YIS 200

Continuous and real time information about the characteristics of produced yarn is crucial for quality control and process optimization purposes. If feedback about defects and varying yarn properties is given not only as numerical data, but also by way of images, a thorough analysis of the momentary yarn condition can be realized.

YIS 200 of Lenzing Instruments offers online and real time visual inspection of all vital characteristics of filament yarn: Broken filaments, fluff, thin– and thick places, yarn breaks, interlace, denier, diameter and evenness. **YIS 200** is suitable for any kind of filament yarn such as twisted yarn, monofilament and spun yarn.

The system is mounted directly in the production for online monitoring of the running yarn. As the yarn passes through the camera system, the sophisticated software presents the measurement results in real time, both visually and numerically.

Additionally, the software offers numerous analysis possibilities of the stored real time data, for instance with classification of detected defects, allocation reports for localization of defects, yarn diameter statistics, interlace statistics etc.

YIS 200 is characterized by its easy handling, versatility and high accuracy.

YIS 200

YARN INSPECTION SYSTEM

Scope:
Real time monitoring of filament yarn for titer (dtex), diameter, evenness, broken filaments, entanglement/ interlace, fluff, yarn defects and yarn breaks.

Method:
A special ultra-fast line scan camera scans the homogeneously illuminated yarn while it is guided through the instrument. The generated raw signals are evaluated, using especially developed, intelligent algorithms. Each time a defect such as a broken filament, fluff, thin or thick place or diameter change occurs, a picture of the defect is generated. Simultaneously, if required, also the interlace properties of the yarn are displayed.

Results:
The yarn characteristics are displayed in real time both visally and numerically. There is both a real time event visualization showing the currently detected defects, as well as a real time process visualization, showing the raw diameter and nodes/interlace per meter along the winding length. In the historical event visualization, it is possible to load defects and test results from stored measurement for further analysis.

Measuring range titer (dtex/den)/diameter:
10 - 10000 dtex
10 - 4000 µm
resolution 1 µm

Results titer/diameter:
Min., max., average, CV
(all results are storable in files)

Measurement range interlace:
0 - 180 nodes/min
resolution 0.1 node/min

Results interlace:
Average node diameter
min., max.,
average balloon diameter
average node distance,
nodes/m, min./max.
node distance
(all results are storable in files)

Measurement range broken filaments:
± 1 dtex

Results broken filaments:
Detects broken filaments are stored as image on HDD
Distinction between left and right yarn side detection

Yarn break detection:
10 - 10000 dtex
10 - 4000 µm

Slubs/fluff:
Detected defects are stored as images on HDD

Yarn speed:
20 - 7000 m/min

Sampling rate:
68000 measurements/sec
(68 kHz)

Dimensions:
Height: 100 mm
Width: 80 mm
Depth: 270 mm

Power supply:
230/115 VAC ± 10%
50/60 Hz

Protection class:
IP 64

Optionally available:
OPC UA interface

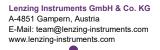Note: YIS 200 is also available as a laboratory system with a yarn take-off unit (PROMPT LAB)

Technical data and pictures are subject to change.

LENZING INSTRUMENTS

Textechno
textile testing technology