

Multi-Sensor Core Logger (MSCL-S SN45)

**Attention:**

Please note that the system can only be operated upon request. Operations with the MSCL-S requires experienced scientific staff on board. The system is not operated by the ship's crew. Announce operations with the MSCL-S to AWI-Logistics prior to the cruise and clarify the data transfer after the cruise.

Summary

Multi-Sensor Core Loggers capture physical measurands of sediment cores automated and non-destructive.



Manufacturer	Geotek Ltd.
Model	MSCL-S
Serial No	45
Type	Multi-Sensor Core Logger

Contacts

Role	Name
Principal Investigator	Frank Niessen
Data Scientist	Catalina Gebhardt
Engineer in Charge	Dietmar Penshorn

Components

The system consists of the measuring bench with a ballscrew, which pushes core section past 3 sensors measuring Gamma Density, P-wave Velocity, Magnetic Susceptibility. All sensors simultaneously acquire the data, which is displayed real-time during logging. The acquired data is stored locally in the electronics with simple user interface.

Sensor Type	Gamma Density Sensor	P-Wave System	Magnetic Susceptibility Loop Sensor MS2C
Manufacturer	Geotek Ltd.	Geotek Ltd.	Bartington Instruments
Components	Gamma ray source (137-Caesium source with energies at 0.662 MeV) detector sensor stand mount (alignment of source/detector with center of core)	Geotek ultrasonic (230 kHz) acoustic transducers Laser micrometer PRT temperature Probe	Magnetic Susceptibility Loop Sensor MS2C

Data logging, storage and archiving

Logged parameters

Gamma Density, P-wave Velocity, Magnetic Susceptibility

Rawdata storage on board

Local storage on MSCL-S electronic. Operator is in charge of data backup.

Documentation

- [MSCL-S.pdf](#)
- [Discrete_P-wave_System.pdf](#)
- [MS2_MS3 DS0020.pdf](#)
- <http://www.geotek.co.uk/products/gammadensity/>