

# Avtron AV45 EuroSMART™ Encoders



**Heavy Mill Duty Magnetic Encoder; Solid Shaft, Euro B10 Flange or Foot Mount**

## Incredible Durability and Compatibility!

- | Fits European B10 Standard Flange
- | Replaces Competitive Models Without Rewiring or Mechanical Changes
  - | Universal 5-24V Operation
  - | Protected from Wiring Errors
- | LED & Remote Alarm Diagnostics
- | Mechanical Overspeed Switch Option
  - | -40°C to +100°C Operation
  - | 3 Year No-Hassle Warranty

## AV45

AV45 EU-SMART™ heavy mill duty solid shaft magnetic incremental quadrature rotary encoders fit European B10 (85mm) flanges with 100mm bolt circles, and offer 10 or 11mm shaft sizes. AV45 also offers foot mounting, with bolt patterns to match Hubner POG/OG styles, PGH4 styles, and Toshiba foot-mounted resolvers. Also available: AV115 modular magnetic to fit flanges using a no-bearing design & HS45 EU-SMART™ hollow shaft models.

EU-SMART™ encoders feature durable construction, simple installation, and clear diagnostics to eliminate encoder-related downtime:

AV45 built-in magnetic sensors are fully potted to withstand dirt and liquids and extreme temperature changes. No glass disks, no optics to clog. Bigger bearings and superior seals far outlast any comparable model.

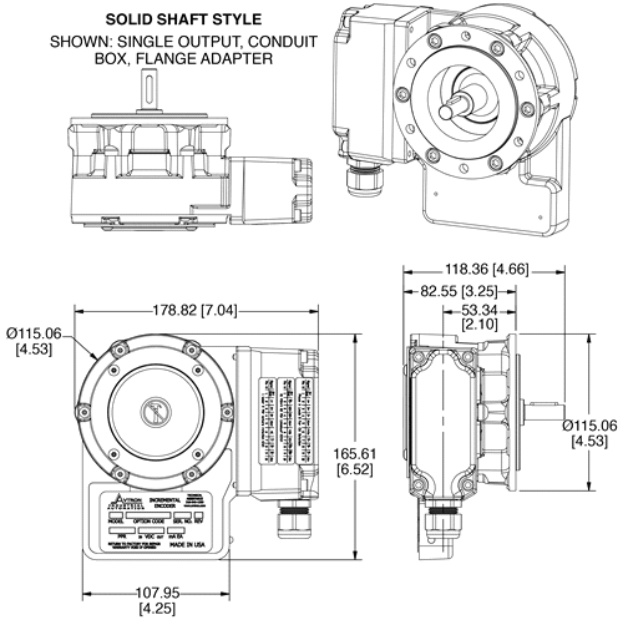
The AV45 enables you to change the electrical connector in the field or at your Avtron distributor for maximum flexibility and the shortest delivery times! The universal 5-24V design drives longer cables and is protected against wiring errors and surges.

When you power up an AV45, the green light tells you the digital self-tuning has set your encoder for optimal signal output.

If at any time, the AV45 cannot produce ideal incremental quadrature signals, the light changes to red, and the remote alarm contact activates. However, the encoder keeps working to give you time to schedule service.

The AV45 easily replaces competitive models, and the incredible durability ensures it is the last replacement encoder you will ever need!

## OUTLINE DRAWING



## MORE AV45 ADVANTAGES

- Replaces Leine & Linde 1000; Hubner OGx & POGx models, many others
- Complete online cross reference guide available
- Shrugs off dirt, oil, and water contamination
- Highly resistant to electrical and magnetic motor and brake noise
- Corrosion-resistant coating on all metal surfaces

## AV45 SPECIFICATIONS

**Operating Power:** Volts: 5-24VDC, 100mA, no load  
**Output Format:** A Quad B with marker (A,A-, B,B-, Z,Z- ) Second Isolated Output: Optional  
**Frequency Range:** 0 to 165 KHz  
**Maximum Instantaneous Current Output:** 3000mA  
**PPR:** 8-5000  
**Speed:** 5000 RPM Max. std., for higher speeds, consult factory  
**Enclosure:** IP65  
**Electronics:** Fully Encapsulated, IP67\*\*  
**Temperature:** -40° to +100°C  
**Vibration:** 18Gs  
**Shock:** 100Gs  
**Chemical:** Polyurethane enamel paint protects against salt spray, mild acids, and bases.

\*\*Connector option "W", connector options may reduce IP rating.

All dimensions are in inches [millimeters].

Specifications and features are subject to change without notice.

EU-SMART™ is a trademark of Nidec Avtron Automation Corporation.

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

## SELECTION GUIDE

AV45 PART NUMBERS AND AVAILABLE OPTIONS								
Model	Shaft Size	Left Output PPR	Right Output PPR	Line Driver	Connector Options	Foot Mount Bracket	Channels	Modifications
AV45	N- 10mm H- 11mm, standard T- 18mm	AF-60 AG-100 AH-120 AA-128 AL-240 AN-256 AP-300 AE-360 AB-480 AQ-500 AR-512 AS-600 AV-900 AJ-960 AW-1000 AY-1024 AZ-1200 CX-1500 A3-2000 A4-2048 A5-2500 AD-4096 A8-4800 A9-5000 A0-Special	XX-None AF-60 AG-100 AH-120 AA-128 AL-240 AN-256 AP-300 AE-360 AB-480 AQ-500 AR-512 AS-600 AV-900 AJ-960 AW-1000 AY-1024 AZ-1200 CX-1500 A3-2000 A4-2048 A5-2500 AD-4096 A8-4800 A9-5000 A0-Special	6- 5-24V in, 5-24V out*  8- 5-24V in, 5-15 out hi-power  9- 5-24V in, 5V fixed out  *Recommended for single-ended applications	Small EPIC Connector P- Avtron pinout, w/mate  Terminal Box w/terminal strip H- USA, 1/2" conduit L- Europe w/cord grip  8 Pin M12 Connector T- Global pinout, w/o plug U- USA Pinout, w/o plug  12 Pin M23 Connector 2- Leine and Linde pinout, w/o plug 3- Hubner Pinout w/o plug  W- Cable 18" (or special length)	X- None (for B10 flange mount)  1- Toshiba TS2113N bolt pattern (recommend "T" 18mm shaft) (B35529 bracket) 2- POGxx, OGxx Hubner (Baumer) bolt pattern (B35555 bracket) 3- FG4 Johannes Hubner bolt pattern (B35338 bracket)	A- All A, B, Z (req'd for 8, 10 pin connectors) B- A, B, Z (no marker) E- A, B, Z (single ended) F- A, B (single ended, no marker)	000- None 004- Super Magnetic Shielding 4xx- Special PPR (see table) 6xx- Add over speed switch xx= speed code 9xx- Specify cable length xx=feet max 33ft (use w/ Option "W")
			Note Dual Output NA with Foot Mount Bracket					

Nidec-Avtron Makes the Most Reliable Encoders in the World  
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