

# 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 Exail 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 Exail positioning building blocks (INS, Ramses, motion sensors)
- Full Ethernet and iXblue web-based user interface

### BENEFITS

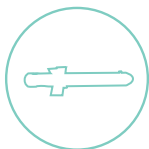
- Deep tow operations with no need for second tracking vessel
- High performance even in extremely adverse conditions
- Added flexibility and better performance
- Simple to deploy and operate

### APPLICATIONS

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



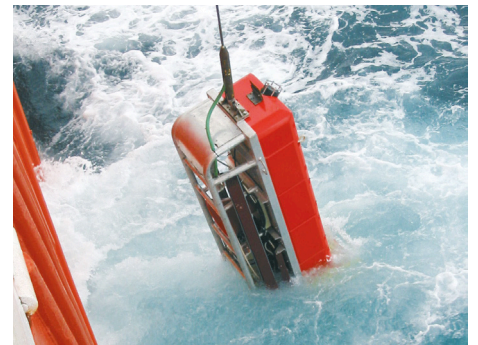
ROV tracking



AUV tracking



DP



## SPECIFICATIONS

### Performance

Acoustic repeatability*	up to 0.06 % slant range (CEP50)
Accuracy with Octans	0.15 % slant range (CEP50)
Operating range**	10,000 m

\*: Noise level < 60 dB ref 1µPa/sqrt(Hz), in vertical positioning condition

\*\*: 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
Acoustic coverage (-3dB)	Deployable: 65°	Flush: 120°
Receiver		
Bandwidth	14 - 18 kHz	14 - 18 kHz
Signal	M-FSK	M-FSK
Height		
Height	420 mm	245 mm (without connector)
Width Ø		
Width Ø	580 mm	800 mm
Weight in air		
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