

The **ONLY CHOICE** for reliable measurements of sound velocity.

# Sound Velocity Smart Sensor

The SV Smart Sensor is a low cost instrument designed to measure sound velocity in water. This highly adaptive sensor is ideal for integration into existing data collection platforms or OEM equipment. Connect it directly to a PC or combine it with an AML Smart View hand-held display and hand hauled profiles can be conducted in real-time. Its small size, extremely fast response time and high sampling rate make the sensor ideal for fast profiles or tow speeds.

Each sensor has internal calibration coefficients and outputs real-time data to allow a “plug and play” environment. The optional addressable features provide for daisy chaining with other sensors allowing the user to create their own system.



## Sensor

- Proprietary “Time of Flight” technology
- 1400 to 1550 m/s measuring range
- $\pm 0.050$  m/s accuracy
- 0.015 m/s resolution
- 145  $\mu$ s response time
- Temperature compensated

## Electrical

- 35 samples per second maximum
- RS-232 ASCII communications
- Optional RS-485 or TTL
- Autobaud rates from 2,400 to 38,400 baud

## Power

- 30 mA sampling current
- External 8 – 16 Vdc (12 Vdc nominal)
- Optional power configurations available upon request

## Mechanical

- Weight: 515 grams (1.14 pounds) in air  
177 grams (0.4 pounds) in water
- Dimensions: 45.7 mm (1.80”)  $\varnothing$  x 315 mm (12.40”)
- Construction: Type 316 stainless steel sensor and reflector plate, INVAR rods and acetal housing rated to 500 meters.  
Optional: Type 316 stainless steel housing rated to 4,500 meters.  
Optional: Titanium housing rated to 10,000 meters.
- Connector: IMPULSE Miniature Wet Pluggable™ Series  
Optional connector configurations available.
- Environment: Operating: -20°C to 50°C  
Storage: -40°C to 60°C

Instrumentation  
**THROUGH**  
Innovation



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MICROSYSTEMS  
LTD**

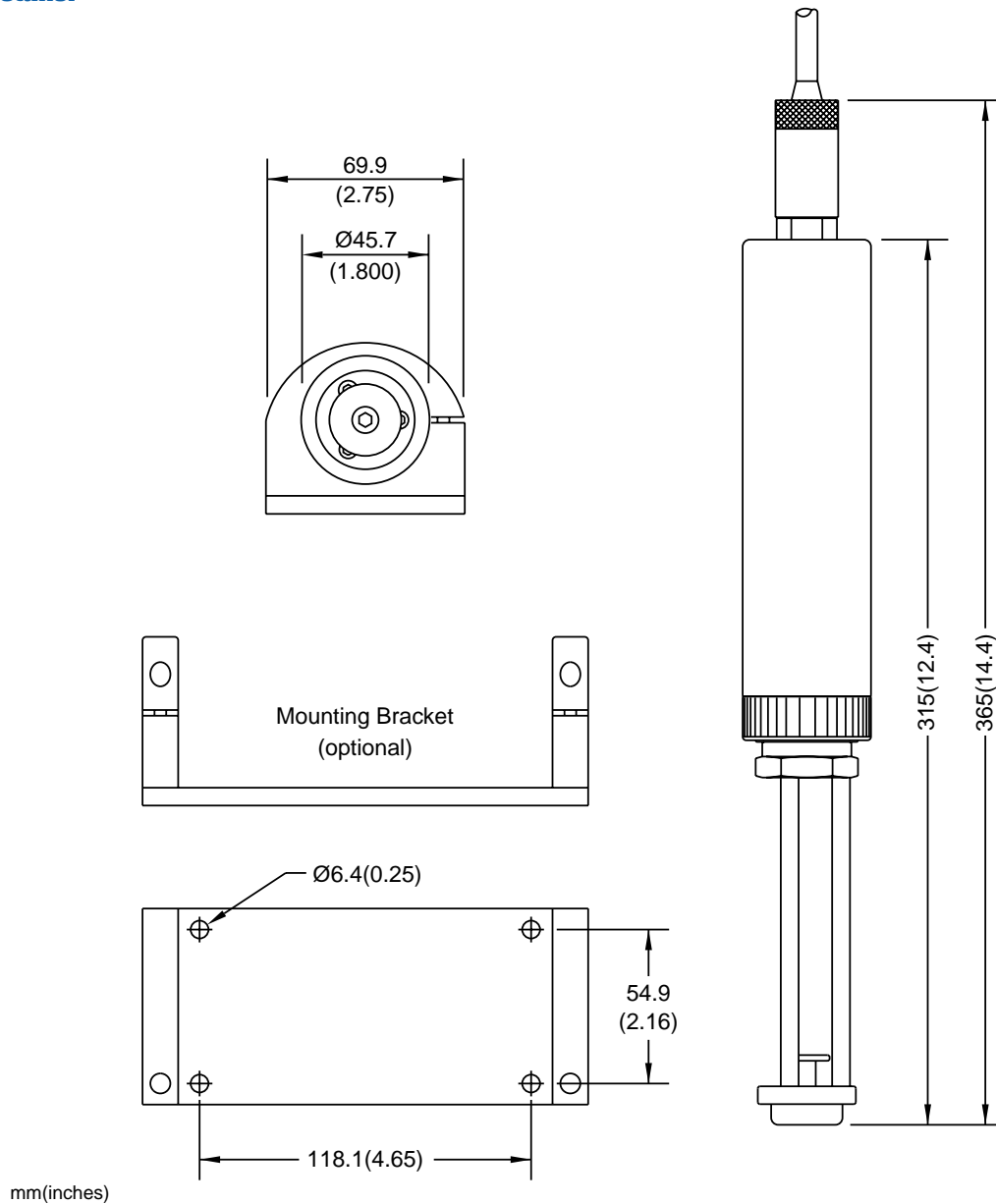
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## Accessories and Software

See Accessories Data Sheet for available options and software.

Smart Talk Data Logging Software is included at no charge with every sensor.

## Mechanical Details:



*Instrumentation*  
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