

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.

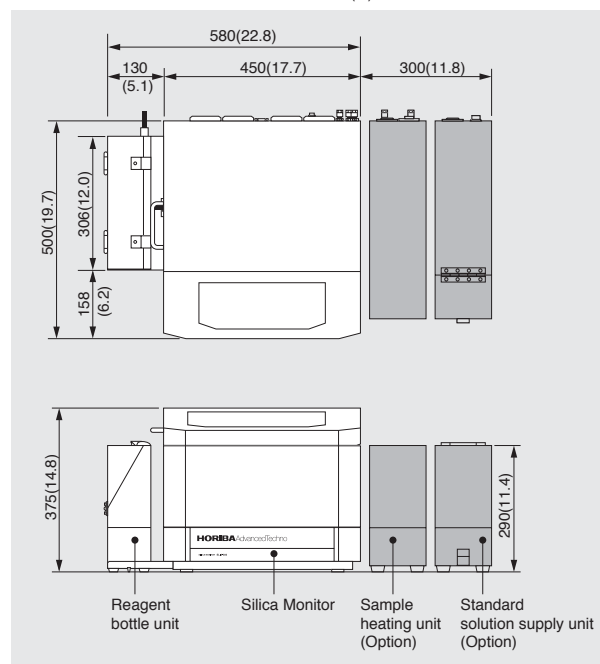
● Reliable light source eliminates need for replacement

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 μ g/L or 0 to 5/0 to 50 μ g/L (specified when ordering)								
Repeatability	\pm 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 $^{\circ}$C Humidity: 85% or less 								
Sample condition	<ul style="list-style-type: none"> Sample water temperature: 15 to 35 degrees $^{\circ}$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	<table border="0"> <tr> <td>Output</td> <td>4 to 20 mA DC, 0 to 16 mA DC, or 0 to 1 V DC (specified when ordering)</td> </tr> <tr> <td>Contact output</td> <td> <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. </td> </tr> <tr> <td>Contact input</td> <td> <ul style="list-style-type: none"> Measuring lines (common): Calibration start, Measurement start, Economy operation, Line selection, Low range measurement, High range measurement </td> </tr> <tr> <td>Serial input/output</td> <td>RS-232C</td> </tr> </table>	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
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Serial input/output	RS-232C								
Option	Sample heating unit, Standard solution supply unit, Reagent kit								

External dimensions Unit: mm (in)



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