

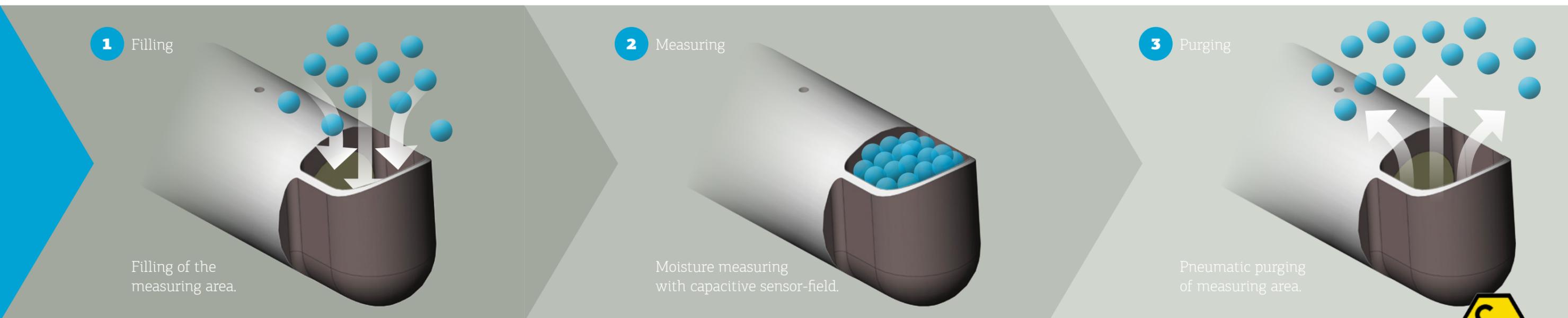
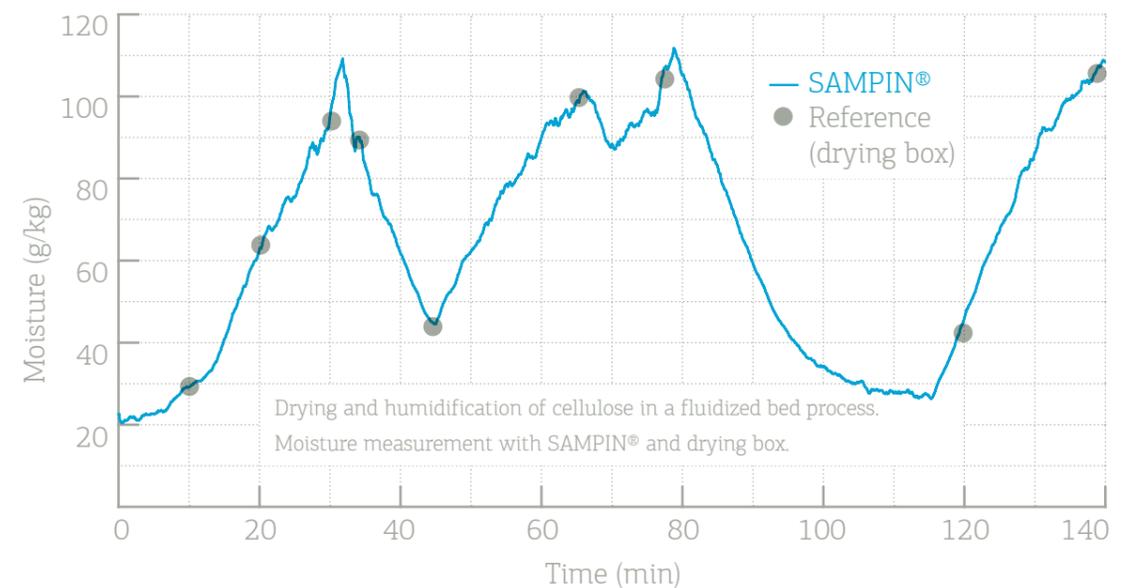
SAMPIN® Sensor for Analyzing Moist Particles Inline

Inline Sensor for Fluidized Bed Processes and Application for bulk solids

- Pressure surge protected
- Easy and fast calibration
- Qualified according to GMP
- Independent of bulk density
- Optional with Ex-certification
- Independent of process parameters
- Long-term measurement reliability

The Challenge of Moisture Measurement in Fluidized Bed Processes

Currently widely used sensor technologies are very limited and do not allow a continuous measurement of moisture in fluidized bed due to fluidization of particles. **Due to changing porosity during the process and the variation of process parameters, it is impossible for ordinary sensor systems to accurately detect moisture free of any fluctuation.** As this presents a major limitation to the end users, time consuming offline laboratory methods are the standard in the industry processes today.



SAMPIN® - The Solution

The innovative moisture measurement system **SAMPIN®** records the moisture contents of particles **extremely fast and continuously**. The measuring system works **long term stable** without any recalibration. With a fixed measurement area in front of an integrated high frequency sensor, a **resting bulk commodity** is formed for the measuring range. This **solves the problem associated with fluidization of particles** and the measurement **keeps independent from process parameters**. Calibrating the sensor specifically for the applicable product ensures a **reliable moisture measurement** regardless of process parameters. A pneumatic purging system enables a continuously exchange of process media between the fluidized bed and the fixed measurement area of the sensor. Furthermore the system is cleaned permanently.

Configuration

Each measuring unit can be adjusted to customer request. The standard type sensor has a diameter of 55 mm. During the production of the sensor, specificated connecting dimensions of existing constructions can be considered.

Sensor with PCS integration:

- ▶ evaluation device mounted in electrical control cabinet
- ▶ 4-20 mA output signal for PCS

Ex configuration:

After request the Sensor can be delivered with an Ex-certification.

Mobile unit:

- ▶ portable measuring equipment for different applications

Sensor with diameter of 130 mm:

- ▶ larger measuring head for product with a higher particle size

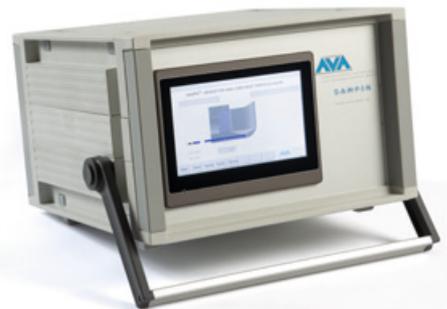
Technical Data

Sensor

Power supply: 24 VDC
Protection class: IP 65
Ex-certification (on demand)
Mounting: D= 55 mm / 130 mm
or according to requirement
Temperature: 0 - 80 °C

Evaluation unit

Power supply: 230 V
Screen: 7" (18 cm) touch-screen display
Output: 4-20 mA



Range of application

- ▶ Fluidized bed processes for agglomeration, granulation and drying
- ▶ All bulk solid applications
- ▶ Pharmaceutical industry
- ▶ Food processing industry
- ▶ Chemical industry
- ▶ Building material industry



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