AK50
ULTRA-STABLE
MOISTURE METER

VISILAB

NEW SPECIFICATIONS!

An optional box

You will get more than you expect from a small meter
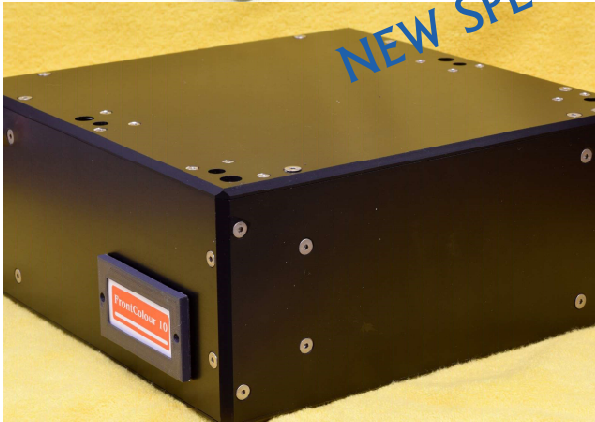
VISILAB
SIGNAL TECHNOLOGIES

AK50
One-Sided On-Line Moisture Meter for Paper and Board Mills - a Wide Range of Applications

GOOD FOR THESE:

➤ Paper machine quality control after press section

➤ Pilot paper machines, research and paper studies

➤ Coating control

➤ Fixed or scanner installations

➤ High spatial accuracy profiles thanks to the extremely small spot

➤ Batch processes

➤ Various fiber materials, felts, textiles

➤ Moisture and temperature profiles

➤ Piecewise materials, sheet cutters, sheet printers

What would you expect to have in your on-line moisture meter?

- Good reliability

- Ease of use

- Good stability

- Small size

- Suitable interfaces for mill automation

Look at what Visilab has to offer in our **AK50** on-line meter:

Standard Features:

Good reliability - It is built to last. All wearing parts are carefully designed and rated to gain extra margin. The service interval is 175 000 hours (about 20 years) of continuous use.

Ease of use - Fasten the meter to its final position, connect the cables, install the software and start measuring. Could it be simpler?

Good stability - It is manufactured according to our new ultrastable technology. We can guarantee a superior long-term stability figure.

Small size - Its dimensions are 255x155x120 mm. It includes **all** electronics. No control boxes are required. You can install the meter into quite new positions.

Interfaces - It connects to the world with the following:

➤ **Two analog outputs**, scalable and selectable as 0...+10V, +/-5V or 0...+5V, available signals are moisture and web temperature plus some secondary signals, selectable

➤ **Serial port** to PC (RS232 with 9600/115200 bauds) with a full-featured data acquisition software **Advanced, IRMA7Basic,** or **Profiler**. The software have a great number of highly useful features for regular quality control, troubleshooting and special research purposes.

➤ **Profibus DP** fieldbus (optional) with full usability of the meter. The meter can easily be connected to your existing mill automation system if you have this standardized fieldbus in use.

These interfaces are can be used simultaneously

There is more than you expected..

Speed of measurement - AK50 has a great measuring speed. It operates at a rate of **400 Hz** supplying fresh data into all interfaces with the same speed, including the analog outputs. This feature also makes it possible to do measurements of targets you have been only dreaming of. An example would be a sheet cutter. High speed means fast response times to moisture changes and more coverage for the web.

Memory banks - Five memory banks (4 kilosamples + 4 x 1 kilosamples) are built into the meters for saving data with full speed (sample intervals from 10 ms to 32000 s). The internal

autotimer takes the samples and it can be triggered by software or hardware to start sampling. This feature allows frequency analysis of web moisture signals to diagnose and identify oscillations. This is a very useful tool for preventive maintenance. Regular felt or roller condition follow-up can save you a lot of money. And this does not burden the regular use of the meter. You can realize from the frequency display some new peak and start finding out the cause for the moisture variation by matching the frequencies of rotating parts, like rollers and felts.

