Nidec | Avtron ENCODERS

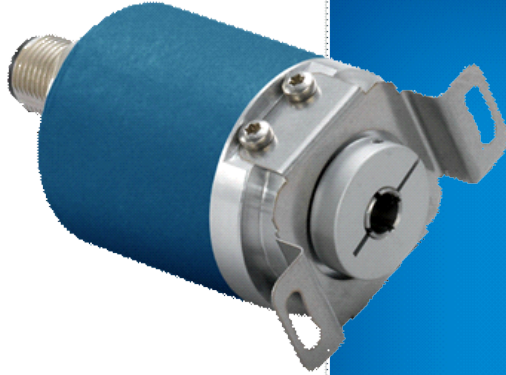# Avtron HS6M Absolute Encoder

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

Tough and Compact!

ı Fits 0.24"-0.59" [6-15mm] Shafts
ı Up to 27 Bit Resolution
ı Moisture-Proof, Shock Resistant Magnetic Sensor
ı Singleturn or Multiturn
ı IP65 Rating
ı Superior Bearings and Seals
ı No Batteries or Gears!
ı -30° to 85°C Operation
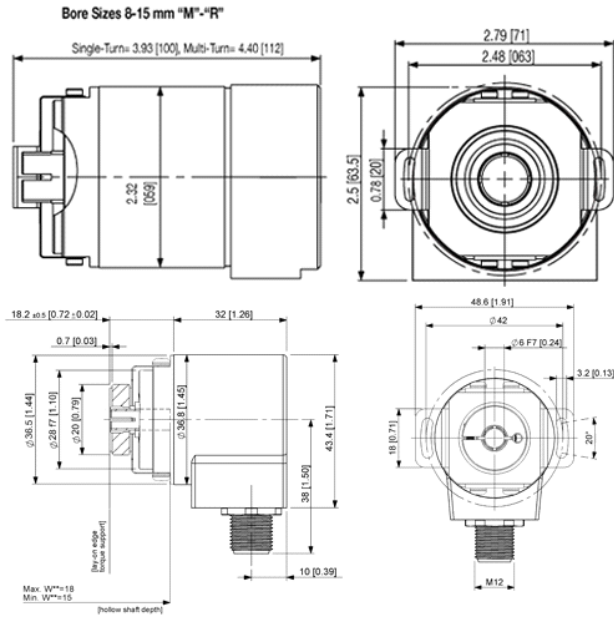ı 2 Year No-Hassle Warranty

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 CANbus, DeviceNet, J1939, PROFINET IO, andSSI, you will find the communication protocol you need.

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

OUTLINE DRAWING

Bore Sizes 8-15 mm "M"-"R"

Single-Turn= 3.93 [100], Multi-Turn= 4.40 [112]

2.79 [71]
2.48 [063]
2.32 [059]
2.5 [63.5]
0.78 [20]

18.2 ±0.5 [0.72 ±0.02]
32 [1.26]
0.7 [0.03]
Ø36.5 [1.44]
Ø28.7 [1.10]
Ø20 [0.79]
Ø36.8 [1.45]
43.4 [1.71]
38 [1.50]
10 [0.39]

Max. W***=18
Min. W***=15
[hollow shaft depth]
[lay-on edge torque support]

48.6 [1.91]
Ø42
Ø-6 F7 [0.24]
3.2 [0.13]
18 [0.71]
20°
M12

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

MORE HS6M ADVANTAGES

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

SELECTION GUIDE

HS6M PART NUMBERS AND AVAILABLE OPTIONS

Model	Bus	Housing	Bore Size	Turns/ bits	PPR/bits per turn	Connector	Mounting Style	Output	IP Rating	Special Option
HS6M	A- Analog C- CANOpen D- DeviceNet J- J1939 N - PROFINET IO S- SSI	1- 58mm 3- 36.5mm 7- 42mm	L- 6mm M- 8mm N- 10mm P- 12mm R- 15mm Z- All metric sizes	X- 0/0- single turn A- 16/4 (analog) 2- 4096/12 3- 8192/13 4- 16384/14 5- 32768/15	2- 4096/12* 3- 8192/13 6- 65536/16 *use '2' also for analog output	A- 1xM12/5 pin C- M12 x3 pin E- 1xM12/8 pin F- M23/12 pin K- 3x cable entry W- Cable, 1m	E- EOS only	**Digital** 1- Binary 2- Gray **Analog** 3- V output 0-5V 4- V output 0-10V 5- I Output 4-20mA 6- I Output 0-20mA	X- no shaft seal, IP54, aluminum + steel housing A- IP65 seals, aluminum + steel housing C - IP65 Seals, aluminum housing, coated circuit boards, Gore-Tex weep/breather drain K- IP69K stainless housing	000- none 9xx- special cable length xx=length *0.3m 001- pushbutton setpoints

HOUSING COMPATIBILITY

Housing	Bore Size	IP/Sealing
1	M, N, P, R, Z	A, C, K
3	L	X, A
7	M, N, P	A

STANDARD CONNECTORS & OUTPUT FORMATS

Bus	Code	Connectors	Output
Analog	A	A, W	3, 4, 5, 6
CANOpen	C	A, W	1
DeviceNet	D	A, W	1
J1939	J	A, W	1
PROFINET IO	N	C	1
SSI	S	E, F, W	1, 2

CE