

For ultra-pure water management in semiconductor and FPD processes

High Sensitivity Silica Monitor SLIA-300

High sensitivity in a compact body for silica analysis of ultra-pure water

The silica concentration in ultra-pure water has an enormous influence on product accuracy and yields in semiconductor and FPD processes. The SLIA-300 High Sensitivity Silica Monitor perfectly meets the need in these industries for measurement below 1 $\mu\text{g/L}$ (1 ppb). It is capable of highly sensitive measurement throughout the full measurement range in a compact, desktop unit. Complete with the highly-reputed basic features, such as high-speed response and self-diagnosis, it boasts performance that takes sensitivity to a new level. The SLIA-300 provides the support you need when it comes to pure-water processes in the fabrication of semiconductors and FPDs.



Features

● High sensitivity and high repeatability

Employing newly-developed, unique cell technology, the SLIA-300 achieves high sensitivity for handling measurements at low concentrations. With a high-speed measurement of five minutes, it guarantees $\pm 2\%$ of full-scale repeatability in a range of 0 to 2 $\mu\text{g/L}$.

● Desktop-type compact design

Newly developed cell technology enables a breakthrough in compact design. Fitting into small spaces, it is able to accommodate a wider range of installation conditions. Its portability also allows it to be used in multiple locations.

● Reagent consumption reduced by 80%

Improved cell technology enables reagent consumption to be reduced to one fifth of its predecessor. Less reagent translates to reduced "Cost-Of-Ownership".

● Up to 6-point measurement possible (option)

Supporting multi-point measurement, a single SLIA-300 is able to measure more points. Set anywhere between one and six points.

● Self-diagnosis function checks for running errors

This function monitors and self-diagnoses operational errors relating to sample water and reagent injection, calibration, cell temperature, and lamp operation. If an error arises, the warning lamp illuminates and a text message is displayed.

● Automatic calibration or superior maintainability

Zero calibration is performed automatically prior to each measurement. In addition to verifying light transmission, the effect of turbidity can be corrected.

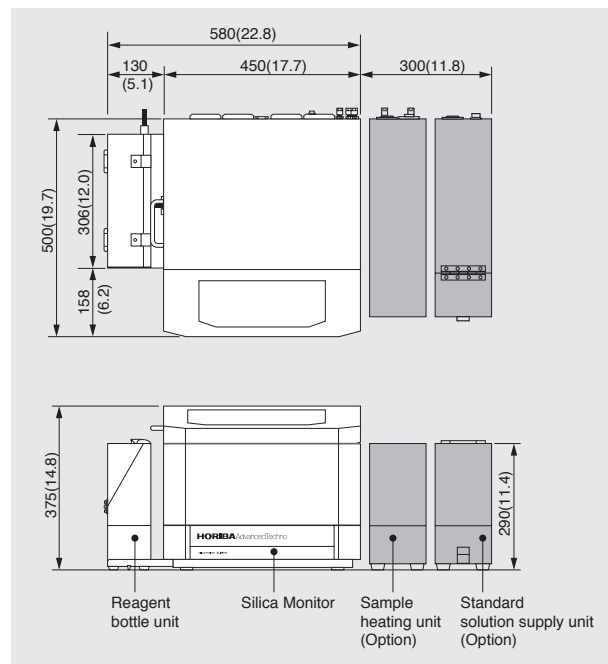
● Reliable light source eliminates need for replacement

The SLIA-300 uses a monochromatic semiconductor light source that provides stable, long-lasting illumination. It can be used as a semi-permanent light source.

Specifications

Principle	Molybdenum blue method	
Measuring range	0 to 2/0 to 20 µg/L or 0 to 5/0 to 50 µg/L (specified when ordering)	
Repeatability	±2% of full scale	
Measuring time	5 minutes	
Measuring cycle	5 to 995 minutes	
Indication	<ul style="list-style-type: none"> Measuring value: 3.5 digits, 7-segment LCD Guidance: 16 characters x 4 lines, dot matrix LCD 	
Measuring point	1 to 6 points (specified when ordering)	
Calibration	Standard calibration solution (from factory)	
Compensation	Blank, Calibration curve (per line)	
Reagent	<ul style="list-style-type: none"> Reagent A: Sulfuric acid + ammonium molybdate Reagent B: Oxalic acid Reagent C: L (+) - ascorbic acid 	
Reagent replacement cycle	1 week (Manufacturer's recommendation)	
Power	100 to 240 V AC, 50/60 Hz	
Power consumption	Approx. 600 VA	
Environment condition	<ul style="list-style-type: none"> Location: Indoor Temperature: 10 to 35 degrees °C Humidity: 85% or less 	
Sample condition	<ul style="list-style-type: none"> Sample water temperature: 15 to 35 degrees °C Flow rate: 250 to 300 mL/min (should be adjustable) Pressure: 0.1 to 0.5 MPa (14.5 to 72.5 psi) 	
Dimension	375 (H) x 580 (W) x 500 (D) mm 14.8 (H) x 22.8 (W) x 19.7 (D) in	
Mass	Approx. 41 kg (additional 1 kg per sampling point)	
External input/output	Output	4 to 20 mA DC, 0 to 16 mA DC, or 0 to 1 V DC (specified when ordering)
	Contact output	<ul style="list-style-type: none"> Measuring lines (common): Measurement, Sync signal, Alarm, Heater, Power-off calibration signal* 1, 2, Upper limit alarm, Sample-off* Measuring lines (individually): Measuring range, Sample-off, Upper limit alarm *marked notes should be specified when ordering.
	Contact input	<ul style="list-style-type: none"> Measuring lines (common): Calibration start, Measurement start, Economy operation, Line selection, Low range measurement, High range measurement
	Serial input/output	RS-232C
Option	Sample heating unit, Standard solution supply unit, Reagent kit	

External dimensions Unit: mm (in)



The HORIBA Group adopts IMS (Integrated Management System) which integrates Quality Management System ISO9001, Environmental Management System ISO14001, and Occupational Health and Safety Management System ISO45001. We have now integrated Business Continuity Management System ISO22301 in order to provide our products and services in a stable manner, even in emergencies.



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