

Avtron AV45 EuroSMART™ Encoders



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

Magnetic Durability in a Compact Encoder

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

-40°C to +100°C Operation

3 Year No-Hassle Warranty

Mechanical Overspeed Switch
Option

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.

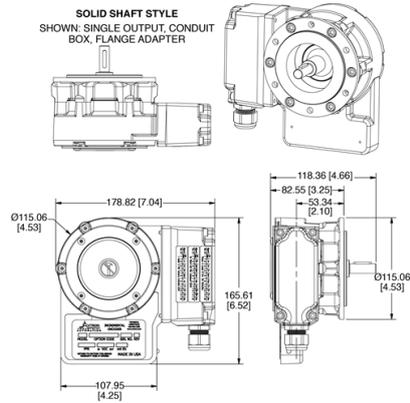
When you power up an AV45, the green light tells you the digital self-tuning has set your encoder for optimal signal output.

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

MORE 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
APPR: 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



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SELECTION GUIDE

MODEL	SHAFT SIZE	LEFT OUTPUT PPR	RIGHT OUTPUT PPR	LINE DRIVER	CONNECTOR OPTIONS	FOOT MOUNTING	CHANNELS	MODIFICATIONS
AV45	N - 10mm diameter Shaft, k6 H - 11mm diameter Shaft, k6 P - 12mm diameter Shaft, h6 S - 16mm diameter Shaft, h6 T - 18mm diameter Shaft, h6 Q - 1/2 in. diameter Shaft, k6	XX - No Left Output BT - 36 PPR BC - 50 PPR AF - 60 PPR AK - 80 PPR AG - 100 PPR AH - 120 PPR AA - 128 PPR AM - 200 PPR AL - 240 PPR AN - 256 PPR AP - 300 PPR AE - 360 PPR AC - 400 PPR AB - 480 PPR AQ - 500 PPR AR - 512 PPR AS - 600 PPR AU - 720 PPR AV - 900 PPR	XX - No Right Output BT - 36 PPR BC - 50 PPR AF - 60 PPR AK - 80 PPR AG - 100 PPR AH - 120 PPR AA - 128 PPR AM - 200 PPR AL - 240 PPR AN - 256 PPR AP - 300 PPR AE - 360 PPR AC - 400 PPR AB - 480 PPR AQ - 500 PPR AR - 512 PPR AS - 600 PPR AU - 720 PPR AV - 900 PPR	6 - 5-24V In/Out (7272) (recm'd for single-ended wiring: A,B,Z, no A/,B/,Z/) 8 - 5-24V In/Out Hi-Power with wiring protection (Hx Line Driver) 9 - 5-28V In, 5v Out (7272 Line Driver)	C - 10 Pin MS style w/Plug, Avtron/BEI Pin Out A - 10 pin MS style No Plug Std Pin Out B - 10 pin MS style No Plug Reverse Phasing D - 10 pin MS style with plug Reverse Phasing P - 10 Pin mini-EPIC w/ Plug H - 1/2" NPT Conduit Box w/ Terminal Strip L - 1/2" NPT Conduit Box w/ Terminal Strip & Cord Grip R - 10 pin Mini-MS Twist-Lock (Baldor/Bayonet Style) w/Plug, Avtron/BEI Pin Out T - M12/8 Pin w/o plug, Global Pinout U - M12/8 Pin w/o Plug, U.S. Pinout 2 - M23/12 Pin Connector w/o Plug, L & L Pinout 3 - M23/12 Pin Connector w/o Plug, Hubner Pinout W - Cable (36 in. or special length) with Remote Alarm Diagnostics 5 - Conduit Box Assy, Hubner "C" Compatible Pinout	X - No Foot Mount; Standard Euro Flange B10 85mm Mount 1 - Foot Mount, Toshiba TS2113N Bolt Pattern (may require 18mm shaft) 2 - Foot Mount, Baumer Hubner POGxx/OGxx Bolt Pattern 3 - Foot Mount, Johannes Hubner FG4 Bolt Pattern 4 - Foot Mount, Toshiba Type MSP Bolt Pattern 5 - No Foot Mount; 2.5" Pilot, Flange 6 - No Foot Mount; 2.67" Square Flange, 2" Pilot 0 - Special Foot Mounting	A - Standard, All Channels A,A,B,B,Z,Z, Used on all 8-12 Pin Connections B - Channels A,A,B,B, No Marker, Used on all 6-7 Pin Connections E - Channels A, B, Z Single Ended, No Complements F - Channels A, B, No Marker, Single Ended	000 - No Special Options 001 - Ceramic Bearings (shaft isolation) 004 - Super Magnetic Shielding 023 - Custom Foot Mount w/Riser Block, 3/4 in. to 18mm Coupling 063 - 1.5m/5' Special Cable Length, No Connector + Mechanical overspeed w/super shielding, 800 RPM, 1 NO & 1 NC Contacts, 5-13mm dia. Cable 601 - Mechanical overspeed w/super shielding, 1200 RPM, 1 NO & 1 NC Contacts, 5-13mm dia. Cable 602 - Mechanical overspeed w/super shielding, 2700 RPM, 1 NO & 1 NC Contacts, 5-13mm dia. Cable 603 - Mechanical overspeed w/super shielding, 720 RPM, 1 NO & 1 NC Contacts, 5-13mm dia. Cable 604 - Mechanical overspeed w/super shielding, 900 RPM, 1 NO & 1 NC Contacts, 5-13mm dia. Cable 605 - Mechanical overspeed w/super shielding, 2400 RPM, 1 NO & 1 NC Contacts, 5-13mm dia. Cable 606 - Mechanical overspeed w/super shielding, 1150 RPM, 1 NO & 1 NC Contacts, 5-13mm dia. Cable 607 - Mechanical overspeed w/super shielding, 1375 RPM, 1 NO & 1 NC Contacts, 5-13mm dia. Cable 608 - Mechanical overspeed w/super shielding, 1700 RPM, 1 NO & 1 NC Contacts, 5-13mm dia. Cable 609 - Mechanical overspeed w/super shielding, 1255 RPM, 1 NO & 1 NC Contacts, 5-13mm dia. Cable 610 - Mechanical overspeed w/super shielding, 860 RPM, 1 NO & 1 NC Contacts, 5-13mm dia. Cable 611 - Mechanical overspeed w/super shielding, 810 RPM, 1 NO & 1 NC Contacts, 5-13mm dia. Cable 612 - Mechanical overspeed w/super shielding, 700 RPM, 1 NO & 1 NC Contacts, 5-13mm dia. Cable 613 - Mechanical overspeed w/super shielding, 1300 RPM, 1 NO & 1 NC Contacts, 5-13mm dia. Cable 614 - Mechanical overspeed w/super shielding, 800 RPM, 1 NO & 1 NC Contacts, 5-13mm dia. Cable 615 - Mechanical overspeed w/super shielding, 950 RPM, 1 NO & 1 NC Contacts, 5-13mm dia. Cable



