

HACH SIGMA SD900 PORTABLE SAMPLER



Applications

- Drinking Water
- Wastewater
- Beverage
- Collection Systems
- Field Use
- Industrial Water
- Pharmaceutical
- Power

Your sampling solution for ease of use, reliability, and low maintenance cost.

The Hach Sigma SD900 Portable Sampler sets up easily and quickly in the field. Reduced maintenance and reliable results are assured. Obtain and preserve a repeatable sample volume at a timed interval or after a predetermined volume of flow.

Easy to Use

Large, universal icon keys make set up simple, reducing program errors. The large, 5-line, transreflective LED backlit display stays readable in bright or subdued lighting. Desiccant is easily accessed from the side of the controller—no need to remove the sampler from its base.

Reliable Peristaltic Pump Technology

The SD900 uses a positive displacement peristaltic pump. The improved pump means fewer clogs and exceptional performance, even at heights up to 25 feet. Spring-loaded rollers reduce wear and tear on the pump and tubing.

Reduced Maintenance

The pump tubing life is twenty times longer than other samplers, reducing downtime and maintenance costs. The desiccant tube—mounted on the side of the controller—and the pump tubing are readily accessible and can be changed in minutes with no disassembly.

Applications and SDI-12 Communications

The SD900 sampler is ideal for NPDES stormwater compliance, stormwater runoff monitoring, pretreatment compliance, CSO studies and monitoring, industrial wastewater discharge, and WWTP process control. The optional SDI-12 functionality allows communication with sondes.

Durable, Heavy-Duty Construction Tolerates Harsh Environments

The tough ABS/PC exterior of the SD900 controller is tightly sealed to withstand humidity and hostile, corrosive environments. The NEMA 4X, 6, IP67 housing isolates all electromechanical components. The keypad, switches, and display are covered by a waterproof, corrosion-resistant polyester membrane. The sealed connectors and pump shaft seal further ensure the unit's environmental integrity.

Data Management at Your Fingertips

Use Hach's SampleView™ software to view and download sample history to a computer, save templates, upgrade firmware in the field, and download event logs. Reduce time for manual recordkeeping.

Specifications*

General

Controller Housing	High impact injection-molded, ABS/PC plastic
Base Housing	Impact resistant ABS plastic
Temperature	General Use: 0 to 50°C (32 to 122°F) Storage: -30 to 60°C (-22 to 140°F)
Certification	Controller: CE Optional AC Power Supply: UL/CSA/CE Optional Battery: CE
Power Requirements	12 Vdc supplied by optional a/c power supply or battery Average current with pump running: 2 Vdc
Internal Battery	Lithium ion battery (maintains real time clock for five years minimum)
Internal Clock	Indicates real time and date
Graphics Display	128 x 64 dot matrix backlit LCD, visible in direct sunlight
User Interface	Self prompting/menu driven program 13-key embossed keypad including power key, 4 function keys, 8 navigation keys, and LED indication
Data Logging	Store up to 510 entries in Sample History log
Overload Protection	Internal software-protected 7 amp fuse
Diagnostics	Tests pump, distributor, keypad, LCD, and liquid detect calibration
Program Languages	English, Spanish, French, German, Italian, Czech, Turkish, Portuguese

Program Lock	Access code protection prevents tampering of program and system settings
Program Delay	Programmable sampler start time/date or programmable number of counts to expire before program can start
Dimensions	<i>Standard Base:</i> 50.5 x 69.4 cm (19.9 x 27.3 in.) <i>Compact Base:</i> 44.1 x 61 cm (17.4 x 24 in.) <i>Composite Base:</i> 50.28 x 79.75 cm (19.8 x 31.4 in.)
Capacities	<i>Standard Base Capacity</i> (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; or (1) 15.1-L (4-gal.) polyethylene composite bottle; or (1) 20.8-L (5.5-gal.) polyethylene bottle; or (1) 9.5-L (2.5-gal.) polyethylene or glass bottle; or (1) 9.5-L (2.5-gal.) glass bottle <i>Compact Base Capacity</i> (24) 575-mL (1.2-pint) polyethylene bottles; (8) 950-mL glass bottles (1) 9.5-L (2.5-gal.) polyethylene or glass bottle

Continued on next page.

