# Priva Sensors

## Optimizing your response to the elements

For optimal crop development, the temperature, light, humidity and $CO_2$ concentration in the greenhouse must be perfectly balanced. This requires precise measurement and control. Priva offers a wide range of sensors. Our process computers use the data from these sensors to intelligently manage $CO_2$ dosing, ventilation, shading, heating, and more. Explore the potential of our advanced and reliable sensor technology to optimize the performance of your installation and crop.

### E-Measuring Box SPE

The Priva E-Measuring Box SPE brings next-generation climate monitoring to greenhouses with reliable measurements of temperature, humidity, and optionally $CO_2$. Thanks to Single Pair Ethernet (SPE), it requires just one cable for both data and power—simplifying installation and saving time. Its durable, waterproof design withstands tough greenhouse conditions, while long-range connectivity and modular options make it a future-ready, data-driven solution.

### Precision Irrigation Management

Priva Precision Irrigation Management (PIM) revolutionizes crop irrigation and fertigation with unprecedented precision, empowering growers to achieve optimal yields while reducing water and fertilizer costs. The system provides real-time insight into plant water uptake and evaporation, helping you fine-tune irrigation strategies for better crop quality and more efficient nutrient use. By continuously measuring plant weight, drain water quantity, nutrient content (EC), and optionally acidity (pH), Priva PIM ensures precise control of each irrigation cycle while providing valuable data on crop health and development.

## Weather Station Pro 21

The WSP21 Weather Station provides accurate measurements of key outdoor conditions such as temperature, humidity, wind speed and precipitation. Equipped with a maintenance-free ultrasonic anemometer, the WSP21 provides reliable performance. Designed with adaptability in mind, the Weather Station can be tailored to your needs and expanded with additional sensors, such as a PAR sensor for photosynthesis measurements and an irradiation sensor for monitoring thermal radiation.

## PAR-sensor

The Priva PAR Sensor measures the specific part of the light spectrum that activates photosynthesis 24/7. Using the data from the sensor, your process computer calculates the optimal use of shading curtains and grow lights to achieve the best results.


## $CO_2$ Monitor

$CO_2$ is of vital importance for plant growth and development. The Priva $CO_2$ Monitor measures and monitors the carbon dioxide concentration. It extracts air from the greenhouse through a tube. Offering excellent digital precision, the Priva $CO_2$ Monitor can be extended and is easy to calibrate.

## Irradiation sensor

The Irradiation sensor measures the outward heat emission of the greenhouse. More heat is lost on sunny days than when it is cloudy. To minimize heat loss, the sensor ensures that the screens close sooner or open later on clear days. This helps prevent crop damage and saves energy

## Plant Temperature Camera

Measuring plant temperature provides valuable insight into the crop's evaporation level. Plant temperature affects the speed of cell division, cell differentiation (generative/vegetative) and cell elongation. It is a more accurate indicator of these processes than greenhouse temperature. By controlling heating, ventilation, shading, roof irrigation, humidification and/or $CO_2$ dosage based on plant temperature, you can prevent overheating due to water stress or condensation on the crop, while saving energy and reducing $CO_2$ usage.