

Series 60 Rotopulser[®]



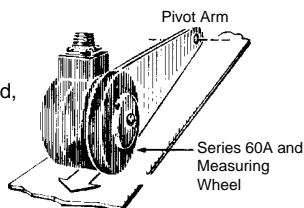
- **Heavy-duty bearings with 1/2" diameter shaft**
- **LED optical light source**
- **Unbreakable disk**
- **Wide selection of resolutions available up to 2500 PPR**
- **Servo ring and face mount options**

The Series 60 is a rugged, incremental, optical encoder for speed, position, and motion applications. The standard mechanical size 35 package is designed for high resolution applications and rugged industrial environments. Dual shafts and measuring wheels are recommended for better parallel tracking in measuring applications.

Series 60 Rotopulser encoders are available with line driver outputs for applications with longer cabling requirements (hundreds of feet) and/or higher signal noise immunity.

Typical Applications

- Length measurements
- Motor drive speed feedback
- Cut-to-length (textile, paper, wood, metal, rubber, plastics, etc.)
- Back-gage positioning
- PLC's and electronic counters



Mechanical & Environmental Features

- Heavy-duty 1/2" single and dual shafts available
- Rugged mylar or photoplast discs (no glass discs)
- Up to 3600 RPM
- 0-54°C operating range
- Precision machined die-cast aluminum housing with optional shaft seals
- Extra wide bearing span with precision ball bearings front and rear

Electrical Features

- Up to 2500 pulses/rev.
- LED light source for long-term reliability and trouble-free operation
- Built-in low impedance amplifier for driving long lines
- Switches from line-to-line for current sourcing and sinking
- Up to 50 kHz electronic operating speeds

SPECIFICATIONS

Electrical

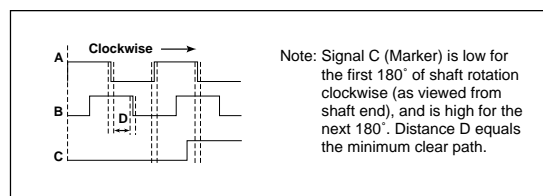
Power Requirements: 5 to 15 VDC max.
115 mA max. plus load requirements

Frequency Response: 50 kHz

Minimum Free Path: Between any A and B transition, will not be less than 12.5% of one full electrical cycle. This includes effects of jitter, phase and symmetry shifts.

Differential Output: 7272, 40 mA sink/source; Mating Connector: Style MS3106A-18-1S; Dynapar Part No. MCN-N6

Single-Ended Output: 7272, 40 mA sink/source; Mating Connector: Style MS3106A-14S-6S; Dynapar Part No. MCN-N4



Mechanical and Environmental

- Weight:** 26 oz.
- Speed Range:** Up to 3600 RPM
- Temperature Range:** 0-54°C
- Shaft Loading:** Radial: 15 lbs. overhung; Axial: 5 lbs.
- Inertia:** 170 gm-cm²
- Starting Torque:** 0.45 oz-in (0.30 oz-in for 1/4 in. dia. shaft)
- Running Torque:** 0.35 oz-in (0.15 oz-in for 1/4 in. dia. shaft)
- Shaft Diameters:** 1/4", 1/2" (-0.0003"/-0.0007")
- Enclosure Rating:** NEMA 12 / IP54;

