



PTM-48M



PhyTech's PTM-48M Monitor is the most comprehensive system for analysis of plant status under normal environmental conditions available today. The system performs continuous monitoring and recording of plant's photosynthesis and transpiration rate integrated with leaf temperature, sap flow rate, stem microvariations, stem and fruit growth sensors.

The PTM-48 features 12 sensor ports. Four input ports are dedicated to the self-clamping leaf chambers and additional eight ports are used for other sensors, both environmental (PAR, Air Temperature and Humidity, Soil Moisture) and Phytomonitoring (Leaf Temperature, Sap Flow Rate, Stem Microvariations, Fruit Growth, and Stem Auxanometer). The leaf chamber features a novel, self-clamping design with two channels for measuring both reference (i.e. ambient) and sample (i.e. leaf chamber) CO₂ concentration. In addition, a daily transpiration rate may be evaluated by comparing the amount of water accumulated in the air dehumidifier (frigistor) water trap tubes. The standard chamber has a 20 cm² aperture suitable for a wide variety of broad-leaf plants. The leaf chambers remain normally open operating sequentially in order that only one of the leaf chambers is closed at any given time. This ensures that continuous long-term monitoring does not impact upon leaf state.

The PTM-48 Monitor provides fully automatic continuous operation controlled by a builtin microprocessor. Sampling rate can be selected from 15, 30 and 60 minutes. The RS-232 and RS485 ports are used for communicating with the PC. The Terminal Emulator software allows controlling system setup and operation as well as data downloading and export in TXT or CSV format for further processing and analysis.

