

Avtron HS6A Absolute Encoder



HS6A Optical Rotary Absolute Encoders, Hollow Shaft, 0.3" - 0.6" [8-15mm]

Tough and Compact! **HS6A**

- | Fits Shafts 0.3-0.6" [8-15mm]
 - | Up to 30 Bit Resolution
 - | Unbreakable Optical Disk
 - | Singleturn or Multiturn
 - | IP66 Rating
 - | Superior Bearings and Seals
 - | No Batteries
 - | -40°C to +85°C Operation
 - | 2 Year No-Hassle Warranty

HS6A absolute rotary hollow shaft encoders fit shafts from 0.3" to 0.6" [8-15mm], and offer superior durability compared to ordinary optical absolute encoders. Also available: AV6A solid shaft flange-mounted models, HS6M magnetic absolute encoders, HS40 severe-duty absolute magnetic encoders that fit shafts 5/8 - 1 1/8" [16-30mm].

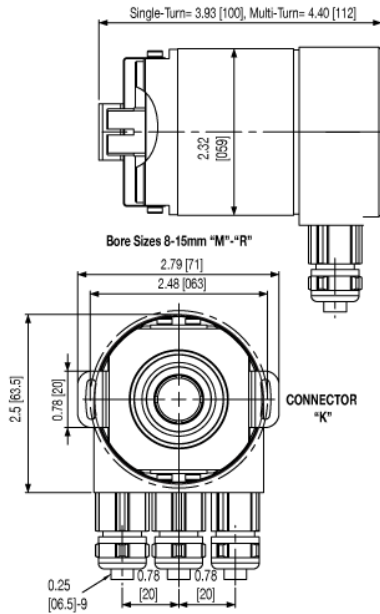
HS6A encoders have superior shaft seals and bearings that stay sealed to keep contaminants out, despite temperature cycles or liquid sprays. Our encoder seals are protected by mechanical barriers to prevent flexing or failure. Avtron's superior bearings outlast the competition, even when mounting stub shafts have increased runout.

Many competitive optical encoder designs risk sensor damage from any vibration or shock. Some designs even use thin glass disks in "industrial" products! Avtron uses only unbreakable disks.

The HS6A offers a broad range of communication options, from parallel output and SSI to the latest Profibus and Ethernet standards.

Our optical HS6A encoders use superior sensor, disk, bearing, and seal technology to give top performance in industrial conditions. Select an Avtron HS6A today!

OUTLINE DRAWING



MORE HS6A ADVANTAGES

- Optional all-stainless construction
- Larger bearings for longer life
- Ultra-long-life internal gearbox
- Software-settable zero point for SSI and parallel output
- Optional factory-programmable cam limits
- Optional 5V operation
- Protected against reverse power wiring
- Profibus DP & ProfiNet Support for Class 1 & 2 & DPV2 Isochronous (ProfiDrive)

HS6A SPECIFICATIONS

Operating Power: Volts: 10 - 30 VDC

Current: 230mA at 10V, 100mA at 24V maximum*

Output Formats: Ethernet/IP*, Modbus TCP*, Profinet*, Powerlink, Profibus, CANOpen, CANSafe, DeviceNet, SSI, Parallel

Accuracy: +/-0.02° (+/-1 arc-min)

Shaft Loading: axial 9lbs [40N], radial 25lbs [110N]

Temperature: -40° to 85°C*

Environment: IP66**

Vibration: 10G, 10-1000Hz

Shock: 30G, 11mS duration

Weight: 1.21lb [550g]; stainless option 2.7lb [1200g]

*(Ethernet versions require 400mA @ 10V or 160mA @ 24V)

**with standard recommended seals

Check out our website for more detailed specifications, drawings, and installation instructions. www.avtronencoders.com

SELECTION GUIDE

HS6A PART NUMBERS AND AVAILABLE OPTIONS												
Model	Sensor	Bus	Style	Shaft Size	Turns/ bits	PPR/bits per turn	Connector	Mounting	Output	IP Rating	Special Option	
HS6A	A- Optical	C- CANOpen D- DeviceNet F- CANSafe K- POWERLINK L- Parallel M- ModbusTCP Ethernet N- Profinet IO P- Profibus DP R- Ethernet/IP S- SSI	1- 58mm housing	L- 6mm M- 8mm N- 10mm P- 12mm R- 15mm (EOS only) Z- All metric sizes	X- 0/0- single turn 2- 4096/12 3- 8192/13 4- 16384/14 6- 65536/16	2- 4096/12 3- 8192/13 4- 16384/14 6- 65536/16	A- 1xM12/5 pin B- 2xM12/5 pin C- 3xM12 4/4/5 or 4/4/4 pins D- 2xM12/4/5 pin E- M12/8 pin F- M23/12 pin G- M27/26pin J- 2x cable entry K- 3x cable entry M- M23/8pin Hengstler N- M23/8pin Stegmann Q- M23/8pin Kubler W- Cable, 1m	E- EOS only U- EOS or Thru (12mm SSI only)	1- Binary 2- Gray	X- None, IP54 A- IP66 shaft seals S- IP66 seals, stainless housing	000- none 9xx- special cable length xx=length 0.3m/ft	
MOUNTING COMPATIBILITY												
			Housing	Bore Size	Mounting	IP/Sealing						
			1	M, N, P, R, Z	E	A, S						
			1	P	U	X						
STANDARD CONNECTORS & OUTPUT FORMATS												
Bus	Code	Connectors	Output									
CANOpen	C	A, B, C, J, K, W	1									
DeviceNet	D	A, W	1									
CANSafe	F	K	1									
POWERLINK	K	C	1									
Parallel	L	G, W	1, 2									
ModbusTCP	M	D	1									
Profinet	N	C	1									
Profibus DP	P	C, J, K	1									
EtherNet/IP	R	C	1									
SSI	S	E, F, W	1, 2									

Nidec-Avtron Makes the Most Reliable Encoders in the World
 8901 E. PLEASANT VALLEY ROAD • INDEPENDENCE, OHIO 44131-5508
 TELEPHONE: (1) 216-642-1230 • FAX: (1) 216-642-6037
 E-MAIL: tachs@nidec-avtron.com • WEB: www.avtronencoders.com

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