

Paper moisture meter P2 / P4

GRUBATEC

MESS- UND REGELTECHNIK



- ◇ You have to reduce machine shutdowns?
- ◇ Do you have flatness problems because of wave formation?
- ◇ Do you have production problems because of expansion and shrinking?
- ◇ Do you have problems with ink coverage and ink saturation respectively?
- ◇ Do you have moisture variation in your production process?
- ◇ Do you have to prove your delivery quality when you are on external work?

- ☑ Optimize your servicing time because of duly detection of any moisture streaks!
- ☑ React fast on moisture variations!
- ☑ Check your products before shipment!
- ☑ Do you attach great importance on the accuracy of your production documentation!
- ☑ Optimize your drying costs!
- ☑ Use a non-destructive measuring method!



Too high or too low moisture increases your costs!

- × Ideal for the discovery of moisture streaks, easy to use
- × small, handy, precise, everywhere on the spot useable
- × measuring within seconds

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General information about material moisture:



In the field of moisture measuring there are two kinds of moisture:
Relative equilibrium moisture content and absolute moisture of material.



The relative equilibrium moisture content of a material indicates the relative moisture of ambient air counterbalancing the material. In this case the material does not absorb or release any moisture.



The absolute moisture of material indicates the percentage of water content of a material referred to the total weight (paper, grain,...) and with some materials (e.g. wood) referred to the dry mass.



Almost all materials in our surroundings are hygroscopic. This means that they soak up moisture from the surroundings or set moisture free.

Everything depends on the content of moisture!



In case grain becomes mouldy or farmers dry wheat too long, they have to sell it at a lower price. The less moisture grain contains the lighter it becomes.



If, for example, two pieces of the same kind of material (e.g. wood) containing different levels of moisture are glued together, the pieces can break apart due to loss of moisture and shrinkage of one piece resulting from that loss. Who does not know those beautiful but shaky wooden floors as a result of loss of moisture?



Another example: Two pieces of leather, one containing a lot of moisture and the other with a moisture value adapted to the air, are sewed together. The effect is the same as the one above. The moist piece of leather releases moisture into the air while shrinking at the same time. As result you get is a wavy seam.



If grain or chips of wood are stored in a place that is too moist, they become mouldy, thus resulting in a considerable degradation of quality. There can also be problems in further processing or even a standstill of machines.



You buy water at a high product price, for example in coffee, paper etc. Or take biomass fuels for example where additionally the utilization ratio quite soon decreases by half with increasing water content.



Iron in reinforced concrete bridges rusts and Rembrandt's paintings in museums fade or get cracks.

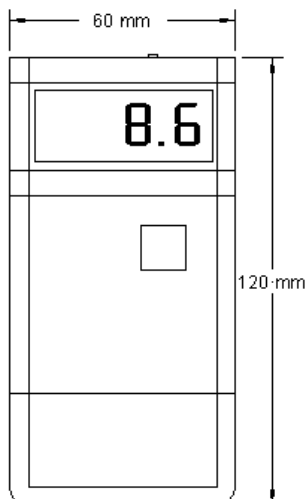
In order to avoid these costly mistakes, moisture of materials in manufacturing and treatment processes must be checked in order to give you the chance to take suitable measures in time.

Should you have any problems like the ones mentioned above or any other questions concerning moisture, please contact us: +43(0)3178/28899-0 – office@schaller-gmbh.at

Order our brochure with our whole product range or our CD-ROM by fax, telephone or via e-mail! To be up-to-date regarding moisture measuring you can subscribe to our e-mail newsletter under office@schaller-gmbh.at.

Application description for paper moisture meter P2 and P4:

After evaluation of the right switch setting by the use of EN20287-conform method, you have to put the paper moisture meter P2 or P4 on a at least 200mm high stacking or roll and press it on solidly. Now you can read of the display the absolute paper moisture.



Technical data:

Measuring principle	Dielectric
Measuring range	P2: 3% to 10% (at S4) P4: 3% to 8% (at S4)
Automatical temperature compensation	0,05%/°C
Measuring depth	13mm (18mm)
Operation temperature range	5°C to +35°C, 41°F to +95°C
Power supply	9V Alkaline or NiCd-accumulator
Current consumption	about 5mA
Automatic switchoff	after approx. 90 seconds and if there is a high measuring range overrun
Charge condition of the batteries	Flat batteries => Display BAT
Display	LC-Display 3-digit
Resolution of the display	0.1% moisture
Dimension	60 x 120 x 26 mm
Weight without batteries	about 140 Gram
Article number	P2: 10001, P4: 10299
shipment	Wooden case, test plate, protective rubber housing