

Recently redesigned, the Smart SV's original invar sound velocity sensor has been replaced with a composite SV sensor. Mechanical form factor of the redesigned instrument is identical to the original version.

The Smart SV is a real-time instrument ideal for measuring sea surface sound velocity for multi-beam systems. The instrument is also appropriate for integration into AUV or ROV systems. Like all AML sound velocimeters, the Smart SV directly measures the time-of-flight of an acoustic ping. Time-of-flight measurement technology is between 5 and 10x more accurate than traditional CTD based sound velocity equations such as Chen & Millero or Del Grosso.

Standard Features:

- Time-of-Flight Sound Velocimeter, +/-0.05 m/s accuracy
- Small in size and light weight
- Externally powered 7.5-26 VDC
- Composite sensor eliminates path-length change due to vibration, corrosion and temperature
- Low maintenance as no zincs required, hull mounted and sea-chest deployments greatly simplified
- High speed sampling: user configurable, up to 25Hz



X•Series: Sensor-Xchangeable Instruments

Available as an upgrade, X•Series instruments allow the user to change instrument sensor-load on demand. With the X•Series, your CTD can be an SVTP, shallow pressure sensors can be swapped for deep, and temperature range can be adjusted as needed. The X•Series uses Xchange™ sensor-heads, which are both field-swappable and shareable with all other models of X•Series instruments.

For more information, request an X•Series brochure.

Electrical:

- Up to 25 scans per second
- Factory Set RS232 or RS485
- Externally Powered 8-26 VDC

Sampling Modes:

- User configurable
- By time, up to 25 Hz
- By sound speed, 0.1 ms and greater

Mechanical:

- Housing: Delrin to 500 m or Titanium to 10,000 m
- Size: 46 mm (1.8") diameter x 284 mm (11.2") OAL
- Connectors: Micro 6, Female
- Storage Temperature: -40°C to 60°C
- Operating Temperature: -20°C to 45°C

Accessories:

- Instrument suspension bar
- Instrument protection frame
- Mounting brackets
- Data/Power cable, various lengths 2m and greater

Parameter	Range	Precision	Accuracy	Resolution	Response
STANDARD Sound Velocity (Composite)	1400 to 1600 m/s	+/-0.03 m/s	+/-0.05 m/s	0.015 m/s	47 microseconds

Xchange™

Field-swappable Xchange™ sensors (Conductivity, Sound Velocity, Temperature and Pressure) are only available on X•Series instruments, including the Smart•X. For more information, please request a copy of the Smart•X brochure.

*specifications subject to change without notice



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