



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.

PRELIMINARY
TECHNICAL
DATA

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

Technical data and pictures are subject to change!

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quality improvement

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