AS950 PORTABLE SAMPLER

Sampling has never been this easy.

Hach's AS950 sampler controller makes programming, data transfer and operation more intuitive and error-free.

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.

Field convertible for compact or discrete sampling

Weighing only 12.7 kg, the AS950 portable sampler is designed for accuracy and convenience. Quickly switch between composite and discrete sampling in the field. Configurable for single or multiple bottle applications, it is specifically designed for use in 18-inch manholes.

Easy maintenance at low cost

Spring-mounted rollers provide long tubing life keeping maintenance costs low. The desiccant and pump tubing can easily be accessed; the replacement is possible without any tools. The rugged see-through pump cover is made for a quick visual inspection.

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Technical Data*

AS950 Portable Sampler

Housing material	Impact resistant ABS plastic, 3-section construction Double-walled base with 2.54 cm insulation, direct ice contact with bottles (Sampler)

Sample container

STANDARD BASE CAPACITY:

(24) 1 L Polyethylene or 350 mL Glass bottles

(8) 2.3 L Polyethylene or 1.9 L Glass bottles

(4) 3.8 L Polyethylene or 3.8 L Glass bottles

(2) 3.8 L Polyethylene or 3.8 L Glass bottles

(1) 21 L Polyethylene composite bottle or

(1) 15 L Polyethylene composite bottle or

(1) 20 L Polyethylene composite bottle or

(1) 10 L Polyethylene or 10 L Glass composite bottle

COMPACT BASE CAPACITY:

(24) 575 mL Polyethylene bottles

(8) 950 mL Glass bottles

(1) 10 L Polyethylene or 10 L Glass bottle

COMPOSITE BASE CAPACITY:

(1) 21 L Polyethylene bottle

ICE CAPACITY:

Compact Base: 3.9 kg with (24) 575 mL PE bottles

Standard Base: 14.5 kg with (24) 350 mL Glass bottles

Temperature	Operating: 0 - 49 °C Storage: -40 - 60 °C
Power requirements (Voltage)	12 V DC
Dimensions	Standard Base: 50.5 cm x 69.4 cm Compact Base: 44.1 cm x 61 cm Composite Base: 50.28 cm x 79.75 cm
Weight	Standard: 15 kg with (24) 1 L Polyethylene bottles; 14.8 kg with 10 L Polyethylene bottle
	Compact Base: 12.2 kg with (24) 575 mL Polyethylene bottles; 12.9 kg with 10 L Polyethylene bottle
	Composite Base: 15 kg with (1) 21 L Polyethylene bottle

AS950 Controller

Housing material	PC/ABS blend, NEMA 4X, 6, IP68, corrosion and ice resistant (Controller)
Display	1/4 VGA, Colour; self-prompting/menu-driven program
User interface	Membrane switch keypad with 2 multiple function soft keys
Languages user interface	en, fr, es, it, de, pt, zh, tr, hu, cz, pl, ro, hr, el, sl, sk, fi, ru, ja, ko
Lock function	Access code protection prevents tampering
Memory	Sample history: 4000 records; Data log: 325,000 records; Event log: 2000 records
Communication capabilities	USB and optional RS485 (Modbus)
Inputs	One 0/4-20 mA input for flow pacing
Certifications	CE, UL

Subject to change without notice.

Technical Data*

Sampling Features

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

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

Operating mode

Continuous or non-continuous

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

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.

Manual sampling

Initiates a sample collection independent of program in progress

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.

Sample volume

Programmable in 10 mL increments from 10 to 10,000 mL

Sample interval

Selectable in single increments from 1 to 9999 flow pulses or 1 to 9999 minutes in one minute increments

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

Data logging

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).

MEASUREMENTS - Stores up to 325,000 entries for selected measurement channels in accordance with the selected logging interval.

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.

