



## **AS950 All Weather Refrigerated Sampler, 230 V, with heater, 1 - 20 L Bottle**

**Product #:** ASA.CXXX4X11XX  
**AED Price:** Contact Hach

### **Sampling has never been this easy.**

The AS950 All-Weather Refrigerated Sampler is the perfect solution for easy and reliable sample collection in all conditions. With its specially designed air-sensing thermostat, it preserves samples regardless of outside temperatures and conditions, ensuring that your samples are safe and accurate.

In addition to its advanced temperature control, the AS950 All-Weather Refrigerated Sampler features a large, full-color display, intuitive single-screen programming, and USB data transfer capabilities that simplify and streamline the entire sampling process. You can even copy programs from sampler to sampler, eliminating tedious programming and saving time.

Investing in the AS950 All-Weather Refrigerated Sampler gives you the easiest and most intuitive operation, the most convenient data transfer and programming, and the confidence in your sampling process you need, no matter what the weather. Order yours today and simplify your sampling process.

#### **Easiest and most intuitive operation**

The large full colour display and intuitive programming give you access to all your programmable criteria on a single screen - eliminating scrolling through menus and supporting error-free operation.

#### **Most convenient data transfer and programming available**

The AS950 is the only sampler that utilises a USB drive to upload and download data and copy programs from one sampler to another.

#### **Confidence in your sampling process**

The program status screen instantly communicates alarms, missed samples and program progress for quick and easy troubleshooting.

#### **Resists corrosion**

The All-Weather Refrigerated (AWR) sampler base is designed to endure humid and highly corrosive environments, minimising damage caused by corrosive gases, rodents, and standing water to guarantee environmental integrity.

#### **Accurate and consistent sample preservations**

The custom-designed air-sensing thermostat controls temperature in accordance with USEPA and international guidelines, preserving samples regardless of outside temperatures and conditions.

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### **Specifications**

Alarm:	Configurable alarms that show on status screen and are recorded in diagnostics alarm logs. Alarms can be set for system diagnostics and logging such as program end, sample complete, missed samples and full bottle. Channel alarms are setpoint alarms for the recorded measurements (channels), such as pH, level and power supply voltage.
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Automatic shutdown:	Multiple Bottle Mode: After complete revolution of distributor arm (unless Continuous Mode is selected)
	Composite Mode: After preset number of samples have been delivered to composite container, from 1 to 999 samples, or upon full container.
Base Configuration:	230V base w/heater and lock, EU
Base Type:	With controller compartment heater
Bottle Set:	Composite 5.5 gallon polyethylene bottle kit
Certifications:	CE, UL, CSA
Communication capabilities:	USB and optional RS485 (Modbus)
Cooling system:	Top mounted compressor and fan-forced air cooled condenser; 11/5 HP 115 VAC: 115 °C thermal overload protector, 7.1 locked rotor amps; 230 VAC: 120 °C thermal overload protector, 7.6 A peak start current; 3-sided wraparound plate type evaporator; Rigid foam insulation: 7.6 cm sides, 12.7 cm top, 15.2 cm bottom; Lockable lid to prevent tampering with programming; Recovery Time: Sampler temperature recovers to 4 °C within 5 minutes after door has been held open for one minute in 24 °C ambient environment while in an active cooling cycle; Pull Down Time: from 24 °C to 4 °C , 20 minutes; Temperature Control: 4 °C (±0.8 °C)
Data logging:	<p>SAMPLE HISTORY - Stores up to 4000 entries for sample time stamp, bottle number and sample status (success, bottle full, rinse error, user abort, distributor error, pump fault, purge fail, sample timeout, power fail and low main battery).</p> <p>MEASUREMENTS - Stores up to 325,000 entries for selected measurement channels in accordance with the selected logging interval.</p> <p>EVENTS - Ability to store up to 2000 entries in Sample History logging. Records Power On, Power Fail, Firmware Updated, Pump Fault, Distributor Arm Error, Low Memory Battery, Low Main Battery, User On, User Off, Program Started, Program Resumed, Program Halted, Program Completed, Grab Sample, Tube Change Required, Sensor Communication Errors, Cooling Failed, Heating Failed, Thermal Error Corrected.</p>
Diagnostics:	View event and alarm logs as well as maintenance diagnostics
Dimensions:	76 cm x 81 cm x 130 cm
Display:	1/4 VGA, Color; self-prompting/menu-driven program
Factory Installed Options:	RAIN/RS485 PORT
	Accepts Hach Rain Gauge (not included) or can be used as RS485 communications
Housing material:	IP24, low-density Polyethylene with UV inhibitor (Sampler)
Inputs:	One 0/4-20 mA input for flow pacing
Intake:	Strainers: Choice of PTFE and 316 stainless steel construction, or all 316 stainless steel in standard size, high velocity, and low profile for shallow depth applications
	Purge: Air purged automatically before and after each sample;
	duration automatically compensates for varying intake line lengths
	Rinse: Intake line automatically rinsed with source liquid prior to each sample, from 1 to 3 rinses
	Retries or Fault: Sample collection cycle automatically repeated from 1 to 3 times if sample not obtained on initial attempt
Internal clock:	±1 second per day at 25 °C
Languages user interface:	English, French, Spanish, Italian, German, Portuguese, Chinese

