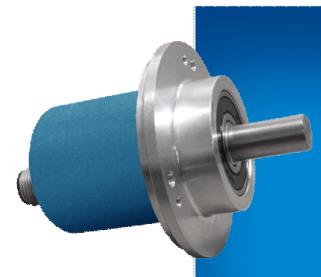
Rev: 06-04-18





Light Mill Duty Shafted
Absolute Encoder, Singleturn
or Multiturn

#### **Absolute Performance**

# AV6M

- Standard 36mm and & 58mm Sizes
  - Up to 27 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

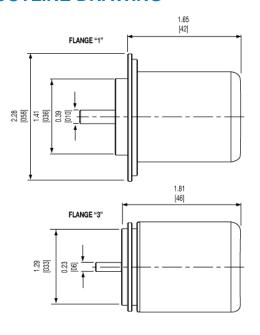
AV6M shafted magnetic absolute rotary encoders offer excellent performance and durability in a cost-effective package. By utilizing Wiegand wire energy harvesting technology combined with magnetic sensors, Avtron has created an absolute encoder design which requires no batteries, long-term capacitors, 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 CANbus, DeviceNet, J1939 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

## **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, DeviceNet, J1939, SSI (Profibus coming!)

**Accuracy:** +/-0.35° (+/-21 arc-min)

Temperature: -40°C to 85°C\* (Std -30°C to +85°C)

Environmental: IP69K\* (Std IP65)

Shaft Load: 180N axial, 180N radial\* (std. 40N axial, 110N 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 30mm flange style

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

### **SELECTION GUIDE**

AV6M PART NUMBERS AND AVAILABLE OPTIONS											
Model	Bus	Flange	Shaft Size	Turns/ bits	PPR/bits per turn	Connector	Connector Exit	Output	IP Rating	Spec Optio	
AV6M	A- Analog C- CANOpen D- DeviceNet P- Profibus DP S- SSI	36mm male		X- 0/0- single turn A- 16/4 (analog) 2- 4096/12 3- 18/92/13 4- 16/384/14 5- 32768/15	2- 4096/12 3- 8192/13	A- 1xM12/5 pin E- M12/8 pin H- RJ45 (on 1m cable) W- Cable, 1m	A- side/radial E- end/axial	1- Binary 2- Gray Analog 3- V output	X- no shaft seal, IP65 K- IP69K (special housing)* S- IP66 seals, stainless housing * Requires flange option "6"	9xx- specia cable length xx-fee [0.3m] 001- pushb setpoii	t   utton
		6- 36.5mm HD flange w/30mm	used with Shaft Size "C".  ** Flange option "6" can only					STANDARD CONNECTORS			
		male pilot	be used with	Shaft Size "C".				Bus Code	Analog A	CAN	SSI
		4X M4@ 24mm BC**						Connector	A, W	A, W	E, W
								Exits	A, E	A, E	A, E



Nidec-Avtron Makes the Most Reliable Encoders in the World

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CE

All dimensions are in inches [millimeters].

Specifications and features are subject to change without notice.
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