

Transmission Measuring Instrument MW-T

Non-contact Measuring through Bales and Boxes



Core moisture is of particular interest in the case of large boxes and bales. The microwave transmission instrument MW-T allows non-contact measuring of core moisture irrespective of product density.

Transmission technique

MW-T has connectors for two antennas which mount on either side of the product to be measured. The sending antenna will emit microwaves to go through the product and be picked up by the receiving antenna. The electronic control instrument of MW-T analyzes the signal received and uses it to calculate the moisture and density of the product under analysis. The transmission technique was patented by TEWS Elektronik.

High measuring throughput

Working at high speed, the system takes approx. 30 readings per second which allows for the measuring of moisture and density profiles. Such profiles are useful in two ways: they allow operators to determine a mean moisture and density, and they allow the automatic detection of both foreign particles and places where moisture accumulates.



Fully automatic measuring of parceled goods

Light barriers and the ability to input digital signals allow parceled goods to be measured fully automatically. Moisture and density readings are stored or printed out to labels.

Insensitive to interference

Using MW-T to measure moisture content is not only independent of product densities but also of how the object of analysis is placed within the measuring line. Results are influenced neither by the exact distance between sensors and the product nor by any tilting of the boxes. This is what makes the instrument particularly suitable to industrial applications.

Measuring reflections from the product stream

Since sensors can be oriented vertically, MW-T can be used to carry out non-contact moisture and density measuring by picking up reflections from the product stream. This will always be the preferred option if sensors can easily get dirty through contact with the product or if the product temperature varies greatly.

Practical equipment

MW-T is also built to a robust and industrial design. A dust-proof and airtight stainless steel enclosure keeps its electronics insulated, turning the instrument into a low-maintenance piece of machinery for every industrial environment.

Touch screen and/or PC operation

MW-T has a color touchscreen monitor option to show results at the measuring point and allows all configuration settings to be changed at the instrument itself. The device can be remote-controlled via a network port as well.

STANDARD INTERFACES OF THE MW-T PROCESS MEASURING INSTRUMENT:

- Ethernet
- USB
- Analog inputs and outputs
- Digital inputs and outputs