Rev: 11-16-15



Avtron AV125 SMARTach II Encoders



Heavy Mill Duty Magnetic Modular Encoder, 12.5" C-Face Mount

Our Largest Encoder! AV125

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

ı 3 Year No-Hassle Warranty

Excellent for Brake Applications

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

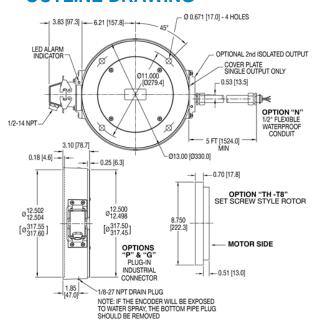
AV125 is ideal for large motor and brake applications where a large diameter through-shaft is needed. It permits shafts up to 7 7/8" [200mm] to pass through the encoder, facilitating motor-encoder-brake sandwich construction, as well as hollow shafts for water or air cooling systems to pass through the encoder. Because AV125 is super-reliable and features removable sensors, you can install it in hard-to-access configurations and locations without risk of downtime.

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!

OUTLINE DRAWING



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

MORE AV125 ADVANTAGES

- I SMARTach II sensors find problems before they cause failure
- Replaces Northstar/LakeShore RIM1250™, NexGen 1250, 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,A-, B,B-, Z,Z-)

Frequency Range: 0 to 165 KHz

Maximum Instantaneous Current Output: 3000mA*

PPR: 8-8192

Speed: 5000 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

All dimensions are in inches [millimeters]. Specifications and features are subject to change without notice.

Northstar/LakeShore RIM1250™ and SL1250™ are trademarks of Dynapar.

Spare sensors, rotors, through-shaft cover plates, and shaft grounding kits can be ordered separately.

SELECTION GUIDE

AV125	PART NUN	IBERS AND A	VAILABLE C	PTIONS								
Model	Thru Shaft Rotor Bore, US Sizes		Inboard & Outboard	Left Module			Right Modul			odule	Connector	Modifications
			Cover Plate	Line Driver	Line Driver PPF		R Line D		e Driver PPR		Options	
AV125	XX- no rot TH- 1.375' TJ- 1.625' TL- 1.875' TM- 2.000' TN- 2.125' TQ- 2.375' TR- 2.500' TT- 2.625' T2- 2.875' TV- 3.125' TW- 3.250'	TD- 4.625" TA- 4.875" TG- 5.000" T7- 5.375" T8- 6.750" T9- 7.875"	X- none F- no inboard, flat outboard T- no inboard, thru outboard	4125 hi-	C*-50 F- 60 G- 100 H- 120 A- 128 B*-150 L- 240 N- 256 P- 300 E- 360 B- 480	S- 600 J- 900 J- 960 K- 1024 K- 1200 A- 1270 S- 2000 H- 2048 S- 2500 D- 4096 S- 4800 D- special	8- 5 5 4 p 9- 5	one -24V in/ -15V out, 125 hi- ower -24V in, V out 7272	X- no C*-56 F- 66 G- 10 H- 12 A- 12 B- 13 L- 20 N- 23 P- 30 B- 40 Q- 56 R- 5	0 V- 900 0 J- 960 00 Y- 1024 20 Z- 1200 28 A-1270 50 3- 2000 40 4- 2048 56 5- 2500 00 D- 4096 60 8- 4800 80 9- 5000 00 0- special		000- none 002*-Select alter- nate PPR assign- ment code 003- Include analog signal con- verter (K661) 004-Super mag- netic shielding
Connector Options												
	Mounted	on Encoder Bo		3' Cable			E' Florible		*To specify this PPR, also specify modification code			
Indust Conne		10 pin MS Other		Industrial Connector	Mini MS	Other		5' Flexible Conduit		Spare sensors, rotors, through-shaft cover plate and shaft grounding kits can be ordered separat		
P- with P G- (North: Pinout) with P	Northstar™ B- with Plug		K- Condulet with Leads R- Mini MS/ Twist Lock with Plug	Z- with Plug S	Baldor Twist Lock with Plug	W- Leads o	only	N- Leads o T- Termina		(See Tables 2 : Cam screw roto Specifications ar	All dimension defeatures are sub	C € Pending ns are in inches [millimeter ject to change without notic thore RIM1250™ and St.1250 are trademarks of Dynap



Nidec-Avtron Makes the Most Reliable Encoders in the World

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All dimensions are in inches [millimeters].

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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.

^{*}Output option 8; see manual for details.

^{**}Connector options may reduce IP rating.