

SAVeS Smart Vibration Sensor

Modern vibration monitoring for gas compressors & other critical equipment

- Incorporates a sophisticated MEMS-IMU-based vibration peak sensor for multi-axis application..
- Easily installed, drop-in replacement for legacy mechanical vibration devices.
- Quickly configured in the field with Altronic **OVERWATCH** app.
- Three models available.
- E-ink display to support setup and diagnostics—even with external power removed.
- Cost-effective and scalable.
- Certified for Class I, Division 2, Group C and D hazardous areas.*

*Pending

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Consistent with its tradition of high value innovation, the development team at Altronic has designed and delivered the **SAVeS Smart Vibration Sensor**.

The primary design driver for the SAvES is to introduce twenty-first century vibration sensing technology and protection for operation on gas compressor packages and other critical industrial equipment, and to do so on a cost-effective, scalable basis. While ensuring simple installation, and backward compatibility with older mechanical vibration switches, SAvES modules deliver an entirely new level of configurability, accuracy, and protection at a price level in-line with traditional stand-alone devices.

Technology sets the SAvES apart from its traditional peers. Featuring a MEMS IMU (micro-electro-mechanical inertial measurement unit)—a system often deployed in advanced navigation and robotic applications—the SAvES solution combines three accelerometers onto a single chip to support six-axes of motion data acquisition. Application flexibility (including the axis of interest) is managed through the use of an integrated e-ink display, a QR code indicated in that display, and configuration via the Altronic **OVERWATCH** app. The innovative HMI approach allows for local user access to fault and other diagnostic details—even following long periods of time without access to external system power.

Three models of SAvES Smart Vibration Sensors are available:

- 691816-1 – Universal, full-featured module with Modbus RS-485 communications, a solid-state relay for shutdown, an open drain output for alarm, and a 4-20mA output tied to monitored velocity.
- 691816-1C – Functionally identical to the -1 model but includes a pre-installed six-pin connector for simple installation using standard Altronic cables (693013-X).
- 691816-3 – Designed as a direct replacement of FW Murphy VS2/VS2-EX devices. Works with the existing two wires and in-panel detector module, and features the same mounting footprint (VS2-EX mounting plate available) for simple retrofit.

The SAvES is designed for full compliance with Class I, Division 2, Group C and D hazardous operating environments. For further technical and application information, please go to www.altronic-llc.com/product/instrumentation/saves.



To Order

SAVeS Smart Vibration Sensor (Standard)	691816-1
SAVeS Smart Vibration Sensor (Standard with Mil-Circular Connector)	691816-1C
SAVeS Smart Vibration Sensor (Two-Wire Replacement Applications)	691816-3
Panel-Mounted Detector Module (Two-Wire Replacement Applications)	691819
Mounting Plate for Murphy® VS2-EX Applications	615853
Cable Assembly, Control Valve, 30 ft (691816-1C Model Only)	693013-1

General Specifications

OUTPUTS (691816-1 AND -1C MODELS ONLY)

- ×1 – Shutdown Solid State Relay (500 mA 60 V)
- ×1 – Alarm Open Drain (28 V)¹
- ×1 – 4-20 mA Velocity Signal

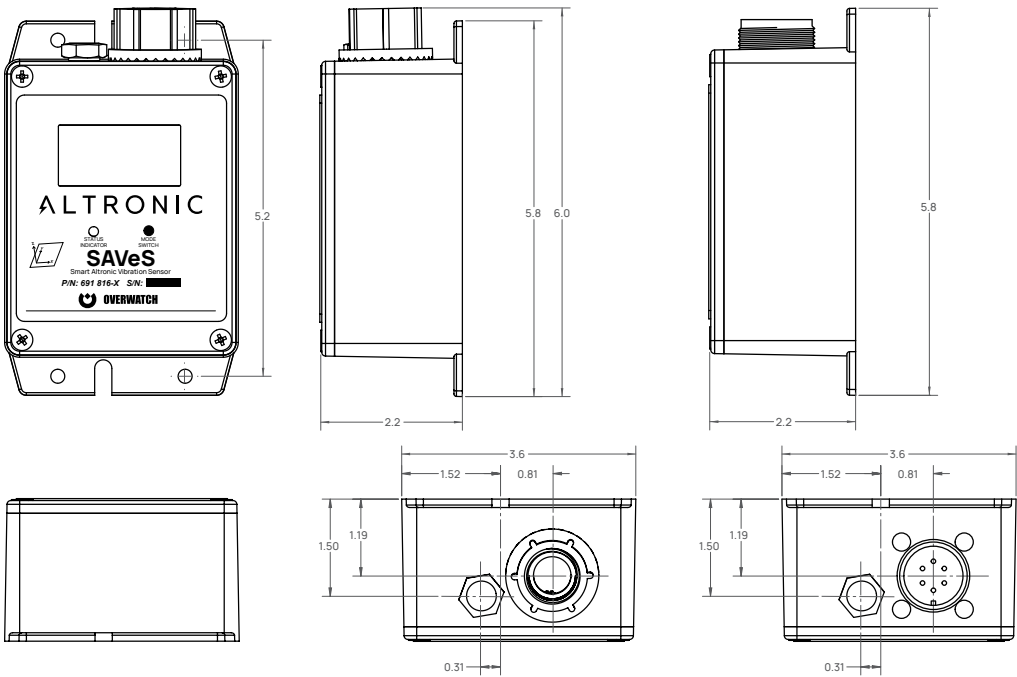
COMMUNICATION AND CONTROL INPUTS (691816-1 AND -1C MODELS ONLY)

