

VARIOS Thermal Properties Analyzer



VARIOS QUICK START

Preparation

Confirm that all ordered components are intact. You will need Microsoft[®] Windows[®] computer (Windows 10 or newer), LABROS SoilView software, and LABROS SoilView-Analysis software to start with. Additional tools are identified in the VARIOS User Manual.

When the VARIOS is used in combination with the HYPROP Balance, place the Balance on a horizontal, vibration-free, solid surface where the temperature remains fairly stable (away from the air conditioner and heater vents, windows, etc.)

IMPORTANT: Temperature fluctuations or vibrations will strongly affect the accuracy of the measured results.

Remove the plate of the HYPROP Balance, and place the VARIOS on top of the scale. Read the full VARIOS User Manual at (meter.ly/varios-manual). All products have a 30-day satisfaction guarantee.

Setup

VARIOS Dryout

Continuous measurement of the thermal conductivity and sample weight loss for determining water content.

Connect the VARIOS to the HYPROP Balance (VARIOS ready) by inserting the VARIOS connector cable into the back of the HYPROP Balance (VARIOS ready).

NOTE: Please use the VARIOS Power Adapter (ordered separately) when using HYPROP Balances without VARIOS ready label.

Download the LABROS SoilView Installation package from the support webpage (meter.ly/varios-support).

Run the ${\tt LABROS}$ ${\tt SoilView.exe}$ file and follow the installation instructions.

VARIOS Standalone

Measurement of the thermal conductivity without simultaneous weight recording.

Measurement-VARIOS Dryout

1. Prepare Soil Sample

Fill a 250 mL soil sampling ring, equipped with two bore holes.

Saturate the soil sample.



2. Install Sensor

Insert the Sensor Needle completely into the soil using the Installation Tool (order separately) to ensure the sensor is installed straight without air gaps.

Wait 15 min after installing the sensor to reach temperature equilibrium between needle and soil.



3. Take a Reading

Install and open LABROS SoilView and SoilView-Analysis software.

Connect devices.

Configure a measurement by selecting a sample name, an output folder, and a measurement profile.

Select the **Start** button.



4. Evaluate Reading

Open the generated *.varios file.

Enter the soil sample ring weight and the sample dry soil weight, if applicable.

Fit the data with a suitable fitting model.

Export data.



SUPPORT

Have a question or problem? Our support team can help.

We manufacture, test, calibrate, and repair every instrument in house. Our scientists and technicians use the instruments every day in our product testing lab. No matter what your question is, we have someone who can help you answer it.

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