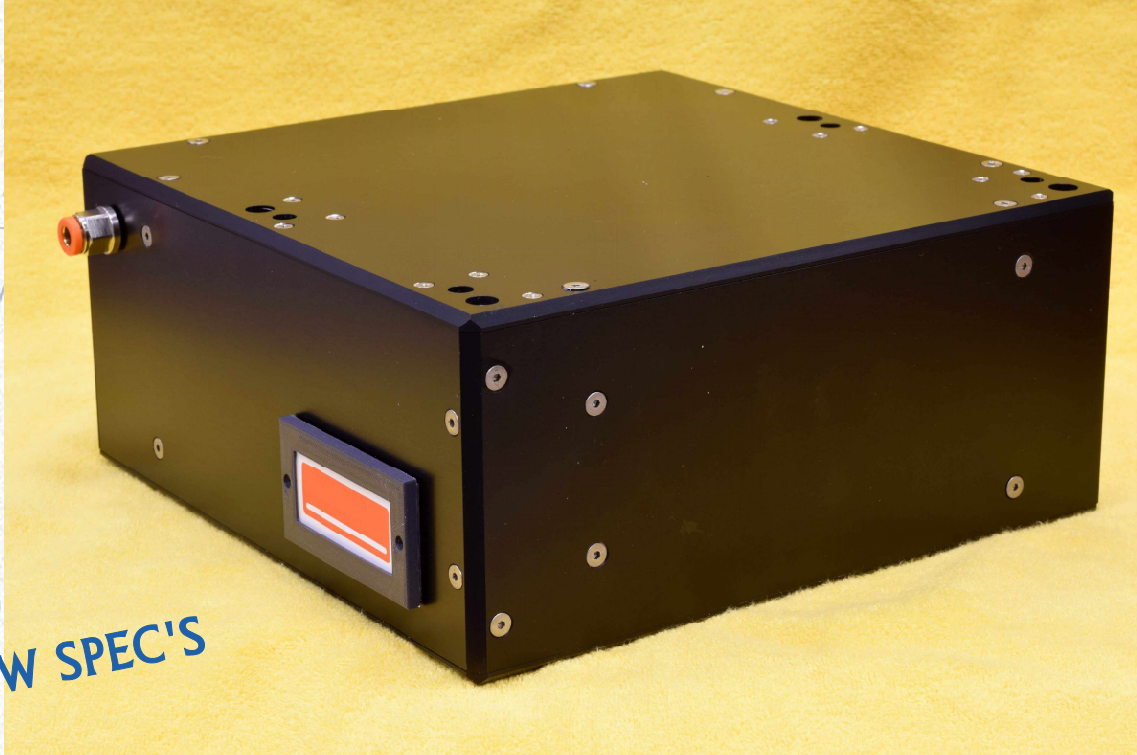# ON-LINE MOISTURE METER
AK50

NEW SPEC'S

- Designed for paper and board makers
- Simple to use, accurate readings, excellent repeatability
- Wide moisture range
- Extremely small spot size 10 mm in diameter
- Small size, light weight
- DCS interfaces: serial RS232, analog outputs
- Data logging and analysis features
- Suits laboratory and field, QC and research
- Single-point or scanner use
- Based on Visilab's latest ultrastable technology
- A more protected version is available for most requiring positions

2024-0124

VISILAB
SIGNAL TECHNOLOGIES

Main Features of AK50

- applications in pulp, paper and board industry, textiles, felts, filters, minerals, sawdust, recycled fiber, waste paper
- for single-point or scanner use in on-line measurements, QC and troubleshooting
- simple to use but has useful features for advanced work
- surface moisture in thick samples, total moisture content in thin samples (abt. 150 microns penetration)
- accuracy 0.25 %, repeatability 0.1 % or better
- wide moisture range starting from 0 %, up to about 70 %
- infrared thermometer with signal available on all interfaces
- self-consistent, power supply included, ready to start
- fast response, selectable digital filtering, 70 points per sec sampling and updating of data
- superior stability, based on latest ultrastable infrared technology of Visilab
- available in two enclosure options: Either simply protected or with a an added protective nose, a Vortec cooler is a standard in both

Data logging features

- operating distance: about 250 +/-15 mm
- measuring spot 12 mm in diameter
- autotimer sampling (adjustable sampling interval and batch size), also an external hardwired trigger
- memory bank for holding up to 4096 sample data points, can be downloaded to a PC
- extremely low noise level (typically < 0.02 % stddev at 5 % MEDIUM filter)
- ultra-high stability, no need for recalibration
- a unique BURST mode for piecewise products, like small batches on a conveyor or a sheet process
- large calibration table library (100 tables) with rapid switching
- calibration with multiple points for linearization (2 - 10 points)
- high immunity to external infrared radiation, web speed, %RH changes, external lights, angular placement etc.
- meter configuration is saved, meter starts the next session like that
- fast enough for studies of rapid phenomena and frequency analysis.
- IR thermometer range typically 0...+150 C

Interfaces and physical properties

- dimensions 275x160x120 mm without the Vortec tube, weight 4.8 kg
- sturdy painted Aluminum enclosure for harsh environments, sensitive parts are IP67 protected
- analog outputs for moisture and web temperature, voltage range settable and scalable
- regular RS232 via cable at 9600/115200 for PC's COM port
- wireless Bluetooth at the power supply unit with a 100 m range (optional)
- Profibus DP at maximum 12 Mbauds (optional)
- the free **Advanced** and **IRMA7Basic** programs are data acquisition software for trend display, data archiving, manipulation etc. **Profiler** program is for scanner use
- long service interval 175 000 h
- very low power consumption, no water cooling, air purge is sufficient in difficult conditions

Ambient conditions

- operating -10 ...+60 C, needs air purge if over +35 C
- overheating protection turns the meter to LowPower
- optical head is inside a box giving full protection
- fully temperature compensated
- the Vortec cooler will push out the air through the bottom opening. Both enclosure options work without a glass window to allow full working of the IR thermometer. Dust and condensation will not accumulate over any windows.

Please check our catalog for more details and options

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