

Micro SVT&P

Proven for MVPs, AUVs and Other Ocean Platforms

Applied Microsystems' Micro SVT&P uses time-of-flight technology to measure sound velocity. By directly measuring the time-of-flight of an acoustic ping, Applied Microsystems improves sound velocity accuracies by a factor of five over CTD based calculations such as Chen & Millero or Del Grosso.

The Micro SVT&P's 25 Hz sampling guarantees high resolution data even in high speed applications. Similar response times on all three sensors eliminate the need for post processing of data and simplify the mapping of thermoclines and pycnoclines. Originally designed to withstand the G forces of a moving vessel profiler, the Micro SVT&P is rugged and reliable.



Key Features:

- *Sound Velocity:* Time-of-Flight, +/-0.03 m/s (precision)
- *Temperature:* Precision Aged Thermistor, +/-0.003°C (precision)
- *Pressure:* Temperature Compensated Strain Gauge, +/-0.03%FS (precision)
- *Sampling:* user selectable sampling to 25 Hz
- *Small Size:* 50 mm / 1.98" (diameter) x 316 mm / 12.54" (length)
- *Power:* externally powered with no memory, optional battery pack
- *Memory:* optional gigabyte memory
- *High Performance:* standard composite sensor eliminates path-length change due to vibration, corrosion and temperature
- *SV•Xchange™:* optional SV•Xchange™, the industry's only field-swappable sound velocity sensor

SV•Xchange™

Exchangeable SV Sensor Option

SV•Xchange™ is the industry's only field-swappable sound velocity sensor. Any SV•Xchange™ sensor can be connected to any Xchange enabled instrument - when you want, where you want - without compromising calibration accuracy.

Key benefits include increased instrument field time, lower cost of ownership, greater convenience and increased flexibility. The SV•Xchange™ is available as an option on most new Micro SVT&Ps.



Electrical:

- Gigabyte memory (optional)
- Up to 25 scans per second
- Real time clock
- Auto detect RS232 or RS485

Sampling Modes:

- Continuous; defined increments of time or pressure; on request

Power Options:

- Externally powered
- 40 mA at 8 to 26 volts DC, (12 volts nominal)
- Optional battery pack (3 x C cell Lithium) in separate housing

Mechanical:

- Housing & End Cap: Delrin to 500 m or Titanium to 10,000 m
- Size: 50 mm / 1.98" (diameter) x 280 mm / 11.0" (nominal length)
- Connectors: Subconn Micro 8 wet pluggable, Female
- Environmental: Storage, -40°C to 60°C; Usage, -20°C to 45°C

Accessories:

- 2 m data / power pigtail
- Instrument suspension bar
- Instrument protection frame
- Sensor protection cage
- Mounting brackets

Ordering Codes:

- Micro SVT&P: PDC-A0900
- Micro SV&T: PDC-A1200
- Micro SV&P: PDC-A1300

**specifications subject to change without notice*

		Range	Precision	Accuracy	Response	Resolution
Standard Sensors	Sound Velocity (Composite)	1400 to 1600 m/s	+/-0.03 m/s	+/-0.05 m/s	47 microseconds	0.015 m/s
	Temperature	-2 to 32°C	+/-0.003°C	+/-0.005°C	100 milliseconds	0.001°C
	Pressure (Strain Gauge)	Various to 6000 m	+/-0.03%FS	+/-0.05%FS	10 milliseconds	0.005%FS
Optional Upgrades	SV•Xchange™	1375 to 1625 m/s	+/-0.006 m/s	+/-0.025 m/s	47 microseconds	0.001 m/s
Calculated Parameters	Salinity (only with SVT&P)	Up to 40 psu	+/-0.005 psu	+/-0.01 psu		+/-0.001 psu



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