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MODEL	SHAFT SIZE	LEFT OUTPUT PPR	RIGHT OUTPUT PPR	LINE DRIVER	CONNECTOR OPTIONS	FOOT MOUNTING	CHANNELS	MODIFICATIONS
		AJ - 960 PPR AW - 1000 PPR AY - 1024 PPR AZ - 1200 PPR CX - 1500 PPR A3 - 2000 PPR A4 - 2048 PPR BA - 2400 PPR A5 - 2500 PPR CG - 3000 PPR AT - 3072 PPR A7 - 3600 PPR BB - 4000 PPR AD - 4096 PPR A8 - 4800 PPR A9 - 5000 PPR	AJ - 960 PPR AW - 1000 PPR AY - 1024 PPR AZ - 1200 PPR CX - 1500 PPR A3 - 2000 PPR A4 - 2048 PPR BA - 2400 PPR A5 - 2500 PPR CG - 3000 PPR AT - 3072 PPR A7 - 3600 PPR BB - 4000 PPR AD - 4096 PPR A8 - 4800 PPR A9 - 5000 PPR					616 - Mechanical overspeed w/super shielding, 1500 RPM, 1 NO & 1 NC Contacts, 5-13mm dia. Cable 617 - Mechanical overspeed w/super shielding, 2000 RPM, 1 NO & 1 NC Contacts, 5-13mm dia. Cable 618 - Mechanical overspeed w/super shielding, 1260 RPM, 1 NO & 1 NC Contacts, 5-13mm dia. Cable 901 - 0.3m/1' Special Cable Length, No Connector 902 - 0.6m/2' Special Cable Length, No Connector 903 - 0.9m/3' Special Cable Length, No Connector 905 - 1.5m/5' Special Cable Length, No Connector 910 - .3m/10' Special Cable Length, No Connector 915 - 4.5m/15' Special Cable Length, No Connector 920 - 6m/20' Special Cable Length, No Connector 930 - 9m/30' Special Cable Length, No Connector 933 - 10m/33' Special Cable Length, No Connector



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