

# Avtron AV67 THIN-LINE III™ Encoders



## Heavy Mill Duty Magnetic Modular Encoder 6.75" C-Face Mount

### STRONGER and SMARTER

- | Heavy Mill Duty
- | Simple, Secure Installation
- | All models are protected against all short circuits and wiring errors
- | Wide-Gap Technology: No Sensor Scraping or Adjustment
  - | 4 to 50000 PPR
  - | No Couplings or Bearings
  - | Sealed Electronics
- | Self-Diagnostic LED and Alarm Output
  - | Universal 5-24V Operation
  - | 3 Year No-Hassle Warranty

### AV67

AV67 THIN-LINE III™ heavy mill duty modular magnetic encoders fit 6.75" C-Face flanges typically found on Baldor Reliance motors. Other THIN-LINE III models, ranging from 115mm to 8.5", are available to fit other motor sizes.

THIN-LINE III 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 AV67, you know you installed it right: the green light tells you the digital self-tuning has set your AV67 optimally.

If at any time, the AV67 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. Any time there are wiring errors, the LED changes to orange.

With a real-world installation history of over 4,500,000 hour MTBF, AV67 encoders will keep your machine running 24/7/365!

# OUTLINE DRAWING

# MORE AV67 ADVANTAGES

- Replaces Avtron M67, Northstar/Dynapar™ RL67, S6; 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]
- Fits Baldor/Reliance RPM AC & DC III Motors
- 4,500,000+ hour MTBF design

# AV67 SPECIFICATIONS

**Operating Power:** Volts: 5 - 24 VDC; Current: 100mA, no load  
**Output Format:** A Quad B with Marker (A,A-, B,B-, Z,Z-)  
**Frequency Range:** @5, @1m cable, 250 kHz Max  
 @24V, @300m cable, #8 output, 45 kHz Max  
**Max. Instantaneous Current Output:** 3000 mA  
**PPR:** 4 - 50000  
**Speed:** 5400 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.  
**Weight:** 2-3 lbs (0.9 kg to 1.36 kg)

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

# SELECTION GUIDE

AV67 PART NUMBERS AND AVAILABLE OPTIONS								
Model	Housing Type	Shaft Size (Thru-Shaft Rotor)	Cover Style	Line Driver	Single/Left Output (PPR)	Right Output (PPR)	Connector	Modifications
AV67A	1- Single Output	C0- None-std. Shaft Size XX- None Thru-Shaft Rotor US Metric CA- 0.500 D2- 10mm CB- 0.625 D3- 12mm CC- 0.875 D9- 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 CI- 1.500 DG- 25mm 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 CO- 2.250 DM- 45mm CP- 2.375 DN- 48mm CR- 2.500 DP- 52mm TS- 2.625 DR- 55mm TU- 2.875 DS- 60mm TW- 2.750 MJ- 65mm* TV- 3.000 MV- 70mm* T4- 3.125 MW- 75mm* T7- 3.188 MY- 80mm* TZ- 3.250 MZ- 85mm*	E- Extended Shaft Cover F- Flat Cover T- Flat Thru-Hole Cover with Shaft Seal D- Dome Cover	6- 5-24V in/out 8- 5-24 V in, 5-24 V out high power 9- 5-24V in, 5V out	0- Non-std. J- 990 F- 60 Y- 1024 G- 100 Z- 1200 H- 120 3- 2000 A- 128 4- 2048 L- 240 5- 2500 N- 256 D- 4096 P- 300 8- 4800 E- 360 9- 5000 B- 480 Q- 500 R- 512 S- 600	X- None	W-3 Ft. Cable, Sealed	000- No Modification 004- Add Housing Drain (single output only) 005- Super Magnetic Shielding 4xx- Special PPR Enter Ø in the PPR code(s), select the special option code below 9xx- Special Cable Length, xx=length in feet 00W- Connector on 18" cable: Use w/ options "T", "U"

\* Set Screw Rotor only

Connector Options							
Mounted on Encoder				Mounted on Flex cable			00W
10 Pin MS	10 Pin EPIC	10 Pin mini MS	7 Pin MS	10 Pin MS	10 Pin EPIC	10 Pin mini MS	(*8 Pin M12
Not Available	G- w/ plug Northstar pinout P- w/ plug	R- w/ plug	Not Available	Y- w/o plug on conduit box (Large Encoder Pinout)	Q- w/o plug on remote mount blade Z- w/ plug	S- w/ plug	T- w/o plug (Turck Pinout) U- w/o plug (US Pinout)

(\*Requires Special option 00W



Nidec-Avtron Makes the Most Reliable Encoders in the World  
 8901 E. PLEASANT VALLEY ROAD • INDEPENDENCE, OHIO 44131-5508  
 TELEPHONE: (1) 216-642-1230 • FAX: (1) 216-642-6037  
 E-MAIL: [tachs@nidec-avtron.com](mailto:tachs@nidec-avtron.com) • WEB: [www.avtronencoders.com](http://www.avtronencoders.com)

All dimensions are in inches [millimeters].  
 Specifications and features are subject to change without notice.  
 EU-SMART™, SMARTSafe™, SMARTach II™, THIN-LINE™, 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.