

# Avtron M4 Large-Bore Encoders



**Magnetic Hollow Shaft Mount  
Heavy Mill Duty Encoder, 1 1/2"  
to 2 3/8" [48-60mm]**

## Step up to Magnetic Durability!

- ┆ Heavy Mill Duty
- ┆ Immune to water, oil, dust & dirt
  - ┆ Up to 1200 PPR
  - ┆ No couplings required
  - ┆ Heavy duty seals
  - ┆ Rugged cast housing
- ┆ Available in thru and end of shaft models
  - ┆ Fits large shafts directly
  - ┆ 1 Year No-Hassle Warranty

## M4

Avtron M4 large bore heavy mill duty magnetic hollow shaft encoders fit motor or load shafts from 1 1/2" to 2 3/8" [48-60mm]. Looking for M4-1 or M4-2 or small-bore M4 models--these have been replaced by AV485 and HS45 upgrade models respectively. Use our [cross reference](#) page for these models

Forget tiny hollow shaft optical units that require shaft reduction and special protection! M4 magnetic heavy duty encoders can accommodate up to a 2 3/8" shaft directly and are designed for use in mill environments with water, oil, moisture, dust, and dirt.

The M4 magnetic sensor system is far more durable than optical sensors. M4 encoders offer a large variety of connector and mounting options to replace virtually any existing encoder or tachometer. Upgrade to an M4 encoder for maximum uptime!

## OUTLINE DRAWING

## MORE M4 ADVANTAGES

- | Available C-Face tether kits (4.5" to 16")
- | Available threaded rod torque arm
- | Optional OSHA finger guard
- | Highly resistant to electrical and magnetic motor and brake noise
- | Optional second output can be alternate PPR
- | Available shaft grounding kit
- | Replaces Lakeshore/Northstar HS56, HS85
- | 1 Year No-Hassle Warranty

## M4 SPECIFICATIONS

### Operating Power:

5-24 VDC, 5-18V, 12-24V; Current 120mA, no load

**Output Format:** A,A-, B,B-; Optional Marker Z,Z-

**Frequency Range:** 0 to 100 KHz

**PPR:** 240-1200

### Speed:

5000 RPM Max. Std., shafts 1 1/2" to 1 5/8" [38mm-41mm]

3600 RPM Max. Std., shafts 2" to 2 3/8" [48mm-60mm]

(for higher speeds, consult factory)

**Temperature:** -40°\* to 85°C (\*-20° standard)

**Chemical:** Polyurethane enamel paint protects against salt spray, mild acids, and bases

**Weight:** 7 lbs.

All dimensions are in inches [millimeters].

Specifications and features are subject to change without notice.

Check out our website for more detailed specifications, drawings, and installation instructions. [www.avtronencoders.com](http://www.avtronencoders.com)

## SELECTION GUIDE

Model	Bore Size	Mounting Style	Line Driver	Left & Right Output Range	Base PPR	Marker	Connector Options	Special Features
M4	8- 1 1/2" 9- 1 5/8" 6- 2" J- 2 1/8" 7- 2 3/8" G- 48mm D- 52mm E- 58mm H- 60mm	S- End-of-Shaft G- End-of-Shaft with Grounding T- Thru-Shaft	1- 5-24V 4- 5-24V in, 5V out 8- 5-24V in, 5-24V out hi power	X- none L- Low Range (Base PPR x 1/2) M- Medium Range (Base PPR x 1) H- High Range (Base PPR x 2)	48-480 51-512 60-600	Z- Marker - none		000- none 003- Torque arm (B27239) 005- -40° C rated 038- Fan cover tether (see instruction manual for full list.)

### Connector

10 Pin Connector				5 Pin MS Connector	Conduit Box	3 ft. Flex. Cable
MS		MS mini	EPIC			
A- without Plug <sup>a</sup>	K-with Flex. Conduit Adapter <sup>b</sup>	R- Baldor Twist Lock without Plug	P- with Plug V- without Plug	M737A replacement E- without Plug <sup>a</sup> F- with Plug <sup>a</sup>	N- with color coded leads T- with Terminal Block	W- Sealed, Pigtail X- Sealed, Industrial Connector without Plug Z- Sealed, Industrial Connector with Plug
B- with Flex. Conduit Adapter <sup>a</sup>	L- with Plug <sup>b</sup>	S- Baldor on 3 ft. Pigtail		M727A replacement H- without Plug <sup>a</sup> J- with Plug <sup>a</sup>		
C- with Plug <sup>a</sup>	M- without Plug <sup>b</sup>					

<sup>a</sup> side exit  
<sup>b</sup> bottom exit



Nidec-Avtron Makes the Most Reliable Encoders in the World

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