

On-Line Moisture monitoring system HUMY3000

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Application and Function

The moisture in solids is an important parameter which strongly influences the quality of the product and can increase the economic efficiency of a production fundamentally. HUMY 3000 is in many processes successfully in use, e.g. for sugar, tobacco, grain, malt, flour, coal, sand, wood shavings, dried food, fertilizer, powder, pigments and plastic granules.

As installation places conveyor belts, screw conveyors, silos, funnels are particularly suitable. The inline moisture measurement is also possible in batch processes.

At the measuring the relative permittivity and the high-frequency recession of the solid is measured in the high-frequency range.

The measurement procedure makes a short and simple calibration as well as a high precision better than 0.1% possible. The measuring probe transmits the data digitally. This makes the measurement assignment disturbance insensitive and allows a distance of the sensor to the end judging unity up to 1000m.

The system supervising itself has an integrated data logger besides an automatic compensation of temperature and ageing drift, digital and alarm exits. On the LC display are represented the measurements analogously and digitally.

A simple control and parameter setting of all functions is carried out via soft keys. For product or process changes different product parameters can be stored.

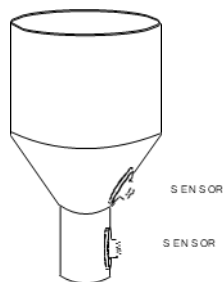
Main Benefits

- No samples for the laboratory necessary
- Saving of energy costs
- Improvement on the product quality
- Very short amortization time
- High selective sensitiveness

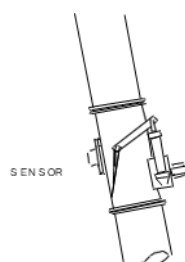
- High measuring speed
- Precision better than 0.1% (depends on product)
- Easy and economic installation
- Fast and simple calibration
- Optional ATEX-Version for zone 20 and zone 0

Examples for Installations

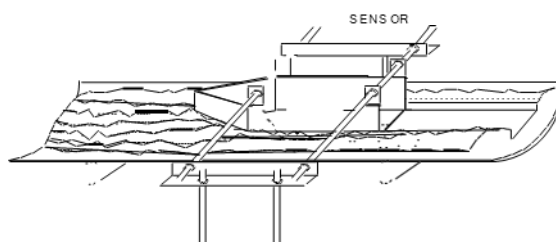
Installation in Silo



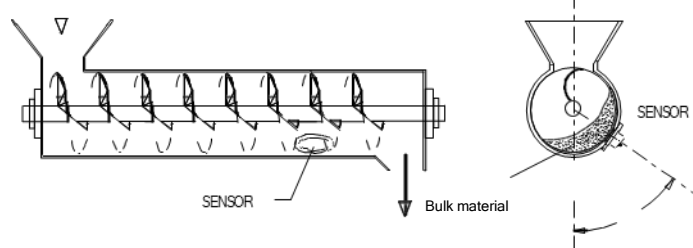
Installation in Pipe



Installation on conveyor belt



Installation in Screw Conveyor



GREENBANK ENERGY SOLUTIONS
GESI flow switch 510m



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Application examples of successfully measured products

Chemistry, pharmacy

Powders, granules, tablets, pasta, foils, fertilizer, phosphate, salt, potash, washing-powder, Styrofoam, synthetic material, PVC, acryl, pigments

Food and semi luxury food

Grain, strength, flour, malt, hop, soya, rape seed, corn, lense rice, pasta, beans, sugar beets, beet mash, beet pulp, confectionery, cereals, snack meal, raw coffee, food means, fish meal, dried food, potato products, flour, chips, flakes, sauce powders, powdered milks, spices, nuts

Building materials:

Sand/gravel quartz powder-sand, bricks (raw material), ceramic (raw material), plaster

Recycling:

Bio-, sludge, compost

Other:

Wood shavings, wood flour, coal, coal dust, tobacco, foundry sand, glass/ceramic

Applications



Sand



Animal feed



Mounting in discharge screw (wood-fired power plant)



Grain



Cereals



Coal

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