



# FL-MOBIMIC-Inspector

## Microwave Moisture Measuring System Utilizing Radio Transmission for Reading Data in Concrete Truck Mixers



Our new development, the FL-MOBIMIC-Inspector, consists of a microwave moisture measuring probe, a consistency measuring bar with transmission unit and a Touch-Pad to receive and display the measuring signals.

The wireless transfer of humidity measurement signals between the transmitter and the Touch-Pad is useful in applications where the operation of wired sensors has been impossible. Our system enables accurate monitoring of the moisture gradient in concrete truck mixers.

In addition to product moisture, other process parameters such as product temperature, consistency, slump, residual water, filling level, rotating direction and speed of the mixing drum are collected for full process monitoring.

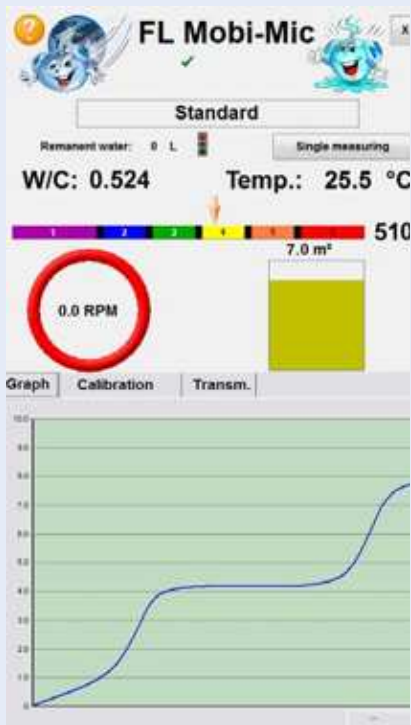
The readings are transmitted via wireless transmission to the Touch-Pad. We selected an industrial standard for the connection. This ensures reliable data transfer at long range even under challenging conditions.

The transmitter unit is powered by rechargeable batteries with the capacity for approx. 7-days of continuous measurement.

If the transmission unit is out of range of the Touch-Pad or the mixing drum is standing still, the probe and transmission unit enter a power saving mode automatically, extending the system's operation time.

The probe, consistency measuring bar and transmission unit can be installed easily in almost every mounting situation.





## Display and parametering of FL-MOBI-MIC by Touch-Pad

**Clear display of all relevant process parameters such as:**

- **Moisture**
- **Consistency**
- **Slump**
- **Residual water**
- **Temperature**
- **Mix Drum Speed**
- **Mix Drum Rotation Direction**
- **Mix Drum Filling Level**
- **Concrete Moisture Course within a specified time period**

### Features

- Compact dimensions of microwave probe and transmission unit.
- Reliable transmission of measurement signals at a long range by using industrial-strength wireless standard.
- Simple parameterization and calibration through Touch-Pad.
- No re-configuration of the FL-MOBIMIC-Inspector system after a sensor replacement required.

### Application Fields

- Moisture and Consistency measurement of concrete in rotating mix drums of truck mixers.
- Application in Readymix and Pre-cast concrete industry.

### Technical Data (Microwave Moisture Probe / Consistency Measuring Bar)

Cover (Probe)	Ø: 75 mm / L: 29 mm / Stainless Steel / IP 68
Supply Voltage / Power Consumption (Probe)	2.4 V - 5 V (via transmission unit) / 0.08 Watt
Temperature Range	0...+80°C
Consistency Measuring Bar	Stainless Steel / Length: 180 mm / Diameter (mounting flange): 150 mm

### Technical Data (Transmitter and Battery Pack)

Cover (Transmitter)	H:60 mm / W:137 mm / D:108 mm / Aluminium / IP 68
Supply Voltage / Power Consumption	2.4 V - 5 V (rechargeable batteries) / 0.7 Watt (incl. probe)
Temperature Range	0°C - 50°C
Measuring Range	0-15% or 0-XX.X% (depending on measured medium)
Accuracy	range and material dependent (appr. +/- 0.3%)
Changeable Case (Battery Pack)	H: 80 mm / W: 125 mm / D: 60 mm / Aluminium / IP 54
Battery Capacity / Voltage	16.8 Ah / (for approx. 7-day continuous operating life time) / 3.7 V

### Technical Data (Touch-Pad)

Logged Process Data	Moisture, Temperature, Filling Level, Movement Direction and Drum Speed, Consistency, Slump, Residual water
Dimensions	ca. H:25 mm / ca. W:285 mm / ca. D:195 mm
Supply Voltage	12 V/DC (via vehicle electrical system) or 110-220 V/AC
Power Consumption	30 Watt
Temperature Range	0°C - 40°C
Measuring Range	0-15% or 0-XX.X% (depending on measured medium)
Operating system	WINDOWS 7