spectrophotometer

Zuzi

OUR BRAND

ZUZI: Over 30 Years of Experience in Spectrophotometry

With more than three decades in the market, **ZUZI** has established itself as a benchmark brand in the field of spectrophotometry, offering solutions for laboratories across various sectors. Its wide range of equipment, with over 20 models available, includes **spectrophotometers** in both the **visible (VIS)** and **ultraviolet-visible (UV-VIS)** ranges, catering to diverse needs and applications in educational, industrial, and research laboratories.

ZUZI is synonymous with quality and reliability. Each device is **supported by a specialized technical team** that guides users throughout the entire process—from choosing the most suitable model to ensuring its correct use. Additionally, in case of questions or issues, ZUZI offers technical support services to guarantee optimal equipment performance.

With **ZUZI**, users have access to precise, **easy-to-use spectrophotometers tailored to their needs**. Thanks to its **expert advice and technical assistance**, users can optimize equipment operation and ensure its proper performance in any application.

COMPANY DIRECTIVES AND STANDARDS

COMPANY

ISO 9001: Quality Management System Certification.

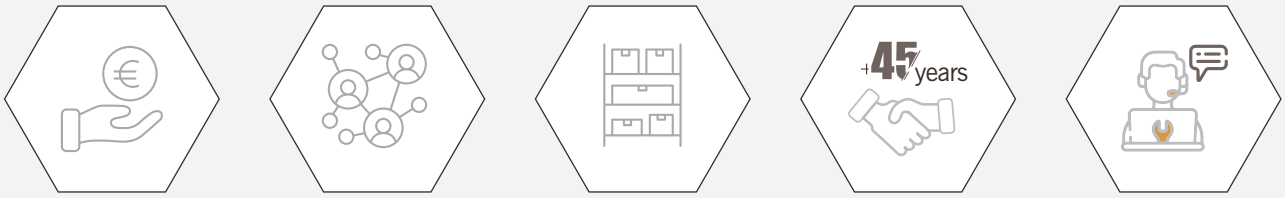
PRODUCTS

Directives:

2014/35/EU Low Voltage Directive

2014/30/EU Electromagnetic Compatibility Directive

WHY CHOOSE US?



Price

Excellent value for money, ensuring maximum profitability for our customers

Delivery service

Immediate delivery. Orders are dispatched from our warehouses within 24/48 hours.

Stock

Large product availability with a very low stock-out rate, guaranteeing 95% immediate delivery

Experience +45 years

We have over 45 years of experience in the sector, developing our own brands

After-sales support

Need help after purchasing our products? Don't worry! Our technical support team is here for you