Diagnostics

View event and alarm logs as well as maintenance diagnostics

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Technical Data*

Sample Pump and Strainer

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

Vertical lift

8.5 m using 8.8 m maximum of 3/8" Vinyl intake tube at sea level
at 20 to 25 °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)

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

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 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

Pump flow rate

4.8 L/min at 1 m vertical lift with 3/8" intake tube typical

Internal clock

±1 second per day at 25 °C

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
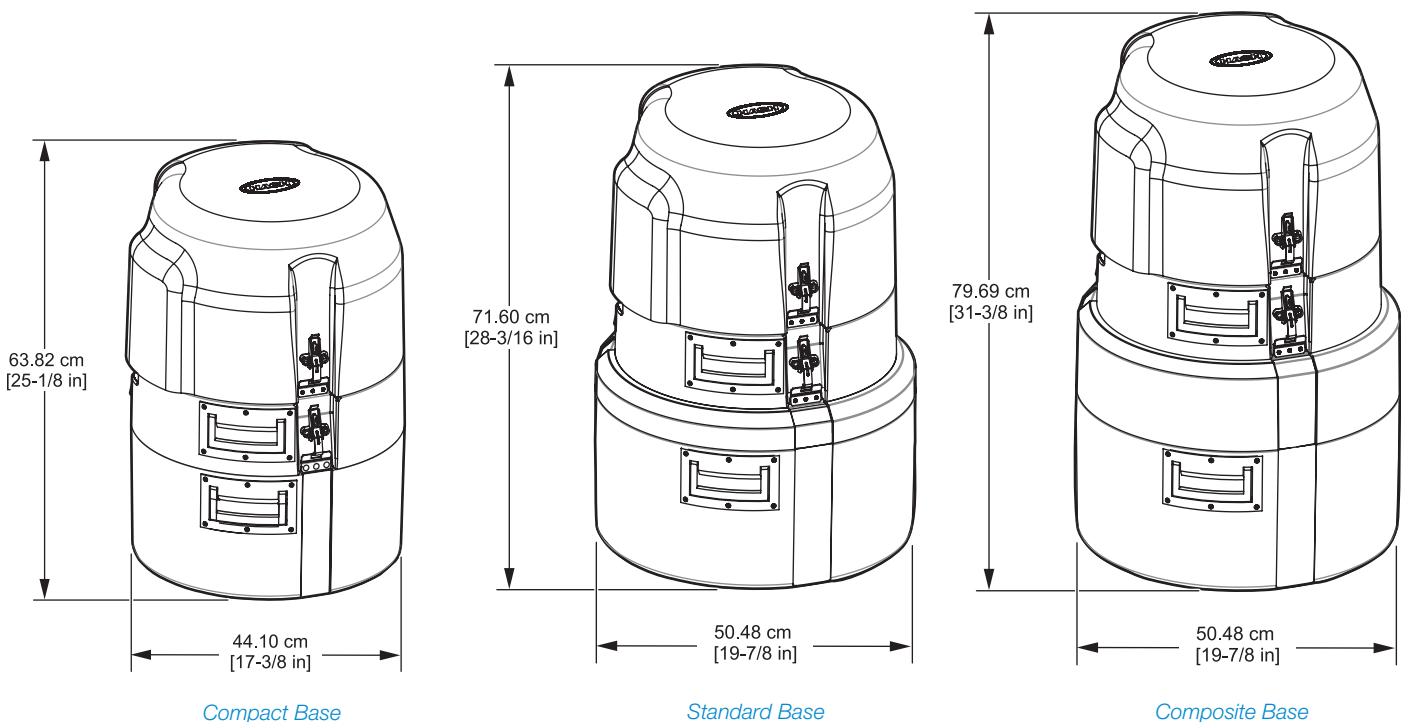
Rinse: Intake line automatically rinsed with source liquid prior to
each sample, from 1 to 3 rinses

Retries or Fault: Sample collection cycle automatically repeated
from 1 to 3 times if sample not obtained on initial attempt

Subject to change without notice.

