

1300 Series Micro Beacon



Key features

- Sigma Spread spectrum technology
- Rechargeable NiMH batteries
- USB PC connectivity via 5 pin connector
- Charging via USB with onboard charge indicator
- Easy channel configuration via Beacon editor app
- Can operate from a 24 V power supply
- Responder interface
- Legacy support for almost all industry USBL systems currently in use
- PRV, Pressure Release Valve (Auto)
- On/Off Shorting link

Applications

- General purpose tracking and positioning applications
- Diver tracking
- Static and dynamic operations e.g. ROV, sidescan sonar

Micro Series Beacon Overview

The 1300 series Micro beacon is designed as a versatile positioning tool for shallow water environments and operations in confined spaces.

Specifically engineered for safe diver operations within a dive bell, the Micro beacon series offers the longest operational time for its size. It features NiMH batteries, no mechanical switches, and automatic pressure relief valves (PRVs) with failure prevention circuits, ensuring a high level of safety during diving operations.

Additionally, the Micro beacon is well-suited for remotely operated vehicles (ROVs) or sidescan applications. It comes with an external connector for trickle charging and a responder interface.

Using the applied acoustics 'Beacon Editor' application, users can quickly configure the Micro beacon via a USB adapter cable.

Technical Specification

MODEL TYPES & PHYSICAL SPECIFICATION

Housing material; Hard anodised aluminium

Model	Beam Pattern	SPL*	Survival Depth	Diameter	Length	Weight in Air / Water
1329A	±90°	183 dB	600 m	52 mm	298 mm	1.2 kg / 0.55 kg
1329D	±90°	183 dB	600 m	52 mm	298 mm	1.2 kg / 0.55 kg

*Effective SPL is 5dB less when used with iXblue GAPS USBL systems.

Electrical Specification

BATTERY

Battery Type	Rechargeable. NiMH as standard
Listening Life	45 days minimum (at 2 °C)
Operational Life	Dependent on pulse rate and operational mode 30 hours at 1.0 pps (Sigma 2 with Depth Telemetry) 60 hours at 1.0 pps (HIPAP /HPR400)

Configuration

Set-up	aae Beacon Editor Software
Transmit Frequency Range	21.5 – 30.5 kHz
Receive frequency range	16 – 26.5 kHz
Turnaround time	Dependent on channel selection
Transmit pulse width	Dependent on channel selection
Depth Sensor Precision	± 0.5 m (1329D version only)

External Inputs

Connector type	MCBH5M 5-way connector
Responder key	+ 5 to 20 Volts
USB Interface	USB 2.0 or greater
External Power/Charge	24 Volts @ 50 mA
Ground	Common Ground
On/Off	Via connector shorting link
Charge time (Typical)	Computer USB port: 16 hours Mains USB dedicated charger: 8 hours

USBL Compatibility

aae 1300 Series beacons use Tone, Chirp, MFSK, DSSS and FHSS as transmission/reception protocols, allowing cross-compatibility with many USBL systems, including:

- aae Pyxis, Nexus 2, Nexus 2 Lite systems
- aae Vesta: Sigma 3 spread spectrum systems
- aae Easytrak, Nexus: All models: Tone systems
- Exail / iXblue: GAPS USBL

Options

- Compatibility with USBL systems not listed across
- Remote transducer, supplied with model BCN-1310A or BCN-1320D electronics bottle and model types RM9IS or RM9ISR
- Increased depth rating to 1000 m