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Easytrak Vesta USBL, Model 2666

Key features

- aae Sigma 3 digital protocol
- Digital depth telemetry
- 8 target tracking
- Waypoint logging function
- 3% slant range accuracy
- Customisable user interface
- External heading & GNSS input
- USB or network interface
- NMEA outputs

Applications

- Underwater survey and inspection
- Cable and pipeline route surveys
- Nearshore construction and salvage
- Marine archaeology

Easytrak Vesta Overview

The Vesta USBL is an entry level tracking system and the most compact version of the applied acoustics' range of USBL systems. Ideally suited to small vehicle operations or diver tracking, Vesta is a cost effective system for monitoring targets of up to 1000 m range, and features a number of enhancements that allows the system to punch above its weight.

Easytrak Vesta Technical Specification

EASYTRAK VESTA CONSOLE, MODEL EZT-2666

Dimensions	260 x 90 x 250 (268) mm. W x H x D
Weight	2.6 kg approx.
Power requirements	18-24 V DC (60 W) PSU Input: 90 V AC – 230 V AC 47-63 Hz typically 2 A
Connections to transceiver	Rear panel connector for ETM-904C Transducer using DC-20
Temperature	Operating: -10 °C to +40 °C Storage: -20 °C to +50 °C
Front panel indicators	LED indicators for power and system status
Communications	1x RJ45 Ethernet 1x USB 2x Console RS-232
Internal GPS / DGPS	33 tracking/ 66 acquisition-channel GPS receiver <2 m 2DRMS, SBAS (WAAS, EGNOS, MSAS.) corrected
Data Output	RS-232 Serial or UDP
Data Format	aae format V1, Kongsberg $PSIMSSB, Pseudo $GPRMC, Pseudo $GPGGA, NMEA $GPGGA, NMEA $GPVTG, NMEA $GPTLL
Compass Input	NMEA: HDT, HDM
GPS / DGPS Input	NMEA: GGA, RMC
Number of Targets	8 Transponder / 1 Responder
Responder Output	Positive 12 V pulse 10 ms long
Interrogation rate	1 – 10 s update, sequential, rate set per target (1 s interval)
Channels	Sigma 1 Sigma 3 aae Tone HPR400

System externally assessed for immunity and emissions; conforms to 89/336/EEC. RoHS compliant

Accuracy / Performance

TRANSCEIVER, TYPE 904C SPECIFICATION

Accuracy is based on the correct speed of sound being entered, no ray bending and an acceptable S/N ratio.

Dimensions	291 mm x 78.5 mm
Weight	<4 kg
Position Accuracy	2.0° RMS, 3.0% of slant range. Excluding effects due to GPS error, incorrect VOS, ray bending, AHRS and acceptable S/N ratio
Range resolution	Calculated to 10 cm resolution
Frequency band (MF)	18 – 32 kHz
Tracking beam pattern	180°
Transmitter	186 dB re 1 µPa at 1 m (RMS)
Integrated AHRS:	Heading sensor 0.5° rms Pitch/Roll sensor +/- <1.0° rms
Beacon types	aae Sigma 1, Sigma 3 Digital Spread Spectrum and aae Tone channels. HPR400 channels aae 1000, 1100, 1300A Series Beacons. Digital Depth Transponders
Internal GPS / DGPS	33 tracking/ 66 acquisition-channel GPS receiver <2m 2DRMS, SBAS (WAAS, EGNOS, MSAS.) corrected

Transceiver Cable

Diameter	12.8 mm nominal
Length	20 m
Colour	Yellow – Connectors Supplied
SWL	20 kg (Allows Transceiver to be deployed from cable)