

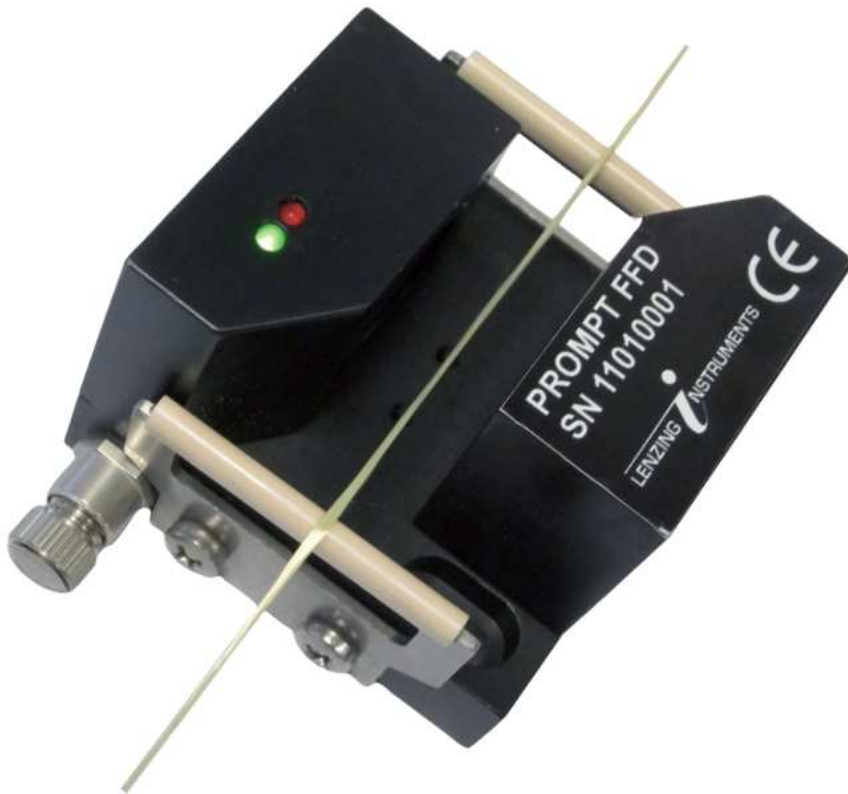
online monitoring



we keep an
eye on your quality

*The Testing
Company*

PROMPT FFD



Filament producers are aware of the importance of accurate feedback to broken filaments and fluff in real time. The collected information makes it possible to react to various production malfunctions immediately, thereby reducing second grade quality and waste. **PROMPT FFD** enables quick reactions to any deviations from the normal state of the filament. With **PROMPT FFD**, the generated signals are evaluated to give feedback with a clear distinction between broken filaments and fluff.

This vital distinction is made by Lenzing Instruments broken filaments- and fluff sensor **PROMPT FFD**, which not only offers precise classification of broken filaments and fluff, but also a number of additional features, which makes **PROMPT FFD** unique on the market. **PROMPT FFD** offers highest reliability by means of a plausibility control and lightning control for correct evaluation of incoming signals.

The sensor signals are transformed and parameterized either by applying a PLC or a PC-system. The PLC version is the choice for a cost optimized production control, whereas a parameterisation through a PC system is the choice when a complete visualisation and quality management system of the production control process is required.

The sensor itself is equipped with an LED display in two colours for indication of sensor status. As for indication of the quality status of the winders, a quality indicator (QI) can be combined with **PROMPT FFD**. The quality module is individually set for various quality indicator (QI) and colour indications.

PROMPT FFD is a fully encapsulated optical sensor, which can be fitted to almost all types of machines. It has been designed for use in rough production environments by means of a contamination compensation. **PROMPT FFD** is fully compatible with previous versions of the Fraytec sensor.

Scope:

Online, real time detection of broken filaments and fluff.

Method:

The filament is guided through the PROMPT FFD sensor, which features 6 light barriers with fault trip level selectable at 3; 4.5 and 6 mm from the yarn. Depending on which light barriers are blocked, a defect could be classified by length.

One central light barrier is used for fluff classification. The sensor performs the calculations (evaluation) and all quality state via the integrated LED display.

