

Wireless Temperature Monitoring

Sensor-to-cloud solution to monitor composting process and remote applications with temperature

Tekon Electronics developed a combined transmitter and probe solution with 1 or 2 measuring points. Measuring probes are powered by internal batteries, rechargeable via a solar panel. Therefore, a continuous and sustainable remote monitoring is ensured.

Temperature measurements are sent to the solution's gateway which, via a module with an internet connection, will send data to the cloud where it can be viewed and analyzed in real time, on the Tekon IoT Platform, a visualization platform and advanced data analysis from Tekon Electronics.

Note: data can be available to local automation systems. Contact our team to learn more about this option.



SOLUTION ANATOMY

Each measuring point consists of a temperature probe and a wireless transmitter. The temperature probe can be composed by 1 or 2 measuring points, according to the customer's requirements. The wireless transmitter, installed on top of the probe, can be powered in two ways:

 **Solar panel:** powered by solar energy that charges rechargeable batteries, existing inside the transmitter. The batteries can also be rechargeable via a mini USB port inside the transmitter.

 **Primary batteries:** lithium/alkaline battery pack for direct supply, inside the transmitter. It can be used with rechargeable batteries externally.

QUICK, RELIABLE AND SECURE

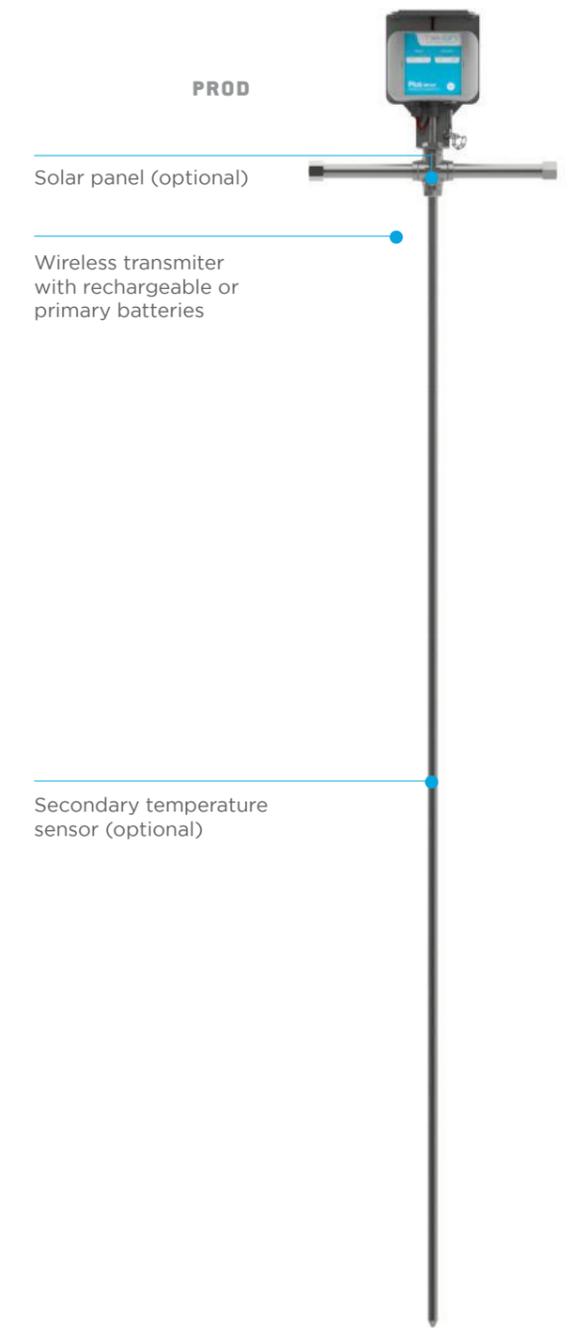
Exclude the manual process of measuring and recording temperatures from the composting process. With Tekon IoT Platform data analysis tool, you can quickly access data from any device and place. Reduce the risk of accidents at work, avoiding contact with the fermentation atmosphere. Monitoring is done remotely and continuously.

WIRELESS MONITORING

Our composting solutions work under a dedicated network to secure the collected data. All the processes can be monitored in our Tekon IoT Platform, working locally or on the cloud.

TEKON IOT PLATFORM

Tekon IoT Platform is a data visualization and analysis solution, fully developed by Tekon Electronics. Through this tool, you can consult the data from your probes and processes, at any time, from any device. You can configure alerts that focus on temperatures and other variables in the monitoring process, which will send you notifications by email or SMS, whenever the process reaches or exceeds the defined values.



Primary temperature sensor

*** UPCOMING UPDATES ***

Following customer inputs, we are working in new measuring possibilities for our composting solutions. In a near future it will be possible to measure more variables with our probes:

- Oxygen
- Moisture



BENEFITS OF COMPOSTING MONITOR SOLUTION



QUICK INSTALLATION

Suitable design to allow a quick and secure field installation.



PROCESS KNOWLEDGE

Real-time and continuous monitoring provides a complete overview of all composting process phases – mesophilic, thermophilic and maturation.



REPORTING

Export data from monitoring process or create periodic reports automatically sent to managers and operators.



SUSTAINABILITY

A solar powered solution that promotes the sustainability of your application and reduces operational costs. It includes a magnetic on/off switch to save energy when the probe is not in use. Also available without solar panel and with battery pack, for indoor applications.



SCALABILITY

Each wireless network supports up to 55 measurement points with 1 or 2 temperature sensors.



IMPROVE WORK SAFETY

Automatic recording of temperatures eliminates the need of having a worker constantly moving to the compost pile to perform manual temperature records, reducing the occurrence of work accidents.