



Liquid-Borne **Particle Counter**

[Compatible with Hydrofluoric acid]

KL-28B/28BF

Suitable for Point-of-Use and Inline Particle Monitoring

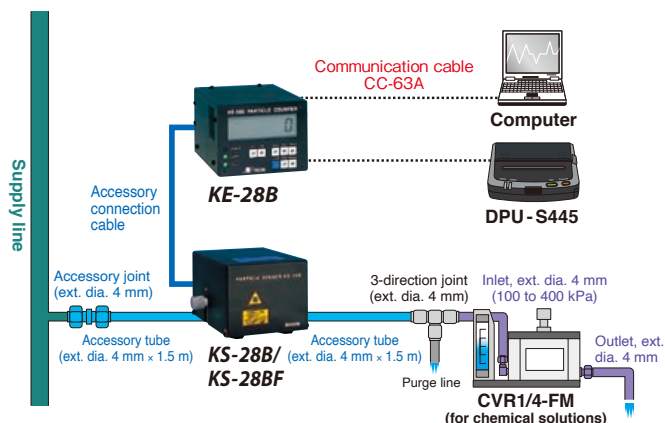


Ideal for particle management in wet process systems

- **Light-weight palm-sized unit delivers high performance**
- **Can be easily integrated anywhere in a wet line**
- **Compatible with real-time multi-point monitoring systems (option)**
- **Supports a wide range of fluids, from pure water to resist and hydrofluoric acid (KS-28BF only)**
- **High detection efficiency around 100 %**

RP monitor EVO K0505 Ver.3 enables configuration of multi-point monitoring system with up to 20 connection points

Example of inline system configuration (using mass flow controller)



Specifications

(KL-28B/28BF are composed of display control unit KE-28B and detection unit KS-28B/28BF)

KS-28B / 28BF

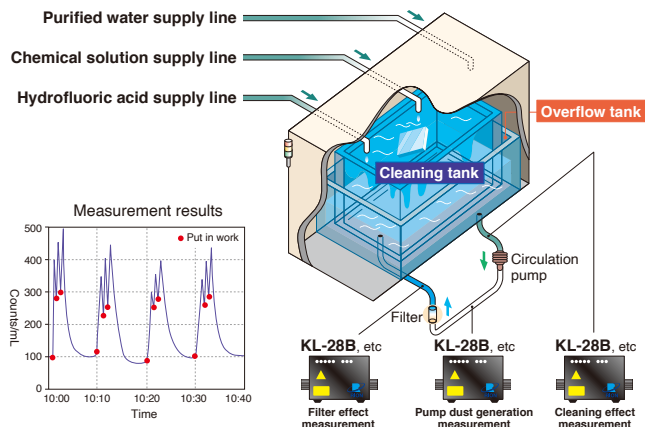
Optical system	Light scattering method
Light source	Laser diode: frequency 780 nm, rated output 40 mW
Laser product class	Class 1, compliant with IEC 60825-1
Light detector	Photodiode
Materials of parts exposed to sample	KS-28B: PTFE, PFA, synthetic quartz KS-28BF: PTFE, PFA, sapphire
Calibration	Polystyrene latex (PSL) particles (refractive index 1.6) in pure water
Size range	0.2 μm, 0.5 μm 2 stages for each particle diameter or more
Flow rate	10 ml/min
Counting efficiency	70 to 110 %
Maximum particle number concentration	1 200 particles/mL (coincidence loss 5 %)
Sample pressure range	300 kPa or less (gauge pressure)
Sample inlet/outlet	Sample intake/discharge 2 mm x 4 mm flared tube joint
Purge air port	Internal diameter 4 mm tube connection
Environmental conditions for operation	15 °C to 35 °C (no condensation)
Power	Supplied by liquid-borne particle counter KE-28B
Dimensions and weight	70 (H) x 85 (W) x 118 mm (D) (excluding joints and other projecting parts), approx. 600 g
Accessories	Tube A vacuum pack x 1 (2 mm x 4 mm dia. PFA tube with flared joint at one end, 1.5 m x 2, Union joint x 1), sensor cable x 1

KE-28B

Size range	2 channels (CH.1, CH.2), particle diameter depends on connection to particle detector
Measured liquid volume	10 ml, 100 ml, random volume (MAN)
Automatic measurement	If the measured liquid volume is 10 ml or 100 ml, selection is possible between single-time automatic measurement and repeated automatic measurement
External terminals	
CONTROL	Used for connection to particle detector
SERIAL	Serial interface terminal (RS-232-C)
Power	12 V DC (connection to 100 V AC using special AC adapter), Power consumption (100 V AC, 23 VA)
Dimensions and weight	65 (H) x 85 (W) x 120 mm (D) (excluding projecting parts), approx. 400 g
Accessories	AC adapter x 1, electrical power cord x 1
Factory option	D/A interface KZ-25G (4-20 mA output) Multi-point monitoring system interface KZ-45MG

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* Specifications subject to change without notice.

Example of cleaning tank inline monitoring



Options

- Mass Flow Controller
CVR-1/4-FM (Viton)
CVR-1/4-P-FM (Perfluor)

Allowable sample type	Pure water, chemical fluids
Flow	10 to 31.2 mL/min
Pressure used	100 kPa to 400 kPa
Dimensions and weight	Approx. 125 (H) x 185 (W) x 110 (D) mm, approx. 2.4 kg

(This Mass Flow Controller is products of Surpass Industry Co.,Ltd.)

- Thermal printer DPU-S445 (Seiko Instruments Inc.)
Measurement data printouts

Printing method	Thermal line dot printing
Imprinted digit count	69
Power supply	AC adapter
Interface	USB, Serial
Dimensions	58 (H) x 145 (W) x 135 mm (D)

- Thermal paper TP-14 (112 mm x 28 m/roll, 6 rolls)
- Lint-free thermal paper TP-26 (112 mm x 25 m/roll, 6 rolls)

- RP Monitor Evo10 K1701 Ver.2/Ver.3

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

Communication cable (CC-61A/63A) Option.

Operating system: Microsoft Windows 10 Pro 64 bit

- D/A Interface KZ-25G

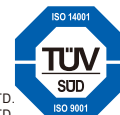
Converts measured particle count data into 4-20 mA current output

- Multi-point monitoring system interface KZ-45MG

Required when combining KE-28B and sensor multi-point monitoring systems



Sample display



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

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