Absolute Encoder

Key Features

- Up to 14 Bit of Singleturn and 12 Bits of True Multiturn Absolute Positioning
- Onboard Diagnostics
- DeviceNet Interface
- Available with Multiple Shaft Configurations
- Enclosure ratings of IP64 or IP67

**SPECIFICATIONS**

**STANDARD OPERATING CHARACTERISTICS:**

- **Code:** Absolute, Optical
- **Resolution Single-turn:** 10-14 Bit
- **Resolution Multi-turn:** 12 Bit
- **Linearity:** ± 1/2 LSB
- **Absolute Accuracy:** ± 0.01° mechanical (36 arc-sec.)
- **Repeatability:** ± 0.002° mechanical (7.2 arc-sec.)

**ELECTRICAL:**

- **Protocol:** According to DeviceNet V2.0
- **Interface:** CAN Highspeed according to ISO/ DIS 11898, CAN Specification 2.0 B (11 and 29 bit identifier)
- **Output Code:** Binary
- **Input Power:** 10-30 VDC
- **Intrinsic Current Consumption:** 220 mA (ST), 250 mA (MT)
- **Transfer Mode:** Poll mode
- **Bit strobe** (time-synchronous for all devices)
- **Change of State** (automatic after change of values)
- **Cyclic, with adjustable cycle timer**
- **Frequency Response (Baud Rate):** 125, 250, 500 kBaud
- **Noise Immunity:** Tested to EN 61326-1
- **Electrical Immunity:** Tested to EN 61326-1
- **Termination:** Bus Cover with spring terminal clamps

**MECHANICAL:**

- **Shaft Diameter:** 6 mm (Servo Mount), 10 mm (Clamping Mount), 3/8” (Square Flange Mount)
- **Hubshaft:** 10mm, 12 mm, 3/8”, 1/2”
- **Shaft Load (axial/radial):** 40N (9lb.) / 60N (13lb.)
- **Shaft Tolerance (hubshaft only):** +/- 1.5 mm axial, +/- 0.2 mm radial
- **Maximum Shaft Speed:** 10,000 RPM (continuous), 12,000 RPM (peak)
- **Starting Torque:** < 1.4 in-oz
- **Weight (approx.):** 350 g ST, 400 g MT
- **Housing Material:** Aluminum
- **Shaft Material:** Stainless Steel
- **Disc Material:** Glass
- **Weight:**
  - Single-Turn: approx. 12.3 oz (350 g)
  - Multi-Turn: approx. 14.1 oz. (400 g)

**ENVIRONMENTAL:**

- **Operating Temperature:** -40 °C ... +85 °C
- **Storage Temperature:** -40 °C ... +100 °C
- **Shock:** 1,000 m/s² for 6 msec
- **Vibration:** 100 m/s² (10 to 2,000 Hz)
- **Humidity:** Up to 75%, (no condensation allowed)
- **Enclosure Rating:** IP64 or IP67

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## INDUSTRIAL DUTY
### SERIES AI25

#### Ordering Information
To order, complete the model number with code numbers from the table below:

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**ACCESSORY**
Part Number: 3280220 + length: TPE cable, 12-core + screen  Price: CF

#### DIMENSIONS

**Code 3: Mounting**

0  Servo

1  Clamping

2  Square Flange

3  Hubshaft w/Tether†

**Code 7: Connector**

L  2 Strain Relief Exits

F  1 M12, 5-Pole Connector

G  2 Strain Relief Exits 1 M12, 5-Pole Connector

* M12, 5-Pole Connector used to interface Hengstler Tico 731 LCD display.