Weight

<i>Item</i>	<i>Kilograms</i>	<i>Pounds</i>
Standard Base Configurations:		
with (24) 1-L polyethylene bottles	15	33.1
with (1) 2.5-gal. polyethylene container	14.8	32.6
Compact Base Configurations:		
with (24) 575-mL polyethylene bottles	12.2	26.9
with (1) 2.5-gal. polyethylene container	12.9	28.4
Composite Base Configurations:		
with (1) 5.5-gal polyethylene container	15	33.1
Top cover	1.29	2.85
Center section with controller	8.71	19.20
Distributor	0.75	1.65
Compact base	2.47	5.45
Standard base	3.88	8.55
20-L (5.5-gal.) polyethylene bottle without liquid	1.77	3.90
15-L (4-gal.) polyethylene bottle	1.45	3.20
10-L (2.5-gal.) polyethylene bottle	1.32	2.90
(24) 1-L polyethylene bottles with retainer	2.49	5.50
(24) 575-mL (1.2 pint) polyethylene bottles with retainer	1.45	3.20
(12) 950-mL (2 pint) glass bottles with retainer	4.58	10.10

Specifications* *continued*

Communications

EPROM Flash Memory	Via RS-232 Permits embedded software upgrades in the field
Serial Interface	RS-232 compatible 115 200 baud maximum Allows on-site collection of stored data
SDI-12 Connectivity	Plug-and-play interface to Hydrolab DS5 and MS5 sondes to provide measurement data in setpoint sampling applications
SampleView Data Management Software	Download, analyze, and report data, save templates, download sample history and event logs, create graphs for reports and presentations. Link directly to PC using serial port and DB 9 cable. Perform firmware upgrades in field.

Sample Pump, Intake Tubing, and Intake Strainer

Sample Pump	High speed peristaltic 4 rollers with spring tension 0.95 ID x 0.16 OD cm 3/8 ID x 5/8 in. OD) pump tube
Pump Enclosure	Rugged, corrosion-resistant polycarbonate door, high impact-resistant, rated IP37, polyphenylene sulfide track
Vertical Lift	Minimum 8.5 m (28 ft.) suction head using 29 ft. of 3/8-in. vinyl intake tube at sea level at 20 to 25°C

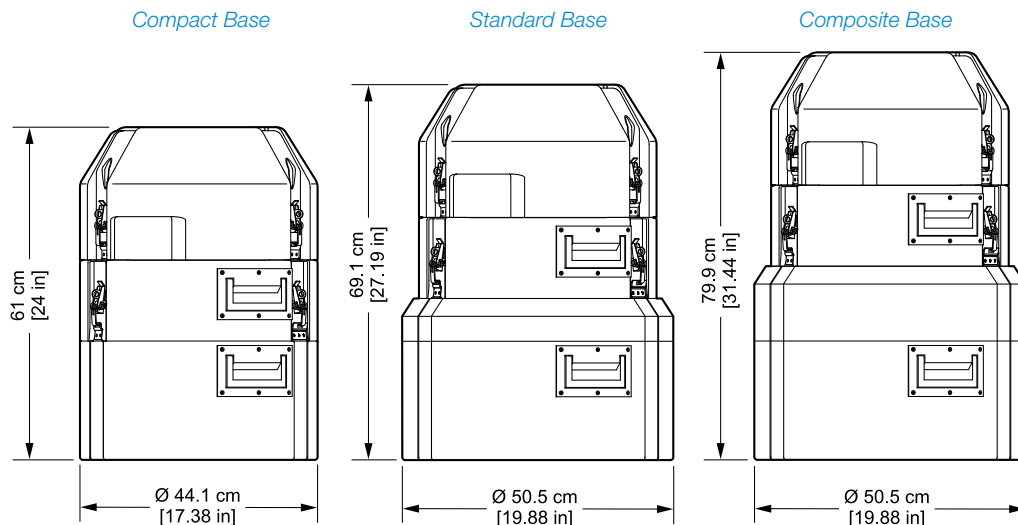
Sample Transport Velocity	0.9 m/s (2.9 ft./s) at 4.6 m (15 ft.) vertical lift (16 ft. of 3/8-in. vinyl intake tubing at 70°F, at 5000 ft. elevation)
Pump Flow Rate	80 mL/s at 0.91 m (3 ft.) vertical lift in 0.95-cm (3/8-in.) ID intake line
Liquid Sensor	Ultrasonic
Intake Purge	Air purged automatically before and after each sample Duration automatically compensates for varying intake line lengths
Intake Rinse	Intake line optionally rinsed with source liquid prior to each sample; from 1 to 3 rinses
Intake Retries or Fault	Sample collection cycle optionally repeated from 1 to 3 times if sample not obtained on initial attempt
Intake Tubing	9.5 mm (3/8 in.) ID vinyl Teflon® lined polyethylene
Intake Strainers	Choice of Teflon and 316 stainless steel construction or all 316 stainless steel in standard size, high velocity, or low profile for shallow depth applications
Solar Power Panel	12 Vdc regulated supply voltage, 5 watts minimum

