

# PROCESS SENSORS

Visilab manufactures and delivers the following sensor program. The applications are in paper, board, pulp, corrugated and many kinds of fibre products, soil, wood chips etc.

## Moisture sensors

Model	Type	Moisture range	Depth	BW range	Working distance / Spot size / Operation	Notes
AK40	On-line	0..70+ %	Surface	> 10 g/m <sup>2</sup>	0..7 mm / 10 mm / Infrared	Economy model, Bluetooth + RS232
AK50	On-line	0..70+ %	Surface	> 10 g/m <sup>2</sup>	250 +/-8 mm / 10 mm / Infrared	Top model, RS232, analogs, Profibus DP, opt. Bluetooth/USB
MK30LP	On-line	3..25+ %	Deep	> 40 g/m <sup>2</sup>	0 mm, contact / 25x45 mm / Microwave	Soft papers, various sensing heads exist for specific applications, very low-cost model, depth to 25 mm RS232, USB
MK30LP-CUBE	On-line	3..70+ %	Deep	> 40 g/m <sup>2</sup>	0 mm, contact / 40 mm / Microwave	All papers and pulp, various sensing heads exist for specific applications, depth to 30 mm, thick and thin materials. RS232, USB, analogs for water layer of up to 8 000 g/m <sup>2</sup>
AK30	Portable	0..70+ %	Surface	> 10 g/m <sup>2</sup>	0..7 mm / 10 mm / Infrared	Universal tool, Bluetooth, RS232,USB
MK30R	Portable	0..70+ %	Deep	> 40 g/m <sup>2</sup>	0 mm, contact / 40 mm / Microwave	All papers and pulp, various sensing heads exist for specific applications, depth to 30 mm, thick materials, Bluetooth, reel profiles static & running, distance sensing for profile, for moisture up to 8 000 g/m <sup>2</sup>

## Colour sensors

Model	Type	Value range	Operation	Working distance / Spot size	Notes
FrontColour 10	On-line	CIE variables, full range	Colour	50 +/-2 mm / 8.75 mm diam.	2 Hz rate, full set of CIE variables plus more. 0/45, geometry is 0° /45° CIE 1964 10° observer, D65, A, C, D50, D55 or 75 illuminants RS232, USB, analogs, opt. Bluetooth

**Surface** means to 150 microns, **deep** to 25 / 30 mm in thick material. Infrared meters can measure all kinds of papers and even some black papers. Special chemicals may be troublesome. Microwave meters can measure all papers excluding those which contain significant amounts of *Titanium oxide, metal particles or sooth* .



For full specifications and available accessories and options, refer to the website [www.visilab.fi](http://www.visilab.fi)  
There you will find our full catalog and numerous brochures and all technical documents.

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## Options available for various models

### *Model*

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- AK30** - moisture standards of special paper enclosed between glasses
- AK40** Various enclosures according to request. Other accessories according to installation.  
- moisture standards of special paper enclosed between glasses
- AK50** Working distance / tolerance at time of order. For extreme conditions, special enclosures for protection according to request. Other accessories according to installation  
- moisture standards of special paper enclosed between glasses
- MK30LP** Various sensing heads are available. The flat low profile sensor is the default.  
- moisture standards of polymer
- MK30LP-CUBE** Various sensing heads are available. The big high-sensitivity cavity is the default. The head is in an AISI 316 box.  
- moisture standards of polymer
- MK30R**
- Version **-PF** for paper form manual measurements. The separate sensing head allows for getting into tight places
  - **Sample holder** for cylindrical and tubular material for laboratory QC testing
  - moisture standards of polymer
  - Version **-RM** for paper and pulp measurements. The separate flat sensing head at the end of a stick makes on-line measurements possible of running webs and reels

**FrontColour 10** Bluetooth, reflectance standard and colour tiles with NIST traceable data, wavelength calibrator

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Other useful accessories for a successful project are available, like **LAN232** and **LAN485** for connecting several sensors to a data acquisition PC. Wireless data links are often delivered based on Bluetooth 100 m if this feature is not already built-in. On-line sensors are suitable for scanners as well.

Various carrying cases are available for all products for safe operation at industrial conditions or wile transportation.