Comparative Table

ZUZI Spectrophotometers

	CODE	MODEL	LIGHT SOURCE	BANDWIDTH (nm)	WAVELENGTH RANGE (nm)	PHOTOMETRIC RANGE
DOUBLE BEAM	HJD013	4330/9	Tungsten and Deuterium	0,5/1/2/4/5	190-1100	-4-4 A, 0-400% T
	HJD016	4510/7	Xenon flash	1,8	190-1100	-4-4 A, 0-400% T
	HJD007	4260/50	Tungsten and Deuterium	0,5/1/2/4/5	190-1100	-0,3-3 A, 0-200% T
SPLIT BEAM	HJD012	4330/6	Tungsten and Deuterium	1,5	190-1100	-4-4 A, 0-400% T
	HJD015	4510/5	Xenon flash	2	190-1100	-4-4 A, 0-400% T
	HJD014	4510/4	Xenon flash	2	190-1100	-0,3-3 A, 0-200% T
	HJF001	Z-6500	Xenon lamp	-	200-900	0-300 A
	HJF002	Z-6500C	Xenon lamp	-	200-900	0-300 A
SINGLE BEAM	HJD010	4320/3	Tungsten and Deuterium	4	190-1100	-0,3-3 A, 0-200% T
	HJD011	4320/4	Tungsten and Deuterium	2	190-1100	-0,3-3 A, 0-200% T
	HJB007	4310/3	Tungsten	4	320-1100	-0,3-3 A, 0-200% T
	HJB008	4265/50	Tungsten	2	320-1100	-0,3-3 A, 0-200% T
	HJD008	4320/1	Tungsten and Deuterium	4	195-1050	-0,3-3 A, 0-200% T
	HJD009	4320/2	Tungsten and Deuterium	2	195-1050	-0,3-3 A, 0-200% T
	HJD004	4255/50	Tungsten and Deuterium	2	190-1100	-0,3-3 A, 0-200% T
	HJD003	4251/50	Tungsten and Deuterium	2	190-1100	-0,3-3 A, 0-200% T
	HJD001	4201/50	Tungsten and Deuterium	4	200-1000	-0,3-3 A, 0-200% T
	HJD002	4211/50	Tungsten and Deuterium	4	200-1000	-0,3-3 A, 0-200% T
	HJB004	4211/20	Tungsten	4	325-1000	-0,3-3 A, 0-200% T
	HJB003	4201/20	Tungsten	4	325-1050	-0,3-3 A, 0-200% T
	HJD017	4201/30	Tungsten and Deuterium	4	200-1050	-0,3/3 A ; 0-200% T
	HJB001	4101	Tungsten	6	330-1000	0-1,999 A, 0-100% T
	HJB002	4111RS	Tungsten	6	330-1000	0-1,999 A, 0-100% T

MEASUREMENT MODES	SAMPLE COMPARTMENT	DISPLAY	SOFTWARE	OPTIONAL SOFTWARE
Photometry, quantification, spectrum, kinetics, time scan, DNA/Protein, multi-wavelength, custom	2 cuvettes of 10 mm (sample and code)	IPS touchscreen	UVStudio (Integrated)	UVStudio GLP/GMP
Photometry, quantification, spectrum, kinetics, time scan, DNA/Protein, multi-wavelength, custom	2 cuvettes of 10 mm (sample and code)	IPS touchscreen	UVStudio (Integrated)	UVStudio GLP/GMP
Photometry, quantification, spectrum, kinetics, DNA/Protein, multi-wavelength	2 cuvettes of 10 mm (sample and code)	LCD	UV-Vis Analyst	-
Photometry, quantification, spectrum, kinetics, time scan, DNA/Protein, multi-wavelength, custom	4 cuvettes of 10 mm	IPS touchscreen (tablet)	UVStudio (Integrated)	UVStudio GLP/GMP
Photometry, quantification, spectrum, kinetics, time scan, DNA/Protein, multi-wavelength, custom	4 cuvettes of 10 mm	IPS touchscreen (tablet)	UVStudio (Integrated)	UVStudio GLP/GMP
Photometry, quantification, spectrum	4 cuvettes of 10 mm	TFT touchscreen	EasyUV Basic	EasyUV
Microscale, spectrum, protein/nucleic acid, microarray colorimetric assays	Nanovolume	HD touchscreen	-	-
Microscale/Cuvette, spectrum, protein/nucleic acid, microarray colorimetric assays	Nanovolume Cuvette	HD touchscreen	-	-
Photometry, quantification, spectrum	4 cuvettes of 10 mm	TFT touchscreen	EasyUV Basic	EasyUV
Photometry, quantification, spectrum	4 cuvettes of 10 mm	TFT touchscreen	EasyUV Basic	EasyUV
Photometry, quantification, spectrum	4 cuvettes of 10 mm	TFT touchscreen	EasyUV Basic	EasyUV
Photometry, quantification, spectrum, user-defined program	Vials/Tubes: Ø 13–16 mm Cuvettes: 10/20/30/50 mm	TFT touchscreen	EasyUV Basic	EasyUV
Photometry, quantification	4 cuvettes of 10 mm	TFT touchscreen	EasyUV Basic	EasyUV
Photometry, quantification	4 cuvettes of 10 mm	TFT touchscreen	EasyUV Basic	EasyUV
Photometry, quantification, spectrum, kinetics, DNA/Protein, multi-wavelength	4 cuvettes of 10 mm	LCD	UV-Vis Analyst	-
Photometry, quantification, kinetics	4 cuvettes of 10 mm	LCD	MWave Basic	MWave Professional
Photometry, quantification	4 cuvettes of 10 mm	LCD	MWave Basic	MWave Professional
Photometry, quantification	4 cuvettes of 10 mm	LCD	MWave Basic	MWave Professional
Photometry, quantification	4 cuvettes of 10 mm	LCD	MWave Basic	MWave Professional
Photometry, quantification	4 cuvettes of 10 mm	TFT	EasyUV Basic	-
Photometry, quantification	4 cuvettes of 10 mm	TFT	EasyUV Basic	-
Photometry	1 cuvette/tube of 10 mm	LCD	NO	-
Photometry, quantification	1 cuvette/tube of 10 mm	LCD	Yes	-

