



aranet

Temperature and Relative Humidity sensor

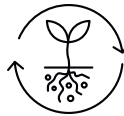
with Radiation Shield



The Aranet T/RH sensor with Radiation Shield is essential for accurate temperature and humidity measurements in greenhouses exposed to direct sunlight. Its innovative design creates a passive ventilation flow to prevent sensor heating and ensure precise readings, making it a vital tool for greenhouse ambient condition monitoring.



Wireless sensor for greenhouse applications



Evaluate dew point and other parameters in the greenhouse



Innovative design ensures precise measurements



Analyze data with Aranet Cloud



Battery life up to 10 years

Features:

The sensor delivers precise Temperature and Relative Humidity (T/RH) measurements in greenhouses. Its design effectively prevents sensor element from overheating when exposed to sunlight, all without requiring an electric ventilator to generate airflow.

The tube of the sensor is segmented into reflective and black-coated sections. Such design functions as a passive ventilation mechanism that effectively generates passive airflow through the tube. Passive ventilation maintains optimal conditions for accurate readings, making it a perfect solution for greenhouse monitoring applications.

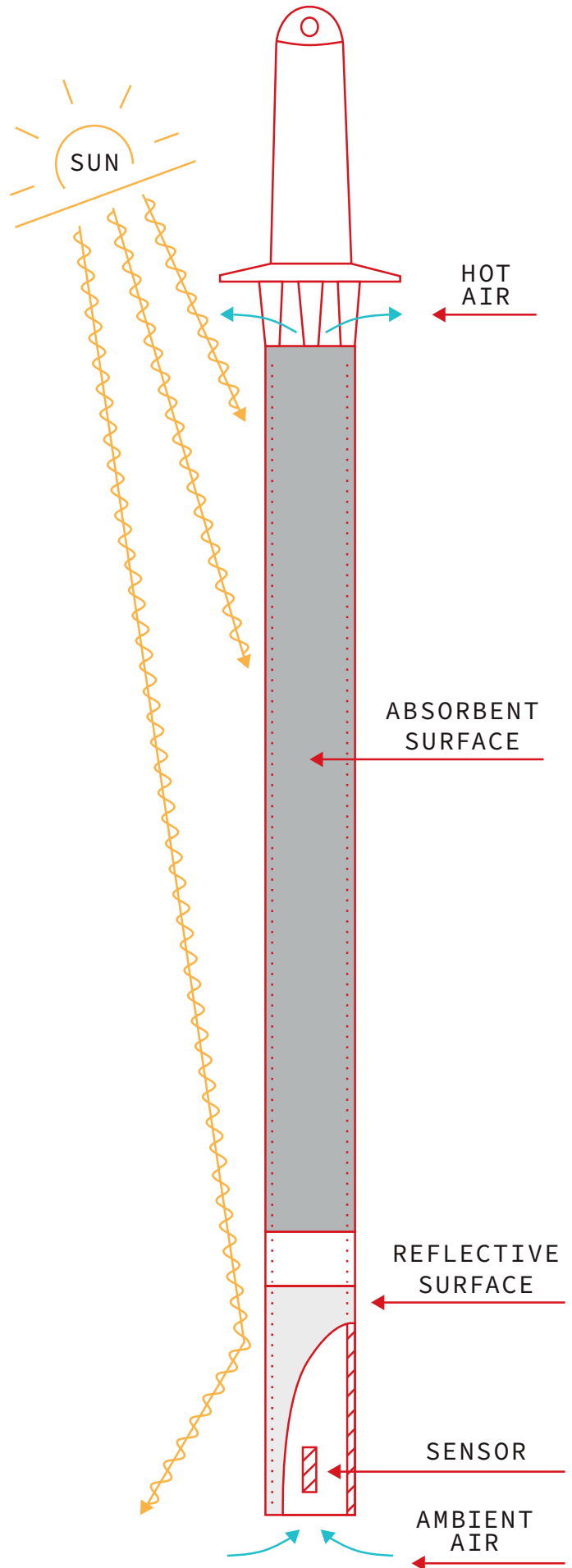


T/RH sensor with Radiation shield installed in the greenhouse.

Use cases:

Use this sensor to monitor temperature and relative humidity across the greenhouse. For detailed studies of the T/RH distribution, combine this sensor with the Aranet Temperature and Relative Humidity sensor. Detect cold spots, and uneven ventilation issues, or create a temperature map for precise greenhouse temperature management.

Utilize the virtual sensor options in the Aranet Cloud platform to calculate the dew point and determine the Vapor Pressure Deficit (VPD) by combining these measurements with plant temperature readings from an Aranet IR plant temperature sensor.



Working principle of the sensor.



Apply PAR, CO₂ and other sensors for complete ambient condition monitoring in the greenhouse.



Make data-based decisions to adapt heating and ventilation systems, or sun shading screens according to the plant needs.

Good practice recommendations:

Position the sensor vertically at the height of the plants. Ensure that the bottom and top of the sensor remain unobstructed to allow airflow through the tube.

To generate virtual sensors like VPD or dew point in the Aranet Cloud “Sensors” section, opt for the "NEW VIRTUAL SENSOR" feature in the Virtual Sensor sheet. Select the Vapor Pressure Deficit or Dew Point template and choose sensor measurements to create the appropriate virtual sensor.

