

SERIES AI25 CANopen HENGSTLER™ brand

Absolute Encoder

Key Features

- Up to 16 Bit of Singleturn and 12 Bits of True Multiturn Absolute Positioning
- Onboard Diagnostics
- CAN Open Interface
- Available with multiple shaft configurations
- Enclosure ratings of IP64 or IP67

IND
Industrial Duty



SPECIFICATIONS

STANDARD OPERATING CHARACTERISTICS:

Code: Absolute, Optical
Resolution Single-turn: 10-16 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:

Interface: CAN High-Speed according to ISO/ DIS 11898
Protocol: CANopen according to DS 301 with profile DSP 406, programmable encoder according to C2
Transfer mode:
 Poll mode
 Bit strobe (time-synchronous for all devices)
 Change of State (automatic after change of values)
 Cyclic, with adjustable cycle timer
Output Code: Binary
Input Power: 10-30 VDC
Intrinsic Current Consumption: 200 mA (ST), 220 mA (MT)
Frequency Response (Baud Rate): 10, 20, 50, 125, 250, 500, 800, 1000 kBaud
Noise Immunity: Tested to EN 61326-1
Electrical Immunity: Tested to EN 61326-1
Termination: Bus Cover with spring terminal clamps; 12 pin Conin CW; Cable with Pigtail

MECHANICAL:

Shaft Diameter: 6 mm (Servo Mount), 10 mm (Clamping Mount), 3/8" (Square Flange Mount)
Hubshaft Size: 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
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: 100G, 1,000 m/s² for 6 msec
Vibration: 10G, 100 m/s² (10 to 2,000 Hz)
Humidity: Up to 75%, (no condensation allowed)
Enclosure Rating: IP64 or IP67



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SERIES AI25 CANopen

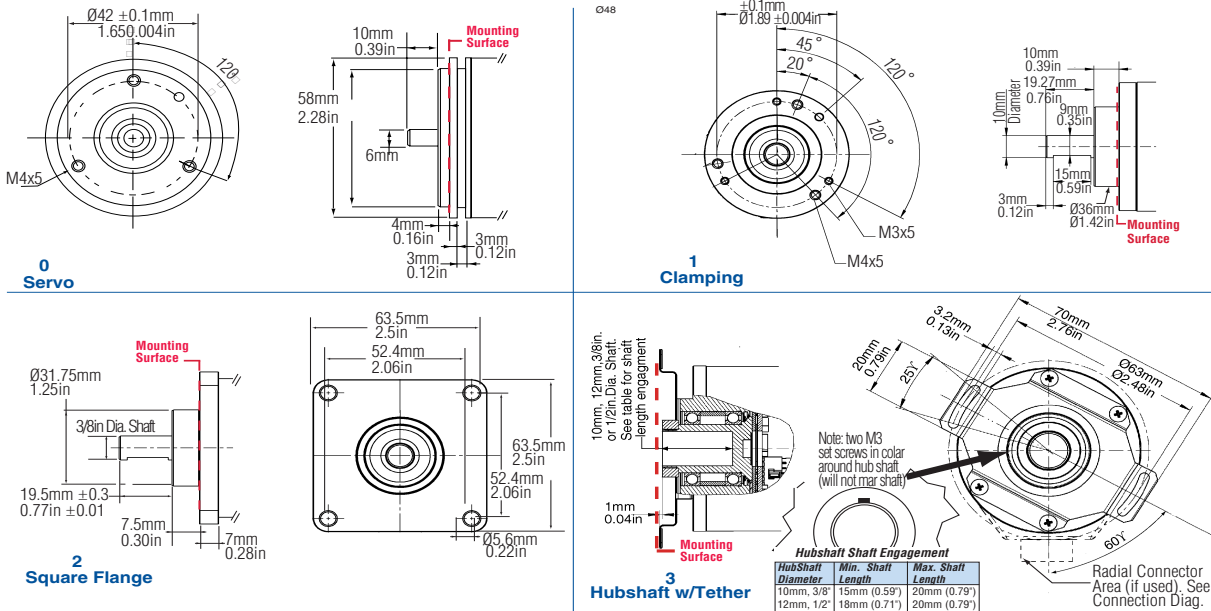
Ordering Information

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

Code 1: Model	Code 2: Bits	Code 3: Mounting	Code 4: Shaft Size	Code 5: Protocol	Code 6: Electrical	Code 7: Connector
Ordering Information						
AI25	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
AI25 Size25 Absolute Encoder	Single-Turn	Available when Code 4 is 0 or A	w/o shaft seal (IP64)	8 CANopen (OL)	2 10-30 VDC	0 Cable, axial 1 Cable, radial 2 M23 Conin 12 pin axial, CW 3 M23 Conin 12 pin radial, CW 4 M23 Connector (Conin), 12 pole, axial, CCW 5 M23 Connector (Conin), 12 pole, radial, CCW E Bus Cover with 3 sealed cable exits F Bus Cover 1 M12, 5-Pole Connector H Bus Cover with 2x M23 Connector (Conin), 9 pole, radial, CW
	0010 10 Bit 0012 12 Bit 0013 13 Bit 0014 14 Bit 0016 16 Bit	0 Servo* Available when Code 4 is 1, 2 or B, C 1 Clamping* 2 Square Flange**	0 6 mm 1 3/8" 2 10 mm 3 3/8" Hubshaft 4 12 mm Hubshaft 5 1/2" Hubshaft 6 10 mm Hubshaft w/ shaft seal (IP67) A 6 mm B 3/8" C 10 mm	S CANopen (OC)		
	Multi-Turn	Available when Code 4 is 3, 4, 5 or 6				
	1212 12 Bit MT 12 Bit ST 1213 12 Bit MT, 13 Bit ST 1214 12 Bit MT, 14 Bit ST	3 Hubshaft w/Tether† * 58mm Dia. ** 2.5" Square † 63mm BC				

DIMENSIONS

Code 3: Mounting



Code 7: Connector

