PROMPT OLT

LENZING INSTRUMENTS

ONLINE TENSION SENSOR

The yarn tension determines the performance of the yarn in various processes such as winding, twisting, weaving and knitting. Continuous monitoring of the yarn tension enables quick reactions to problems due to tension fluctuations, such as quench zone issues, finish tip, guide wear, winder variation, contaminated finish and human error.

With Lenzing Instruments **PROMPT OLT**, the absolute yarn tension of multifilament yarn is measured online with direct feedback to any deviations of set tolerances. The positioning of the yarn is of no relevance, which makes the integration of the sensor in any yarn production easy. Special yarn guides may be applied for a constant deflection angle.

PROMPT OLT is designed for applications in rough production environments and features a splash guard, which protects the sensor against finish and cleaning agents. An integrated stainless steel guard protects the ceramic yarn guide and works as an overload protection. Extra protection from dust, dirt and humidity variations as well as reduced thermal sensitivity is ensured by an optional air pressure module with cooling function.

Depending on the specific requirements of each customer, the generated sensor signals are either evaluated in the **PROMPT Visualization** software or via the Digital Tension Sensor Amplifier (DTSA).

FILAMENT TESTING

The Testing Company

PROMPT OLT

ONLINE TENSION SENSOR

Scope:
Accurate and reliable online monitoring of the absolute line tension of filament yarn, from high denier technical yarn down to micro-denier and delicate filament yarn.

Method:
The absolute line tension on the yarn is measured by means of a strain gauge transducer. Thereby, the varying forces acting on the sensor pin generate changes in the electrical resistance and in the output voltage, which correspond to a certain change in force. These electrical signals are then further evaluated for real time feedback about the tension variations.

Results:
The generated sensor signals of PROMPT OLT are either processed in combination with the optional Digital Tension Sensor Amplifier, DTSA, or in combination with a PC. The DTSA is available with or without a CAN Bus interface for digital signal analysis. If PROMPT OLT is used in combination with a PC, the results will be presented in the PROMPT Visualization software, which offers numerous analysis possibilities.

Nominal load:
0 - 50 / 0 - 100 / 0 - 250 /
0 - 500 g
0 - 1000 or higher on request

Accuracy:
0.5 % of measuring range

Linearity:
0.1 % of measuring range

Temperature range:
0 - 90 °C

Temperature compensation:
Designed for an operating range of 20 - 65 °C

Relative humidity:
Max. 90 %, not condensing

Housing:
Aluminium, anodized in grey and stainless steel guards

Overload protection:
200 % of measuring range by a stainless steel guard

Measuring principle:
Strain gauge transducer, dual beam bridge

Calibration:
Shunt calibratable with built-in zero and full scale calibration

Yarn guide:
Ceramic (exchangeable)

Dimensions:
Depends on the number of ends

Dimensions:

Height:	44 mm
Width:	10 mm
Depth:	74 mm

Optionally available:

- DTSA amplifier for signal evaluation and winder control, featuring:
  - an on-board 16-bit digital micro processor
  - built-in digital filtering for clean signals
  - auto-tare feature for simplified zero calibration
  -programmable range of outputs; 0 - 5 or 0 - 10 VDC
  - two LEDs for indication of calibration– and operational status
  - power supply: 12 - 28 VDC
- CAN interface
- Push buttons for “Zero” and “Full scale”

Technical data and pictures are subject to change.

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