



Environmental
Sciences

Acoustic Zooplankton Fish Profiler

NanoTM



The AZFP-nano is a compact, lightweight, single frequency scientific echosounder. A miniaturized version of the AZFP, it is easily portable and well-suited for applications in challenging environments where size and weight are important considerations.

Applications

- Fisheries Science
- Oceanography
- Environmental Monitoring

Features

- Compact, lightweight
- Battery-powered for multi-week deployments
- Uses common D-cell batteries for easy replacement
- 200 kHz center frequency (other options coming soon!)
- ASL's standard acoustical calibration

Field Use

- Uncrewed vehicles and gliders
- Buoys, drifters, subsurface profilers
- CTD rosette samplers
- Moorings and fixed structures



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- Deployment phases (12 max) by date or duration (with repeat & sleep)
- Configurable ping rate up to 1 Hz (depends on frequencies and range)
- A/D Digitization rate: 64,000, 40,000 or 20,000 Hz
- User selectable pulse length: 0 to 1000 microseconds
- Range lockout to ignore near targets
- Range averaging into bins (minimum bin size is 0.011m) and ping averaging over time
- Several options for pressure rating: 200 m, 3000 m, and 4000 m

DATA STORAGE

Two 512 GB SD cards

POWER

Example with nine alkaline D cell batteries: ping every 10 seconds for 30 days and record data with a range of 100 m.

SIZE

Pressure case options:

200 m Acetal pressure case with 9 D-cell batteries

3000m Titanium pressure case externally powered

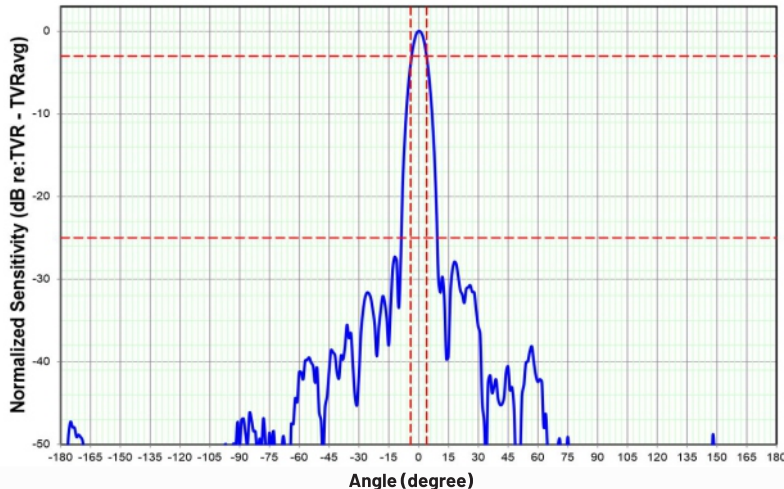
4000m Titanium pressure case with 9 D-cell batteries

4.90" (124mm) OD x 15.15" (385mm) long

3.50" (89mm) OD x 10.70" (271mm)

4.90" (124mm) OD x 14.74" (374mm) long

Sample 200 kHz Beam pattern



- Sidelobes are -25 dB or better
- Receiver dynamic range is >85 dB each channel
- The above specifications are subject to change without prior notice
- Volume backscatter is calibrated to +/- 1dB, Sv resolution is +/-0.1 dB



Optional titanium pressure case with transducer showing the nine D cell battery pack.

SOFTWARE

- Includes AZFPLink to configure the instrument and plot hourly single frequency echograms
- AZFP's raw data format is compatible with Echoview and Sonar5
- AZFP's comma delimited ASCII format (CSV) is compatible with Matlab and other software.

OPTIONAL FEATURES

- Surface, 200 m, 3000 m or 4000 m depth rated
- RS232 or RS422 serial communication
- Bristlemouth/SOFAR integration
- Bottom or taut-line frames
- Tilt pinger for use with bottom frame
- Deployment and recovery services
- Deepwater versions available up to 6000 m

