MS-80P Moisture Sensor

High-Performance Instrument for Moisture Measurement

The MS-80P is a unique device to measure moisture content with optical probes directly inside the pipes. Measurements in powders and pastes are possible now because of automated cleaning interfaces.

For many process applications it is necessary to measure moisture content directly in the sample. In the past this measurement option was not possible with optical measurement methods. Our Moisture Sensor MS-80 provides state of the art technology for this kind of application.

With our new optical probe you can benefit now from the combination of the powerful optical moisture measurement and the possibility to measure directly in your sample. Invasive optical measurement sometimes showed the problem of window fouling. The optical window is clogged by the sample, thus seriously affecting measurement results. The measurement process needs to be disrupted from time to time in order to clean the optical probe.

J&M is happy to provide a solution to compensate this effect. We offer different solutions to clean the probe manually or automatically.

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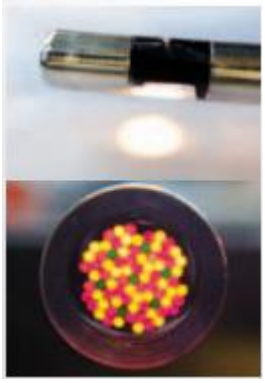
State of the Art Technology



Our system replaces the filter wheel technology by »same spot measurements«. In these systems the measuring and reference wavelengths hit the same material spot and thus improve the results.

In addition, a separate detector is provided for each wavelength. The detector and its electromagnetic circuit are adapted to the wavelength to be measured. The light source is modulated to be independent of external light. High-quality lock-in amplifiers process the signals of the detectors accurate to frequency and phase.

The LED Lighting Technology guarantees extremely long lifetime of the measurement system without needing any replacement of the light source. In combination with an optical fiber probe, it's also possible to perform real time in-line measurement.

Advantages

Some of the highlights the Moisture Sensor MS-80P offers are:

- Invasive or contactless setup
- LED technology for extremely long life time
- In-line setup with optical fiber probe
- Process interfaces available
- No moving parts, rugged system
- Hygienic design
- Database for different compositions
- Same measurement setup for all com
- High flexibility
- No consumables needed, low costs
- No sample preparation, saves time
- Less service
- Excellent price performance ratio

Features

The main features of the Moisture Sensor MS-80P are:

- Measurement directly in the sample
- Real time in-line measurement

Standard Scope of Supply

The Moisture Sensor MS-80P comes ready to use with the following standard scope of supply:

- Comprehensive documentation folder including:
    - User manual
    - DQ/QC instrument compliance test certificate

In addition to the standard scope of supply J&M offers a broad range of accessories and options including:

- Fibre-optics
- Probes
- Process connectors

Technical Data

Parameter	Specification
Measuring principle	Near Infrared reflection
Measuring range	0 – 90% moisture
Measuring accuracy	Up to ±0,1%, depending on material
Resolution	0,1%
Measuring time	2s
Measuring distance	10 to 300 mm or invasive
Measurement spot	up to 10 cm
Dimensions & Weight Body	300 x 200 x 160 mm & 2,8 kg
Light source	IR-LED
Light collector	Photo diode
Environmental temperature	5°C to 45°C without cooling
Operating voltage	24 VDC, max 0,2A
Signal output	0...10V or 4...20mA
Enclosure	IP 65
Accessories	
Cleaning Interface	Knick, LHP
EX-certificate	on customer request

We reserve the right to make technical changes without any prior notice.