

# AVTRON™ ENCODERS

## Avtron HS44 Encoders



### Heavy Mill Duty Magnetic Hollow Shaft Encoder, 12mm- 17mm shaft sizes

#### The Ideal Wind Generator Encoder!

- | Simple Installation
- | Up to 10000 PPR
- | Replaces Competitive Models without Rewiring
- | High Power Outputs Standard
  - | -40°C to +100°C Operation\*
- | Fully Insulated from Motor Shaft Currents\*
  - | 2 Year No-Hassle Warranty
  - | No fragile optics, no glass disks
- | All electronics fully potted/encapsulated
  - | Cast aluminum heavy duty housing
  - | UL Listed; CE Compliant

## HS44

The HS44 offers high performance, magnetic durability and moisture resistance in a compact package with drop-in ease of replacement at a great value.

Avtron HS44 encoders are a direct fit for 12mm, 16mm and 17mm (10:1 taper) generator (and motor) center-bolt shaft systems.

The optional ceramic bearings offer high voltage isolation from shaft currents.

The HS44 is engineered to be a drop-in replacement for Baumer Hubner HOG 8, & 9 models, as well as Leine & Linde 861, 862 & 865 models. And it adds superior durability and diagnostics!

Avtron encoders have superior shaft seals and bearings that stay sealed to keep out contamination caused by temperature cycling and liquid sprays.

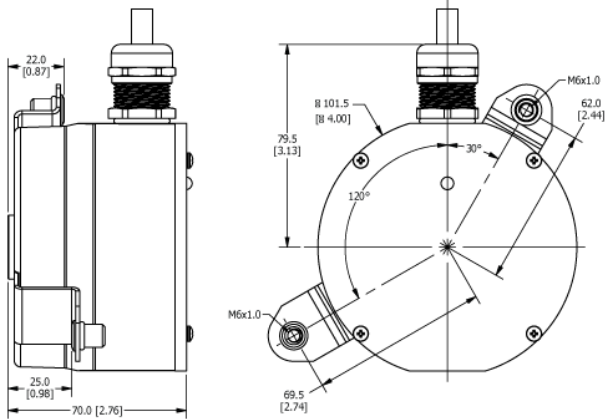
The HS44 offers high power outputs that can drive cables up to 1000' [300m] with full short circuit and over-voltage protection!

On-board diagnostics check all aspects of the encoder - from the sensor to the output line driver circuit - and provide a clear indicator that the encoder is working well. No more fumbling with a PC or oscilloscope to determine if your encoder is working properly!

Often, optical encoders fail because of dust or water contamination that prevents the sensor from seeing the optical disk. The HS44 advanced magnetic technology sees through contamination. The fully potted circuit board that ignores water, oil, dust and dirt. This ensures your machine keeps working, even in the toughest application environments.

Select an Avtron HS44 and upgrade your machine today!

## OUTLINE DRAWING

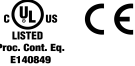


## MORE HS44 ADVANTAGES

- ▮ All digital design; no adjustments or potentiometers required
- ▮ Direct replacement for Hubner HOG 8 & 9 and, Leine & Linde 861, 862, 865, and many others
- ▮ Fits European and Asian generators & motors with 12mm & 16mm straight and 17mm taper shaft center-bolt systems
- ▮ Diagnostic LED & alarm output contact option
- ▮ Grounding (earthing) strap and custom length Anti-Rotation Arms available
- ▮ Fits all major brands and platforms of wind powered generators (WPGs)

## HS44 SPECIFICATIONS

**Operating Power:** Volts: 6-30 VDC; Current: 80mA, no load  
**Output Format:** A Quad B with marker (A,/A, B,/B, Z,/Z)  
**Frequency Range:** 0 to 250 KHz @6V & 1m cable  
**PPR:** 64 - 10000 standard (for other PPR needs, consult factory)  
**Speed:** 6000 RPM Max., (for higher speeds, consult factory)  
**Temperature:** -30° to 85°C std, \*optional: -40° to 100°C  
**Environmental:** IP66 housing with fully encapsulated electronics  
**Shaft Current Isolation:** \*2700VRMS optional ceramic bearings  
**Vibration:** 10-2000Hz, 17Gs  
**Shock:** 275G, 6mS duration  
**Axial Bearing Load:** 500 N  
**Radial Bearing Load:** 1200 N  
**Weight:** 2.5 lbs. [635 g] approx  
**Certifications:** CE, UL Fire & Safety



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

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

## SELECTION GUIDE

HS44 PART NUMBERS AND AVAILABLE OPTIONS								
HS44	Shaft	Tether	Connector	Marker Gating	Line Driver	PPR* (Single)	PPR* (Dual)	Mods
H S 4 4 2 - 12mm End-of-Shaft (EOS) Straight; Standard Bearings 6 - 16mm EOS Straight; Std Bearings 7 - 17mm EOS 10:1 Taper; Std Bearings B - 12mm End-of-Shaft (EOS) Straight; Ceramic Bearings F - 16mm EOS Straight; Ceramic Bearings G - 17mm EOS 10:1 Taper; Ceramic Bearings	X - No Tether 1 - Bracket Only 120°(25mm from shaft to inboard mount) 2 - Bracket Only 330°(22mm from shaft to outboard mount)	2 - M23/12 pin (CW pin #s) Standard Phasing 3 - M23/12 pin (CW pin #s) Reverse Phasing T - M12-8 pin Turck Pinout U - M12-8 pin U.S. Pinout W - M20 Cord Grip w/ 0.5M (20") Cable Y - M20 Cord Grip w/o Cable	K - ¼ AB Cycle, Sync w/A&B High L - ½ AB Cycle, Sync w/B Low M - 1 AB Cycle, Sync w/A High U - Ungated Wide Marker	1 - 6-30V in/out 2 - 6-30V in/5V out 3 - 5V in/out	AN - 256 AR - 512 AY - 1024 A3 - 2000 A4 - 2048 AT - 3072 AD - 4096 A2 - 8192 K1 - 10000 *Contact Factory for Additional PPRs	XX - None	000 - No Special Mods 9XX - Custom Cable Length <sup>A</sup> TXX - Anti-Rotation Arm Length <sup>**</sup> 068 - Remote Alarm Output 069 - 250mm Grounding Strip 070 - Expanded Temp Range (-40 to +100C)	



Nidec Industrial Solutions  
 243 Tuxedo Avenue - Cleveland, Ohio 44131  
[encoderhelpdesk@nidec-industrial.com](mailto:encoderhelpdesk@nidec-industrial.com)  
 +1 216-642-1230 - [www.avtronencoders.com](http://www.avtronencoders.com)



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 All other trademarks and registered trademarks are the property of their respective owners. Nidec Industrial Solutions' standard warranty applies.  
 All dimensions approximate.