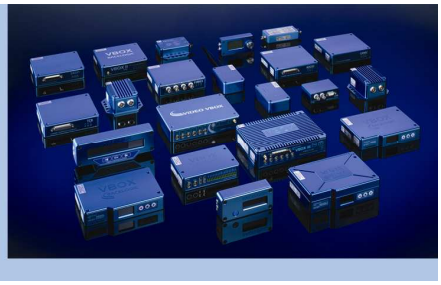
Marine VBOX
(RLVB20SL3-M)
20Hz Data-logger for speed & attitude measurement



Overview

The Marine VBOX (RLVB20SL3-M) is a powerful new data-logging package from Racelogic, designed specifically for the marine testing environment. Utilising a new generation of high performance, multi-antenna GPS engines, it can measure Speed, Acceleration, Position and all 3 attitude angles; Pitch, Roll and Yaw (alternatively known as Trim, Heel and Leeway).

Because these angles are measured directly, there is no drift which normally affects inertial systems in this environment.

The RLVB20SL3-M is supplied as a complete package, with the benefit of a splash proof case, for the convenient and cost-effective measurement of marine vessel dynamics.

Features

- Speed, distance, acceleration, attitude angles, position, radius of turn, yaw rate, true heading and more
- 20Hz update rate
- Additional input modules available
- USB Interface
- RS-232 serial interface
- SD Card support
- Front panel configuration using OLED Screen display
- Built in battery
- Built in Bluetooth connection for laptop or Q1 connectivity
- CAN bus input to log engine parameters

Using the wireless Q1 Ultra display (optional) for analysis of Trim, Heel and Leeway angles.

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20/05/08

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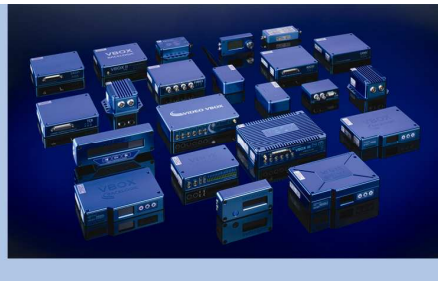

Package Contents

- 1 x RLVB20SL3 20Hz triple-axis data-logger
- 1 x RLVBBT01 Bluetooth module
- 3 x RLVBACS065 Ground plane antennas
- 2 x 12v NiMH batteries with battery charger
- 1 x Splash proof case with moulded insert and bulkhead connectors
- All necessary cabling and connectors
- VBOX Tools data-analysis software

RLVB20SL3

RLVBACS065

RLVBBT01

12V NiMH Battery

Splash proof case with custom foam inserts

Splash proof case (closed)

The RLVB20SL3-M is ideal for use with a Q1 Ultra display system (not supplied) – a hand held PC with Bluetooth connectivity, pre-loaded with a fully-featured tablet edition of the VBOX Tools software.

Q1 Ultra Display (not included)

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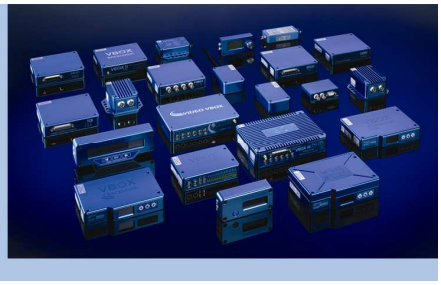

Specification

Speed	
Units	Knots
Accuracy	0.1kn
Update rate	20Hz
Maximum speed	1000kn
Minimum speed	0.1kn
Resolution	0.01kn
Absolute Positioning	
Accuracy	3m
Accuracy with DGPS	1.8m
Leeway Angle	
Accuracy	<0.1º rms at 2m antenna separation
Range	+/-60º
Trim and Heel Angle	
Accuracy	<0.25° rms at 2m antenna separation
Range	+/-60º
Surge (Longitudinal Acceleration) and Sway (Lateral Acceleration)	
Accuracy	0.5%
Maximum	20G
Resolution	0.01G
Heave (Vertical Velocity)	
Resolution	0.01
Accuracy	0.2km/h
True Heading	
Resolution	0.01º
Accuracy	<0.1º rms at 2m antenna separation
Memory	
External memory support	SD Card 1
Recording time	Dependant on SD capacity. Approx 12.8 megabytes per hour used while logging all GPS and slip module channels.
Inputs	
VCI CAN Input	Allows the user to log incoming CAN data from other systems such an Engine ECU's etc.
Outputs	
CAN Bus	CAN output for connectivity to other data-loggers
Analogue output	User configurable
Digital output	User configurable

