

OUTLINE DRAWING

MORE AV125 ADVANTAGES

- 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*

Current: 100mA nom, no load

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

Frequency Range: @5V, @1m cable, 250 kHz Max
@24V, @300m cable, #8 output, 45 kHz Max

Maximum Cable Length: 1000'

PPR: 4 - 50000***
Speed: 5000 RPM Max****

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

Sensor-Rotor Gap: 0.045", +0.015/-0.040" [1.14mm+0.38/-1.0]

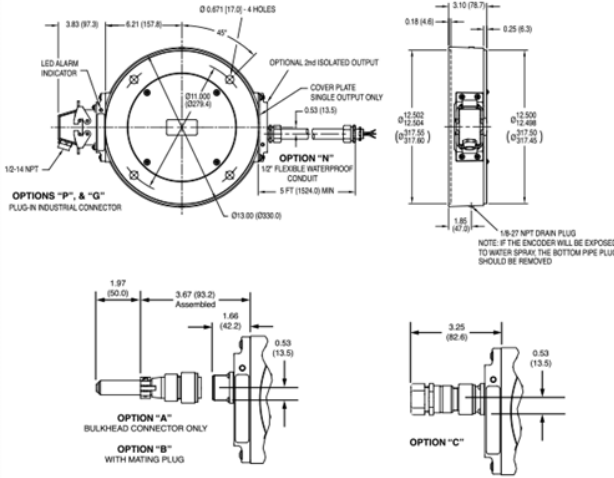
Temperature: -40° to 100°C (rotor -40° to 150°C peak)*

Electronics: Fully Encapsulated, IP67**

Vibration: 18G

Shock: 1 meter drop test

Weight: 15-17 lb. [6.8-8 kg]



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

* Electrical specifications for SMARTach III model (serial #30,000 or higher), consult Nidec Industrial Solutions for earlier model specifications.

** Certain connector options may reduce IP rating.

*** (PPR) Standard maximum PPR is 5000. Consult Factory with your application for PPRs up to 50,000.

**** (Speed) Maximum RPM may be limited for PPR > 2,500. Consult Factory with your application.

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 NUMBERS AND AVAILABLE OPTIONS

Model	Thru Shaft Rotor Bore, US Sizes	Inboard & Outboard Cover Plates	Left Module				Right Module				Connector Options	Modifications
			Line Driver	PPR		Line Driver	PPR					
AV125	XX- no rotor CE- 4.890" CH- 1.375" CA- 4.875" CL- 1.825" CG- 5.000" CL- 1.875" CK- 5.250" CM- 2.000" C7- 5.375" CN- 2.125" C3- 6.000" CO- 2.250" CF- 6.250" CP- 2.375" TU- 6.375" CR- 2.500" C8- 6.750" CT- 2.625" T8- 7.875" C2- 2.875" DG-25mm CV- 3.125" DY-85mm CW- 3.250" D4-90mm CY- 3.375" M1-100mm C4- 3.875" DC-110mm C1- 4.000" DE-120mm** CB- 4.125" DF-180mm C5- 4.250" MB-170mm** CC- 4.375" DE-120mm** C8- 4.500" DF-180mm CD- 4.825" M8-170mm**	X- none F- no inboard, flat outboard T- no inboard, thru outboard	X- none 6- 5-24V in/out (7272) 8- 5-24V in/out (HX) 9- 5-24V in, 5V out (7272)	X- none V- 900 F- 60 J- 960 C- 64 W- 1000 G- 100 Y- 1024 H- 120 Z- 1200 A- 128 2- 1500 L- 240 6- 1800 N- 256 3- 2000 P- 300 4- 2048 E- 380 5- 2500 B- 480 D- 4096 Q- 500 8- 4800 R- 512 9- 5000 S- 600 0- special U- 720	X- none V- 900 F- 60 J- 960 C- 64 W- 1000 G- 100 Y- 1024 H- 120 Z- 1200 A- 128 2- 1500 L- 240 6- 1800 N- 256 3- 2000 P- 300 4- 2048 E- 380 5- 2500 B- 480 D- 4096 Q- 500 8- 4800 R- 512 9- 5000 S- 600 0- special U- 720		000- none 003- include analog signal converter (K081) 004- Super magnetic shielding 005- 8000 RPM top speed 006- Super magnetic shielding w/sealed/marine housing 4xx-Special PPR (see table)					

Spare sensors, rotors, through-shaft cover plates, and shaft grounding kits can be ordered separately. (See Tables 2 and 3)

Cam screw rotors patented.

* rotors above 6.75" bore are set screw, all others cam screw style

** m6 tolerance, all other metric rotors are h7

Connector Options						
Mounted on Encoder Body			3' Cable			5' Flexible Conduit
Industrial Connector	10 pin MS (LARGE ENCODER PINOUT)	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 with Plug	Z- with Plug	S- Beldor Twist Lock with Plug	W- Leads only	N- Leads only T- Terminal box

Table 1

* To specify this PPR, also specify modification code 4xx.

SPECIAL PPR OPTION CODES
For full list download manual



Nidec-Avtron Makes the Most Reliable Encoders in the World

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