

DEN-600, Photometer

DESCRIPTION

DEN-600 is a compact, portable, rechargeable battery powered photometer. DEN-600 comprises of 600 nm wavelength optical system, which enables to apply - 1) OD600 method that estimated total number of cells, 2) McFarland (McF) turbidity measurement method, 3) Bradford protein assay method for protein concentration measurement.

The device serves as an inexpensive alternative to a spectrophotometer, which is commonly used for these applications. Because DEN-600 is battery powered and compact, it can be comfortably located in a biosafety cabinet, anaerobic chamber or quickly moved to another lab room. Additionally, the vessel holding mechanism allows accommodating standard 10 mm path cuvettes, round bottom, conical vials or falcon tubes, therefore enabling to measure the absorbance and turbidity in Abs, OD or McF units.

USB connectivity and DEN software allow for data transfer, data processing and calculation, software calibration for Bradford protein assay method or a custom calibration for a specifically applicable vessel and custom turbidity standards.

Common applications include:

- Cell concentration measurement
- Cell growth data estimation
- Log phase estimation for microbial cells induction
- Competent cell preparation
- Bradford protein assay method
- Antibiotic susceptibility testing
- Inhibitory tests



SPECIFICATIONS

Light source	LED, self-calibrating
Photodetector	Silicone photodiode
Measurement wavelength (λ)	600 nm ±10 nm
Vessel type	Cuvettes, round bottom tubes, falcon tubes
Measurement modes	Absorbance (Abs), McFarland (McF)
Measurement range	0 – 3.0 Abs 0 - 16.00 McF
Resolution	0.001 Abs 0.01 McF
Accuracy	±0.006 @ 1 Abs ±0.1 @ 0-8 McF
Repeatability	±0.003 @ 1 Abs ±0.05 @ 0-8 McF
Battery type	Li-Ion
PC system requirements:	Intel/AMD Processor, 1 GB RAM, Windows Vista/7/8/10, USB
Dimensions (W×D×H)	120 × 145 × 65 mm
Weight	0.5 kg
External power supply	Input AC 100–240 V 50/60 Hz, Output DC 12 V