Avtron HS6A Absolute Encoder

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

Optical Precision in a Compact Encoder

- 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

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].

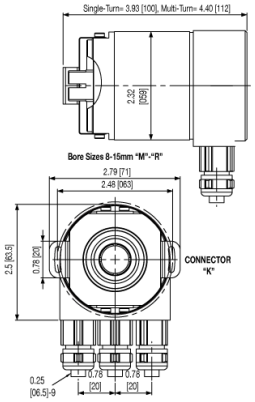
HS6A encoders have superior shaft seals and bearings that stay sealed to keep contaminants out, despite temperature cycles or liquid sprays. Our encoder seals are protected by mechanical barriers to prevent flexing or failure. Avtron's superior bearings outlast the competition, even when mounting stub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

MORE HS6A SPECIFICATIONS

Operating Power: Volts: 10 - 30 VDC
Current: 230 mA at 10 V, 100 mA at 24 V maximum*
Output Formats: Ethernet/IP, Modbus TCP, Profinet, POWERLINK, Profibus, CANopen, DeviceNet, SSI, Parallel*, EtherCAT
Accuracy: +/-0.02° (+/-1 arc-min)
Shaft Loading: axial 9 lbs [40 N], radial 25 lbs [110 N]
Temperature: -40° to 85°C*
Environment: IP65 standard, Up to IP67**
Vibration: 10G, 10-1000Hz
Shock: 30G, 11ms duration*
Weight: 1.21lb [550g]; stainless option 2.7lb [1200g]

*(Parallel requires 400mA @ 10V or 180mA @ 24V)
**with certain stainless steel housing configurations

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

AVTRON™ ENCODERS A Nidec BRAND

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SELECTION GUIDE

☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
MODEL	**COMMUNICATION BUS**	**STYLE**	**HOLLOW SHAFT BORE SIZE**	**TURNS/BITS/MT**	**CPR/BITS PER TURN/ST**	**CONNECTOR**	**MOUNTING**	**OUTPUT CODING**	**IP RATING**	**MODIFICATIONS**
HS6A	C - CANopen Communication D - DeviceNet (Slave) Communication K - Powerlink Ethernet Communication L - Parallel Output M - Modbus Ethernet Communication N - Profinet IO Communication P - Profibus DP (slave) Communication R - EtherNet/IP Communication S - SSI Communication T - EtherCAT Communication	1 - 58mm / 2.25 in. Housing Diameter A - 58mm / 2.25 in. Housing Diameter with Protective Basket	D - 1/4 in. Shaft Fit A - 3/8 in. Shaft Fit B - 1/2 in. Shaft Fit L - 6mm Shaft Fit M - 8mm Shaft Fit N - 10mm Shaft Fit P - 12mm Shaft Fit Q - 14mm Shaft Fit R - 15mm Shaft Fit Y - US Hollow Shaft Inserts 1/4"-1/2" Z - Metric Hollow Shaft Inserts, 6-14mm (15mm native bore)	X - 0 Turns/0 bits-Single Turn A - 16 Turns/4 bits D - 128 Turns/7 bits E - 256 Turns/8 bits 2 - 4096 Turns/12 bits 4 - 16384 Turns/14 bits	E - 256 Counts per Revolution/8 bits F - 512 Counts per Revolution/9 bits 0 - 1024 Counts per Revolution/10 bits 2 - 4096 Counts per Revolution/12 bits 3 - 8192 Counts per Revolution/13 bits 6 - 65536 Counts per Revolution/16 bits	A - 1xM12 5 pin no Plug B - 2xM12/5 pin w/o Plugs C - 3xM12 (4/4/5 or 4/4/4) pin w/o Plugs D - 2xM12/4/5 pin w/o Plugs E - M12/8 pin w/o Plug F - M23/12 pin w/o Plug G - M27/26 pin w/o Plug J - 2x Cable Entry (rear terminal box w/grommets) K - 3x Cable Entry (rear terminal box w/grommets) W - Cable, 1m (or special length) Q - M23/12 pin Kubler w/o Plug R - M23/16 pin w/o Plug	E - End of Shaft (EOS) Mounting; Axial Connector Exit A - End of Shaft (EOS) Mounting; Radial Connector Exit U - Universal (end of shaft or thru-shaft) Mounting Radial Connector Exit	1 - Binary Bit Coding 2 - Gray Coding	X - IP54 No Seals (not recommended), aluminum housing A - IP65 Shaft Seals, aluminum housing G - IP66 Seals, aluminum housing S - IP67 Seals, stainless housing	000 - No Special Features 901 - 1 ft. 0.3m Cable Built into Encoder 902 - 2 ft. 0.6m Cable Built into Encoder 903 - 3 ft. 0.9m Cable Built into Encoder 905 - 5 ft. 1.5m Cable Built into Encoder 910 - 10 ft. 3m Cable Built into Encoder 915 - 15 ft. 4.5m Cable Built into Encoder 920 - 20 ft. 6m Cable Built into Encoder 925 - 25 ft. 7.5m Cable Built into Encoder 930 - 30 ft. 9m Cable Built into Encoder 933 - 33 ft. 10m Cable Built into Encoder

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