Avtron HS6M Absolute Encoder

Mill Duty Absolute Encoder, Single or Multiturn, Fits Shafts 0.24"-0.59 [6-15mm]

Magnetic Durability in a Compact Encoder

Fits 0.24"-0.59" [6-15mm] Shafts

Up to 32 Bit Resolution

Moisture-Proof, Shock Resistant Magnetic Sensor

Singleturn or Multiturn

IP65 Rating

Superior Bearings and Seals

No Batteries or Gears!

-30° to 85°C Operation

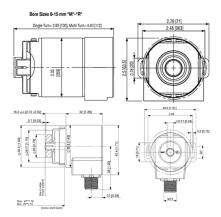2 Year No-Hassle Warranty

HS6M

HS6M hollow shaft magnetic absolute rotary encoders offer excellent performance and durability in a cost-effective package. By utilizing Wiegand wire energy harvesting technology combined with magnetic sensors, Avtron has created an absolute encoder design which requires no batteries, long-term capacitors, glass disks, or gears! Also available: solid shaft model (AV6M), severe duty models (AV30, HS40), as well as optical models (AV6A, HS6A) for ultra-precision applications.

HS6M encoders have superior shaft seals and bearings that stay sealed to keep contaminants out, through temperature cycling and liquid sprays. Moreover, the magnetic sensor can see through oil, dust and dirt that disable ordinary optical absolute encoders. Optional coated circuit boards and GORE-TEX® weep/breather drain configurations are available for the roughest locations.

The HS6M features a broad range of industry standard communication protocols: from analog outputs to CANOpen, J1939, Profinet IO, Profibus, SSI and EtherCAT, you will find the communication protocol you need.

HS6M encoders combine magnetic sensors and superior bearing and seal technology to give top performance in industrial applications. Select an HS6M today!

OUTLINE DRAWING

Bore Sizes 8-15 mm "M"-"R"
Single-Turn= 3.93 [100], Multi-Turn= 4.40 [112]

MORE HS6M ADVANTAGES

- No internal gearbox to wear out
- Optional factory-programmable cam limits
- Optional 5V operation
- Software settable zero point for SSI output
- Optional GORE-TEX® weep drains & coated circuit boards

MORE HS6M SPECIFICATIONS

Operating Power:
  SSI: 5-30VDC; 30mA @ 24VDC, 125mA @ 5VDC
  Analog V Out: 12-30VDC; 15mA @ 24V
  Analog I Out: 15-30VDC; 40 mA @ 24V
Output Format: Analog, CANOpen, J1939, Profinet IO, Profibus, SSI
Accuracy: +/-0.35° (+/-21 arc-min)
Temperature: -30°C to +85°C
Vibration: 10-1000Hz, 10G
Shock: 200G, 3mSec
Weight: 0.33lb [150g]
Certifications: CE

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

SELECTION GUIDE

☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
MODEL	COMMUNICATION BUS	STYLE	HOLLOW SHAFT BORE SIZE	TURNS/BITS/MT	PPR/BITS PER TURN/ST	CONNECTOR	MOUNTING	OUTPUT CODING	IP RATING	MODIFICATIONS
HS6M	A - Analog Communication C - CANOpen Communication J - J1939 CAN Communication N - Profinet IO Communication P - Profibus DP S - SSI Communication T - EtherCAT Communication	1 - 58mm / 2.25 in. Housing Diameter A - 58mm / 2.25 in. Housing Diameter with Protective Basket 3 - 36.5mm / 1.44 in. Housing Diameter 7 - 42mm / 1.65 in. Housing Diameter	A - 3/8 in. Shaft Fit B - 1/2 in. Shaft Fit C - 5/8 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 S - 16mm Shaft Fit Y - All US Hollow Shaft Sizes 1/4"-5/8" Z - All Metric Hollow Shaft Sizes 6mm to 15mm	X - 0 Turns/0 bits- Single Turn A - 16 Turns/4 bits- (Field-Scalable for Analog 0.03 to 65536 turns) 2 - 4096 Turns/12 bits 3 - 8192 Turns/13 bits 4 - 16384 Turns/14 bits 5 - 32768 Turns/15 bits	2 - 4096 Counts per Revolution/12 bits (Only option with analog output) 3 - 8192 Counts per Revolution/13 bits 6 - 65536 Counts per Revolution/16 bits	A - 1xM12/5 pin w/o Plug C - 3xM12 (4/4/4) Pins w/o Plugs E - 1xM12/8 pin w/o Plug F - M23/12 pin w/o Plug K - 3x Cable Entry M - M23/8 pin Hengstler w/o Plug N - M23/8 pin Stegmann w/o Plug Q - M23/8 pin Kubler w/o Plug W - Cable, 1m (or special length)	E - End of Shaft (EOS) Mounting; Axial Connector Exit A - End of Shaft (EOS) Mounting; Radial Connector Exit	1 - Binary Bit Coding 2 - Gray Coding 3 - 0-5V Analog 4 - 0-10V Analog 5 - 4-20mA Analog 6 - 0-20mA Analog 7 - 0.5-4.5V Analog 8 - 0.5-9.5V Analog	X - No Seals, IP54 (not recommended), aluminum housing A - IP65 Shaft Seals, aluminum housing	000 - No Special Features 002 - Coated circuit boards & Gor-tex weep drain for outdoor applications 003 - IP69K special seals, 5m cable w/axial exit, special tether 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