

Avtron AV56 THIN-LINE III™ Encoders



Heavy Mill Duty Magnetic Modular Encoder 4.5" C-Face Mount

STRONGER and SMARTER AV56

- 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
 - Up to 50000 PPR
 - No Couplings or Bearings
 - Sealed Electronics
 - Self-Diagnostic LED and Alarm Output
 - Universal 5-24V Operation
 - 3 Year No-Hassle Warranty

AV56 THIN-LINE III™ heavy mill duty modular magnetic encoders fit standard 4.5" C-Face motors such as Marathon Blue and Black Max, as well as Baldor Reliance models. The stainless steel AV56S is designed for washdown and marine duty. 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.

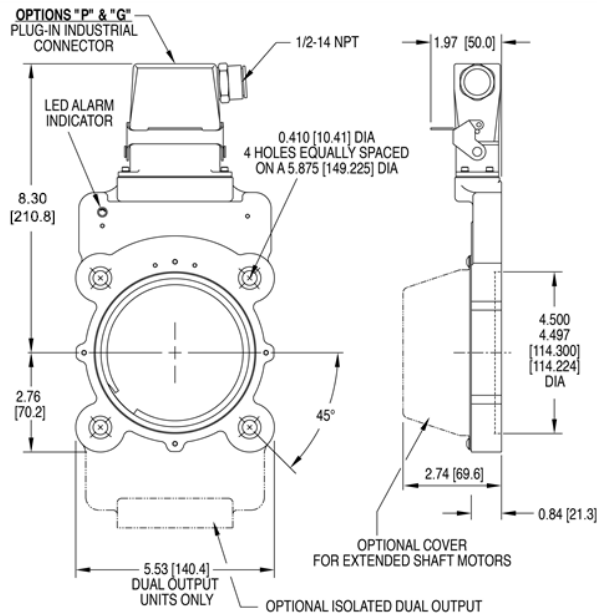
The universal 5-24V design drives longer cables and is protected against wiring errors and surges.

When you power up an AV56, you know you installed it right: the green LED tells you the digital self-tuning has set your AV56 optimally.

If at any time, the AV56 cannot produce ideal signals, the LED changes to red and the remote alarm contact activates. Even wiring errors and short circuits are detected and indicated by changing the LED to orange. 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, AV56 encoders will keep your machine running 24/7/365!

OUTLINE DRAWING



MORE AV56 ADVANTAGES

- Replaces Avtron M56, Northstar/Dynapar™ D5, D560, SL56, ST56, Wind56; 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
- Sealed thru-shaft option
- Fits shafts 0.500" - 3.188" [10 - 85 mm]
- 4,500,000+ hour MTBF design

AV56 SPECIFICATIONS

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

Output Format: A Quad B with Marker (A,/A, B,/B, Z,/Z)

Second Isolated Output: Optional

Frequency Range:

@5V, @1m cable, 250 kHz Max

@24V, @300m cable, #8 output, 45 kHz Max

Maximum Cable Length: 1000'

PPR: 4 - 5000

Speed: 5400 RPM Max. std., for higher speeds, consult factory

Electronics: Fully Encapsulated, IP67 (see manual for details)

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 - 1.36 kg]

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

SELECTION GUIDE

Model	Housing Type	Shaft Size (Thru Shaft Rotor)	Cover Style	Line Driver	Single/Left Output (PPR)	Right Output (PPR)	Connector	Modifications
AV56A	1- Single Output 2- Dual Output	C0- Non-std. Shaft Size XX- None Thru Shaft Rotor US Metric CA- 0.500 D2- 10mm CB- 0.625 D3- 11mm CC- 0.875 D3- 12mm CD- 0.938 D3- 14mm CE- 1.000 D3- 15mm CF- 1.125 D3- 16mm CG- 1.250 D4- 18mm CH- 1.375 D4- 19mm CI- 1.500 D4- 24mm CJ- 1.625 D4- 28mm CK- 1.750 D4- 30mm CL- 1.875 D4- 32mm CM- 2.000 D4- 36mm CN- 2.125 D4- 38mm CO- 2.250 D4- 42mm CP- 2.375 D4- 45mm CR- 2.500 D4- 48mm TS- 2.625 D4- 52mm TU- 2.875 D4- 55mm TW- 2.750 D4- 60mm TV- 3.000 D4- 65mm T4- 3.125 D4- 70mm T7- 3.188 D4- 75mm TZ- 3.250 D4- 80mm MZ- 85mm	E- Extended Shaft Cover D- Dome Cover F- Flat Cover G- Extended Cover with Gasket T- Flat Thru-Hole Cover with Shaft Seal.	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. W- 1000 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 V- 900	0- Non-std. W- 1000 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 V- 900	W- 3Ft 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

Connector Options					
Mounted on Encoder			Mounted on 18" cable		
10 Pin MS	10 Pin EPIC	10 Pin mini MS	10 Pin MS	10 Pin EPIC	10 Pin mini MS
- w/o plug (std. phasing) - w/o plug (Dynapar HS35 phasing) - "A" w/ plug - "B" w/ plug	- w/ plug Northstar pinout - w/ plug	- w/ plug	- w/o plug	- 12" cable w/o plug on remote mount blade - 36" Cable w/ plug	- 18" Cable w/o plug on remote mount blade - 36" Cable w/ plug



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All dimensions approximate.