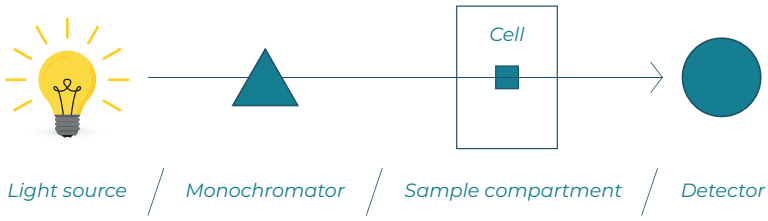
KEY FACTORS IN SPECTROPHOTOMETRY

- **Optical System Configurations** (Single Beam, Split Beam, Double beam)
- **Spectral Accuracy:** Importance of Bandwidth
- **Light Source:** Xenon Lamps and Their Spectral Behavior
- **Analysis Optimization:** Features for Data Management and Visualization
- **Operating Modes:** Versatility for Every Analytical Need

OPTICAL SYSTEM CONFIGURATIONS (SINGLE BEAM, SPLIT BEAM, DOUBLE BEAM)DOUBLE BEAM)

The optical system of a spectrophotometer determines how light is generated, directed, and measured during analysis. Its design directly affects the instrument's accuracy, stability, and cost. There are three main configurations: single beam, split beam, and double beam. Each offers advantages and limitations that should be considered based on the type of analytical application.

1/ SINGLE BEAM

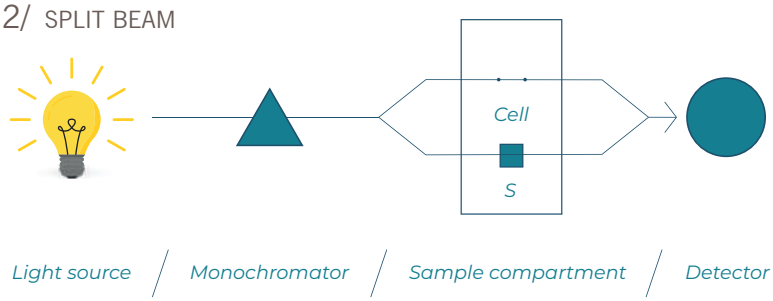


Characteristics:
- Simple optical architecture. The system uses a single beam of light that passes through the cuvette.
- Measurement is performed in two steps: first the blank (without sample), then the sample.
- No simultaneous comparison between blank and sample.
- High sensitivity to variations in light source intensity.

Advantages:
- Economical design. Easy to maintain and operate.

Disadvantages:
- Lower accuracy and stability. Does not automatically compensate for fluctuations in the light source.

2/ SPLIT BEAM



Characteristics:
- The light beam is split into two paths: one toward the sample and one toward a reference detector.
- Both beams are measured simultaneously.
- Better compensation for light source instability.
- Reduces errors caused by fluctuations in the light source.

