

Inductive Mooring Line Modem

Bring your data to the surface

Supporting as many instruments as required and operating at a communication rate of 4800 baud over an insulated mooring line of more than 1,000m length, the RBR inductive mooring line modem MLM-1000 can meet any challenge. No fixed, bulky or expensive cables, no costly power hungry error prone acoustic modems, just a simple, strong, fast and flexible solution to bring your data to the surface.

Features

- Easy system integration
- Low power consumption
- Fast data transmission rates
- Flexible instrument positioning
- Robust and reliable
- Cost effective - no data cables required
- Real-time telemetry
- Retro-fit onto existing RBR loggers



The MLM-1000 consists of two major components; the head end modem (HEM) and the sub surface modem (SSM). Each instrument on the mooring line system is connected to an SSM which communicate with the HEM (and host) through the mooring cable inductively.

The main features of the MLM-1000 are a fast communication rate along the mooring line, shock protected ferrites, no pre-deployment configuration required, an automated instrument discovery mechanism and an intelligent addressing mechanism that conserves power. A comprehensive set of system commands are available to query or command the instruments to identify themselves, take a sample and transmit the data. Instruments may be addressed individually, in sub-groups or all at once.

The inductive mooring line modem is available as integral part for RBR loggers and is easily interfaced (OEM version) to other instruments for example ADCPs, CO₂ or CH₄ sensors and other types of loggers.



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Specifications

Inductive Link

Data rate: 4800 baud
Mooring line: Ø8-20mm

Head End Modem (HEM)

Serial communication: Up to 115kbaud
Polling mode: Scheduled or interactive
Addressing mode: Individual, group or all
Voltage: 9.5 - 22V
Power consumption: 40µA sleep; ≤5mA active @ 12V
Temperature range: -30°C to 60°C
Clock accuracy: ±60 seconds/year
Enclosure: Weatherproof
Size: 225 x 125 x 85mm

Sub-Surface Modem (SSM)

Serial communication: 4800 - 19200 baud
Voltage: 8 - 22V
Power consumption: 35µA sleep; ≤4mA active @ 12V
Temperature range: -10°C to 50°C
Enclosure: Plastic and polyurethane
Size: Ø65 x 100mm

