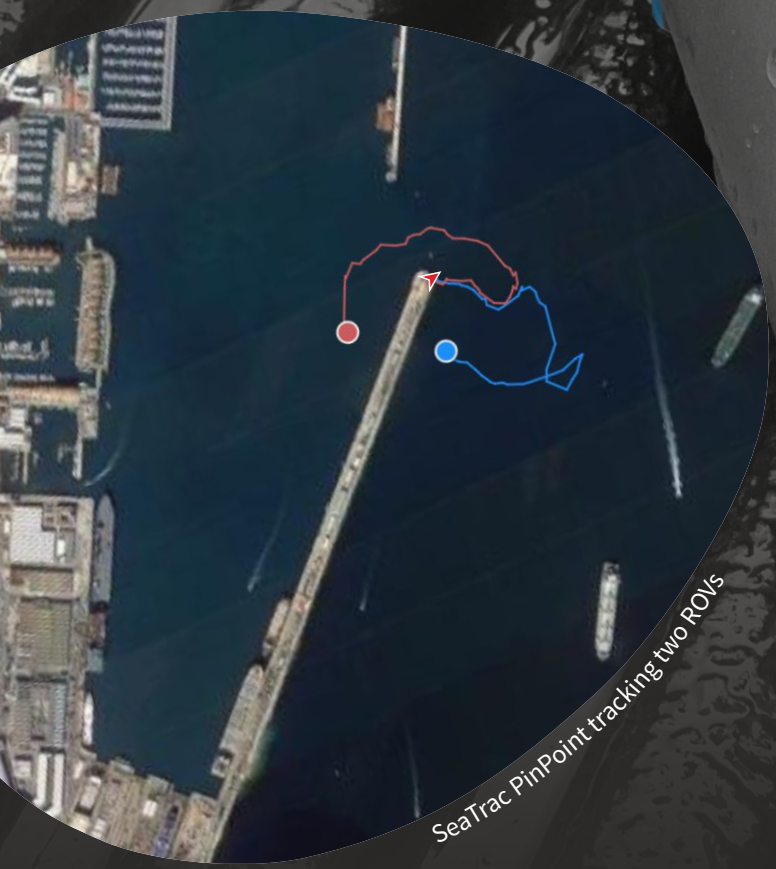
blueprint subsea

SeaTrac Acoustic Positioning Systems

Accurate, reliable positioning even in the most challenging underwater environments



SeaTrac PinPoint tracking two ROVs

Compact form meets robust function, SeaTrac is a high accuracy USBL acoustic positioning system for real-time ROV, AUV and diver tracking. With a 1000m range and the ability to both track and exchange data with multiple assets, the list of potential applications is endless.

