

2 μm to 100 μm Measurement Range Allows Monitoring of Coarse Particles



Liquid-Borne Particle Sensor **KS-42D**

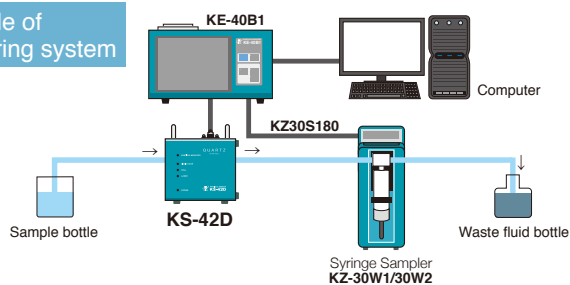
- Detects particles down to 2 μm size, at a flow rate of 25 mL/min
- Eight particle size ranges (8 channels, factory default setting)
 $\geq 2 \mu\text{m}$, $\geq 3 \mu\text{m}$, $\geq 5 \mu\text{m}$, $\geq 7 \mu\text{m}$, $\geq 10 \mu\text{m}$,
 $\geq 25 \mu\text{m}$, $\geq 50 \mu\text{m}$, $\geq 100 \mu\text{m}$
 ($\geq 150 \mu\text{m}$ support available as option)
- Integrated leak sensor with alarm output
- User selectable channels within measurement range (using KE-40B1 function)



Specifications [KS-42D]

Optical system	Light-obscurtion method
Light source	Laser diode (wavelength 780 nm, rated output 5 mW)
Laser product class	Class 1, IEC 60825-1
Light detector	Photodiode
Materials of parts exposed to sample	Synthetic quartz, PFA, Perfluoro (fluorocarbon rubber)
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	
8 channels (factory default)	$\geq 2 \mu\text{m}$, $\geq 3 \mu\text{m}$, $\geq 5 \mu\text{m}$, $\geq 7 \mu\text{m}$, $\geq 10 \mu\text{m}$, $\geq 25 \mu\text{m}$, $\geq 50 \mu\text{m}$, $\geq 100 \mu\text{m}$ ($\geq 150 \mu\text{m}$ support available as option)
User selectable channels	1 to 10 channels, setting made from Controller
Setting range	2 μm to 100 μm
Count efficiency	100 \pm 20 %
Flow rate	25 mL/min
Maximum particle number concentration	10 000 particles/mL (at 10 % coincidence loss for 10 μm particles)
Sample pressure range	-80 to 300 kPa (gauge pressure)
Sample inlet / outlet	2 (dia.) x 4 (dia.) flared joint for tube
Input/output connectors	
CONTROLLER connector	Connecting to KE-40B1
LIQUID LEAK	Alarm output terminal shorted during normal operation, open when internal leak is detected
ALARM connector	
Power	DC12 V (supplied by KE-40B1)
Environmental conditions for operation	5 °C to 40 °C, less than 90 % RH (no condensation)
Dimensions and weight	125 (H) x 140 (W) x 150 (D) mm (excluding protruding parts), Approx. 2.2 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), Connection cable (1 m) x 1
Options	Connection cable (5 m) KS-42-123, Sensor Stand KS-42-S39

Example of measuring system



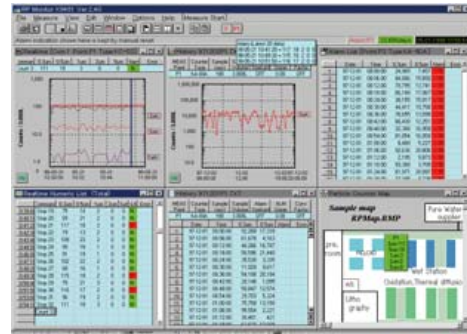
RP monitor K9461 Ver. 2

Option

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.)
- Enables one-to-one control of RION particle counters in the RS-232C mode

Compatible OS: Microsoft Windows 2000/XP



Sample display

Syringe Sampler KZ-30W1/30W2

For batch measurement of liquid-borne particle sensor

*Connecting cable (KZ30S180, optional)



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 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	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, 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-08 x 2 rolls, Touch pen, Dummy card
Options	Communication cable CC-61A, Thermal paper TP-08, Clean thermal paper TP-10, Memory card(128 MB) MC-12CF1/(256 MB)MC-25CF1, CFcard adapter CFC-ADP03
Factory option	D/A converter interface KE-40-S06
*Use only RION supplied cards for assured operation.	

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