

SPECIFICATIONS

SYRINGE SAMPLER

KZ-31W



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Outline

The syringe sampler KZ-31W serves to supply a controlled amount of sample fluid for batch measurement by Rion liquid-borne particle counter. The amount of fluid depends on the operation conditions.

Main Functions and Features

- Choice of three operation modes: purge mode, measurement mode, and combination mode for a preset sequence of purge and measurement operations.
 - Memory for up to 50 sets of operation memory for purge mode or measurement mode. (*)
 - Memory for up to 20 sets of operation memory for combination mode. (*)
 - In measurement mode, selectable blank volume lets sample fluid flow rate stabilize after start of plunger action.
 - Syringe-valve set into which a syringe and valve are integrated, for easy syringe replacement.
 - Selectable from two types: 25mL PP syringe and 25mL glass syringe (option).
- * When the unit is linked with a computer, operation memory accepts editing, registration, verification and saving by application software KZ-31W Configuration Tool (hereinafter referred to as the application software) on the computer.
- Half of the operation memory can only be edited or registered by the operating software and will not accept overwriting by the unit.
 - This application software can be downloaded from RION web site (<http://www.rion.co.jp/english>) free of charge.
 - A dedicated connection cable (option) is required.

Specifications

Connectable model	KE-40B1
Adaptive syringe	25mL PP syringe (polypropylene) 25mL glass syringe (Pylex glass)
Materials of parts exposed to sample	PTFE, PCTFE, PFA, polypropylene (*) or Pylex glass (*) * Depends on the syringe used.
Allowable sample type	Fluids which do not cause corrosion of fluid-contacting parts
Flow rate tolerance	
Condition	Flow rate 1 to 25 mL/min Sample fluid Pure water
Tolerance	Within $\pm 5\%$
Operation mode	
Purge mode	For purging and replacement of sample fluid system
Measurement mode	For measurement
Combination mode	For purge/measurement sequences

Purge mode

Sample flow rate/ Drain flow rate

Setting range 5 to 100 mL/min (1 to 200 mL/min)
The parenthesized value is one when the unit is used alone.

Resolution 1 mL/min

Sample volume Setting range 0.0 to 25.0 mL

Resolution 0.5 mL

Repeat setting 1 to 99 (1 to 999)

The parenthesized value is one when the unit is used alone.

Measurement mode

Sample flow rate/ Drain flow rate

Setting range 5 to 100 mL/min (1 to 200 mL/min)
The parenthesized value is one when the unit is used alone.

Resolution 1 mL/min

Sample volume Setting range 0.0 to 25.0 mL

Resolution 0.5 mL

Blank volume Setting range 0.0 to 10.0 mL

(Sample volume + Blank volume \leq 27.5mL)

Resolution 0.5 mL

Repeat setting 1 to 99 (1 to 999)

The parenthesized value is one when the unit is used alone.

Combination mode

Number of steps 2 to 10 steps

Number of memory addresses

Purge mode 50

Measurement mode 50

* The range that can be set with the unit alone is from 1 to 25 only.
(The range of 26 to 50 can be set when a computer is connected.)

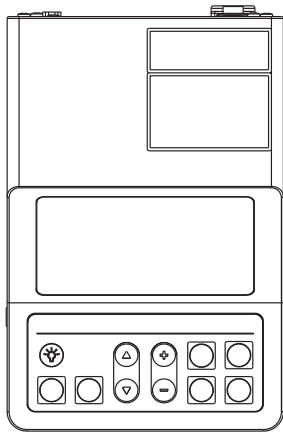
Combination mode memory

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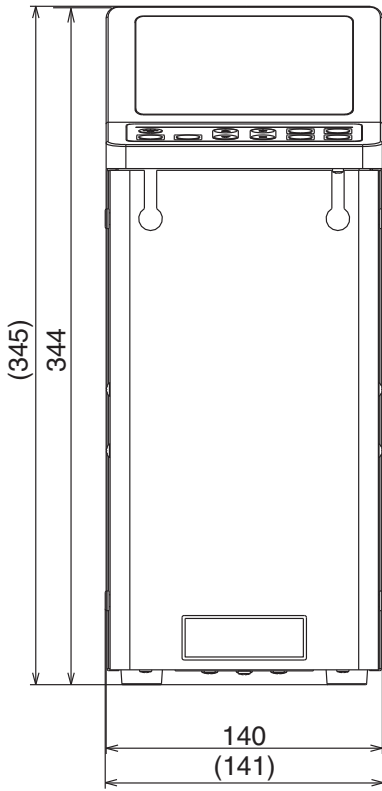
* The range that can be set with the unit alone is from 1 to 10 only.
(The range of 11 to 20 can be set when a computer is connected.)

