Bulk density measurement in process

DensityGuard
Fast, reliable, and on-the-spot analysis of relevant process parameters are required conditions for optimal processing. The DensityGuard determines the bulk density by the means of microwaves in real time. Mechanical components, such as scales are not necessary - the equipment is thus practically wear-free. The product just needs to be filled into the sensor and is measured there. The measuring procedure allows for continuous and automated monitoring of the process and the specifications demanded for a product.

The DensityGuard online analyzer offers a multiplicity of advantages owed to the most modern of technologies, in relation to conventional procedures. It determines the bulk density without the use of radiometric radiation and can thus be used without protection and precaution.

The measurement is in contrast to radiometric methods independently of the water content of the material. The electromagnetic field is of low power and thus presents no danger. The measuring system is free of any movable parts and is therefore low in maintenance.

The bulk density of your product can be continuously measured with quick and precise results. The DensityGuard supplies a reproducible result of measurement. The measuring system can be laid out optionally for the simultaneous measurement of density and moisture.
Advantages on a view

Microwave based measuring technique
- independent of moisture and weight
- exact and fast measurement
- without radiometric radiation

Improvement of production
- ensuring the product quality
- reduction of rejection
- reduction of complaint costs

User friendly handling
- measurement on monitor actionable
- on-line support possible
- simple calibration
- extensive evaluation and visualization possibilities [optional]
- long-term documentation by storage of the measured values

Optimized process
- automated processing
- current information for processing
- fast and punctual recognizing of disturbance

Use of the product
- The process also measures moisture independently and locally.
- Your product quality will be achieved faster and rejection will be minimized.
- Your laboratory costs will be reduced.
- The parameter bulk density is permanently examined.
- Your personnel employment is optimised.
- Your production is continuously informed in a timely manner.
Components

Technical data

Measuring range: depending on product and sensor type
Repeat accuracy: 1% of the final value of the selected measuring range
[i.e. measuring range: 0 - 500 gr/l: ± 5 gr/l accuracy]
Measuring time: two measurements per minute
Power supply: 24 VDC or 230 VAC, 50 Hz / 115 VAC, 60 Hz
Temperature
- product: 0 – 70 °C
- ambient: 0 – 40 °C
Different products: 50
Max. data set: 200.000
Data storage: hard disk drive
Interfaces
- serial: RS 422 for connecting the terminal
- analog: 4 – 20 mA, density and temperature [moisture optional]
- digital: 2 x In- and output
Size: 400 mm x 400 mm x 400 mm
Weight: 20 kg

Technical data are subject to change.

You will receive further information at:

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