



In-Liquid 0.05 μ m
Particle Sensor *KS-17B*

In-Line Particle Sensor Helps to Manage Particle Contamination in Ultrapure Deionized Water

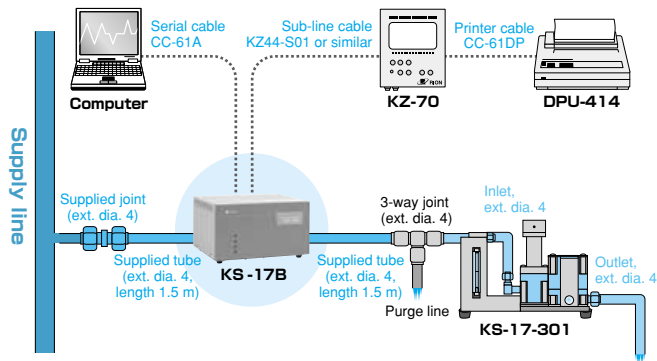


- Can be directly installed in equipment for on-site process control
- Max. Sample pressure is 700 kPa
- Sensor controller KZ-70 can be used for display, operation control, printout with printer, and other functions
- Multi-point monitoring system interface allows control from a computer (also in conjunction with KZ-70) directly
- Allows configuration of multi-point monitoring system (RP Monitor/KF-02B)

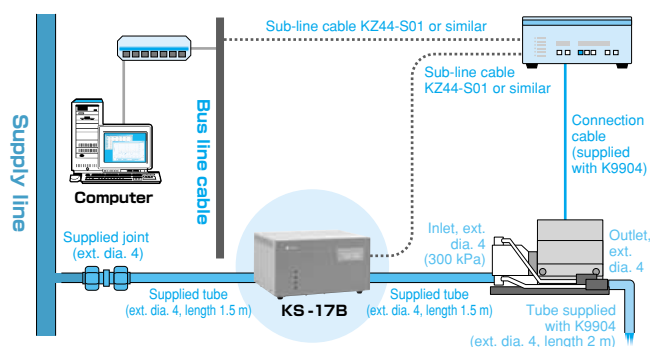
Build a 20 Points Monitoring System With RP Monitor or Cover 248 Points With KF-02B

In-line measurement system examples

In-line system 1 (using mass flow controller)



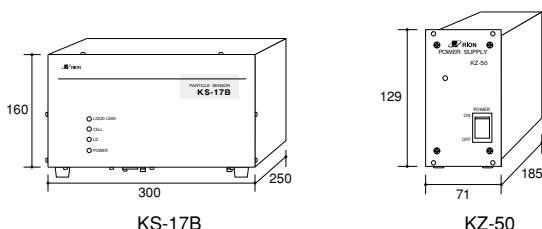
In-line system 2 (using bellows sampler)



Specifications

Optical system	90°sideway light-scattering method
Light source	Laser diode (rated output 200 mW, wavelength 830 ±10 nm)
Laser product classification	Class 1, IEC 60825-1 (2001)
Light detector	Photodiode
Fluid-contacting parts	Synthetic quartz, PFA, Perfluoro (Fluorocarbon rubber)
Allowable sample fluid types	Pure water (For cleaning purposes, fluids which do not corrode the fluid-contacting parts may be passed through the system.)
Calibration	Polystyrene latex (PSL) spheres with refractive index 1.6 in pure water
Particle size classification	Two steps (0.05 μm and above, 0.1 μm and above) * 4 steps available as an option
Counting efficiency	1 ±0.3 % (usage temperature range 20 °C to 25 °C, max. 85 % RH) 1 ±0.5 % (usage temperature range 15 °C to 30 °C, max. 85 % RH)
Rated flow volume	10 mL/min
Maximum particle concentration	100 000 particles/mL (measurement loss 5 % for particles around 0.05 μm)
Sample fluid temperature range	15 °C to 30 °C (no condensation in cell assembly)
Sample fluid pressure range	Max. 700 kPa (gauge pressure)
Fluid connectors	Sample fluid inlet/outlet, dia. 2 × dia 4, flared tube joint
Purge connector	RC 1/8 (1/8 PT female screw)
Power requirements	Powered from AC source (90 V to 250 V) via supplied power supply unit KZ-50 (supplied power cord only for domestic use in Japan at 100 V AC)
Power consumption	40 VA, including power supply unit KZ-50
Ambient conditions for operation	15 °C to 30 °C, max 85 % RH (no condensation)
Dimensions and Weight	
Main unit (KS-17B)	160 (H) × 300 (W) 250 (D) mm, approx. 6 kg (excluding protruding parts)
Power supply unit (KZ-50)	112 (H) × 71 (W) 185 (D) mm, approx. 0.8 kg (excluding protruding parts)

Dimensional drawing (without protruding parts)



Options

Flow Controller With Plate + Flow Meter KS-17-301

Ideal for performing flow control in simple in-line measurement systems.

Fluid type	Pure water
Flow rate	10 mL/minute
Usable pressure	0.075 MPa to 0.5 MPa
Dimensions, weight	124 (H) × 180 (W) × 87 (D) mm, approx. 1.5 kg

Sensor Controller KZ-70

Combines particle sensor control and result display. Suitable for multi-point monitoring systems.

Supported equipment	Particle counters and sensors equipped with RION multi-point system interface (DATA LINK connector)
Operation modes	
Monitor mode	Use as display in sensor multi-point monitoring system
Controller mode	Set measurement time and other parameters and use to control particle counter or sensor operation
Dimensions, weight	190 (H) × 170 (W) × 40 (D) mm, approx. 1.3 kg
Option	Printer DPU-414

Bellows Sampler K9904

Bellows type sampler minimizes loss of precious sample fluid during measurement.

Valve specification	Check valve: mainly for off-line measurements Magnetic operated valve: mainly for off-line measurements Air-operated type: mainly for in-line measurements
Fluid types	Photoresist, pure water, chemicals. When using for chemicals comprising combustible components, sampler interior must be purged with nitrogen gas.
Guaranteed withstanding pressure	0.3 Mpa
Dimensions, weight	190 (H) × 350 (W) × 263 (D) mm, approx. 7 kg (main unit) 106 (H) × 230 (W) × 150 (D) mm (without protruding parts), approx. 2 kg

Monitoring Software

- RP Monitor K9461
Mainly for 1-on-1 particle counter and sensor automatic measurement, data collection, and graph display
- RP Monitor K9462
For small-scale multi-point sensor monitoring systems with up to 20 points
- KF-02B
For large-scale multi-point sensor monitoring systems with up to 248 points



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