

A wide measurement range of particle from 0.2 μm to 2.0 μm .
 Measurements can be made using only small amounts of
 samples due to high counting efficiency.



Liquid-Borne Particle Sensor KS-42B/42BF [Compatible with Hydrofluoric acid]

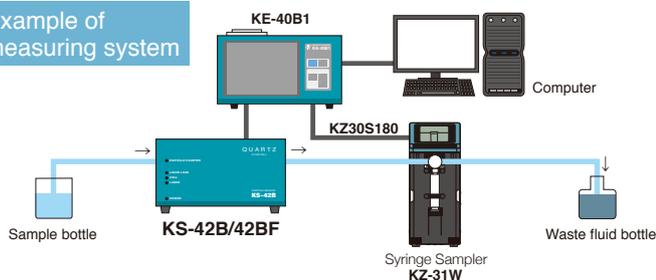
- Detects particles down to 0.2 μm size,
 at a flow rate of 10 mL/min
- Particle size range
 Freely settable from 0.2 μm to 2.0 μm
 (up to 10 channels by KE-40B1)
 Factory default setting : five channels
 ($\geq 0.2 \mu\text{m}$, $\geq 0.3 \mu\text{m}$, $\geq 0.5 \mu\text{m}$, $\geq 1.0 \mu\text{m}$, $\geq 2.0 \mu\text{m}$)
- Integrated leak sensor with alarm output
- A sapphire flow cell is used in KS-42BF
- User selectable channels within measurement range
 (using KE-40B1 function)



Specifications [KS-42B/42BF]

Optical system	Light-scattering method
Light source	Laser diode (wavelength 780 nm, rated output 40 mW)
Laser product class	Class 1, IEC 60825-1
Light detector	PIN type photodiode
Materials of parts exposed to sample	KS-42B: Synthetic quartz, PFA, PTFE KS-42BF: Sapphire, PFA, PTFE
Allowable sample type	Any liquid that does not corrode contacting materials
Calibration	Polystyrene latex (PSL) particles (refractive index 1.6) in pure water
Size range	
5 channels (factory default)	$\geq 0.2 \mu\text{m}$, $\geq 0.3 \mu\text{m}$, $\geq 0.5 \mu\text{m}$, $\geq 1.0 \mu\text{m}$, $\geq 2.0 \mu\text{m}$
User selectable channels	1 channel to 10 channels, setting made from Controller
Setting range	$0.2 \mu\text{m}$ to $2.0 \mu\text{m}$
Counting efficiency	KS-42B, KS-42BF: 70 % to 110 %
Flow rate	10 mL/min
Maximum particle number concentration	1 200 particles/mL (at 5 % coincidence loss for $0.2 \mu\text{m}$ particles)
Sample temperature range	+15 °C to +35 °C (no condensation in the cell part)
Sample pressure range	300 kPa (gauge pressure) or less
Sample inlet/outlet	2 (dia.) x 4 (dia.) flared joint for tube
Purge air port	Rc1/8 (1/8 PT female screw)
Input/output connector	
CONTROLLER connector	Connecting to KE-40B1
LIQUID LEAK	Alarm output terminal shorted during normal operation, open when internal leak is detected
ALARM connector	
Power	DC12 V (supplied by KE-40B1)
Environmental conditions for operation	+15 °C to +35 °C, less than 85 % RH (no condensation)
Dimensions and weight	125 (H) x 240 (W) x 151 (D) mm (excluding protrusions), Approx. 3.2 kg
Accessories	Tube A vacuum pack x 1 (2 x 4 dia. PFA tube with flared joint at one end, 1.5 m x 2, Union joint x 1), Connection cable A (1 m) x 1
Options	Connection cable B (5 m) KS-42-123

Example of measuring system



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 [KE-40B1]

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, Thermal paper TP-08, Clean thermal paper TP-10, Memory card MC-25LC1 (256 MB), CFcard adapter CFC-ADP03
Factory option	D/A converter interface KE-40-S06
*Use only RION supplied cards for assured operation.	

RP monitor EVO K0505 Ver. 2

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

- This software can monitor the same number of particle counters to serial ports when it is installed on a computer that can detect multiple serial ports (COM ports).

Supported OS: Microsoft Windows XP Professional (32 bit), 7 Professional (32 bit)



Sample display

Syringe Sampler KZ-31W

For batch measurement of liquid-borne particle sensor

*Connecting cable (KZ30S180, optional)



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