

Avtron THIN-LINE II™ AV85

Magnetic, Modular Encoder, 8.5" C-Face Mount



STRONGER and SMARTER

- Heavy Mill Duty
- Simple, Secure Installation
- Wide-Gap Technology:
No Sensor Scraping or
Adjustment
- Up to 5000 PPR
- No Couplings or Bearings
- Sealed Electronics
- Self-Diagnostic LED and
Alarm Output
- Universal 5-24V Operation
- 3 Year No-Hassle Warranty

AV85 THIN-LINE II™ heavy mill duty modular magnetic encoders fit standard 8.5" C-Face motors. Other THIN-LINE II models, ranging from 115mm to 6.75", are available to fit other motor sizes.

THIN-LINE II encoders feature simple installation, durable construction, and clear diagnostics to eliminate encoder-related downtime:

First, the magnetic sensors are fully potted, to withstand dirt and liquids. No

glass disks, no optics to clog. There are no moving, wearing parts!

The patented Wide-Gap™ Cam Screw Rotors™ put an end to sensor damage, are simpler to install, and stay securely mounted to the shaft.

The universal 5-24V design drives longer cables and is protected against wiring errors and surges.

When you power up an AV85, you know you installed it right: the green light tells

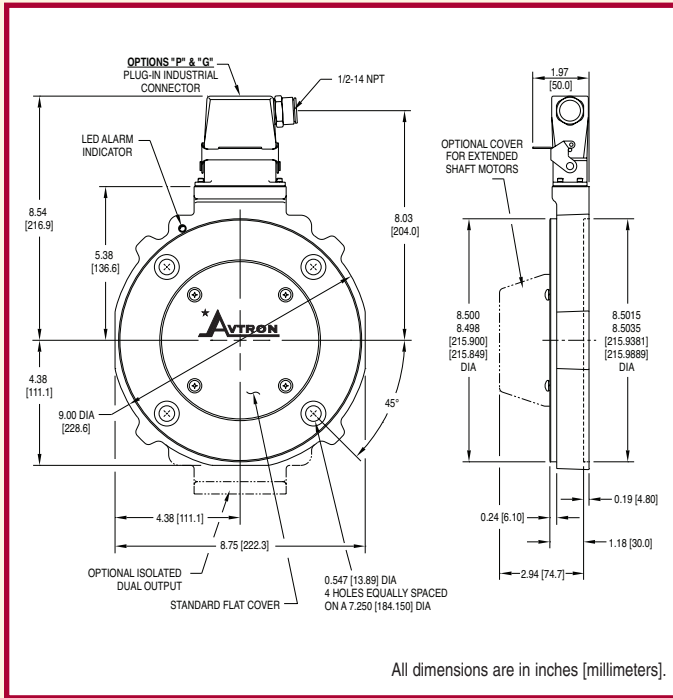
you the digital self-tuning has set your AV85 optimally.

If at any time, the AV85 cannot produce ideal signals, the light changes to red, and the remote alarm contact activates. However, the encoder keeps working to give you time to schedule service.

With a real-world installation history of over 4,500,000 hour MTBF, AV85 encoders will keep your machine running 24/7/365!

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OUTLINE DRAWING



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

MORE AV85 ADVANTAGES

- Replaces Avtron M85, Northstar/Dynapar™ D8, D850, S8, S85, S850, SL85; online cross reference guide available
- Shrugs off dirt, oil, and water contamination
- Highly resistant to electrical and magnetic motor and brake noise
- If damaged, electronics can be replaced without removing rotor
- Patented Cam Screw Rotor™ eliminates rotor slipping
- Built-in motor position guide and diagnostic check
- No air gap adjustment required
- Corrosion-resistant coating on all metal surfaces
- Second C-face included for outboard brake/accessory mount
- Sealed thru-shaft option
- Fits shafts 0.500" - 3.188" [10 - 85 mm]
- 4,500,000+ hour MTBF design

