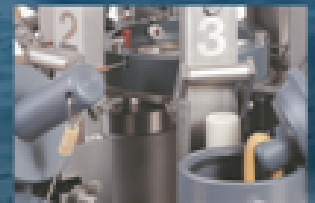
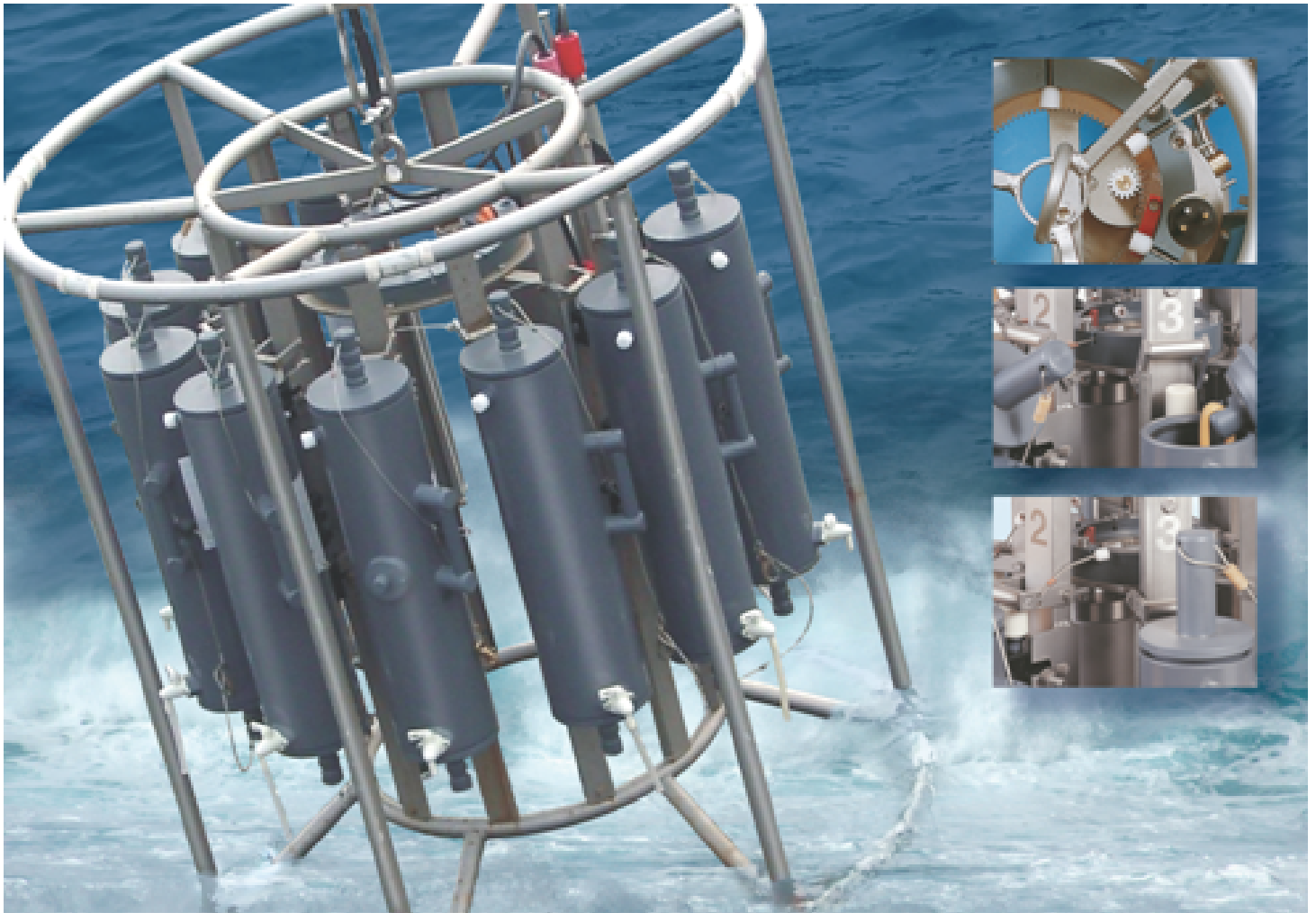




HYDRO-BIOS

Multi Water Sampler MWS 12

Water Sampling System for Oceanography



Features:

- ✓ Combined online/offline use (standard)
- ✓ 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

The approved Multi Water Sampler MWS 12 is an instrument designed for the collection of water samples in successive water layers. A sturdy array fabricated of stainless steel is equipped with twelve racks to which Plastic Water Samplers and Free Flow Samplers with capacities from 1.7 to 10 litres can be mounted to collect water samples in twelve different depth steps during one operation.

The Multi Water Sampler MWS 12 is equipped with a motor-driven release device with an integrated Depth Meter (measuring range according to customer's requirements) and the water samplers are closed sequentially 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, optimized 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 Multi Water Sampler MWS 12 is generally delivered for combined Online/Offline use.

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 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

Allows operation without an electrical cable, can be operated with a normal steel wire. Actuation depth for the bottles will be preprogrammed by OceanLab 3 Software.

Together with the (optional) CT-Set the system offers the full capability of an oceanographic Multi Parameter Probe. It consists of one conductivity sensor, one temperature sensor and an additional electronics board which are completely integrated into the Motor Unit of the Multi Water Sampler MWS 12.

From the CTD data the system computes salinity, density and sound velocity according to UNESCO formulas.

Technical Data:

Dimensions:	Diameter 140 cm, height 160 cm
Empty weight:	approx. 100 kg (without water samplers)
Max. operational water depth:	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, 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 \pm 0.1% f.s. (standard)

Ordering Information:

436 912 Multi Water Sampler MWS 12
for combined online/offline use
Motor Unit with microprocessor,
external battery pack (3 x DL 123A/3V)
integrated pressure sensor (Depth Meter)
Deck Command Unit in 19" version, LCD-display, Power supply 85 - 260 V AC
Windows based OceanLab3 software included
Notice: Water samplers have to be ordered separately

450 500 **CT-Set** for Multi Water Sampler
Additional electronics board,
Conductivity sensor: 0 ... 65 \pm 0.01 mS/cm
Temperature sensor: -2 ... +32 \pm 0.005°C
Data rate: 1 Hz (1 data set per second)

Options:

- Slenderized array for 12 water samplers with capacities from 1.7 to 5 litres (\varnothing 110 cm x 125 cm)
- Additional sensors of various parameter
- Operational depth down to 6000 metres
- Compatible to SST and SBE (911) probes. Others on request.