

# SV Plus<sup>v2</sup>

## Setting the Standard for Sound Velocity Profiling

Updated in 2004, the SV Plus<sup>v2</sup> was released in 1996 as the first-ever time of flight sound velocimeter. By directly measuring the time-of-flight of an acoustic ping, the SV Plus<sup>v2</sup> improves sound velocity accuracies by a factor of five over CTD based calculations such as Chen & Millero or Del Grosso.

Applied Microsystems has manufactured more than 3000 time-of-flight sound velocity sensors, making the SV Plus<sup>v2</sup> a proven field partner. Used by surveyors worldwide and recommended by leading multi-beam manufacturers, the SV Plus<sup>v2</sup> is the industry standard for reliable sound velocity measurement.



### Key Features:

- *Sound Velocity:* Time-of-Flight, +/-0.03 m/s (precision)
- *Temperature:* Precision Aged Thermistor, +/-0.05°C (precision), +/-0.005°C (optional)
- *Pressure:* Temperature Compensated Strain Gauge, +/-0.03%FS (precision), +/-0.01%FS (optional)
- *Sampling:* user selectable sampling to 25 Hz
- *Power:* dual power (internal battery and external supply)
- *Memory:* gigabyte non-volatile memory (expandable)
- *Additional Channels:* up to 10 analog or 5 digital channels
- *SV•Xchange™:* optional SV•Xchange™, the industry's only field-swappable sound velocity sensor
- *USB:* optional USB port for high-speed data download

# 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 the SV Plus<sup>v2</sup>.



### Electrical:

- Gigabyte non-volatile memory (expandable)
- Up to 25 scans per second
- Real time clock
- 8 to 26 VDC (external)
- Auto detect RS232 or RS485
- Optional additional channels (10 analog or 5 digital)
- Auto shut-down in low battery conditions

### Sampling Modes:

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

### Power Options:

- 9 D cell Alkaline batteries
- 3, 6, or 9 D cell Lithium batteries
- 9 D cell Ni-Cad rechargeable batteries

### Mechanical:

- Housing & End Cap: Hard anodized 6061-T6 Aluminium to 5000 m or 7075-T6 Aluminium to 6000 m
- Size: 100 mm / 4.0" (diameter) x 881 mm / 34.9" (end-to-end, logger version)
- Connectors: Subconn Micro 8 wet pluggable, Female
- Environmental: Storage, -40°C to 60°C; Usage, -20°C to 45°C

### Accessories:

- Instrument suspension bar
- Instrument protection frame
- Field spares kit

### Ordering Code:

- PDC-A1500

*\*specifications subject to change without notice*

		Range	Precision	Accuracy	Response	Resolution
Standard	Sound Velocity (Invar)	1400 to 1550 m/s	+/-0.03 m/s	+/-0.05 m/s	145 microseconds	0.015 m/s
	Temperature	-2 to 32°C	+/-0.003°C	+/-0.05°C	1 second	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
	Temperature	Various to 45°C	+/-0.003°C	+/-0.005°C	350 milliseconds	0.001°C
	Pressure (Quartz Crystal)	Various to 7000 m		+/-0.01%FS	Varies	0.000001%FS
Calculated Parameters	Salinity	0 to 40 psu		+/-0.035 psu		



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