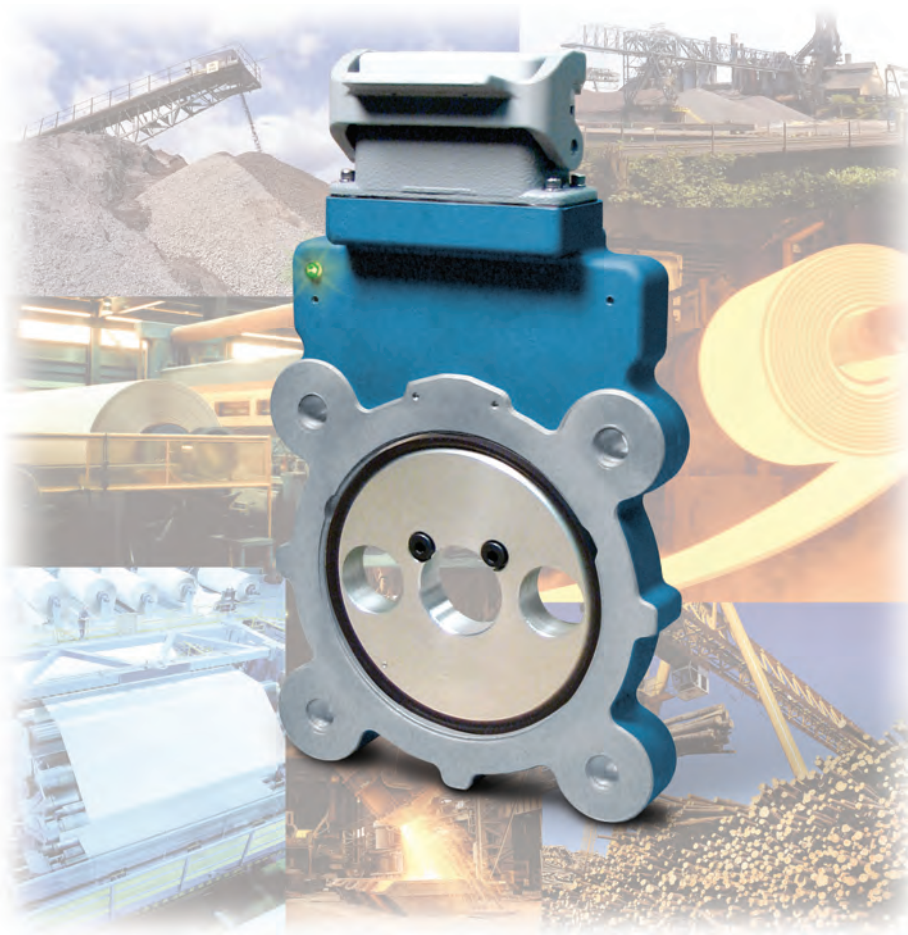


# Avtron THIN-LINE II™ AV56

## Magnetic, Modular Encoder, 4.5" 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

**AV56** THIN-LINE II™ heavy mill duty modular magnetic encoders fit standard 4.5" C-Face motors; stainless steel AV56S is designed for washdown and marine duty. Other THIN-LINE II models, ranging from 115mm to 8.5", 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 AV56, you know you installed it right: the green light tells

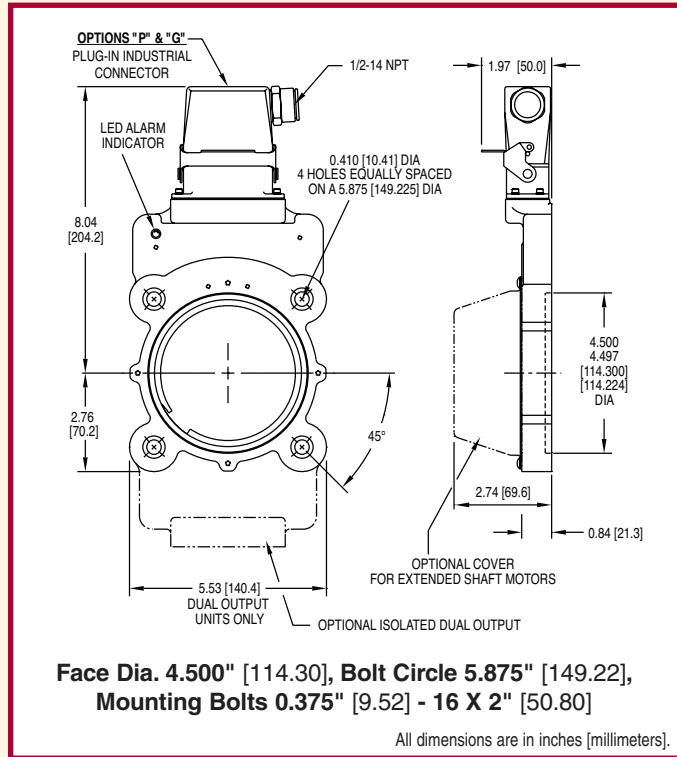
you the digital self-tuning has set your AV56 optimally.

If at any time, the AV56 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, AV56 encoders will keep your machine running 24/7/365!

# AV56 Magnetic, Modular Encoder, 4.5" C-Face Mount

## OUTLINE DRAWING



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

## MORE AV56 ADVANTAGES

- Replaces Avtron M56, Northstar/Dynapar™ D5, D560, SL56; 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,  $\bar{A}$ , B,  $\bar{B}$ , Z,  $\bar{Z}$ )  
 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.

€ Pending

\* Output Option 8. See manual for details.

\*\* Connector options may reduce IP rating.

## SELECTION GUIDE

Model	Housing Type	Rotor Bore Size (Thru Shaft Rotor)	Cover Style	Line Driver	Single/Left Output (PPR)	Right Output (PPR)	Connector	Modifications	
AV56A	1- Single Output, 4.500 Pilot 2- Dual Output 4.500 Pilot	<b>US</b> CA- 0.500 CB- 0.625 CC- 0.875 CD- 0.938 CE- 1.000 CF- 1.125 CG- 1.250 CH- 1.375 CT- 1.500 CJ- 1.625 CK- 1.750 CL- 1.875 CM- 2.000 CN- 2.125 CQ- 2.250 CP- 2.375 CR- 2.500 TS- 2.625* TU- 2.875* TV- 3.000* T4- 3.125* T7- 3.188*	<b>Metric</b> D2- 10mm DA- 11mm D3- 12mm DB- 14mm DC- 15mm DD- 16mm D4- 18mm DE- 19mm DF- 24mm DG- 28mm DH- 30mm DT- 32mm DJ- 36mm DK- 38mm DL- 42mm DM- 45mm DN- 48mm DP- 52mm DR- 55mm DS- 60mm MU- 65mm* MV- 70mm* MW- 75mm* MY- 80mm* MZ- 85mm*	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 Y- 12" Cable w/ 10 Pin MS w/ Plug W- 3 Ft. Cable, Sealed L- 3 Ft. Flex. Cable w/ Sealed Rt. Angle Bushing Z- 3 Ft. Cable w/ EPIC Industrial R- Mini Twist Lock (Mini MS) w/ mating plug S- Mini Twist Lock (Mini MS) on 3' cable w/mating plug	000- No Modification 002^ - Select Alternate PPR assignment code 004- Add Housing Drain (single output only) 9xx- Special Cable Length, xx=length in feet

\* Set Screw Rotor Only  
 ^ To specify this PPR, also specify modification code 002.



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.