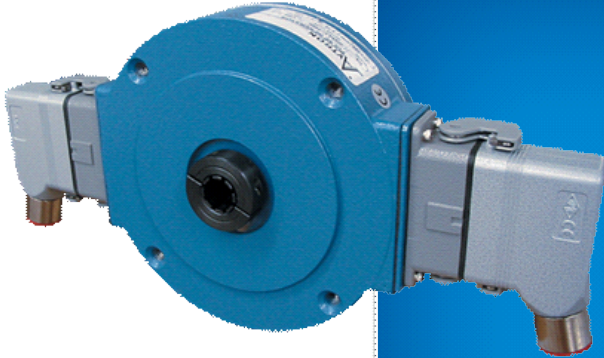


# Avtron M4-(3-5, A-F) Small Bore Encoders



**Magnetic Hollow Shaft Mount  
Encoder Replaced by HS45  
Upgraded Model**

## Obsolete, Replaced by HS45

- | No Longer Available-Replaced by HS45
- | See documents tab for HS45 upgrade benefits

## M4(SMALL)

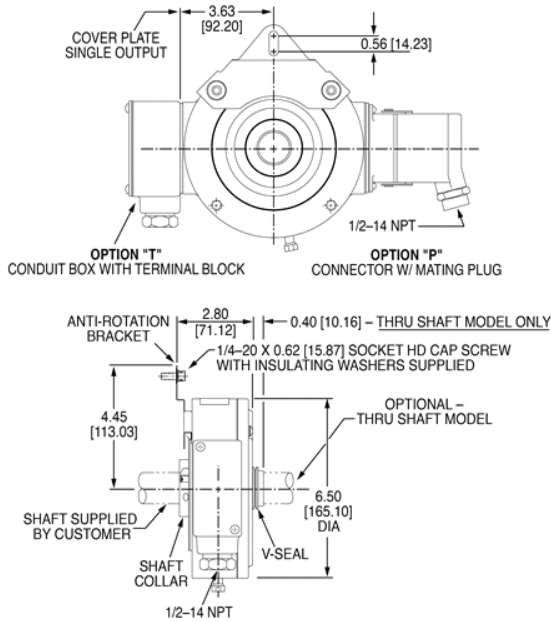
Avtron M4 hollow shaft encoder, 5/8" to 1 1/8" [16-25mm] has been replaced with the [HS45](#) upgraded model, which offers larger bearings and potted construction for increased durability, as well as LED and remote diagnostics. HS45 replaces these models with no rewiring and no mechanical changes.

Looking for M4-1 or M4-2 solid shaft models? These were replaced by the upgraded [AV485](#) encoder, offering severe duty construction with larger bearings and potted electronics as well.

Looking for M4 large-bore models > 1 1/8"/48mm shaft size? They are a current model, click here for the [M4-Large-Bore encoder](#).

Check out our [cross reference](#) page for updated models.

## OUTLINE DRAWING



## MORE M4(SMALL) ADVANTAGES

- ▮ No longer available-replaced by HS45
- ▮ Replaces Lakeshore HS85 and HS56
- ▮ Optional stub shaft kits for GE motors, 180-6000 Frame
- ▮ 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
- ▮ Second isolated output may be different PPR

## M4(SMALL) SPECIFICATIONS

**Operating Power:** 5-24 VDC; 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 5/8" to 1 5/8"
- ▮ 3600 RPM Max. Std., shafts 2" to 2 3/8"

(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.

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

All dimensions are in inches [millimeters].

Specifications and features are subject to change without notice.

## SELECTION GUIDE

Model	Bore Size	Mounting Style	Line Driver	Left & Right Output Range	Base PPR	Marker	Connector Options	Special Features
<b>M4</b>	<b>8-</b> 1 1/2" <b>9-</b> 1 5/8" <b>6-</b> 2" <b>J-</b> 2 1/8" <b>7-</b> 2 3/8" <b>G-</b> 48mm <b>D-</b> 52mm <b>E-</b> 58mm <b>H-</b> 60mm	<b>S-</b> End-of-Shaft <b>G-</b> End-of-Shaft with Grounding <b>T-</b> Thru-Shaft	<b>1-</b> 5-24V <b>4-</b> 5-24V in, 5V out <b>8-</b> 5-24V in, 5-24V out hi power	<b>X-</b> none <b>L-</b> Low Range (Base PPR x 1/2) <b>M-</b> Medium Range (Base PPR x 1) <b>H-</b> High Range (Base PPR x 2)	<b>48-480</b> <b>51-512</b> <b>60-600</b>	<b>Z-</b> Marker - none		<b>000-</b> none <b>003-</b> Torque arm (B27239) <b>005-</b> -40° C rated <b>038-</b> Fan cove 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	M737A replacement	N- with color coded leads T- with Terminal Block	W- Sealed, Pigtail X- Sealed, Industrial Connector without Plug Z- Sealed, Industrial Connector with Plug
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	E- without Plug <sup>a</sup> F- with Plug <sup>a</sup>		
B- with Flex. Conduit Adapter <sup>a</sup>	L- with Plug <sup>b</sup> M- without Plug <sup>b</sup>	S- Baldor on 3 ft. Pigtail		M727A replacement H- without Plug <sup>a</sup> J- with Plug <sup>a</sup>		

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



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