

Hach FL900 Standard (Non-Wireless) Flow Logger



When combined with the Flo-Dar sensor or the AV9000 module, the Hach FL900 Series Flow Logger takes flow monitoring to a whole new level. With features that reduce site time and increase crew safety, the flow monitoring system allows you to easily manage your flow data, as well as your budget.

WW

IW

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Features and Benefits

The FL900 Flow Logger provides users with a reliable, budget saving solution for open channel portable flow monitoring applications. The robust logger's time-saving features will drastically decrease site time and increase safety for monitoring crews. The Logger LED provides instant communication verification of correct site set-up and flow meter communication prior to leaving the site.

Increase Monitoring Crew Safety

With the time saving features designed into the FL900 Flow Loggers, crews spend less time in the manhole and less time on site to decrease monitoring costs while increasing the safety of flow monitoring crews.

Plug and Play Sensor Ports

The FL900 Series Flow Logger is available with 1, 2 or 4 sensor ports. The logger auto-detects the type of sensor connected to allow customers maximum flexibility for their Hach flow sensor inventories.

Easy Installation/Versatile Mounting Options

The logger can be quickly attached to a wall, pole or manhole ladder in minutes. Users can choose to hang logger from standard carabiner or optional 4-bolt wall mount for pole, horizontal or vertical wall mount or ladder rung mount.

Applications

Municipal

- Sanitary Sewer Evaluation Studies
- Collection Systems
- Capacity Studies
- Combined Sewer Overflows
- Inflow and Infiltration (I&I) Studies
- Billing / Custody Transfer
- Plant Influent and Effluent

Industrial

- Process Waste
- Plant Influent
- Plant Effluent
- Non-contact Cooling Water
- Stormwater Monitoring and Compliance

*Requires AV9000 Analyzer module.

DW = drinking water WW = wastewater municipal PW = pure water / power
IW = industrial water E = environmental C = collections FB = food and beverage



Be Right™

Specifications*

Dimensions (W x D x H)

25,4 x 22 x 40 cm (10,0 x 8,7 x 16,0 in.)

Enclosure

PC/ABS structural foam

Environmental Rating

NEMA 6P (IP68)

Weight (Using Model FL900)

4,5 kg (10 lb)—no batteries; 6,3 kg (14 lb)—2 batteries;
8,2 kg (18 lb)—4 batteries

Operating Temperature

-18 to 60°C (0 to 140°F) at 95% RH

Storage Temperature

-40 to 60°C (-40 to 140°F)

Power Requirements

8 to 18 Vdc from batteries

Battery Life at 15 minute logging intervals (at room temperature)

185 days with 4 lantern batteries and a Flo-Dar sensor
306 days with 4 lantern batteries and a Flo-Tote sensor
296 days with 4 lantern batteries and a Sub AV sensor
with AV9000 analyzer module
(4 lantern batteries shall be included with each logger)

Sensor Ports

1, 2 or 4

Connectors

Stainless steel connectors

LED Status Indicator

- Green Flashes every 3 seconds during normal operation.
Flashes every 15 seconds during sleep mode.
- Red Flashes when an attached sensor does not agree with
the logger program, when an expected sensor is not found
or the sensor is not working properly.

Datalog Channels

16 maximum

Logging Intervals

1, 2, 3, 4, 5, 6, 10, 12, 15, 20, 30 or 60 minutes
Primary and secondary intervals for dynamic logging.

Data Storage

Event Log: 1.000 events maximum in non-volatile flash
memory
Sample History: 2.000 sample events maximum in non-
volatile flash memory
Datalog: 325.000 data points; 1128 days for 3 channels at
15-minute log intervals

Local Communication

USB

RS232 (Baud rates: 9600, 19200, 38400, 57600, 115200)

Timebase Accuracy

±0,002%

Supported Sensors / External Devices

Flo-Dar, Flo-Tote 3, Submerged Area Velocity Sensor[†],
and Sigma 950[†], Rain Gauge, Sigma SD900 Sampler (with
FL901, FL902 and FL904 only)

Certifications

Logger: CE

Warranty

2 years

Set-up/Data Retrieval

Flo-Ware for Windows software is required for programming
the logger, data management, and report generation. It is
compatible with desktop/laptop computers utilizing Windows
operating system. Minimum resolution needed is 1024x768.



