

SERIES HA725

Dynapar™ brand

Shafted Encoder

Key Features

- High, direct-read resolutions up to 10,000PPR
- Industry Standard size 25 (2.5")
- IP66 Sealing



SPECIFICATIONS

STANDARD OPERATING CHARACTERISTICS

Code: Incremental

Resolution: 8192 to 10,000 PPR (pulses/revolution)

Accuracy:
Any edge to any like edge of the same channel: ±10.8°/PPR (±3.9 arc-sec at 10,000 PPR)
Any edge to any edge of the opposite channel: ±40°/PPR (±14 arc-sec at 10,000 PPR)

Format: Two channel quadrature (AB) with optional Index (Z) and complementary outputs

Phase Sense: A leads B for CCW shaft rotation as viewed from the shaft end of the encoder

Quadrature Phasing: 90° ± 25° electrical

Symmetry: 180° ± 25° electrical

Index: 90° ± 25° electrical (gated with A and B high)

Waveforms: Squarewave with rise and fall times less than 1 microsecond into a load capacitance of 1000 pf

ELECTRICAL

Input Power: (not including output loads)
Push-pull: 10 min. to 30 VDC max. at 60 mA max.
Line driver: 5 VDC ±10% at 40 mA max.

Outputs:
Push-pull: ±30 mA, short circuit protected
Line Driver: ±20 mA

Frequency Response:
Push-pull: 200 kHz min
Line Driver: 300 kHz min.

Noise Immunity: Tested to EN61326 (Industrial) for Electro Static Discharge, Radio Frequency Interference, Electrical Fast Transients, Conducted

and Magnetic Interference

CONNECTIONS

Mating Connector:

7 pin, style MS3106A-16S-1S (MCN-N5);
10 pin, style MS3106A-18-1S (MCN-N6)

MECHANICAL

Shaft Loading: 35 lbs. radial, 24 lbs. axial

Shaft Speed: 10,000 RPM max.mechanical

Bearing Life:
10⁹ revolutions at 35% of rated load
10⁸ revolutions at 75% of rated load
10⁷ revolutions at 100% of rated load

Moment of Inertia: 2.83 x 10⁻⁴ oz-in-sec²

ENVIRONMENTAL

Operating Temperature: 0 to +70 °C;

Storage Temperature: -25 to +90 °C

Shock: 50 G's for 11 milliseconds duration

Vibration: 5 to 2000 Hz at 2 G's

Humidity: to 98% without condensation

Enclosure Rating: NEMA4/IP66 (dust proof, washdown)

ELECTRICAL CONNECTIONS

*Mating connector/cable assembly wire color information is provided here for reference.

Encoder Function	Cable #108595-* 7 Pin Single Ended		Cable #1400635-* 10 Pin Dif Line Drv w/Inx	
	Pin	Wire Color	Pin	Wire Color
Sig. A	A	BRN	A	BRN
Sig. B	B	ORG	B	ORG
Sig. Z	C	YEL	C	YEL
Power +V	D	RED	D	RED
Com	F	BLK	F	BLK
Case	G	GRN	G	GRN
N/C	E	—	E	—
Sig. \bar{A}	—	—	H	BRN/WHT
Sig. \bar{B}	—	—	I	ORG/WHT
Sig. \bar{Z}	—	—	J	YEL/WHT

Ordering Information

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

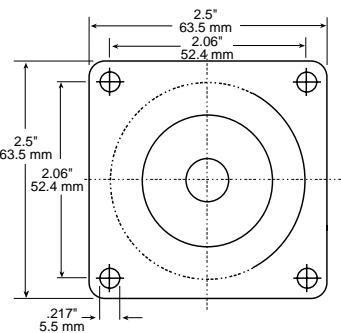
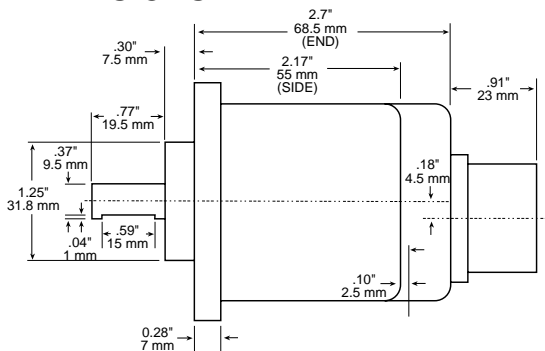
Code 1: Model	Code 2: PPR	Code 3: Mechanical	Code 4: Output	Code 5: Electrical	Code 6: Termination
HA725	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HA725 Size 25, High Resolution	08192 09000 10000	0 Flange Mount, 3/8" Shaft	0 Single Ended 2 Differential	Available when Code 4 = 0: 0 10-30V in; 10-30V Push-Pull out	0 Connector, End Mount 1 Connector, Side Mount
				Available when Code 4 = 2: 4 5V in; 5V Line Driver out	

10 foot Cable Assemblies with MS Connector

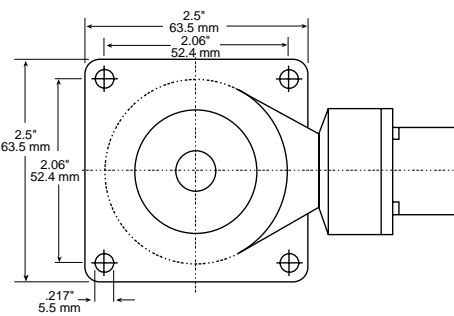
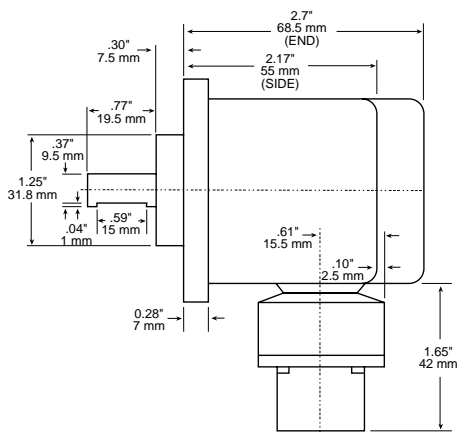
108595-0010 7 Pin MS, Cable Assy. For Use with Single Ended w/Index Outputs

1400635-0010 10 Pin MS, Cable Assy. For Use with Differential Line Driver with Index Outputs

DIMENSIONS



Code 6: Termination: 0



Code 6: Termination: 1



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