MK30R - PORTABLE DEEP MOISTURE METER FOR THICK MATERIALS

- Designed for thick materials like pulp, paper and corrugated board - penetrates deep into matter but can measure sheets
- Usable for running and static reel profiles. Static reels measured with an integral distance sensor
- Excels with difficult materials like black papers and corrugated
- Extremely wide moisture range
- Suitable for static samples, stacks and running production lines
- Other materials like wood, sawdust, minerals, soil, textiles
- Wide bottom skid for all web and roll measurements plus soft materials
- Laboratory and field, QC, research and troubleshooting
- Simple to use, accurate readings, excellent repeatability
- Graphic display with trend curve / big numbers
- Wireless data transfer
- Operates with safe UHF radio waves

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Main Features and Applications

- applications in pulp, paper and board, textiles, felts, filters, recycled fiber, biofuels with fine particles, packaging papers, animal feed, peat, soil, minerals, wood, sawdust etc.
- suitable also for **corrugated** and **soft materials** and works for **reels** too. Tissue can be measured as well.
- unbeatable for **black papers**, capable of measuring plastic plate thickness
- moisture of thick and thin samples, moisture content in % (abt. **30 mm penetration in common materials**)
- wide moisture range starting from about 2 %, up to about 99 % depending on BW, **up to 8 000 g/m2 water**
- fully portable and stand-alone, an easy-to travel companion, no wires
- fast response, selectable digital filtering, 3 or 6 points per sec sampling
- superior stability, based on radio frequency technologies (UHF)
- the price is very competitive and the payback time is usually short
- a universal calibration is included for all thin papers < 400 g/m2 giving g/m2 water content

Data logging features

- operating distance: **contact required**
- measuring area 40 mm in diameter, depth to 30 mm
- nonvolatile memory banks for holding up to 820 data series with time stamp and bank number
- each bank can contain up to 500 samples
- banks can be downloaded to a PC with the original time stamp and a selectable text label, affecting directly the resulting filename too
- banks remain for years, unless erased
- graphic trend display for recent history
- the current trend display can be saved to a new bank with a button press
- autotimer sampling (adjustable sampling interval from 0.2 s and batch size 1 - 500), start with either the " + "-key or with a separate button in the handle
- statistics of collected values either from one series or of a preset number of series. This allows for averaging of sides of a large pulp bale
- low noise level even at high moistures
- a skid for measuring safely over moving webs and running rolls. It also ensures proper contact while measuring soft materials having a low-friction skid leaving no streaks, no ripping
- measurement modes: SLOW / FAST for speed selection, DRY / WET for water content range for optimum results
- water content in % total, can be calibrated as g/m2 in some materials
- calibration with multiple points for linearization (2 - 10 points)
- an integral distance meter is used when measuring accurate cross profiles of static reels synchronizing each point accurately
- five quick switching recipes for starting new measurements at regular QC positions. Calibration table and a label can be selected for each recipe
- marker key for marking a part of data series acquired
- **-CARMK** a special carrying case, water tight, shock-proof
- **-MKSTD** a polymer plate for verifying the calibration in long-term use (most stable polymers will do)

Interfaces and physical properties

- an integral display and a diaphragm keyboard
- large numeric display and a graphic display, trend curve and values
- LCD colour hue is associated with crossing preset moisture levels, high / low (alarm feature)
- battery charge indicator LEDs
- battery-backed clock for time stamping
- dimensions 260x178x139 mm, weight 1.9 kg
- IP65 enclosure for harsh environments with sturdy grips
- an operating period of at least 8 hours before recharging the battery.
- battery charger for 110 - 240 VAC mains is included. Several common chargers will do
- wireless communication via 100 meter Bluetooth, the Bluetooth adapter for the PC included
- the free **ATOM, AK30** and **AK30Mini** programs are data acquisition software for trend display, data archiving, manipulation etc. **Advanced** is an optional licensed program with plenty of features.
- meter configuration can be saved, meter starts the next session like that. Temporary changes are not saved.
- calibration tables can be saved after modification, user decides if necessary
- **Note:** Does not operate for materials containing significant amounts of **soothe**, **metal particles, metal films** or **Titanium oxide** pigment

