

For Chemical *0.02* μm



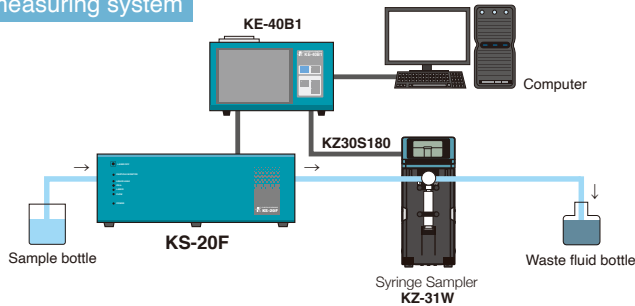
Liquid-Borne Particle Sensor KS-20F

- Detects particles to $0.02 \mu\text{m}$
- User can freely select particle size
Up to 7 channels from $0.02 \mu\text{m}$ to $0.08 \mu\text{m}$
- Sapphire flow cell
- With abundant options, it can be used for both in-line and off-line measurement

Specifications [KS-20F]

Optical system	Light-scattering method
Light source	Diode pumped solid state laser (wavelength 532 nm, rated output 1.5 W)
Laser product class	Class 1, IEC 60825-1
Light detector	Silicon photodiode
Materials of parts exposed to sample	Sapphire, PFA
Calibration	Polystyrene latex (PSL) particles with refractive index 1.6 in pure water
Size range	
Setting range	0.02 μm to 0.08 μm Freely settable 2 to 7 channels can be set with controller
Factory default (4 channels)	$\geq 0.02 \mu\text{m}$, $\geq 0.03 \mu\text{m}$, $\geq 0.04 \mu\text{m}$, $\geq 0.06 \mu\text{m}$
Flow rate	10 mL/min
Counting efficiency	3 %
Maximum particle number concentration	50 000 particles/mL (coincidence loss is 10 % or less)
Sample pressure range	300 kPa or less (gauge pressure)
Sample inlet / outlet	$\phi 2 \text{ mm} \times \phi 4 \text{ mm}$ flared joint for tube
Purge air port	One - touch type joint for $\phi 6 \text{ mm}$ tube
Input / output connectors	
CONTROLLER	For connection of KE-40B1
LIQUID LEAK ALARM	Alarm output terminal shorted during normal operation, connector open when internal leak is detected
Environmental conditions for operation	15 °C to 35 °C, less than 80 %RH (no condensation)
Power	100 to 240 V AC, 50/60 Hz, Approx. 250 VA
Dimensions and weight	235 mm (H) x 552 mm (W) x 340 mm (D) (excluding protruding parts), approx. 18 kg
Supplied Accessories	Tube A vacuum pack x 1 ($\phi 2 \text{ mm} \times \phi 4 \text{ mm}$, Flared PFA tube 1.5 m x 2, union joint x 1), Connection cable A (1 m) x 1, Power cord x 1
Option	Connection cable (2 m) KS-42-126

Example of measuring system



Syringe Sampler KZ-31W

For batch measurement of liquid-borne particle sensor.

*Connecting cable (KZ30S180, option)



Suitable syringe sizes	25 mL
Operation mode	Purge mode (50), Measurement mode (50), (Repeat count setting range) Combination mode (20)
Setting range	5 to 100 mL/min (with liquid-borne particle counter connected)
Power	100 to 240 V AC, approx. 50 VA
Dimensions and weight	Approx. 345 (H) x 141 (W) x 215 (D) mm, Approx. 5.5 kg

Mass Flow Controller

CVR-1/4-FM (Viton)

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



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

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

For operation control of particle sensor and display of measurement data

Controller KE-40B1

- Particle size range can be freely set for up to 10 channels.
 - Built-in printer.
- Measurement data can be stored on memory card (CF card).



Specifications

Display	
Display items	Particle size range (max.10 channels), Count (max. 8 digits)
Controls	Touch panel, Sheet switches
Measurement	
Measurement time	10 seconds to 2 hours, or manual
Measurement modes	Manual measurement Automatic measurement: mean value measurement, moving average measurement, periodic measurement, scheduled time measurement
Alarm	When measured value in a selected channel reaches the preset alarm level, a buzzer sounds and alarm terminals are shorted by relay contacts Maximum connected load: DC 30 V, 1 A
Communication	RS-232C
Printer	Printout of measurement results, date and time
Recording paper	Thermal paper: TP-08, Clean thermal paper: TP-10
Memory	CompactFlash (CF) card*(automatic storage in TSV format)
Power	100 to 240 V AC, 50/60 Hz, approx. 130 VA
Dimensions and weight	140 (H) x 240 (W) x 146 (D) mm (excluding protruding parts), approx. 3 kg
Accessories	Power cord x 1, Thermal paper TP-08 x 2 rolls, Dummy card
Options	Communication cable CC-61A/63A, Thermal paper TP-08, Lint-free thermal paper TP-10, Memory card MC-25CF2 (256 MB), CFcard adapter CFC-ADP03
Factory option	D/A converter interface KE-40-S06

*Use only RION supplied cards for assured operation.

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