Results:

The results presentation of the received sensor signals depends on if PROMPT FFD is used together with a PC system or a PLC. If the parameterisation of the sensor signals is carried out through a PC, the results will be presented in the PROMPT Visualization software, which also offers numerous analysis possibilities. In the case of the parameterisation through a PLC, the active sensor status is given by means of the LED display and digital signals. In addition a quality indicator module can be connected.

Detection range:

Broken filaments down to 5 µm

Yarn guide:

Ceramic (exchangeable)

Measuring principle:

Optical

Production speed:

Up to 8000 m/min

Ambient temperature:

15 to 50 °C

Communication BUS:

Can BUS

Production class:

IP 68

Relative humidity:

Max. 90 %, not condensing

Dimensions:

Height: 58 mm

Width: 66 mm

Depth: 44 mm

Fault trip level

3; 4.5; 6 mm from the yarn

Input voltage range:

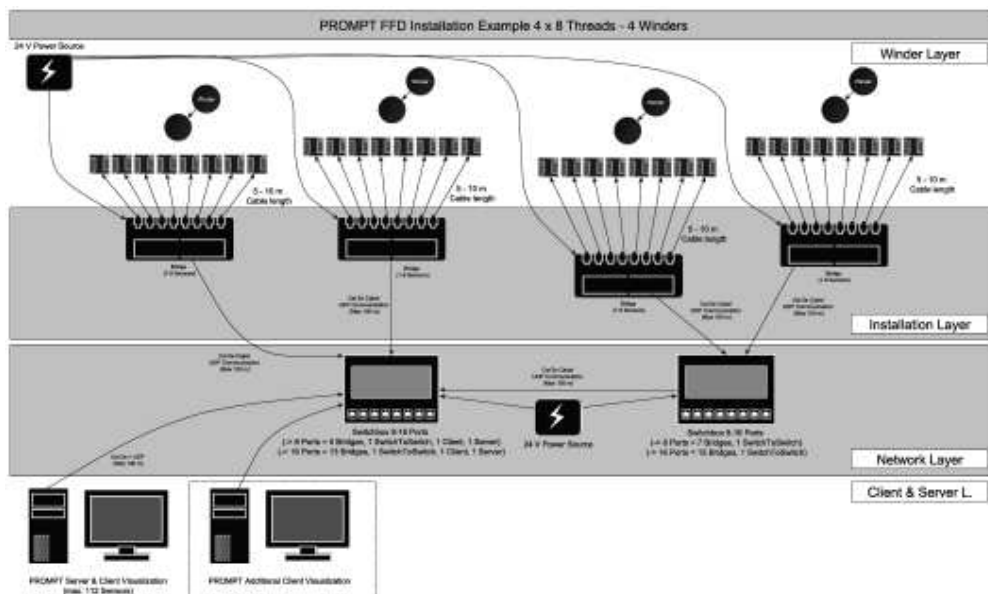
12 VDC up to 36 VDC

Housing:

Aluminium, anodized in black

Sampling rate:

80 kHz



Technical data and pictures are subject to change!



Sometimes, you need more information about detected yarn defects than total number of defects, their position and various statistical data.

Lenzing Instruments **FRAY VIEW** offers not only the above mentioned information, but also the possibility of analysing an image of each defect.

FRAY VIEW combines the advantages of a **PROMPT FFD** sensor with a high resolution digital CMOS area camera.

Broken filaments or fluff are detected by the **PROMPT FFD** sensor. Each detected event triggers the integrated camera to generate a separate image of each defect.

The images give yarn producers a sophisticated tool for thorough problem analysis and further action taking towards improved product quality.

The optical **PROMPT FFD** sensor is characterised by its ability to detect both broken filaments and fluff, with a clear distinction between the two kinds of defects. It is suitable for all kinds of production environments thanks to its fully encapsulated design.

FRAY VIEW is the ideal equipment for circumstances when more thorough defects analysis is needed.

Scope:

Image analysis of broken filaments and fluff by means of a combination of the optical **PROMPT FFD** sensor and a high resolution digital CMOS area camera.

Method:

The filament is guided through the **PROMPT FFD** sensor, which features 6 light barriers with fault trip level selectable at 3; 4,5 and 6 mm from the yarn.

One central light barrier is used for fluff classification. The intelligent sensor performs the calculation (evaluation) and the sensor status is displayed via two LED lights.

