

# Avtron Model HS35M

## Magnetic, Hollow Shaft Encoder

### Magnetic Durability at a Great Price!

- Fits shafts 1/2" to 1 1/8"
- Simple Installation
- Up to 2500 PPR
- Replaces Competitive Models without Rewiring
- No Solder Industrial EPIC Connector Available
- Fits end of shaft and through shaft applications
- High Power Outputs Available
- -20°C to +85°C Operation
- Optional Dual Isolated Outputs
- Optional High-Power Outputs
- 2 Year No-Hassle Warranty

**HS35M** encoders fit shafts from 1/2" to 1 1/8" [12mm to 30mm] easily, using a durable shaft insert. Models from 1/2" to 1" [12mm to 20mm] may be resized by replacing the insert, enabling our factory, distributors, and customer stockrooms to swiftly meet any need. The engineered resin housing is immune to most chemicals, and eliminates any possibility of shaft current or grounding problems.

Avtron encoders have superior shaft seals and bearings that stay sealed to keep out contamination caused by

temperature cycling and liquid sprays. The HS35M offers high power outputs that can drive cables over 1000' [300m] with full short circuit and overvoltage protection!

The HS35M features two large bearings, one at each end of the enclosure for strength and resistance to damage. Many competitors use only a single bearing, or two tiny bearings side by side.

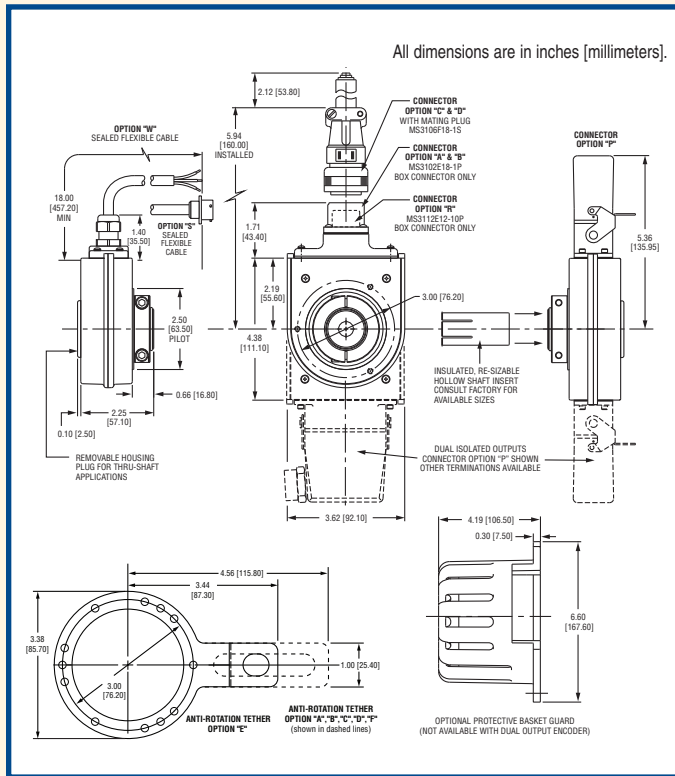
Often, optical encoders fail because of dust or water contamination that

prevents the sensor from seeing the optical disk. The HS35M advanced magnetic technology sees through contamination and the fully sealed circuit design ensures your machine keeps working, even in mill environments.

The HS35M offers magnetic performance and moisture resistance, in a compact package, and for a great price. Select an Avtron HS35M and upgrade your machine today!

# HS35M Magnetic Hollow Shaft Encoder (1/2" to 1 1/8") [12mm to 30mm]

## OUTLINE DRAWING



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

## SELECTION GUIDE

## MORE HS35M ADVANTAGES

- All digital, design; no adjustments or potentiometers
- Innovative shaft ring retains collar during installation
- Advanced sensor technology
- Dual bearings, spaced farther apart, with synthetic lubricant for longer life
- No extra charge for signal complements and marker pulse (A,  $\bar{A}$ , B,  $\bar{B}$ , Z,  $\bar{Z}$ )
- Fully insulated from motor shaft currents
- Models 1/2" to 1" [12mm-20mm] can be resized by interchanging inserts
- Optional basket guard adds even more protection
- Optional high power line driver outputs (4125) with over 35X more current capability.

