ELISA Microplate Reader with Monochromator, 200-1000 nm, 0-4.0 OD, 96/384-Well Absorbance

Model **MSMPR-A200SWISS,MSMPR-A200HTSWISS** | Brand **Master Science**







The ELISA Microplate Reader with Monochromator is a full-wavelength absorbance reader for 96-well and 384-well microplates. A grating monochromator selects any wavelength from 200 to 1000 nm in 1 nm steps, so ELISA, protein and nucleic acid assays can run without changing filters.

KEY HIGHLIGHTS

- Any Wavelength, No Filters
- Two Reading Modes
- Wide Linear Range
- Built-In Plate Conditioning

AT A GLANCE

200-1000 nm, 1 nm step WAVELENGTH RANGE	**0-4.0 OD** MEASURING RANGE
2 nm WAVELENGTH ACCURACY	**±(1.0% + 0.003 Abs) at 0-2.0 Abs; ±2.0% at 2.0-2.5 Abs** ABSORBANCE ACCURACY

Request a Quotation
Contact us for pricing, configuration options and delivery details.

support@themsci.com
www.themsci.com

Scan to view online

Overview

A xenon flash lamp and a double-beam design with two silicon photodetectors give a 0-4.0 OD measuring range with linearity of $R^2 \geq 0.999$ from 0 to 3.0 Abs. The ELISA Microplate Reader with Monochromator is offered in two versions: the standard model and the HT model, which adds a cuvette slot for single-sample readings from 200 to 1000 nm with incubation.

For automated plate washing before reading, pair the ELISA Microplate Reader with Monochromator with our ELISA Microplate Washer.

Labs that rely on filter-based readers often meet the issues below. The ELISA Microplate Reader with Monochromator addresses each one.

Key Benefits

Any Wavelength, No Filters
The monochromator covers 200-1000 nm in 1 nm steps, so new assays need no extra filter purchases.

Two Reading Modes
Fast mode reads a 96-well plate in under 8 s; accurate mode reads it in under 28 s with CV below 0.5%.

Wide Linear Range
Double-beam optics give $R^2 \geq 0.999$ from 0 to 3.0 Abs and a measuring range up to 4.0 OD.

Built-In Plate Conditioning
Linear shaking at three speeds and incubation up to 45°C prepare samples inside the instrument.

Technical Specifications

UNDEFINED	
Brand	Master Science
Model Number	MSMPR-A200SWISS,MSMPR-A200HTSWISS
SKU	MSMPR-A200SWISS,MSMPR-A200HTSWISS
Wavelength Selection	**Monochromator**
Wavelength Range	**200-1000 nm, 1 nm step**
Light Source	Xenon flash lamp
Wavelength Accuracy	**2 nm**
Wavelength Repeatability	**0.2 nm**
Bandwidth	< 2.5 nm
Optical System	Double beam, 2 silicon photodetectors
Plate Types	96-well and 384-well plates
Detection Mode	Absorbance
Measuring Range	**0-4.0 OD**
Linearity	$R^2 \geq 0.999$ (0-3.0 Abs)
Absorbance Accuracy	**±(1.0% + 0.003 Abs) at 0-2.0 Abs; ±2.0% at 2.0-2.5 Abs**
Absorbance Repeatability	CV < 0.5% (accurate mode); CV < 1.0% (fast mode)
Read Time (96-well)	< 8 s (fast mode); < 28 s (accurate mode)
Shaking	Linear, 3 speeds
Incubation	RT+4°C to 45°C, ±0.5°C at 37°C
Cuvette Slot (HT model)	200-1000 nm, with incubation
Display	10-inch touch screen
Storage	16 GB, more than 20,000 data files
Interfaces	1 × USB-B, 2 × USB-A, 1 × network port
Power Supply	DC 24 V, 6.67 A
Dimensions	300 × 500 × 260 mm
Net Weight	15.5 kg
Gross Weight	21 kg
Package Size	690 × 490 × 500 mm

PROBLEMS THE ELISA MICROPLATE READER WITH MONOCHROMATOR SOLVES

Slow reading delays high-throughput work	Fast mode reads a full 96-well plate in under 8 seconds.
Separate shaker and incubator take up bench space	Shaking at three speeds and incubation up to 45°C are built in.
Single samples waste a whole plate	The HT model adds a cuvette slot for single-sample readings.
Results lost without a PC	16 GB internal storage holds more than 20,000 data files.

OPTICAL PERFORMANCE

Filter readers only cover a few fixed wavelengths	**The monochromator selects any wavelength from 200 to 1000 nm in 1 nm steps.**

Applications

- **ELISA and other enzyme immunoassays**
- **Protein quantification (BCA, Bradford, Lowry, UV 280 nm)**
- **Nucleic acid quantification at 260/280 nm**
- **Enzyme kinetics and activity assays**
- **Cell viability and proliferation assays (MTT, CCK-8)**
- **Wavelength scanning of unknown samples**

Optics

- Grating monochromator, 200-1000 nm in 1 nm increments
- Xenon flash lamp light source
- Wavelength accuracy 2 nm, repeatability 0.2 nm, bandwidth below 2.5 nm
- Double-beam path with two silicon photodetectors

Plate Handling

- Accepts 96-well and 384-well microplates
- Linear shaking with three speed settings
- Incubation from RT+4°C to 45°C, ±0.5°C at 37°C

Operation and Data

- 10-inch touch screen for stand-alone use
- 16 GB storage for more than 20,000 data files
- 1 USB-B, 2 USB-A and 1 network port

HT Model

- Additional cuvette slot for single samples
- Cuvette reading from 200 to 1000 nm
- Cuvette incubation

Standard Accessories Included

- ELISA microplate reader main unit (standard or HT model)
- Power adapter (DC 24 V)

Optional Accessories

- PC software
- u-Nano ultra-micro plate (2-4 µL, 1-16 samples)
- ABS optical validation board