

# Avtron AV6M Absolute Encoder



**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

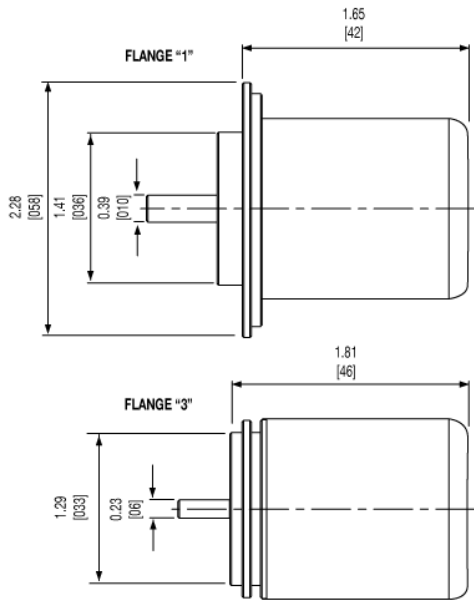
AV6M shafted magnetic absolute rotary encoders offer excellent performance and durability in a cost-effective package. By utilizing Wiegand wire energy harvesting technology combined with magnetic sensors, Avtron has created an absolute encoder design which requires no batteries, long-term capacitors,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

## 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:** 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 "6"

Check out our website for more detailed specifications, drawings, and installation instructions. [www.avtronencoders.com](http://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	Special Option
AV6M	<b>A-</b> Analog <b>C-</b> CANOpen <b>D-</b> DeviceNet <b>P-</b> Profibus DP <b>S-</b> SSI	<b>1-</b> 58mm flange, 36mm male pilot, 3X M3, 3X M4 at 42mm* <b>2-</b> 58mm flange, 50mm male pilot, 3X M3, 3X M4 at 42mm <b>3-</b> 36mm mini-flange w/33mm male pilot, 4X M3 at 26mm BC <b>6-</b> 36.5mm HD flange w/30mm male pilot, 4X M4@ 24mm BC**	<b>C-</b> 10mm dia. x 20mm w/flat <b>T-</b> 6mm dia., x 10mm, no flat	<b>X-</b> 0/0- single turn <b>A-</b> 16/4 (analog) <b>2-</b> 4096/12 <b>3-</b> 8192/13 <b>4-</b> 16384/14 <b>5-</b> 32768/15	<b>2-</b> 4096/12 <b>3-</b> 8192/13	<b>A-</b> 1xM12/5 pin <b>E-</b> M12/8 pin <b>H-</b> RJ45 (on 1m cable) <b>W-</b> Cable, 1m	<b>A-</b> side/radial <b>E-</b> end/axial	<b>Digital</b> <b>1-</b> Binary <b>2-</b> Gray <b>Analog</b> <b>3-</b> V output 0-5V <b>4-</b> V output 0-10V <b>5-</b> I Output 4-20mA <b>6-</b> I Output 0-20mA	<b>X-</b> no shaft seal, IP65 <b>K-</b> IP69K (special housing)* <b>S-</b> IP66 seals, stainless housing * Requires flange option "6"	<b>000-</b> none <b>9xx-</b> special cable length xx-feet [0.3m] <b>001-</b> pushbutton setpoints
<b>STANDARD CONNECTORS</b>										
<b>Bus</b>	Analog	CAN	SSI							
<b>Bus Code</b>	A	C	S							
<b>Connector</b>	A, W	A, W	E, W							
<b>Exits</b>	A, E	A, E	A, E							



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