Calibration -It is straightforward both in field and laboratory conditions. The internal library can contain up to 100 tables which can be manipulated in the software (PC and Profibus DP). The linearity is excellent above 8%.
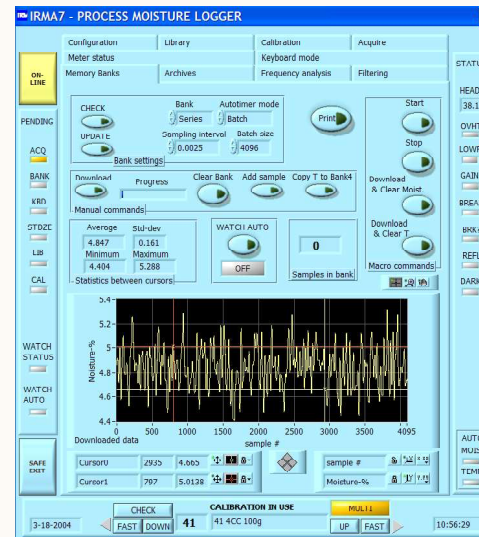
A web thermometer - Its data can be retrieved to any interface and measures directly the target with no window in between.

What else does it have? Small things like:

Extremely low noise level.

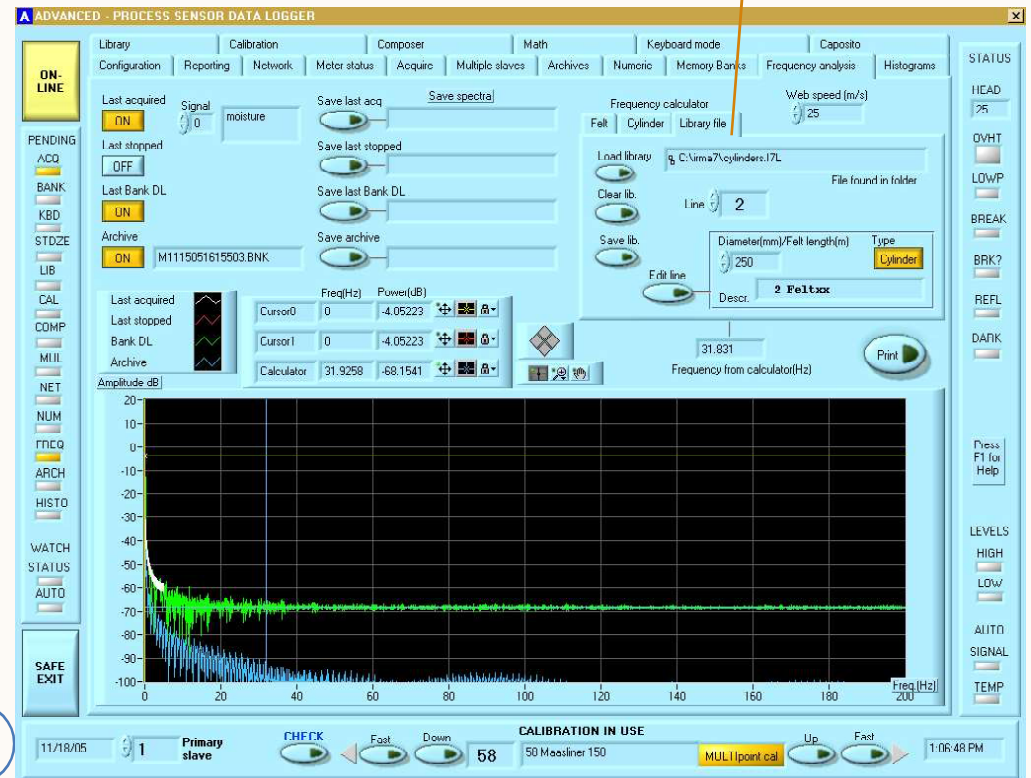**High immunity to external infrared radiation to and other external lights**

An exceptionally small spot size of 10 mm in diameter. This is new and at the cost of limiting the working range to 205 +/- 8 mm

Memory banks for collecting and archiving fast data

A simple-to use frequency calculator for recognizing roller and felt originated frequencies. One can even save information from up to 100 cylinders and felts.

Study periodic moisture variations while doing regular quality control

VISILAB
SIGNAL TECHNOLOGIES

Laser indicator for helping to adjust the meter's light spot distance (optional).
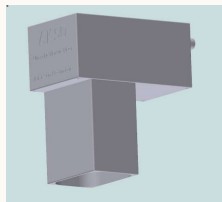
High immunity to external water vapor

A large moisture range (0...>70% total)

