

Posidonia

Ultra-deep, long-range USBL

Posidonia is a USBL acoustic positioning system for high-accuracy / ultra-long range tracking of subsea vehicles. It offers enhanced performance with an electronic cabinet (USBL-Box) based on Gaps digital signal processing unit. Posidonia is compatible with a wide range of transponders and LBL transceiver. Posidonia can be coupled with iXblue or third party gyro for heading and attitude compensation.



FEATURES

- Extreme long-range beyond 10,000 m
- Low frequency band, full wideband, robust to noise and multipath
- Smoothly interfaces with iXblue positioning building blocks (INS, Ramses, motion sensors)
- Full Ethernet and iXblue web-based user interface

BENEFITS

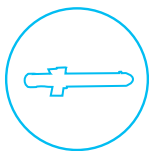
- Deep tow operations with no need for second tracking vessel
- High performance even in extremely adverse conditions
- Added flexibility and better performance
- Simple to deploy and operate

APPLICATIONS

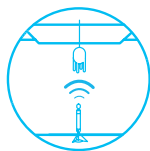
- Deep towfish tracking
- AUV, ROV and any deep sea vehicle tracking
- Pipe / cable laying operations



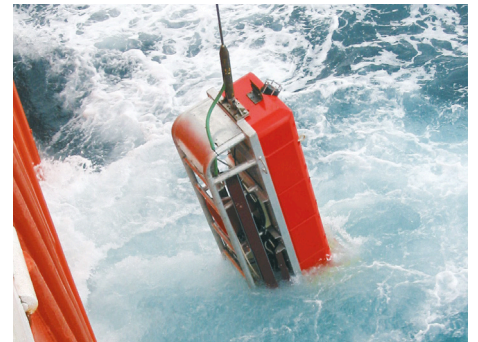
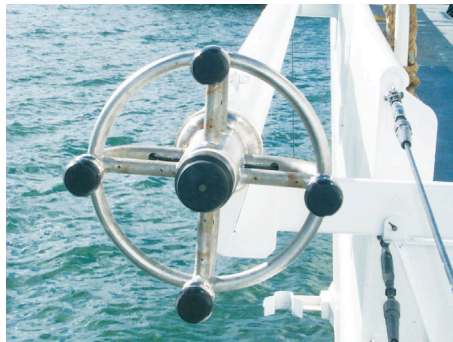
ROV tracking



AUV tracking



DP



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SPECIFICATIONS

Performance

Accuracy with Octans*	0.12 % slant range (CEP50)
Accuracy with Phins*	0.06 % slant range (CEP50)
Acoustic coverage (-3dB)	Deployable: 70 deg Flush: 120 deg
Operating range**	> 10,000 m

*: Noise level < 60 dB ref 1µPa/sqrt(Hz), in vertical positioning condition, distance 1000m, GNSS accuracy 10cm

**: Noise level < 70 dB

Characteristics

	Deployable	Flush
Transmitter		
Source level	190 ± 3 dB ref 1µPa	192 ± 3 dB ref 1µPa
Bandwidth	8 - 14 kHz	8 - 14 kHz
Receiver		
Bandwidth	14 - 18 kHz	14 - 18 kHz
Signal	M-FSK	M-FSK
Height	420 mm	245 mm (without connector)
Width Ø	580 mm	800 mm
Weight in air	34 kg	180 kg

Interfaces

Power supply	100-240 VAC / 50-60Hz (15W nominal, 80W peak)
Communication	1x Ethernet and 4x Serial (RS232/422/485)
Synchronisation	4 x BNC (TTL): 2 x responder sync out - 1 x sync in - 1 x pps
Acoustic array - USBL Box	50m cable

USBL-Box Specification

Dimensions	483 mm x 89 mm (19" 2U)
Weight	5.8 kg
Temperature (Operating / Storage)	0°C to 50°C / -20°C to 70°C