



More than **sensors + automation**



Application

Temperature Measurement in Composting Plants



Temperature monitoring with JUMO – the most effective monitoring method

The correct handling of biodegradable waste destined for composting is stipulated in Germany by the German Biowaste Ordinance (Bioabfallverordnung). According to this ordinance, the specified temperatures for all batches of a composting system must be documented. The treatment temperature must be measured and documented at regular intervals. Only if documentation is verifiable at any point in time can the manufactured composts be deemed hygienic.

How wireless temperature measurement can save you a lot of time:

The temperature probes are simply inserted into the heaps. As a result, expensive and time-consuming cabling is not required. The transmitter is located in the probe handle and is protected by a watertight case. Via an online wireless connection the measured values are transmitted to the universal receiver in adjustable intervals. The used radio frequencies are impervious to external interference and ensure reliable data transfer, even over distances of several hundred meters. The receiver manages up to 16 temperature probes and provides measured values for higher-ranking systems (e.g. via an RS485 Modbus interface).

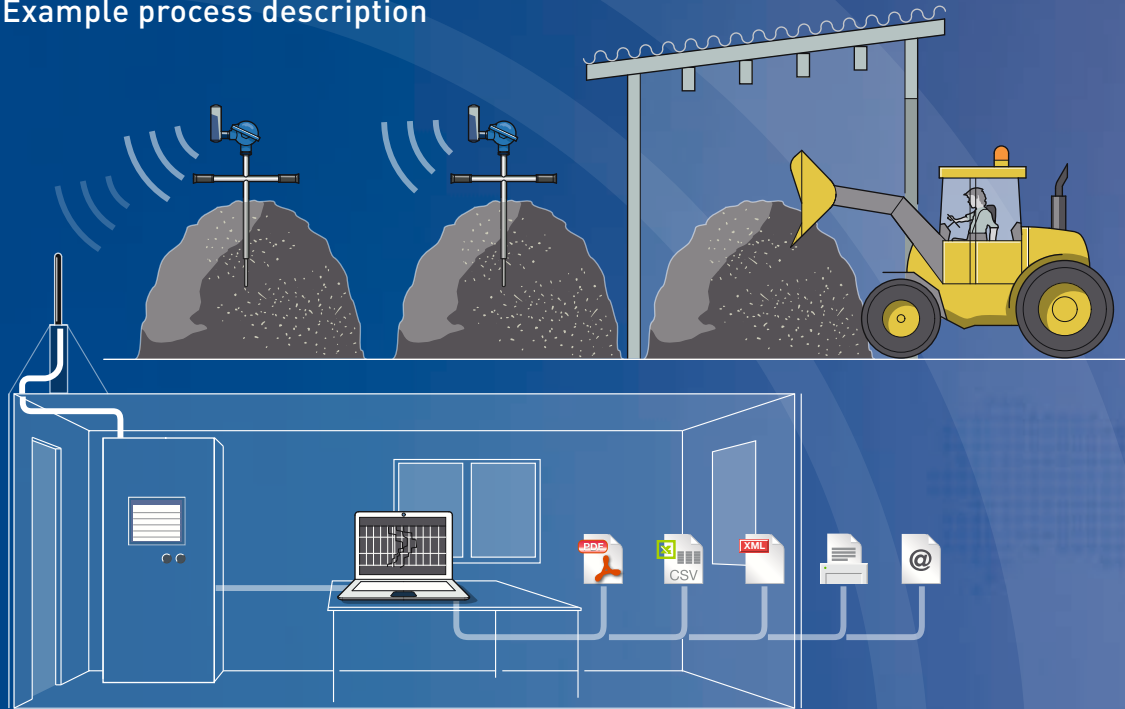
How our automation system can help you with the documentation of measured values:

The JUMO mTRON T system records and analyzes all the transmitted data. The measured values are displayed in the multifunction panel. Various display options such as curve presentation, text display, bar chart, and many more are available and can be freely selected. In addition to enabling visualization, the multifunction panel also enables convenient configuration of the system. User-dependent access with password protection guarantees a high degree of operational security and protects against unauthorized access. The integrated web server also allows all measurement data to be displayed on different PCs using an Internet browser. A highlight is the tamper-proof data recording in the system. All measured values are stored in such a way that this data can no longer be changed once it is saved. Upon request, the relevant software package can automatically produce a log of the production batch (e.g. as a PDF-file).

Your benefits in a nutshell:

By using the JUMO temperature measurement system, you are complying with an important requirement for obtaining the RAL quality seal. The entire process of temperature monitoring and documentation in composting plants is now much simpler. The data no longer needs to be laboriously recorded manually. It can now be automatically documented and logged for hygiene verification. In addition, the use of individual data loggers is no longer required. The lack of extensive cabling work makes the system particularly flexible.

Example process description



JUMO temperature probe with wireless transmission

Robust, durable, and functional. By using the JUMO temperature probes designed specifically for composting applications, you are always on the safe side. Equipped with a sturdy handle and a stainless steel lance, these temperature probes can withstand even the most adverse conditions. Various insertion lengths can be provided at any time, depending on the customer's requirements. You have the choice – we have the solution. The powerful wireless transmission ensures reliable transfer of measured values within an adjustable transmission interval. Of course, the temperature probes can also be delivered with a conventional cable and connected to such devices as our JUMO mTRON T system.



JUMO Wtrans receiver (type 902931)

The Wtrans receiver is the powerful receiver for our entire Wtrans series. Up to 16 temperature probes can be managed with this device. All measured values can be extracted easily and reliably using the interface. You will also receive support for maintenance. You can retrieve, for example, the battery status or notification messages at any time. For smaller applications, 4 analog outputs (such as 4 to 20mA) are available on the device for the output of the measured values. Equipped with relay outputs, the receiver can also display limit values completely independently by such methods as the indicator light.



JUMO mTRON T (type 705000)

The complete solution for composting plants. The modular mTRON T system offers you all the options you may require – from using it purely as a measured value recording system, through to control and data recording tasks, up to complex control for the composting process. What's more, the simple configuration of the system using an easy-to-use setup program, the many interfaces including Ethernet or USB, and not least important the tamper-proof recording of measurement data set standards. An additional software package for visualizing the measured values and for the automatic output of, for example, a PDF-file with all relevant data for the composting phase offers maximum convenience and data security.





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