AV85 SPECIFICATIONS

Operating Power: Volts: 5 - 24 VDC; Current: 100mA, no load

Output Format: A Quad B with Marker (A, A̅, B, B̅, Z, Z̅)

Second Isolated Output: Optional

Frequency Range: 0 to 165 KHz

Max. Instantaneous Current Output: 3000 mA*

PPR: 8 - 5000

Speed: 5000 RPM Max. std., for higher speeds, consult factory

Electronics: Fully Encapsulated, IP67**

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

Vibration: 18 g's

Shock: 1 meter drop test

Chemical: Polyurethane enamel paint protects against salt spray, mild acids, and bases.

CE Pending

* Output Option 8, See manual for details.

** Connector options may reduce IP rating.

SELECTION GUIDE

Model	Housing Type	Rotor Bore Size/ Mounting	Cover Style	Line Driver	Single/Left Output (PPR)	Right Output (PPR)	Connector	Modifications
AV85A	1- Single Output, 8.500 Pilot 2- Dual Output 8.500 Pilot	Thru Shaft US Metric CA- 0.500 D2- 10mm CB- 0.625 D3- 12mm CC- 0.875 DB- 14mm CD- 0.938 DC- 15mm CE- 1.000 DD- 16mm CF- 1.125 D4- 18mm CG- 1.250 DE- 19mm CH- 1.375 DF- 24mm CT- 1.500 DG- 28mm CJ- 1.625 DH- 30mm CK- 1.750 DT- 32mm CL- 1.875 DJ- 36mm CM- 2.000 DK- 38mm CN- 2.125 DL- 42mm CQ- 2.250 DM- 45mm CP- 2.375 DN- 48mm CR- 2.500 DP- 52mm TS- 2.625* DR- 55mm TU- 2.875* DS- 60mm TV- 3.000* MU- 65mm* T4- 3.125* MV- 70mm* T7- 3.188* MW- 75mm* MY- 80mm* MZ- 85mm* End-of-Shaft (GE Motors) EF- CD180-32* EP- CD4xx EN- CD36x E2- CD5xx	X- None E- Extended Shaft Cover F- Flat Cover T- Flat Thru-Hole Cover with Shaft Seal	8- 5-24 V in, 5-15 V out high power	C^-50 S- 600 F- 60 V- 900 G- 100 J- 960 H- 120 Y- 1024 A- 128 Z- 1200 L^ -150 A^ -1270 L- 240 4- 2048 N- 256 5- 2500 P- 300 D- 4096 E- 360 8- 4800 B- 480 9- 5000 R- 512	C^ -50 S- 600 F- 60 V- 900 G- 100 J- 960 H- 120 Y- 1024 A- 128 Z- 1200 L^ -150 A^ -1270 L- 240 4- 2048 N- 256 5- 2500 P- 300 D- 4096 E- 360 8- 4800 B- 480 9- 5000 R- 512 X- None	P- 10 Pin EPIC Industrial w/ Plug G- 10 Pin Industrial w/ Plug (Northstar pinout) Q- 18" Cable w/ Ind. Connector w/ Plug & w/ Adapter Block L- 3 Ft. Flex. Cable w/ on 3' cable w/mat ing plug W- 3 Ft. Cable, Sealed Sealed Rt. Angle Bushing Y- 12" Cable w/ 10 Pin MS w/ Plug Z- 3 Ft. Cable w/ EPIC Industrial R- Mini Twist Lock (Mini MS) w/ mating plug S- Mini Twist Lock (Mini MS)	000- No Modification 002^ -Select Alternate PPR assignment code 004- Add Housing Drain (single output only) 9xx- Special Cable Length, xx=length in feet

* Cam Screw Rotors 2.500" [60mm] max.

^ To specify this PPR, also specify modification code 002.



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Cam Screw Rotor™, THIN-LINE II™, and Wide-Gap™ are trademarks of Avtron.

All dimensions are in inches [millimeters].

Specifications and features are subject to change without notice.