

Accurate Online Measuring of Material Moisture



High measuring throughput

Moisture plays an important role in determining product quality or as a process parameter during the processing of food and feedstuffs, chemical, pharmaceutical and mineral substances etc.

Whereas conventional lab-based moisture measuring methods such as drying balances, drying kilns or Karl Fischer titration will return accurate results if handled correctly, they will, however, take at least a couple of minutes or, with some products, several hours before they produce results. These measuring methods are not suitable when a continuous stream of accurate results is required for process or quality control. The microwave resonance method developed by TEWS Elektronik delivers results within a fraction of a second, with the total measuring speed peaking at more than 100 readings per second. This is enough to analyze even quickly flowing products.



In insensitive to interference

There are various methods of online moisture measuring to choose from. By selecting a suitable measuring system for a certain application, care must, however, be taken that the readings will not be corrupted by varying product properties (e.g. density, color, graining, surface drying) or by ambient conditions at the measuring point (dust, different piling heights). On account of the measuring technique applied, TEWS moisture Elektronik measuring systems are designed to be insensitive to such interference.

Practical equipment



Like the instruments for laboratory use, the process measuring instruments are also made with tough industry environments in mind. For example, MW 42XX-series instruments optionally come in a compact housing equipped with a 24V power supply. Variants with special explosion protection are available for use in areas at risk of explosions. All systems feature a complete set of standard interfaces for sensor value output, the transfer of control signals or for communication with control units. MW 42XX-series process measuring systems can operate all sensors from our „Blueline®“ model range.

Touch screen and PC operation

There are various machine types suitable for particular specifications for the MW42xx-Series, such as those with a 10.4" (26,4 cm) colour touchscreen, an LCD of three lines or a single line analogue display. Function keys or touchscreen can be calibrated immediately at the test point. For parameterisation and calibration, all machines can be connected to a PC and controlled using the Tews Moisture View ® software included.

STANDARD INTERFACES OF MW 42XX PROCESS MEASURING INSTRUMENTS:

- Serial RS 422 (PC,PLC etc.)
- Serial RS 232 (modem, service)
- Ethernet
- 1 analog input (0/4-20mA)
- 3 analog outputs (0/4-20mA)
- 8 no potential digital inputs
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- Automatic sensor detection