Avtron SV5 SAFETach™ Sensor

SIL 2 Evaluated Magnetoresistive Sensor for SV850 Encoder

Superior SIL Rated Sensor

Installation in Minutes!

No Optics

Self-Diagnostic LED & Alarm Output

Fully Potted Electronics

3 Year No-Hassle Warranty

Wide-Gap Technology Eliminates Gapping and Shimming

Mounts in the SV850 Encoder

Meets IEC 61508 SIL 2 at HFT 0

SV5

The Avtron SV5 SAFETach™ sensor is the first safety rated magnetoresistive sensor for SIL 2 applications. Often, optical encoders fail because of dust or water contamination that prevents the sensor from seeing the optical disk. The SV5 advanced magnetic technology sees through contamination and the fully sealed circuit design ensures your machine keeps working, even in mill environments. The SV5 offers magnetic performance and moisture resistance!
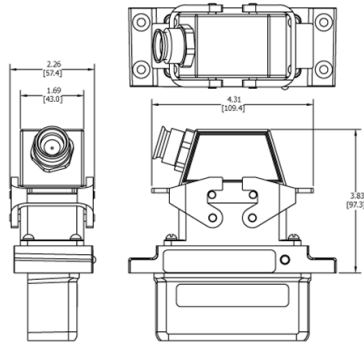
Avtron SV5 SAFETach III™ sensors are magnetoresistive, safety rated incremental quadrature sensors for the SV850 rotary encoder. The SV5 is also usable in applications where an encoder housing is not needed – simply mount the SV5 with your bracket, and use an SV850 rotor. All SV5 electronics are fully encapsulated. There are no moving wearing parts.

Miswiring an encoder is common– and it shouldn't cost you time or money. Wiring errors and short circuits that cause an over-temp situation will be detected and indicated by changing the LED to orange. The SV5 has full output short circuit and reverse voltage protection, plus surge protection. SV5 SAFETach III sensors digitally self-tune the outputs to eliminate drive trips caused by poor encoder signals. The universal 5-24V design drives longer cables and is protected against wiring errors and surges.

Adaptive Electronics: At power-up you know you installed it right! The green LED tells you your SV5 Sensor is aligned with the rotor and reading signal. If at any time, the SV5 cannot produce consistent signals, the LED changes to red and the optional remote alarm contact activates. However, the encoder keeps working to give you time to schedule service.

What good is a competitors "safety" encoder if it's optical and fails? Pick the SV5 sensor for safety and reliability!

OUTLINE DRAWING

MORE SV5 ADVANTAGES

- Direct Machine-Mount Option
- High Resolution up to 5000 PPR
- Full protection against short circuits, reverse voltage, phase-to-phase shorts
- Sensor PPR can be factory reprogrammed

MORE SV5 SPECIFICATIONS

Operating Power: 5-24V
Current: 100mA
Output Format: A Quad B with marker (A, /A, B, /B, Z, /Z)
Maximum Cable Length: 1000' @ 5V, 500' @ 12V, 200' @ 24V
PPR: 4 - 50000**
Speed: 6000 RPM Max***
Temperature: -40° to 100°C (rotor -40° to 150°C peak)
Electronics: Fully Encapsulated, IP67*
Vibration: 18G
Shock: 1 meter drop test
Weight: 9lbs. [4kg]; 11lbs. [5kg] dual
Safety Level: Evaluated for IEC 61508 SIL 2 metrics at HFT 0

* 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

Check out our website for more detailed specifications, drawings, and installation instructions. www.avtronencoders.com

SELECTION GUIDE

MODEL	LINE DRIVER	PPR	CONNECTOR OPTIONS	MODIFICATIONS
☐	☐	☐	☐	☐
SV5-	6 - 5-24v in, 5-24v out (7272) 9 - 5-24v, 5v fixed out (7272)	F - 60 PPR C - 64 PPR G - 100 PPR H - 120 PPR A - 128 PPR L - 240 PPR N - 256 PPR P - 300 PPR E - 360 PPR B - 480 PPR Q - 500 PPR R - 512 PPR S - 600 PPR U - 720 PPR V - 900 PPR J - 960 PPR W - 1000 PPR Y - 1024 PPR Z - 1200 PPR 2 - 1500 PPR 6 - 1800 PPR 3 - 2000 PPR 4 - 2048 PPR 5 - 2500 PPR D - 4096 PPR 8 - 4800 PPR 9 - 5000 PPR 0 - Special PPR, Consult Factory	G - Industrial EPIC Style w/Lakeshore Pinout w/Plug P - Industrial EPIC Style w/Plug T - 5 ft [1.5m] Flex Conduit w/Terminal Box	000 - No Special Options 004 - Super Magnetic Shielded Sensor(s) 007 - Super Magnetic Shielded Sensor(s) and Marine Sealing O-Ring 401 - 1270 PPR (Special) (Set PPR code = 0) 402 - 150 PPR (Special) (Set PPR code = 0) 403 - 50 PPR (Special) (Set PPR code = 0) 404 - 16 PPR (Special) (Set PPR code = 0) 405 - 16 PPR (Special) (Set PPR code = 0) 406 - 6000 PPR (Special) (Set PPR code = 0) 407 - 2800 PPR (Special) (Set PPR code = 0) 408 - 1400 (Special) (Set PPR code = 0) 409 - 30 PPR (Special) (Set PPR code = 0) 410 - 6000 PPR (Special) (Set PPR code = 0) 411 - 12000 (Special) (Set PPR code = 0) 412 - 200 (Special) (Set PPR code = 0) 413 - 30 (Special) (Set PPR code = 0) 414 - 1500 (Special) (Set PPR code = 0) 415 - 3000 (Special) (Set PPR code = 0) 416 - 3600 (Special) (Set PPR code = 0) 417 - 1250 (Special) (Set PPR code = 0) 418 - 2400 (Special) (Set PPR code = 0) 419 - 160 (Special) (Set PPR code = 0) 420 - 450 PPR (Special) (Set PPR code = 0) 421 - 30 PPR (Special) (Set PPR code = 0) 422 - 96 PPR (Special) (Set PPR code = 0) 423 - 10000 PPR (Special) (Set PPR code = 0) 426 - 1935 PPR (Special) (Set PPR code = 0) 4XX - Custom PPR, Consult Factory

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