- ×1 – RS-485 Serial Communications – Modbus RTU

SPECIFICATIONS

Frequency Range	5-500 Hz
Velocity Tolerance ²	±2% at 40 Hz
Acceleration Tolerance	±4 mG
Maximum Peak Acceleration	64 G max
Power Required ³	9-32 VDC, 0.1 A nominal, 0.7 A peak
Ambient Operating Temperatures ⁴	-40 °C to +85 °C (-40 °F to +185 °F)

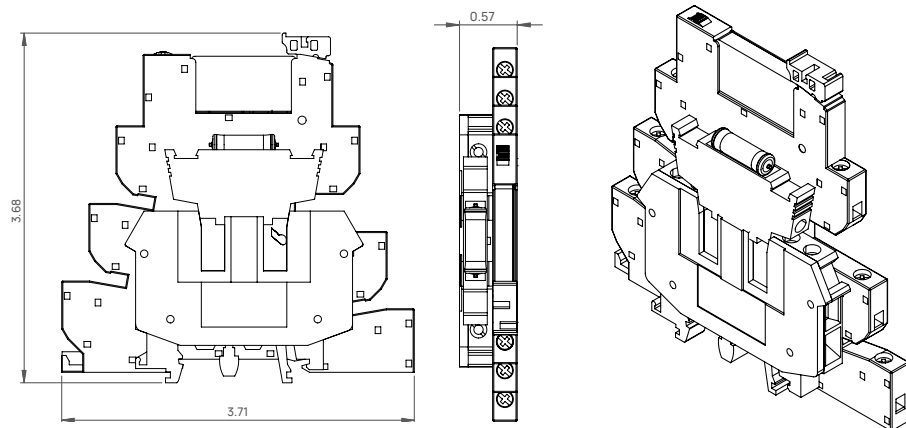
Dimensions



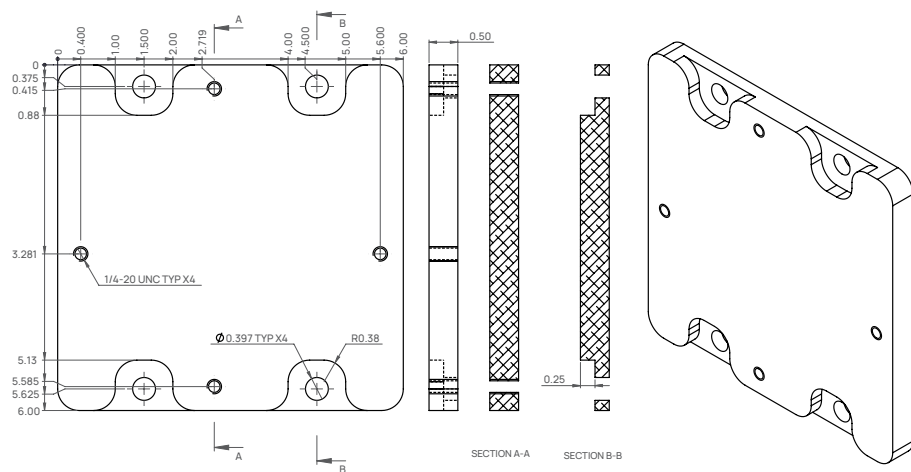
Altronic SAVeS 691816-X

Altronic SAVeS 691816-1C

- 1 Requires pull up resistor (160 Ohm min).
- 2 Velocity accuracy is dependent on both quality and location of mounting.
- 3 When used with the 691819 Detector Module, input voltage is 18-32 VDC.
- 4 E-Ink will not work properly at extents of operating temperature, but will recover when temperature is back in its acceptable range.



SAVeS Detector



VS2EX to SAVeS Adapter Plate

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