Ambient conditions

- operating +5 ... +50 C (+70 C shortly)
- fully temperature compensated
- IP65 case tolerating some water splashes but is not water-tight. Tailored water-proof units available
- sensing surface can be cleaned if dirt accumulated
- power and clock batteries are replaced every 5 to 7 years

Options

- Tailored versions for special applications, like **PF** and **RM**

Your nearest contact:

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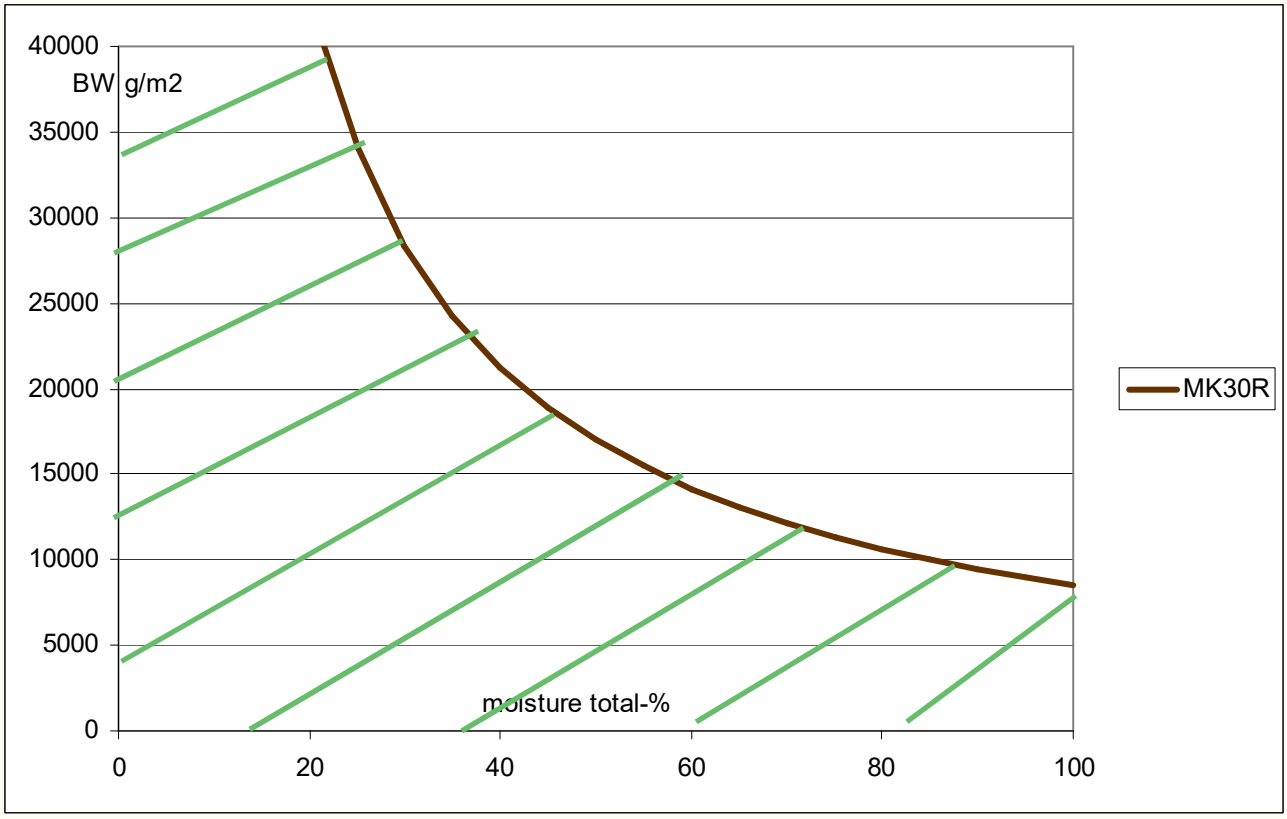
Approximate safe operating region for MK30R



Moisture accuracy for MK30R - The moisture reading accuracy is dependent on the moisture level. The calibration performed will strongly affect and so do the measuring conditions.

In order to get the best results, measure with a thick layer of material **with air compressed out between the layers** . Strong layering of water is not supposed to exist. Moisture level 2 - 40 % accuracy is +/-0.3% or better. 40 - 70 accuracy is +/-0.4 % or better, above that +/-2% or better. Repeatability numbers are usually much better than these. **MK30R** will average out the moisture of the material which it is able to "see".