



Liquid-borne
Particle Counter
XP-L4

**In-Line Particle Counter for
DI Water Monitoring**



**0.05 μm sensor, D/A converter,
and mass flow controller in a single unit**

- Real-time monitoring of particle contamination in DI water
- Direct installation in DI water line for process monitoring

Particle Counter for DI Water Monitoring XP-L4

Particle Sensor KS-17B

Optical System:	90° sideway light-scattering method
Light source:	Laser diode (wave length: 830 nm)
Material of fluid-contacting parts:	Synthetic quartz, PFA Perfluoro (Fluorocarbon rubber)
Minimum diameter of countable particles:	0.05 μm
Measurement size range:	
2ch (standard):	$\geq 0.05, \geq 0.1 \mu\text{m}$
4ch (option):	$\geq 0.05, \geq 0.1, \geq 0.15, \geq 0.2 \mu\text{m}$
Sample flow rate:	10 mL/min
Measurable particle:	Particle in pure water
Counting efficiency:	$1 \pm 0.3 \%$

Sensor Controller KZ-70

Operation modes:	Monitor mode control mode (Manual/single automatic/repeated automatic measurement mode)
Display items:	Date and time, Sensor information (node number, node type, flow rate, current operation status), measurement data (volume, error, particle size, count), previous measurement data

System configuration:

Particle sensor KS-17B, sensor controller KZ-70, D/A converter XP-10T, flow controller with flow meter, purge air unit, and power supply

Material of fluid-contacting parts:

Synthetic quartz, Perfluoro (Fluorocarbon rubber), PFA (sensor, joints, tubes) PVC, PTFE, PCTFE, Viton, acrylic (flow controller, flow meter)

Sample fluid temperature range:

15 to + 30 °C (no condensation in sensor cell)

Sample fluid pressure range:

100 to 500 kPa (gauge pressure)
(with high pressure check valve)

Ambient conditions for operation:

+ 15 to 30 °C, max. 85% RH (no condensation)

Ambient conditions for storage:

10 to + 50 °C, max. 85% RH
(no condensation, no freezing in sample fluid flow system)

Sample fluid inlet/outlet:

4.0 dia. \times 6.0 dia. or 3.96 dia. \times 6.35 dia.
flared tube joint

Flow controller:

Diaphragm type, flow rate accuracy $\pm 3\%$

D/A Converter

Measurement range:	1, 10, 100, 1 000 particles/mL
Shift averaging mode:	Shift average for 10, 60, or 100 measurements is converted to 4-20 mA output
Instantaneous value mode:	Each measurement is converted to 4-20 mA output
Alarm setting range:	0.1 to 99.9 particles/mL

Output: PRINTER, ALARM, CURRENT, DATA LINK

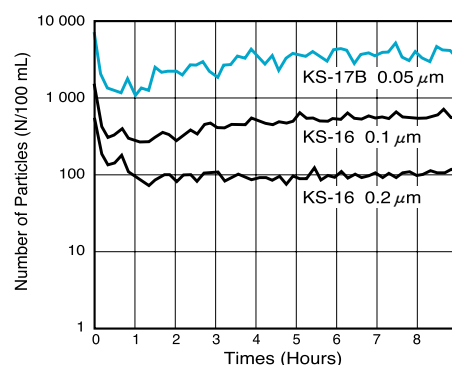
Power requirements: 100 V AC, 60 Hz, approx.
100 VA (220 V AC optional)

Dimensions, weight: 250 (H) \times 321 (W) \times 566 (D) mm
(without protruding parts), approx. 19 kg

Particle measurement in pure water installations

(Comparison between KS-17B and KS-16)

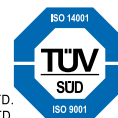
Covers for 0.05 μm particle count and 0.1 μm particle count are well matched.



Class 1 laser product according to IEC 60825-1(2001)

* Specification subject to change without notice.

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ISO 9001 RION CO., LTD.



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