09/15/25

Avtron AV485 SMARTachTM 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

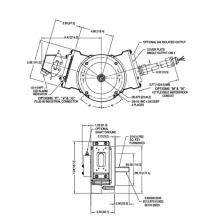
> High-Power Output Standard Outputs Fully Short Circuit Protected

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 bases

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

AV485NXS8LXXG000

| MODEL | TEMPERATURE RATING | FOOT MOUNTING | SHAFT MOUNTING | LEFT OUTPUT LINE DRIVER | LEFT OUTPUT PPR | RIGHT OUTPUT LINE DRIVER | RIGHT OUTPUT PPR | CONNECTOR OPTIONS | MODIFICATIONS |
|-------|------------------------------|------------------|-------------------|--|--------------------|-----------------------------|---------------------|--|-----------------------------|
| AV485 | N20°C to +80°C (Standard) | | | 8 - 5-24v in, 5-24v out hi-power standard (HX) | L - 240 PPR | X - No Right Output | X - No Right Output | G - Industrial EPIC Style w/Lakeshore Pinout | 000 - No Special Options |



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