

Picus TreeTronic 3

Electrical resistance tomograph for precise analysis of wood defects





Electrical resistance measurement

With the aid of the PiCUS TreeTronic 3, the trained user can make predictions of incipient rot and its future development.

Detect rot early

The PiCUS TreeTronic 3 measures the electrical resistances in the wood, which depend on the water content, the cell structure and the chemical composition. Since rot usually has a high moisture content and thus a low resistance, it can be detected early with the TreeTronic.

With the IML Tree Inspection Software, the measurement results of the Electrical Resistance Tomograph (ERT) can be displayed in 2D and 3D graphics. These graphics show the extent of the suspected defect in gradations. The 3D view also reveals a potential vertical progression of the damage. Based on this data, a prediction can be made regarding how the tree's breakage safety might develop over the coming years.





Just know more about the wood defect

The electrical resistance reveals a lot about the type and characteristics of a damaged area, which is graphically illustrated by the tomogram.



Compact Design

One device, with all the necessary tools for measurement, stored in a handy case, always ready for use, including a compartment for the optional Calliper.



Vertical Gradient

The tomography planes can be merged into a 3D graphic that shows the possible vertical gradient of the damage in the tree.



Compatibility

Compatible with PiCUS Calliper 3 and PiCUS Sonic Tomograph 3 for easy geometry measurement and measurement point transfer.



Fast Measurement

The PiCUS TreeTronic 3 performs a measurement with up to 24 measurement points in less than 30 seconds autonomously.



Software (included)

The IML Tree Inspection Software (PC) and App (Android & iOS) offer extensive features for measuring and analyzing the tree, as well as for managing a large number of measurements.



IML Cloud

The cloud enables seamless data exchange between different devices at various locations.

PiCUS TreeTronic 3 Features:

Measurement point.:Up to 24 measurement points per measurement (even number required)	
Operation:	Standalone with rotary knob and graphical display, internal memory for over 100 measurements, remotely con- trollable via PC, tablet, or smartphone
Display:	Measurement data preview on integrat- ed display, full tomogram calculation in the IML Tree Inspection Software/App

Connection:	Communication with tablet or smartphone via Bluetooth, with PC via Bluetooth or USB
SPS-Module: GPS for time and location tracking	
Tilt sensor:	Used to determine the height of the tree
Battery life:	6 hours to 15 hours, depending on usage
ree circ.:	Approximately 6.5 meters, with an optional extension up to about 10 meters



What is the type of defect?

The PiCUS TreeTronic 3 Resistance Tomograph specifies the type of defect. The combination with the PiCUS Sonic Tomograph 3 provides even more precise results.

Rot, cavity or crack?

The electrical resistance tomograph provides a complete image of the electrical conductivity of the measuring plane. This makes it possible to estimate what kind of damage is present and to what extent. In addition to rot, areas with altered cell structure are also visible. To identify the type of defect even more precisely, the TreeTronic 3 can be perfectly combined with the PiCUS Sonic Tomograph 3. Both devices use the same measuring points and the same software. Thus, the measurements can be taken directly one after the other with little effort.

The perfect combination

The Sonic Tomograph 3 measures the transit time of the sound in the wood, which is longer in the case of a defect than in intact wood. The combined observation of the measurement results of both devices allows statements to be made about what type of defect it could be.

In this way, the TreeTronic 3 also helps to interpret sound tomograms that are blurred due to cracks. With the help of electrical resistance tomography, a prognosis about the spread of the damage is possible.



Electrical resistance tomogram (left) and sonic tomogram (right) of a lime tree with cavity and rot

The PiCUS Calliper - Capture geometry quickly

The triangulation method is an accurate and at the same time fast method to determine the geometry of the measuring plane for resistance tomography.

Before the measurement of the resistance tomograph can be carried out, the geometry of the tree in the measurement plane must be determined. The PiCUS Calliper enables easy handling and precise implementation of the triangulation method, even for complicated shapes of the tree's cross-section.

The more precisely the geometry was determined, the more accurate the tomogram is. The PiCUS TreeTronic 3 and the PiCUS Sonic Tomograph 3 are both compatible with the PiCUS Calliper 3. Optionally, the PiCUS Calliper can be integrated directly into the transport case of the tomograph. This way you have everything you need for the measurement compactly at hand.

The features of the PiCUS Calliper:

- Mountable in 2 sizes: the arms can be extended if required
- Large working range: up to 1600 mm or up to 2150 mm
- Automatic, fast and precise detection of all measuring point positions
- High ease of use: good readability of the displays, handy buttons and easy handling
- Light weight: Tubes made of carbon
- Control and measurement data transmission via Bluetooth, additionally via Bluetooth and cable in standalone mode



Do you have any questions? We are happy to assist you personally

E-mail: contact@iml-electronic.de

Tel. +49 381 49681440

More information via QR code!



With Passion and Precision

IML Instrumenta Mechanik Labor Electronic GmbH Erich-Schlesinger-Str. 49d 18059 Rostock | Germany

Web:

Telephone:+49 381 49 68 14 40E-Mail:contact@iml-electronic.de www.iml-electronic.com

Product information via QR code!

