



# **PVS4120-Series**

Portable, Battery-Operated Samplers



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The PVS4120C and PVS4120D are our lightest, portable, battery-powered water samplers—weighing only 27 lb. The PVS4120C is a composite sampler that deposits its water samples into a 2.3-gallon; the PVS4120D is a discrete sampler that deposits its water samples into up to 24 containers.

The PVS4120C and PVS4120D use an external vacuum pump to draw water through intake tubing, instead of the traditional peristaltic pump that induce flow by squeezing flexible tubing. Advantages of the vacuum pump method include faster sampling rates, longer sampling distances, and less maintenance. Because the vacuum method disturbs the water samples less, they better represent the original water solution, especially if the solution has high concentrations of suspended solids. See our vacuum pump water samplers in action at: [www.youtube.com/watch?v=wi4dxFTw-ks](http://www.youtube.com/watch?v=wi4dxFTw-ks)

The pump in these samplers is smaller than our larger models. The lightweight pump is able to take samples at over 5 ft/sec for horizontal draws of up to 25 ft.

The enclosure is a molded medium-density linear polyethylene, designed to handle tough environmental challenges and weathering. The hub has an insulated ring and a cavity for crushed ice, giving more control over the temperature of the samples.

The PVS4120C and PVS4120D include a programmable controller with 16-key intuitive touch pad. See a demonstration of the programmable controller at: [www.youtube.com/watch?v=yRr80Lm-5Hs](http://www.youtube.com/watch?v=yRr80Lm-5Hs). The controller can accept a pulse input (e.g., rain gage), a 4- to 20-mA signal (e.g., flow meter), or initiate a sample on a timed basis. The sampler can also be interfaced with our dataloggers. Our dataloggers can measure nearly any turbidity, water level, or hydrometeorologic sensor, as well as control the sampler based on time, event, or measured conditions.

## Features

- Controller housed in an environmentally sealed enclosure for corrosion protection, and all information easily controlled and viewed on a 2 x 16 character backlit LCD
- Rapid transport velocities of samples, meaning more accurate samples, even of solids.
- Composite or discrete sampling.
- Side handles for easy lifting.
- Handcart available for easy transport.
- Stainless Steel Suspension harness, for sampling in sewer systems.
- Three-year warranty (five-year extended warranty available as an option)
- Interfaces with Campbell Scientific dataloggers for more measurement and control capabilities

## Ordering Information

### Automatic Samplers

**PVS4120C** Composite Portable Automatic Liquid Sampler. Requires purchase of 3/8-in. inner diameter intake and discharge hose. See Intake Hose on page 3.

**PVS4120D** Discrete Portable Automatic Liquid Sampler; must choose a sample container option (see below). Requires 3/8-in. inner diameter intake and discharge hose. See Intake Hose on page 3.

### Sample Container Options for PVS4120D only (choose one)

- PB Provides twenty-four 500-cc bottles as well as the base for the PVS4120D.
- LB Provides twenty-four 1000-cc bottles as well as the base for the PVS4120D.

### Warranty Options (choose one)

- SW Standard three year warranty.
- XW Extended five year warranty.



## Ordering Information Continued

### Intake Hose

**26925-L** Sampler 3/8 in. PVC Intake Hose with user-specified length. Enter length, in feet, after the -L. Standard length is 25 ft; maximum length is 250 ft. Must choose a hose termination option (see below).

### Hose Termination Options

- E1 Includes a lead sinker.
- E2 Includes a stainless-steel strainer.

### Accessories

**26917** Suspension harness  
**26903** Handcart with mounting bracket and strap



## Specifications

### Sampler

#### Dimensions

**Height:** 31.875 in. (80.9 cm)  
**Height (extended base):** 37.875 in. (96.2 cm)  
**Body Case Diameter:** 16.85 in. (42.8 cm)

#### Weight

**Sampler (no battery):** 23 lbs (10.4 kg)  
**Battery:** 4 lbs (1.8 kg)

#### Enclosure:

Molded medium density linear polyethylene, three piece construction and stainless-steel fittings

#### Integral Battery:

12 Vdc, 7 Ahrs

#### Cooling System:

Insulated container wall cavity space for ice

### Vacuum System

**Pinch Valve:** Fixed – normally open

**Purge Cycle:** Adjustable from 5 to 99 s

**Suction Cycle:** Variable (adjusts automatically to double the input value of the purge time setting or until liquid contacts level electrode in metering chamber)

**Volume Control Tube:** 316 stainless steel

**Sample Volume:** Adjustable, 50 to 250 cc

#### Horizontal Transport

**Velocity:** 4 ft/s at 100 ft;  
 > 2.5 ft/s at 220 ft (67 m)

**Maximum Distance:** 220 ft (67 m)

#### Metering Chamber

**Description:** Acrylic 500 cc, 100 cc calibration  
**Cover:** Nylon  
**Level Electrode:** 316 stainless steel

#### Hose Description

**Intake:** Nylon reinforced PVC (3/8 in. ID by 25 ft c/w sinker)  
**Discharge:** Latex, 3/8-in. ID

#### Controller

**Display:** 2 x 16 character backlit LCD  
**Touchpad:** 16 key with multi-level menu  
**Start Delay:** Disabled; Time/Day; Pulse Count; 4-20 mA (0 to 100 pulses/min.); External Contact; Level Control  
**Sample Initiation:** Disabled; Time/Day; Pulse Count; 4-20 mA (0 to 100 pulses/min.); External Contact  
**Program Type:** Composite; Multi-Composite; Consecutive; Daily Cycle; Timed Step  
**Clock:** Real-time clock and operating system  
**Direct Function Keys:** Manual sample; Manual purge; Manual bottle advance; Restart  
**Switches:** Controller "on/off" (SPST toggle)  
**Available Displays:** Real-time clock; process timing; process totals; pulse counting; event response; multilevel descriptions; flashing prompts; diagnostics  
**Automatic Displays:** Container Full; Fault; Power Interrupt (program resumed); Alternating Time Stamp; Cycle(s) abandoned  
**Backup Power Source:** Internal lithium battery to maintain program settings and information in case of power failure