Each time the sensor detects a defect, the camera is triggered automatically and an image is captured.

Results:

The **FRAY VIEW** software displays the captured images in real time. Each event is also graphically displayed as a function of winding length or winding time. Additionally, results analysis can be carried out in the **PROMPT FFD** software, which offers both real time monitoring as well as statistical evaluation of the measurements.

The measurement data are communicated to the PC via the **FRAY VIEW** bridge box.

Detection range:

Broken filaments down to 5 µm

Production speed:

Up to 8000 m/min

Fault trip level

3; 4.5; 6 mm from the yarn

Illumination:

Flat LED lamp (white)

Observed image area:

30 x 22 mm

Yarn guide:

Ceramic (exchangeable)

Evaluation and control unit:

PC with Windows® based software

Data communication:

Can BUS from **PROMPT FFD** to bridge box and Ethernet from bridge box to PC

Ethernet from **FRAY VIEW** camera to PC

High speed digital signal from **PROMPT FFD** to flash control unit

FV box configuration:

- 1 connection for communication with **FRAY VIEW**

Ambient conditions:

15 to 50 °C

max. 90 %, not condensing

Protection class:

IP 67

Dimensions:

FRAY VIEW:

Height: 160 mm

Width: 100 mm

Depth: 200 mm

BRIDGE BOX:

Height: 340 mm

Width: 90 mm

Depth: 169 mm

Note: **FRAY VIEW** is also available as laboratory system with a yarn take-off unit (**FRAY VIEW LAB**)

PROMPT OLT



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).

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 g /
0 - 500 g
0 - 1000 g or higher on request

Accuracy:

0.5 % of measuring range

Linearity:

0.1 % of measuring range

Temperature range:

0 to 90 °C

Temperature compensation:

Designed for an operating range of 20 to 65 °C

Relative humidity:

Max. 90 %, not condensing

Overload protection:

200 % of measuring range by a stainless steel guard

Measuring principle:

Strain gauge transducer, dual beam bridge

Calibration:

Shunt calibrateable with built in zero and full scale calibration

Yarn guide:

Ceramic (exchangeable)

Dimensions:

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

Housing:

Aluminium, anodized in grey and stainless steel guards

Options:

- 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

PROMPT OLO



Optimum online monitoring of filament yarn means quality improvements and cost reductions in terms of less downgrades, less customer complaints and less costs for raw material, just to mention a few of the advantages which come with the implementation of an online monitoring system in the spinning plant.

With Lenzing Instruments optical sensor **PROMPT OLO**, optimum process control of filament yarn is achieved, since both yarn defects as well as crucial yarn characteristics are monitored continuously with real time graphical and numerical feedback.

Even the smallest defects are detected by **PROMPT OLO**, thereby enabling online monitoring of defects in applications, where this was not possible before due to sensor limitations.

PROMPT OLO monitors multifilament yarn for broken filaments, fluff, titer (dtex, den), interlace and twist. Monofilament yarn is monitored for thin and thick places as well as for diameter variations.

The slim dimensions of **PROMPT OLO** makes positioning easy in productions where common sensors are too wide. The sensor is also available without yarn guides, an option which is suitable for processes where existing yarn guide elements may be applied.

Continuous graphical and numerical results reports are displayed on a user-defined number of client PC's by means of the sophisticated **PROMPT Visualization** software.

Scope:

Optical online sensor for real time monitoring of defects and vital product parameters of filament yarn.

Suitable for all kind of filament like POY, FDY, DTY and filament yarn made of PET, PA, PP and similar materials.

Method:

The filament is guided through the optical **PROMPT OLO** sensor. Defects or varying yarn parameters induce signal fluctuations, which are communicated to the PC by means of a bridge box for data evaluation.

Results:

The results presentation of the received sensor signals depends on if **PROMPT OLO** is used together with a PC system or a PLC.

If the parameterisation of the sensor signals is done via a PC, the results will be presented in the **PROMPT Visualize** software, which offers numerous analysis possibilities. If the parameterisation is done via a PLC, the active sensor status is given by means of the LED display of the sensor and digital signals.

