Avtron AV6M Absolute Encoder

Light Mill Duty Shafted Absolute Encoder, Singleturn or Multiturn

Magnetic Durability in a Compact Encoder

- Standard 36mm and 58mm Sizes
- Up to 32 Bit Resolution
- Moisture-Proof, Shock Resistant Magnetic Sensor
- Singleturn or Multiturn
- Up to IP69K Rating
- Superior Bearings and Seals
- No Batteries or Gears!
- -40° to 85°C Operation
- 2 Year No-Hassle Warranty

AV6M

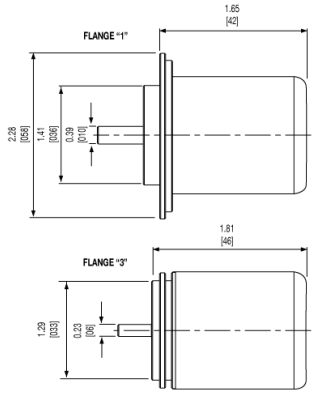
AV6M shafted magnetic absolute rotary encoders offer excellent performance and durability in a cost-effective package. By utilizing Wiegand wire energy harvesting technology combined with magnetic sensors, Avtron has created an absolute encoder design which requires no batteries, long-term capacitors,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

AV6M 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.

The AV6M features a broad range of industry standard communication protocols: from analog outputs to CANOpen, J1939, Profinet IO, Profibus, and SSI, you will find the communication protocol you need.

Our AV6M encoders combine magnetic sensors and superior bearing and seal technology to give top performance in industrial applications. Select AV6M today!

OUTLINE DRAWING



MORE AV6M ADVANTAGES

- More than 2X the axial and side load capability of the competition
- No internal gearbox to wear out
- Software settable zero point for SSI output
- Optional factory-programmable cam limits
- Optional 5V operation
- Shock and vibration withstand upgrade available

MORE AV6M SPECIFICATIONS

Operating Power:
SSI: 5-30VDC; 30mA @ 24VDC, 125mA @ 5VDC
Analog V Out: 12-30VDC; 15mA @ 24V
Analog I Out: 15-30VDC; 40mA @ 24V
Output Format: Analog, CANOpen, J1939, Profinet IO, Profibus, SSI
Accuracy: +/-0.35° (+/-21 arc-min)
Temperature: -40°C to 85°C* (Std -30°C to +85°C)
Environmental: IP69K* (Std IP65)
Shaft Load: 300N axial, 300N radial* (std. 40N axial, 110N radial; flange 6 180N axial, 180N radial)
Vibration: 5-2000Hz, 30G*; (Std 10G)
Shock: 300G, 6mSec* (Std 200G, 3mSec)
Weight: 0.33-0.40lb [150-180g]
Certifications: CE

*Extended temp. range, shaft load capability, shock and vibration rating require flange style "6" or "7"

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**	**FLANGE**	**SHAFT SIZE**	**TURNS/BITS/MT**	**PPR/BITS PER TURN/ST**	**CONNECTOR**	**CONNECTOR EXIT**	**OUTPUT CODING**	**IP RATING**	**MODIFICATIONS**
AV6M	A - Analog Communication C - CANOpen Communication J - J1939 CAN Communication N - Profinet IO Communication P - Profibus DP Communication S - SSI Communication T - EtherCAT Communication	1 - 58mm Clamp Flange, 36mm Pilot, 3x M3 & 3x M4 at 48mm bc 2 - 58mm Synchro Flange, 50mm Pilot, 3x M4 at 42mm bc 3 - 36.5mm Mini-flange w/33mm Pilot, 4x M3 @26mm bc 4 - 2.5 in. Square flange, 1.25 in. male pilot, 4x 7/32 untapped @ 2.06 in. side to side hole spacing. 6 - 36.5mm HD Flange, 30mm Pilot, 4xM4@24mm bc 7 - 42mm HD Stainless Flange/Pilot, 4xM4@35mm bc	T - 6 mm Solid Shaft, no flat S - 6 mm Solid Shaft, no flat; Special 11.5 mm length R - 10 mm Solid Shaft, no flat C - 10 mm Solid Shaft w/flat B - 3/8 in. Solid Shaft w/flat	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	1 - 2048 Counts per Revolution/11 bits 2 - 4096 Counts per Revolution/12 bits 3 - 8192 Counts per Revolution/13 bits 6 - 65536 Counts per Revolution/16 bits	A - 1x M12/5 pin w/o Plug C - 3x M12 (4/4/4) pin w/o Plugs E - 1x M12/8 Pin w/o Plug F - M23/12 pin w/o Plug J - 2x Cable Entry K - 3x Cable Entry W - Cable, 1m (or special length)	A - Side/Radial exit E - End/Axial exit	1 - Binary Bit Coding 2 - Gray Coding 3 - 0-5V Analog 4 - 0-10V Analog 5 - 4-20mA Analog 6 - 0-20mA Analog	X - No Seals, IP54 (not recommended), aluminum housing A - IP65 Shaft Seals, aluminum housing K - IP69K Seals	000 - No Special Features 001 - Push Button Set Points 002 - Coated circuit boards & Gor-tex weep drain for outdoor applications 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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