PRODUCT BRIEF

Types 7807/7808

RovNav Mk4 LBL Transceivers

Sonardyne's RovNav Mk4 is an underwater Long Baseline (LBL) acoustic transceiver designed to accurately and rapidly position Remotely Operated Vehicle's (ROV's) and towfish. By measuring ranges to a seabed transponder array and calculating the time taken to receive each reply, the position of the mobile relative to the array can be determined. A digital link with the survey computer ensures fast position updates and that reliable communications with the RovNav can be maintained even down long umbilicals in deepwater.

RovNav is equipped with a 12 channel receiver for ranging to LBL transponder arrays and the command set is Sonardyne PAN compatible. Two transducers can be connected to the RovNav for added redundancy or sequential position fixing. In the event of power failure, the unit automatically reverts to transponder mode to enable the emergency relocation of the lost ROV or towfish.

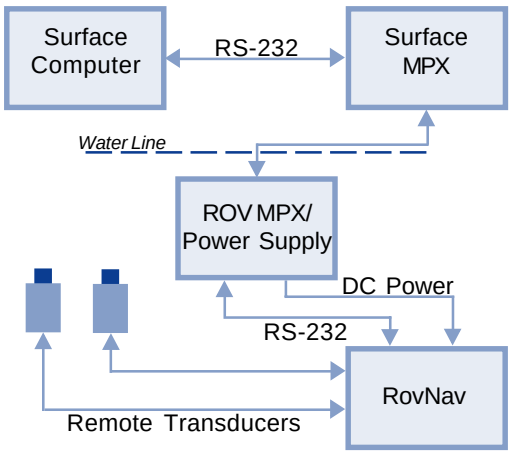
Depending on the positioning accuracy and range required, RovNav is available in two frequency versions; Medium Frequency (16-36kHz) and Extra High Frequency (50-110kHz). The MF version gives ranges of up to 3km with a relative positioning accuracy of ±0.15m, whilst EHF gives telemetry ranges to 1km and a relative positioning accuracy of ±0.05m. Note: Acoustic ranges are subject to local noise levels.

Type 7807 MF ROVNav with remote transducers and connecting cable

MF & EHF remote transducers

Key Features

- **Depth rated up to 4,000 metres (MF)**
- **Baseline measurements <5cm (EHF)**
- **12 channel receiver for fast position updates**
- **RS 232/RS485 half duplex communications via ROV's umbilical**
- **Two remote transducers enable sequential position fixing**
- **Compact and rugged design**
- **Incorporates depth, temperature and salinity sensors (optional)**

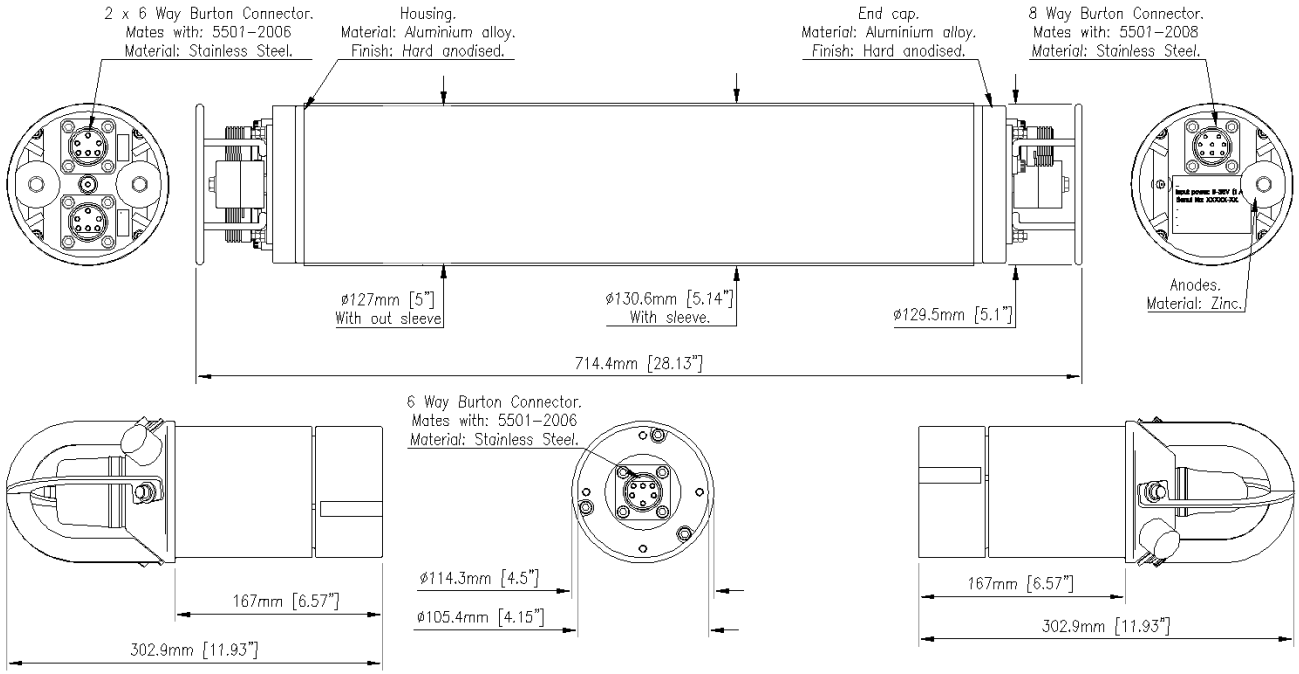


Typical RovNav configuration for long umbilicals

Sonardyne
SOUND IN DEPTH

TECHNICAL SPECIFICATION

Type 7807/7808 RovNav Mk4



MF Remote Transducer

EHF Remote Transducer

RovNav Version	Type 7807	Type 7807	Type 7808
Depth Rating	4,000 metres	4,000 metres	2,500 metres
Frequency	MF (18-36kHz)	MF (18-36kHz)	EHF (50-110kHz)
Remote Transducer Beamshape	Directional	Omni-Directional	Omni-Directional
Typical Accuracy	0.15-1 metres	0.15-1 metres	0.02-0.15 metres
Source Level - vertical	200dB re 1µPa @ 1 metre	190dB re 1µPa @ 1 metre	190dB re 1µPa @ 1 metre
Source Level - horizontal	185dB re 1µPa @ 1 metre	190dB re 1µPa @ 1 metre	190dB re 1µPa @ 1 metre
Receiver Threshold	< 95dB re 1µPa	< 95dB re 1µPa	< 100dB re 1µPa
Pulse Length	4 ms	4 ms	1 ms
Number of Replies (Battery operation)	200 x 10^3	200 x 10^3	750 x 10^3
Mechanical Construction	Aluminium Alloy Hard Anodised	Aluminium Alloy Hard Anodised	Aluminium Alloy Hard Anodised
Dimensions	130.6mm diameter x 714.4mm long	130.6mm diameter x 714.4mm long	130.6mm diameter x 714.4mm long
Weight in Air ROVNav/ Remote Tdr	15/ 4.5Kg	15/ 4.5Kg	15/ 4.5Kg
Weight in Water ROVNav/ Remote Tdr	6.6/ 2.5Kg	6.6/ 2.5Kg	6.6/ 2.5Kg
Sensor Options: Depth: Temperature: Salinity:	Digiquartz or Strain Gauge PRT Conductivity		
Acoustic Noise Shield:	Type 7965		

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