External connector	EXT CONTROL Serves for connection of the liquid-borne particle counter (KE-40B1) and a computer. You can read and write operation memory by connecting KZ-31W with a computer.
Display	Segment type LCD Serves to display the operation mode, setting values, operation status and other data.
Operation part	Sheet switches Serves for operation mode selection, input of parameter settings, and start/stop control.
Environmental Conditions for Operation	5 to 40°C, less than 85% RH (no condensation of internal fluid)
Sample Fluid Temperature Range	5 to 40°C
Environmental Conditions for Storage	-10 to +50°C, less than 85% RH (no freezing of internal fluid)
Altitude	Up to 2000 m
Supply Voltage Fluctuations	100 to 240 V AC10%
Overvoltage Category	II
Pollution Degree	2
Power	100 to 240 V AC, 50/60 Hz
Power consumption	Approx. 50 VA
Sample fluid pressure	Max. 100 kPa (gauge pressure)
Dimensions and Weight	Approx. 345 (H) × 141 (W) × 215 (D) mm (Max.) Approx. 344 (H) × 140 (W) × 210 (D) mm (Without protruding parts) Approx. 5.5 kg
Supplied accessories	PFA tube (with connectors) 2 25mL PP syringe set (polypropylene, for exchange) 1 Power cord 1 CD-ROM (instruction manual in English/Japanese) 1 Concise manual (clean paper, in English/Japanese) 1 each Inspection certificate 1

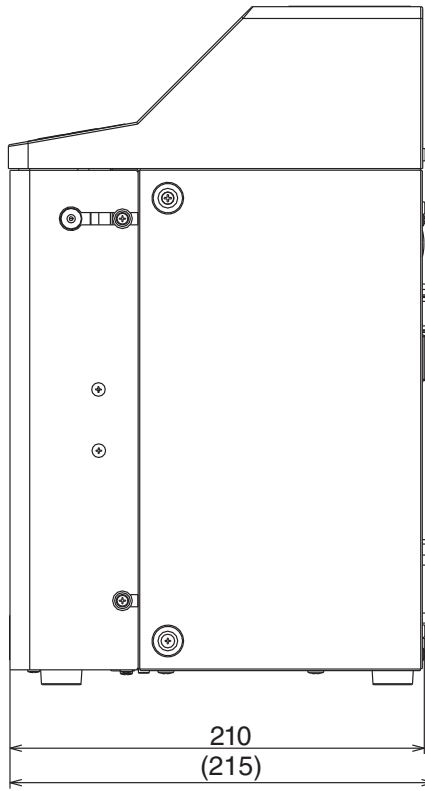
Options	Connection cable C	KZ30S180
	* For connection with liquid-borne particle counter (KE-40B1)	
	25mL PP syringe set (polypropylene, 2-piece set)	NW25PP20
	25mL glass syringe set (Pylex glass)	KZ30WS20
	Connection cable for application software	KZ31S110
	* Application software is available from RION web site by download	
	PFA tube (flared end, with connectors)	KZ31S120
	* For connection with tube joint of the liquid-borne particle counter	
Consumables	PFA tube, syringe set, valve set	



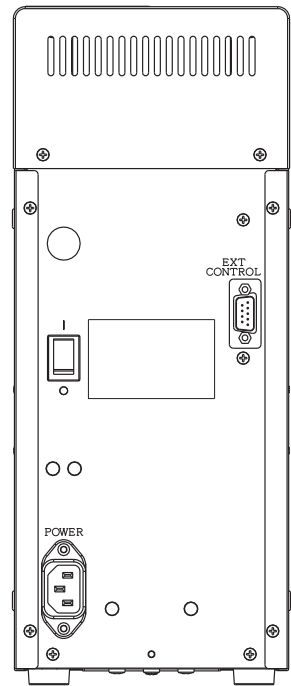
Top view



Front view



Side view



Rear view

Unit: mm

Dimensional Drawings

Specifications subject to change without notice