Colo Science
Laboratory & Scientific Equipment

COLO.SCIENCE · TECHNICAL SPECIFICATION

BASIC UV/VIS SPECTROPHOTOMETER FOR ROUTINE AND TEACHING

MAVRICA-UV

Basic UV/Vis Spectrophotometer · 200–1000 nm · Spectral bandwidth 4 nm · Split beam · LCD · RS232 · PC software included

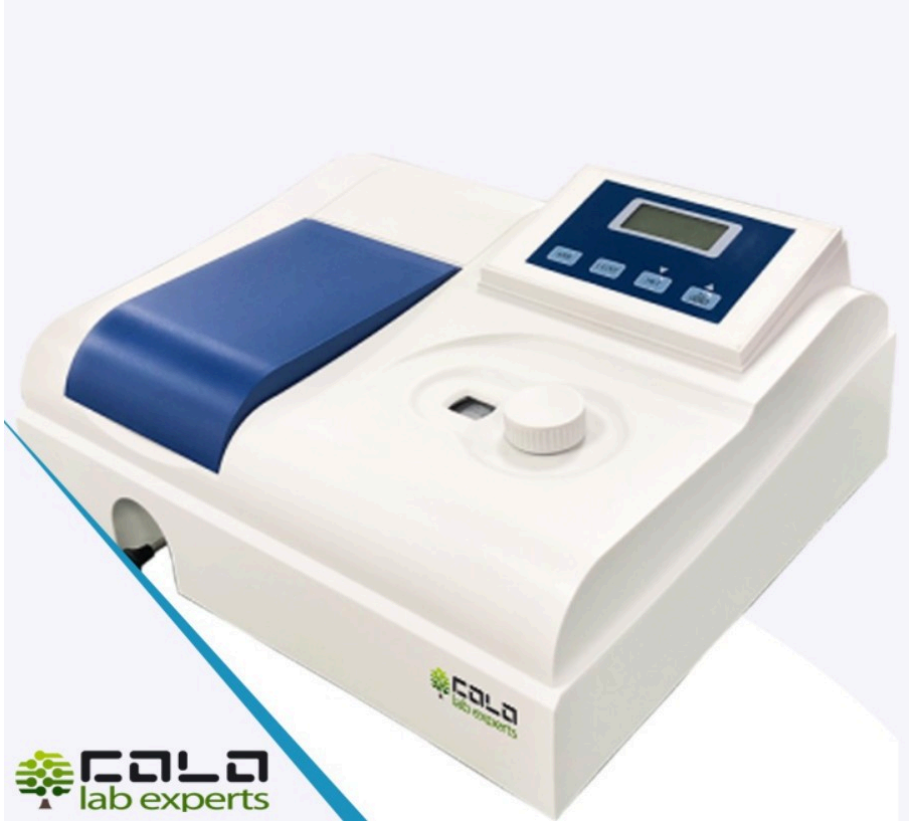
MAVRICA-UV is a basic UV/Vis spectrophotometer for 200–1000 nm with a 4 nm spectral bandwidth. Split-beam optics with a Czerny-Turner monochromator and a 1200 lines/mm grating, deuterium and tungsten-halogen lamps and a silicon photocell give reliable absorbance, transmittance and concentration readings. The wavelength is set with a knob, zero and 100 %T are adjusted automatically, and results are read on a backlit LCD or transferred to a PC over RS232 — the PC software is included. For teaching laboratories, water testing and routine UV and visible methods.

UV/Vis 200–1000 nm | Bandwidth 4 nm | Split beam | D2 + W lamps | Manual wavelength | Auto 0 A / 100 %T | Concentration reading | RS232 | PC software included

Document type: **Technical Specification Sheet**
Product: **MAVRICA-UV Basic UV/Vis Spectrophotometer**
Format: Print layout · A4 landscape

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

Request quote



MAVRICA-UV · basic UV/Vis spectrophotometer

WAVELENGTH RANGE 200–1000 nm · manual setting	SPECTRAL BANDWIDTH 4 nm
WAVELENGTH ACCURACY ±2 nm · repeatability ≤1 nm	STRAY LIGHT ≤0.1 %T at 220 nm and 360 nm

MODEL
MAVRICA-UV

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

CONTACT
sales@colo.si
+386 70 713 437

MAVRICA-UV · product overview

UV and visible range in a simple, robust instrument for routine and teaching

CORE TECHNOLOGY

Split-beam optics with Czerny-Turner monochromator — a reference beam compensates source fluctuations for a stable reading.

Grating 1200 lines/mm, 160 mm focal length and silicon photocell detector; spectral bandwidth 4 nm.

Deuterium and tungsten-halogen lamps cover 200–1000 nm; both lamps can be replaced by the user.

Single 10 mm cell holder in standard delivery; the large sample compartment takes cuvettes from 5 to 50 mm with optional holders.

Manual wavelength setting with a knob — simple operation for teaching and routine single-wavelength methods.

Transmittance, absorbance and concentration — switching with one key, direct concentration reading and concentration factor.

Automatic 0 A and 100 %T adjustment and automatic light gate that protects the detector.

Backlit LCD and RS232 output; PC software for data processing in standard delivery, thermal printer as an option.

PRODUCT HIGHLIGHTS



D2 and tungsten lamps
UV and visible range from 200 to 1000 nm in one instrument; lamps replaceable by the user.