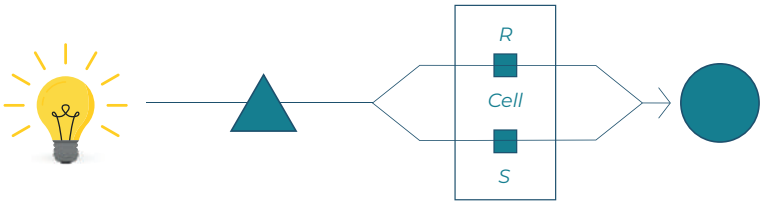
Advantages:
- Greater stability than single beam.
- Continuous comparison between the beam passing through the cuvette and the reference beam.

Disadvantages:
- More complex and costly optical design compared to single beam.

KEY FACTORS IN SPECTROPHOTOMETRY

OPTICAL SYSTEM CONFIGURATIONS (SINGLE BEAM, SPLIT BEAM, DOUBLE BEAM)DOUBLE BEAM)

3/ Double beam



Light source / *Monochromator* / *Sample compartment* / *Detector*

Characteristics:

- The light source is split into two independent beams: one passes through the sample and the other through a reference (blank).
- Both beams are constantly compared.
- Effectively compensates for variations in the light source, temperature, and other environmental factors.
- High precision, ideal for quantitative analysis.

Advantages:

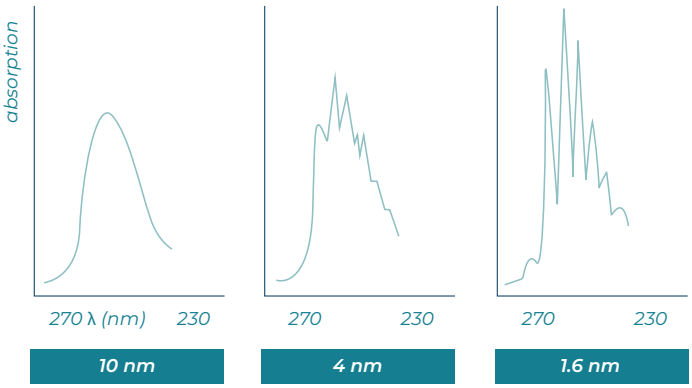
- Maximum precision, stability, and reproducibility.
- Continuous and simultaneous measurement.

Disadvantages:

- The most expensive optical system. More complex design.

KEY FACTORS IN SPECTROPHOTOMETRY

SPECTRAL RESOLUTION IMPORTANCE OF BANDWIDTH



In spectrophotometry, **spectral bandwidth** represents the instrument's ability to discriminate between closely spaced wavelengths. Technically, it is defined as the width (in nanometers) of the light band that the monochromator allows to pass toward the sample.

A **narrower bandwidth** means **higher spectral resolution**, allowing the instrument to distinguish and quantify absorbance peaks that are very close to each other. This is essential in applications involving complex mixtures or compounds with overlapping absorption spectra.

In contrast, a wider bandwidth can reduce analytical precision, as signals from different wavelengths may overlap, making spectral interpretation more difficult. Therefore, selecting the appropriate bandwidth must balance resolution, signal intensity, and specific analytical needs.

KEY FACTORS IN SPECTROPHOTOMETRY

LIGHT SOURCE XENON LAMPS AND THEIR SPECTRAL BEHAVIOR

The Zuzi spectrophotometer models 4510 and Z6500 feature xenon lamps as the main light source, which brings significant improvements in stability, efficiency, and spectral coverage. These lamps are known for their high stability, energy efficiency, and ability to cover both ultraviolet (UV) and visible (VIS) ranges with a single source. Their continuous spectrum and pulsed intensity make them particularly suitable for demanding applications, whether in routine analysis or in kinetic or high-sensitivity studies.

What is a Xenon Lamp?

Xenon lamps generate light by ionizing xenon gas under high pressure, producing a bright and stable emission that resembles sunlight. Additionally, by operating in pulsed mode, they significantly reduce heat generation and energy consumption in the instrument.

