



SERIES AI25 CAN Open

HENGSTLER

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



SPECIFICATIONS

STANDARD OPERATING CHARACTERISTICS:

Code: Absolute, Optical

Resolution Single-turn: 10-16 Bit

Resolution Multi-turn: 12 Bit

Linearity: +/- 1/2 LSB

Absolute Accuracy: $\pm 0.01^\circ$ mechanical (36 arc-sec.)

Repeatability: $\pm 0.002^\circ$ 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)

ELECTRICAL (Cont):

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:

Shaft Size: 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: $-40^\circ\text{C} \dots +85^\circ\text{C}$

Storage Temperature: $-40^\circ\text{C} \dots +100^\circ\text{C}$

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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CONTROLE DE PROCESSOS E INSTRUMENTAÇÃO

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HENGSTLER SERIES AI25 CAN Open

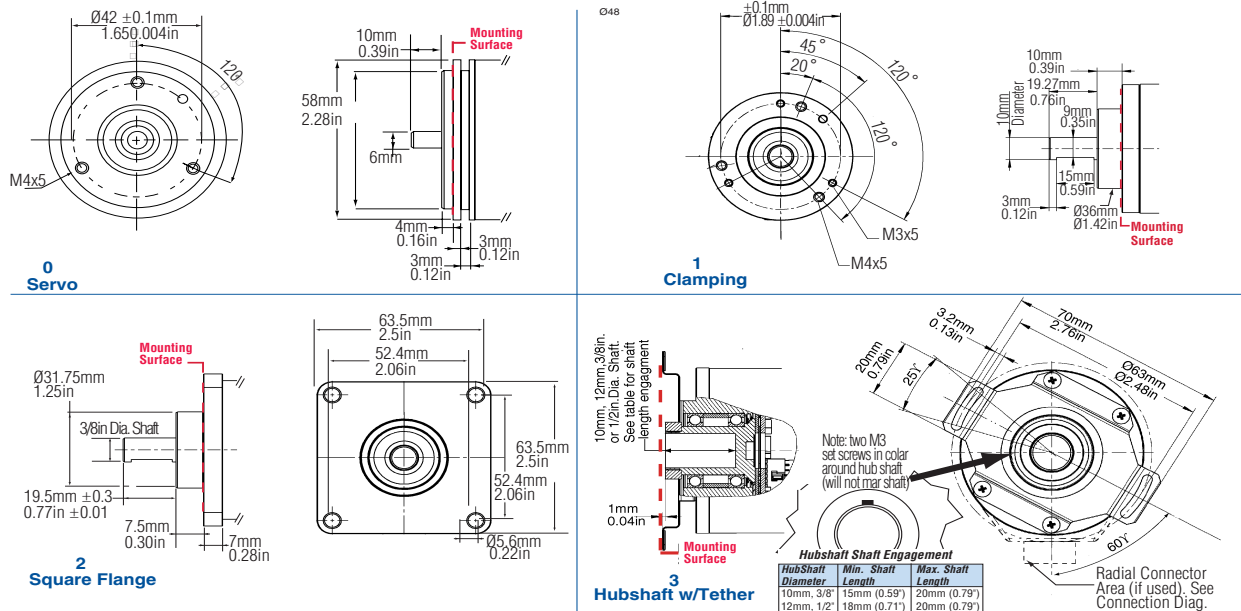
Ordering Information

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

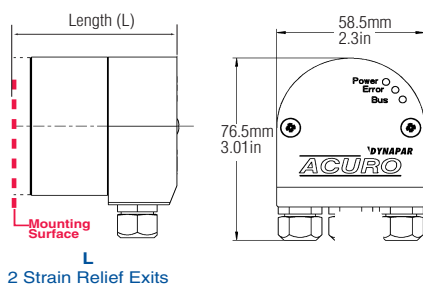
Code 1: Model	Code 2: Bits	Code 3: Mounting	Code 4: Shaft Size	Code 5: Protocol	Code 6: Electrical	Code 7: Connector
Ordering Information						
AI25	☐ ☐ ☐ ☐	☐	☐	☐	☐	☐
AI25 Size25 Absolute Encoder	Single-Turn 0010 10 Bit 0012 12 Bit 0013 13 Bit 0014 14 Bit 0016 16 Bit Multi-Turn 1212 12 Bit MT 12 Bit ST 1213 12 Bit MT, 13 Bit ST 1214 12 Bit MT, 14 Bit ST	Available when Code 4 is 0 or A 0 Servo* Available when Code 4 is 1, 2 or B, C 1 Clamping* 2 Square Flange** Available when Code 4 is 3, 4, 5 or 6 3 Hubshaft w/Tether† * 58mm Dia. ** 2.5" Square † 63mm BC	w/o shaft seal (IP64) 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	8 CANopen (OL) S CANopen (OC)	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 L Bus Cover 2 Strain Relief Exits. Internal T-coupler included

DIMENSIONS

Code 3: Mounting



Code 7: Connector



Length (L) Mounting Surface to Rear
For connector types L, and F

Mount (Code 3)	Single-Turn	Multi-Turn
(0) Servo	63.3/2.49	72.3/2.85
(1) Clamping	62.3/2.45	71.3/2.81
(2) Square Flange	64.8/2.55	73.8/2.91
(3) Hubshaft	72.2/2.84	81.2/3.2