Quartz and glass cuvettes
2 quartz cuvettes for UV and 4 glass cuvettes, 10 mm path length, in standard delivery.



Cell holder 10 mm
Single 10 mm cell holder standard; holders for 5–50 mm cuvettes as options.

APPLICATIONS

- Teaching laboratories
- Water & environment
- Clinical colorimetric tests
- Food & agriculture
- Routine quality control
- Biochemistry basics

OPTICS	LIGHT SOURCE	PHOTOMETRIC ACCURACY	INTERFACE
Split beam · Czerny-Turner · 1200 lines/mm	D2 + tungsten-halogen · 200–1000 nm	±0.5 %T · ±0.004 A (0–0.5 A)	RS232 · PC software included

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

MAVRICA-UV · technical parameters

Split beam · 200–1000 nm · spectral bandwidth 4 nm · manual wavelength setting

TECHNICAL PARAMETERS

Optical system	Split beam; Czerny-Turner monochromator
Grating	1200 lines/mm
Focal length	160 mm
Light source	Deuterium lamp and tungsten-halogen lamp
Wavelength range	200–1000 nm
Spectral bandwidth	4 nm
Wavelength accuracy	±2 nm
Wavelength repeatability	≤1 nm
Wavelength setting	Manual, knob
Photometric accuracy	±0.5 %T ±0.004 A (0–0.5 A) · ±0.008 A (0.5–1 A)
Photometric repeatability	≤0.2 %T 0.002 A (0–0.5 A) · 0.004 A (0.5–1 A)
Photometric range	0–200 %T · −0.097 to 4.000 A · 0–9999 C
Stray light	≤0.1 %T at 220 nm (NaI) and 360 nm ($NaNO_2$)
Detector	Silicon photocell

Noise	≤0.3 %T at 100 %T · ≤0.2 %T at 0 %T
Measuring modes	T, A, C
Zero / 100 %T	Automatic
Concentration	Direct reading; concentration factor setting
Detector protection	Automatic light gate
Cell holder	Single, 10 mm (standard)
Sample compartment	Cuvettes 5–50 mm path length with optional holders
Display	Backlit LCD
Data output · PC software	RS232 · PC software (standard)
Printer	Thermal printer (option)
Conformity	CE
Power supply	AC 220 V ±22 V, 50 Hz ±1 Hz · 120 W
Packing size / gross weight	590 × 460 × 340 mm (0.092 m^3) / 16 kg

MAVRICA-UV · accessories and delivery

Standard delivery and options

ACCESSORIES



Quartz and glass cuvettes, 10 mm

STANDARD



Single cell holder, 10 mm

STANDARD

Standard delivery

Instrument	MAVRICA-UV basic UV/Vis spectrophotometer
Cell holder	Single cell holder, 10 mm
Cuvettes	4 × glass cuvette, 2 × quartz cuvette, 10 mm path length
Software	PC software for data processing
Cables and spares	Power cable · 2 fuses
Documents	Operation manual

Optional

Printer	Thermal printer
Cell holders	Holders for cuvettes from 5 to 50 mm path length
Cuvettes	Additional glass or quartz cuvettes

The instrument uses 10 mm cuvettes as standard; quartz cuvettes are needed below about 320 nm. Longer cuvettes for low concentrations need the matching holder. COLO confirms the set with the quotation.

PATH LENGTH
10 mm (5–50 mm option)

CUVETTES
2 quartz + 4 glass (standard)

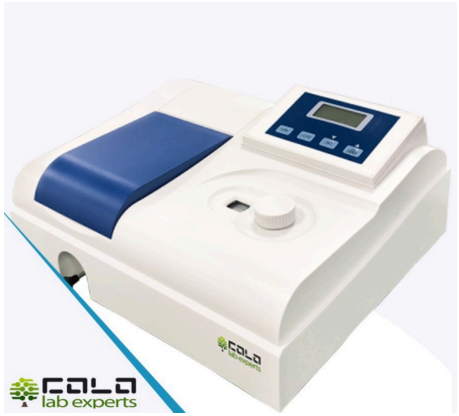
DATA
RS232 · PC software

PRINTER
Thermal (option)

MAVRICA-UV · configuration and support

Ordering information, configuration checklist and contact

OPERATION, CONFIGURATION AND SUPPORT



MAVRICA-UV · basic UV/Vis spectrophotometer

Ordering information

Model	MAVRICA-UV Basic UV/Vis Spectrophotometer
Range / bandwidth	200–1000 nm · 4 nm
Cell holder	Single, 10 mm
Power	AC 220 V ±22 V, 50 Hz · 120 W

Configuration checklist

Samples: UV-absorbing or coloured solutions in 10 mm cuvettes — quartz for the UV range, glass for the visible range.

Why MAVRICA-UV: single-wavelength methods in UV and Vis, where a simple instrument with a knob and LCD is enough.

Methods: nitrate and other UV water methods, colorimetric tests, DNA/protein at 260/280 nm for teaching, quantitative analysis with a concentration factor.

When to choose more: for spectral scans and kinetics choose NOVEL4S or NOVEL-100S; for the visible range only choose MAVRICA-V.

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 configuration, accessories and delivery time with the quotation.

QUICK CONTACT

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

COLO.SCIENCE · SPECTROPHOTOMETRY SUPPORT

Is MAVRICA-UV the right instrument for your methods?

Send your sample type, the wavelengths and methods you use and the number of samples per day — we propose the 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.