

TEROS 32: Field Water Potential + Temperature



Precision is now plug and play

TEROS 32

Tensiometer tension

The tensiometer is, indisputably, the most accurate way to directly measure water potential in the wet range. But measuring with a tensiometer is complicated. Most tensiometers require sophisticated wiring and complex data logger programming skills to even get them up and running, not to mention the constant maintenance, checking, and refilling. Now there's a new way. Introducing the TEROS 32.

Now, sit back, and relax

TEROS 32 is a simple, plug-and-play tensiometer that combines METER's legendary German precision engineering with the power of ZENTRA Cloud, giving you easier, faster, more accurate water potential data in near-real time. Just install it and plug it in. It's that easy. With ZENTRA Cloud software, you can review data as it happens from the comfort of your office, ensuring every tensiometer is working as expected. No more worrying if your tensiometer has cavitated. Combine the TEROS 32 with the TEROS 12, and you'll know the best time to go out and refill. Plus, you can use both sensors to generate *in situ*

[moisture release curves](#).

More robust, if that's even possible

Twenty-five years of tensiometer experience and fanatical attention to detail have made METER tensiometers practically bulletproof, but the TEROS 32 is more robust than ever before. Technological advancements have made it possible to incorporate a more ruggedized, highly precise pressure transducer, giving you higher data resolution in an almost unbreakable form, and making the TEROS 32 more affordable than its predecessors. Plus, the ceramic and shaft are engineered to be virtually indestructible when it comes to harsh weather (10-year warranty on the ceramic), which means the TEROS 32 is a tensiometer you can rely on year after year in every season.

Spend more time on what matters

We think you should spend less time fussing with complex installations, and more time on your research. That's why unlike most tensiometers, the TEROS 32 is now plug and play. Just insert the stereo plug into the [ZL6 data logger](#), and start seeing numbers. The TEROS 32 connects to the [ZENTRA Cloud](#) system, where all data are connected and delivered through the cloud. Pull up your [data](#) instantly wherever you are, and you'll know exactly when it's time to refill, before trekking out to the field.

Faster field visits

To save you even more time and effort, we've outfitted the TEROS 32 with an external refilling tube. No more pulling the tensiometer out of the ground. When it's time to refill, the TEROS 32 can be filled externally without ever having to remove it, saving you hours of tedious maintenance. On top of all that, the tensiometer is highly responsive. It reacts much faster to changing soil conditions than lower-quality tensiometers, enabling you to measure even the most minute changes in soil [water potential](#). Plus, it measures both positive and negative pore pressure.

Accuracy has never been this easy

At METER, we know tensiometers. We've sold over 20,000 across the span of a quarter century, so we're confident that if you need a precise, easy-to-use, reliable field tensiometer with outstanding year-round performance, you can rely on the TEROS 32. More usable, robust, and precise than other tensiometers, it provides superior quality data in [near-real time](#) and remains one of the most reliable instruments in the world for year-round outdoor monitoring.

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[Features](#) [Specifications](#) [Support / Downloads](#) [Request a quote](#)

Features

- Ultra-reliable outdoor precision tensiometer
- Direct measurement with no need for calibration
- Measures both positive and negative pore pressure
- Plug and play with ZL6 data logger. Also compatible with third-party loggers
- See/share data in near-real time with ZENTRA Cloud
- 10-year warranty on the high-quality ceramic
- More affordable than its predecessors
- Integrated temperature sensor
- UV-resistant, durable shaft material
- Seals and screw connectors are watertight according to IP 68
- Extremely robust construction
- Year-round operation when installed deeper than 30 cm
- Can be refilled or emptied without removing from the soil

Specifications

MEASUREMENT SPECIFICATIONS

Water potential	Range: -85 to +50 kPa Resolution: 0.0012 kPa Accuracy: ±0.15 kPa
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Temperature	Range: -30 to +60 °C Resolution: ±0.01 °C Accuracy: ±0.1 °C between -20 and +40 °C (±1 °C outside of this range)
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COMMUNICATION SPECIFICATIONS

Output	DDI serial SDI-12 communication protocol
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Data logger compatibility	METER ZL6 and EM60 data loggers or any data acquisition system capable of 3.6- to 28.0-VDC power and SDI-12.
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PHYSICAL SPECIFICATIONS

Dimensions Length: 40.0 cm (15.75 in)
 80.0 cm (31.50 in)
 120.0 cm (47.24 in)
 Diameter: 2.5 cm (0.98 in)

Operating Minimum: -30 °C (0 °C for water-filled tensiometer)
temperature Maximum: 50 °C

Materials Ceramic: Al₂O₃ , bubble point 1,500 kPa
 Shaft: PMMA
 Corpus: POM GF
 Refilling tubes: Stainless steel

Installation angle 10° to 80° from horizontal (downward)
 -10° to -80° from horizontal (upward)

Cable length 5 m (standard)
 75 m (maximum custom cable length)

NOTE: Contact Customer Support if a nonstandard cable length is needed.

Connector types 3.5-mm stereo plug connector or stripped and tinned wires

COMPLIANCE Manufactured under ISO 9001:2015
 EM ISO/IEC 17050:2010 (CE Mark)
 2014/30/EU
 2011/65/EU

California requires the following notice:

⚠ WARNING: This product may contain chemicals including ethylene glycol, lead, nickel, styrene and cadmium, which are known to the State of California to cause cancer, birth defects or other reproductive harm. For more information, go to www.P65Warnings.ca.gov