MAIN TECHNICAL ADVANTAGES

1.Continuous Spectral Coverage: A single light source for UV (190–400 nm) and VIS (400–900 nm) ranges, simplifying maintenance and enhancing optical system efficiency.
2. High-Intensity Pulsed Emission: Produces brief but intense light flashes, ideal for real-time data capture with excellent signal-to-noise ratio.
3. Low Thermal Drift: Thanks to thermal stability, they cause fewer intensity fluctuations, improving measurement reproducibility.
4. Instant Start-Up: Lights up quickly and reaches full intensity in seconds, unlike other lamps that require warm-up periods.
5. Long Lifespan: Estimated durability of up to 10 years under normal use, with minimal maintenance.

BENEFITS IN THE LABORATORY

1. High sensitivity for detecting low-concentration compounds.

2. Resource optimization by minimizing component replacement.

3. Controlled light that protects sensitive samples.

4. Fast data acquisition for multiple or kinetic analyses.

COMPARISON OF DIFFERENT LIGHT SOURCES: Deuterium, Tungsten, and Xenon

Characteristic	Xenon Lamp	Tungsten Lamp	Deuterium Lamp
Spectral Coverage	190–900 nm (UV + VIS)	320–1100 nm (VIS + NIR)	190–370 nm (UV)
Type of Emission	High-intensity pulsed	Continuous light	Continuous light
Spectral Stability	High	Medium	Medium
Warm-Up Time	Not required	10–20 min	30 min aprox.
Lifespan	7–10 years (under normal use)	1000–2000 hours	Approx. 1000 hours
Heat Generation	Very low	High	High
Typical Applications	Fast UV-Vis analysis, kinetics, biomolecules	Visible range measurements, basic colorimetry	UV analysis, especially in pharmaceutical industry
Long-Term Operating Cost	Low	Medium	High

KEY FACTORS IN SPECTROPHOTOMETRY

ANALYSIS OPTIMIZATION FEATURES FOR DATA MANAGEMENT AND VISUALIZATION

Zuzi spectrophotometers integrate technologies designed not only to maximize analytical performance, but also to enhance user **experience and simplify data management in modern laboratory environments**. These features provide significant added value, increasing the operational versatility of the instruments.

1/ DISPLAY SYSTEM WITH HIGH-RESOLUTION TOUCHSCREEN OPTIONS

The Zuzi spectrophotometer range offers various display configurations, from models with **alphanumeric LED screens** that allow for **basic and straightforward operation**, to more **advanced versions with high-resolution touchscreens.**

These **touchscreen models** provide **agile navigation**, **fast parameter setup**, and **clear result visualization**, greatly enhancing the user experience—especially in settings where **intuitive and efficient interaction with the instrument is highly valued.**

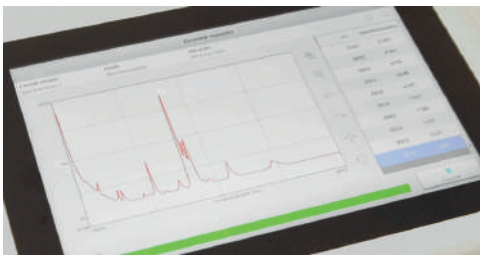
2/ ENHANCED CONNECTIVITY AND STORAGE

The **latest models of Zuzi spectrophotometers** incorporate significant improvements in connectivity and storage capacity compared to previous generations. These **upgrades allow for more efficient integration** into digitized laboratory environments, facilitating data transfer, result backup, and advanced file management directly from the instrument.

3/ MULTILANGUAGE SUPPORT

To **optimize usability** in international settings, our spectrophotometers include multilingual support, ensuring that users can operate the instrument comfortably, accurately, and efficiently regardless of their language.

4/ SOFTWARE



Our spectrophotometers are compatible with a wide **range of software** designed to expand the analytical capabilities of the instrument, improve data management, and optimize report generation. These solutions enable advanced analyses, kinetic tracking, validation, and automated result processing in compliance with regulatory standards.

