Multimode Microplate Reader - Absorbance, Fluorescence, Luminescence - 6 to 384 Wells

Model **MSMPR-A300SWISS** | Brand **Master Science**





The Master Science Multimode Microplate Reader combines absorbance, fluorescence and luminescence detection in one instrument for plates from 6 to 384 wells. A monochromator gives absorbance readings anywhere from 200 to 1000 nm in 1 nm steps, while filter-based optics with a PMT handle fluorescence and luminescence.

KEY HIGHLIGHTS

- Three readers in one
- Any wavelength
- Kinetics at temperature
- Easy method transfer
- Upgradeable

AT A GLANCE

0 to 4 OD / 0.0001 OD
ABSORBANCE RANGE / RESOLUTION

2 nm / 0.2 nm
WAVELENGTH ACCURACY / REPEATABILITY

controlled incubation.
TEMPERATURE DRIFT IN KINETIC ASSAYS

±(1.0 % + 0.003 Abs) at 0 to 2 Abs; ±2.0 % at 2 to 3 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 10-inch Android touch screen runs layouts, kinetics, spectra and standard curves without a computer, and plates can be shaken and incubated from 4 °C above room temperature to 45 °C. Micro-volume plates and automatic injectors can be added later.

Key Benefits

Three readers in one
the Master Science Multimode Microplate Reader measures absorbance, fluorescence and luminescence.

Any wavelength
monochromator from 200 to 1000 nm.

Kinetics at temperature
built-in incubation and shaking.

Easy method transfer
QR codes for programs and standard curves.

Upgradeable
micro-volume plate and injector options.

For dedicated ELISA work, see the Master Science ELISA microplate reader.

Technical Specifications

GENERAL

Brand	Master Science
Model Number	MSMPR-A300SWISS
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Detection Modes	Absorbance, fluorescence (top), luminescence
Plate Formats	6, 12, 24, 48, 96, 384 wells
Repeatability	CV < 1.0 % (fast) or < 0.5 % (accurate)
Linearity	R^2 > 0.999 (0 to 3 Abs)
Read Time	< 15 s per 96-well plate (fast mode)
Fluorescence	Xenon lamp, PMT; Ex 200 to 1000 nm, Em 270 to 850 nm; filters Ex485/Em530, Ex523/Em564, Ex624/Em692; 6-log range
Luminescence	PMT, 200 to 850 nm, 15 amol per well detection limit, 6-log range, crosstalk ≤ 0.005 %
Shaking	Linear, orbital, double orbital
Incubation	RT +4 °C to 45 °C, ±0.5 °C at 37 °C
Power	AC 100 to 240 V, 50/60 Hz, 160 W

OPTICAL PERFORMANCE

Absorbance Light Source / Detector	Xenon flash lamp / photodiode
Absorbance Wavelength	**200 to 1000 nm, 1 nm steps, bandwidth < 2.5 nm**
Wavelength Accuracy / Repeatability	**2 nm / 0.2 nm**
Absorbance Range / Resolution	**0 to 4 OD / 0.0001 OD**
Absorbance Accuracy	**±(1.0 % + 0.003 Abs) at 0 to 2 Abs; ±2.0 % at 2 to 3 Abs**
Stray Light	0.1 % at 220 nm
Filters limiting absorbance wavelengths	**monochromator to 1000 nm.**

DISPLAY & DATA

Display	10-inch capacitive touch screen, Android
Storage	10 GB
Interfaces	2 × USB-A, 1 × USB-B, Ethernet, RS232 (injector)

DIMENSIONS & WEIGHT

Dimensions (W × D × H)	420 × 550 × 386 mm
Net / Gross Weight	33 kg / 70 kg

COMMON LABORATORY PROBLEMS AND HOW THIS READER HELPS

Common Laboratory Problems and How This Reader Helps	How the Master Science Multimode Microplate Reader saves time and space:
Separate readers for each detection mode	three modes in one unit.
Temperature drift in kinetic assays	controlled incubation.
Retyping methods	QR code import.

Applications

The Master Science Multimode Microplate Reader is used for
ELISA and colorimetric assays Micro-volume quantification (with u-Nano plate) Fluorescence assays Luminescence assays Enzyme kinetics and spectral scans

Detection

- Monochromator absorbance
- Filter fluorescence with PMT
- Luminescence with low crosstalk

Environment

- Incubation to 45 °C
- Three shaking modes
- 6 to 384-well plates

Software

- 10-inch Android touch screen
- Kinetics, spectra and curves
- QR code program import

Optional Accessories

- u-Nano micro-volume plate (16 samples, 2 to 4 µL)
- Automatic injector module (1 or 2 injectors)
- PC software
- Additional filter modules
- Absorbance validation plate