Wireless monitoring
for a greenhouse

aranet

PRO / PRO Plus base station

An environmental monitoring solution that acts as a gateway, data storage, and web server

- 3 km / 1.9 mi line-of-sight range between the base station and sensors
- Up to 100 sensors per base station
- 24 / 7 monitoring with e-mail and SMS alerts
- Safe, private network independent from 3rd party service providers
- Available for indoor or outdoor environment, with or without LTE modem

Aranet Cloud

Connect base station to Aranet Cloud for full Aranet ecosystem experience.

- Centralized accesss to all your data
- Remotely manage all Aranet devices
- Adaptable to your business needs
- Smart and effective alerting
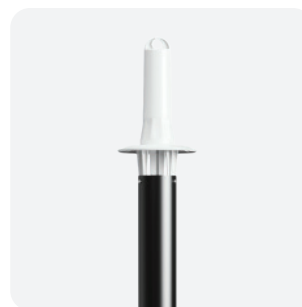- Simple integration with 3rd party systems
- Share your data publicly

Sensors

T/RH sensor

Optimize plant growth and conserve resources in a greenhouse with temperature and relative humidity sensor.
Range: T (-40 °C – 60 °C / -40 °F – 140 °F), RH (0 % – 100 %)
Accuracy: T (± 0.3 °C / ± 0.5 °F) RH (± 2°%)
IP class: IP67 (Outdoor)

T/RH sensor with Radiation Shield

Innovative greenhouse air temperature and humidity measurements
Range: T (-40 °C – 60 °C / -40 °F – 140 °F), RH (0 % – 100 %)
Accuracy: T (± 0.3 °C / ± 0.5 °F) RH (± 2°%)
IP class: IP65

IR Plant Temperature sensor

Plant temperature measurements. Critical for determining Vapor Pressure Deficit (VPD).
Range: -20 °C – 85 °C
-4 °F – 185 °F
**Accuracy:** < ± 1.0 °C / < ± 1.8 °F
IP class: IP65

T/CO$_2$ sensor

CO$_2$ concentration, atmospheric pressure and temperature sensor for industrial settings
Range: CO$_2$ (0 – 9999 ppm)
P (300 – 1100 mbar)
T (0 °C – 50 °C / 32 °F – 122 °F)
Accuracy: CO$_2$ (± 30 ppm + 3 %)
T (± 0.4 °C 0.7 °F), P (± 1 mbar)
IP class: IP67

Soil Moisture, EC and T sensor (WET150)

Soil and substrate moisture, electric conductivity, temperature
Battery life up to: 8 years
IP class: IP68
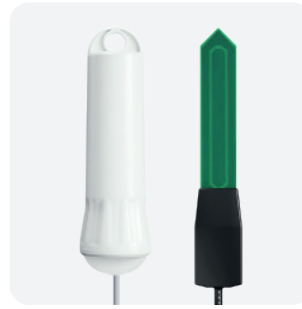
Soil Moisture sensor

Soil volumetric water content (VWC) measurements
Range: 0 – 100 %
Accuracy: ± 15 %
IP class: IP67

Weight sensor

Track plant growth by monitoring weight. Optimize environmental conditions to improve yield
Range: 0 – 50 kg / 0 – 100 kg
Accuracy: ± 0.02 %
IP class: IP67

Weight sensor with frame

Consistent, precise, and conveniently managed weighing of the seedlings. Seedlings can be weighed in their cultivation trays to minimize handling
Range: 0 – 50 kg
**Accuracy:** ± 0.02 %
IP class: IP67

PAR sensor

Light is crucial for plant development, influencing form, orientation, and reproduction, while a PAR meter measures photosynthetic active radiation to assess light exposure for plants
Range: 0 – 4000 µmol/s/m²
Accuracy: ± 10 %
IP class: IP68

Drainage sensor

Monitor the quantity of drain water from the substrate. Optimize irrigation and ensure efficient water management
Accuracy: ± 5%
IP class: IP67
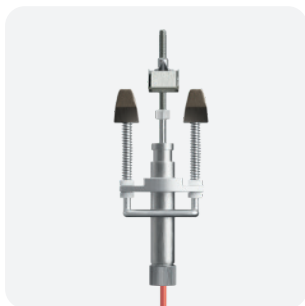
Stem Micro-Variations sensor

Monitor micro-variations of stem diameter to investigate effects of irrigation rate and other plant growth factors
Measurement range: 0 – 5 mm
Stem diameter range:
5 – 25 mm / 20 – 70 mm
IP class: IP67

Sap Flow sensor kit

Relative variations of sap flow rate in plants petiole or small shoot
Stem diamater:
1 to 5 mm or 4 to 10 mm
Power source:
External power supply
IP class (transmitter): IP67

T-probe

Innovative greenhouse air temperature and humidity measurements
Range: T (-40 °C – 60 °C / -40 °F – 140 °F), RH (0 % – 100 %)
**Accuracy:** T (± 0.3 °C / ± 0.5 °F) RH (± 2°%)
IP class: IP65

AC Hour meter

Accurately measures operational time for any device connected to the power grid
Accuracy: ± 2 minutes per month
IP class: IP67

All sensors are wireless and battery powered with battery life up to 10 years. Measurement intervals for all sensors are 1, 2, 5, and 10 minutes. (depending on sensor and data transmission interval).