Titer range:

7 - 4000 dtex

Diameter:

10 - 2500 µm

Interface:

0 - 250 nodes/m

Twist:

0 - 300 twists/m

Production speed:

Up to 8000 m/min

Yarn guide:

Ceramic (exchangeable)

Optional:

Without yarn guides

Sampling rate:

100 kHz

Evaluation and control unit:

PC with Windows® based software

Data communication:

CAN bus from the PROMPT OLO sensor to the bridge box and Ethernet from the bridge box to the PC

- 1 open collector output for quality signals and status information
- 1 digital input for winder contacts, optically decoupled for input voltages from 5 to 24 VDC

Input voltage range:

24 VDC

Measuring principle:

Optical

Temperature range:

15 to 45 °C

Relative humidity:

Max. 90 %, not condensing

Protection class:

IP 67

Dimensions:

Height:	40 mm
Width:	16 mm
Depth:	150 mm

Housing:

Aluminium, anodized in black

DEFECT VIEW



Sometimes, you need more information about detected yarn defects than total number of defects, their position and various statistical data.

Lenzing Instruments **DEFECT VIEW** offers not only the above mentioned information, but also the possibility of analysing an image of each defect.

DEFECT VIEW combines the advantages of a **PROMPT OLO** sensor with a high resolution digital CMOS area camera.

Broken filaments or fluff of multifilament yarn or thin- and thick places of monofilament yarn are detected by the **PROMPT OLO** sensor. Each detected event triggers the integrated camera to generate a separate image of each defect.

The images give yarn producers a sophisticated tool for thorough problem analysis and further action taking towards improved product quality.

The optical **PROMPT OLO** sensor also monitors the filament continuously for essential yarn characteristics such as variations in diameter, interlace and twist.

DEFECT VIEW is the ideal equipment for circumstances when more thorough defects analysis is needed.

DEFECT VIEW

YARN DEFECTS VISUALIZATION

Scope:

Image analysis of broken filaments, fluff or thin- and thick places by means of a combination of the optical **PROMPT OLO** sensor and a high resolution digital CMOS area camera. Additionally, **DEFECT VIEW** continually monitors variations in twist and interlace of multifilament yarn as well as variations in diameter of monofilament yarn.

Method:

The filament is guided through the optical **PROMPT OLO** sensor. Each time the sensor detects a defect, the camera is triggered automatically and an image is captured.

Results:

The **DEFECT VIEW** software displays the captured images in real time. Each event is also graphically displayed as a function of winding length or winding time.

Titer range:

7 - 4000 dtex

Diameter:

10 - 2500 µm

Interlace:

0 - 250 nodes/m

Twist:

0 - 300 twists/m

Production speed:

up to 8000 m/min

Illumination:

Flat LED lamp (white)

Observed image area:

30 x 22 mm

Yarn guide:

ceramic (exchangeable)

Evaluation and control unit:

PC with Windows® based software

Data communication:

Can BUS from PROMPT OLO to PC

Ethernet from Defect View Camera to PC

High speed digital signal from PROMPT OLO to flash control unit

- 1 open collector output for quality signals and status information
- 1 digital inputs for winder contacts, optically decoupled for input voltages 5 to 24 VDC

Ambient conditions:

10 to 50 °C
max. 90 %, not condensing

Protection class:

IP 64

Dimensions:

DEFECT VIEW:
Length: 200 mm
Width: 160 mm
Depth: 100 mm

FLASH CONTROL UNIT:

Length: 280 mm
Width: 150 mm
Depth: 90 mm

Note: DEFECT VIEW is also available as laboratory system with a yarn take-off unit (DEFECT VIEW LAB)

Technical data and pictures are subject to change!

PROMPT OLC



Unwanted colour variations of filament yarn cause major problems in terms of downgrades, material waste and customer complaints. Visual colour inspection means subjective influence; it is also time consuming and personnel-intensive.

All this can be avoided by installing online colour sensors, which give real time information about possible colour variations of the passing yarn.

Lenzing Instruments **PROMPT OLC** colour sensor has especially been developed for colour monitoring and dirt detection on small and curved objects. This makes it ideal for all kinds of filament yarn as well as for other product areas, where the shape of the object to be detected demands for special solutions. **PROMPT OLC** is a true colour sensor, which means that it determines absolute colour with a precision better than the human eye.

With **PROMPT OLC**, the sorting process of differently coloured products is facilitated and time consuming colour comparison procedures can be avoided.

