

Datasheet

RovNav 5 LBL Transceiver



Description

RovNav 5 is a highly configurable, tri-band acoustic transceiver designed to support a family of remote transducers operating in the LF, MF and EHF frequency bands.

Its primary use is for operation with Remotely Operated Vehicles (ROVs) or other towed bodies. Used within an array of calibrated seabed transponders, its function is to position the ROV in Long Baseline (LBL) mode accurately and rapidly. Alternatively, the RovNav can remain on the vessel, fitted with a dunking transducer and used to assist with the calibration of arrays, to position the vessel or simply to command transponders in the water.

Part of the new Fusion family of transceivers from Sonardyne, RovNav 5 has been designed to be easily and regularly upgraded with new firmware that can be downloaded from a PC without opening the pressure housing. It can support future system architectures as well as the transmission, reception and processing of advanced broadband signals.

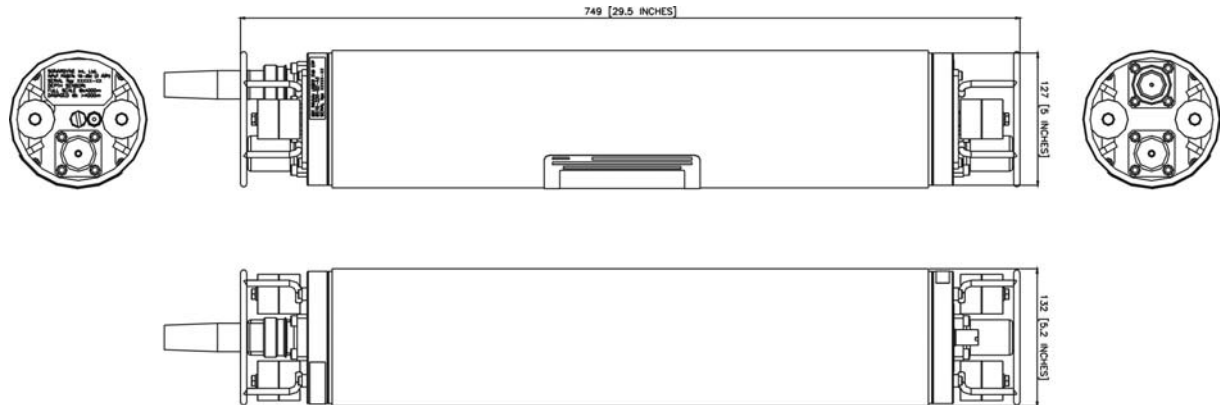
RovNav 5 is also fully compatible with Sonardyne's existing range of acoustic products and can emulate Sonardyne PAN commands. However, its full potential is not realised until it is used as part of a Fusion system. These systems provide dramatic improvements in the speed and operating efficiency of underwater navigation and enable users to remain up-to-date for many years to come.

Key Features

- MF, EHF and LF frequencies supported in one bottle
- Auto-sensing of Remote Transducers. Transceiver determines their identity and automatically sets its band of operation and sensitivity
- Supports both RS232 and RS485 serial interfaces
- Fully agile receivers allow for simultaneous acoustic receiving on multiple Remote Transducers, suitable for SBL applications
- "PAN Emulation" mode provides backwards compatibility
- Remote Firmware upgrade via serial interface

Specifications

RovNav 5 LBL Transceiver



Feature	Type 8010
Depth Rating	2,500, 3,000 or 6,000 Metres
Operating Frequency	LF, MF, EHF
Remote Transducer Ports	2 Standard (4 Maximum)
Operating Voltage	24V (22-28V)
Serial Communications	RS232 (Full-Duplex) or RS485 (Half-Duplex)
Mechanical Construction	Aluminium Alloy, Hard Anodised, S/Steel Guards and Connectors
Dimensions (LxDia)	749mm (29.4") x 132.8mm (5.2")
Weight in Air	13.5Kg
Weight in Water	6.5Kg
Sensor Options	Temperature compensated Strain Gauge, Paroscientific Digiquartz, Platinum Resistance, Thermometer and Vale port Sound Speed Sensor

Remote Transducers	Type 8011	Type 8012	Type 8013	Type 8014
Depth Rating	6,000 Metres	3,000 Metres	3,000 Metres	2,500 Metres
Operating Frequency	LF (7.5-15 kHz)	MF (18-36 kHz)	MF(18-36 kHz)	EHF (50-110kHz)
Transducer Beamshape	Omni-Directional	Semi-Directional	Omni-Directional	Omni-Directional
Typical Accuracy	0.25-2.0 Metres	0.15-1.0 Metres	0.15-1.0 Metres	0.02-0.15 Metres
Transmit Source Level – Vertical	188-195dB	195-202dB	185-192dB	183-190dB
Receiver Threshold	90-129dB	90-120dB	90-120dB	90-120dB
Connector Type	Burton FCR 5506-2008	Burton FCR 5506-2008	Burton FCR 5506-2008	Burton FCR 5506-2008
Mechanical Construction	Aluminium Alloy, Hard Anodised, Plastic Sleeve, S/Steel Guard and Connector			
Dimensions (LxDia)	394.4mm x 198mm	353.5mm x 10.5mm	353.5mm x 10.5mm	353.3mm x 10.5mm