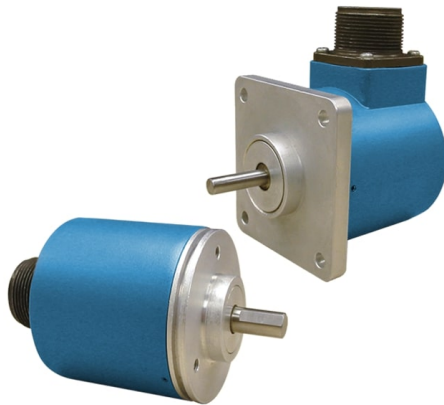


## Avtron AV25 Encoders



**Optical Light Mill Duty Solid Shaft  
Encoder, 2.5" flange mount**

### Optical Precision in a Compact Encoder

Shaft Sizes Include 1/4", 3/8", and  
10mm

Simple Installation

Unbreakable Optical Disk

Up to 5000 PPR

Wide-Gap Technology: Up to 8X  
larger gap between sensor and  
rotor

Directly Replaces H25, HA525,  
HA625, HC525, HC625, HR525,  
HR625, H42 and Many Other  
Standard 2.5" Encoders

Industry Standard Face or Flange  
Mounting

IP65/Nema 4 Rating: Dust and  
Liquid Tight

Superior Bearings and Seals

-40°C to +100°C Operation \*

2 Year No-Hassle Warranty

### AV25

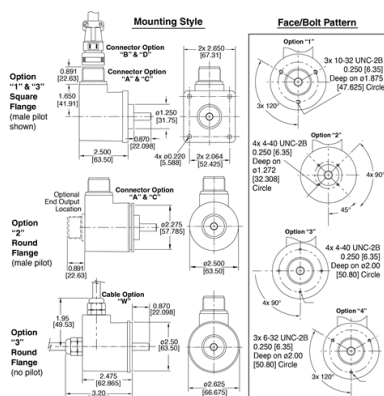
AV25 incremental quadrature rotary encoders fit a vast array of applications, from coupled AC and DC motor shafts, servos, conveyors, and most any machine. The solid aluminum housing, and stainless steel shaft offer increased durability in tough environments. Also available: AV20 encoders for 2.0" flanges and AV45 for 85mm flanges.

Avtron rotary encoders have superior shaft seals and bearings that stay sealed to keep contaminants out, through temperature cycling and liquid sprays. Our encoder seals are protected by mechanical barriers to prevent flexing or failure. Avtron's superior bearings permit much larger side and axial loads for pulley and belt applications, and feature synthetic lubricants for even longer life in all applications.

Many competitive optical encoder designs risk sensor damage from any vibration or shock: sensors ride less than four thousandths of an inch from the thin, often flexible, optical disk spinning at full motor speeds. Some designs even use thin glass disks in "industrial" products! Avtron uses only unbreakable disks and a sensor to disk gap over 8X larger than the competition.

Our optical AV25 encoders use superior sensor, disk, bearing, and seal technology to give top performance in industrial conditions. Select an Avtron AV25 today!

## OUTLINE DRAWING



## MORE AV25 ADVANTAGES

- All-digital design, no trim pots or adjustments for longer life
- Advanced sensor technology
- Superior bearings with synthetic lubricant for longer life
- No extra charge for signal complements and marker pulse
- More than 2X the axial and side load capability of the competition
- Superior line drivers withstand short circuits and reverse voltage wiring errors.

## MORE AV25 SPECIFICATIONS

**Operating Power:** Volts: 5 - 28 VDC; Current: 50mA, no load

**Output Format:** (A, /A, B, /B, Z, /Z available)

**Frequency Range:** 0 to 125 kHz

**PPR:** 1 - 5000 Standard

**Speed:** 6000 RPM Max., (for higher speeds, consult factory)

**Temperature:** -40° to 100°C \*

**Environment:** IP65

**Vibration:** 5-2000Hz

**Shock:** 50G, 11ms duration

**Weight:** 0.95 lbs [431g]

\* Please consult factory for temperature/speed derating

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



Nidec Industrial Solutions  
243 Tuxedo Avenue - Cleveland, Ohio 44131  
[encoderhelpdesk@nidec-industrial.com](mailto:encoderhelpdesk@nidec-industrial.com)  
+1 216-642-1230 - [www.avtronencoders.com](http://www.avtronencoders.com)



Features and specifications are subject to change without notice. EU-SMART™, SMARTSafe™, SMARTTach™, THIN-LINE™, WIDE-GAP™, SAFETach™, and BULLSEYE32™ are trademarks of Nidec Industrial Solution. All other trademarks and registered trademarks are the property of their respective owners. Nidec Industrial Solutions' standard warranty applies. All dimensions approximate.

