

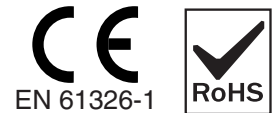
# SERIES H42

# 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)  $\pm 7.5$  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:**  $3.0 \times 10^{-4}$  oz-in-sec<sup>2</sup>

**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 A̅	C	YELLOW
Power Source	D	WHITE
Signal B̅	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

**Ordering Information**

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

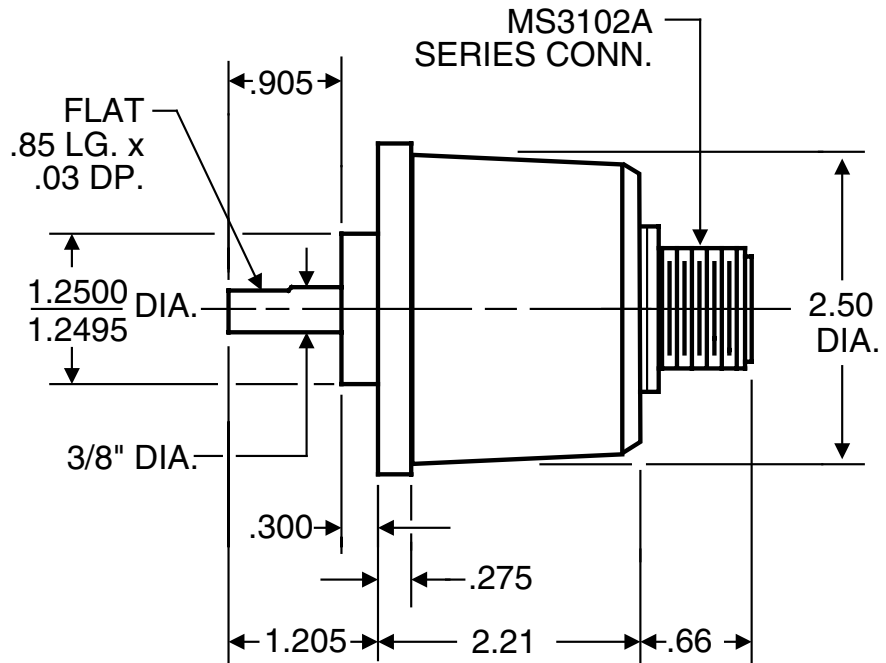
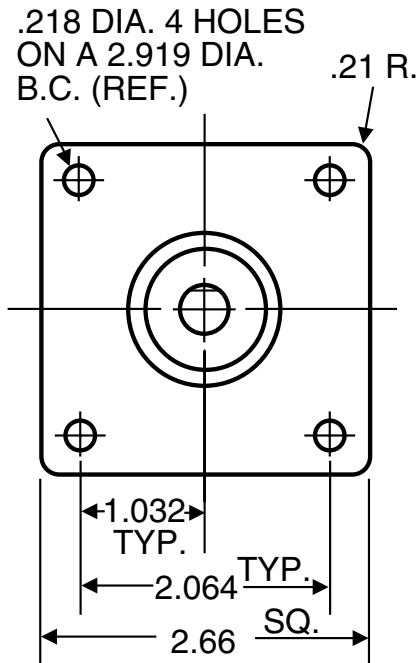
Code 1: Model	Code 2: Pulses/Rev
<b>H42</b>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
H42 Size 25, Economical	0001 0012 0060 0100 0120 0500 0600

**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**



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