

Air Sampling Pump

SP209 Series

- SP209-100Dual
- SP209-1000Dual



SP209-100Dual • SP209-1000Dual

Features

For Accuracy Control of Flow Measurement

SP209 can perform two (2) lines sampling at once by two (2) pumps. It also can perform integration of suction and its volume. Flow rate is set to display the value in 20°C conversion.

The Large Flow Rate Range is Covered

1000 type corresponds to the sampling cartridge which suction resistance can be large different by formaldehyde and VOC by one set.

100 type is very high accuracy in low flow rate range and suitable for thermal desorption.

Correspondence to Suction Resistance Change

The suction capability of pumps is adjusted to be able to perform sampling at stable flow rate since it has a function that setting flow rate is maintained even if suction resistance of trapping materials or cartridge is changed. Especially when sampling is performed in a low flow rate range, the pump's revolution speed is getting slower, and noise or consumption power can be down.

Multiple Function

Setup of sampling conditions

A sampling start can be selected from the conditions of Real Time (year, month, day, hour and min) after setting time (minute) progress.

Setup of sampling end conditions

A sampling end can be selected from the lapsed time from a sampling start, the total sampling volume and the conditions of sequencing (it stops manually).

Sampling conditions are saved as file

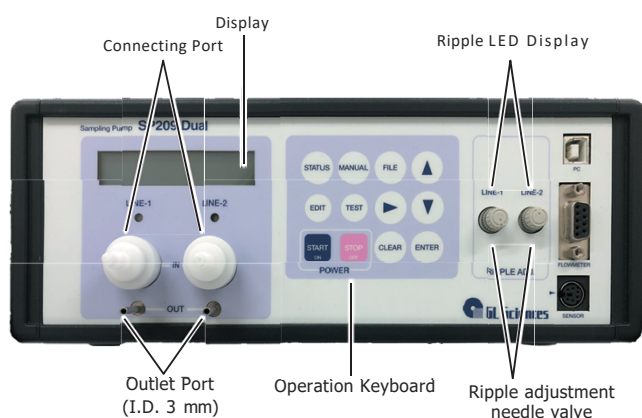
Checking functions can be performed by a personal computer. Software is an option.

Data logging function

It is possible to visualize the sampling results on the PC.

Pulse Adjustment to Obtain Optimal Conditions

In order to obtain optimal conditions between the sampling tube and cartridge friction and the suction capability, the pump pulse is detected and the result is indicated by a three color LED (High, Good, Low). When pulse (High, Low) is displayed, adjust the pulse valve manually till you obtain "Good".



Application



SP209-100Dual (2-100 mL/min)

- Suitable for sampling (solid phase adsorption/thermal desorption) of VOC in indoor air measurement.
- Suitable for sampling of building materials outgassing by micro chamber.

SP209-1000Dual (20-1000 mL/min)

- Suitable for sampling of the formaldehyde in indoor air measurement, and sampling (solid phase adsorption/solvent sampling process) of VOC.
- Suitable for sampling of building materials outgassing by small chamber.

Other Features



• Hose Connections

(standard accessory)

These are hose step connections to which it is possible to connect I.D. 3 mm and 5 mm flexible tubing.



• Filter Joint

It is possible to replace the filter and to connect any kind of joints.



• Cable Connector

The cable connectors have been placed on the front size of the pump to make easier to connect and disconnect the cable.

