

ICE Profiler

An advanced upward looking sonar instrument, mounted on the ocean floor or submersibles for measuring ice draft.

**NEW 16bit A-D
DIGITAL BOARD**



To estimate ice forces, production rates, and mass balances, accurate measurements of ice thickness are essential. Ice Profiler, now makes those measurements much easier to obtain for applications such as:

- Offshore oil platforms
- Research oceanography
- Design of coastal structures
- Bridges and causeways
- Global warming studies
- Pipe line surveys

Features:

- Excellent horizontal resolution using high frequency (420 kHz) transducer with narrow (1.8 °) beam width.
- Large data capacity and integrity capability provided by on board 2 GB compact flash memory, up to 16 GB supported
- Enhanced sampling options in 1 second increments.
- Multiple sampling regimes within a single deployment to accommodate seasonal changes in ice conditions.
- Ocean wave monitoring capability.
- Versatile PC based software for deployment planning and initialisation, instrument testing and data download.
- Low power consumption permits long term operation at high sample rates.

Specifications:

Upward looking sonar

Operating frequency	420 KHz
Beam Width	1.8 °
Sampling rate	Up to 1 Hz
Duty Cycle	Up to 100%
Range	Up to 225m
Precision	+/- 0.05m

Tilt sensor (for sonar beam angle)

Range	+/- 20 °
Accuracy	+/- 0.5 °
Precision	0.01 °

Pressure Sensor

Range	0 – 126 dBar	Other ranges available to order
Resolution	0.003 dBar	

Real time clock

Accuracy	+/- 5 minutes / year
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Data storage

2 GB flash	16 GB(Optional)
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Power

52 weeks at 1Hz sampling and 100% duty cycle

Dimensions

0.17m diameter x 1.0m length

Shipping weight

50 Kgs in ruggedised aluminium storage/transit case

Software

Ice profiler is provided with "IPS-LINK", communications software to enable set-up and download functions.

- ASL offers an ice Profiler data processing training course, which includes required software. Alternatively, ASL can provide the data processing function.
- Ice Profiler is also available with RS-232 serial communications for real time data output and power supply for river monitoring.
- Custom versions of Ice-Profiler are also available for mounting in Autonomous Underwater vehicles.



The Ice Profiler has evolved into Wave Profiler, an upward looking sonar instrument successfully used for measurements surface wave activity, please ask for details.

Ice profiler iss B Mar 2008