

- 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 PPS 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:

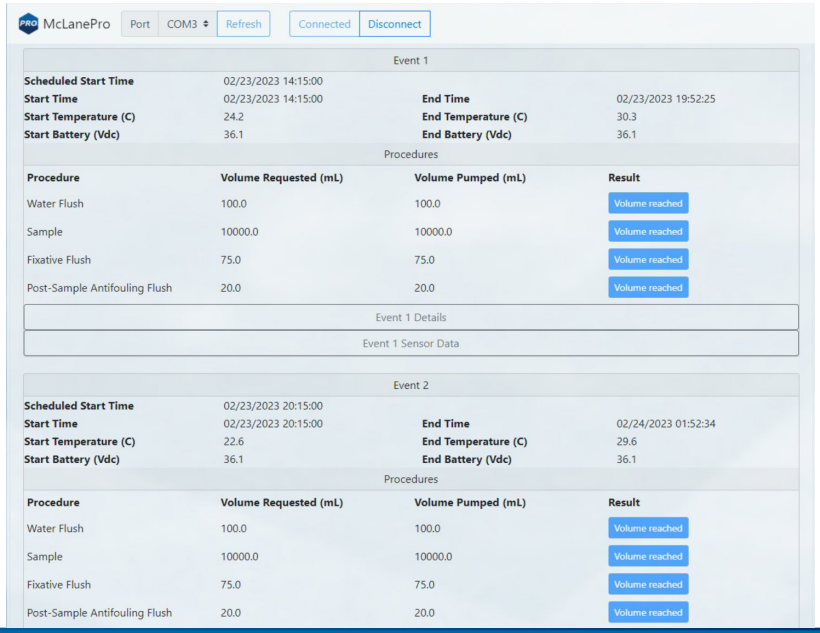
The patented multi-port valve isolates individual samples and distributes water directly to the filter before passing through a pump. In-line filtered water flush port also protects the pump from large particle interference. Hardware and software options include a fixative valve to preserve samples, 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
PUMP:	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, batteries removed)
FRAME:	Material:	316 SS, electropolished, 316 stainless steel isolated hardware
	Structure:	In-line weldment, 5 ton tension rating