Avtron AV56S THIN-LINE III™ Encoders

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

Magnetic Durability in a Compact Encoder

Heavy Mill Duty

Simple, Secure Installation

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

All models are protected against all short circuits and wiring errors

AV56S

AV56S THIN-LINE III™ stainless steel heavy mill duty modular magnetic encoders are designed for washdown and marine duty and fit a standard 4.5" motor flange. 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™ rotors put an end to sensor damage, are simpler to install, and stay securely mounted to the shaft.
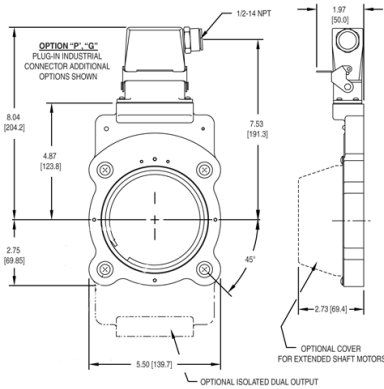
The universal 5-24V design drives longer cables and is protected against wiring errors and surges.

When you power up an AV56S, you know you installed it right: the green light tells you the digital self-tuning has set your AV56S optimally.

If at any time, the AV56S cannot produce ideal signals, the light changes to red and the remote alarm contact activates. If there are wiring errors, the LED will change to orange. However, the encoder keeps working as long as possible to give you time to schedule service.

With a real-world installation history of over 4,500,000 hour MTBF, AV56S encoders will keep your machine running 24/7/365!

OUTLINE DRAWING

MORE AV56S ADVANTAGES

- Replaces Avtron M56S, 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
- Built-in motor position guide and diagnostic check
- No air gap adjustment required
- AV56S features stainless steel for washdown and marine applications
- Sealed thru-shaft option
- Fits shafts 0.500" - 3.188" [10 - 85 mm]
- 4,500,000+ hour MTBF design

MORE AV56S SPECIFICATIONS

Operating Power: Volts: 5 - 24 VDC; Current: 80mA, 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'/300m
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: 5 - 6 lbs [2.2 - 2.7 kg]

All dimensions are in inches [millimeters]; Specifications and features are subject to change without notice.

