

RBR HEM, RBR SSM

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 can meet any challenge. It is a simple, strong, fast, and flexible solution to bring your data to the surface.

FEATURES



The inductive mooring line modem consists of the head-end modem (HEM) and one or more sub-surface modems (SSM). Each instrument on the mooring line system is connected to an SSM, which communicates inductively with the HEM through the mooring cable.

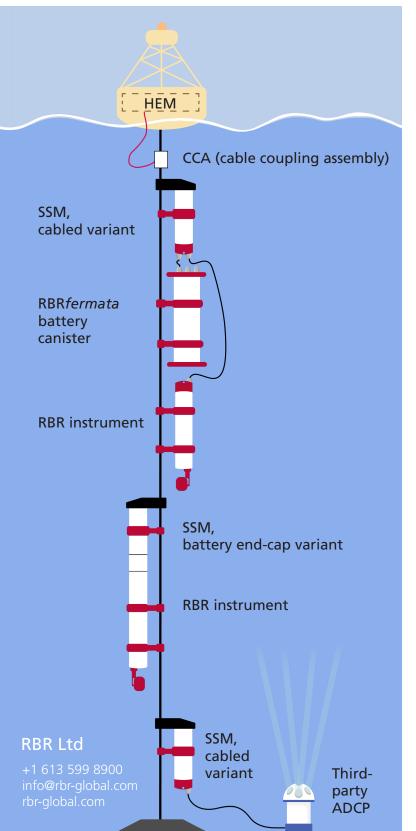
The main features of the inductive mooring line modem are a fast communication rate along the mooring line, shock protected ferrites, no pre-deployment configuration required, an automated instrument discovery mechanism, and an intelligent addressing mechanism that conserves power. A comprehensive set 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 SSM is available as an integral option for RBR instruments, attached as the battery end-cap via a coupler. Alternatively, use it as a standalone cabled version for serial connection to an RBR instrument in combination with the RBR*fermata* battery canister, or to a third-party instrument, such as ADCP.



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Specifications

Inductive link

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Baudrate	4800baud
Mooring line	Ø5 – 15mm

HEM (head-end modem)

Serial communication Polling mode	Up to 115000baud Scheduled or interactive
Addressing mode	Individual, group, or all
Voltage	9.5V to 22V
Power consumption Sleep current Active current	50µA typ, 75µA max @ 12V 8mA typ, 12mA max @ 12V
Temperature range	-30°C to 60°C
Clock accuracy	±60 seconds/year
Housing	Weatherproof
Dimensions	~260mm x 125mm x 85mm

SSM (sub-surface modem)

Serial communication	4800 to 19200baud
Voltage	8V to 22V (ext), 2V to 8V (bat)
Power consumption	
Sleep current	40µA typ, 60µA max @12V (ext) 120µA typ, 180µA max @7V (bat)
Active current	3mA typ, 4.5mA max @12V (ext) 5mA typ, 7.5mA max @7V (bat)
Temperature range	-10°C to 50°C
Housing	Plastic or Ti
Dimensions Plastic Ti	~330mm x Ø63.3mm ~310mm x Ø60.3mm
Depth rating Plastic Ti	750m 4000m

