UpTempO

- Inductive modem Iridium® buoy
- Bi-directional communication
- Innovative and robust design
- Instrumentation packages available

METOCEAN SYSTEMS

The inductive modem UpTempO buoy is an Iridium® reporting data collection and processing system designed for oceanographic and polar based applications. The UpTempO is equipped to handle a number of sub-surface sensors including, Water Conductivity, Temperature, Depth, and Dissolved Oxygen. The surface sensor suite features Sea Surface Temperature, Barometric Pressure (optional) and GPS.

Employing the proven Ice Beacon platform, equipped with a reinforced Ionomer foam collar, the UpTempO is designed for 12-18 months of continuous unattended operation in the harshest of climates and conditions.

Quick Specifications

Hull Diameter	8.6" (0.23 m)
Mass (in air)	232 lb (105 kg)
Optional Sensors	Temperature, pressure, salinity, disolved oxygen

metocean telematics | iridium

21 Thornhill Drive, Dartmouth, Nova Scotia B3B 1R9 CANADA
Tel: +1 902 468-2505 | Fax: +1 902 468-4442 | Email: sales@metocean.com

metocean.com

UpTempO

TECHNICAL SPECIFICATIONS

PHYSICAL

Hull diameter	8.6" (0.23 m)
Floatation collar	28" (0.71m)
Mass (in air)	232 lb (105 kg)
Water draft	62 m
Air draft	1.30 m

CONSTRUCTION

Electronics housing	Aluminum – 6061T6
Mast	Aluminum – 6061T6
Floatation collar	Extruded Ionomer Foam (high density external skin)

BUOY SENSORS

Barometric pressure	Vaisala PTB100
Air temperature	YSI 44032

SENSORY ARRAY CONSTRUCTION

Sensor package	Sea-Bird IM Technology
Strength member	Nilspin 1/8 x 3/16; 3x19 galvanized steel
Terminal mass	50kg

ARRAY SENSORY OPTIONS

Temperature sensor (SeaBird SBE 39-IM)

- Accuracy +/- 0.002°C

Pressure sensor (SeaBird SBE 39-IM)

- Accuracy 0.1% FS (0.1 dbar)

Salinity sensor (SeaBird SBE 37IMP-CT)

- Accuracy +/- (0.003 mS/cm)

Dissolved oxygen sensor (SeaBird SBE 37IMP-ODO-CTD)

- Accuracy ±3 µmol/kg

ELECTRONICS

Iridium telemetry	Iridium 9602
GPS	Navman Jupiter 32
Controller	MetOcean's Global Platform Transceiver Controller (GPTII) TM

POWER SUPPLY

Battery	Tadiran TLP-93181/D/OCN2
Chemistry	Lithium thionyl chloride

POWER SUPPLY

Air temperature	-35°C to 40°C (-31°F to 104°F)
Water temperature	-35°C to 40°C (-31°F to 104°F)
Barometric pressure	800 to 1060 mbar
Sea state	SS 5
Operating life	Up to 18 months*
Time reference	UTC and Julian Hour
Transmission interval	Hourly Sensor Data / 3 – Hourly GPS Position

SURVIVAL

Temperature	-40°C to 70°C (-40°F to 158°F)
Sea state	SS 6

STORAGE

Storage temperature	-20°C to 55°C (-4°F to 131°F)
Storage life	Up to 24 months

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