

FUNDALUX® II – Turbidity measurement system

The FUNDALUX® II system is the new developed on-line turbidity measurement system of Sartorius BBI Systems (BBI). The turbidity measurement system FUNDALUX® II is based on proven sensor technology from optek-Danulat GmbH. The entire system is available with a totally specially developed BBI amplifier for DCU controller and new micro DCU controlled bioreactor/fermentor systems. For a retrofit of existing fermentors and bioreactors an external stand-alone amplifier is available as well.

Functional principles of FUNDALUX® II system

The FUNDALUX® II is an absorption-based photometric probe, designed for use in bioreactors and fermentors. The system uses a probe inside the culture vessel, which operates according to the transmittance principle with a wave length in the near infrared (NIR) range and is therefore not influenced by color changes of the cultivation media. By continuously measuring cell growth/biomass as a function of light absorption, the process operator can gain real-time knowledge to optimize the control of the fermentation cycle. Proven to increase yields and maximize the use of nutrients, gases and other process additions.

The FUNDALUX® II in-line measurement not only provides valuable growth cycle information, it greatly reduces laboratory costs by eliminating extensive sampling and bench analysis.

Probes

The FUNDALUX® II turbidity probes are in-situ sterilizable as well as autoclavable. They are available for either 25 mm or 19 mm diameter vessel entry ports as well as application based two different optical lengths:

- 10 mm optical path length for measurements in microbial cultures
- 20 mm optical path length for measurements in cell cultures

Amplifiers

The FUNDALUX® II turbidity measurement system is designed as an integrated measurement system for all DCU and new micro DCU controlled bioreactor/fermentor systems. An external amplifier is available as well.

Signal indication and sensor zero calibration is performed in the DCU and micro DCU software. The measurement range is 0...6 AU (absorbance units).



FUNDALUX® II



Features of FUNDALUX® II Systems

- In-line turbidity measurement
- In-situ sterilizable or autoclavable probes
- Integrated in BBI control systems
- For microbial cultures and cell cultures
- Up to 6 AU (absorbance units)
- Seal-less optic design
- LED sapphire optics
- Probes with material certificate