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underwater technology

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Easytrak Alpha Portable USBL System

Key features

- Compact USBL system
- Rapid deployment
- Simple to use
- Cost-effective

Easytrak Alpha Portable Overview

Easytrak Alpha Portable is the compact, carry on version of the Applied Acoustics' range of lightweight USBL tracking systems that use a vessel mounted transducer array to calculate the position of a subsea target equipped with an acoustic beacon.

Quick to deploy the Alpha Portable USBL system is ideally suited for small subsea vehicle operations or diver tracking.

Alpha Technical Specification

EASYTRAK ALPHA PORTABLE, MODEL EZT-2655

Dimensions	Console: 411 x 323 x 168mm, excluding cables
Weight	Console: 6.0kg approx
Power supply	Input: 115Vac – 230Vac 47-63Hz typically 2A Output: 18vdc up to 4A depending on input dc voltage
Battery life	2-3 hours from built-in battery pack Auxiliary battery pack available
Display	Colour LCD 10.4 inch display (diagonal) Active area, 211.2mm x 158.4mm
Input control	Full QWERTY keyboard with integrated mouse

Communications	2 x RS-232 (1) External GNSS + Heading and (2) Data Out 1 x GNSS Antenna Connector All RS232C inputs comply with EIA (Electronics Industry Association) RS232C standard. 1 x USB connection to external PC
Internal GNSS Receiver	SiRF Star III Chipset Receiver <10m, 2D RMS <5m 2DRMS, SBAS (WAAS, EGNOS, MSAS...) corrected
External GNSS/Heading	GNSS NMEA messages: GGA and RMC Heading NMEA messages: HDT, HDG, HDM
Data Output	AAE, TP-EC W/PR, $PSIMSSB, $PSIMSNS, $GPRMC, Sonar SSS - $GPGGA (Vessel position), $GPVTG (Vessel track and speed) $GPTLL (Target position) Data logging to HD
Beacon types	Transponders and Responder (1)
Channels	4 displayed from 35 pre-defined channels
Interrogation interval	1, 2, 4 or 8 second intervals
Responder output	Positive 12V pulse 10ms long
Operating temperature	-5 to 30°C
Storage temperature	-5 to 45°C

TRANSDUCER, TYPE ETM 904C

Dimensions	Transducer: 291mm long x 78.5mm diameter
Weight	Transducer: 3.94kg in air, 3kg in water approx
Depth rating	30m
Operating Temperature	-5 to 30°C
Storage Temperature	-5 to 45°C

Optional higher accuracy transducer, the ETM902C, also available

Accuracy/Performance

Slant Range Resolution	10cm
Position Accuracy	2.0° RMS, 3.5% of slant range. Excluding effects due to GPS error, incorrect VOS, ray bending, compass, pitch and roll effects, and acceptable S/N ratio
Transducer	MF frequency band
Transducer beam pattern	Hemispherical
Interrogate SPL	Typically 186 re. 1µPa@1m
Heading Sensor Accuracy	<0.5° RMS
Tilt Sensor Accuracy	Accuracy ± <1.0° RMS Range ± 80°

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Due to continual product improvement specification information may be subject to change without notice.
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