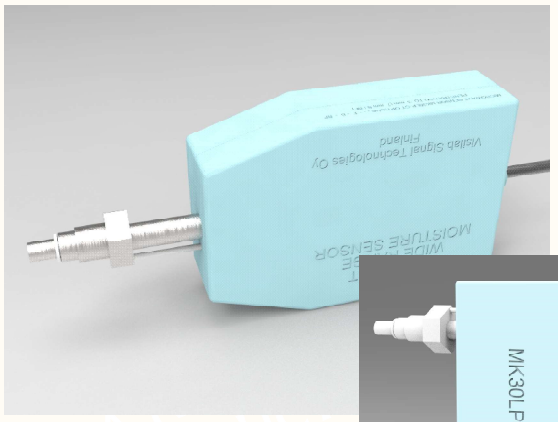
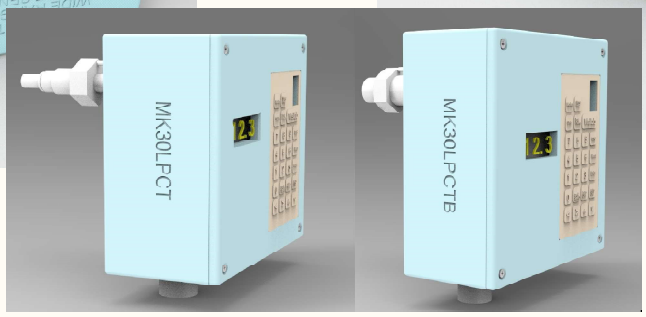
Moisture Meter MK30LP-CT and -CTB - Water Content of Liquids and Wet Masses in Vessels and Pipes



Model MK30LP-CT – penetration to 3 mm, area diam. 4 mm





Model MK30LP-CT B– penetration to 7 mm, area diam. 10 mm

Designed for thick wet materials, like pulp, special cellulose and other fibre materials, biomass, animal feed and other materials containing water. Visilab has developed a new proprietary dynamic microwave analysis algorithm for fast operation and immediate response to fast changes in signal level

Advantages

- Measures water content of mass flows or mixing vessels
- Extremely wide range from 4 % to the limit of plain water
- Simple to use, accurate readings, excellent repeatability and stability
- Continuous quality control and process adjustment
- Delivery options (3), long cables possible:
  - cable to DCS analog outputs and power feed
  - cable and power supply -PS with connections to laptop (RS232/USB) and DCS
  - MK30R-DISP unit making it virtually identical to MK30R (refer to MK30R data sheet) with wireless communications

A *display-containing version* and a *FAST version* will be available soon

Benefits

- Immediate results and rapid reactions to water content issues
- Problems are solved fast and downtime is minimized
- Small sensing head gives new opportunities for measuring in tight places
- Portable and manual use is possible at the end of cable, readings on the laptop screen. The version with an integral display will be even simpler to us
- Can measure water in various types of oils
- A really economical price

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VISILAB SIGNAL TECHNOLOGIES

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Main Specifications

- applications in pulp, special cellulose, textiles, felts, filters, biomass, animal feed and other substances with water
- water content in % (**7 / 3 mm penetration in common fibre materials CTB / CT**)
- extremely wide range starting from about 4 % to 100 % of water
- easy to install, easy to move to another spot. Portable manual use is possible for sampling the process
- fast response, 14 to 35 points/s sampling depending on configuration
- superior stability, based on radio frequency technologies (UHF)
- the price is very economical
- operation based on very advaced algorithms and specially designed microwave cavities

Data logging features

- operating distance: **contact required**
- measuring area 10.0 / 4.0 mm in diameter, depth to 7.0 / 3.0 mm (CTB / CT)
- low noise level even at high water content
- Materials in contact with the liquids are AISI316 and PTFE for easy cleaning
- calibration with multiple points for linearization (2 - 10 points)
- temperature compensated within 0...105 C
- **Note:** Does not operate for materials containing significant amounts of **soothe**, **metal particles, metal films** or **Titanium oxide** pigment
- withstands +1..+102 C and measures over this range. Pressure range 1.0 +/-1.0 bar (CT), 1.0 +/-0.5 bar (CTB)
- able to measure water in many types of oils, even in very low levels like 0.5%
- does not measure frozen water without an additional calibration
- can operate as standalone after initial configuration and send analog signals to DCS. Preconfigured, ready to use
- **MK30LP-CTD / MK30LP-CTBD** are special versions having a small **integral** alphanumeric display. The box is then some 30 mm thicker.
- *FAST version with a higher signal throughput rate, otherwise identical, will be available soon*

Interfaces and physical properties

- 4-20 mA and one analog 2 Volt output (or configured as 5 Volt if no 4-20 mA)
- RS232/485 cable communication RS232-USB adapter for the PC included
- process connection with a **R1/2" fitting**
- dimensions for the sensing head **CT**: diam. 10 mm, length 13 mm, diam. 15 mm length 9 mm, sensing area diam. 4 mm, R1/2" fitting, fitting R1/2", **CTB**: length 15 mm, sensing area diam. 10 mm, weight 0.8 kg
- IP67 enclosure for harsh environments, ABS plastic 112 x 173 x 45 mm
- the free **MK30LP** program is data acquisition software for trend display, data archiving, manipulation. It is a full-featured program
- meter configuration can be saved, meter starts the next session like that. Temporary changes are not saved.
- power consumption about 2.4 W, 24 Volt supply needed
- selectable protocol for MK30R display / MK30LP software with a toggle switch
- Level indicator LED with a programmable setting

Options

- **-STDMK** a polymer plate for verifying the calibration in long-term use (any stable plastic will do)
- **LAN485** a communications bridge for acquiring data from up to 15 MK30LP units. Can be used for other data communications via RS485. LAN485 is able to supply 24 Volt power to each sensor
- Delivery options:
  - a 5 m cable for **DCS** and power feed (default)
  - cable and power supply **-PS** for DCS analog signals, communications and power feed
  - **MK30R-DISP** display unit making **MK30LP-CT** virtually identical to **MK30R** being at the end of a long cable. Then it is capable of wireless communications to a laptop and also for storing data series
- **a round touching pad** mounted at the end for even easier manual use. It is made of ABS plastic, a low-cost item

Ambient conditions

- operating +1 ...+102 C for the R1/2" fitting part, the box being at a cooler side. External air cooling needed for the box if the box temperature rises over +50C
- fully temperature compensated
- pressure range for the sensing part 1.0 +/- 1.0 bar (CT), 1.0 +/- 0.5 bar (CTB)
- IP67 case

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