FL900 Flow Logger meets CE requirements.

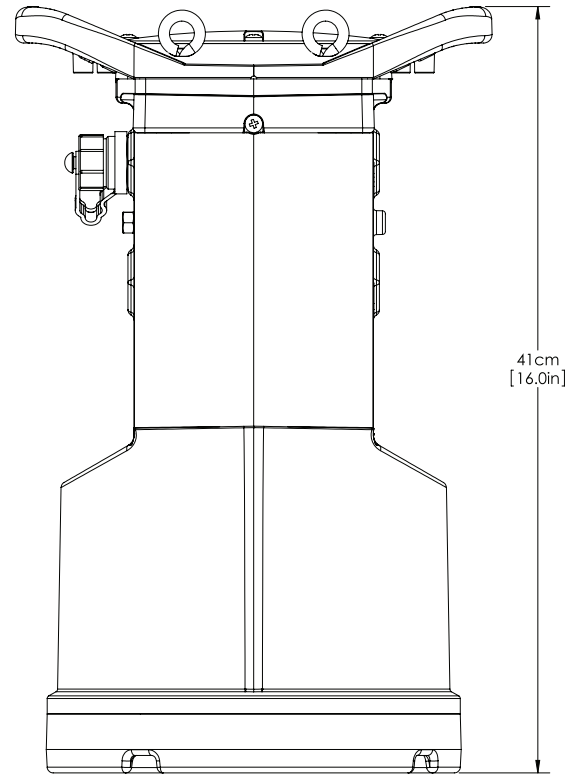
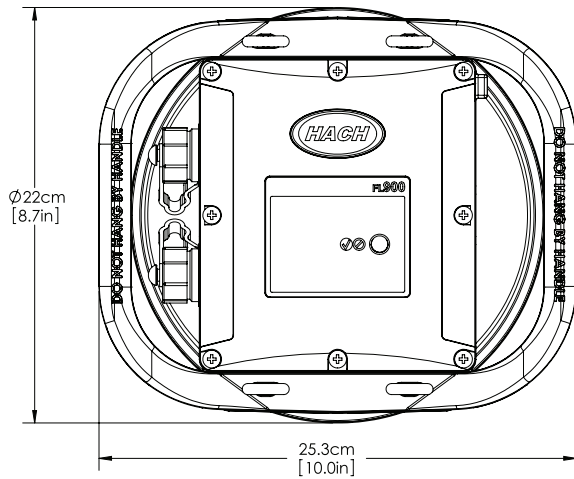
[†]Requires external module.

*Specifications subject to change without notice.

Engineering Specifications

1. Exterior dimensions of the Flow Logger shall be:
25.4 W x 22 D x 40 cm H
(10.0 W x 8.7 D x 16.0 in. H)
2. The Flow Logger enclosure material shall be PC/ABS structural foam with NEMA 6P (IP68) rating.
3. The Operating temperature for the Flow Logger shall be -18 to 60°C (0 to 140°F) at 95% relative humidity and storage temperature of -40 to 60°C (-40 to 140°F).
4. Power requirements of the Flow Logger shall be 8 to 18 Vdc from batteries.
5. The Flow Logger shall have a battery life of 185 days, when using a Flo-Dar sensor, 306 days when using a Flo-Tote sensor, and 360 days when using a Sub AV with AV9000 analyzer module, utilizing 4 batteries at a 15 minute logging interval at room temperature.
6. The Flow Logger shall have 1, 2 or 4 sensor ports and one communications port with stainless steel connector.
7. The Flow Logger shall have primary logging intervals of 1, 2, 3, 4, 5, 6, 10, 12, 15, 20, 30 or 60 minutes.
8. The Flow Logger shall have secondary logging intervals available to modify the logging rate based on a defined channel alarm condition or trigger for dynamic logging.
9. The Flow Logger data storage event log shall be 1,000 events maximum in non-volatile flash memory.
10. Timebase Accuracy of the Flow Logger shall be 0.002%.
11. The Flow Logger shall support the Flo-Dar, Flo-Tote 3, Submerged Area Velocity Sensor and Sigma 950.
12. The Flow Logger shall be able to connect to a lap top or desk top PC using either USB or RS232 serial connection.
13. The Flow Logger shall have an LED indicator for operating /programming status visible on the topmost horizontal surface of the logger.
14. The Flow Logger shall be a Hach FL900 Flow Logger.