Hand-Held Speed Monitor



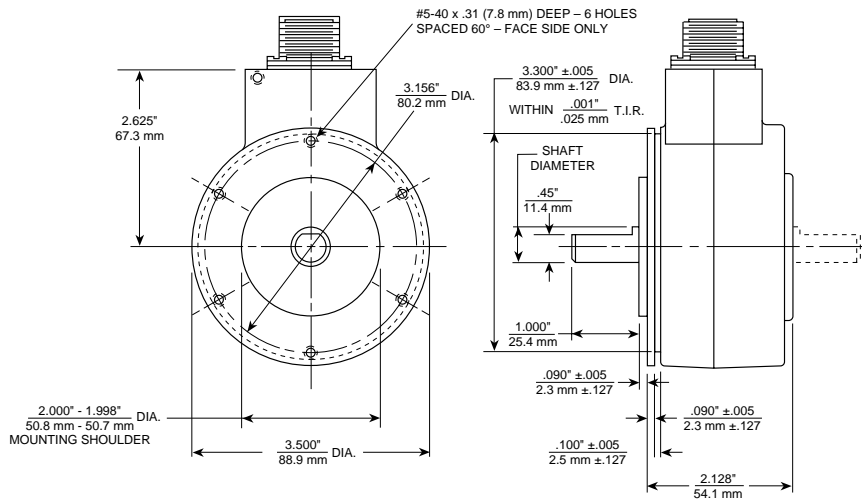
(Includes a Series 60 and dual 12" measuring wheels)

A Series 60H hand-held speed monitor is available as an accessory for web or roll calibration of steel, rubber, or paper continuous processes. These units are typically used as accessories for occasional calibration of a system speed, draw, or readout.

These hand-held monitors may be ordered with any PPR from the Series 60 code table. However, typical calibration applications with 12" measuring wheels use 60 PPR or 120 PPR, and provide excellent calibration resolution from zero up to full speeds. Refer to electrical connections 6-pin chart for pin-out functions of Series 62H.

Order Model No. 62H-AEF-____-AO.

Approximate Dimensions (inches/mm)



Electrical Connections

Single-Ended Output (6-pin)		
Function (If Used)	MS Pin No.	Dyn. #14002090010* Cable Accessory Color Code
Signal A	B	RED
Signal B	D	BLUE
Signal C (Marker)	A	GREEN
+V	E	WHITE
Common	C	BLACK
Shield	F	SHIELD

Differential Line Driver (10-pin)		
Function (If Used)	MS Pin No.	Dyn. #14004190010* Cable Accessory Color Code
Signal A	B	RED
Signal \bar{A}	G	BLACK
Signal B	D	BLUE
Signal \bar{B}	H	BLACK
Signal C (Marker)	A	GREEN
Signal \bar{C}	I	BLACK
+V	E	WHITE
Common	C	BLACK
Shield	F	SHIELD
Not Used	J	

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

Ordering Information

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

Code 1: Model	Code 2: Housing	Code 3: Shaft	Code 4: Output	Code 5: Voltage	Code 6: Pulses/Rev	Code 7: Wiring	Code 8: Misc
6 □	□	□	□	F	□ □ □ □	A	□
2 Bidirectional, Heavy Duty	A Standard Housing for Single Shaft	A 1/2" Dia, 1.0" Len with Flat	E Single Ended	F 5 to 15 VDC	0001 0150 0530	A MS Connector	0 No Shaft Seals
3 Bidirectional with Marker, Heavy Duty	C Standard Housing for Double Shaft	B 1/2" Dia, 1.0" Len without Flat	Available when Code 2 = A or C:		0002 0180 0550		Available when Code 3 = A, B, C, or D:
	H Hand-Held Housing with Double Shaft and two 12" Circumference Measuring Wheels	C 1/2" Dia, 1.5" Len with Flat	D Differential		0004 0192 0600		B Shaft Seals
		D 1/2" Dia, 1.5" Len without Flat			0005 0200 0625		
		Available when Code 2 = A or C:			0006 0203 0720		
		G 1/4" Dia, 1.0" Len without Flat			0010 0240 0750		
		H 1/4" Dia, 1.0" Len with Flat			0012 0250 0800		
					0015 0256 0805		
					0018 0300 0833		
					0020 0306 0900		
					0025 0315 1000		
					0040 0360 1024		
					0045 0375 1200		
					0050 0382 1270		
					0060 0384 1500		
					0064 0390 1800		
					0090 0400 2000		
					0096 0402 2160		
					0100 0430 2250		
					0120 0450 2400		
					0125 0500 2500		
					0127 0508		
					0128 0512		