

## 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 ( $1.8^\circ$ ) 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