

# Avtron Model AV485

SMARTach II Magnetic Encoder  
Foot or NEMA 56C Face Mount, 5/8" Solid Shaft



## Tougher and Smarter!

- Severe Mill Duty
- Up to 5000 PPR
- Replaces Competitive Models Without Rewiring
- Self-Diagnostic LED & Alarm Output
- Foot or NEMA 56C Face Mount
- Removable Sensors
- IP66 Enclosure
- High-Power Output Standard
- Outputs Fully Short Circuit Protected
- Optional Dual Isolated Outputs
- 1 Year No-Hassle Warranty

**AV485** SMARTach II severe duty magnetic encoders can be foot or NEMA 56C face/flange mounted. They feature our largest bearings on an ultra-wide stance for pulley and other rough applications.

The AV485 is designed to withstand the worst environments: buried in slag, coated in pulp, sprayed with salt water or cutting coolants.

The modular, gull-winged design makes it easy to install and service;

the base can be bolted in place without removing the encoder, and the AV5 wide-gap removable sensors require no adjustment or shimming.

The sensors are fully potted to protect against liquids, and are interchangeable between AV850, AV485, and AV685 encoders. Of course, they drive long cable lengths, and offer full protection against wiring errors.

The LED on an AV485 is much more than a green power light. It offers a

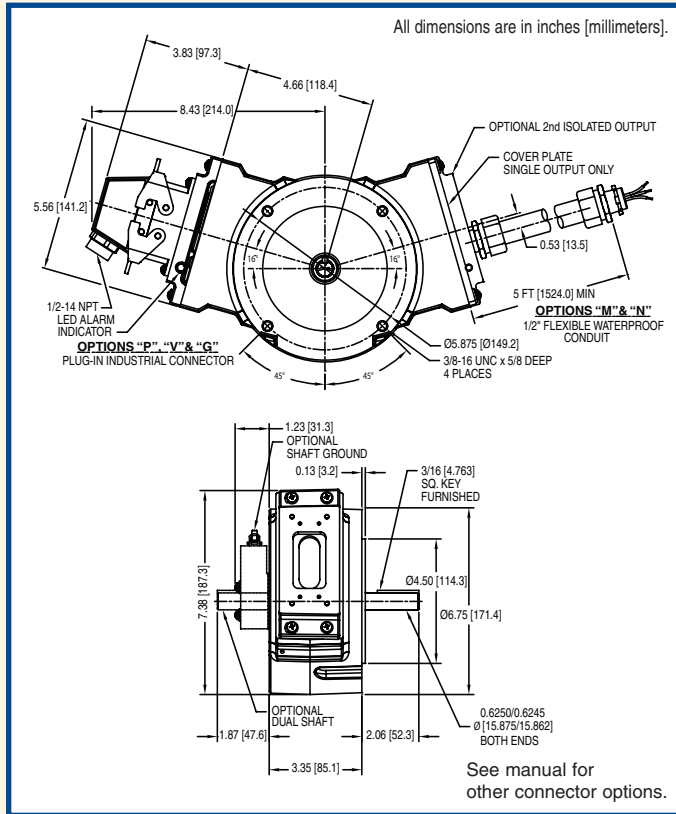
diagnostic look inside the encoder. The self-tuning electronics assure you of proper duty cycle and phasing—no more false drive trips.

For easy upgrades, the AV485 matches the bolt pattern and shaft location of older analog and digital models.

Keep your mill running today, and for years to come: install AV485!

# SMARTach II Magnetic Encoder Foot or NEMA 56C Face Mount, 5/8" Solid Shaft

## OUTLINE DRAWING



Check out our web site for more detailed specifications, drawings, and installation instructions. [www.avtronencoders.com](http://www.avtronencoders.com)

