

Specifications Sheet



Benchmark™ Microplate Reader

Ordering Information

Catalog No.	Product Description
170-6850	Benchmark Microplate Reader , 100-240 V, 50/60 Hz, includes 340, 405, 415 and 655 nm filters (installed) and two additional filters to be chosen from the list below at time of purchase, one roll of printer paper, spare fuses, dust cover, instructions
170-6906	340 nm Filter
170-6907	405 nm Filter
170-6908	415 nm Filter
170-6909	450 nm Filter
170-6910	490 nm Filter
170-6911	540 nm Filter
170-6912	550 nm Filter
170-6913	570 nm Filter
170-6914	595 nm Filter
170-6915	630 nm Filter
170-6916	655 nm Filter
170-6852	Replacement Lamp
170-6624	Printer Paper , 4 rolls

Operating panel: Membrane keypad with eight keys

Display: 4 lines x 16 characters LCD

Warm-up time: 3 minutes

Read times: 7 seconds single wavelength; 15 seconds dual wavelength

Mixing capability: Yes

Compatible plates: Polystyrene flat, U- and V-bottom, PVC flex plates

Data storage: Data and reports from last 10 plates read and system configuration parameters

Report types: Raw data, absorbance, matrix, limit, cutoff, concentration

Printer: 20 column, 5 x 7 dot-matrix printer built-in

Computer interface: Bi-directional RS232 serial communication port

Memory back-up: 5-year lithium battery

OPTICAL

Optical light source: 20 watt Tungsten halogen; 5,000 hour life

Spectral range: 340-750 nm

Filter capacity: Six

Standard filters: 340 nm, 405 nm, 415 nm, 655 nm

Optional Filters: User choice

TECHNICAL

Technical indication range: 0.000 - 4.000 O.D.

Resolution: 0.001 O.D.

Accuracy: (1.0% or 0.015 at O.D.=1 for single wavelength reading); (2.0% or 0.020 at O.D.=1 for dual wavelength reading)

Linearity: Less than 2% in the ranges of 340-399 nm (0.000-2.000 O.D.) and 400-750 nm (0.000-3.000 O.D.) less than 3.5% in the range of 400-750 nm from 0.000-4.000 O.D.

Reproducibility: Less than 2.0% or 0.005 O.D. in the range of 340-399 nm (0.000-2.000 O.D.); Less than 1.0% or 0.005 O.D. in the range of 400-750 nm (0.000-3.000 O.D.); Less than 3.5% in the range of 400-750 nm (0.000-4.000 O.D.)

Stability and drift: Automatic calibration before each plate reading

PHYSICAL

Incubator set point: 37 °C (0.5 °C at ambient temperature)

Well-to-well uniformity: 0.5 °C at ambient temperature

Warm-up time: 30 minutes at ambient temperature

Physical line voltage: 90-264 VAC, 50-60 Hz

Power consumption: 100 VA max

Dimensions: 316 x 286 x 124 mm (W x D x H)

Weight: 6 Kg

Operating temperature: 5 to 35 °C

Storage temperature: -20 to 50 °C operating and 0-95% non-condensing storage humidity

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