

## **TECHNOLOGY IN SEARCH OF NEW DEPTHS MISS**

## MINI water SAMPLING SYSTEM based on NISKIN bottles

This MISS sampling system accept up to six (6) NISKIN bottles of different capacities (0.8, 1.5, 2.1 Liter each) and comes complete with a RS232/RS485 digital interface and a simple protocol that allows to control the bottle firing operations. The NISKIN bottles are closed in sequence starting from bottle 1 to bottle 6. The MISS



integrates a rechargeable battery pack to power the sampling system and the interfaced CTD. Instead of a bottle it is possible to install an IDRONAUT OCEAN SEVEN CTD, (OS310, OS316Plus or OS320Plus) which takes control of the MISS sampling system operations and provides real-time measurements from the installed sensors like but not limited to: Pressure, Temperature, Conductivity, Salinity, pH, Dissolved Oxygen, Redox, Turbidity, Chlorophyll-a, Phycocyanin, Phycoerythrin.

The OCEAN SEVEN CTD can fire (close) the NISKIN bottles autonomously in function of Time, Pressure steps or if a certain environmental condition is detected, like among others:

- I) the increasing of seawater turbidity;
- II) the modification of one of the physical (CTD) or chemical (pH, DO<sub>2</sub>) seawater properties.

Moreover, it is possible to fire the bottles in real-time when the CTD is controlled through the IDRONAUT data telemetry system.

## **Performances**

- ❖ 6x NISKIN Bottles 0.8, 1.5 or 2.1 Liters each
- ❖ Maximum depth: 1000 m
- ❖ External power supply 12VDC @ 30 mA
- ❖ Internal rechargeable battery pack (12x1.2V NiMH cells, 5Ah), endurance about 80 hours with OS310 CTD.
- ❖ Interface RS232 or RS485 (9K6 bps).
- Simplified communication protocol which allows integration with third part of the MISS as an OEM off-theshelf component.
- Weight: about 17 Kg (5 bottles without CTD)
- Height: 90 cm including the hanging rod and the lower titanium protective cage

