

The **ONLY CHOICE** for reliable measurements of conductivity, temperature and pressure.

CTD Smart Sensor

The *CTD Smart Sensor* is a low cost, high accuracy instrument designed for the measurement of conductivity, temperature and pressure. 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 handheld data display, permits the user to perform hand hauled profiles in real-time. Its small size, fast response sensors and high speed sampling rate makes the *CTD Smart Sensor* the preferred choice for use on underwater vehicles.

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

Sensors

CONDUCTIVITY:

- Platinized four electrode glass cell
- Range: 0 to 7 S/m (25 millisecond time response @ 1 m/s)
- Resolution: 0.0003 S/m
- Accuracy: ± 0.001 S/m

TEMPERATURE

- Pressure protected precision thermistor
- Range: -2°C to 32°C (85 millisecond time response)
- Resolution: 0.001°C
- Accuracy: $\pm 0.005^{\circ}\text{C}$

PRESSURE

- Semiconductor strain gauge
- Available ranges: 0 - 10, 20, 50, 100, 200, 500 dbars
- Resolution: 0.01 dbar
- Accuracy: $\pm 0.05\%$ full scale

Electrical

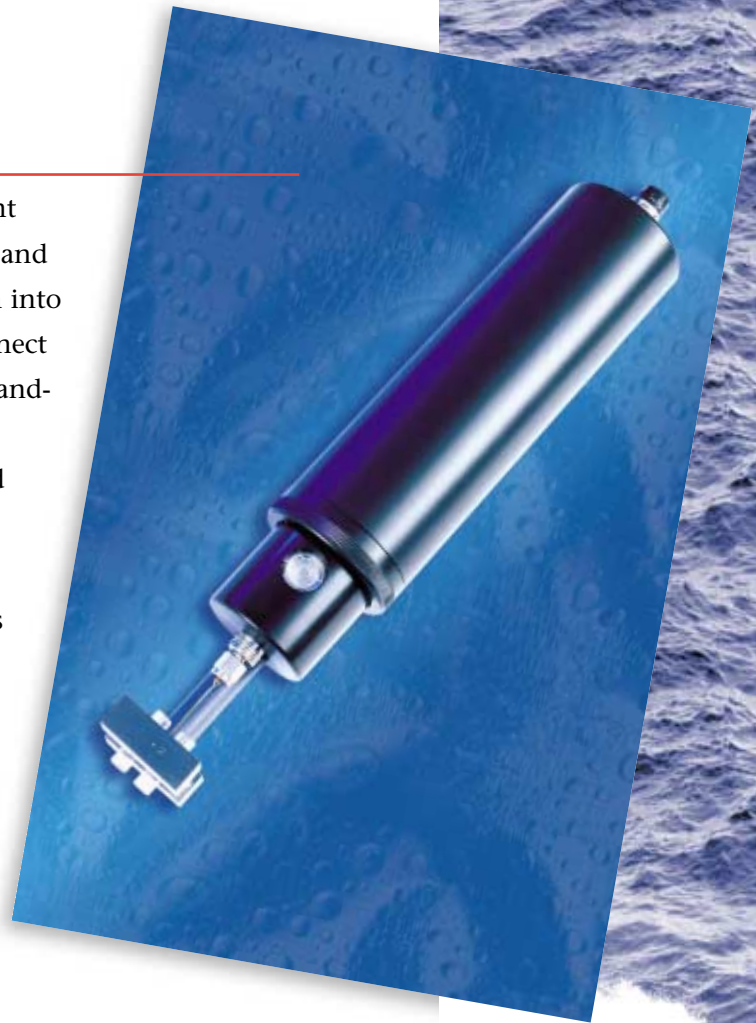
- Low power R.I.S.C. processor
- 15 samples per second maximum
- RS-232 communications from 2,400 to 38,400 baud
- Optional half duplex addressable RS-485 or TTL

Power

- 55 mA sampling current
- External 8 - 16 V dc (12 V dc nominal)
- Optional power configurations available upon request

Mechanical

- Weight: 920 grams in air
50 grams in water
- Dimensions: 69.9 mm (2.75") \varnothing x 345 mm (13.6")
- Construction: Acetal endcap and housing rated to 500 meters. Optional Type 316 stainless steel housing rated 4,500 meters.
- Connector: IMPULSE Miniature Wet Pluggable™ Series.
Optional connector configurations
- Environment: Operating: -20°C to 50°C
Storage: -40°C to 60°C



