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PVS4120-Series

Portable, Battery-Operated Samplers

PVS4120-Series Portable, Battery-Operated Samplers

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.

The pump in the PVS4120C and PVS4120D 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 of the PVS4120D 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. 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 hydrometeorological 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

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