A highly reliable particle sensor that can measure 0.1 μm particles. Measurements can be made using only small amounts of samples due to high counting efficiency.

Liquid-Borne Particle Sensor
KS-42A/42AF [Compatible with Hydrofluoric acid]

- Detects particles down to 0.1 μm size,
  (≥1.0 μm support available as option)
  at a flow rate of 10 mL/min
- Particle size range
  Freely settable from 0.1 μm to 0.5 μm
  (up to 10 channels by KE-40B1)
  Factory default setting : five channels
  (≥0.1 μm, ≥0.15 μm, ≥0.2 μm, ≥0.3 μm, ≥0.5 μm)
- Integrated leak sensor with alarm output
- A sapphire flow cell is used in KS-42AF
- User selectable channels within measurement range
  (using KE-40B1 function)
Specifications [KS-42A/42AF]

**Optical system**
Light-scattering method

**Light source**
Laser diode (wavelength 830 nm, rated output 200 mW)

**Laser product class**
Class 1, IEC 60825-1

**Power**
DC12 V (supplied by KE-40B1)

**Option**
KE-40B1 (5 m) x 1

**Connection cable**
A (1 m) x 1

**Accessories**
Tube A vacuum pack x 1

**Environmental conditions for operation**
+15 °C to +35 °C, less than 85 % RH (no condensation)

**Dimensions and weight**
125 (H) x 240 (W) x 146 (D) mm (excluding protruding parts), approx. 3 kg

**Error**
The deviation from the true value of the measurement result of the liquid-borne particle sensor is less than ±15 %.

**Sensor types available**
- Synthetic quartz, PFA
- Sapphire, PFA

**Calibration**
Poly(styrene latex) (PSL) particles (refractive index 1.6) in pure water

**Flow rate**
10 mL/min

**Input/output connector**
CONTROLLER connector
ALARM connector
FLOW CELL
LIQUID LEAK
PARTICLE COUNTER

**User selectable channels**
1 channel to 10 channels, setting made from Controller

**Measurement data**
Can be stored on memory card (CF card).

**Printer**
Printout of measurement results, date and time

**Communication**
RS-232C

**Syringe Sampler KZ-31W**
For batch measurement of liquid-borne particle sensor.

**Example of measuring system**

**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 Evo10 K1701 Ver.2**
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 measurement and turn the light source/built-in pump on and off.

**Alarm**
When measured value in a selected channel reaches the preset alarm level, the 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. 150 VA

**Syringe Sampler KZ-31W**
For batch measurement of liquid-borne particle sensor.

**Connection cable**
KE-40B1 (5 m) x 1

**Factory option**
D/A converter interface KE-40-S06

**Option**
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

**Use only RION supplied cards for assured operation.

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ISO 14001 RION CO., LTD.

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