

# Avtron AV25 Encoders



## Tough and Compact! AV25

- | 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 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!

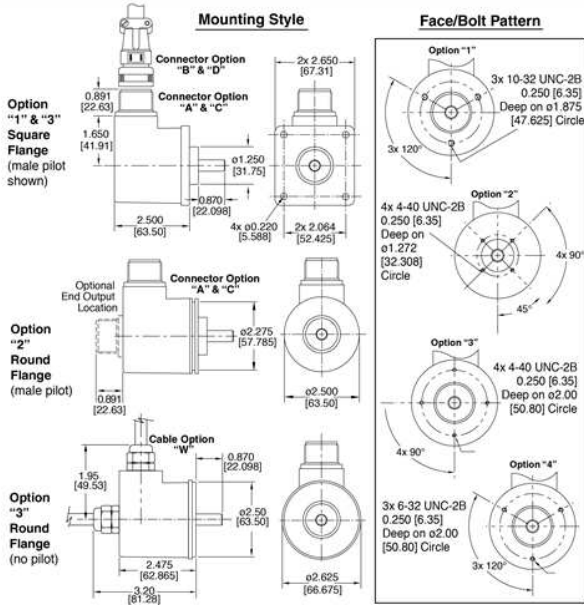
# OUTLINE DRAWING

# 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.

# 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  
**Vibration:** 5-2000Hz  
**Shock:** 50G, 11mS duration  
**Weight:** 0.95 lbs [431g]



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

# SELECTION GUIDE

| AV25 PART NUMBERS AND AVAILABLE OPTIONS |  |  |  |   |  |                   |  |   |   |  |   |
|---|--|--|--|---|--|-------------------|--|---|---|--|---|
| Mount                                   | PPR*   |  | Line Driver  | Shaft Size  | Connector Options  | Wiring            | Mounting Style   | Face/Bolt Pattern   | Seals   | Channels   | Special Features  |
| AV25                                    | A- 1<br>C- 25<br>F- 60<br>G- 100<br>H- 120<br>K- 200<br>L- 240<br>M- 250<br>N- 256<br>P- 300<br>E- 360<br>Q- 500<br>R- 512<br>S- 600<br>T- 625 | U- 720<br>V- 900<br>W- 1000<br>Y- 1024<br>Z- 1200<br>1- 1250<br>2- 1440<br>3- 2000<br>4- 2048<br>5- 2500<br>6- 2540<br>7- 3600<br>D- 4096<br>9- 5000<br>0- Special | 1- 5-28V (7272)<br>2- 5-28V, open collector (7273)<br>3- 5-15V (4469)<br>4- 5-28V in, 5V out (7272)                      | 0- Non-std. With Flat<br>A- 0.25"<br>B- 0.375"<br>C- 10mm<br>Without Flat<br>N- 0.25"<br>P- 0.375"<br>R- 10mm | W- 18" cable (pigtail)   | A- Side<br>E- End | 1- Sq. Flange 2.625" w/ 1.25" male pilot<br>2- Rnd. Flange 2.5" w/ 1.25" male pilot<br>3- Rnd. Flange 2.62" no pilot     | X- None<br>1- 3x 10-32 @ 1.875"<br>2- 4x 4-40 @ 1.272" <sup>^</sup><br>3- 4x 4-40 @ 2"<br>4- 3x 6-32 @ 2" | A- Shaft Sealed**<br>B- Bearing Sealed<br>X- None^^   | With Comp.<br>A- A, Ā, B, B̄<br>Z, Z̄***<br>B- A, Ā, B, B̄<br>D- A, Ā<br>Without Comp.<br>E- A, B, Z<br>F- A, B | 000- None<br>00W- Connector on 18" cable: Use w/ Option "T"- "U"<br>9xx- Specify cable length xx=feet (use w/ Option "W") |
| <b>Connector Options</b>                |  |  |  |   |  |                   |  |   |   |  |   |
|   |  |  | <b>Mounted on Encoder</b>  |   |  |                   | <b>Mounted on 18" cable (00W)</b>  |   |   |  |   |
|   |  |  | <b>10 Pin MS</b>   |   | <b>6 Pin MS</b>  |                   | <b>7 Pin MS</b>  |   | <b>8 Pin M12</b>                                      |  |   |
|   |  |  | A- w/o plug (std. phasing)<br>B- w/o plug (reverse phasing)<br>C- w/ plug (std. phasing)<br>D- w/ plug (reverse phasing) |   | E- w/o plug (std. phasing)<br>F- w/o plug (reverse phasing)<br>G- w/ plug (std. phasing)<br>H- w/ plug (reverse phasing) |                   | J- w/o plug (std. phasing)<br>K- w/o plug (reverse phasing)<br>M- w/ plug (std. phasing)<br>N- w/ plug (reverse phasing) |   | T- w/o plug (Turck Pinout)<br>U- w/o plug (US Pinout) |  |   |

\* up to 16,384 PPR available  
 \*\* recommended, N/A with Mounting Styles "3".  
 \*\*\* N/A with MS 6 or 7 Pin Connector.  
<sup>^</sup> Only available with Mounting Style "3"  
<sup>^^</sup> not recommended for industrial applications

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



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