RION

Ideal for Monitoring 0.15 µm Particles in Photoresist, SOG, and Other Solutions

Liquid-Borne Particle Sensor KS-41A

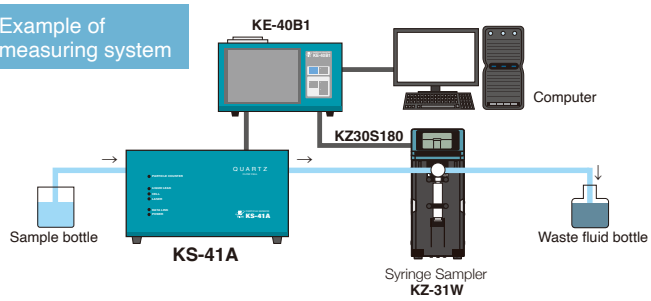
- Detects particles in photoresist down to 0.15 µm size, at a flow rate of 10 mL/min
- Particle size range
  Up to 10 user selectable channels (by KE-40B1) from 0.15 µm to 0.5 µm
  Factory default setting : four channels (≥0.15 µm, ≥0.2 µm, ≥0.3 µm, ≥0.5 µm)
- Integrated leak sensor with alarm output

Specifications [KS-41A]

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	PIN type photodiode
Materials of parts exposed to sample	Synthetic quartz, PFA
Allowable sample type	Fluids which do not corrode the fluid contact materials
Calibration	Polystyrene latex (PSL) particles (refractive index 1.6) in pure water
Size range	
4 channels (factory default)	≥0.15 µm, ≥0.2 µm, ≥0.3 µm, ≥0.5 µm
User selectable channels	1 to 10 channels, setting made from Controller
Setting range	0.15 µm to 0.5 µm
Counting efficiency	50 ±10 %
Flow rate	10 mL/min
Maximum particle number concentration	1 200 particles/mL (at 5 % coincidence loss for 0.15 µm particles)
Sample pressure range	300 kPa (gauge pressure) or less
Sample inlet/outlet	2 (dia.) x 4 (dia.) flared joint for tube
Purge air port	Rc 1/8 (1/8 PT female screw)
Input/output connectors	
CONTROLLER connector	Connecting to KE-40B1
LIQUID LEAK ALARM connector	Alarm output terminal shorted during normal operation, open when internal leak is detected
Power	DC12 V (supplied by KE-40B1 or KZ-51)
Environmental conditions for operation	15 °C to 30 °C, less than 85 % RH (no condensation)
Dimensions and weight	160 (H) x 300 (W) x 251 (D) mm (excluding protruding parts), Approx. 7.5 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) Cleaning brush set x 1, Connection cable A (1 m) x 1

Option	Connection cable B (5 m) KS-42-123

Example of measuring system



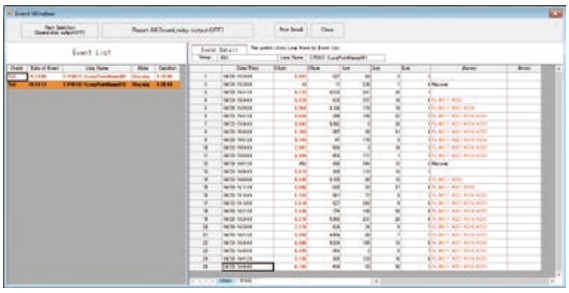
RP Monitor Evo10 K1701 Ver.2

Option

Used for controling particle counters to regulate the start/end of measurement and turn the light source/built-in pump on and off. Available setting parameters include measurement time, period, number of measurements, alarm, and conversion.

- Allows control of up to 8 particle counters in serial mode, using 8 ports.

Operating system: Microsoft Windows 10 Pro 64 bit / 11 Pro 64 bit



Sample display

Syringe Sampler KZ-31W

For batch measurement of liquid-borne particle sensor

∗Connecting cable (KZ30S180, optional)

Multi-Point Unit KZ-51

Power supply unit to connect KS-41A to RION multi-point monitoring 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

Options	Communication cable CC-61A/63A, Thermal paper TP-08, Lint-free thermal paper TP-10, Memory card MC-25CF2 (256 MB)
Factory option	D/A converter interface KE-40-S06

∗Use only RION supplied cards for assured operation.

Distributed by:

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