



# PVS 4100 Portable Samplers

*"Durable, Easy-to-use, Accurate, Dependable"*

The PVS 4100 is SIRCO's most deluxe portable solution for sampling, built with the same, reliable, long-lasting vacuum technology as the stationary samplers. The vacuum system of sampling results in accurate and dependable results, even with high sediment content or rapid velocities at the sample source. Portable models feature either discrete or composite sampling and a programmable controller with 16-key intuitive touchpad.

A rugged design and precision in construction give these portable samplers the ability to be set up in one location over time, yet they are easily transportable. Internal batteries can operate seven days or more, even longer with the addition of an external battery source, or one could simply plug them into a permanent power source.

The portable samplers are designed to fit a variety of different locational challenges, and can be hung with a suspension system built with a stainless steel harness.

The enclosure of the PVS 4100 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.



## Features

- Optional harness unit for suspending samplers (e.g. in sewage systems).
- 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 (over 3 ft/sec for sample lifts of up to 20 ft), meaning more accurate samples, even of solids over high lifts.
- Composite or discrete options, taking samples into anywhere from one to twenty-four containers.
- Built to last, in our CSA-certified shop.
- Two-year warranty.

CODE	TYPE	CODE
C	COMPOSITE (INCLUDES SAMPLE CONTAINER CODE "B")	C
D	DISCRETE (INCLUDES SAMPLE CONTAINER CODE "D")	D
<b>CODE   MICROPROCESSOR</b>		
M	MULTI-FUNCTION INPUT CONTROLLER (STANDARD)	M
X	SPECIAL SOFTWARE	X
<b>CODE   METERING CHAMBER ASSEMBLY - (ACRYLIC STANDARD)</b>		
1	3/8 ID. X 500CC. (STANDARD)	1
2	5/8 ID. X 500CC. (COMPOSITE ONLY)	2
9	SPECIAL	9
<b>CODE   THIS CODE ALLOTTED FOR FUTURE DEVELOPMENTS</b>		
S	STANDARD	S
<b>CODE   SAMPLE CONTAINER - (NALGENE STANDARD)</b>		
B	8 LITRE (2 U.S. GALLONS) STANDARD WITH COMPOSITE	B
D	24 X 500CC. (1 U.S. PINT) STANDARD WITH DISCRETE	D
X	SPECIAL	X
<b>CODE   ENCLOSURE</b>		
1	STANDARD	1
9	SPECIAL	9
<b>CODE   OPTIONS</b>		
I	115 VAC ONLY	I
J	115 VAC / 12 VDC WITH INTEGRAL BATTERY CHARGER & CABLE	J
K	EXTERNAL 12 VDC SUPPLY CABLE	K
L	S.S. SUSPENSION HARNESS	L
N	S.S. INTAKE HOSE STRAINER	N
X	SPECIAL	X

Partial nomograph. For a complete listing contact Southwell.

# SIRCO PVS 4100 PORTABLE SAMPLER

Sampler		Vacuum System	
<b>Height</b>	31.875 inches      809 mm	<b>Pinch Valve</b>	Fixed – normally open
<b>Body Case Diameter</b>	16.85 inches      428 mm	<b>Purge Cycle</b>	Adjustable – 5 to 99 seconds
<b>Diameter (incl. handles)</b>	18.7 inches      475 mm	<b>Suction cycle</b>	Variable – adjusts automatically to double the input value of the purge time setting or until liquid contacts level electrode in metering chamber
<b>Weight (incl battery)</b>	60 lbs      27.2 kg	<b>Sample Volume</b>	Adjustable, 50cc to 500cc
<b>Enclosure</b>	Molded medium density linear polyethylene, 3 piece construction and all SS fittings.	<b>Sample Transport Velocity</b>	Minimum of 3 ft/s at 20 ft of lift (3/8" ID intake) Minimum of 3 ft/s at 16 ft of lift (5/8" ID intake)
<b>Supply Voltage</b>	<b>Integral Battery:</b> 12 Vdc <b>External receptacle:</b> 12 Vdc * 120 Vac/12 Vdc with integral battery charger and power cable	<b>Metering Chamber</b>	Acrylic 500cc, 100cc calibration * Pyrex 500cc, 100cc calibration
<b>Cooling System</b>	Insulated container wall Cavity space for ice	<b>Metering Chamber Cover</b>	Nylon * Teflon reinforced top
Controller		<b>Volume Control Tube</b>	316 stainless steel
<b>Display</b>	2x16 character backlit LCD	<b>Metering Chamber Level</b>	316 stainless steel
<b>Touchpad</b>	16-key, calculator-type with multi-level menus	<b>Electrode</b>	
<b>Start Delay</b>	Disabled; Time/Day; Pulse Count; 4-20mA (0-100 pulses/minute); External Contact; Level Control	<b>Intake Hose</b>	Nylon reinforced PVC (3/8"ID by 25' c/w sinker) * Nylon reinforced PVC (5/8"ID by 25' c/w sinker) * Teflon lined PVC (1/2"ID by 25' c/w SS sinker)
<b>Sample Initiation</b>	Disabled; Interval Time; Pulse Count; 4-20mA (0 to 100 pulses/minute); External Contact	<b>Discharge Hose</b>	Latex, 3/8" ID * Latex, 5/8" ID * Silicone, 3/8" ID * Silicone, 5/8" ID
<b>Program Type</b>	Composite; Multi-Composite; Consecutive; Daily Cycle; Timed Step	<b>Sample Containers (composite only)</b>	* 2 US gallon (8 litre) high density polyethylene * 2.5 US gallon (10 litre) glass
<b>Clock</b>	Real Time clock & operating system	<b>Sample Container (discrete only)</b>	24 x 500cc polyethylene
<b>Direct Function Keys</b>	Manual sample; Manual purge; Manual bottle advance; Restart		
<b>Switches</b>	Controller "on/off" (SPST toggle)		
<b>Available displays</b>	Real time clock; Process timing; Process totals; Pulse counting; Event response; Multi-level descriptions; Flashing prompts; Diagnostics		
<b>Automatic displays</b>	Container Full; Fault; Power Interrupt (program resumed); Alternating Time Stamp; Cycle(s) abandoned		
<b>Backup Power Source</b>	Internal Lithium battery to maintain program settings & info in the case of power failure		

\* Optional features are marked with an asterix

## Specifications

Effluent/liquid sampling unit is to be of the vacuum-type mode of operation, for the collection of liquids at user-specified criteria. Portable unit will have an enclosure of medium-density linear polyethylene or equivalent. Vacuum system is to include a pressure purge before sampling in order to keep system free from contaminants. Control pad will be able to initiate sampling based on user criteria, including but not limited to 4-20mA, interval time, external contact, and manual override. Sampler to be manufactured in Canada or the United States only, in a CSA-certified shop, and have a two (2) year warranty. Sampling unit to be a PVS 4100 Sirco Sampler manufactured by Southwell Corp, or approved equivalent.

**SIRCO SAMPLERS**

Manufactured by:

**SouthwellCorp**

[www.southwellcorp.com](http://www.southwellcorp.com)

Tel: 604-980-3688

Fax: 604-980-6578

Toll Free: 877-984-7788

[sales@southwellcorp.com](mailto:sales@southwellcorp.com)

[www.sircosamplers.com](http://www.sircosamplers.com)

**USA**

4152 Meridian St. Ste 105 #455  
Bellingham, WA 98226

**Canada**

857 West 3rd St.  
North Vancouver, BC V7P 1E3