## SELECTION GUIDE

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
MODEL	PPR	LINE DRIVER	SHAFT SIZE	CONNECTOR OPTIONS	WIRING EXIT	MOUNTING	FACE/BOLT PATTERN	SEALS	CHANNELS	MODIFICATION NS
AV25	A - 1 PPR C - 25 PPR F - 60 PPR G - 100 PPR H - 120 PPR K - 200 PPR P - 300 PPR E - 360 PPR Q - 500 PPR R - 512 PPR S - 600 PPR T - 625 PPR U - 720 PPR V - 900 PPR W - 1000 PPR Y - 1024 PPR Z - 1200 PPR 1 - 1250 PPR 3 - 2000 PPR 4 - 2048 PPR 5 - 2500 PPR 6 - 2540 PPR 7 - 3600 PPR D - 4096 PPR 9 - 5000 PPR	1 - 5-28v In/Out (7272) 2 - 5-28v In/Open Collector Out (7273) 3 - 5-15v In/Out (4469) 4 - 5-28v In, 5v Out (7272)	A - 1/4 in. diameter Shaft w/Flat B - 3/8 in. diameter Shaft w/Flat N - 1/4 in. diameter shaft w/o Flat P - 3/8 in. diameter Shaft w/o Flat C - 10mm diameter Shaft, w/Flat R - 10mm diameter Shaft w/o Flat	A - 10 pin MS style w/o Plug, Avtron Phasing B - 10 pin MS style w/o Plug, Reverse Phasing C - 10 pin MS style w/Plug, Avtron Phasing D - 10 pin MS style w/Plug, Reverse Phasing E - 6 pin MS style w/o Plug, Avtron Phasing F - 6 pin MS style w/o Plug, Reverse Phasing G - 6 pin MS style w/Plug, Avtron Phasing H - 6 pin MS style w/Plug, Reverse Phasing J - 7 pin MS style w/o Plug, Avtron Phasing K - 7 pin MS style w/o Plug, Reverse Phasing M - 7 pin MS style w/Plug, Avtron Phasing N - 7 pin MS style w/Plug, Reverse Phasing T - M12 on cable, Turck Pinout (use 00W Option Code) U - M12 on cable, USA Pinout (Use 00W Option Code) W - Cable (18" or special length)	A - Side (Radial) E - End (Axial)	1 - 2.625" Square Flange w/1.25 in. Pilot 2 - 2.5 in. Servo Flange w/1.25 in. Pilot, 2.275 in. groove 3 - 2.625 in. Servo Flange w/2.5 in. Pilot	X - No Additional Face Drill Holes 1 - 3 x 10-32 tapped holes on a 1.875 in. B. C. 2 - 4 x 4-40 tapped holes on a 1.272 in. B. C. 3 - 4 x 4-40 tapped holes on a 2.00 in. B. C. 4 - 3 x 6-32 tapped holes on a 2.00 B.C.	X - (NOT Recommended) No Seals A - Shaft Seals (best all around) B - Shielded Bearings (for female pilot housings)	A - All Signals (A,A',B,B',Z,Z') (NA w/6, 7 pin conns.) B - A,A',B,B' (complements, no marker) D - A, /A (Single Phase with complement) E - A, B, Z (no complements, marker) F - A, B (no complements, no marker)	000 - No Special Features 00W - Connector on Cable (see conn list) 901 - 1'/0.3m Cable Built into Encoder 902 - 2'/0.6m Cable Built into Encoder 903 - 3'/0.9m Cable Built into Encoder 905 - 5'/1.5m Cable Built into Encoder 910 - 10'/3m Cable Built into Encoder 915 - 15'/4.5m Cable Built into Encoder 920 - 20'/6m Cable Built into Encoder 925 - 25'/7.5m Cable Built into Encoder 930 - 30'/9m Cable Built into Encoder 933 - 33'/10m Cable Built into Encoder