



Remote Access Sampler - 500ml

Application:

The Remote Access Sampler (RAS-500) is a deep ocean or coastal time-series water sampler that autonomously collects pure, unbiased specimens using an operator-programmed sample schedule. The RAS-500 collects water for biological, dissolved major and minor nutrient, dissolved trace metal, or dissolved organic carbon analysis.

Features:

Sample bags available with Luer locking valves or Jaco fittings. Water flows directly to sample containers without passing through a pump. Non-volatile memory preserves critical deployment data.

Sample schedule options:

Schedule controls volume and frequency of acid flush and rinsing cycles, sampling event time limits, data collection periods, and flow and volume of collected samples. EEPROM stores critical deployment data with a report of sample event conditions.

Customized hardware and software:

Other customization is possible such as adding external sensors for action-triggered sampling. An optional external temperature sensor is available.

Deployment:

Deploys from different mooring types such as a stand-alone mooring, bottom lander, or tethered from a ship.

**U.S. Patent Nos. 5,341,834 & 5,441,071 Japan Patent No. 248282*

- Number of samples: 48 500ml samples.
- Patented multi-port valve isolates samples.
- Programmable pre and post acid flushes cleans intake.
- Sample collection with or without pre-filters.
- For more information about this sampler, see the Remote Access Sampler pages at mclanelabs.com.

Remote Access Sampler-500ml Specifications

DIMENSIONS:

Length: 73 cm (28.7 in)

Width: 73 cm (28.7 in)

Height 128 cm (50.2 in)

WEIGHT (APPROX):

In air (sample tubes empty): ~110 kg (240 lbs)

In air (sample tubes filled): ~148 kg (325 lbs)

In water: ~57 kg (125 lbs)

MULTI-PORT VALVE:

Number of ports: 50 (48 samples)

Material: HYDEX plastic valve stators and Kynar plastic rotar

Drive: High torque stepper motor with 100:1 planetary gear head

Positioning: Optical sensor with slotted disk

SAMPLE BAGS (48):

Size: Approximately 500ml

Material: Metalized polyethylene lined or Tedlar

PUMP:

Flow rate: 75 ml/min fixed rate ($\pm 3\%$ error)

Type: Gear pump

Drive: Brushless 3 phase DC motor

CONTROLLER:

Housing material: Aluminum, 6061-T6 hard coat anodized

Power supply: 31.5 VDC alkaline battery pack

Power consumption: 3,500 mAh (1 year deployment)

Communications: Serial (RS-232)

OPERATIONS:

Maximum depth: 5,500m

Battery endurance: 10Ahr battery pack

Min/Max deployment time: 10 minutes per sample/18 months

Operating temperature: 0° to 50° C

FRAME:

Material: 316 electro-polished stainless steel (titanium available)

Structure & bridle configuration: In-line mooring, weldment, 4 in-line

Frame & bridle eyes: 19mm diameter, insulated

Maximum in-line tension: 2,300 kg (5,000 lbs)