Lock function:	Access code protection prevents tampering
Manual sampling:	Initiates a sample collection independent of program in progress
Memory:	Sample history: 4000 records;
	Data log: 325,000 records;
	Event log: 2000 records
Operating mode:	Continuous or non-continuous
Power requirements (Hz):	50 - 60 Hz
Power requirements (Voltage):	230 V
Power supply:	230 V
Probes included?:	No
Programs:	Dual Programs: Up to 2 sample programs can be run sequentially, in parallel, or according to day of week scheduling; enabling a single sampler to function like multiple samplers
Pump flow rate:	4.8 L/min at 1 m vertical lift with 3/8" intake tube typical
Rain gauge input:	No
Refrigeration components and plumbing:	Corrosion protected with conformal all exposed copper tubing is insulated to avoid sweating and condensation
Sample container:	1 x 20 L
Sample interval:	Selectable in single increments from 1 to 9999 flow pulses or 1 to 9999 minutes in one minute increments
Sample pump:	High-speed peristaltic, dual roller, with 0.95 ID x 1.6 OD cm (3/8" ID x 5/8" OD) pump tube;
	Pump body IP37, Polycarbonate cover
Sample transport velocity:	0.9 m/s with 4.6 m vertical lift, 4.9 m of 3/8" Vinyl intake tubing, 21 °C and 1524 m elevation
Sample trigger:	When equipped with flow sensor or pH/temperature sensor or peripheral monitoring options, sampling can be triggered upon an upset condition when field selectable limits are exceeded
Sample volume:	Programmable in 10 mL increments from 10 - 10,000 mL
Sample volume accuracy:	Typical: ±5% of 200 mL sample volume with: 4.6 m vertical lift, 4.9 m of 3/8" Vinyl intake tube, single bottle, full bottle shut-off at room temperature and 1524 m elevation
Sample volume repeatability:	Typical: ±5% of 200 mL sample volume with: 4.6 m vertical lift, 4.9 m of 3/8" Vinyl intake tube, single bottle, full bottle shut-off at room temperature and 1524 m elevation
Sampling mode:	Pacing: Time weighted, Flow weighted, Time table, Flow table, Event
	Distribution: Single bottle composite, multi-bottle composite, multi-bottle discrete, bottles per sample, samples per bottle or a combination of bottles per sample and samples per bottle
Sensor Ports:	0
Sensors:	None
Special Features:	With Heater and Lock
Status messages:	Communicates what program is running, if there are any missed samples, when the next sample will be taken, how many samples remain, number of logged channels, time of last measurement, memory available, number of active channels, if alarms were triggered, when alarms were triggered, active sensors and cabinet temperature
Suction Hose Outer Diameter:	1/4" and 3/8" ID PTFE-lined Polyethylene with protective outer cover available in clear and black.
Temperature:	Operating:
	AWRS: 0 - 50 °C
	AWRS with optional controller compartment heater: -40 - 50 °C
	AWRS with controller compartment heater and AC battery back up: -15 - 40 °C

	Storage: -30 - 60 °C
Tubing:	Pump tubing: 9.5 mm ID x 15.9 mm OD Silicone
	Intake tubing: 1.0 - 4.75 m minimum length, 1/4" or 3/8" ID Vinyl or 3/8" ID PTFE-lined Polyethylene with protective outer cover (black or clear)
User interface:	Chinese, English, French, German, Italian, Spanish, Portuguese
Vertical lift:	8.5 m using 8.8 m maximum of 3/8" Vinyl intake tube at sea level at 20 to 25 °C
Warranty:	24 months
Weight:	86 kg
What's included?:	<p>1 ea. AS950 controller on 230 V All Weather base with controller compartment heater</p> <p>1 ea. Bottle kit (AW010060), includes 1 x 20 L PE bottle w/cap (6494), composite tube support (8838) and full bottle shut-off (8847)</p> <p>1 ea. 7 m vinyl intake tubing (920)</p> <p>1 ea. strainer (926)</p>

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