seatrac

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Systems



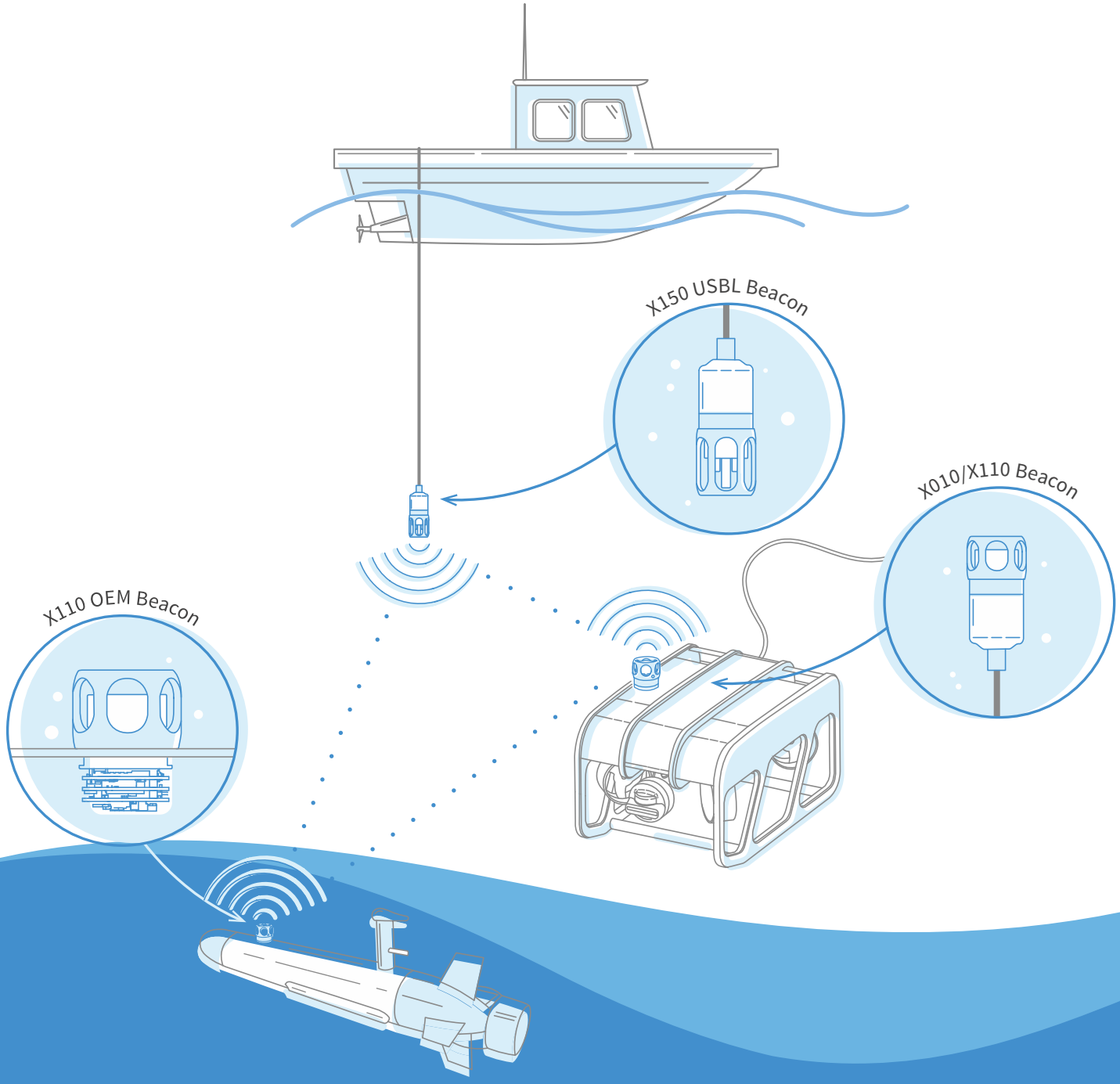
SeaTrac Lightweight (X150/X010)

High accuracy USBL system for positioning applications down to 300m. Designed for micro- and inspection-class ROVs, small and medium AUVs, and divers.



SeaTrac Standard (X150/X110)

High accuracy USBL system for positioning applications down to 2000m. Designed for inspection- and work-class ROV, large AUV, and divers.



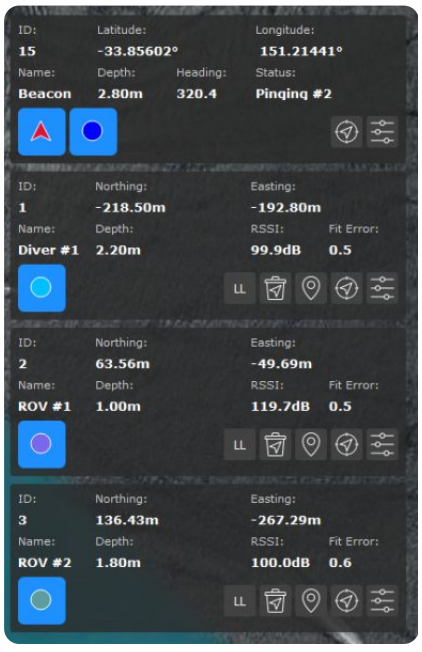
Features

- High accuracy USBL positioning using internal Attitude Heading Reference System (AHRS)
- Real-time ROV, AUV and diver location and tracking
- Active Doppler Compensation allows robust tracking while on the move
- Compact and rugged beacon design for use on micro-, inspection- and work-class ROV platforms
- Reliable tracking of up to 14 in-water assets at any one time
- 1000m omnidirectional operating range
- Depth ratings of 300m and 2000m
- Simple, intuitive operator software
- Bidirectional data exchange facility
- OEM systems and software SDKs for integrators and developers

Interface

SeaTrac PinPoint is an intuitive Windows software application that allows operators to display, log and playback positioning data.

