

Vol.4: Chemical Contents Check for Liquid Fertilizer Control



Quick and Easy Water Quality Check with the LAQUAtwin Series

LAQUAtwin is a series of compact water quality testers. Using Ion Selective Electrode (ISE) technology, they are available for Electrical Conductivity (EC), Calcium ion, Nitrate ion, Potassium ion, Sodium ion, Salt concentration and pH measurement. Using just a single drop of sample, the LAQUAtwin proprietary flat sensors can quickly and accurately measure the values of the chemical parameters at the production site.

On-site Ion Contents Check with the LAQUAtwin Series

Ion concentration of liquid fertilizer is measured generally by Ion Chromatograph (IC), Atomic Absorption Spectrophotometry (AA) or Inductively-coupled Plasma Emission Spectrometry (ICP). These instruments are expensive and require a fair amount of time for measurement preparation. LAQUAtwin series is an ideal tool to measure ion concentration of liquid fertilizer easily on-site. The following table compares the ion measurement between IC and the LAQUAtwin series.

As a result, the LAQUAtwin series shows strong correlation with IC, which makes it an ideal tool for rapid on-site measurement.

Nitrate ion, Potassium ion, Calcium ion, Sodium ion Measurement

Measurement data of 500 times dilution liquid fertilizer by LAQUAtwin

Measurement items	Measurement data by IC	Measurement data by LAQUAtwin	Error of Each Measurement Data to IC*1	
NO ₃ ⁻	132.5 ppm	140 ppm	within ±10 %	*1 ...The error may become larger for extremely contaminated samples
K ⁺	128.6 ppm	120 ppm	within ±10 %	*2 ...Measurement data of 10 times dilution liquid fertilizer
Ca ⁺	69.8 ppm	65 ppm*2	within ±10 %	*3 ...This value is for reference because it is out of measurement range
Na ⁺	4.2 ppm	7 ppm*3	---	

Compact Water Quality Meter

LAQUAtwin

- pH, conductivity, ions and salt concentration. 7 parameters, 11 models.

Seven water quality parameters are available to suit your purpose, such as pH, conductivity, concentration of ion (Na⁺, K⁺, NO₃⁻, Ca²⁺) and salt concentration. Incorporating the same principle as the laboratory sensors, LAQUAtwin will provide a reliable measurement.

- Calibrate and measure at the touch of a button – the Smiley face will tell you when the result can be read

Easy operation for both the measurement and indispensable calibration procedure. Read the data once a smiley face lights up.

- LAQUAtwin is fully waterproof and dustproof* (IP67 rated)

The meter and sensor are fully waterproof so you can take it anywhere. No worries when water splashes during measurement or cleaning.

* IP67 rated. Will withstand immersion for 30 minutes at 1 m. Not suitable for underwater use.

- Carrying case comes standard for handy portability

The compact carrying case contains everything you need for your measurements, including the standard solution. Ready to measure only with carrying case, it's a your laboratory !

You can attach a strap or tag on the strap hole.



● Attach a strap or tag here.
* Strap not included

1 X 6

One meter. Six different methods.

Only the LAQUAtwin range allows you to be this flexible!

Chose the best method according to your sample, your situation and your needs.



01 Immersion

When you're in the lab, you can test the sample in a beaker. Ensure the sensor guard sliding cap is open.



02 Scoop

Use as a scoop to test water, for example from a river.



03 Drops

LAQUAtwin meters can measure sample volumes as low as 0.05 mL. Place a drop of the sample onto the sensor with a pipette.



04 Solid samples

Foods containing some moisture can be tested by placing a small piece directly onto the sensor.



05 Powders

LAQUAtwin meters can also test dry powders. Simply place the powder sample onto the sensor, and drop on your defined volume of pure water.



06 Paper and textiles

To test sheets of paper and textiles, cut up the sample into small pieces and place directly onto the sensor. Drop on your defined volume of pure water.

Compact Water Quality Meter

<http://www.horiba.com/laquatwin>

Benchtop pH/Water Quality Analyzer

<http://www.horiba.com/laqua>

WATER QUALITY ANALYZERS

<http://www.horiba.com/wq>

⚠ Please read the operation manual before using this product to assure safe and proper handling of the product.

- The contents of this catalog are subject to change without prior notice, and without any subsequent liability to this company.
- The color of the actual products may differ from the color pictured in this catalog due to printing limitations.
- It is strictly forbidden to copy the content of this catalog in part or in full.
- All brand names, product names and service names in this catalog are trademarks or registered trademarks of their respective companies.

<http://www.horiba-water.com>

● **HORIBA, Ltd.**
Head Office
2 Miyanothigashi,
Kissshoin
Minami-ku, Kyoto, Japan
Phone: 81 (75)
313-8123
Fax: 81 (75) 321-5725

● **HORIBA (China) Trading Co., Ltd.**
Head Office
Unit D, 1F, Building A, Synnex International Park, 1068 West Tianshan Road, Shanghai, 200335, China
Phone: 86 (21) 6289-6060
Fax: 86 (21) 6289-5553

● **HORIBA Korea Ltd. Seoul Branch**
10, Dogok-Ro, 6-Gil, Gangnam-Gu, Seoul, 135-860, Korea
Phone: 82 (2) 753-7911
Fax: 82 (2) 756-4972

● **HORIBA Instruments (Singapore) Pte Ltd.**
West Office
83 Science Park Drive #02-02A, The Curie, Singapore, 118258
Phone: 65 (6) 908-9660
Fax: 65 (6) 745-8155
E-mail: enquiry@horiba.com.sg

● **HORIBA India Private Ltd.**
Head Office
246, Okhla Industrial Estate, Phase 3 New Delhi - 110 020 India
Phone: 91 (11) 4669 5001
Fax: 91 (11) 4669 5010

● **HORIBA Instrumentc Inc.**
Head Office
9755 Research Drive, Irvine, CA 92618, U.S.A
Phone: 1 (949) 250-4811
Fax: 1 (949) 250-0924

● **HORIBA UK Ltd.**
2 Dalston Gardens, Stanmore, Middx HA7 1BQ, Great Britain, UK
Phone: 44 (208) 204-8142
Fax: 44 (208) 204-6142

