Colo Science
Laboratory & Scientific Equipment

COLO.SCIENCE · TECHNICAL SPECIFICATION

UV/VIS SPECTROPHOTOMETER WITH WI-FI

MAVRICA-M

UV/Vis Spectrophotometer Series with 11″ Touch Screen · Five models · single and split beam · 190–1100 nm or 320–1100 nm · Spectral bandwidth 2 nm, 1 nm or 0.5–5 nm · 11″ touch screen · Wi-Fi and Bluetooth

MAVRICA-M is a series of five UV/Vis spectrophotometers on one platform with an 11″ touch screen. Four single beam models cover 190–1100 nm with a spectral bandwidth of 2 nm (M50), 1 nm (M51) or a selectable 0.5 / 1 / 2 / 4 / 5 nm (M51S), or the visible range 320–1100 nm (M30); the split beam MS40 adds a reference detector that follows the lamp intensity. Stray light is ≤0.03 %T, spectra are scanned at up to 8000 nm/min, and results go over Wi-Fi, Bluetooth, e-mail or SMS. For routine and quality control laboratories in water, food, environment and teaching.

UV/Vis 190–1100 nm | Single and split beam | 5 models | Bandwidth 2 / 1 / 0.5–5 nm | Stray light ≤0.03 %T | Scanning up to 8000 nm/min | 11″ touch screen | Wi-Fi · Bluetooth | GLP / GMP

Document type: **Technical Specification Sheet**
Product: **MAVRICA-M UV/Vis Spectrophotometer Series with 11″ Touch Screen**
Format: Print layout · A4 landscape

MAVRICA-M product page | UV/Vis spectrophotometers — overview | UV/Vis spectrophotometers catalogue

Request quote



MAVRICA-M · UV/Vis spectrophotometer with 11″ touch screen

WAVELENGTH RANGE 190–1100 nm · 320–1100 nm (M30)	SPECTRAL BANDWIDTH 2 nm · 1 nm · 0.5 / 1 / 2 / 4 / 5 nm
STRAY LIGHT ≤0.03 %T at 220 and 360 nm	SCANNING SPEED up to 8000 nm/min

MODELS
MAVRICA-M30
MAVRICA-MS40
MAVRICA-M50
MAVRICA-M51
MAVRICA-M51S

ADDRESS / HQ
Polje ob Sotli 4
SI-3255 Buče, Slovenia

CONTACT
sales@colo.si
+386 70 713 437

MAVRICA-M · product overview

Five models on one platform — from visible routine work to selectable bandwidth in the UV

CORE TECHNOLOGY

Single beam models M30, M50, M51 and M51S with a 1200 lines/mm grating — stray light ≤0.03 %T at 220 and 360 nm.

Split beam MS40 — part of the light goes to a reference detector, which follows the lamp intensity during the measurement.

190–1100 nm with deuterium and tungsten lamps: M50 and MS40 with 2 nm, M51 with 1 nm, M51S with 0.5 / 1 / 2 / 4 / 5 nm; M30 320–1100 nm with a tungsten lamp.

Photometric accuracy ±0.2 %T (±0.0005 A at 0–0.5 A), photometric range −4 to 4 A, resolution 0.00001 A.

Photometry, quantitation, kinetics and wavelength scanning, multi-wavelength measurement and DNA / protein analysis.

Scanning speed high, medium or low, up to 8000 nm/min.

11″ touch screen with GLP/GMP functions — user management, audit trail and log.

Wi-Fi, Bluetooth 3.0 (about 10 m), e-mail and SMS; printing to a laser printer over Wi-Fi or to a thermal printer over Bluetooth.

PRODUCT HIGHLIGHTS



Quartz and glass cuvettes
4 glass cuvettes and 2 quartz cuvettes for UV, 10 mm — standard.



Manual 4-cell holder
Four 10 mm cuvettes in the sample compartment — standard.



Automatic cell holder
4, 5 or 8 cuvettes of 10 mm measured in sequence (option).



Peltier / sipper system
Temperature-controlled measurement and sample aspiration (option).

APPLICATIONS

- Pharmaceutical analysis
- Clinical testing
- Biochemistry · DNA / protein
- Petrochemical industry
- Environment & water
- Quality control

OPTICS	PHOTOMETRIC ACCURACY	STABILITY	BASELINE FLATNESS
Single / split beam · 1200 lines/mm	±0.2 %T · ±0.0005 A (0–0.5 A)	±0.0001 A	±0.0004 A

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MAVRICA-M · technical parameters

Single and split beam · five models · 190–1100 nm or 320–1100 nm

TECHNICAL PARAMETERS

Optical system	M30, M50, M51, M51S: single beam MS40: split beam; grating 1200 lines/mm
Wavelength range	M50, M51, M51S, MS40: 190–1100 nm M30: 320–1100 nm
Spectral bandwidth	M30, MS40, M50: 2 nm · M51: 1 nm M51S: 0.5 / 1 / 2 / 4 / 5 nm (selectable)
Wavelength accuracy	±0.3 nm (±0.1 nm at 656.1 nm)
Wavelength repeatability	≤0.1 nm
Photometric accuracy	±0.2 %T (0–100 %T) ±0.0005 A (0–0.5 A) · ±0.0008 A (0.5–1 A)
Photometric repeatability	≤0.15 %T (0–100 %T) 0.0004 A (0–0.5 A) · 0.0006 A (0.5–1 A)
Photometric range	0–400 %T · −4 to 4 A
Resolution	0.00001 A
Stray light	≤0.03 %T at 220 nm and 360 nm
Stability	±0.0001 A
Baseline flatness	±0.0004 A
Noise	0.0005 A at 500 nm