A unique Burst operating mode. It makes it possible to measure only the average moisture of each item in a piece-wise production machine (sheet cutters and printers) without any interference from the gaps
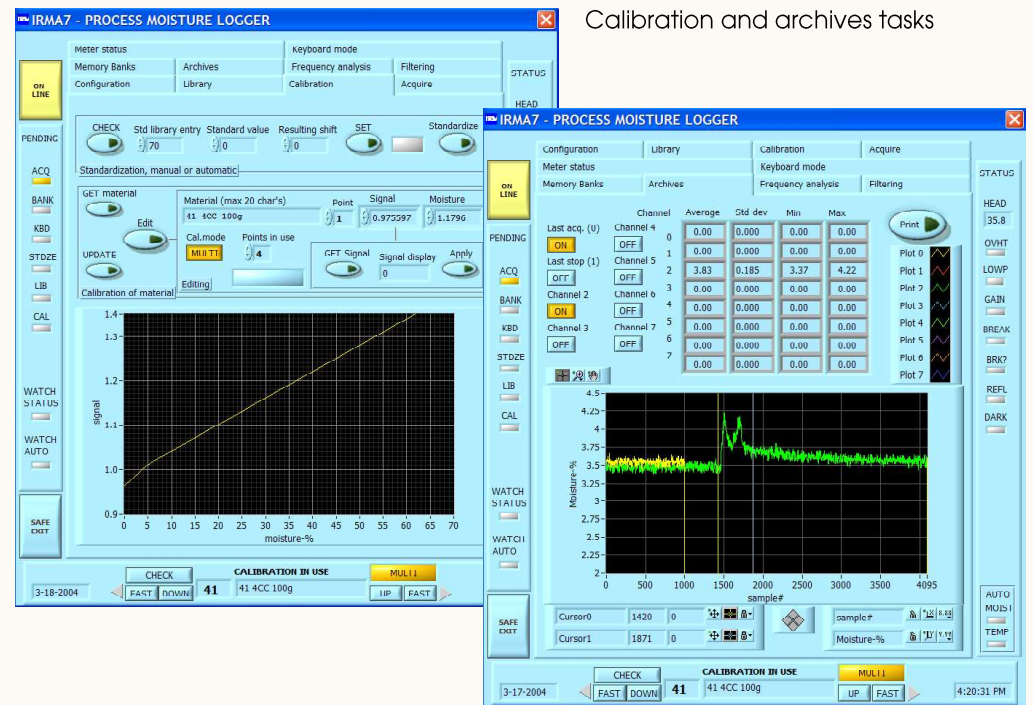
Good immunity to target angle

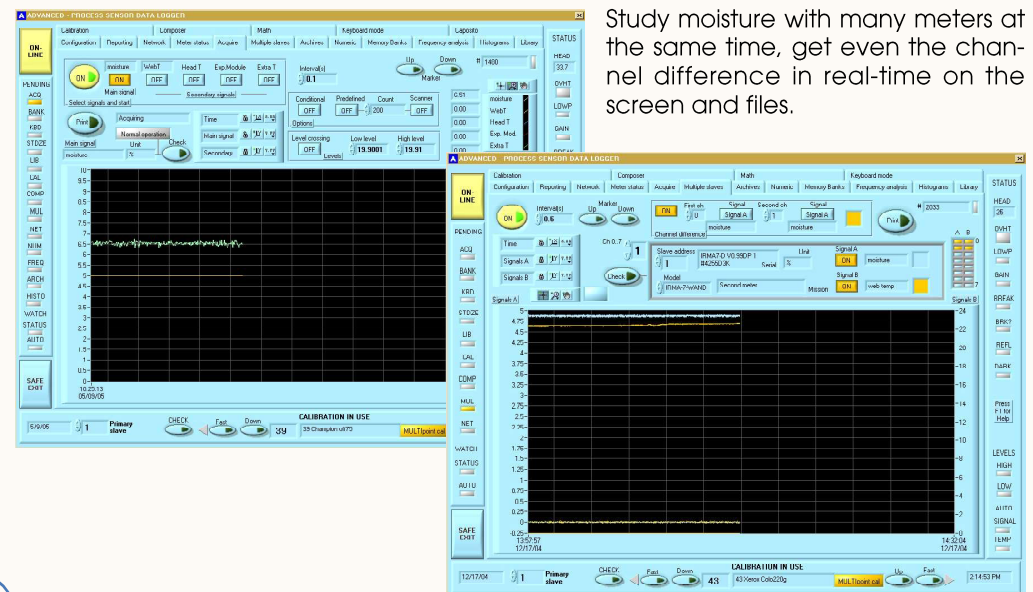A digital filter with various passbands for frequency analysis

An optional nose box for the enclosure for most requiring conditions, preventing dust and conden-sation

Vortec cooler is a standard accessory in each meter

Calibration and archives tasks

Study moisture with many meters at the same time, get even the chan-nel difference in real-time on the screen and files.

