

- Number of samples: 24 (individual filtered samples).
- Power: 24 commercially available, user replaceable "D" cell alkaline batteries.
- Pump draws ambient water onto user-replaceable 47 mm membrane filters.
- Can deploy for 14 months (based on volume and flow rate).
- For more information about this sampler, see the <u>PPS</u> pages at mclanelabs.com.

Particle & Phytoplankton Sampler

Application:

The Particle and Phytoplankton Sampler (PPS) is an autonomous particulate sampler that collects up to 24 individual *in situ* particulate samples onto membrane filters. Samples are collected in user-defined time series and can be analyzed for trace metals, phytoplankton and suspended particles.

Features:

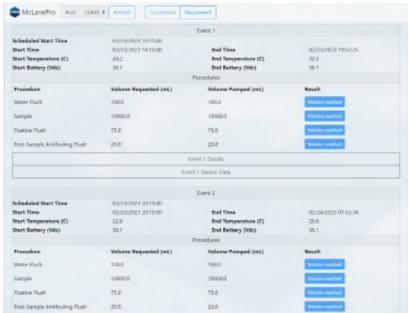
The patented multi-port valve isolates individual samples and distributes water directly to the filter before passing through a pump. In-line filtered water flush port also protects the pump from large particle interference. Hardware and software options include a fixative valve to preserve samples, antifouling for post-sample flushes, and external power connection (with optional bulkhead connector installed).

Sampling:

User-defined sampling can start at a scheduled time or be programmed with a countdown delay. Total volume, flow rate, and sample collection time are also user defined. Sample data includes timing, flow, and electrical parameters. Adaptive (command-driven, externally-controlled) sampling is also available.

McLanePro:

The PPS uses McLanePro, a graphical user interface built for McLane's Gen3 electronics. McLanePro eases the steps of event programming, data offload, and firmware updates.



Particle and Phytoplankton Sampler Specifications

DIMENSIONS: Length: 43 cm (16.9 in)

Width: 43 cm (16.9 in) Height: 165 cm (64.9 in)

WEIGHT (APPROX): In air: 60.5 kg (133 lbs)

In salt water: 35 kg (77 lbs)
In fresh water: 36 kg (79 lbs)

SAMPLE COLLECTION: Number of filters: 24

Filter: 47 mm Polypropylene filter holder, single

stage

Filter Type: Membrane or Glass Fiber, .65 µm or higher

porosity

Flowrate: 50 - 125 ml/min Standard (+/-10% error)

100 - 250 ml/min Optional (+/-10% error)

Type: Gear pump

Materials: 316 stainless steel pumphead

Drive Housing: Pressure balanced oil filled

Maximum volume: 10 L/filter - 250 L total Standard

20 L/filter - 500 L total Optional

MULTI-PORT VALVE: Number of ports: 25

CONTROLLER: Pressure housing: Aluminum, 6061-T6 hardcoat anodized,

316 stainless steel fasteners, 316 SS bulkhead connectors, Zinc anodes

Communications: USB, RS-232, RS-485 with optional added

bulkhead connector.

OPERATIONS: Maximum depth: 5,500 m

Battery: 24 user replaceable "D" cell alkaline

batteries

Maximum deployment time: 14 months (based on volume/flow rate)

Operating temperature: -4°C to 35°C (in water-nonfreezing)

Storage temperature: -20°C to 45°C (in air)

FRAME: Material: 316 SS, electropolished, 316 stainless steel

isolated hardware

Structure: In-line weldment, 5 ton tension rating