Among our accessory line are **various software** options tailored to different instruments: **EasyUV Basic, EasyUV, MWave Basic, MWave Professional, UVStudio (integrated), and UVStudio GLP/GMP** – offering solutions from basic functions to full platforms compatible with regulated environments.

KEY FACTORS IN SPECTROPHOTOMETRY

OPERATING MODES VERSATILITY FOR EVERY ANALYTICAL NEED

Our spectrophotometers are designed to adapt to a wide variety of analytical applications, ranging from routine analyses to specialized research. They incorporate multiple measurement modes that allow users to select or customize the most appropriate approach depending on the sample type and the analysis objective.

Simple Photometry
Measures the absorbance or transmittance of a sample at a single wavelength.

Multi-Wavelength
Enables photometric measurements at several selected wavelengths.

Kinetics
Monitors the change in absorbance over time at a specific wavelength—ideal for enzyme studies or time-based reactions.

Time Scan
Records the photometric variation of a sample over time at a single wavelength; useful for dynamic processes.

Quantification
Generates standard curves and calculates concentrations of unknown samples through interpolation.

Biological Measurement
Includes preset and customizable methods for quantifying DNA, RNA, and proteins—tailored for molecular biology and biotechnology applications.

Spectral Scanning
Analyzes the absorbance or transmittance of a sample across a continuous range of wavelengths, generating detailed spectral curves.

Custom Methods
Allows users to create and save user-defined protocols for specific applications or exploratory studies.

Table of Contents

ZUZI Spectrophotometers Catalog

HJD013 and HJD016

Zuzi Double beam UV/Vis Spectrophotometers

Both models feature dual-beam optical technology, and in addition, the 4330/9 model has an adjustable bandwidth. and a 10.1" touchscreen operating system. Thanks to their powerful software with GLP/GMP features and advanced connectivity, they serve as versatile and professional analysis stations—ideal for research and quality control environments with high demands.

TECHNICAL SPECIFICATIONS

Code	HJD013	HJD016
Model	4330/9	4510/7
Optical System	Double beam, 1200 lines/mm grating	Double beam, 1200 lines/mm grating
Wavelength Range	190-1100 nm	190-1100 nm
Wavelength Accuracy	± 0,3 nm	± 0,3 nm
Wavelength Repeatability	≤0,1 nm	≤0,1 nm
Wavelength Resolution	0,1 nm	0,1 nm
Scan Speed	20-4200 nm/min	20-3200 nm/min
Wavelength Slew Rate	10000 nm/min	10000 nm/min
Lamps	Tungsten, Deuterium	Xenon flash
Spectral Bandwidth	0.5/1/2/4/5 nm	1,8 nm
Stray Light	≤0,03%T@220nm&340nm	≤0,03%T@220nm&340nm
Noise	≤0.0002 A @ 0.0 A	≤0.0005 A @ 0.0 A
Photometric Range	-0,3-3 A; 0-200% T; 0-9999,9 C	-0,3-3 A; 0-200% T; 0-9999,9 C
Power Supply	100-240 VAC, 50/60 Hz, 140 W	100-240 VAC, 50/60 Hz, 100 W
Dimensions (LxAxH)	580x420x230 mm	580x420x230 mm
Weight	15 kg	15 kg

FEATURES

Sample Compartment

Standard cuvette holder for 2 × 10 mm cuvettes, sample and reference.
*See accessories for automatic cuvette holders.

Interface and Storage

64 GB internal storage, unlimited external (USB storage, network storage)
A wide variety of interfaces allow connection of keyboards, mice, scanners, and printers for data input and output, and access to networks for remote control, data transmission, and sharing. Includes:

- USB-A x 3
- USB-B (PC) x 1
- VGA x 1
- WLAN x1
- HDMI x1

Software

The instrument **comes with UVStudio software.**
Optional: UVStudio GLP/GMP. This optional software is required to access the "User Management" module.

