



Temperature broad leaf (LAT-B3)

Leaf-to-Air-Temperature sensors (LAT) are used for direct, continuous and high-precision temperature measurements. The measured temperature parameters include absolute temperatures of the leaf surface, leaf-surrounding ambient air (T_{air}), and the temperature difference between leaf surface and ambient air ($\Delta T_{leaf-to-air}$). These devices are suitable for long-term application in outdoor conditions. Due to their extremely low power consumption, Ecomatik LAT sensors are ideal for battery-powered solutions, e.g., in IoT applications.

LAT-B3: Leaf-to-Air Temperature Broadleaf Type

With its ultra-light-weight magnetic clamp mechanism the LAT-B3's is mounted on a leaf where it uses two high-precision micro-thermistor probes to simultaneously measure absolute leaf temperature (T_{leaf}) and air temperature (T_{air}). In every individual sensor the two thermistor probes are factory-matched, ensuring maximum precision when determining the difference between leaf and air temperature ($\Delta T_{leaf-to-air}$).

Advantages

- Direct, continuous and highly accurate measurement of blade temperature (T_{leaf}), air temperature (T_{air}), and leaf-air temperature difference ($\Delta T_{\text{leaf-to-air}}$)
- Small, lightweight and flexible sensors to minimize loading on and damage to the measurement object
- Easy installation
- Maximum stability against wind and rain; specifically designed for field conditions
- Customizable production possible, e.g. for specific leaf/needle size
- Extremely low power consumption, suitable for IoT application
- Sensor signal in mV, measurable with most common data loggers

Limits

- Not suitable for leaves with a length of less than 1.4 mm and a width of smaller than 0.8 or larger than 20 cm and not suitable for leaves with a thickness of > 0.7 mm