Specifications

Model	SP209-100Dual	SP209-1000Dual
Suction Flow Rate Range	2 ~ 100 mL/min	20 ~ 1000 mL/min
Flow Rate Measurement Accuracy	10 ~ 20 mL/min (within $\pm 10\%$) 21 ~ 100 mL/min (within $\pm 5\%$)	100 ~ 200 mL/min ($\pm 10\%$) 201 ~ 1000 mL/min ($\pm 5\%$)
Flow Rate Measurement Tolerance	± 1 digit	
Setting Items	Start Condition: Promptly, After setting time, Real time End Condition: After setting time, after reaching to integrating capacity, sequence (manual stop)	
Integrating Range	0.1 ~ 999.9 L	0.1 ~ 9999.9 L
Storage Files	5	
Flow Channels	2	
Operation Temp. Humidity Range	10 ~ 35 °C (10 ~ 30 °C), 20 ~ 80 % RH (No condensation)	
Power Supply	DC12 V (AC adaptor: AC100-240 V 50/60 Hz)	
Power Consumption	DC12 V: 0.5 A AC100 V: 0.15 A AC220 V: 0.08 A	DC12 V: 0.9 A AC100 V: 0.2 A AC220 V: 0.1 A
Weight	3 kg approx.	
Dimension	260 (W) × 230 (D) × 99 (H) mm	

Remarks

- 1) If the suction capability of the pump is too low compared to the cartridge friction, the suction according to the set flow may not be possible.
- 2) When the suction flow of SP209-100Dual is below 10 mL/min, the Flow Rate Measurement Accuracy is out of the range, but it is possible to set the suction flow at 2-100 mL/min.
- 3) When the suction flow of SP209-1000Dual is below 100 mL/min, the Flow Rate Measurement Accuracy is out of the range, but it is possible to set the suction flow at 20-1000 mL/min.
- 4) This instrument cannot be used to detect corrosive gasses or used in atmosphere. And its structure is not anti-explosive.

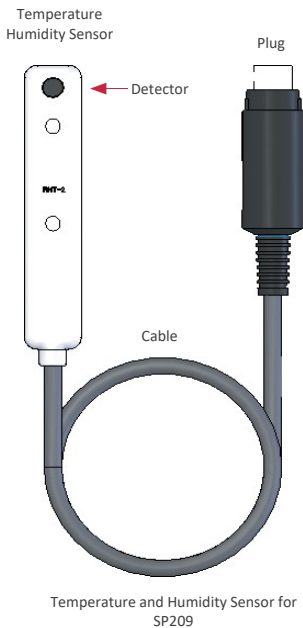
Prices

Description	Qty.	Cat.No.
Air Sampling Pump SP209-100Dual	1	2702-17590
Air Sampling Pump SP209-1000Dual	1	2702-17595
SP209 Dual Filter Element	10	2702-37632

SP209 Options

Temperature and Humidity Sensor for SP209

Temperature and Humidity Sensor for SP209 can be connected to the SP209 to record temperature and humidity at the same time.



Specifications

Humidity range	0 ~ 100 % RH*
Humidity accuracy	± 3 % RH25 °C (20 ~ 80 % RH)
Temperature range	-30 ~ 80 °C*
Temperature accuracy	± 0.5 °C (25 °C)
Case material	PC

* This is not the operation temperature and humidity of this device.

Price

Description	Qty.	Cat.No.
Temperature and Humidity Sensor for SP209 Dual	1	2702-35475

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GL Sciences, Inc. Japan

22-1 Nishishinjuku 6-Chome
Shinjuku-ku, Tokyo,
163-1130, Japan
Phone: +81-3-5323-6620
Fax: +81-3-5323-6621
Email: world@glsc.co.jp
Web: www.glsciences.com

GL Sciences B.V.

De Sleutel 9
5652 AS Eindhoven
The Netherlands
Phone: +31 (0)40 254 95 31
Email: info@glsciences.eu
Web: www.glsciences.eu

GL Sciences (ShangHai) Ltd.

Tower B, Room 2003,
Far East International Plaza,
NO,317 Xianxia Road,
Changning District.
Shanghai, China P.C. 200032
Phone: +86 (0)21-6278-2272
Email: contact@glsciences.com.cn
Web: www.glsciences.com.cn

GL Sciences, Inc. USA

4733 Torrance Blvd. Suite 255
Torrance, CA 90503
Phone: 310-265-4424
Fax: 310-265-4425
Email: info@glsciencesinc.com
Web: www.glsciencesinc.com

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Visit our Website at:
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