

# Avtron Model AV125

## SMARTach II Magnetic, Modular Encoder, 12.5" C-Face Mount



### Our Largest Encoder!

- Heavy Mill Duty
- Up to 7.88" [200mm] Shafts
- Up to 8192 PPR
- Removable Sensors
- Wide-Gap Technology, No Air Gap Adjustment Required
- Mounts Securely to Motor
- Outputs Fully Short Circuit Protected
- Self-Diagnostic LED & Alarm Output
- Sealed Electronics
- -40°C to +100°C Operation
- 3 Year No-Hassle Warranty
- Excellent for Brake Applications

**AV125** SMARTach II heavy mill duty modular magnetic encoders fit 12.5" motor and brake flanges. Other models, from 115mm to 8.5", are available to fit other motor sizes.

Quite simply, the AV125 is designed to eliminate encoder failures.

All AV125 electronics are fully encapsulated.

There are no moving wearing parts. AV125 sensors locate over 4X farther

from the rotor than the competition; no more sensor/rotor grinding!

The AV125's high-power outputs have over 50X more capacity.

Miswiring an encoder is common – and it shouldn't cost you time or money. The AV125 has full output short circuit and reverse voltage protection, plus surge protection.

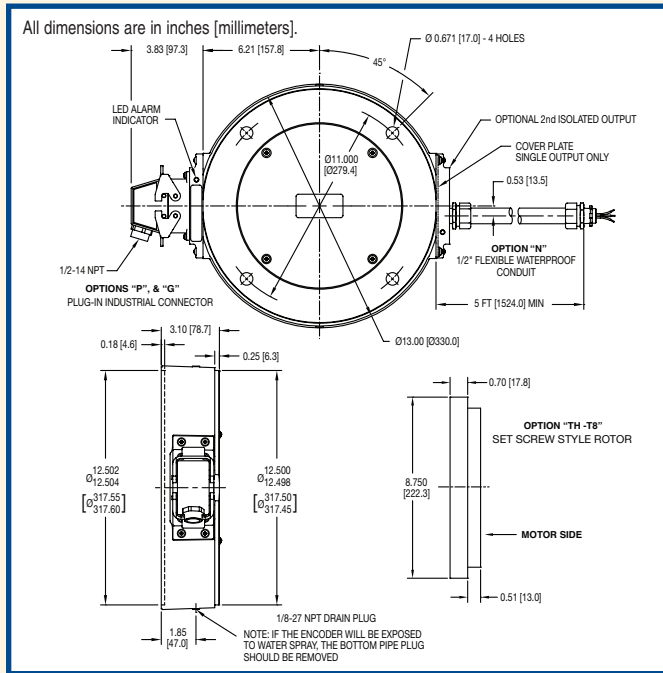
AV125 SMARTach II sensors digitally self-tune the outputs to eliminate drive trips caused by poor encoder signals.

AV125 sensors feature unsurpassed diagnostics. If the encoder signal is not ideal, the alarm output and LED inform the machine operator that the encoder should be checked, before a failure occurs! The AV125 even checks the rotor position before you start running!

Forget tiny optical encoders perched precariously behind your large motor or brake. Specify a heavy duty AV125 encoder!

# AV125 SMARTach II Magnetic, Modular Encoder, 12.5" C-Face Mount

## OUTLINE DRAWING



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

## MORE AV125 ADVANTAGES

- SMARTach II sensors find problems before they cause failure
- Replaces Northstar/LakeShore RIM1250™, SL1250™; Avtron M1250 models
- Resists motor and brake interference noise
- Reverse voltage protection
- Mix and match any PPR with any rotor
- Permits axial movement up to +/-0.100" [+/-2.54mm]

## AV125 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 Instantaneous Current Output:** 3000mA\*

**PPR:** 8-8192

**Speed:** 4400 RPM Max. (contact factory for higher speeds)

**Rotor Positioning:** Up to +/-0.100" movement/misalignment

**Sensor-Rotor Gap:** 0.050", +0.015/-0.040" [1.27mm+0.38/-1.0]

**Temperature:** -40° to 100°C (rotor -40° to 150°C peak)

**Electronics:** Fully Encapsulated, IP67\*\*

**Vibration:** 18 g's

**Shock:** 1 meter drop test

\*Output option 8; see manual for details.

\*\*Connector options may reduce IP rating.

## SELECTION GUIDE

AV125 PART NUMBERS AND AVAILABLE OPTIONS								
Model	Thru Shaft	Inboard & Outboard Cover Plates	Left Module		Right Module		Connector Options	Modifications
			Line Driver	PPR	Line Driver	PPR		
AV125	XX- no rotor TH- 1.375" TJ- 1.625" TL- 1.875" TN- 2.125" TQ- 2.250" TP- 2.375" TT- 2.625" T2- 2.875" TV- 3.125" TY- 3.375" T4- 3.875" T5- 4.250" T6- 4.500" TG- 5.000" T7- 5.375" T8- 6.750" <sup>++</sup> T9- 7.875" <sup>++</sup>	X- none F- no inboard, flat outboard T- no inboard, thru out board <sup>++</sup>  ++Thru shaft cover includes a seal on all sizes except: T8 & T9	X- none 8- 5-24V in/ 5-15V out, hi power 9- 5-24V in, 5V fixed out	X- none F- 60 G- 100 H- 120 L- 240 N- 256 P- 300 E- 360 B- 480 R- 512 S- 600 J- 960 Y- 1024 Z- 1200 3- 2000 4- 2048 D- 4096 0- special	X- none 8- 5-24V in/ 5-15V out, hi power 9- 5-24V in, 5V fixed out	X- none F- 60 G- 100 H- 120 L- 240 N- 256 P- 300 E- 360 B- 480 R- 512 S- 600 J- 960 Y- 1024 Z- 1200 3- 2000 4- 2048 D- 4096 0- special		000- none
Connector Options								
Mounted on Encoder Body			3' Cable			5' Flexible Conduit		
Industrial Connector	10 pin MS	Other	Industrial Connector	Mini MS	Other			
P- with Plug G- (Northstar Pinout) with Plug	A- without Plug B- with Plug C- with Plug & Flex.Conduit Adapter L- with Right Angle Plug	K- Condulet with Leads R- Mini MS/ Twist Lock without Plug	X- without Plug Z- with Plug	S- Baldor Twist Lock with Plug	W- Leads only	N- Leads only T- Terminal box		

CE Pending



All dimensions are in inches [millimeters].  
 Specifications and features are subject to change without notice.  
 Northstar/LakeShore RIM1250™ and SL1250™ are trademarks of Dynapar.