

Marine House, Marine Park, Gapton Hall Road, Great Yarmouth, NR31 ONB, United Kingdom

1000 Series Seabed Beacon



Key Features

- AAE proprietary Sigma bi-directional spread spectrum technology
- Quick, easy configuration
- Survival depth to 4,000m as standard

1000 Series Seabed Beacons have long life battery options that make them ideal for long term reference points, USBL calibration beacons and Dynamic Positioning reference markers.

1000 Series Seabed beacons incorporate Applied Acoustics' proprietary Sigma acoustic protocols proven for use with AAE's USBL tracking systems, other manufacturers' USBL systems operating with wide bandwidth transmissions as well as those using 'narrow band' tone signalling.

Applications

- General purpose tracking and positioning applications for deeper water applications or in an acoustically challenging environment
- Static and dynamic operations

Technical Specification

MODEL TYPES – PHYSICAL SPECIFICATION

	Beam Pattern	SPL	Survival Depth	Diameter	Length	Weight air/water
1059	±90°	188dB	4000m	125mm	1095mm	22.84kg/11.02kg
1055	±45°	195dB	4000m	125mm	1095mm	22.84kg/11.02kg
1055H High Power	±45°	200dB	4000m	125mm	1095mm	22.84kg/11.02kg

Housing material; Hard anodised aluminium with protection cages

ELECTRICAL SPECIFICATION

Battery

Battery type Listening life Rechargeable. NiMH as standard 120 days



1000 Series Seabed Beacon Technical specification continued...

Operational life, AAE Spread Spect	 Dependent on pulse rate and operational mode. 1059: 1800 hours at 1.0pps 1055: 1200 hours at 1.0pps 1055H: 500 hours at 1.0pps Operational life reduced when used with non AAE USBL systems
Configuration	
Transmit frequency range Receive frequency range Turn around time Transmit pulse width	24 – 33.5kHz 17 - 31kHz 15/30/60/100ms dependent on channel selection 1.5/3.0/10ms dependent on channel selection
External Inputs	
Connector type Responder key External power Charge	MCBH10M 10-way connector + 5 to 25 Volts 22 to 35 Vdc@120mA 1083 Multi-Charger, typical cycle charge time, 20 hours.

USBL COMPATIBILITY

AAE 1000 Series beacons use Tone, Chirp, MFSK, DSSS and FHSS as transmission/reception protocols, allowing cross-compatibility with many USBL systems, including:

Sigma spread spectrum systems
All models, tone systems
GAPS USBL
HPR/HiPAP
USBL
USBL

OPTIONS

Compatibility with USBL systems not listed above

Non-rechargeable batteries (alkaline)

Depth sensors 100m/300m/1,000m/2,000m/4,000m (adds D suffix to model number)

Digital depth transmission when used with AAE Nexus USBL systems

Floatation collar



Due to continual product improvement, specification information may be subject to change without notice. 1000 Series Seabed Beacon/March 2015 ©Applied Acoustic Engineering Ltd.



Applied Acoustic Engineering Ltd

- T +44(0)1493 440355
- F +44(0)1493 440720
- (E) general@appliedacoustics.com
- www.appliedacoustics.com