

# Gaps USBL

## Pre-calibrated USBL system



The iXBlue fourth-generation pre-calibrated GAPS combines high-performance Ultra-Short Baseline (USBL) and a fiber-optic Inertial Navigation System (INS) in the same housing to provide accurate positioning of any subsea object, in diverse and challenging environments. Its performance ranges from extremely shallow water to deep sea. Its compact and all-in-one design allows both portable and permanent installations. One of GAPS's key new features is support of Dynamic Positioning (DP).

### Specifications

<b>Product</b>	Gaps USBL
<b>Country of origin</b>	France
<b>Manufacturer</b>	Exail Technologies SA

### Features and benefits

- Position accuracy: 0.06% × slant range
- Advanced signal processing and 3D acoustic antenna for range and accuracy performance
- Powerful dynamic positioning (DP) mode (L/USBL/INS)
- Integrates USBL, high-grade INS, real-time positioning and GPS
- Universal utilization
- Deployment options: surface buoy, side pole, moon pool, or hull mounted
- Robust performance in very shallow water (10 m depth) to long range (> 4000 m depth)
- Cost- and time-saving deployment: flexible, portable pre-calibrated, rapid, and simple

## Applications

- Offshore, AUV and ROV navigation
- Underwater survey and inspection
- Drilling
- Dynamic Positioning (DP)
- Defense
- Structure placement
- Pipeline and cable deployment
- Diver tracking
- Seismic
- Ocean science

## Performance

### Subsea Positioning

<b>Position accuracy (CEP50)</b>	0.06% of the slant range <sup>1</sup>
<b>Nominal range</b>	4,000 m <sup>2</sup>
<b>Antenna coverage</b>	200° hemispherical

### Surface Positioning

<b>Heading accuracy</b>	0.01° × secant latitude
<b>Roll/Pitch accuracy</b>	0.01°

## Compatible transponders and sensors

<b>iXBlue mini transponders</b>	OCEANO MT8 × 2, OCEANO MT9 × 2, OCEANO MTA × 2
<b>iXBlue midi transponders</b>	OCEANO ETA62 and releasable OCEANO RTA62
<b>Third-party wide-band transponders</b>	Optional
<b>iXBlue inertial-acoustic solution integration</b>	PHINS, ROVINS, RAMSES

## Operating / Environment / Mechanical

<b>Power supply/consumption</b>	OCEANO MT8 × 2, OCEANO MT9 × 2, OCEANO MTA × 2
<b>Weight (air/water)</b>	OCEANO ETA62 and releasable OCEANO RTA62
<b>Dimensions (Ø × H)</b>	Optional
<b>Array depth rating</b>	PHINS, ROVINS, RAMSES
<b>Operating / storage temperature</b>	-5°C to 35°C / -40°C to 70°C

## Interfaces

<b>Control command</b>	Standard iXBlue web-based user interface
<b>Input/Output</b>	Quad RS232 / RS485 / Ethernet Trigger: I/O pulse port and PPS / Sync ports
<b>Protocols</b>	Library of NMEA protocols (standard telegrams for all DPs)