

Liebherr Litronic-FMS II: Energy saving and process optimizing with process material moisture measurement system.

Job- Report

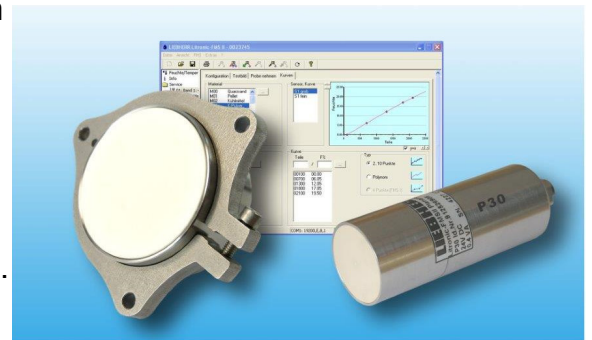
Production plants are used worldwide to process different materials like quartz sand and recycled glass (cullet) but also soda, lime, kaolin, feldspar, dolomite and many other materials. For most of all production processes the exact monitoring of the material moisture is decisive for the quality of the finished product. A further important factor is the enormous energy consumption during the processes, which causes main costs for the users.

Energy saving potential and process optimizing with exact moisture measuring

By using of an optimal working moisture measurement system as well as a direct communication with the control system of the plant best necessary target values can be reached.

Customer benefits:

- Exact determination and monitoring of product moisture content.
- High energy saving potential up to 20% of energy costs.
- Quality and process safety.
- Transparency by recording of all data.
- Process analysis and –controlling.
- Fully automatic drying process.
- Payback period often more than under a year.



Litronic-FMS II:
Sensor, electronic module and software.

Realization:

The sensors are installed with sliding shoes on conveyor belts feeding broken glass (cullet) or quartz sand to the mixer. Up to 16 sensors can be connected for each evaluation module. Due to an extensive array of interfaces the Litronic-FMS II can be connected directly with the control system of the plant. 40 measurements each second allow an exact accuracy also within high conveying speed. Moisture content of the material is measured **in-situ**, or rather in real-time.

Installation example:



Sensors on belts with sliding shoes

Upon request we would be glad to send further information or references.