point Flex Mount
- **Tether Arm Kit**: Ø63.50
- **Weight**: 400 grams typical

**Environmental**

- **Operating Temp**: -20° to +85° C standard models
- **Storage Temp**: -25° to +85° C for high temperature option
- **Humidity**: 98% RH non-condensing
- **Vibration**: 20 g @ 5 to 2000 Hz
- **Shock**: 80 g @ 11 ms duration
- **Sealing**: IP50 standard; IP65 with Seals

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**Model 25T Connector Options**

- **Model 25T Tether Arm Kit**

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**Model 25T Thru-Bore Encoder**

**Model 25T Tether Arm Kit**

**Waveform Diagrams**

**Wiring Table**

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<th>Function</th>
<th>Cable Color</th>
<th>Wire Color</th>
<th>8-pin M12**</th>
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