## HS35M SPECIFICATIONS

- Operating Power:** Volts: 5 - 24 VDC; Current: 80mA, no load
- Output Format:** A Quad B with marker (A,  $\bar{A}$ , B,  $\bar{B}$ , Z,  $\bar{Z}$ )
- Frequency Range:** 0 to 165 KHz
- PPR:** 1 - 2500 standard (for other PPR needs, consult factory)
- Speed:** 4700 RPM Max., (for higher speeds, consult factory)
- Temperature:** -20° to 85°C
- Environmental:** IP65; Nema 4, 13 Rating
- Vibration:** 5-2000Hz, 20Gs
- Shock:** 50G, 11mS duration
- Weight:** Single: 1.4 lbs. [635 g] Dual: 2.0 lbs. [905 g]
- € Pending

## HS35M PART NUMBERS AND AVAILABLE OPTIONS

Model	Left & Right Output Range*	Line Driver	Bore Size	Connector Options	Mounting Style	Protection	Anti-Rotation Tether Options	Channels	Special Features						
HS35M	A- 1 F- 60 G- 100 H- 120 K- 200 L- 240 M- 250 N- 256 P- 300 E- 360 Q- 500 R- 512 S- 600	U- 720 V- 900 W- 1000 Y- 1024 Z- 1200 1- 1250 2- 1440 B- 1500 3- 2000 4- 2048 5- 2500 X- None 0- Special*	0- Non-Std. B- 1/2" P- 12mm C- 5/8" R- 15mm D- 3/4" S- 16mm E- 7/8" W- 20mm F- 1" ^ Y- 25mm ^ G- 1 1/8" ^ 3- 30mm ^ U- U.S. Universal (all inserts, 1/2"-1") Z- Metric (all inserts, 12mm-20mm)	W- 18" flex. cable	U- Universal End-of-Shaft & Thru Shaft	0- None 1- Basket**	X- None A- Fan cover, 1/4-20 B- Fan cover, 5/16-18 C- Fan cover, 3/8-16 D- Fan cover, all E- 4.5" or 6.75" C-Face F- 8.5" C-Face G- Torque Arm M- 4.5" C-Face or Fan Cover U- Universal (all tether options, excluding "G")	A- A, $\bar{A}$ , B, $\bar{B}$ , Z, $\bar{Z}$ B- A, $\bar{A}$ , B, $\bar{B}$ ^ D- A, $\bar{A}$ ^ E- A, B, Z ^ F- A, B ^ 9- All. Enter specific cable length xx=feet under Special Features (Use w/ Connector Option "W").	00- None 0W- Connector on 18" cable: Use w/ options "E", "N", "S", "U", "Z")						
<b>Connector Options</b>															
<b>Mounted on Encoder</b>					<b>Mounted on 18" cable (0W)</b>										
10 Pin MS		10 Pin EPIC		10 Pin mini MS		6 Pin MS ^		7 Pin MS ^		8 Pin M12 ^		10 Pin EPIC ^		10 Pin mini MS ^	
A- w/o plug (std. phasing) B- w/o plug (Dynapar HS35 phasing) C- "A" w/ plug D- "B" w/ plug		P- w/ plug V- w/o plug		R- w/o plug		E- w/o plug (std. phasing) F- w/o plug (Dynapar HS35 phasing) G- "E" w/ plug H- "F" w/ plug		J- w/o plug (std. phasing) K- w/o plug (Dynapar HS35 phasing) M- "J" w/ plug N- "K" w/ plug		T- w/o plug (Turck Pinout) U- w/o plug (US Pinout)		Z- w/ plug		S- w/o plug	



All dimensions are in inches [millimeters]. Specifications and features are subject to change without notice.