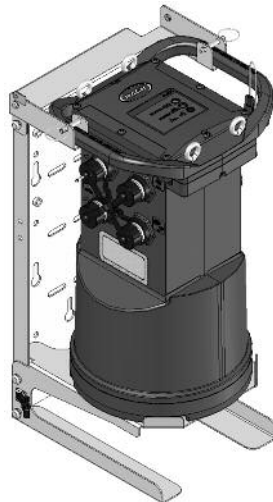
Dimensions



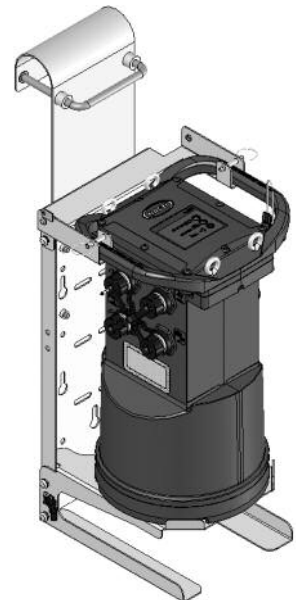
Installation/Mounting Options



*Flow Logger
Suspension Cable with Carabiner
(Standard)*



*Flow Logger Wall Mount
Prod. No. 8542700
(Optional)*



*Flow Logger Ladder Rung Mount
Prod. No. 8544500
(Optional)*

Ordering Information

		Sensor Connector(s)	Country Code	Modem	Rain Gauge
FL90X Electronics (Flow Logger)	Model FL90	—	.98.	—	—
1 Sensor Connector		1			
2 Sensor Connectors		2			
4 Sensor Connectors		4			
None				X	
None					X

Analyzer Modules

FL900AV.98	FL900 Flow Logger with AV9000 analyzer module, 1 sensor port
8531300	AV9000 Digital Analyzer module (required to attach a Sigma Sub AV sensor)
8549800	IM9001 Interface module (required to attach a Sigma 950 flow meter)

Cables

8528200	Cable, Communication, RS232
8528300	Cable, Communication, USB
8528400	Cable, Aux, 7pin MIL 5015 (Connect to Sigma Sampler), 2,7 m
8528401	Cable, Aux, 7pin MIL 5015 (Connect to Sigma Sampler), 7,6 m

Mounting Hardware

9542	Manhole Support Bracket/Spanner; 0,46 - 0,71 m
9557	Manhole Support Bracket/Spanner; 0,71 - 1,2 m
5713000	Manhole Support Bracket; 0,46 - 0,69 m
8544300	Suspension cable, 40 cm
8543800	Wall mount bracket (304 Stainless)
8545600	Wall mount bracket with ladder hanger (304 Stainless)
8542700	Wall mount bracket with AC Power Supply shelf (304 Stainless)
8544500	Wall mount bracket with AC Power Supply Shelf with ladder hanger (304 Stainless)

Replacement Parts

8755500	Desiccant refill beads, Bulk 0,68 kg
11013M	Battery, 6V lantern
8524400	Battery compartment cover
8533400	O-ring for battery cover

For Models with wireless communication option, see Lit. No. 2711

Lit. No. 2709 UK
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Keep it pure.

Make it simple.

Be right.

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In Europe contact:
OTT Hydromet GmbH
Ludwigstrasse 16
87437 Kempten
Tel: +49 831 5617-0
Fax: +49 831 5617-209
E-Mail: info@ott.com
www.ott.com

In the United Kingdom and Ireland contact:
OTT Hydrometry Ltd.
Unit 2 Magnet Business Park
14 High Hazels Road, Barlborough
Chesterfield S43 4UZ
Tel: +44 1246 573 480
Fax: +44 1246 813 873
E-mail: sales@ott-hydrometry.co.uk
www.ott-hydrometry.co.uk

In the United States and all other countries except Europe, contact:
HACH COMPANY
4539 Metropolitan Court
Frederick, MD 21704-9452, U.S.A.
Tel: 800-368-2723
Fax: 301-874-8459
E-mail: hachflowsales@hach.com
www.hachflow.com



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