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
- Four particle size ranges (4 channels, factory default setting)
  ≥0.15 μm, ≥0.2 μm, ≥0.3 μm, ≥0.5 μm
- Integrated leak sensor with alarm output
- User selectable channels within measurement range (using KE-40B1 function)
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 908-2-7
Light detector | PIN type photodiode
Materials of parts in contact with 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 | ≤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
Input/output connectors | PURGE air port Rc 1/8 (1/8 PT female screw)
Sample inlet/outlet | 2 (dia.) x 4 (dia.) flared joint for tube
Sample pressure range | 300 kPa (gauge pressure) or less

Options
- Connection cable (5 m) KS-42-123
- Cleaning brush set x 1
- Connection cable (1 m) x 1
- (2 x 4 dia. PFA tube with flared joint at one end, 1.5 m x 2, Union joint x 1)
- Tube A vacuum pack x 1

Environmental conditions for operation
- Maximum particle number concentration: 1200 particles/mL (at 5% coincidence loss for 0.15 μm particles)
- Materials of parts exposed to sample: Synthetic quartz, PFA
- Light detector: PIN type photodiode
- Laser product class: Class 1, IEC 60825-1
- Light source: Laser diode (wavelength 830 nm, rated output 200 mW)
- Optical system: Light-scattering method

Dimensions and weight
- 160 (H) x 300 (W) x 250 (D) mm (excluding protruding parts), approx. 7.5 kg

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: Automatic measurement: mean value measurement, moving average measurement, periodic measurement, scheduled time measurement
- Alarm: When measured value in a selected channel reaches or exceeds the preset alarm level, a buzzer sounds and alarm terminals are shorted by relay contacts
- Maximum connected load: DC 30 V, 1 A

Communication
- Communication port: RS-232C
- Printer: Printout of measurement results, date and time
- Recording paper: Thermal paper, TP-O8, Clean thermal paper: TP-10
- Memory: CompactFlash (CF) card (automatic storage in TSV format)
- Power: 100 to 240 V AC, 50/60 Hz, 130 VA
- Dimensions and weight: 140 (H) x 240 (W) x 150 (D) mm (excluding protruding parts), approx. 3 kg
- Accessories: Power cord x 1, Thermal paper TP-O8 x 2 rolls, Touch pen, Dummy card

Options
- Communication cable CC-61A, Thermal paper TP-O8, Clean thermal paper TP-10
- Memory card (128 MB) MC-12CF1
- CF card adapter CFC-ADP03

Multi-Point Unit KZ-51

For batch measurement of liquid-borne particle sensor
- Connecting cable (KZ30S180, optional)

Specifications [KZ-41A]

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).

RP monitor K9461 Ver. 2/Ver. 3

Enables automatic control of particle counter, data collection, real-time graph display, filing and printout using a computer
- Enables data processing using spreadsheet software (Windows Excel, etc.)
- Ver.2: Enables one-to-one control of RION particle counters in the RS-232C mode
- Ver.3: Enables development of a multi-point monitoring system using RS-232C/485 converter (max. 20 measurement points)

Syringe Sampler KZ-30W1/30W2

For batch measurement of liquid-borne particle sensor
- Connecting cable (KZ30S180, optional)

Specifications [KE-40B1]

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- Controls: Touch panel, Sheet switches

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Options
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- Memory card (128 MB) MC-12CF1
- CF card adapter CFC-ADP03

Factory option
- D/A converter interface KE-40-S06
- Use only RION supplied cards for assured operation.

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