PROMPT OLC automates your colour quality control and makes it possible to integrate colour control in areas where this was not possible until now.

Scope:

Online sensor for absolute colour detection of mono- or multifilament yarn as well as for other small and curved objects.

Method:

Reference colours are taught to the system by means of a special TeachIn function. The measured colour value of the passing yarn is continuously compared to the saved reference colour, thereby considering set tolerance limits. The resulting deviation is presented as coordinates in the Lab colour space. If the deviation exceeds the tolerance limit, there will be a signal.

Results:

The results presentation of the received sensor signals depends on if **PROMPT OLC** is used together with a PC system or a PLC.

If the parameterisation of the sensor signals is done via a PC, the results will be presented in the **PROMPT Visualize** software, which offers numerous analysis possibilities. If the parameterisation is done via a PLC, the active sensor status is given by means of the LED display of the sensor and digital signals.

Titer range:
7 - 4000 dtex

Diameter:
10 - 2500 µm

Production speed:
Up to 8000 m/min

Yarn guide:
Ceramic (exchangeable)

Light source:
2 x white-light LED

Receiver:
True color sensor

Sampling rate:
16 kHz

Evaluation and control unit:
PC with Windows®
based software

Data communication:
CAN bus from the PROMPT OLC sensor to the bridge box and Ethernet from the bridge box to the PC

- 1 open collector output for quality signals and status information
- 1 digital input for winder contacts, optically decoupled for input voltages 5 to 24 VDC

Input voltage range:
24 VDC

Measuring principle:
Optical

Temperature range:
15 to 45 °C

Relative humidity:
Max. 90 %, not condensing

Protection class:
IP 64

Dimensions:

Length:	62 mm
Width:	62 mm
Depth:	73 mm

Housing:
Aluminium, anodized in black

PROMPT OLF



The quantity and quality of applied spin finish oil is of vital importance in the production of filament yarn. Thereby, the amount of applied spin finish influences the occurrence of static electricity and friction problems in the downstream handling.

Efficient and stable production conditions demand for frequent and continuous control of the spin finish amount. In order to get continuous information about the spin finish amount in the ongoing process, the implementation of online spin finish sensors is inevitable.

With Lenzing Instruments online sensor **PROMPT OLF**, continuous and real-time information is given about the momentary relative spin finish amount on the running yarn.

The quick feedback to any spin finish deviations minimizes the amount of downgrades and enables an optimisation of the spin finish consumption. **PROMPT OLF** is both available as a single end sensor, and as a multi end unit for multiple yarn ends.

For calibration of **PROMPT OLF** only one reference value is needed, thereby still offering consistently high accuracy and reliability. With its compact and robust design, the sensor is insensitive to any influence of the production environment.

Scope:

Real time online monitoring of the relative spin finish content of running filament yarn.

Method:

As the yarn passes through the **PROMPT OLF** sensor, the relative spin finish content thereof is determined by means of conductivity based technology.

Results:

The results presentation of the received sensor signals depends on if **PROMPT OLF** is used together with a PC system or a PLC.

If the parameterisation of the sensor signals is done via a PC, the results will be presented in the **PROMPT Visualize** software, which offers numerous analysis possibilities. If the parameterisation is done via a PLC, the active sensor status is given by means of the LED display of the sensor and digital signals.

Measuring ranges:

0.05 - 2 % FOY, OPU

Measuring principle:

Conductivity

Temperature range:

15 to 45 °C

Resolution:

0.001

Evaluation and control unit:

PC with Windows® based software

Relative humidity:

Max. 90 %, not condensing

Yarn speeds:

60 - 8000 m/min

Data communication:

CAN bus from the PROMPT OLF sensor to the bridge box and Ethernet from the bridge box to the PC

Protection class:

IP 65

Sampling rate:

15 kHz

Dimensions:

Depends on number of ends

Spin finish pins:

Conductive ceramic pins

Input voltage range:

5 VDC up to 24 VDC

Housing:

Synthetic material

Sampling rate:

15 kHz

OPUMETER



Would you like to be able to control the OPU / FOY content on the running yarn, but you are not prepared to make the investment needed for a complete online system?

With **OPUMETER**, filament producers have the possibility to get quick feedback about the OPU/FOY on each threadline online.

