



METER

SIMPLY PRECISE ENVIRONMENTAL MONITORING SOLUTIONS

METER Group is the world's leading provider of advanced, cloud-connected, real-time soil-plant-atmospheric data that fuels environmental research at top universities, labs, and government agencies and drives progress in agricultural, geotechnical and industrial applications.

2025

metergroup.com

ZENTRA CLOUD

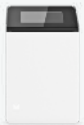
Increased data is more of a burden than benefit if it drains your limited resources to obtain, store, and process it. ZENTRA Cloud works with the ZL6 data logger to start your analysis by automating processes and common calculations. It aggregates all your data in one easy to access place and automatically graphs it in near-real time.

Scan the QR code or visit meter.ly/zentra to learn more →



DATA LOGGERS

The ZL6 data loggers simplify environmental data collection with near-real-time access and fewer site visits. Connect up to six sensors to a single low-power logger. Integrated solar panels and rechargeable batteries power remote data transmission to ZENTRA Cloud. The ZL6 Pro offers enhanced convenience with more frequent uploads, a three-year ZENTRA Cloud subscription, and automatic backups.



ZL6
Advanced
Cloud Data Logger

meter.ly/zl6



ZL6 Pro
Effortless
Data Logger

meter.ly/zl6pro



ZL6 Basic
Simple Data Logger

meter.ly/basic



ZSC
Sensor Interface

meter.ly/zsc

FEEDING THE WORLD REQUIRES SMARTER IRRIGATION

As water resource management grows more complex, the cost of water increases and humanity's food consumption soars to an all-time high, optimizing crop yields through efficient irrigation is becoming crucial.



HARNESSING TECHNOLOGY FOR PRECISION IRRIGATION

Researchers from Brigham Young University and Missouri A&T are working with a commercial grower to maximize potato yields using advanced satellite, drone, and IoT technology like ZENTRA Cloud. Their use of variable rate irrigation ensures efficient water distribution across different soil types and yield zones, benefiting both agricultural production and community water management.

REAL-TIME DATA FOR SMARTER DECISIONS

With ZL6 loggers and ZENTRA Cloud, scientists and growers can monitor soil moisture and water potential in near real-time, detecting issues like broken sprinklers before they escalate. By integrating soil mapping, satellite imagery, and remote-sensing drones, they refine irrigation strategies to prevent water stress and overwatering. These innovations help growers achieve higher yields while conserving valuable water resources.

[READ THE FULL STORY HERE →](#)



SOIL MOISTURE

Plant growth, microbial activity, nutrient availability and transport, soil erosion, soil compaction, soil respiration, water infiltration and drainage are all dependent on soil moisture. Measure the amount of water and its availability with our water content and water potential sensors.



TEROS 10
Simple Soil Water
Content Sensor

meter.ly/teros10



TEROS 11
Soil Moisture &
Temperature

meter.ly/teros11



TEROS 12
Soil Moisture Sensor
+ Temperature & EC

meter.ly/teros12



TEROS 54
Soil Moisture Profile
Probe

meter.ly/teros54



TEROS 21
Soil Water Potential
Sensor

meter.ly/teros21



TEROS 22
Soil Water Potential
Sensor

meter.ly/teros22



TEROS 31
Lab Tensiometer

meter.ly/teros31



TEROS 32
Advanced Field
Tensiometer

meter.ly/teros32



TEROS Borehole Installation Tool

Accurate soil moisture measurement requires precise installation. If installation isn't done right, no matter how good your sensor is, you run the risk of getting bad data.

The new design allows for the installation of most TEROS sensors, including the TEROS 10, 11, and 12 soil moisture sensors and the TEROS 21 matric potential sensor. The TEROS Borehole Installation Tool includes adaptors designed to hold each sensor securely as it is pushed into the soil and released seamlessly once placed. Also included is an adaptor designed to create the pilot hole required to insert the TEROS 21 at the optimal angle. Use it for incredibly fast, consistent installation into undisturbed soil at almost any depth you choose down to 10 meters.

[Scan the QR code or visit meter.ly/install to learn more →](https://meter.ly/install)





MICROCLIMATE

Measuring the microclimate with a weather station provides comprehensive data on local atmospheric conditions that directly affect soil processes. Weather stations collect detailed information on temperature, humidity, rainfall, wind speed, and solar radiation, all of which influence soil moisture levels, evaporation rates, and soil temperature.



ATMOS 41 Gen 2
All-In-One Weather
Station

meter.ly/atmos41



ATMOS 41W
Wireless All-In-One
Weather Station

meter.ly/atmos41w



THERMAL PROPERTIES

A soil or other material's thermal resistivity and other thermal properties can impact the longevity of in-ground structures, and understanding thermal properties can shed additional light on a material's porosity, moisture content, and saturation. Measure these critical values with the ASTM D5334- and IEEE 442-compliant TEMPOS.



TEMPOS
Thermal Properties
Analyzer

meter.ly/tempos



VARIOS
Automated Thermal
Dryout Curves

meter.ly/VARIOS



FIELD SOIL HYDRAULIC PROPERTIES

Measure the movement and distribution of water in the soil to inform water management, predict soil behavior under a variety of moisture conditions, measure groundwater recharge, or optimize agricultural practices for efficient water usage. Field instruments like the SATURO set the standard for simple, accurate, and time-efficient data collection.



