applied acoustics
underwater technology

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Easytrak Alpha USBL System, Model 2665

Key features

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

Easytrak Alpha Overview

Easytrak Alpha 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 Portable Technical Specification

EASYTRAK ALPHA, MODEL EZT-2665

Dimensions	Console: 255 x 60 x 315mm, excluding cables
Weight	Console: 2.6kg approx
Power Supply	Input: 115Vac – 230Vac 47-63Hz typically 2A Console Input: 12-18Vdc up to 2A depending on input dc voltage
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 5ms long. BNC connector
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, 3.0kg in water approx Transducer housing material: A4 stainless steel
Depth rating	30m
Operating Temperature	-5 to 30°C
Storage Temperature	-5 to 45°C

Accuracy/Performance

Slant Range Resolution	10cm
Position Accuracy	2.0° RMS, 3.0% 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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