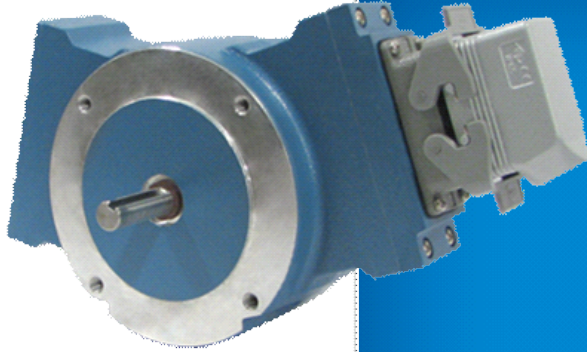


Avtron AV485 SMARTach II Encoders



Severe Mill Duty Magnetic Encoder; Foot or NEMA 56C Face Mount, 5/8" Solid Shaft

Tougher and Smarter! AV485

- | 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

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. Also available: [AV685](#) for hollow shaft mounting, and [AV850](#) encoders for complete flowerpot/flange/coupling elimination.

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

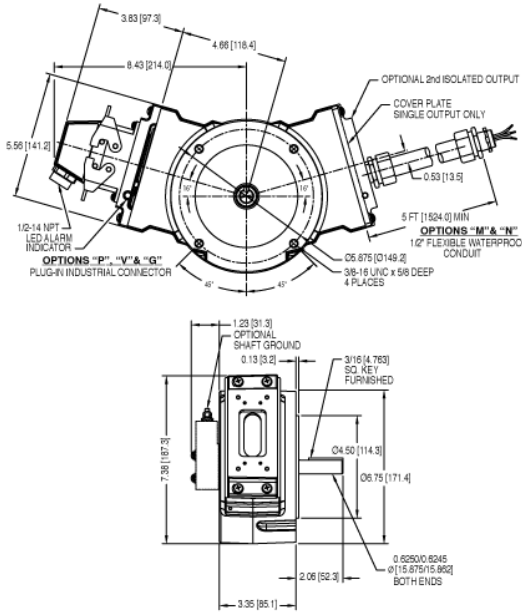
The sensors are fully potted to protect against liquids, and are interchangeable between AV850, AV485, and AV685 encoders. Of course, they drive long cable lengths, and offer full protection against wiring errors. A second backup output is available with the same or different PPR, and offers completely separate electronics for maximum uptime.

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!

OUTLINE DRAWING



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, Northstar RIM6200, NexGen 6200; Avtron M485, M727, M737; GE 5BC42/46
- | SMARTach II sensors find problems before they cause failures
- | Protected against: power-to-phase, short circuits, and reverse voltage wiring problems
- | 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
- | 1 Year No-Hassle Warranty

AV485 SPECIFICATIONS

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

Output Format: A Quad B with marker (A,A-, B,B-, Z,Z-)

Second Independent Output Option: A Quad B with Marker

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

Pending

Check out our website for more detailed specifications, drawings, and* -20°C to 80°C Standard, requires high-temperature model and instrument air feed for 120°C rating installation instructions. www.avtronencoders.com **Connector options may reduce IP rating.












**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.

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 6- 5-24V in/out 7272 8- 5-24V in/ 5-15V out, 4125 hi-power 9- 5-24V in, 5V out 7272	X- none F- 60 C- 64 G- 100 H- 120 A- 128 L- 240 N- 256 P- 300 E- 360 B- 480 Q- 500 R- 512 S- 600 U- 720	V- 900 J- 980 W- 1000 Y- 1024 Z- 1200 2- 1500 3- 2000 4- 2048 5- 2500 D- 4096 8- 4800 9- 5000 0-special	X- none 6- 5-24V in/out 7272 8- 5-24V in/ 5-15V out, 4125 hi-power 9- 5-24V in, 5V out 7272	X- none F- 60 C- 64 G- 100 H- 120 A- 128 L- 240 N- 256 P- 300 E- 360 B- 480 Q- 500 R- 512 S- 600 U- 720	J- 980 W- 1000 Y- 1024 Z- 1200 2- 1500 6- 1800 3- 2000 4- 2048 5- 2500 D- 4096 8- 4800 9- 5000 0-special	000- none 003- Include analog signal converter (K661) 004- Super magnetic shielding	
+ Contact Avtron											

SPECIAL PPR OPTION CODES		
OPTION CODE	LEFT PPR	RIGHT PPR
401	1270	None
402	150	None
403	50	None
404	512	16
405	16	None
406	6000	None
407	2800	None
408	1400	None
409	30	None
410	None	6000

Connector Options							
Mounted on Encoder Body				3' Cable			5' Flexible Conduit
Industrial Connector	5 pin MS	10 pin MS	Other	Industrial Connector	Twist Lock	Other	
G- (Northstar™ Pinout) with Plug P- with Plug V- with Plug, w/insulated adapter 1- Mini-Epic with Plug	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 with plug (M940) 3- 6 Pin MS connector with plug (M940)	Z- with Plug Q- 18" Flex Cable on Remote	S- Mini MS with Plug W- Leads only	D- 10 pin MS, w/ins. adapter M- w/ins. adapter N- In Teflight T- Terminal box Y- Terminal box, w/ins. adapter	

Nidec



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. EU-SMART™, SMARTSafe™, SMARTach II™, THIN-LINE™, THIN-LINE II™, WIDE-GAP™, and BULLSEYE32™ are trademarks of Nidec Avtron Automation. All other trademarks and registered trademarks are the property of their respective owners.