Instrumentation
THROUGH
Innovation



**APPLIED
MICROSYSTEMS
LTD**

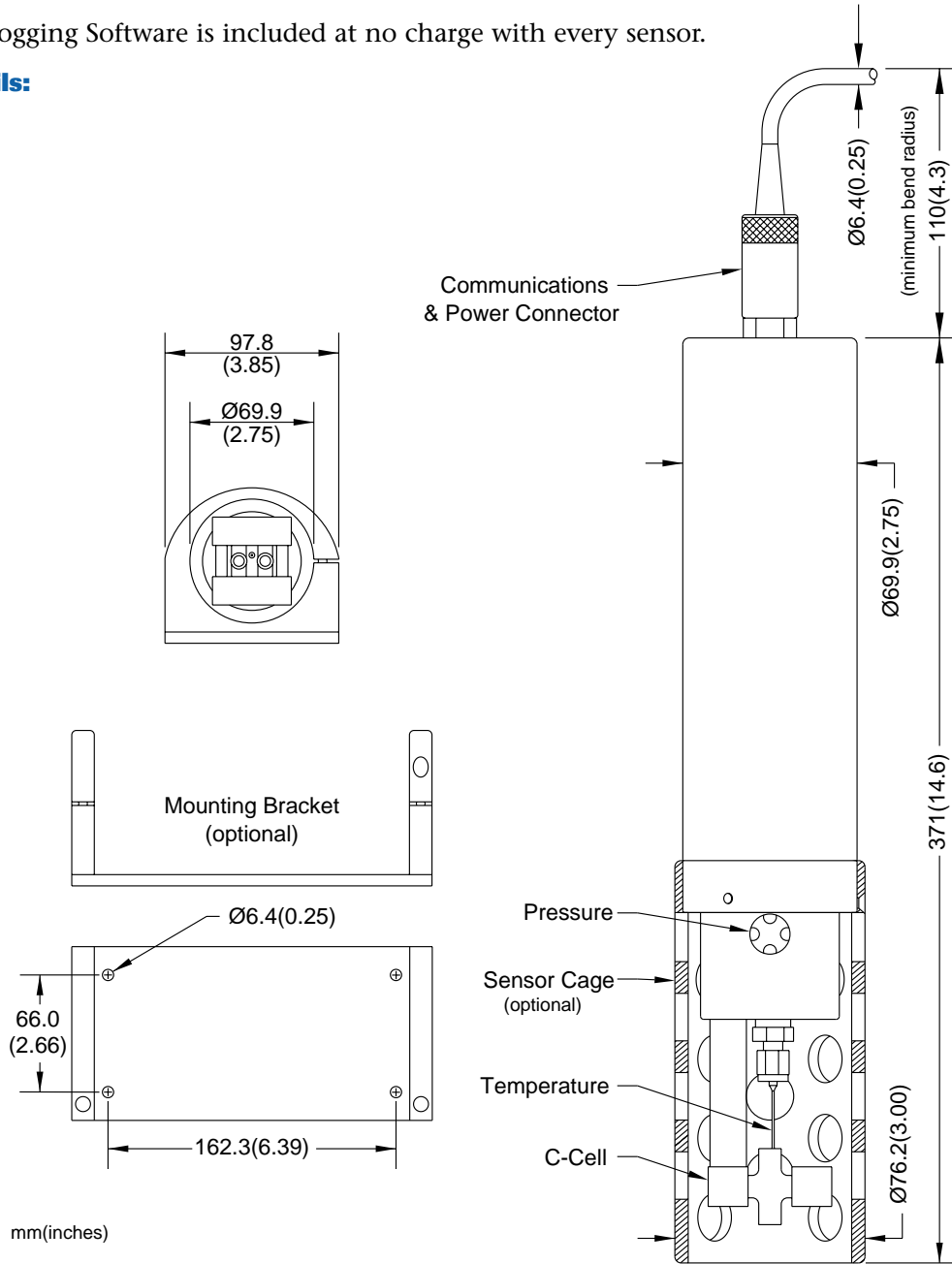
CTD Smart Sensor

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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