

MSS - Microstructure Probe

Microstructure and turbulence measurements
in marine and limnic waters

- ➔ multiparameter measurements
- ➔ microstructure, turbulence and standard CTD Sensors
additional optical sensors
- ➔ depth ranges up to 2000 m
- ➔ 16 channels
- ➔ easy-to-use data acquisition and processing software
- ➔ titanium housing
- ➔ custom-made winches and cables



MSS60



MSS90-D

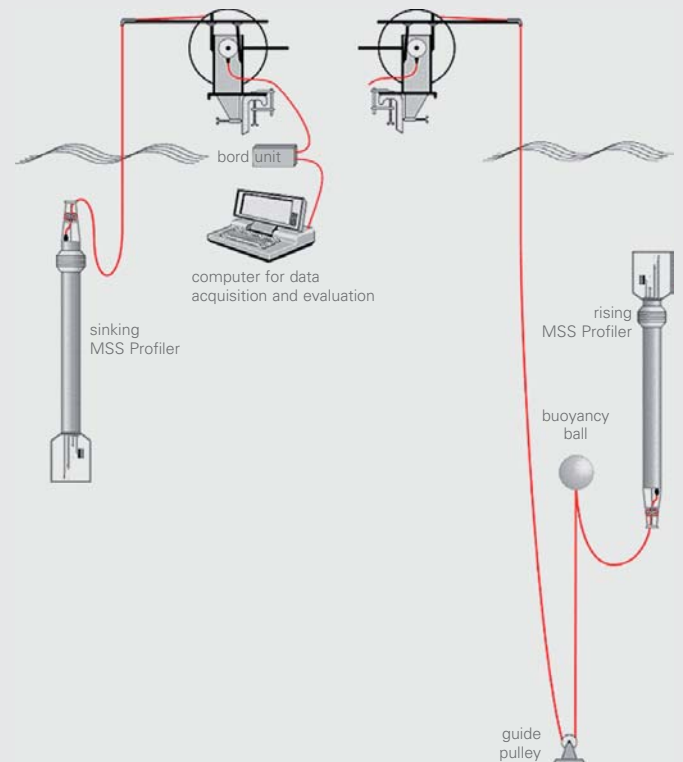
The MSS family

The Microstructure Probe family comprises the MSS60, MSS90 and MSS90-D. These microstructure probes are designed to measure micro-scale water stratification as well as the intensity of small scale turbulence in marine and limnic waters up to 2000 m. Different MSS profiler and SWM winches will be combined to satisfy different requests for turbulence measurements.

The microstructure measuring system consists of the MSS probe, a custom-made winch with special cable, a probe interface and a data acquisition computer. The probe interface is adapted to the PC (laptop or desktop) via USB port.

The MSS is equipped with high resolution microstructure and turbulence sensors (temperature, current shear) and standard CTD sensors (temperature, electrical conductivity and pressure). Additional sensors, e.g. oxygen, and light scattering can be attached. Up to 9 sensors can be plugged to the profiler. Housekeeping sensors control disturbing vibrations and tilt of the profiler itself.

The MSS 90 can be used to carry out free sinking or rising measurements. Its sinking or rising velocity can be adjusted by a combination of weights and buoyancy elements.



Technical Data/Dimensions

	MSS60	MSS90	MSS90-D1	MSS90-D2
Depth range	200m	500m	1000m	2000m
Weight in air	5kg	12kg	25kg	33kg
Length of housing	0,8m	1,0m	1,5m	1,7m
Standard sensor equipment	P,T,C 2xShear NTC/NTCHP ACC	P,T,C 2xShear NTC/NTCHP ACC	P,T,C 2xShear NTC/NTCHP ACC	P,T,C 2xShear NTC/NTCHP ACC
Sensor plugs	5	9	9	9
Optional Sensors*	Turbidity Tilt(2axis)	Turbidity Fluorescence Tilt(2axis) Oxygen pH	Turbidity Fluorescence Tilt(2axis) Oxygen pH	Turbidity Fluorescence Tilt(2axis) Oxygen pH
Data channels	16	16	16	16
Sampling Rate	1024 per sec	1024 per sec	1024 per sec	1024 per sec
Resolution	16Bit	16Bit	16Bit	16Bit

NTCTemperature microstructure sensor FP07

NTCH Temperature microstructure sensor with pre-emphasized amplification

ACC Acceleration sensor for measuring the profiler vibration

* optional sensors may have limited depth ranges

manufactured by



and