## SELECTION GUIDE

AV485 PART NUMBERS AND AVAILABLE OPTIONS INCLUDING AV5 SENSORS											
Model	Temp Rating	Foot Bracket	Style	Left Module			Right Module			Connector Options	Modifications
				Line Driver	PPR		Line Driver	PPR			
AV485	N- -20°C to 80°C C- -40°C to 80°C H- -20°C to 120°C*	X- none 1- A36261 STD 2- BC42/46 style (A25448)	S- single shaft D- dual shaft G- grounding	X- none	X- none	S- 600	X- none	X- none	S- 600		000- none 002*- Select alternate PPR assignment code 003- Include analog signal converter (K661) 004- Super magnetic shielding
	8- 5-24V in/ 5-15V out, 4125 hi-power 9- 5-24V in, 5V out 7272			C*-50 F- 60 G- 100 H- 120 A- 128 B*-150 L- 240 N- 256 P- 300 E- 360 B- 480 Q- 500 R- 512	V- 900 J- 960 Y- 1024 Z- 1200 A*-1270 3- 2000 4- 2048 5- 2500 D- 4096 8- 4800 9- 5000 0-special	8- 5-24V in/ 5-15V out, 4125 hi-power 9- 5-24V in, 5V out 7272	F- 60 J- 960 Y- 1024 Z- 1200 A*-1270 B*-150 L- 240 N- 256 D- 4096 8- 4800 9- 5000 0-special				
<b>Connector Options</b>											
<b>Mounted on Encoder Body</b>				<b>3' Cable</b>			<b>5' Flexible Conduit</b>				
<b>Industrial Connector</b>	<b>5 pin MS</b>	<b>10 pin MS</b>	<b>Other</b>	<b>Industrial Connector</b>	<b>Twist Lock</b>	<b>Other</b>					
G- (Northstar™ Pinout) with Plug P- with Plug V- with Plug, w/insulated adapter	E- (M737 Pinout) without Plug F- "E" with Plug H- (M727 Pinout) without Plug J- "H" with Plug	A- without Plug B- with Plug & clamp C- with Plug & Flex. Adapter L- with Right Angle Plug	K- Condulet R- Twist Lock Mini MS with Plug 3- 6 Pin MS connector with plug	Z- with Plug	S- Mini MS with Plug	W- Leads only	D- 10 pin MS, w/ins. adapter M- w/ins. adapter N- In Flextight T- Terminal box Y- Terminal box, w/ins. adapter				

+ Contact Avtron  
\* To Specify this PPR, also specify modification code 002.

## MORE AV485 ADVANTAGES

- Foot mount bolt pattern matches older analog models exactly
- Optional K661 signal converter for direct replacement of analog tachs (BC42, 46, etc.)
- Replaces Dynapar H56, RIM6200; Avtron M485, M727, M737; GE 5BC42/46
- Foot mount bracket eliminates realignment
- SMARTach II sensors find problems before they cause failures
- Protected against: power-to-phase, short circuits, and reverse voltage wiring problems
- Universal sensors work from 5-24V
- Mix and match any PPR's
- Optional extended temperature ranges: -40°C to +80°C, -20°C to +120°C\*
- Shaft grounding & overspeed switch optional

## AV485 SPECIFICATIONS

### Operating Power

(Each Sensor): 5-24V, 100mA

Output Format: A Quad B with marker (A,  $\bar{A}$ , B,  $\bar{B}$ , Z,  $\bar{Z}$ )

Frequency Range: 0 to 165 KHz

Maximum Cable Length: 2000' [600m]\*\*

PPR: 8-5000

Speed: 5500 RPM Max or 165 kHz

Temperature: -40°C\* to 120°C\*

Environmental: IP66\*\*, Nema 4, 13 Rating

Vibration: 5-2000Hz, 18Gs

Weight: 14 lbs. [6.4 kg]/16lbs [7.3kg] dual output

CE Pending



INDUSTRIAL AUTOMATION, INC.

8901 E. PLEASANT VALLEY RD., INDEPENDENCE, OH 44131, U.S.A. • (1) 216-642-1230 • FAX (1) 216-642-6037 • [www.avtronencoders.com](http://www.avtronencoders.com)

\*-20°C to 80°C Standard  
\*\*Connector options may reduce IP rating.  
\*\*\*Hi-power outputs; may be limited by RPM & PPR; see manual for details  
All dimensions are in inches [millimeters].  
Specifications and features are subject to change without notice..