OPUMETER is a handheld and easy to use measuring tool, which gives the operator the needed information within seconds.

The read data are saved on a memory card and off-line analysis of the collected data can be carried out by means of the **OPUMETER** card reader software.

In comparison with conventional laboratory testing of the % OPU, % FOY, **OPUMETER** reduces the time gap between the actual production and the quality control process, meaning quicker reactions to production malfunctions as well as less downgraded goods.

Scope:

Determination of the Oil Pick Up (OPU) or Finish On Yarn (FOY) in % with a handheld measurement instrument for online measurements on the running yarn.

Method:

By means of conductivity based technology, the relative spin finish content of the running yarn is determined by positioning the handheld instrument in such a way that the filament is detected by the sensor. After having entered the desired measurement time and interval, a button is pressed to initiate the measurement.

Results:

The results of the measurements are saved on a USB flash drive. The data are then read by a cardreader connected to a PC. Thereafter the measurement results can be analyzed using the **OPUMETER** Card Reader Software.

Spin finish range:

0.05 - 5.00 %
(depending on the conductivity of the spin finish)

Display:

3.5" TFT-touch
Resolution: 320:240
Status display via LED to indicate communication, operation mode, etc,...

Possible parameter entries:

- Line
- Position
- Product
- Remarks
- OPU value calibration
- Measurement time from 1 sec up to 60 min

Sampling rates:

15000 measurements/sec
(15 kHz)

Operation System:

Windows® based

Data storage :

Storage capacity:
approx. 65000 measurements/
500 readings per measurement

USB flash drive max. 32 GB
500000 measurements/GByte

Ambient temperature:

20 to 45 °C

Relative humidity:

max. 90 %, not condensing

Power supply :

Li-MH accumulator 4.8 V;
nominal capacity 2800 mAh

Extern charging unit

Charging through external wall
power supply 110 - 230 VAC
50 / 60 Hz

Charging time: approx. 4 h
Measuring time: approx. 2.8 h

Dimensions handheld unit:

Height: 140 mm
Width: 180 mm
Depth: 35 mm
Weight: approx. 350 g

Dimensions display unit:

Height: 50 mm
Width: 115 mm
Depth: 200 mm
Weight: approx. 1835 g

Optional:

OPUMETER handheld with
blue tooth connection



Continuous and real time information about the characteristics of produced yarn is crucial for quality control and process optimisation 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, twisted yarn, monofilament and spun yarns.

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 localisation of defects, yarn diameter statistics, interlace statistics etc.

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

Scope:

Real time monitoring of filament yarn for titer (dtex), diameter, evenness, broken filaments, entanglement/interlace, 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 shown in real time both visually and numerically.

There is both a real time event visualisation showing the currently detected defects, as well as a real time process visualisation, showing the raw diameter and nodes per meter along the winding length. In the historical event visualisation, it is possible to load defects and test results from stored measurement for further analysis.

Measurement range titer (den/dtex)/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 – 300 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:

Detected 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 – 8000 m/min

Sampling rate:

68000 measurements/sec
(68 kHz)

Power supply:

230 / 115 VAC ± 10 %,
50 / 60 Hz

Ambient temperature:

10 – 45 °C

Relative humidity:

max. 90 %, not condensing

Protection class:

IP 64

Dimensions:

Length: 100 mm
Width: 80 mm
Depth: 270 mm

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



Detailed analysis of filament yarn characteristics such as broken filaments, fluff, evenness, yarn defects, twist and interlace is important in order to achieve maximum process optimisation. For this purpose, it is of great advantage if the monitored yarn characteristics are not only presented numerically, but also visually.

Lenzing Instruments offers a series of laboratory systems for thorough yarn analysis with integrated defects visualisation; **PROMPT LAB** is the generic product name of three systems for defect- and yarn characteristics visualisation in the laboratory: **FRAYVIEW LAB**, **DEFECT VIEW LAB** and **YIS 200 LAB**. These are all-in-one units with integrated yarn sensors and camera systems in combination with a yarn take-off system for offline operation.

All versions of **PROMPT LAB** generate pictures of detected yarn defects, which are then presented in the powerful evaluation software for further analysis. The systems differ from each other with regard to the yarn sensor and the image generation. Which **PROMPT LAB** version to apply for a specific measurement task depends on the individual requirements of each customer.

