

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

# Sound Velocity & Pressure Smart Sensor

The SV&P Smart Sensor is a low cost instrument designed to measure sound velocity and pressure 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.

## Sensors

### SOUND VELOCITY

- Proprietary "Time of Flight" technology
- 1400 to 1550 m/s standard measuring range
- $\pm 0.050$  meters per second accuracy
- 0.015 meters per second resolution
- 145  $\mu$ s response time
- Temperature compensated

### PRESSURE

- Semiconductor strain gauge (temperature compensated)
- Available ranges: 0-10, 20, 50, 100, 200, 500 dbars (higher ranges available)
- $\pm 0.05\%$  full scale accuracy
- 0.01 dbar resolution
- 10 ms response time

## Electrical

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

## Power

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

## Mechanical

- Weight: 575 grams in air  
180 grams in water
- Dimensions: 45.7 mm (1.80")  $\varnothing$  x 368 mm (14.5")
- Construction: Type 316 stainless sensor & plate, INVAR rods, 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
- Environment: Operating:  $-20^{\circ}$  to  $50^{\circ}$ C  
Storage:  $-40^{\circ}$  to  $60^{\circ}$ C



Instrumentation  
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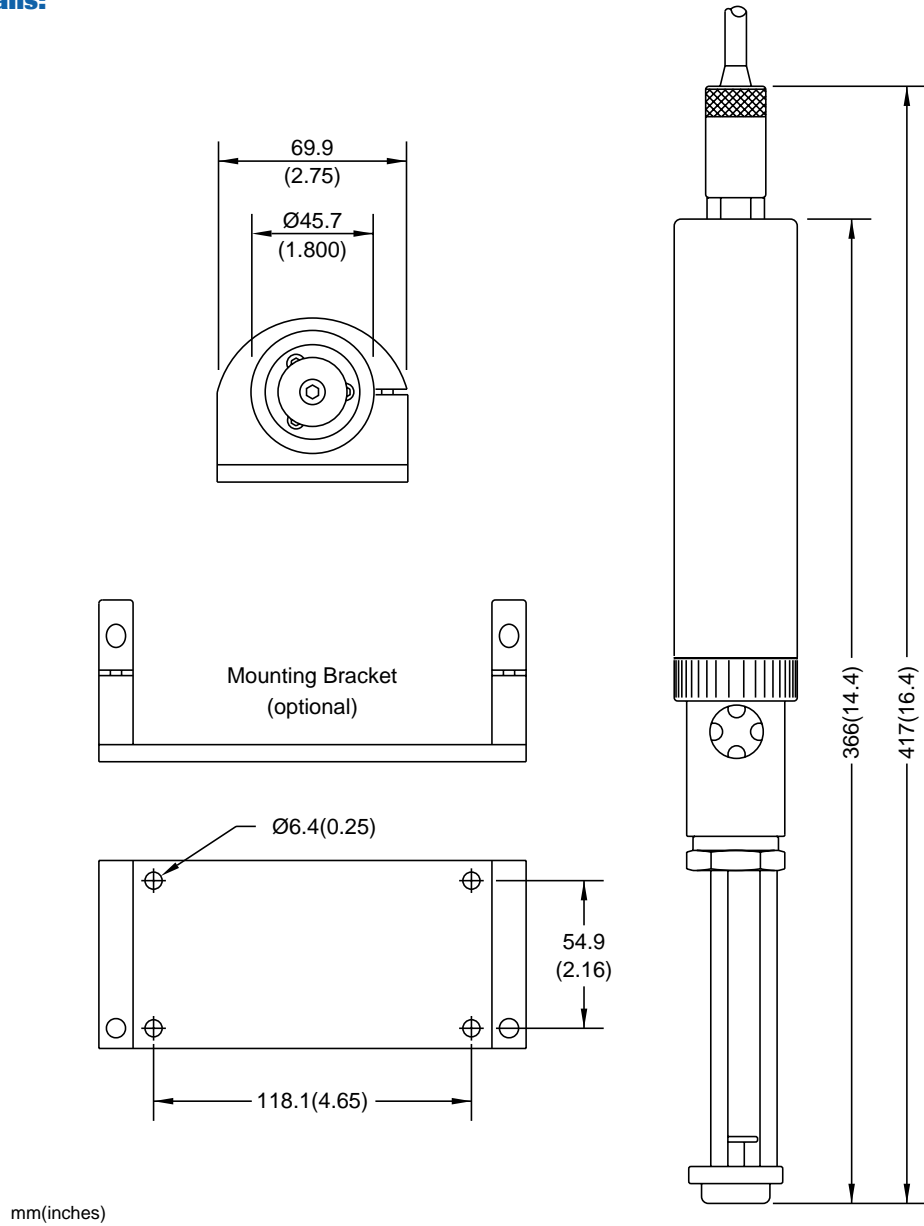
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## Accessories and Software

See Accessories Data Sheet for available options and software.

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

## Mechanical Details:



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### Head Office

2071 Malview Avenue  
Sidney, B.C. Canada V8L 5X6  
Phone: 250 656 0771  
Fax: 250 655 3655  
1 800 663 8721 (Canada & USA)  
info@AppliedMicrosystems.com