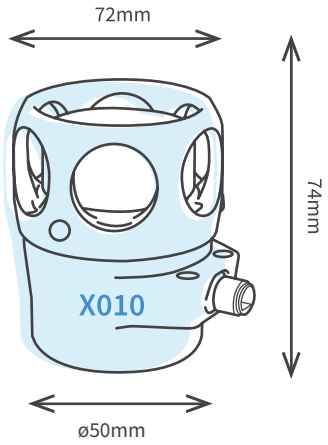


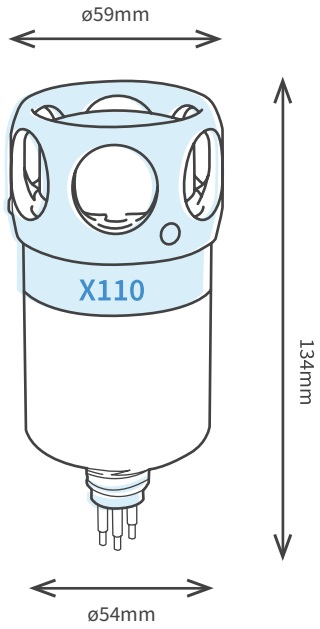


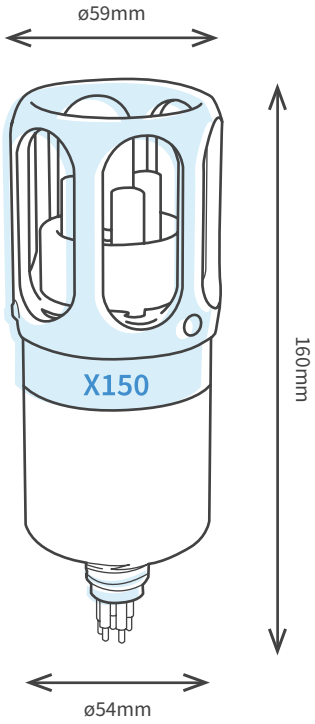
SeaTrac PinPoint Software

- Easy to interpret positioning data
- Zoom, rotate, pan, and measure functionality
- Log latitude and longitude, northings and eastings, and depth data
- Record geographic markers and waypoint
- Output to other NMEA compatible systems
- Supports a wide range of geodetic reference systems including WGS84

seatrac







Specification

Mechanical

	SeaTrac X150	SeaTrac X110	SeaTrac X010
Length	132mm (ex Con) 160mm (inc Con)	106mm (ex Con) 134mm (inc Con)	74mm
Diameter	54mm Body 59mm Cage		50mm Body 59mm Cage
Weight	720g (Air) 530g (Water)	690g (Air) 500g (Water)	300g (Air) 170g (Water)
Depth Rating Options	100/2000m	2000m	300m
Construction	316 Stainless Steel		Black Acetal
Temp. Range (Operating)	-5°C to +40°C		

Electrical

	SeaTrac X150	SeaTrac X110	SeaTrac X010
Connector	Impulse, 5-Way (MCBH-5-MP)		Impulse, 4-Way (IE55-12)
Communications	Single RS-232		
Supply Voltage	9-28VDC		
Power Consumption	Approx 0.6W (Idle) Approx 6W (Transmitting)		
Integrated Sensors	Water Pressure & Temperature, 3-Axis MARG, Supply Voltage		
Attitude & Heading	Internal 9-DOF AHRS With ±1° Yaw & ±0.2° Pitch & Roll Std-Deviation*		N/A

Acoustic

	SeaTrac X150	SeaTrac X110	SeaTrac X010
Ranging	Yes		
Positioning (USBL)	Yes	No	
Acoustic Range	1km Radius Horizontal, 1km Vertical (Hemispherical)		
Range Resolution	±0.1m (Dependant on Provided VOS Accuracy)		
Angular Resolution	typ 2% of Acoustic Range *(~±1°)	N/A	
Velocity-of-Sound Range	1300ms-1 to 1700ms-1 (Can Auto-Compute From Water Temperature & Depth)		
Beacon Velocity	Active Doppler Compensation, up to 15kts (28kph)		
Communications	Broadband Speed Spectrum Encoding, 24-32kHz, 100 baud. Multi-tiered Acoustic Protocol Stack.		
Targets (Addressing)	15 Unique Beacon Identifiers, Broadcast to All Capability. Allows up to 14 Targets to Be Tracked From a Single X150 Beacon.		

Applications

Supported Software Platforms	SeaTrac PinPoint Software SeaTrac Beacon Management Software
Developers/ Integrators	SDK, Including ASCII Based Serial Interface With Application Level and Acoustic Protocol Stack Level Commands for 3rd Party Integration.

**Indicates value obtained from in-field testing with a data set of 1200 fixes from 22 positions, taken in enclosed area of water 380m x 160m x 10m.*

Please note that all functions & specifications may be subject to change in line with our policy of continual product development.

DA-140-P00233-10

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