

Sensor With 0.1 μm Resolution and
Hydrofluoric Acid Rating for
Inline and Multi-Point Monitoring Applications



Liquid-Borne Particle Sensor KS-16/16F [Compatible with Hydrofluoric acid]

- Five particle channels: 0.1 μm , 0.15 μm , 0.2 μm , 0.3 μm , 0.5 μm and higher
- Direct connection to supply line allows rapid detection of process problems
- Compatible with multi-point monitoring systems

Specifications

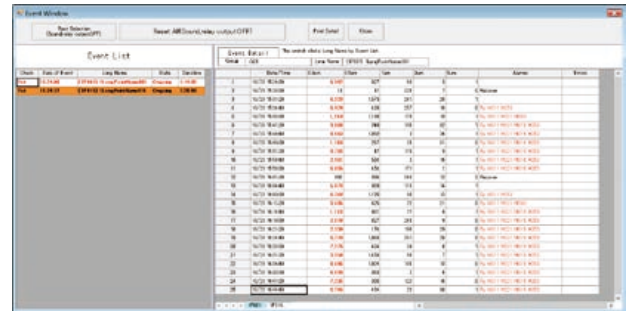
Optical system	Light-scattering method
Light source	Laser diode (wavelength 830 nm, rated output 200 mW)
Laser product class	Class 1, IEC 60825-1
Light detector	Photodiode
Materials of parts exposed to sample	KS-16 : Synthetic quartz, PFA KS-16F : sapphire, PFA
Calibration	Polystyrene latex (PSL) particles (refractive index 1.6) in pure water
Size range (5 channels)	$\geq 0.1 \mu\text{m}$, $\geq 0.15 \mu\text{m}$, $\geq 0.2 \mu\text{m}$, $\geq 0.3 \mu\text{m}$, $\geq 0.5 \mu\text{m}$
Flow rate	10 mL/min
Counting efficiency	KS-16 : 70 \pm 15 % KS-16F : 60 \pm 15 %
Maximum particle number concentration	1200 particles/mL (coincidence loss 5 %)
Sample pressure range	300 kPa (gauge pressure) or less
Sample input/output	2 (dia.) x 4 (dia.) flared joint for tube
Purge air port	Rc 1/8 (1/8 PT female screw)
Environmental conditions for operation	+15 °C to +35 °C, less than 85 % RH (no condensation)
Power	Powered from AC source (90 V to 250 V) via supplied power supply unit KZ-50
Dimensions and weight	
Main unit	110(H) x 240(W) x 150(D) mm (excluding protruding), Approx. 3.5 kg
Power supply unit KZ-50	112(H) x 71(W) x 185(D) mm (excluding protruding), Approx. 0.8 kg
Accessories	Tube A vacuum pack x 1 (2 mm x 4 mm dia. PFA tube with flared joint at one end, 1.5 m x 2, Union joint x 1), Power supply unit KZ-50, Power cable

RP Monitor Evo10 K1701 Ver.2/ Ver.3

Option

Used for controlling particle counters to regulate the start/end of measurement and turn the light source/built-in pump on and off Measurement time, period, number of measurements, alarm, and conversion settings.

Operating system: Microsoft Windows 10 Pro 64 bit



Sample display

Mass Flow Controller

CVR-1/4-FM (Viton)

CVR-1/4-P-FM (Perfluor)

Allowable sample type	Pure water, chemical fluids
Flow	10 to 31.2 mL/min
Pressure used	100 kPa to 400 kPa
Dimensions and weight	Approx. 125 (H) x 185 (W) x 110 (D) mm, Approx. 2.4 kg

(This Mass Flow Controller is products of Surpass Industry Co., Ltd.)



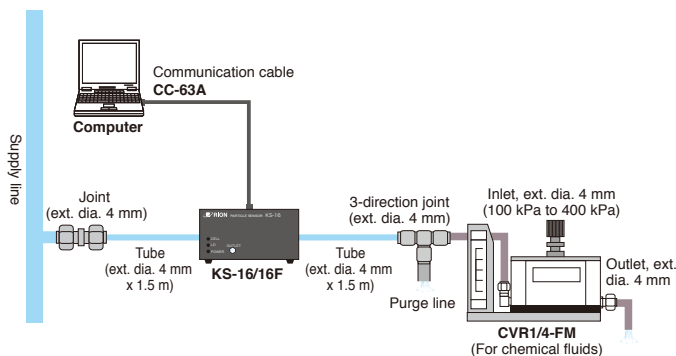
Bellows Sampler K9904A

Maximum discharge volume	15 mL/stroke
External pressure	300 kPa
Fluid viscosity	30 mPa·s (with 10 mL/min)
Power	100 V to 240 V AC, Approx. 20 VA
Dimensions and weight	Approx. 105 (H) x 230 (W) x 150 (D) mm, Approx. 2 kg

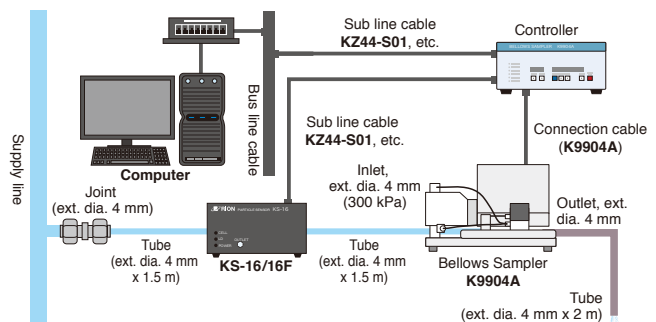


Examples of In-line measurement systems

In-line measurement system 1 (using flow controller)



In-line measurement system 2 (using bellows Sampler)



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