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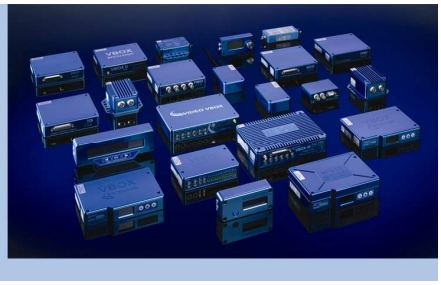
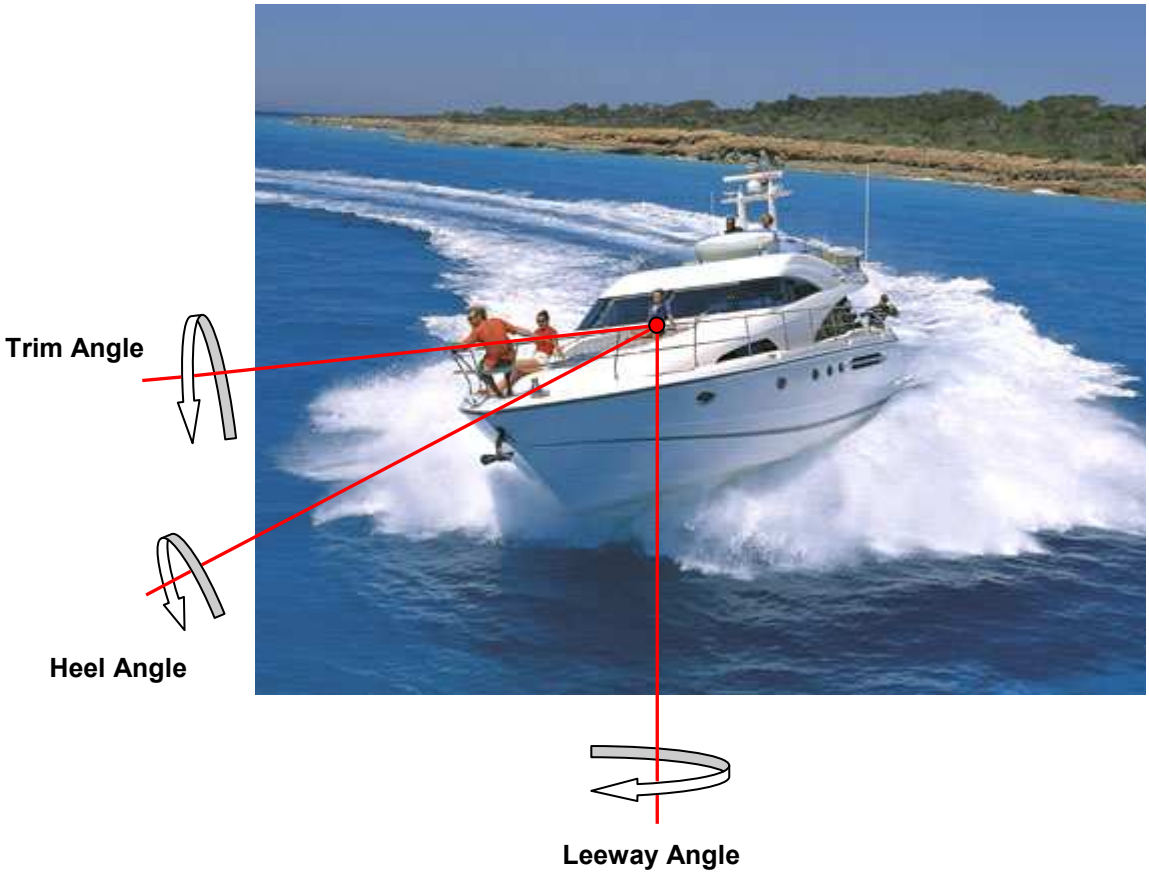


Power	
Input Voltage range	6-30v DC; 2 x 12v DC batteries supplied
Power	9W

Environmental and Physical	
Package size (excluding antennae)	270mm x 247mm x 125mm
Package weight (excluding antennae)	Approx. 3kg
Operating temperature	-30°C to +60°C
Storage temperature	-40°C to +85°C

Hardware/Software Support	
One Year Hardware/Lifetime Software Support Contract.	Lifetime Software Support Contract is valid for a minimum of 5 years from the date of purchase and limited to original purchaser. Contract includes telephone/email technical support provided by local VBOX distributor and firmware/software upgrades where applicable.

Marine vessel attitude – Trim, Heel and Leeway angles



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