

# ICA-2000series

## Ion Chromatograph

**All-in-One,  
Compact  
Design**



**Communication control and  
data processing by LAN  
Optional suppressor system for  
highly sensitive analysis**

## All-in-one compact design Same dimensions even in 2ch system

- ★ The main frame is a single compact unit that features a highly space-efficient design. It houses all the major components, including the detector, pump, display, operation section, and column oven.
- ★ The unit is equipped with an interface server for connecting to a LAN, allowing for the data communication between the main unit and the data processing PC.

## Device control and data processing via a LAN connection

- ★ LAN connection for easy installation.
- ★ Remote control of devices.
- ★ Ability to control all operations from a PC by dedicated software.

# ICA-2000 series Ion Chromatograph

# New Ion Analysis and Data Processing Environment



## Optional chemical suppressor system installation allows for highly sensitive analysis



Chemical suppressor unit (for highly sensitive analysis) is combined with the main unit

## Covers the various needs

- ★ Available for sugar analysis by installing an optional electrochemical detector.



## Superior expandability

★ Optional components such as a pump unit can be added for expansion. Up to three channels for ion chromatography can be combined.

Up to three conductivity detectors (ICA-200C) and three pumps (ICA-200P) can be stored within the compact main unit.

Note: Certain device components only allow for a maximum of two channels.

### Main unit system composition example (2-channel analysis system)

Conductivity detector (installed on the back of the unit)



Column oven part  
Pump unit  
Degasser unit



### System composition (example)

## Highly sensitive anion analysis Chemical suppressor system



Optional chemical suppressor and pump units enable highly sensitive anion analysis.

### System components

Main unit*	ICA-2000	× 1
Conductivity detector	ICA-200C	× 1
Suppressor pump unit	ICA-SPU	× 1
Chemical suppressor	6813690K	× 1

\*The system includes a pump unit, degasser, and injection valve.

## Auto-sampler for continuous analysis.

- ★ Simultaneous measurements of up to two channels.
- ★ Automatic continuous analysis of up to 90 samples.\*
- ★ Ability of the user to specify the order of measurement samples, the injection volume of each sample to be analyzed, and the number of measurement cycles.\*



\* Requires the installation of the operation software for the ICA-2000.

# Specifications

## Ion Chromatograph ICA-2000

Display	Backlit LCD	
Configuration/Operation	Key operation or configuration/operation via PC-based software	
Wetted material	FEP, PEEK, PTFE, PCTFE (perfect non-metal)	
Power supply	100V AC 50/60Hz	
Power consumption	Max. approx. 240 VA	
Dimensions	Approx. 360 (W) × 515 (H) × 430 (D) mm	
Weight	1Ch: 20 kg, 2Ch: 25 kg, 3Ch: 30 kg	
Column oven	Temperature control system	Air circulation system
	Temperature control range	Ambient temperature +10°C to 60°C
	Temperature control precision	± 0.1°C
	Inner dimensions	Approx. 115 (W) × 465 (H) × 115 (D) mm
	Storable columns	max.3pcs. (8.0x400mm)
	Leakage sensor	Built-in
Sample injector	Others	Max.three conductivity detectors, two injectors, and one reaction coil can be stored.
	Injection method	Manual sample injection via metal-free PEEK syringe needle
	Wetted material	PEEK, PTFE
	Pressure	35 MPa
	Dead volume	1.5 μL
	Sample volume Measure	Loop cut method
Degasser unit	Built-in number	Max. two units (Standard: One unit)
	Applied method	In-line method, gas permeable fluororesin
	Storable units	Max. three flow paths (Standard: One flow path)
Pump unit	Model	ICA-200P (dedicated model)
	Pump type	Double plunger type
	Wetted material	PEEK, Ruby, Sapphire, PTFE, PCTFE
	Pressure	35 MPa
	Max. discharging pressure	25 MPa (Maximum configurable value using the operation software: 20 MPa)
	Flow rate setting range	0.01 ~ 9.99 mL/min (0.01 ~ 3.00 mL/min when using the operation software)
Detector unit	Storable pumps	Max. three units (Standard: One unit)
	Applied method	Board insertion method
	Storable units	Max. three units at a time

## Conductivity detector unit ICA-200C

Installation	ICA-2000 main unit
Measurement method	Operational amplifier method via tri-pole electrode
Measurement range	0 ~ 512 mS/m
Response	FAST (approx. 0.4 sec) , MIDD (approx. 1 sec) , SLOW (approx. 2 sec)
Cell temp. control	30°C, 35°C, 40°C, 45°C
Output	Digital (only when mounted in the ICA-2000 main unit)
	Analog : 0 ~ 1V
	MULTI × 1 5.12mS/m (1V FS)
	MULTI × 10 51.2mS/m (1V FS)
Output polarity switching feature	MULTI × 100 512mS/m (1V FS)
	Provided
Wetted material	PEEK, Titanium, PCTFE
Pressure	1 MPa
Contact I/O	Terminals provided
Dimensions	Amplifier: approx. 117 (W) × 37 (H) × 322 (D) mm (excluding protrusion) Cell: approx. 51 (W) × 114 (H) × 59 (D) mm (excluding protrusion)
Weight	Amplifier: Approx. 0.6 kg, Cell: Approx.0.5 kg

## Pump unit ICA-200P

Installation	ICA-2000 main unit
Pump type	Double plunger type
Wetted material	PEEK, Ruby, Sapphire, PTFE, PCTFE
Pressure	35 MPa
Pressure indication accuracy	± 5%
Max. discharging pressure	25 MPa (Maximum configurable value using the operation software: 20 MPa)
Flow rate setting range	0.01 ~ 9.99 mL/min (0.01 ~ 3.00 mL/min when using the operation software)
Flow rate accuracy	± 2%
Pulsating current control	Self-learning control
Remote I/O	ON/OFF (input)
	Pressure signal (0-100 mV : 10 MPa/FS) (output)
Communication interface	RS-232C
Dimensions	Approx. 77.7 (W) × 139.2 (H) × 285 (D) mm (excluding protrusion)
Weight	Approx.4.5 kg

### Note:

- Windows is a registered trademark of Microsoft Corporation in the United States and other countries.
- Pentium is a registered trademark of Intel Corporation in the United States.

**DKK-TOA CORPORATION**



**CAUTION**

Do not operate products before consulting instruction manual.

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Information and specifications are for a typical system and are subject to change without notice.