VISILAB
SIGNAL TECHNOLOGIES

A very low power consumption of 12 W - no need for water cooling, air purge is quite sufficient for all conditions with the nose box

A very competitive price

An excellent power supply unit with all interface connectors needed, most simple to use, see below

COMPOSER - a small built-in expert system for creating new calibration tables without actual calibration work. It is embedded into each meter and is always ready to serve you. The program **Advanced** also carries this feature in a yet more comfortable form.

PC program IRMA7Basic - a free program with lots of features including graphics, data saving, various data acquisition modes, full control of the meter, frequency analysis and other features for data and calibration library manipulation. Data files are spreadsheet compatible. You can get good quality reports printed out. Also HTML report files can be generated with excellent graphics. The program is very easy to use. The extended program **Advanced** supports the simultaneous use of eight meters and has lots of features not in the
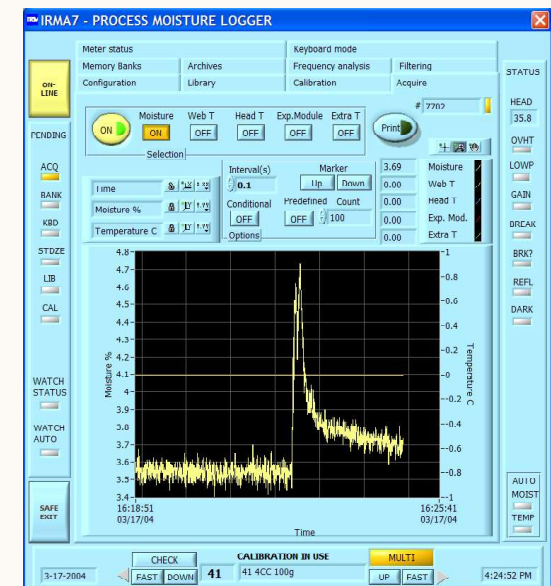
Basic version. It also supports all other sensors made by Visilab, even in the same network. It also has immediate support for slow scanners. All software are Windows 10/8/7 compatible.

Scanner program **Profiler** offering a good history filter (several options) displaying the resulting moisture profile nicely. It will need a simple logic TTL pulse down when the movement starts at each end of the scanner. Then it will start acquiring a new profile and show it in real time with many earlier profiles. These can be filtered in many ways to see which method best suits your task.

Overheating alarm & automatic shutdown

Signal Quality system showing external threatening effects from dirt or overheating etc. This signal can be retrieved from the meter with others.

Study moisture transients while doing regular quality control

Optional accessories:

LAN232 - for connecting two or more meters to create a simple LAN from RS232 ports, for data acquisition.

External standardization to prevent effects of dirty glasses - we can offer external moisture standards for tracking regularly the meter's possible dirt accumulation. Usually the buyer himself prepares some sort of mounting for this simple device made of glass.

Wireless - a Bluetooth module for up to 100 m links

AK50 is the best on-line moisture meter available:

➤ **Lowest cost**
➤ **Smallest and most compact**
➤ **Contains the largest number of useful features**
➤ **New ultrastable technology**
➤ **Fast**
➤ **Easy to use support software with several useful tools**
➤ **Excellent capability of measuring piecewise and batch production machines**

Visilab's moisture meters have been sold to a large variety of applications: From paper and machine research to troubleshooting and regular on-line use, fixed and scanners. The applications range from SC, board and newspaper to nonwoven, fabrics and printing. Visilab is cooperating with other companies to deliver complete systems with data bases, user interfaces and factory automation.

Are these specifications sufficient for you?

Now, what is keeping you from asking for more data and our price list?

*We also have products for measuring paper **Brightness**, please check our **FrontColour 5** product*

Find latest news and other up-to date material on our web pages:
www.visilab.fi

MANUFACTURER:
Visilab Signal Technologies Oy
Sepäntie 4, Monninkylä, FI-07230, Askola, Finland
Tel. +358-45-6354885
www.visilab.fi
sales@visilab.fi

Contact nearest representative for prices and availability. If unknown, contact Visilab directly. You can find the nearest representative on our web site.

VISILAB
SIGNAL TECHNOLOGIES