



PVS4100-Series

Portable, Battery-Powered Water Samplers



PVS4100-Series Portable, Battery-Operated Samplers

The PVS4100C and PVS4100D are deluxe portable, battery-powered water samplers. The PVS4100C is a composite sampler that deposits its water samples into a 2.3-gallon container; the PVS4100D is a discrete sampler that deposits its water samples into up to 24 containers. These samplers have a bigger pump than our other portable water samplers allowing them to support the fastest sampling rates and longest sampling distances.

The PVS4100C and PVS4100D 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 enclosure of the PVS4100C and PVS4100D is a molded medium-density linear polyethylene, designed to handle tough environmental challenges and weathering. Their hub has an insulated ring and a cavity for crushed ice, giving more control over the temperature of the sample.

The PVS4100C and PVS4100D 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. These samplers can also be interfaced with our dataloggers. Our dataloggers can measure nearly any turbidity, water level, or hydro-meteorological 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 is easily controlled and viewable on a 2x16 character backlit LCD.
- Rapid transport velocities of samples (horizontal draws 250 feet at 2.5 ft/sec), meaning more accurate samples, even of solids.
- Composite or discrete models available, taking samples for one or up to 24 containers.
- Side handles for easy lifting (increases diameter)
- Three-year warranty (five-year extended warranty available as an option).
- Interfaces with Campbell Scientific dataloggers for more measurement and control capabilities.
- Stainless-steel suspension harness for sampling in sewer systems.
- Handcart available for easy transport.

Ordering Information

Automatic Samplers

- PVS4100C** Composite Portable Automatic Liquid Sampler; must choose a system size and Warranty option (see below).
- PVS4100D** Discrete Portable Automatic Liquid Sampler; must choose a system size, sample container, and Warranty option (see below).

System Size Options

- 3 Supports intake and discharge hoses that have a 3/8-in. ID. The 26925-L Sampler 3/8 in. PVC Intake Hose is offered by Campbell Scientific (see below).
- 5 Supports intake and discharge hoses that have a 5/8-in. ID; available for PVS4100C only.

Sample Container Options for PVS4100D only (choose one)

- PB Provides twenty-four 500-cc bottles as well as the base for the PVS4100D.
- LB Provides twenty-four 1000-cc bottles as well as the base for the PVS4100D.

Warranty Options (choose one)

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

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.

Ordering Information Continued

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):	26 lb (11.8 kg)
Battery:	14 lb (6.3 kg)

Enclosure:

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

Integral Battery:

12 Vdc, 17 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)

Sample Volume: Adjustable, 50 to 250 cc

Horizontal Transport

Velocity:	minimum of 5 ft/s at 100 ft; > 2.5 ft/s at 250 ft (76.2 m)
Maximum Distance:	250 ft (76.2 m)

Metering Chamber

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

Volume Control Tube: 316 stainless steel

Hose Material

Intake:	Nylon reinforced PVC
Discharge:	Latex



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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