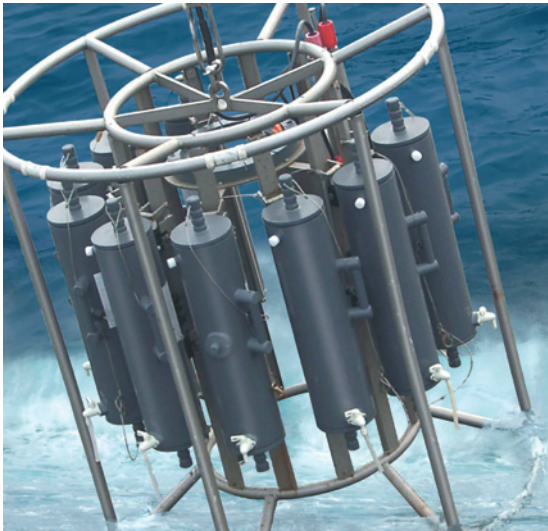


Multi Water Sampler MWS 12

Water Sampling System for Oceanography and Limnology



ABOUT

The approved Multi Water Sampler MWS 12 is an instrument designed for the collection of water samples in successive water layers. Only one operation for 12 different samples! The sturdy stainless steel array is equipped with twelve racks to which Plastic Water Samplers or Free Flow Samplers with capacities from 1.7 to 10 litres capacity can be mounted. The MWS 12 is equipped with a motor-driven release device with an integrated Depth Meter (measuring range according to customers' requirements). The water samplers are sequentially closed in the succession of their mounting to the array (i.e. No. 1, 2, 3, ..., 10, 11 and 12).

The state-of-the-art electronics, optimised in power consumption, are designed for ambient temperatures from - 40°C up to +85°C.

The maximum operational water depth is 3000 metres. A special version for operational depths down to 6000 metres is available upon request. The MWS 12 is generally delivered for combined Online/Offline use and is therefore the ideal all-purpose rosette system for use on any research vessel worldwide.

Online

The water samplers are actuated via push-button control by the mains operated Deck Command Unit. The commands for actuation of the water samplers are given via a single or multi-conductor cable

between the Underwater Unit and the Deck Command Unit. The Deck Command Unit is equipped with a serial port for data transfer to PC.

Offline

In case that a conducting cable is not available on board, the required sampling depth can be pre-programmed via personal computer. The actuation of the water samplers is then carried out automatically according to the pre-selected depth intervals. All measuring data are stored inside the internal data memory (16MB) during the operation and can be read out by a PC when the system is back on board.

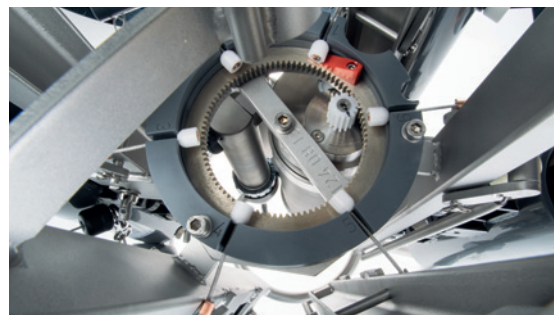
ACCESSORIES

CT-Set

Together with the optional CT-Set the system offers the full capability of a state-of-the-art oceanographic CTD probe. The CT-Set consists of one conductivity sensor, one temperature sensor and an additional electronics board which are completely integrated into the Motor Unit of the MWS 12. From the CTD data the system computes salinity, density and sound velocity according to UNESCO formulas.

FEATURES

- ▶ Combined online/offline use
- ▶ Bi-directional communication
- ▶ Standard depth range 3000 m
- ▶ Long distance FSK-telemetry (> 10000m)
- ▶ Low power consumption
- ▶ Battery operated Underwater Unit, max. voltage of 5 V at the conductor cable
- ▶ Electronics operate from -40°C up to +85°C
- ▶ EC-conformity (CE) EN 50081-1, EN 50082-1



OPTIONS

- ▶ Slenderised array for 12 water samplers with capacities from 1.7 to 5 litres (Ø 110 x 125 cm)
- ▶ Variant array sizes for 6 or 24 water samplers are available upon request
- ▶ Additional sensors of various parameters
- ▶ Special version for operational depths down to 6000 metres
- ▶ **Serial RS-232 port, intended for external control of the Multi Water Sampler by third-party CTD probes**

TECHNICAL DATA	
Dimensions	Ø 140 cm x 160 cm
Empty weight	approx. 100 kg
Operational depth	max. 3000 metres
Array	made of stainless steel
Motor Unit	made of titanium, battery powered (3 x DL 123A/3V)
Deck Command Unit	metal housing for use in 19"-rack or as table housing, not for use on deck; push-button control for closing of water samplers, indication of sampler no., pressure, battery status, optional CTD data. LCD-display with LED backlight, interface for Personal Computer (RS-232), power supply: 85 - 260 V AC
Data memory	16 MByte
Pressure sensor (Depth Meter)	0.0 ... 3000.0 dbar ± 0.1% f.s. (standard)

ORDERING INFORMATION	
Products	
436 912	MWS 12 for 12 Plastic Water Samplers or Free Flow Water Samplers of 1.7 to 10 l capacity Please note: The Multi Water Sampler MWS 12 is delivered without Water Samplers, they have to be ordered separately!
Accessories	
450 500	CT-Set for Multi Water Sampler Additional electronics board, Conductivity sensor: 0 ... 65 ± 0.01 mS/cm Temperature sensor: -2 ... +32 ± 0.005°C Data rate: 1 Hz (1 data set per second)

