

BVS4300-Series

Outdoor Stationary Samplers



The BVS4300 Outdoor Stationary Sampler is designed to handle extreme conditions in the toughest of environments and take samples reliably for years and years with little to no maintenance cost. Simply put, they are built tough.

The enclosure is made with durable, heavy-gauge steel or stainless steel, coated with heat-cured polyester-based powder paint for added corrosion resistance.

The sampler uses Southwell's patented vacuum sampling method of collection, the most accurate and reliable system for collecting liquid samples to date. While EPA requirements are for a minimum speed of 2.5 ft/sec, SIRCO samplers can pull at over 4 ft/sec for sample lifts of 20 ft and over 5 ft/sec for horizontal draws at 100 feet!

With a multitude of options, samplers can be made to handle the toughest of applications, including a strong pyrex metering chamber, a teflon-lined hose, a teflon reinforced cover, or a stainless steel sinker strainer. The BVS4300 can also have a 3/8" ID intake hose or 5/8" ID intake hose for more difficult sampling situations.

The controller that comes with the BVS4300 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

- Easy-to-use controller constructed to last dependably for decades through most conditions.
- Locking door and bolted down instrument panel, for added security and safety.
- Pull-out tray, useful for maintenance technicians who can easily inspect the modular components of the sampler system.
- Optional cabinet insulation and a thermostatically controlled forced-air heater available for colder weather climates.
- Dual-system options: two metering chambers and sample containers with either single or dual controllers.
- Nearly all parts and upgrades have been designed to retrofit previous models for easy upgrading of old samplers!
- Three-year warranty (one-year for the refrigerator).
- Interfaces with Campbell Scientific dataloggers for more measurement and control capabilities.

BVS4300 Specifications

Sampler

Dimensions

Height:	63 in. (160 cm)
Width:	26 in. (66 cm)
Depth:	26 in. (66 cm)

Weight

Refrigerated:	310 lbs (141 kg)
Non-Refrigerated:	240 lbs (109 kg)

Enclosure:

Nema 4 weatherproof 14 gauge steel enclosure with heat-cured polyester-based powder paint for corrosion resistance and lockable door

Supply Voltage

Sampling System:	115 Vac / 60 Hz or 12 Vdc
Refrigeration and Heating Units:	115 Vac / 60 Hz

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, 50cc to 500cc or Adjustable, 500cc to 1000cc
Sample Transport Velocity	
Vertical:	5 ft/s at 15 ft of lift
Horizontal:	minimum of 5 ft/s at 100 ft; > 2.5 ft/s at 250 ft (76.2 m)
Maximum Transport Distance	
Vertical:	28 ft (8.5 m)
Horizontal:	250 ft (76.2 m)
Metering Chamber Cover:	Nylon
Volume Control Tube:	316 stainless steel
Metering Chamber Level Electrode:	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
Alarm Outputs (Independent):	Cycle abandoned [pulse output]; Sample Fault; Container Full
Status Outputs:	Sample taken [pulse output]
Switches:	Run/off (SPST toggle), On/off (5 A lighted breaker); Heater on/off; Refrigerator on/off
Available Displays:	Real time clock; Process timing; Process controls; Pulse counting; Event response; Multi-level description; Flashing prompts; Diagnostics
Automatic Displays:	Container Full; Fault Interrupt Alternating Time Stamp; Cycle(s) abandoned