Dimensions

The AS950 Portable Sampler is designed for indoor or outdoor use. No secondary enclosure is required when operated within the specified
temperature range. The sampler consists of three main sections - the top cover, the center control system, and the bottle/base section
held together by Stainless Steel latches which serve as the connection point for the optional suspension harness. The lockable top cover
protects the controller from extreme weather and unauthorized use.

63.82 cm
[25-1/8 in]

44.10 cm
[17-3/8 in]

Compact Base

71.60 cm
[28-3/16 in]

50.48 cm
[19-7/8 in]

Standard Base

79.69 cm
[31-3/8 in]

50.48 cm
[19-7/8 in]

Composite Base

Order Information

ASP.XXXXXXXXXX	AS950 Portable Sampler
	Portable Sampler with AS950 Controller, available in various configurations and with several factory installed options. Please contact Hach for more information.

Controller and Base Options

8975	Compact insulated base for AS950 Portable Sampler
8976	Standard insulated base for AS950 Portable Sampler
8561	Composite insulated base for AS950 Portable Sampler

Bottle Options and Accessories

1918	10 L Polyethylene bottle, with cap
6494	20 L Polyethylene bottle, with cap
737	Set of (24) 1 L Polyethylene bottles, with caps
1369	Set of (24) 575 mL Polyethylene bottles, with caps
2348	Set of (8) 950 mL Glass bottles, with PTFE-lined caps
2189	Retainer for (24) 350 mL glass bottles
1422	Retainer for (8) 1.9 L glass / (8) 2.3 polyethylene bottles or (24) 350 mL glass / (24) 575 mL polyethylene bottles
2347	Retainer for glass bottles, 950 mL
1502	Container support
8996	Retainer/full container shut-off

Distributors

8582	Distributor with arm for 24 bottle standard base and 12 bottle compact base
8580	Distributor w/ arm for 24 bottle compact base
8584	Distributor w/ arm for 2, 4 and 8 bottle standard base and 8 bottle compact base

Tubing and Strainers

920	7 m Vinyl intake tubing, 3/8" ID
922	7 m PTFE-lined Polyethylene tubing, 3/8" ID (requires Connection Kit 2186)
926	Strainer, PTFE/Stainless Steel
2070	Strainer, 316 Stainless Steel
2071	Strainer, for shallow depth applications, 316 Stainless Steel
2186	Connector Kit, for PTFE-lined Polyethylene tubing
4652	Strainer, high velocity and shallow depth
4600-15	Pump tubing, 4.5 m
4600-50	Pump tubing, 15 m
8964	Pump tube insert
9501400	Pump tube insert, non-contact liquid detect

Factory Installed Options

TWO SENSOR PORTS
Accepts Hach digital Differential pH, Hach digital AV9000 analyser with submerged area velocity flow and/or Hach digital US9000 ultrasonic level sensors

RAIN/RS485 PORT
Accepts Hach Rain Gauge (not included) or can be used as RS485 communications

NON-CONTACT LIQUID DETECT
Sample volume accuracy for applications that require complete tubing replacement

Please contact your local Hach representative for details.

Inputs/Outputs

9494500	IO9001 Module (connects through auxiliary port), includes 1 relay (high voltage)
9494600	IO9004 Module (connects through auxiliary port), includes multiple 0/4-20 mA outputs and inputs

Accessories

1355	Suspension harness (suspends the sampler)
9542	Manhole support bracket/spanner, 18 to 28 inches
9557	Manhole support bracket/spanner, 28 to 48 inches
5713000	Manhole support bracket, 18 to 27 inches
6987	Weatherguard fiberglass enclosure, 89 cm x 89 cm x 86 cm
6992	Weatherguard fiberglass enclosure, 91 cm x 66 cm x 135 cm
8713200	Solar module, w/ 10 W panel and 12 VDC regulator
8754400	12 V Lead Acid battery with 3 pin connector
8753500EU	Charger EU, lead acid, 3 pin, 230 V
8754500EU	Power supply, 3 pin connector, 230 V, EU plug
9504700EU	USB cable, A to A (EU)

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