

## Avtron HS44 Encoders



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

### Magnetic Durability in a Compact 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
- 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 isolated 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.

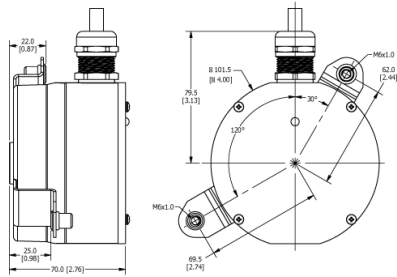
The HS44 offers high power outputs that can drive cables up to 1000' [300m] with full short circuit and over-voltage protection!

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 magnetic technology in circuit board that works through humidity, 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
- Grounding (earthing) strap and custom length Anti-Rotation Arms available
- 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
- Fits all major brands and platforms of wind powered generators (WPGs)

## MORE 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

**Shaft Current Isolation:** \*2700VRMS

**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)



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# SELECTION GUIDE

MODEL	HOLLOW SHAFT BORE SIZE	TETHER	CONNECTOR	MARKER GATING	LINE DRIVER	PPR (SINGLE)	PPR (DUAL)	MODIFICATIONS
HS44	2 - 12mm End-of-Shaft Straight; Standard Bearings 6 - 16mm End-of-Shaft Straight; Standard Bearings 7 - 17mm End-of-Shaft 10:1 Taper; Standard Bearings	X - No Tether 1 - Bracket Only 120°(25mm from shaft to inboard mount) 2 - Bracket Only 330°(22mm from shaft to outboard mount) 3 - Bracket 330°(22mm from shaft to outboard mount) & 90mm Tether Arm	1 - Cable Entry, M20, Special Wiring Label, Reverse Phasing 2 - M23/12 pin (CW pin #s) Standard Phasing 3 - M23/12 pin (CW pin #s) Reverse Phasing 4 - M20 cable gland (12.7-15.7mm) w/o cable, with ground block on cover 5 - M23-17 pin (cw pin#s) T - M12-8 pin Turck Pinout U - M12-8 pin U.S. Pinout V - Cable Entry, M25, Reverse Phasing, Special Wiring Label W - Cable, 0.5m (or special length) Y - Cable Entry Z - Cable Entry, M20, Standard Phasing, Special Wiring Label	K - 1/4 AB Cycle, Sync w/ A&B High T - 1/4 AB Cycle Sync w/ A&B High (Avtron Marker Pulse) L - 1/2 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	AA - 32 BG - 40 AL - 240 AN - 256 AR - 512 AY - 1024 AZ - 1200 A3 - 2000 A4 - 2048 BA - 2400 AT - 3072 AD - 4096 A9 - 5000 A2 - 8192 K1 - 10000	XX - None	000 - No Special Modifications 068 - Remote Alarm Output 069 - Add 250mm Grounding Strap 070 - Expanded Temp Range (-40 to +100C) 077 - High Speed (>4500 RPM) 081 - Expanded Temp Range (-40 to +100C), High Speed (>4500 RPM) 901 - 1 m Custom Cable Length 902 - 2 m Custom Cable Length 905 - 5 m Custom Cable Length 910 - 10 m Custom Cable Length 920 - 20 m Custom Cable Length 930 - 30 m Custom Cable Length 940 - 40 m Custom Cable Length 950 - 50 m Custom Cable Length 960 - 60 m Custom Cable Length 970 - 70 m Custom Cable Length 980 - 80 m Custom Cable Length 990 - 90 m Custom Cable Length T07 - 70 mm Anti-Rotation Arm Length (adjustable to 67-80 mm) T08 - 80 mm Anti-Rotation Arm Length (adjustable to 72-90 mm) T10 - 100 mm Anti-Rotation Arm Length (adjustable to 92-110 mm) T11 - 110 mm Anti-Rotation Arm Length (adjustable to 102-120 mm) T15 - 150 mm Anti-Rotation Arm Length (adjustable to 142-160 mm) T18 - 180 mm Anti-Rotation Arm Length (adjustable to 172-190 mm) T50 - 500 mm Anti-Rotation Arm Length (adjustable to 492-510 mm) D03 - Special Label for ABB D04 - With Extended Temp -40C to +100C, Spacer/Ground for Fegema/Gamesa



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