

SPECIFICATIONS

PARTICLE SENSOR

KS-28BF



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Outline

The KS-28BF is a light-scattering particle sensor designed to measure the number concentration of particles in liquids. By connecting it to the liquid-borne particle counter KE-28B, a particle number concentration measurement system can be configured which is capable of measuring particles with a diameter of 0.2 μm and above, and 0.5 μm and above. The sample fluid flow rate is 10 mL per minute. Sample fluid contacting parts are made of sapphire, PTFE, and PFA, allowing direct measurement of hydrofluoric acid solutions.

Since the KS-28BF does not include a provision for adjusting the sample fluid flow rate, a flow controller, external pump, or similar must be used.

For measurement of hydrofluoric acid solutions

The KS-28BF provides high resistance against corrosion by hydrofluoric acid. However, gradual corrosion may occur in some cases. If hydrofluoric acid was left in the unit for a long time, replacement of fluid-contacting parts may become necessary.

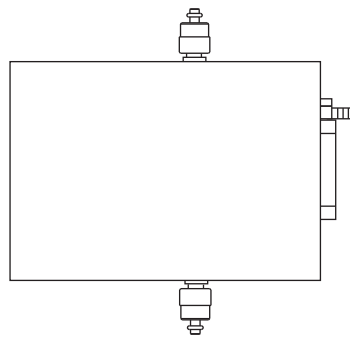
In order to ensure long life of this product, the sample fluid should be removed as soon as possible after measurement and replaced by a suitable fluid that serves to clean the system and does not cause corrosion (such as pure water, alcohol, or similar). When doing this, care must be taken to avoid adverse reactions due to unsuitable fluid combinations.

- * All company names and product names mentioned in this specifications are trademarks or registered trademarks of their respective owners.

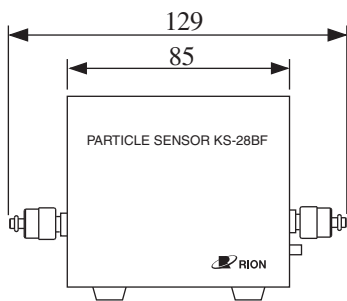
Specifications

Suitable particle counter	Liquid-borne particle counter KE-28B
Optical system	Lateral light-scattering method
Light source	Laser diode (rated output 40 mW; wave length 780 nm)
Laser product class	Class 1, IEC 60825-1:2014
	Internal particle detection mechanism uses class 3B laser
Light detector	PIN type photodiode
Materials of parts exposed to sample fluid	Sapphire, PTFE, PFA
Allowable sample fluid types	Fluids which do not corrode the fluid contact materials
Calibration	Polystyrene latex (PSL) spheres with refractive index 1.6 in pure water

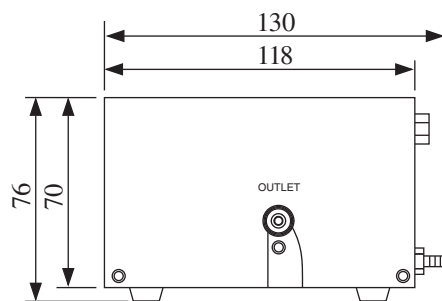
Measurable particle size range	0.2 μm to 2 μm (with PSL particles of refractive index 1.6 in pure water)	
Measurement size range	Two channels ($\geq 0.2 \mu\text{m}$, $\geq 0.5 \mu\text{m}$)	
Sampling flow rate	10 mL/min	
Maximum particle number concentration	1200 particles/mL (coincidence loss 5% for 0.2 μm particles)	
Sample fluid temperature range	+15°C to +35°C (no moisture condensation on flow cell)	
Allowable sample fluid pressure	300 kPa or less (gauge pressure)	
Warm-up time	10 minutes	
Sample fluid ports		
INLET:	Sample fluid inlet, 2 mm \times 4 mm dia. flared tube joint	
OUTLET:	Sample fluid outlet, 2 mm \times 4 mm dia. flared tube joint	
PURGE:	Purge gas inlet, internal 4-mm diameter tube	
Input / output connectors		
CONTROL:	For liquid-borne particle counter KE-28B connection	
Power supply	Supplied via liquid-borne particle counter KE-28B	
Ambient conditions for operation	+15°C to +35°C, less than 80% RH	
Ambient conditions for storage	-10°C to +50°C, less than 85% RH (no condensation and no freezing in internal piping)	
Dimensions	76 mm (H) \times 129 mm (W) \times 130 mm (D) (maximum) 70 mm (H) \times 85 mm (W) \times 118 mm (D) (excluding protruding parts)	
Weight	Approx. 750 g	
Supplied accessories	Tube A vacuum pack	1
	(2 mm \times 4 mm dia., 1.5 m flared PFA tube 2, union joint 1)	
	Connecting cable B	1
	Instruction manual	1
	Liquid-Borne Particle Counter Usage Precautions	1
	Inspection certificate	1



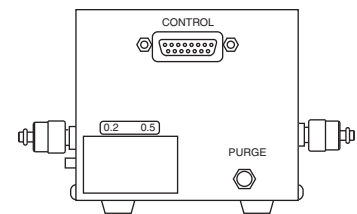
Top view



Front view



Side view



Rear view

Unit: mm

Dimensional Drawings

Specifications subject to change without notice