

Gaps M5

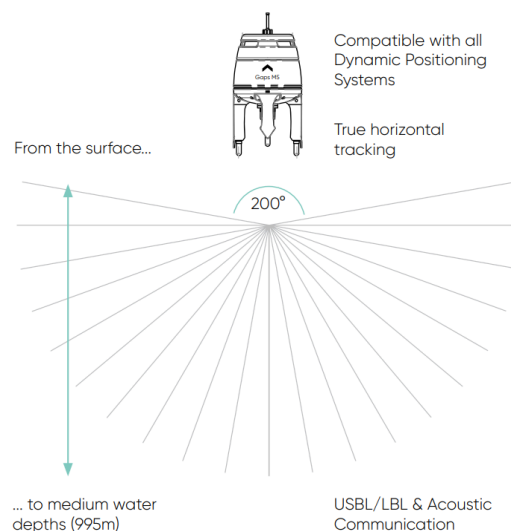
Pre-calibrated USBL system



Gaps M5 is a Medium frequency Ultra-Short Baseline (USBL) positioning system for accurate location, positioning and tracking of subsea assets, from ultra-shallow water to medium water depths. It combines an USBL integrated with a heading and attitude sensor based on Exail FOG technology. Available in free of export version* and extended range version (Gaps M5-XR), Gaps M5 is a lighter and more compact version of Gaps.

Key Features

- 200° aperture: above horizontal tracking
- Not subject to export restrictions*
- Robust True North finding sensor
- DP compatible LBL/USBL
- Third-party transponder compatible
- Acoustic communication (telemetry)
- 3D display software included (Delph Roadmap)



Specifications

Transceiver performance

Operating range*	995 m / 7,000 m
Acoustic coverage	200°
Acoustic precision	0.1 % of the slant range CEP50
Positioning accuracy**	0.2 % of slant range CEP50
Range accuracy	20 mm
Operational frequency	MF (20-30 kHz)

Positioning

Type	Gyrocompass
Heading	0.15 deg secant latitude (RMS)
Pitch & roll	0.1°
Settling time	5 minutes
Acoustic communication data rate	500 bps

Electrical

Power supply	230 VAC (50/60Hz) / 24-36 VDC
Consumption	22 W
Synchro IN	1 PPS , 1 Trigger
Synchro OUT	2 TTL Pulses
Communication	4 Serial (RS232/422/485) 1 Ethernet (RJ45)

Environmental

Storage temperature	-40 to +70°C
Operating temperature	-5 to +35°C
Max. antenna deployment depth	25 m

Physical characteristics

Dimensions (Length x Diameter)	520.8 x 296 mm
Material	Carbon fiber painted
Weight in air / water	14 kg / -5 kg
Gaps cable length	20m (50m and 95m optional)

Interface unit (Gaps box)

Dimensions	233 x 330 x 94
Weight	4.6 kg
EMC	89/336/EEC - EN 60945

*: Operating range is subject to environmental conditions (noise, ray bending...). Positioning up to 7,000m using exail Oceano LF transponders.

** : In vertical conditions. Including GPS error of 0.1m. Sound velocity profile compensated. Transponder transmit level = 191 ref $\mu\text{Pa}@1\text{m}$. Slant range of 900m. SNR>10dB