

SERIES H42

Dynapar™ brand

Shafted Encoder

Key Features

- Simplified Economical Design
- Unbreakable Code Disc
- Rugged Cast Aluminum Housing



SPECIFICATIONS

STANDARD OPERATING CHARACTERISTICS

Code: Incremental, Optical

Resolution: 1 to 600 PPR (pulses/revolution)

Accuracy: (Worst case any edge to any other edge) ± 7.5 arc-min.

Format: Two channel quadrature (AB) with complementary outputs

Phase Sense: A leads B for CW shaft rotation as viewed from the shaft end of the encoder; see Ordering Information

Quadrature Phasing: $90^\circ \pm 20^\circ$ electrical

Symmetry: $180^\circ \pm 18^\circ$ electrical

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

ELECTRICAL

Input Power: 5-26 VDC max. at 90 mA max., not including output loads

Outputs:

7272 Push-Pull and Differential Line Driver: 40 mA sink or source

Frequency Response: 100 kHz min.

Noise Immunity: Tested to EN61326-1

Electrical Immunity: Reverse polarity and short circuit protected

Termination:

7 pin, style MS3102E-16S-1P MS Connector

Mating Connector: 7 pin, style MS3106A-16S-1S (MCN-N5)

MECHANICAL

Shaft Size: 3/8"

Shaft Loading: (at 0.25" from encoder face) 80 lbs. radial, 80 lbs. axial

Shaft Speed: 7200 RPM max.

Shaft Runout: 0.001" max. TIR

Moment of Inertia: 3.0×10^{-4} oz-in-sec²

Housing & Cover Material: Aluminum

Shaft Material: Stainless Steel

Disc Material: Mylar

Weight: 13 oz.

ELECTRICAL CONNECTIONS

Encoder Function	Cable # 108596-XXXX 7 Pin Dif Line Driver with Index	
	Pin	Wire Color
Signal A	A	RED
Signal B	B	BLUE
Signal A	C	YELLOW
Power Source	D	WHITE
Signal B	E	GREEN
Common	F	BLACK
Case	G	SHIELD

*This is a mating connector/cable assembly described in the Encoder Accessories section of this catalog. Color-coding information is provided here for reference.

NOTES:

- 1) Cable Configuration: PVC jacket, 105 °C rated, overall foil shield; 3 twisted pairs 24 AWG (output signals), plus 2 twisted pairs 22 AWG (input power)
- 2) Standard cable length is 10 feet but may be ordered in any length in 5 foot increments. For example, for a 20 foot cable, replace -XXXX with -0020
- 3) "MS" Type mating connectors and pre-build cables are rated NEMA 12

ENVIRONMENTAL

Operating Temperature: 0 to +70 °C

Storage Temperature: -40 to +90 °C

Shock: 50 G's for 11 milliseconds duration

Vibration: 5 to 2000 Hz at 20 G's

Humidity: Up to 98% (non-condensing)

Enclosure Rating: NEMA12/IP54 (dirt tight, splashproof)

Ordering Information

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

Code 1: Model	Code 2: Pulses/Rev
H42	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
H42 Size 25, Economical	0001 0012 0060 0100 0120 0500 0600

Cable Assembly with MS Connector*

108596-XXXX 7 Pin MS, Cable Assy. For Use with Differential Line Driver Outputs

***Note:** Standard cable length is 10 feet but may be ordered in any length in 5 foot increment.
For example, for a 20 foot cable, replace XXXX with -0020.

DIMENSIONS