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

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SELECTION GUIDE

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MODEL	**HOUSING TYPE**	**ROTOR BORE SIZE**	**COVER STYLE**	**LINE DRIVER**	**SINGLE/LEFT OUTPUT PPR**	**RIGHT OUTPUT PPR**	**CONNECTOR OPTIONS**	**MODIFICATIONS**
AV56S	1 - Single Output 2 - Dual, Isolated Outputs using split housing-both sensor halves put together	XX - No Rotor TA - 1/2" Thru-Shaft Rotor TB - 5/8" Thru-Shaft Rotor (Universal) TC - 7/8" Thru-Shaft Rotor TD - 15/16" Thru-Shaft Rotor TE - 1" Thru-Shaft Rotor TF - 1 1/8" Thru-Shaft Rotor TG - 1 1/4" Thru-Shaft Rotor TH - 1 3/8" Thru-Shaft Rotor TT - 1 1/2" Thru-Shaft Rotor TJ - 1 5/8" Thru-Shaft Rotor TK - 1 3/4" Thru-Shaft Rotor TL - 1 7/8" Thru-Shaft Rotor TM - 2" Thru-Shaft Rotor TN - 2 1/8" Thru-Shaft Rotor TQ - 2 1/4" Thru-Shaft Rotor TP - 2 3/8" Thru-Shaft Rotor TR - 2 1/2" Thru-Shaft Rotor TS - 2 5/8" Thru-Shaft Rotor TW - 2 3/4" Thru-Shaft Rotor TU - 2 7/8" Thru-Shaft Rotor TV - 3" Thru-Shaft Rotor T4 - 3 1/8" Thru-Shaft Rotor TZ - 3 1/4" Thru-Shaft Rotor T7 - 3 3/16" Thru-Shaft Rotor M2 - 10mm Thru-Shaft Rotor MA - 11mm Thru-Shaft Rotor M3 - 12mm Thru-Shaft Rotor MB - 14mm Thru-Shaft Rotor MC - 15mm Thru-Shaft Rotor MD - 16mm Thru-Shaft Rotor M4 - 18mm Thru-Shaft Rotor ME - 19mm Thru-Shaft Rotor MF - 24mm Thru-Shaft Rotor MG - 28mm Thru-Shaft Rotor MH - 30mm Thru-Shaft Rotor MT - 32mm Thru-Shaft Rotor MJ - 36mm Thru-Shaft Rotor MK - 38mm Thru-Shaft Rotor ML - 42mm Thru-Shaft Rotor MM - 45mm Thru-Shaft Rotor MN - 48mm Thru-Shaft Rotor MP - 52mm Thru-Shaft Rotor MR - 55mm Thru-Shaft Rotor MS - 60mm Thru-Shaft Rotor MU - 65mm Thru-Shaft Rotor MV - 70mm Thru-Shaft Rotor MW - 75mm Thru-Shaft Rotor MY - 80mm Thru-Shaft Rotor MZ - 85mm Thru-Shaft Rotor CE - Special Aluminum, 1" Thru-Shaft Rotor	E - Extended (Pie-Pan Style) Cover F - Flat Outboard Cover, Low-Profile T - Outboard Seal Plate for Thru-Shaft with V-Ring Seal X - No Cover Plate	8 - 5-24V In/Out (HX) Hi-Power Line Driver, Fully Protected Outputs 9 - 7-24v In, 5v fixed output (7272) 6 - 5-24v In/Out (7272)	F - 60 PPR G - 100 PPR H - 120 PPR A - 128 PPR L - 240 PPR N - 256 PPR P - 300 PPR E - 360 PPR B - 480 PPR Q - 500 PPR R - 512 PPR S - 600 PPR V - 900 PPR J - 960 PPR W - 1000 PPR Y - 1024 PPR Z - 1200 PPR 3 - 2000 PPR 4 - 2048 PPR 5 - 2500 PPR D - 4096 PPR 8 - 4800 PPR 9 - 5000 PPR 0 - Special PPR	X - No Right-Hand Output, Single Output Only F - 60 PPR G - 100 PPR H - 120 PPR A - 128 PPR L - 240 PPR N - 256 PPR P - 300 PPR E - 360 PPR B - 480 PPR Q - 500 PPR R - 512 PPR S - 600 PPR V - 900 PPR J - 960 PPR Y - 1024 PPR Z - 1200 PPR 3 - 2000 PPR 4 - 2048 PPR 5 - 2500 PPR D - 4096 PPR 8 - 4800 PPR 9 - 5000 PPR	P - Industrial (EPIC Style) w/mating plug & remote alarm contact G - Ind'l w/Northstar Pinout (EPIC Style connector), w/mating plug, LED diagnostics 1 - All-stainless crimp-style ind'l w/mating plug (EPIC Style) w/LED diagnostics + alarm output W - 36" Cable w/LED diagnostics + alarm output contact R - 10 pin Mini-MS style (Bayonet) w/LED diagnostics S - 10 pin Mini-MS style (Bayonet) on 12" cable w/LED diagnostics	000 - None 003 - Add 85mm Flange Adapter (B34407) (AV56 only) 004 - Add Drain hole (Single Output Only) 005 - Super Magnetic Shielding Added 901 - 0.3m/1' Special Cable Length 902 - 0.6m/2' Special Cable Length 903 - 0.9m/3' Special Cable Length 905 - 1.5m/5' Special Cable Length 910 - 3m/10' Special Cable Length 915 - 4.5m/15' Special Cable Length 920 - 6m/20' Special Cable Length 930 - 9m/30' Special Cable Length 933 - 10m/33' Special Cable Length 950 - 15.2m/50' Special Cable Length 00W - Special Connector on 36 in/1m cable