Smarter
than others

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ARANET
CLOUD

ARANET IoT
ECOSYSTEM

BASE
STATION

BASE
STATION

SENSOR

SENSOR
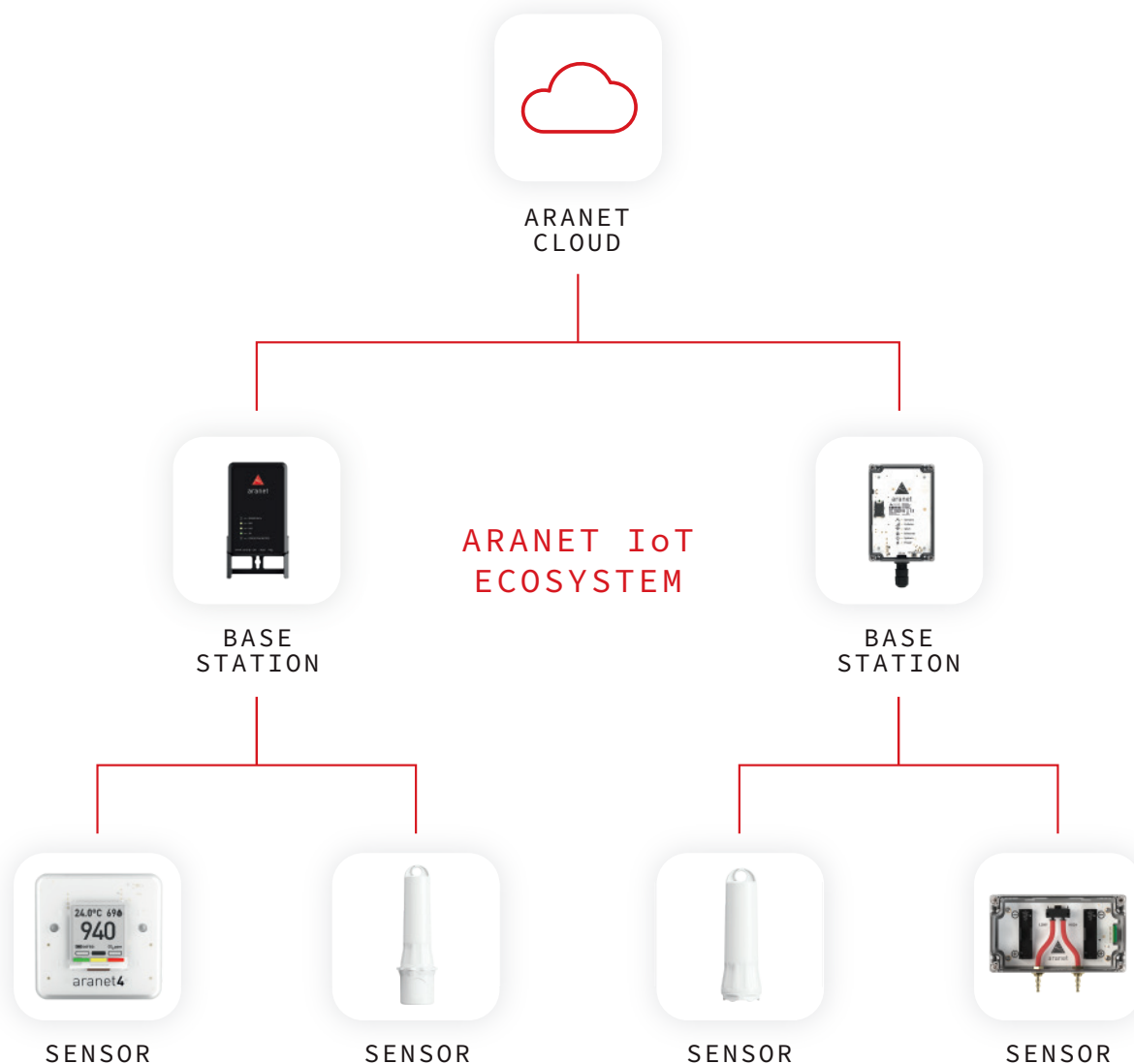
SENSOR

SENSOR

Sensors

A variety of wireless sensors that monitor conditions indoors and outdoors

Base stations

One or multiple base stations that gather and store data from sensors

Cloud

A cloud service to access, view, and analyze all your data in one place