RION

Airborne Particle Counter

KC-22A

0.1 μm, compact and lightweight, high output, uses optical system with excellent stability

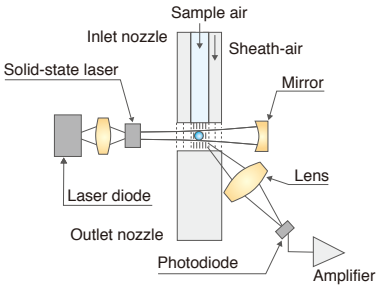
- Compatible with JIS B 9921: 1997
- Diode pumped solid state laser assures exceptional durability
- Equipped with RS-232C interface as standard, enabling automatic computer measurement
- Printer output of measurement results is possible (Printer available as option)

Specifications [KC-22A]

Optical system	Light-scattering method
Light source	Diode pumped solid state laser (wavelength 1 064 nm), open-cavity type
Laser diode	Wavelength 800 nm, rated output power 1 W
Laser medium	Nd: YVO4
Laser product class	Class 1, IEC 60825-1
Light detector	Photodiode
Air flow method	Purified sheath air envelops sample air coaxially
Flow rate	2.83 L/min
Calibration	With polystyrene latex (PSL) particles (refractive index 1.6) in clean air
Minimum particle size	0.1 μm (with PSL particles of refractive index 1.6)
Size range (5 channels)	≥0.1 μm, ≥0.15μm, ≥0.2 μm, ≥0.3 μm, ≥0.5 μm
Maximum particle number concentration	10 000 particles/L (coincidence loss 5 %)
False countrate	One count or less per 5 minutes
Measurement modes	
Manual measurement mode	After being started, measurement continues until a stop command given
Automatic measurement mode	After being started, measurement continues for the preset measurement time
Measurement time	1 to 600 sec
HOLD	Measurement value retained until start of next measurement
REPEAT	After completion, measurement is automatically repeated after pause intervals of about 10 seconds
Numeric display	Particle count (max. 6 digits), alarm level setting, measurement time, protect, error
Input / Output connectors	
EXT terminal	Test I/O terminal
Alarm terminal	ALARM 1 terminals are shorted by relay contact when alarm occurs (max. contact load: 30V DC, 1 A) Alarm level: 1 to 1 000 and alarm off
Serial terminal	RS-232C interface
Environmental conditions for operation	+15 to +35 °C, less than 85 % RH (no condensation)
Power	100 V AC ±10 %, 50/60 Hz, Approx. 80 VA
Dimensions and weight	185 (H) x 155 (W) x 330 (D) mm (excluding protrusions), Approx. 7.5 kg
Accessories	Sampling pipe × 1, Sampling tube (2 m) × 1 Filter × 1, Power cord (for use in Japan, 2.5 m) × 1

Factory options	D/A converter interface (KZ-25L) Outputs particle count of the selected channel converted to 4mA to 20 mA DC current Range: Selection of one of the following: 0 to 10, 0 to 100, 0 to 1 000, 0 to 10 000, 0 to 100 000 0 to 16, 0 to 256, 0 to 4 096, 0 to 40 960, 0 to 409 600

Principle of sensor optical system



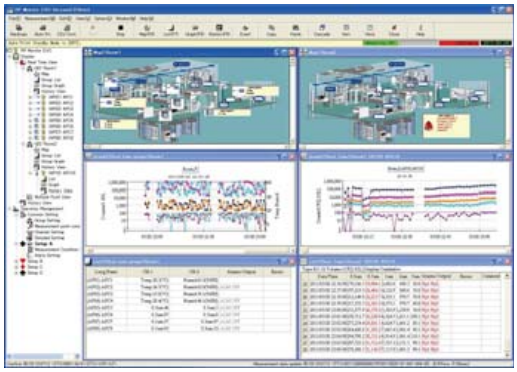
Option

RP monitor EVO K0505 Ver. 2

Used for controling 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, 7 (32 bit)



Sample display

Printer KP-06A

Connect to control particle counter.
Repeats the set number of measurement, calculate and prints the average results.

Specifications

Particle size ranges	Maximum 6 ranges (depending on particle counter)
Measuring results printout items	Date / time, Count for each size range (total only, or single and total values)
Repeated measurement	1 time to 99 times
Usable paper type	TP-08 Thermosensitive paper TP-10 Lint-free thermosensitive paper (58 mm × 30 m)
Power	100 V to 240 V AC, 50/60 Hz, Approx. 20 VA
Dimensions and weight	Approx. 66 (H) × 170 (W) × 242 (D) mm (without protruding parts), Approx. 2.5 kg

Option	Interface cable CC-61A

ISO 14001 RION CO., LTD.
ISO 9001 RION CO., LTD.

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