

AVTRON™ ENCODERS

# Avtron HS35M Encoders

Rev: 02-01-22



## Mill Duty Magnetic Hollow Shaft Encoder

### Magnetic Durability at a Great Price!

- | Fits shafts 1/2" to 1 1/8"
- | Simple Installation
- | Up to 3072 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
- | Fully Insulated from Motor Shaft Currents
- | 2 Year No-Hassle Warranty

### HS35M

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.

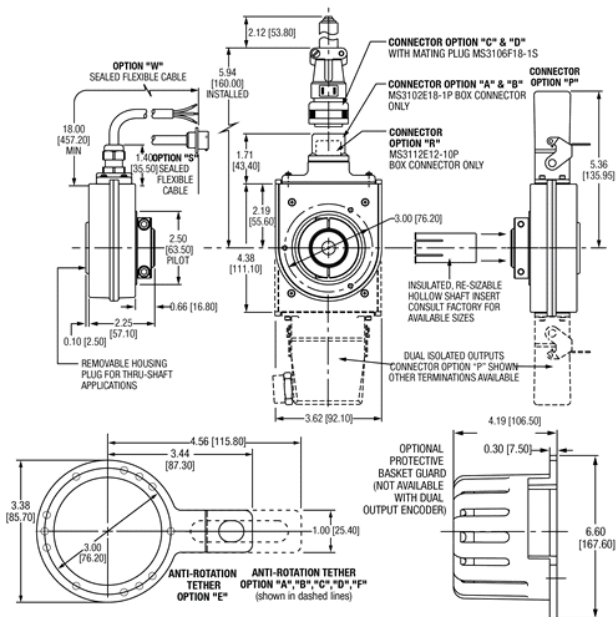
Avtron encoders have superior shaft seals and bearings that stay sealed to keep out contamination caused by temperature cycling and liquid sprays. The HS35M offers high power outputs that can drive cables over 1000' [300m] with full short circuit and overvoltage protection!

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!

## OUTLINE DRAWING



## 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,A-, B,B-, Z,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

## HS35M SPECIFICATIONS

**Operating Power:** Volts: 5 - 24 VDC; Current: 80mA, no load

**Output Format:** A Quad B with marker (A/A, B/B, Z/Z)

**Frequency Range:** 0 to 165 KHz

**PPR:** 1 - 3072 standard (for other PPR needs, consult factory)

**Speed:** 4700 RPM Max., (for higher speeds, consult factory)

**Temperature:** -20° to 85°C

**Environmental:** IP65; NEMA 13 Rating

**Vibration:** 5-2000Hz, 20Gs

**Shock:** 50G, 11ms duration

**Weight:** Single: 1.4 lbs. [635 g] Dual: 2.0 lbs. [905 g]

**Certifications:** CE

All dimensions are in inches [millimeters].

Check out our website for more detailed specifications, drawings, and Specifications and features are subject to change without notice.  
installation instructions. [www.avtronencoders.com](http://www.avtronencoders.com)

## SELECTION GUIDE

HS35M PART NUMBERS AND AVAILABLE OPTIONS											
Model	Left & Right Output PPR		Line Driver	Bore Size		Connector Options	Mounting Style	Protection	Anti-Rotation Tether Options	Channels	Special Features
HS35M	F- 60 T- 80 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 C- 3072 X- None (NA for left output) 0- Special "See Special PPR Table"	6- 5-24V (7272) 8- 5-24V in/ 5-24V out (Hx) 9- 5-24V in, 5V out (7272)	0- Non-Std. B- 1/2" C- 5/8" D- 3/4" E- 7/8" F- 1" G- 1 1/8" P- 12mm Q- 14mm R- 15mm S- 16mm	V- 19mm W- 20mm Y- 25mm* 3- 30mm* 6- 16mm* EOS (Straight) 7- 17mm* EOS (10:1 Taper) U- U.S. Universal (all inserts, 1/2"-1") Z- Metric (all inserts, 12mm-20mm)	W- 18" flex. cable  ** Not applicable on dual output. * No insert used for Options "F", "G", "Y", "3". " Only available with 0W special feature.	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- 12" [300mm] Threaded Rod Tether M- 4.5" C-Face or Fan Cover U- Universal (all tether options, excluding "G") P- 4.5" [115mm] Threaded Rod Tether, replaces Northstar HS35M, HSD35 T- Torque Arm: M6x 76mm Long	A- A,A-,B,B-,Z,Z- B- A,A-,B,B- D- A,A- E- A,B,Z F- A,B J- All Signals A,A-,B,B-,Z,Z- 1/4- Pulse Marker to A- high/B-High 4- Special PPR Enter codes under special features 9- All. Enter specific cable length xx=feet under Special Features (Use w/ Connector Option "W").	00- None 0W- Connector on 18" cable: See Below
Connector Options											
Mounted on Encoder						Mounted on 18" cable (0W)					
Terminal Box	M23 12-Pin	10 Pin MS	10 Pin EPIC	10 Pin mini MS	10 Pin MS	6 Pin MS	7 Pin MS	8 Pin M12	10 Pin EPIC	10 Pin mini MS	12 Pin M23
5- w/ 10 pin push-in terminal block	4- Rt Angle w/o plug	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/ plug	Y- 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/ plug	2- w/o plug (L&L Hubner pinout)



Nidec Industrial Solutions  
243 Tuxedo Avenue - Cleveland, Ohio 44131

encoderhelpdesk@nidec-industrial.com  
+1 216-642-1230 - [www.avtronencoders.com](http://www.avtronencoders.com)



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All dimensions approximate.