

## **Avtron AV485 SMARTach**<sup>TM</sup> **III Encoders**



Severe Mill Duty Magnetic Encoder; Foot or NEMA 56C Face Mount, 5/8" Solid Shaft

# Magnetic Durability in a Compact Encoder

Severe Mill DutyUp to 50000 PPR

Replaces Competitive Models Without Rewiring

Self-Diagnostic LED & Alarm Output

Foot or NEMA 56C Face Mount Removable SensorsIP66 Enclosure

High-Power Output Standard

Outputs Fully Short Circuit Protected

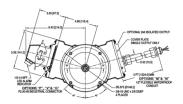
Optional Dual Isolated Outputs

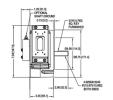
1 Year No-Hassle Warranty

#### **AV485**

The AV485 is designed to withstand the worst environments: buried in slag, coated in pulp, sprayed with salt water or cutting coolants, it keeps working. The modular, gull-winged design makes it easy to install and service; the base can be bolted in place without removing the encoder, and the AV5 wide-gap removable sensors require no adjustment or shimming. The sensors are fully potted to protect against liquids, and are interchangeable between AV850, AV485, and AV685 encoders. The universal 5-24V design drives longer cables and is protected against wiring errors and surges. A second backup output is available with the same or different PPR, and offers completely separate electronics for maximum uptime.

#### **OUTLINE DRAWING**





### **MORE AV485 SPECIFICATIONS**

Operating Power: Volts: 5 - 24 VDC\* Current: 100mA nom, 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 PPR: 4 - 50000\*\*\*

Speed: 5000 RPM Max\*\*\*\* Electronics: Fully Encapsulated, IP67\*\* Temperature: -40° to 120°C\* (150°C rotor)^

Vibration: 18 g's

Shock: 1 meter drop test

Chemical: Polyurethane enamel paint protects against salt spray, mild acids, and

Weight: 14 lbs. [6.4 kg] / 16 lb [7.3 kg] dual output

- \* Electrical specifications for SMARTach III model (serial #30,000 or higher), consult
- Nidec Industrial Solutions for earlier model specifications.

  \*\* Certain connector options may reduce IP rating.

  \*\*\*(PPR) Standard maximum PPR is 5000. Consult Factory with your application for PPRs up to 50,000.
  \*\*\*\* (Speed) Maximum RPM may be limited for PPR > 2,500. Consult Factory with
- your application.
- ^ -20°C to 80°C Standard, requires high-temperature model and instrument air feed for 120°C rating

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

#### **SELECTION GUIDE**

#### AV485NXS80XXW402

| MODEL | TEMPERATURE<br>RATING        | FOOT<br>MOUNTING   | SHAFT<br>MOUNTING  | LEFT OUTPUT<br>LINE DRIVER                           | LEFT OUTPUT<br>PPR | RIGHT OUTPUT<br>LINE DRIVER | RIGHT OUTPUT<br>PPR | CONNECTOR<br>OPTIONS                              | MODIFICATIONS   |
|-------|------------------------------|--|--|--|--------------------|-----------------------------|---------------------|---|---|
| AV485 | N20°C to +80°C<br>(Standard) | X - Standard NEMA<br>56C 4.5 in. Face<br>Mount (No Foot<br>Mount Included) | S - Standard Single<br>Ended 5/8 in. x 2 in.<br>Stainless Steel<br>Shaft, with 3/16 in.<br>Key way & Key | 8 - 5-24v in, 5-24v<br>out hi-power<br>standard (HX) | 0 - Special PPR    | X - No Right Output         | X - No Right Output | W - 36 in. Sealed<br>Cable w/Color<br>Coded Leads | 402 - 150 PPR<br>(Special) Left Output<br>(Set Left PPR Code<br>to 0) |

