

Digital Hydrophone NEXOS A1

- **Compact Low power, Low Noise Digital Hydrophone with embedded processing.**
- **Consists of one hydrophone and two A/D converters with different sensitivity to detect acoustic source levels from 50 dB to 180 dB re 1 μ Pa in the frequency range from 1Hz to 50kHz.**



Main Innovations:

Web-enabled pre-processed marine acoustic data.
 Open source for add-on programming.
 Stream / store raw and spectral data.
 Smart integration into mobile and fixed platform.
 Two Channels with different sensitivity for very wide dynamic range

Acoustic Specification:

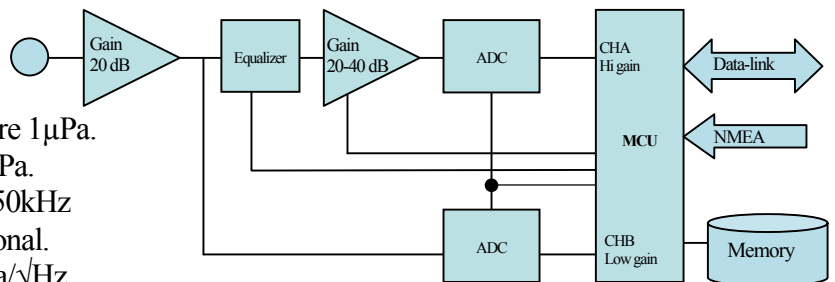
Sensitivity ChA: -138/-158 dB re 1 μ Pa.
 Sensitivity ChB: -178 dB re 1 μ Pa.
 Frequency range ($\pm 1,5$ dB): from 1Hz to 50kHz
 Beam pattern: Omni-directional.
 Input equivalent noise: 23dB re 1 uPa/ \sqrt Hz.
 Full BW dynamic range: 130dB.
 Dynamic range 1Hz BW: 160dB.

Software interface:

Serial port: EIA RS232. ^(*1)
 Plug and work: OGC-Puck enabled.
 Sensor Web: Processing data via OGC SWE.
 RTC with GPS PPS sync

Settings:

Sampling frequency: 5 to 100 ksp.s.
 CHA sensitivity: -138 / -158 dB re 1 μ Pa.
 Equalizer (HP filter): 1 Hz / 3200Hz.(one pole)
 Channel selection: A - A&B - A with Equalizer& B.



Embedded function:

Spectral analysis
 Noise statistics (incl. EU MSFD)
 Mammal detection – PAMGUARD
 Data storage internal memory 32GB. ^(*2)

Electrical / Mechanical:

Supply voltage: 4.6 to 42Vdc.
 Max consumption: 900mW
 Connector: SubCon MCBH12M.
 Working depth: 1500m. ^(*3)
 External coat: Polyurethane.
 Size: $\Phi 35$ x 250mm. ^(*3)

(*1) Ethernet interface (*2) 128GB (*3) Depth 3000m. - Size $\Phi 40$ x 250mm.