

# Avtron HS25A Encoders



## Light Mill Duty Optical Hollow Shaft Encoder

### Tough and Compact! HS25A

- ▮ Fits shafts 3/8" to 3/4"
  - ▮ Simple Installation
- ▮ Unbreakable Optical Disk
  - ▮ Up to 8192 PPR
- ▮ Wide-Gap Technology: Up to 8X larger gap between sensor and rotor
- ▮ Replaces Competitive Models without Rewiring
  - ▮ Fits end of shaft applications
- ▮ IP65/Nema 4, 13 Rating: Dust and Liquid Tight
- ▮ Superior Bearings and Seals
  - ▮ -20°C to +100°C Operation
  - ▮ 2 Year No-Hassle Warranty

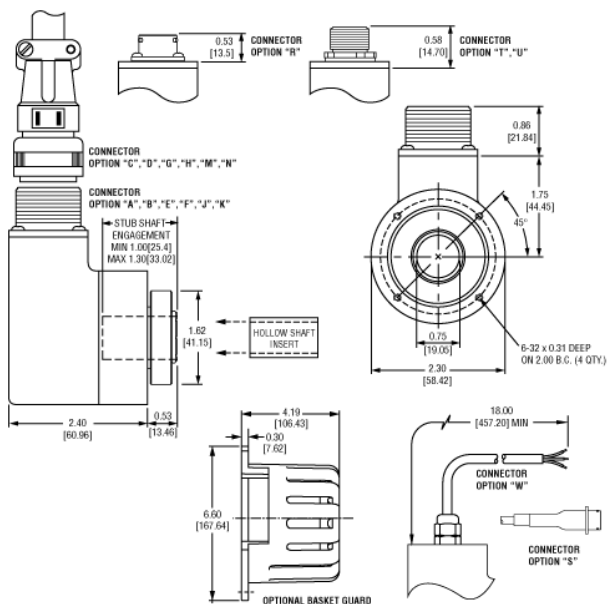
HS25A encoders fit shafts from 3/8" to 3/4" easily, using a durable shaft insert; units may be resized by replacing or removing the insert, enabling our factory, distributors, and customer stockrooms to swiftly meet any need. The shaft insert (3/8" to 5/8") [6 to 16mm] also provides isolation from motor shaft currents, while permitting case grounding to meet NEC requirements.

Avtron encoders have superior shaft seals and bearings that stay sealed to keep contaminants out, through temperature cycling and liquid sprays. Our encoder seals are protected by mechanical barriers to prevent flexing or failure, and Avtron's superior bearings feature synthetic lubricants for even longer life.

Many competitive optical encoder designs risk sensor damage from any vibration or shock: sensors ride less than four thousandths of an inch from the thin, often flexible, optical disk spinning at full motor speeds. Some designs even use thin glass disks in "industrial" products! Avtron uses only unbreakable disks and a sensor to disk gap over 8X larger than the competition.

Our optical HS25A encoders use superior sensor, disk, bearing, and seal technology to give top performance in industrial conditions. Select an Avtron HS25A today!

## OUTLINE DRAWING



## MORE HS25A ADVANTAGES

- ▮ All digital, fully integrated design
- ▮ No mechanical adjustments or trim potentiometers
- ▮ Innovative shaft ring retains collar during installation
- ▮ Advanced sensor technology
- ▮ Superior bearings with synthetic lubricant for longer life
- ▮ No extra charge for signal complements and marker pulse (A,A-, B,B-, Z,Z-)
- ▮ Insulated from motor shaft currents using shaft inserts
- ▮ Units can be resized by interchanging or removing shaft inserts
- ▮ Optional basket guard adds even more protection

## HS25A SPECIFICATIONS

**Operating Power:** Volts: 5 - 28 VDC; Current: 50mA, no load  
**Output Format:** A Quad B with marker (A,A-, B,B-, Z,Z- )  
**Frequency Range:** 0 to 125 KHz  
**PPR:** 1 - 3600 standard (for other PPR needs up to 8192 consult factory)  
**Speed:** 6000 RPM Max., (for higher speeds, consult factory)  
**Temperature:** -20° to 100°C  
**Environmental:** IP65; Nema 4, 13 Rating  
**Vibration:** 5-2000Hz  
**Shock:** 50G, 11ms duration  
**Weight:** 0.95 lbs [431g]

Specifications and features are subject to change without notice.

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

## SELECTION GUIDE

### HS25A PART NUMBERS AND AVAILABLE OPTIONS

Mount	PPR	Line Driver	Bore Options	Connector Options	Mounting Style	Protection	Anti-Rotation Tether Options	Channels	Special Features
HS25A	A- 1 C- 25 F- 60 G- 100 H- 120 K- 200 L- 240 M- 250 N- 256 P- 300 E- 360 Q- 500 R- 512 S- 600	T- 625 U- 720 V- 900 W- 1000 Y- 1024 Z- 1200 1- 1250 2- 1440 3- 2000 4- 2048 5- 2500 6- 2540 7- 3600 0- Special	1- 5-28V 2- 5-28V, Open Collector 4- 5-28V in, 5V out 0- Non-std. Shaft A- 3/8" B- 1/2" C- 5/8" D- 3/4" (no insert) U- Universal 3/8" to 3/4" (all inserts) Z- Metric 6mm to 16mm (all inserts)	W- 18" flex. cable	E- End of 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 U- Universal (all tether options)	<b>8.10 Pin Cons:</b> A- A, A, B, B, Z, Z <b>6.7 Pin Cons:</b> B- A, A, B, B F- A, B, Z	000- None 9xx- Specify cable length xx=feet (use w/ Option "W")
Connector Options									
10 Pin MS		6 Pin MS		7 Pin MS		8 Pin M12		10 Pin Mini Twist Lock	
A- w/o plug (std. phasing) B- w/o plug (Dynapar HS35 phasing) C- "A" w/ plug D- "B" w/ 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)		R- 10 pin mini w/o plug S- 18" Flex cable w/o plug	

\* only available with MS 6 and 7 pin connectors  
 \* Requires option code "00W"

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

**Nidec**

**AVTRON**  
ENCODERS

**CE**

Nidec-Avtron Makes the Most Reliable Encoders in the World

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