

# Liquid-borne Particle Sensor KS-16/KS-16F (HF measurement)

## Finally -- A Sensor for In-Line Monitoring of Liquid-Borne Particles with 0.1 µm Resolution



Monitor particles in real time	at the actual point of use
• <u>•</u> •	•
CHARACTERIZING CONTAMINANTS	Integrated use
Process monitoring at critical system points	Compact 0.1µm sensor 👢
REAL-TIME PARTICLE MONITORING	Long-life laser light source
Control and maintain quality in real time	High-performance laser diode 🦊
HIGH DETECTION EFFICIENCY	Detection efficiency 70 % or higher
Uith greater low end sensitivity	Sophisticated detection technology 👢
ON THE SPOT	Pure water, chemicals, fluoroxide
Suited for use with a variety of liquids	Integrated deposit flow cell 👢
MULTI-POINT SENSING	Versatile array of interfaces
System integration	RS-232-C, RS-485, flow controller, pump, etc.
FACILITY MONIT	
Compact, low-price sensor ideal for integ	grated use in central chemical supply

systems and wet benches



### **RP** Monitor System for up to 20 Points. LMS and KF-02A Support Multi-Point Monitoring at 100 Points or More.

#### Specifications

Optical System	: 90° sideway light-scattering
	principle
Light source:	Laser diode
-	(wave length : 830 nm)
Light detector:	PIN Photo diode
Materials of cor	nponent parts exposed to
sample fluid:	PFA, fused silica (KS-16),
	sapphire (KS-16F)
Minimum diame	ter of countable particle: $0.1 \mu m$
Measurement s	ize range: Five channels
	0.1, 0.15, 0.2, 0.3, 0.5 μm
Counting efficie	ency: 70 ± 15 % (KS-16)
	60 ± 15 % (KS-16F)
Flow rate:	10 mL/min
Maximum partic	cle concentration:
	1200 particles/mL
	(coincidence loss 5% or less)
Sample fluid ter	mperature range: 15 to 35°C
Allowable samp	ble fluid pressure:
	300kPa or less (gauge pressure)
Dimensions:	
Main unit:	240 (W) ×110 (H) ×150 (D) mm
	(excluding protruding parts)
Weight:	Approx. 3.5 kg
Power supply u	init:
	70 (W)×111 (H)×184 (D)mm
	(excluding protruding parts)
Weight:	Approx. 0.8 kg
Interface:	RS-232-C, RS-485

#### Sampling Example

## Monitoring the purity of wet bench cleaning liquid



## Monitoring the purity inside a wet bench cleaning bath



#### Specifications subject to change without notice.

# **RION CO., LTD.**

20-41, Higashimotomachi 3-chome, Kokubunji, Tokyo 185-8533, Japan Telephone: +81-42-359-7878 Fax: +81-42-359-7458 URL : http://www.rion.co.jp/ E-mail: info@rion.co.jp

#### System

Operation Control of KS-16 Via RS-232-C Interface



#### Operation Control of KS-16 Via RS-485 Interface

#### Power supply unit AC100V CCSS KS-16 Sub line cable max. 50m Terminator Connector box (may be added or removed later) Bus line cable max. 1 km (must be installed first) Computer AC100V MFC FM Bus line cable max. 1 km (must be installed first) Computer AC100V

## Operation Control of KS-16 with Sensor Controller KZ-70





#### Monitoring Systems (Option)

#### RP Monitor K9461 (Ver. 2, 3)

- Particle counter automatic operation
- Can drive any Rion particle counter in RS-232C mode (Ver. 2).
- RS-232C/RS-485 converter allows multi-sensor system with 20 points (Ver. 3).



#### Multi-Point Monitoring Software KF-02A

- Measurement control, data collection, result display and printing for up to 100 sensors.
- Supports up to 5 controllers, each with up to 20 sensors.

#### **KS-16 Dimensional Drawing**



Distributed by:			