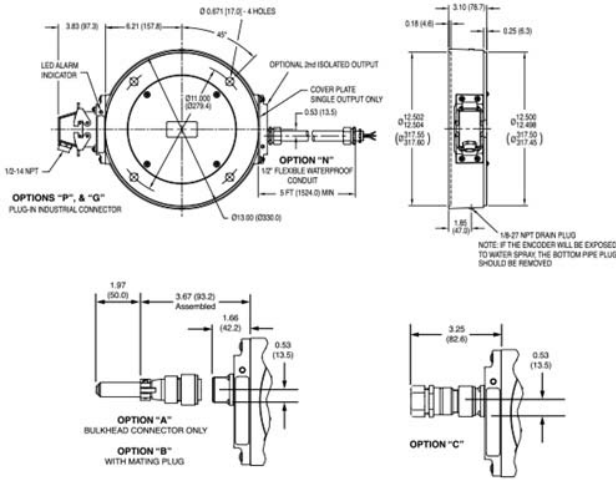




# OUTLINE DRAWING



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

# 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]

\* 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" CJ- 1.825" CG- 5.000" CL- 1.875" CK- 5.250" CM- 2.000" C7- 5.375" CN- 2.125" C3- 6.000" CQ- 2.250" CF- 6.250" CP- 2.375" TU- 6.375" CR- 2.500" C8- 6.750" CT- 2.825" 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-160mm C5- 4.250" M8-170mm** CC- 4.375" DE-120mm** C8- 4.500" DF-160mm 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) B- 5-24V in/out (89) 9- 5-24V in, 5V out (7272)	X- none F- 60 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- 960 W- 1000 Y- 1024 Z- 1200 2- 1500 6- 1800 3- 2000 4- 2048 5- 2500 0- 4096 8- 4800 9- 5000 0- special	X- none 6- 5-24V in/out (7272) 8- 5-24V in/out (89) 9- 5-24V in, 5V out (7272)	X- none F- 60 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- 960 W- 1000 Y- 1024 Z- 1200 2- 1500 6- 1800 3- 2000 4- 2048 5- 2500 0- 4096 8- 4800 9- 5000 0- special	000- none 003- Include analog signal converter (K081) 004- Super magnetic shielding 005- 6000 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

\*\* m8 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	
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