UV/VIS Excellence

FastTrack™ UV/VIS Spectroscopy

Designed for Life Sciences

Accurate micro-volume measurements

The UV5Nano only requires 1 µL of sample for reliable measurements. The pure sample is pipetted on the measuring surface and the arm is automatically locked to a precisely defined pathlength. Measurement accuracy is ensured and errors are avoided as the sample does not need to be diluted.

Measure wide concentration ranges fast

The UV5Nano automatically measures at two precisely defined pathlengths allowing a wide concentration range to be covered. Samples of dsDNA with concentrations of 6 ng/µL to 15,000 ng/µL can be measured without further dilutions within 2 seconds per pathlength.

Powerful compactness

The UV5Nano combines two instruments in one for microvolume and cuvette based measurements. In the UV5Bio cuvette holders and CuvetteChanger are positioned in the easily accessible open sample area. Both instruments fit a Notepad footprint.

Direct Bio measurements and methods

Bio UV/VIS applications can be started simply as direct measurements. Pre-verified METTLER TOLEDO Bio methods can be used for instant analyses or adapted with the intuitive editor to meet specific automation workflows. Both direct measurements and dedicated methods can be started by One Click™ shortcuts.

reddot design award
winner 2016

UV5Bio and UV5Nano UV/VIS Spectrophotometers

UV/VIS Excellence Line for Life Sciences

The UV5Bio and UV5Nano Excellence instruments optimize spectroscopic workflows in life sciences – FastTrack™ technology enables speedy and reliable measurements, with One Click™ touchscreen operation becomes intuitive and efficient and LockPath™ technology ensures accurate micro-volume measurements. The UV5Bio provides standard cuvette measurements while UV5Nano combines micro-volume and cuvette measurements.

Both are specialized for Life Sciences applications thanks to:

- Accurate micro-volume measurements
- Wide concentration measuring range
- Powerful compactness
- Direct Bio measurements and specific methods
- Support of the most widely used color maps and numbers

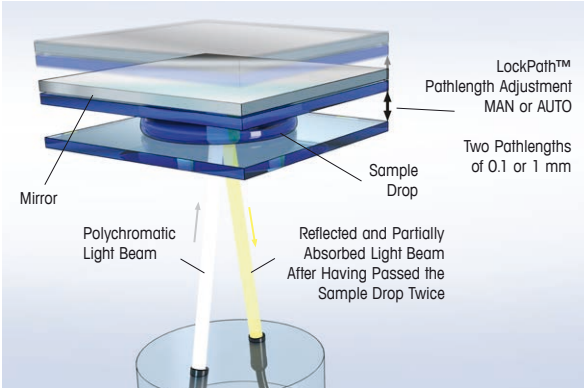
METTLER TOLEDO

LockPath™ Technology

Reliable Micro-Volume Measurement

Avoid errors, secure accuracy

- Measure directly on the integrated optical cell thanks to ingenious light deflection off the mirror in the arm.
- Repeatable and exact automatic pathlength adjustment at 0.1 and 1 mm
- Exclusion of pathlength drift thanks to the rugged, patented design – expensive recalibration and downtime are excluded
- Secure locking of the arm during the measurement at the selected pathlength
- No drying out of sample during measurement for increased repeatability
- Convenient sample pipetting supported by the 90 degree arm position



LockPath Technology
Lock the pathlength and secure your measurement

Feature and technical comparison UV5Bio/UV5Nano Excellence Line

	Feature / Parameters	UV5Bio	UV5Nano
Optical performance	Wavelength range [nm]	190–1100	190–1100
	Resolution (toluene in hexane)	>1.5	>1.7
	Wavelength accuracy (measured with NIST2034 holmium oxide) [nm]	±0.9	±0.9
	Wavelength repeatability (measured with NIST2034 holmium oxide) [nm]	<0.15	–
	Photometric accuracy (measured with NIST935 potassium dichromate) [A]	±0.005 (≤1A)	±0.006 (≤1A)
	Photometric accuracy (measured with NIST930/1930 neutral density filter) [A]	±0.005 (≤1A)	–
	Photometric repeatability (measured with NIST935 potassium dichromate) [A]	<0.002	<0.003
	Photometric repeatability (measured with NIST930/1930 neutral density filter) [A]	<0.003	–
	Stray light at 198 nm (measured with KCl)	>2.0A (<1.0%T)	>1.7A (<2.0%T)
	Stray light at 220 nm (measured with KI)	>3.5A or <0.03%T	>3.5A or <0.03%T
	Stray light at 340 nm (measured with $NaNO_2$)	>3.7A or <0.02%T	>3.7A (<0.02%T)
	Noise [A]	<0.002	<0.003
	Baseline flatness [A]	<0.002	<0.003
	Tested according to USP and Ph. Eur.	no	no
	Minimal scan time full range [s]	1	1
One Click™ UV/VIS spectroscopy	Shortcuts per user	24	24
Temperature control	CuveT thermostating unit	•	–
Applications & Methods	Direct measurements	5	5
	Pre-defined METTLER TOLEDO methods	22	21
	Method editor	•	•
	Max. number of methods	50	50
	Pre-defined bio applications: Protein, nucleic acids, protein (dye), nucleic acids (dye), protein assay, OD600	•	•
	Pre-defiend shortcuts for bio applications: dsDNA, RNA, Protein 280, Bradford, Lowry, OD600	•	•
Results	Number of results stored in instrument	50	50
	Result storage on USB stick	•	•
	Result transfer via TCP on remote PC	•	•
PC software	LabX® UV/VIS software	•	•
Languages	English/German/French/Spanish/Italian/Portuguese/Russian/Chinese/Japanese	•	•
Connectivity	USB memory stick storage of results at terminal	•	•
	USB devices (bar code reader, printer)	•	•
	Ethernet (PC, network printer)	•	•
	RS232-C Interface	•	•
Terminal	7" QVGA Color TFT 800 x 480 resolution touch sensitive screen	•	•
Instrument dimensions	Width x depth x height (without terminal) [mm]	208 x 255 x 228	208 x 255 x 217
	Weight incl. terminal [kg]	6.4	7.2

The data above apply to hardware version 2 and firmware 3.0.1 or later.

METTLER TOLEDO Group
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For more information