RION

Liquid-borne Particle Sensor KS-17AF

Supports hydrofluoric acid measurement

Sapphire cell for hydrofluoric acid
High-precision measurement of liquid-borne particles as small as 0.06 μm

Optional unit : Controller **KE-40K** (upper left),
Syringe Sampler **KZ-30W1/W2** (right)

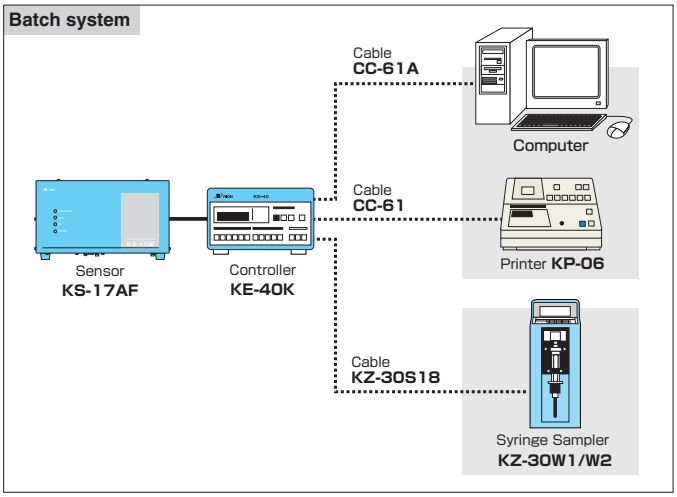
- Together with a sampler and a printer, the unit supports a wide range of applications, from batch sampling setups to in-situ monitoring of chemical supply systems.
- Combination of latest optical technology and monolithic type sapphire cell developed by Rion enables highly stable and precise 0.06 μm measurements.
- Options for previous versions can be used, allowing flexible system design.

Specifications

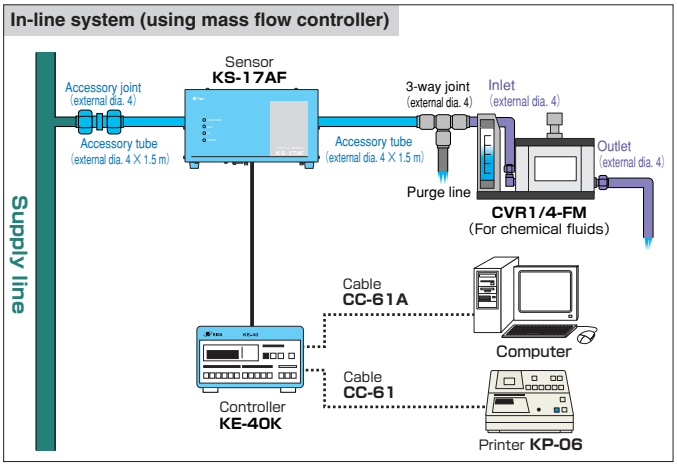
Optical system	Sideway light-scattering method
Light source	Laser diode (rated output 200 mW : wavelength 830 nm)
Laser product classification	Class 1, IEC 60825-1: 2001
Light detector	Photodiode
Materials of component parts exposed to sample fluid	Sapphire, PFA
Allowable sample fluid types	Fluids which do not corrode the fluid contact materials
Calibration	Polystyrene latex (PSL) particles with refractive index 1.6 in pure water
Measurement size range	Two channels (≥0.06 μm, ≥0.1 μm)
Counting efficiency	1.0±0.3 % (ambient temperature 20 to 25 ℃, relative humidity below 85 %)
Sample flow rate	10 mL/min
Maximum particle number concentration	100 000 particles/mL (coincidence loss 5 % for 0.06 μm particles)
Allowable sample fluid pressure	300 kPa or less (gauge reading)
Sample fluid connectors	
INLET	Sample fluid inlet, 2 × 4 dia. flared tube joint
OUTLET	Sample fluid outlet, 2 × 4 dia. flared tube joint
PURGE	Purge gas inlet, Rc1/8 (1/8 PT female)
Power consumption	Max. 40 VA (including power supply unit)
Ambient conditions for operation	15 to 30 ℃, less than 85 %RH (no condensation)
Dimensions·weight	
Main unit KS-17AF	160 (H) × 300 (W) × 250 (D) mm (excluding protruding parts), approx. 6.5 kg

Measurement System

Batch system



In-line system (using mass flow controller)



Options

Controller ***KE-40K***

Specifications

Particle size channels	Max. 6 channels (2 channels with KS-17AF)
Measurement time	1 minute, 10 minutes, manual
Measurement modes	HOLD (retain measurement value until start of next measurement) and REPEAT (automatically restart measurement after 10-second pause interval)
Display	
Numeric display	Particle count (max. 6 digits)
OVER	Lights up when count exceeds 999,999
DATA NG	Lights up when problem was detected during measurement
COUNT	Lights up when measurement is in progress
REMOTE	Lights up when unit is operated under interface control
Interface	Serial interface (standard)
Power requirements	100 to 240 V AC (±10 %), 50/60 Hz, approx. 80 VA (Supplied power cord should be used only for the connection to 100 V AC outlet.)
Dimensions·Weight	Approx. 130 (H) × 240 (W) × 170 (D) mm·Approx. 2.8 kg

Syringe Sampler ***KZ-30W1/30W2***

Supports purge mode and measurement mode when connected to KE-40K.

- In measurement mode and purge mode, up to 50 different setting values can be stored in memory.
- Automatically detects capacity of connected syringe.

Operation modes

Purge mode	Serves for cleaning the fluid system.
Measurement mode	Serves for actual measurement.

(KZ-30W1/W2)

Printer ***KP-06***

- Record measurement values.
- Control particle counter operation for totally automated operation.
- Dimensions·weight: 70 (H) × 170 (W) × 242 (D)mm·1.2 kg

ISO 14001 RION CO., LTD.
ISO 9001 RION CO., LTD.

∗ Specification subject to change without notice.

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