

INDUCTIVE MOORING LINE MODEM



BRING YOUR DATA
TO THE SURFACE

Supporting as many instruments as required and operating at the baudrate of 4800 over an insulated mooring line of more than 4km 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

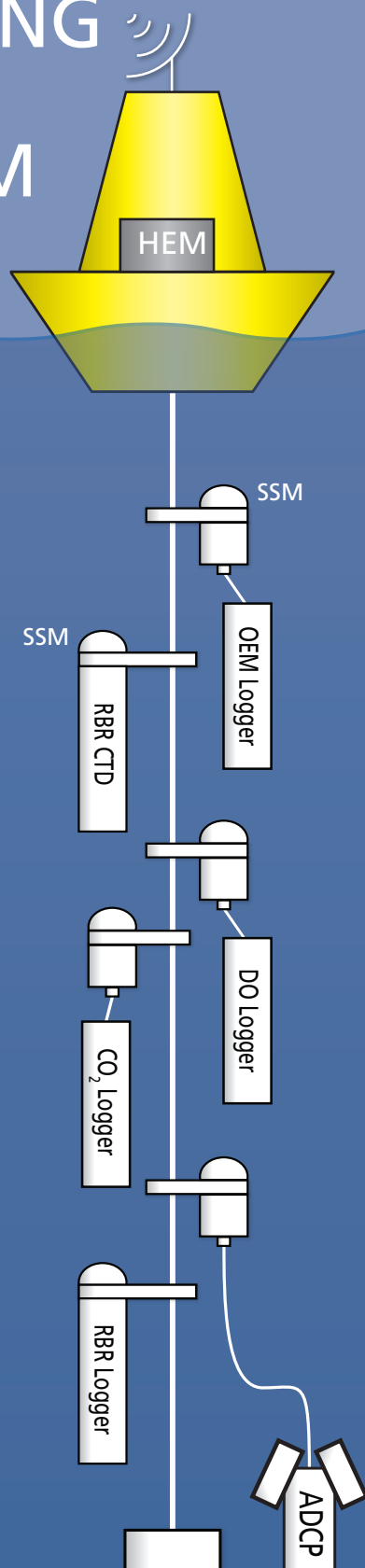
- ▶ Easy system integration
- ▶ Low power consumption
- ▶ Fast data transmission rates
- ▶ Flexible instruments positioning
- ▶ Robust and reliable
- ▶ Cost effective – no data cables required
- ▶ Realtime telemetry
- ▶ Retrofit onto existing RBR loggers

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 communicates inductively with the HEM (and host) through the mooring cable.

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 is available to query or command the instruments to identify themselves, take a sample, and transmit data. Instruments may be addressed individually, in sub-groups, or all at once.

The MLM is available as an integral option for RBR instruments, or as a standalone OEM version for serial connection to other devices.

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Specifications

Inductive link

Baudrate	4800
Mooring line	Ø5 – 15mm

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 – 19200baud
Voltage	
External	8 – 22V
On battery	2 – 8V
Temperature range	-10°C to 50°C
Power consumption	
External	35µA sleep, ≤4mA active @12V
On battery	102µA sleep, ≤4mA active @7V
Temperature range	-10°C to 50°C
Enclosure	Plastic or Ti
Size	
Plastic	~310mm x Ø63.3mm
Ti	~328mm x Ø60.3mm
Depth rating	
Plastic	750m
Ti	>2000m

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