

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.