



# SOUTHWELL SAMPLERS

## CVS 4200 Indoor Stationary Samplers

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

The CVS 4200 Indoor Stationary Sampler is designed to take samples reliably for years and years with little to no maintenance cost. The upper control section is built of a durable steel enclosure and 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. High transport velocities, larger tube size options, and accurate metering chambers are all benefits of the vacuum system of sampling. Vacuum sampling results in accurate and dependable results, even with high sediment content or rapid velocities at the sample source.

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.

Also available in 3/8" or 5/8" line size, for more difficult sampling situations.



### Features

- Easy-to-use controller constructed to last dependably for decades through most conditions.
- Rapid transport velocities of samples (over 3 ft/sec for sample lifts of up to 20 ft), meaning more accurate samples, even of suspended solids over high lifts.
- All parts are designed to retro-fit previous models for easy upgrading of old samplers!
- Composite or discrete sampling (into one to twenty-four containers), or without the fridge, allowing whatever container suits the user's environment.
- Built to last, in our CSA-certified shop.
- Two-year warranty.

CODE	TYPE	CODE
C	COMPOSITE	C
D	DISCRETE	D
CODE MICROPROCESSOR		
M	MULTI-FUNCTION INPUT CONTROLLER (STANDARD)	M
X	SPECIAL SOFTWARE	X
CODE METERING CHAMBER ASSEMBLY - (ACRYLIC STANDARD)		
1	3/8 ID. X 500CC. (STANDARD)	1
2	5/8 ID. X 500CC. (COMPOSITE ONLY)	2
3	3/8 ID. X 1000CC.	3
4	5/8 ID. X 1000CC. (COMPOSITE ONLY)	4
9	SPECIAL	9
CODE REFRIGERATOR		
N	NON - REFRIGERATED — (STANDARD)	N
R	REFRIGERATED: COMPOSITE — (SMALL)	R
R	REFRIGERATED: DISCRETE & DUAL STATION — (LARGE)	R
W	WIRED — (FRIDGE CIRCUIT READY)	W
CODE SAMPLE CONTAINER - (NALGENE STANDARD)		
A	NONE (STANDARD)	A
B	8 LITRE (2 U.S. GALLONS)	B
C	20 LITRE (5 U.S. GALLONS)	C
D	24 X 500CC. (1 U.S. PINT)	D
X	SPECIAL	X
CODE ENCLOSURE		
1	STANDARD HOOD	1
9	SPECIAL	9
CODE OPTIONS		
B	PRESSURE/VACUUM GAUGE	B
D	OVERFLOW PROTECTION PROBES	D
F	COMMON SAMPLER FAULT OUTPUT	F
N	S.S. INTAKE HOSE STRAINER	N
S	INTEGRAL BATTERY C/W CHARGER	S
V	EXTERNAL VALVE CONTROL OUTPUT	V
W	DUAL STATION	W
X	SPECIAL	X

Partial nomograph.  
For a complete  
listing contact  
Southwell.

# Southwell CVS 4200 Indoor Stationary Sampler

Sampler		Vacuum System	
	<b>Composite / Discrete / Without Fridge</b>	<b>Pinch Valve</b>	Fixed – normally open
<b>Height</b>	55 / 57 / 33 inches 1.39 / 1.45 / 0.59 m	<b>Purge Cycle</b>	Adjustable – 1 to 99 seconds
<b>Width</b>	21 / 24 / 17 inches 0.53 / 0.61 / 0.43 m	<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>Depth</b>	22 / 24 / 18.75 in 0.56 / 0.61 / 0.48 m	<b>Sample Volume</b>	Adjustable, 50cc to 500cc * Adjustable, 500cc to 1000cc
<b>Weight: refrigerated</b>	150 / 200 lbs 68 / 91 kg	<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>Weight: non-refrigerated</b>	70 lbs 32 kg	<b>Metering Chamber</b>	Acrylic 500cc, 100cc calibration * Acrylic 1000cc, 100cc calibration * Pyrex 500cc, 100cc calibration * Pyrex 1000cc, 100cc calibration
<b>Enclosure</b>	Nema 1 general purpose, 14 gauge steel enclosure (upper control section only) with polyester-based powder paint for corrosion resistance.	<b>Metering Chamber Cover</b>	Nylon * Teflon reinforced top
<b>Supply Voltage</b>	<b>Sampling system:</b> 115 Vac / 60Hz or 12 Vdc <b>Refrigeration and heating units:</b> 115 Vac / 60Hz	<b>Volume Control Tube</b>	316 stainless steel
<b>Controller</b>		<b>Metering Chamber Level</b>	316 stainless steel
<b>Display</b>	2x16 character backlit LCD	<b>Electrode</b>	
<b>Touchpad</b>	16-key, calculator-type with multi-level menus	<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>Start Delay</b>	Disabled; Time/Day; Pulse Count; 4-20mA (0-100 pulses/minute); External Contact; Level Control	<b>Discharge Hose</b>	Latex, 3/8" ID * Latex, 5/8" ID * Silicone, 3/8" ID * Silicone, 5/8" ID
<b>Sample Initiation</b>	Disabled; Interval Time; Pulse Count; 4-20mA (0 to 100 pulses/minute); External Contact	<b>Sample Containers (composite only)</b>	* 2 US gallon (8 litre) high density polyethylene * 5 US gallon (20 litre) high density polyethylene * 2.5 US gallon (10 litre) glass
<b>Program Type</b>	Composite; Multi-Composite; Consecutive; Daily Cycle; Timed Step	<b>Sample Containers (discrete only)</b>	24 x 500cc polyethylene * 3 x 1 litre glass * 4 x 1 litre glass * 6 x 1 litre glass * 8 x 1 litre glass * 12 x 1/2 litre glass
<b>Clock</b>	Real Time clock & operating system	<b>Refrigerator</b>	* 5 cu.ft., adjustable to maintain 4° C * 7 cu.ft. (discrete)
<b>Direct Function Keys</b>	Manual sample; Manual purge; Manual bottle advance; Restart		
<b>Alarm Outputs (Independent)</b>	Cycle abandoned [pulse output]; Sample Fault; Container Full		
<b>Status Outputs</b>	Sample taken [pulse output]		
<b>Switches</b>	Run/off (SPST toggle) On/off (5 amp lighted breaker) * Refrigerator on/off * Heater on/off		
<b>Available displays</b>	Real time clock; Process timing; Process controls; Pulse counting; Event response; Multi-level descriptions; Flashing prompts; Diagnostics		
<b>Automatic displays</b>	Container Full; Fault; Interrupt; Alternating Time Stamp; Cycle(s) abandoned		

\* 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. Upper control section will have a protective enclosure of 14 gauge steel with a heat-cured polyester-based powder paint. 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 CVS 4200 Southwell (Sirco) Sampler manufactured by Southwell, or approved equivalent.



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