



Draft Specifications for Model 908 Thermistor buoy

The model 908 Thermistor buoy provides remote monitoring of air and five ice temperatures in addition to accurate position.

Dimensions

- Housing measures 105 cm.
- Thermistor chain extends 2.0 metres below ice surface
- When installed, approx. 25 cm of buoy remains above ice surface

Installation

- 8" hole drilled in ice, two metres deep.
- Support arms provide accurate depth alignment.

Weight

- 11.5 kg

Housing

- Polypropylene, yellow
- Polypropylene tie-downs / handles
- Polyurethane thermal insulation surrounding battery pack and electronics

Temperature operating range

- -40C to +40C

Temperature Measurement Range

- Air & surface thermistors: -40C to +25C
- In-ice thermistors: -25 C to + 25C
-

Temperature Accuracy

- 0.1 C standard
- 0.01 C calibration available

Thermistor Positions

- Air: 0.5 metres above surface
- Ice surface
- -0.5 m, -1.0 m, -1.5 m, -2.0 m
- Custom thermistor spacings available
- Hardware supports up to 16 temperature channels

Battery

- 9.6 Volt alkaline, 67 AH. Field replaceable.

Battery Life

- 1 year typical at 1 hour sample rate in Arctic conditions

Data transmission

- Iridium satellite, data delivery by email attachment.
- Custom data processing available.
- All received data backed up at Oceanetic



OCEANETIC (2011) Ltd. MEASUREMENT

Data format

- Packed binary
- 38 byte packet holds sample position, timestamp, and six temperature measurements

Power consumption

- Standby: 650 uA
- GPS on: 26 mA
- Iridium Transmit: 125 mA

Position accuracy

- < 5 metres (50%), < 8 metres (90%)

Sample rate

- Variable from 5 minutes to 24 hours
- Sample rate changes made from command line interface or remote satellite command via email