



Checking fiber bales for their moisture content is crucial for the control of both the fiber production process and yarn spinning as well as for commercial reasons; but how do you test every single bale most effectively?

Our **BIS 200** is designed to be integrated into any conveyor system. It checks every single bale for its overall moisture content as well as for the moisture distribution within the bale, including the identification of wet or dry spots. **BIS 200** gives immediate feedback of the last process steps within viscose fiber production such as drying, opening and baling and hence provides important information for further processes.

BIS 200 works on-line, fully automatically and computer controlled. The results may be transferred to a central computer and/or to an automatic labelling system. A bale's commercial mass can be calculated directly in combination with a bale balance. Bales out of moisture limits can be separated immediately.

Scope:

Automatic in-line scanning of viscose staple fiber bales for determination of moisture content and moisture distribution throughout the bale together with information about wet and dry spots. The yielded information can be used for optimization of the moisture management and determination of the commercial bale properties as well as for labelling.

Method:

BIS 200 is made up of a capacitive measuring gate with an isolated measuring conveyor, which is integrated into the existing bale conveyor and a cabinet with the control and evaluation unit. The capacitive measuring gate has reference plates on top and bottom and measuring electrodes on both sides. Every bale passing through the gate is scanned „slice by slice“ for its moisture content.

Results:

The results are reported as absolute moisture content per mass unit in percent. The moisture distribution profile of the bale together with any wet or dry spots and its overall moisture content is displayed graphically.

Measuring range:

5 - 20 % absolute moisture content

Motor speed:

Approx. 0.2 m/s
(according to customer request)

Accuracy:

Better than ± 1 % absolute moisture content per mass

Repeatability:

± 0.5 % moisture content

Calibration:

Through calibration factors for different fiber types, packing materials, etc., by comparison with laboratory method (conditioning)

Alarm levels:

Can be specified and set for high and low moisture content as well as for wet and dry spots

Weight input signal:

Via PROFIBUS DP from existing automation prior to measurement

Required input for bale specifications:

Fiber type, production line, bale no., weight and other details.
To be communicated from existing automation system via PROFIBUS DP

Interface for external communication:

PROFIBUS DP

Dimensions:

Length: 2500 mm

Height: Adjustable according to customer request

Power supply:

220/380 V on request
370 W

Optionally available:

- Bale balance 0 - 300 kg
- Individual conveyor system
- Labelling station for bales

Technical data and pictures are subject to change.