Measuring modes	T, A, C, E
Functions	Photometric measurement, quantitation, kinetics, wavelength scan, multi-wavelength, DNA / protein analysis
Scanning speed	High, medium, low · max. 8000 nm/min
Light source	Deuterium and tungsten lamp M30: tungsten lamp
Detector	Silicon photodiode
Cell holder	Manual 4-cell holder, 10 mm (standard)
Display	11″ touch screen
Data output	Cloud connection · e-mail · SMS · Bluetooth 3.0 · Wi-Fi
Printing	Laser printer over Wi-Fi · thermal printer over Bluetooth
Data control	GLP / GMP: user management, audit trail, log
Power supply	AC 110–220 V, 50–60 Hz

WHICH MAVRICA-M MODEL

All five models share the touch screen, the connectivity and the accessories. They differ in wavelength range, spectral bandwidth and optics — the single or split beam design and the bandwidth set how the model suits a method.

M30 · 320–1100 nm, 2 nm

Visible range with a tungsten lamp — colorimetric methods, water tests, teaching.

MS40 · split beam, 2 nm

Reference detector follows the lamp — steadier readings in longer series.

M50 · 190–1100 nm, 2 nm

UV and Vis for routine work — DNA / protein at 260/280 nm, nitrate, QC methods.

M51 · 1 nm · M51S · 0.5–5 nm

Narrower or selectable bandwidth for methods that prescribe it.

	MAVRICA-M · single and split beam	MAVRICA-T · double beam
Measurement	Blank and sample in turn in one beam; MS40 also measures the lamp on a reference detector	Sample and reference beam measured together
Lamp drift	Corrected by a new blank; MS40 follows the lamp intensity	Compensated continuously by the reference beam
Cell holder (standard)	Manual 4-cell holder, 10 mm	Single-position holder, 10 mm
Best suited for	Routine photometry, quantitation and sample series	Long kinetics, scan series and work against a reference

MAVRICA-M · accessories and sample handling

Standard delivery and optional cell holders, film holders and sampling systems

ACCESSORIES



Quartz and glass cuvettes, 10 mm

STANDARD



Manual 4-cell holder, 10 mm

STANDARD



Automatic 4-, 5- or 8-cell holder

OPTIONAL



Film holder

OPTIONAL



Test-tube rack

OPTIONAL



Peltier / sipper system

OPTIONAL



Integrating sphere

OPTIONAL

Standard delivery

Instrument	MAVRICA-M spectrophotometer (M30, MS40, M50, M51 or M51S)
Cell holder	Manual 4-cell holder, 10 mm
Cuvettes	4 × glass cuvette, 10 mm · 2 × quartz cuvette for UV, 10 mm
Cable · documents	Power cable · user manual

Optional

Cell holders	Automatic 4-, 5- or 8-cell holder
Solids and films	Film holder · integrating sphere · reflection accessory
Sampling systems	Peltier / sipper system · test-tube rack
Software	21 CFR compliant software

Quartz cuvettes are needed below about 320 nm. COLO confirms the set and the accessories with the quotation.

CELL POSITIONS
4 manual (standard) · 4 / 5 / 8 automatic (option)

SAMPLE TYPES
Liquids · films · solids · tubes

TEMPERATURE CONTROL
Peltier / sipper (option)

DATA
Wi-Fi · Bluetooth · e-mail · SMS

MAVRICA-M · configuration and support

Ordering information, configuration checklist and contact

OPERATION, CONFIGURATION AND SUPPORT



MAVRICA-M · 11″ touch screen — photometry, quantitation, kinetics, wavelength scan and DNA / protein analysis on the instrument

Ordering information

MAVRICA-M30	Single beam · 320–1100 nm · 2 nm
MAVRICA-MS40	Split beam · 190–1100 nm · 2 nm
MAVRICA-M50	Single beam · 190–1100 nm · 2 nm
MAVRICA-M51	Single beam · 190–1100 nm · 1 nm
MAVRICA-M51S	Single beam · 190–1100 nm · 0.5 / 1 / 2 / 4 / 5 nm

Configuration checklist

Wavelength range: M30 for visible methods only; M50, M51, M51S or MS40 when UV methods such as 260/280 nm or nitrate are needed.

Bandwidth and optics: 2 nm for routine methods, M51 for 1 nm, M51S when methods prescribe different bandwidths, MS40 for longer series.

Samples and throughput: automatic 4-, 5- or 8-cell holder for series, film holder or integrating sphere for solids, Peltier / sipper for kinetics.

Data: GLP/GMP functions on the instrument; 21 CFR compliant software as an option.

SALES AND SUPPORT

COLO Lab Experts
Polje ob Sotli 4, SI-3255 Buče, Slovenia

Selection guidance: send your sample type, wavelength range and methods — we confirm the model, accessories and delivery time with the quotation.

QUICK CONTACT

colo.si
sales@colo.si
+386 70 713 437

COLO.SCIENCE · SPECTROPHOTOMETRY SUPPORT

Need help choosing the MAVRICA-M model and accessories?

Send your sample type, the wavelengths and methods you use and the number of samples per day — we propose the model and configuration and confirm it with the quotation.

Request quotation | sales@colo.si | +386 70 713 437

Specifications are subject to change without notice. Values refer to standard laboratory conditions.