Wood Moisture Meter PCE-MWM 210

PCE-MWM 210 VHFband sensor / continuous moisture measurement in wood pellets, chips, sawdust and similar materials (container / mixer)

Forindustrial continuous productionof wood pellets, chips, sawdust and similar materials, in-line moisture measurement for monitoring and controlling themixing process is important. Consistentquality of every batch, reduction of the consumption of wood,and shortest possible mixingtimes are the criteria which are importantin wood product production. Sensors of PCE Instruments help meet those criteria through highly accurate moisturemeasurement.

Theproduction of wood products is subject to, e.g.large fluctuations causedby varying moisturecontents of the rawand auxiliary materials (sands,aggregates). A reduction of these moisture fluctuations during storage is possible, butnot easy to implement. Therefore, it makes more sense todocontinuous online / inline moisture measurement during the mixing processto determine the respectivecomponent humiditiesor moisture. Subsequently,the dosage of water is controlled. Thisprocedure not only allows the equalizationof the quality of each batch but alsoreduces the mixing time.

PCEInstruments planar sensorsare at a suitable point inthe ground or screwed in the wall of the mixer (e.g.pan mixer, screwmixer). It can also be used when other variants or types areused, e.g. for in-line moisture measurement of additives (hopper for sand).

In combination with a controlsystem (SCADA or DCS) or a real-time moisture measurement sensor control & control unit of PCEInstruments, this is a true control ofa sensor for measuring humidity.
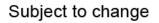
Specifications

Technical Data:

Measuring Range	0 ... 100 %
Maximum permissible error (absolute)	$\Delta = 0.035 + 0.05 \cdot W$
Temperature measurement range	-40 ... +150 °C / -40 ... 302 °F
Operating temperature range	-20 ... +80 °C / -4 ... 176 °F
Working mode	continuous operation
Measuring interval	1 s
Power supply	24 (18 ... 36) VDC
Current consumption	200 mA
Warm-up time (start-up)	90 min
Outputs	RS 485 Modbus RTU, 4-20 mA [RS485: max. cable length 1000 m; 4-20 mA: max. cable length 100 m (max. cable length to SPS unit)]
Inputs	2 x digital 24 VDC
Dimensions (sensor)	164 x 120 mm / 6.4 x 4.7 in
Dimensionen (electronics unit)	255 x 170 x 60 mm / 10 x 6.6 x 2.3 in
Protection (sensor)	IP67
Protection (electronics unit)	IP54
Weight (sensor)	3.5 kg

An integrated temperature sensor continuously measures the temperature of the wood products (The r eadings are displayed. These are used internally for temperature compensation).

Please note that we will need further information to provide a final price for supply and fit. We will need to know what materials are to be measured, we will need samples of the material, and we will need a technical drawing showing where the sensor is to be installed.

More information

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