

1320A Series Micro Beacon with RM91S/SR



Key features

- Sigma 2 technology for improved positioning with aae USBL Systems
- Channel configuration via Beacon Editor app
- Legacy support for older USBL systems
- Multi-Fire common interrogate functionality
- Automatic Pressure Release Valve (PRV)
- Remote transducer allows for fitting on small compact units

Applications

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

Series Micro Beacon Overview

The 1320A Micro Beacon with a remote transducer head expands the versatility of the Micro Beacons.

The transducer is placed away from the electronics housing and attached by an interconnect lead. This arrangement is ideal where space is limited or the transducer needs mounting away from noise sources such as ROV thrusters.

In addition to its internal batteries, the beacon has an external connector that allows it to operate and trickle charge from a ROV 24V supply. Channel selection and alternative bench charging is via a USB adaptor cable, included with the unit.

Technical Specification

PHYSICAL SPECIFICATION

Housing material; Hard anodised aluminium

Model	Beam Pattern	SPL	Survival Depth	Diameter	Length	Weight in Air / Water
1320A	n/a	n/a	1000m	51mm	292mm	1280g/400g
1320D	n/a	n/a	600m	51mm	292mm	1280g/400g
RM91S	±90°	183dB	1000m	54mm	150mm	600g/340g
RM91SR	±90°	183dB	1000m	54mm	136mm	570g/320g

Electrical connector	Micro Wet-con MCBH5M
Transducer connector	Micro Wet-con MCIL2F
Interconnect lead	1.5m (200g)
Interconnection method	RM91S: MCIL2M connector, straight exit RM91SR: Male EO connector, 90° exit
Mounting method	4 x M4 nylon screws, to be isolated from other metals

Electrical Specification

Battery type	Rechargeable. NiMH
Charge time	Computer USB port, 8 hours maximum (standard) Mains USB dedicated charge port adaptor, 4 hours maximum (fast)
Listening life	1320A 45 days minimum (@ 2°C) 1320D 45 days minimum (@ 2°C)
Operational life	Dependent on pulse rate and operational mode 1320A 56 hours at 1.0pps (aae Sigma 2) 1320D 48 hours at 1.0pps (aae Sigma 2 with depth telemetry) Operational life will differ when used with non aae Sigma 2 channels

Configuration

Set-up	Beacon Editor software
Transmit frequency range	21.5 – 30.5kHz
Receive frequency range	16.0 – 26.5kHz
Turnaround time	Dependent on channel selection
Transmit pulse width	Dependent on channel selection
Depth sensor precision	± 1.0m (1320D only)

External Inputs

Responder key	Positive 5–20 Volts
External Power/Charge	24 Volts @ 50mA
Ground	Common ground
On/Off	Via connector shorting link

USBL Compatibility

- aae Nexus 2, Pyxis: Sigma 2 spread spectrum
- aae Easytrak: All models, tone systems
- iXblue: GAPS USBL
- Kongsberg: HPR/HiPAP

Options

- OEM version, for subsea vehicle interfacing.