With the variety of **PROMPT LAB**, it is easy to find a laboratory system, which offers accurate and reliable defects visualisation of any kind of filament yarn.

Scope:

Off-line image analysis of yarn defects such as broken filaments and fluff as well as of vital yarn characteristics such as evenness, interlace and twist by means of a combination of an optical yarn sensor, a camera system and a take-off unit.

Method:

By means of the yarn take-off unit, the filament is guided through the optical yarn sensor. Each time the sensor detects a defect, the camera is triggered automatically and an image is captured.

Results:

The **PROMPT LAB** software displays the captured images in real time. Each event is also graphically displayed as a function of winding length or winding time. The software offers both real time monitoring as well as historical results analysis with statistical evaluation of the measurements.



FRAY VIEW



DEFECT VIEW



YIS 200

Yarn take-off speed:

800 m/min (option 1200 m/min)

Air supply:

90 psi instrument air,
20 scfm (6 bar; 0.6 Nm³/min)

Dimensions

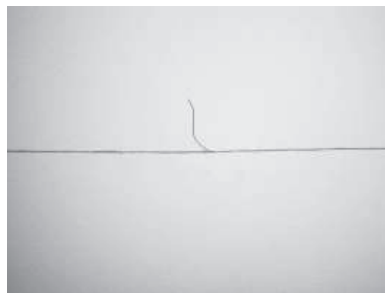
Width:	570 mm
Depth:	440 mm
Height:	400 mm

Protection class:

IP 64

Evaluation and control unit:

PC with Windows® based software



For technical details of a specific PROMPT LAB system, please refer to the leaflet of the corresponding online system.

Filament Testing

ACW 600 / DVA

dtex/den, evenness

ASC 12

sample collector for ACW

DTI 600

draw tension (molecular orientation)

RAPID 600 / RAPID 600 V

interlace, entanglement

ALFA 300 or NMR

spin finish, OPU, FOY

TST 2 / 510/250

shrinkage elongation, shrinkage force

SESS

automatic sample & data handling

YIS 200

yarn inspection system

PROMPT LAB

defect visualization

OPUMETER

handheld spin finish

AT 500

abrasion measurement

μ-METER

friction measurement

PPT 100

unwinding characteristics
package performance

Online Monitoring

FFD - Yarn Defects Sensor

fluff and fray detection

FRAY VIEW / DEFECT VIEW

yarn defects visualization

OLO - Online Optical

optical yarn inspection

OLC - Online Color

true color inspection

OLF - Online Finish Sensor

relative spin finish detection

OLT - Tension Sensor

yarn tension

DTSA - Digital Tension Signal Amplifier

tension sensor amplifier

Staple Fiber Testing

VIBROSKOP 500

dtex/den, titer

VIBRODYN 500

elongation, tenacity

VIBROTEX 400

crimp stability, crimp contraction

VIBROCHROM 400

whiteness and dyeability

CIS 200

online crimp number

ALFA 300

spin finish, OPU, FOY

FM02

dyeing apparatus

Nonwovens Testing

NIS 200

online nonwovens inspection system

NOS 200

online - or offline fiber orientation

LISTER AC / LC

liquid strike through tester

WETBACK

rewet properties

VDM 01

nonwovens thickness

GE-TE-FLOW

water permeability

GT1200

opening size tester

SLOSH BOX

flushability tester

FLUSH 100

tube dispersability test

Fabric Testing

INVISPEC

online inspection of woven materials

Film Testing

LEFT 500

film thickness

TST1

shrinkage elongation
shrinkage force

Process Control

BIS 200

moisture and wet spots
in bales

TALI 200 / 300

spinbath and
bleach bath concentration

ROFIT

fibre sampler

Lenzing Instruments represents:

High quality products

Continuous innovation

Reliable after sales service

LENZING  **INSTRUMENTS**

Did you find what you are looking for?

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Lenzing Instruments

- is active on the textile testing market since the 60's
- started within the viscose fiber producer Lenzing AG
- develops, produces and markets worldwide high quality testing systems
- offers laboratory testing equipment as well as atline and online testing systems for the process- and product quality control of staple fiber, filament, nonwovens and film
- testing systems are developed in close cooperation with the enduser

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