Airborne Particle Counter
KC-32/KC-31
Airborne Particle Counter KC-32/KC-31

Compliant with ISO 21501-4 (JIS B 9921)
Suitable for clean air management in a pharmaceutical manufacturing environment
(Evaluate air cleanliness class according to ISO 14644-1, PIC/S GMP Annex1, EU-GMP Annex 1)
High flow volume provides shortened measurement time which makes the product useful also for electronic device manufacturing sites
Light weight (world top ranking*) and battery powered operation are great for use anywhere

- Particle size range 0.3, 0.5, 1.0, 2.0, 5.0, 10.0 µm
- Approx. up to 5,000 measurement results can be stored in internal memory and can transfer to USB memory afterwards.
- Stainless steel chassis provides improved resistance against chemicals
- Rechargeable lithium ion battery for enhanced environment-friendliness. Two batteries can be inserted to provide extended operation time (unit comes with one battery as standard.)
- 21 CFR Part 11 compliant
- Password based user level management (Administrator/User/Guest), with different available functions
- Operation history can be viewed with supplied software (Log Viewer)
- Selectable display language (English or Japanese)

*KC-32 (minimum particle size 0.3 µm, flow rate 50 L/min, two batteries inserted) equivalent air-borne particle counter, as of April 2012, Rion data
Support for validation works
We can support your validation works (IQ, OQ) for KC-32/31.

Work flow chart

1. Discussion with customers (Confirmation of IQ, OQ)
2. Preparation and approval of IQ, OQ implementation plans
3. Implementation of IQ, OQ operations
4. Preparation of IQ, OQ implementation records

Required documents
- Traceability system diagrams
- Test results reports
- Instruction manuals
- Calibration certificates
- Specification sheets
Specifications

Optical system
- Light scattering method

Light source
- Laser diode (wavelength 780 nm, rated output 100 mW)

Laser product class
- Class 1, IEC60825-1

Light detector
- Photodiode

Flow rate
- 50 L/min

Particle size ranges
- 6 channels: ≥0.3, ≥0.5, ≥1.0, ≥2.0, ≥5.0, ≥10.0 μm

Counting efficiency
- ≥50 % (By PSL particles (near the lower measurable particle size), 100 ±10 % (By PSL particle of 1.5 to 2 times of the lowest measurable particle size)

Maximum particle number concentration
- 10 000 000 particles/cubic meter (coincidence loss within 10 %)

False count
- Max. 4 particles/m³

Max. length of sampling tube
- 10 m (supplied sampling tube is 1 m)

Measurement time/Measurement volume
- Manual, setting range 10 sec to 1 hr (1-sec units)/10 L, 28.3 L, 1 00 L, 283 L, 1 000 L

Measurement display
- Cumulative value, differential value/L, 28.3 L, 1 000 L, no conversion

Alarm function
- Threshold setting range 1 to 99 999 999 particles (1-particle steps)

Security function
- 3-stage permissions level management (Administrator/User/Guest), password based

Display
- 5.7 inch color LCD panel

Display language
- English, Japanese

Operation method
- Touch panel, buttons

Printer
- Built-in; measurement results and measurement parameters can be printed

Count alarm terminals
- Relay contacts, linked to alarm function

Input/output connectors
- USB port 1: Type A, for copying measurement data from internal memory to USB memory media
- USB port 2: Type B, for connection to computer

Ethernet port
- RJ-45, for connection to computer (for details on usage, please contact Rion Corporation.)

Environmental conditions for operation
- 10 °C to 35 °C, less than 85 % RH (no condensation, 30 % to 80 % when using printer)

Power
- AC adapter
- 100 V to 240 V AC, 50/60 Hz
- Approx. 29 VA (when not charging), approx. 82 VA (when charging, max. load)
- Approx. 15 VA (when not charging), approx. 68 VA (when charging, max. load)

Lithium ion battery
- Removable internal battery
- Approx. 15 VA (when not charging), approx. 68 VA (when charging, max. load)
- Max. 2 batteries can be set

Environmental conditions for operation
- With 1 battery: approx. 3.5 hrs, with 2 batteries: approx. 7 hrs
- With 1 battery: approx. 3 hrs, with 2 batteries: approx. 6 hrs

Dimensions and weight
- 203 mm (H) x 260 mm (W) x 266 mm (D) (excl. protruding parts)
- Approx. 3.5 kg (with 1 battery), approx. 6 kg (with 2 batteries)

Supplied accessories
- Sampling tube (plastic, 1 m), constant speed suction probe
- 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

Options
- RP Monitor Evo10 K701 Ver.2

Factory options
- D/A converter interface (with support for 2 particle sizes), Outlet

KC-32/31 Dimensional Drawing (Unit:mm)

Options
- Sampling tube, Spare battery charger, USB memory media, carrying case, USB cable, Thermal paper TP-3A, Unifree thermal paper TP-3B

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