Teflon® is a registered trademark of DuPont or its affiliates.

**Subject to change without notice.*

Dimensions

The Hach Sigma SD900 Portable Sampler is designed for indoor and 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.



Ordering Information

SD900 Portable Sampler Bundles

Bundles include; 6 amp-hour 12 Vdc battery, 115 Vac power converter/battery charger, sample bottle(s), vinyl intake tubing (25 ft.), and Teflon/stainless steel strainer. To order components separately, please contact Hach.

- 900SDPC1** Compact Portable Sampler with SD900 Controller; includes 10 L (2.5 gal) PE container and full-bottle shut off
- 900SDPC24** Compact Portable Sampler with SD900 Controller; includes 24 575-mL PE bottles with retainer and distributor
- 900SDPS1** Standard Portable Sampler with SD900 Controller; includes 10 L (2.5 gal) PE container and full-bottle shut off
- 900SDPS24** Standard Portable Sampler with SD900 Controller; includes 24 1-L PE bottles with retainer and distributor

Intake Tubing and Strainers

- 922** Teflon-lined Polyethylene Tubing, 25 ft., 3/8 in. ID (requires Prod. No. 2186 Connection Kit)
- 2186** Connector Kit, for Teflon-lined polyethylene tubing
- 920** Vinyl Intake Tubing, 25 ft., 3/8 in. ID
- 2070** Strainer, all 316 Stainless Steel
- 2071** Strainer, for shallow depth applications, all 316 Stainless Steel
- 4652** Strainer, for high velocity and shallow depth applications

Pump Tubing

- 4600-15** Pump Tubing, 15 ft., bulk
- 8753800** Pump Tube Insert, pre-cut length

Power

- 8754400** Lead Acid Battery, with 3-pin connector
- 8753500US** Lead Acid Battery Universal Smart Charger, 3-pin
- 8754500US** U.S. Power Supply, 100-120 Vac, 3 pin

Cables and Interfaces

- 8739400** Power Adaptor Cable; SD900, 2- to 3-pin
- 8757100** Multi-purpose Full Cable, 10 ft., 7-pin, connects SD900 sampler to Hach flow meter
- 8756900** Multi-purpose Half Cable, 10 ft., 7-pin
- 8758200** Sampler or Flow Meter to PC DB9 Cable, 3 m, 7-pin
- 8757500** SampleView CD with PC DB9 cable, 3 m, 7-pin
- 87390SD** SDI-12 Receptacle (factory-installed option)
- 8762400** SDI-12 Cable, for Hydrolab DS5/MS5 to SD900 connection, 50 ft.
- 8762500** SDI-12 Cable, for Hydrolab SD5/MS5 to SD900 connection, 100 ft.
- 8760600** Universal Junction Box, 4-20 mA input

Accessories

- 1355** Suspension Harness, to suspend the sampler
- 9542** Manhole Support Bracket/Spanner, 18- to 28-in.
- 9557** Manhole Support Bracket/Spanner, 28- to 48-in.
- 5713000** Manhole Support Bracket, 18- to 27-in.

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Hach Company reserves the right to alter specifications to equipment at any time.



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