SATURO
Field Saturated
Hydraulic Conductivity

meter.ly/saturo



MINI DISK
Infiltrrometer
Unsaturated Hydraulic
Conductivity

meter.ly/minidisk



TEROS 11
Soil Moisture &
Temperature

meter.ly/teros11



TEROS 12
Soil Moisture Sensor
+ Temperature & EC

meter.ly/teros12



TEROS 21
Soil Water Potential
Sensor

meter.ly/teros21



TEROS 32
Advanced Field
Tensiometer

meter.ly/teros32



LAB SOIL CHARACTERIZATION

LABROS is an innovative collection of soil science laboratory instruments, each designed to work individually or as part of a larger, automated system. Conduct automated particle size analysis and measure soil moisture release curves, saturated and unsaturated hydraulic conductivity, and thermal conductivity from a single sample.



PARIO
Automated Soil
Particle Size Analysis

meter.ly/PARIO



HYPROP 3
Soil Moisture Release
Curves

meter.ly/hyprop



WP4C
Soil Water Potential
Lab Instrument

meter.ly/WP4C



KSAT
Saturated Hydraulic
Conductivity in the
Lab

meter.ly/ksat



VARIOS
Automated Thermal
Dryout Curves

meter.ly/VARIOS



PLANT STRESS

Use cost-effective solutions from METER to directly measure indicators and causes of plant stress rather than relying on intuition or qualitative assessments of your crops and canopy.



ATMOS 41 Gen 2
All-In-One Weather
Station

meter.ly/atmos41



SC-1 Leaf Porometer
Stomatal Conductance

meter.ly/sc-1



IRT
Infrared Thermometer

meter.ly/irt



ATMOS 14
Temperature and
Humidity Sensor

meter.ly/atmos14



TEROS 21
Soil Water Potential
Sensor

meter.ly/teros21



TEROS 22
Soil Water Potential
Sensor

meter.ly/teros22

CANOPY PRODUCTIVITY

Measure the photosynthetic activity of your plants using simple, labor-saving instruments, and better understand the health and lifecycle of your canopy.



ACCUPAR LP-80
Canopy Interception
& Leaf Area Index

meter.ly/lp80



NDVI Sensor

meter.ly/NDVI



SC-1 Leaf Porometer
Stomatal Conductance

meter.ly/sc-1

DEEP DRAINAGE AND LEACHING

Study groundwater recharge, nutrient or contaminant leaching, and the influence of land management practices on water retention and drainage across a larger area with affordable, easy to use instruments.



Drain Gauge G3
Lysimeter Dependable
Deep Drainage

meter.ly/g3



HYDROS 21
Conductivity,
Temperature, Depth
Sensor

meter.ly/hydros21



TEROS 12
Soil Moisture Sensor
+ Temperature & EC

meter.ly/teros12

FIELD INSTRUMENTS

Conduct environmental measurements in the field using research-grade sensors and tools that measure with the accuracy, longevity, and simplicity your work demands.

TELEMETRY

ZL6 data loggers

ZL6 pro data logger

ZL6 basic data logger

ZSC Sensor Interface

SOIL (FIELD)

TEROS 10 | Soil Water Content Sensor

TEROS 11 | Soil Moisture & Temperature Sensor

TEROS 12 | Soil Moisture Sensor + Temperature and EC

TEROS 54 | Soil Moisture Profile Probe

TEROS 21 | Soil Water Potential Sensor

TEROS 22 | Soil Water Potential Sensor

TEROS 32 | Field Tensiometer

EC-5 | Soil Moisture Sensor

MAS-1 | Soil Moisture Sensor

10HS | Large Volume Soil Moisture Sensor

SATURO | Field Saturated Hydraulic Conductivity

Mini Disk Infiltrometer | Unsaturated Hydraulic Conductivity

SO-411 | Oxygen sensor

RT-1 | Soil Temperature Sensor

TEROS 06 | Soil Temperature Profile Probe

PLANT

PHYTOS 31 | Leaf Wetness Sensor

ACCUPAR LP-80 | Canopy Interception & Leaf Area Index

SC-1 Leaf Porometer | Stomatal Conductance

IRT | Infrared Thermometer

PAR Sensor

D1 Dendrometer

NDVI Sensor

ATMOSPHERE

ATMOS 41 | All-In-One Weather Station

ATMOS 41W | Wireless All-In-One Weather Station

ATMOS 22 | Ultrasonic Anemometer

ATMOS 14 | Temperature and Humidity Sensor

Net Radiation sensor

Ultraviolet (UV sensor)

ECRN-100 Rain Gauge

ECRN-50 Rain Gauge

ECT | Air Temperature Sensor

PYR Sensor

WATER

HYDROS 21 | Conductivity, Temperature, Depth Sensor

Drain Gauge | Dependable Deep Drainage

ES-2 | Electrical Conductivity and Temperature Sensor

VS-Pro | Tensiometer-Controlled Vacuum System LCD Display

PS-1 | Irrigation Pressure Switch

LAB INSTRUMENTS

Precise environmental laboratory measurement instruments that make it possible to fully characterize soil with a single sample. Featuring automated measurements once sample is prepped.

SOIL (LAB)

[HYPROP 2 | Soil Moisture Release Curves](#)

[WP4C | Soil Water Potential Lab Instrument](#)

[KSAT | Saturated Hydraulic Conductivity in the Lab](#)

[Vapor Sorption Analyzer | Soil Water Characteristic Curves](#)

[PARIO | Automated Soil Particle Size Analysis](#)

[TEROS 31 | Lab Tensiometer](#)

THERMAL PROPERTIES

[TEMPOS | Thermal Properties Analyzer](#)

[VARIOS | Automated Thermal Dryout Curves](#)

PRODUCTS

METER instruments are trusted everywhere for reliable, research-grade measurements within the soil-plant-atmosphere continuum. For decades, our in-house research and development teams have designed precision instruments dedicated to simple, accurate data collection.

[Scan the QR code or visit \[meter.ly/products\]\(https://meter.ly/products\) to learn more →](#)





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visit meter.ly/contact
to request a quote →