FUNCTIONS

Photometry Test, Multi-wavelength, Kinetics, Time Scan, Quantification
DNA/Protein Analysis, Spectrum, Custom

HJD007

Double beam UV/Vis spectrophotometer, 4260/50

An advanced and complete instrument that allows performing all types of analyses (quantitative, kinetics, scanning, DNA/Protein, and multi-wavelength), making it highly suitable for clinical and research laboratories. Its excellent performance ensures precise and accurate readings. Large LCD display for data reading.

TECHNICAL SPECIFICATIONS

Code	HJD007
Optical System	Double beam, 1200 lines/mm grating
Wavelength Range	190-1100 nm
Wavelength Accuracy	± 0.3 nm
Wavelength Repeatability	0.2 nm
Wavelength Resolution	0.1 nm
Scan Speed	High, medium, low, max.: 3000 nm/min
Light Source	Tungsten, Deuterium
Spectral Bandwidth	0.5/1/2/4/5 nm
Stray Light	≤0.5%T@220nm&360nm
Noise	≤0.00005 A @ 0.0 A
Detector	Silicon photodiode
Photometric Range	-0,3-3 A, 0-200 %T, 0-9999.9 C
Power Supply	110VAC, 60Hz / 220VAC, 50Hz (manual switch)
Dimensions (LxAxH)	589x428x200 mm
Weight	22 kg

FEATURES

Sample Compartment
Cuvette holder to accommodate 2 cuvettes of 10 mm pathlength, sample and reference

Interface
The spectrophotometer is equipped with multiple interfaces that allow flexible integration in the laboratory environment. These connections facilitate data transfer, PC control, and direct printing of results, adapting to different workflows:

- USB-A x1
- USB-B x1 (PC)
- Parallel port (printer)

Software
The equipment **includes UV/VIS** Analyst software.
It also comes with 4 glass cuvettes and 2 quartz cuvettes of 10 mm pathlength.

FUNCTIONS
Photometry, Quantification, Spectrum, Kinetics, DNA/Protein, Multi-wavelength

HJD012 and HJD015

Zuzi split beam UV/VIS spectrophotometer

Spectrophotometers equipped with a split beam system, designed to meet the most demanding needs of research laboratories. Their powerful optics, advanced connectivity, and integrated 10.1" touchscreen display make them a complete, reliable analysis platform, perfectly suited for GLP/GMP environments. In addition, IQ, OQ, and PQ protocols are available for both instruments.

TECHNICAL SPECIFICATIONS

Code	HJD012	HJD015
Model	4330/6	4510/5
Optical System	Split beam, 1200 lines/mm grating	Split beam, 1200 lines/mm grating
Wavelength Range	190-1100 nm	190-1100 nm
Wavelength Accuracy	± 0,3 nm	± 0,3 nm
Wavelength Repeatability	≤0,1 nm	≤0,1 nm
Wavelength Resolution	0,1 nm	0,1 nm
Scan Speed	20-4200 nm/min	20-3200 nm/min
Wavelength Slew Rate	10000 nm/min	10000 nm/min
Light Source	Tungsten, Deuterium	Xenon Flash Lamp
Spectral Bandwidth	1.5 nm	2 nm
Stray Light	≤0,05%T@220nm&340nm	≤0.05 %T@220nm&340nm
Noise	≤0.0002 A @ 0.0 A	≤0.001 A @ 0.0 A
Photometric Range	-0,3-3 A; 0-200% T; 0-9999,9 C	-0,3-3 A; 0-200% T; 0-9999,9 C
Power Supply	100-240 VAC, 50/60 Hz, 120 W	100-240 VAC, 50/60 Hz, 80 W
Dimensions (LxAxH)	450x370x187 mm	450x370x187 mm
Weight	11 kg	10.2 kg

FEATURES

Sample Compartment

Holds 4 x 10 mm cuvettes, manual external changer.

Interface and Storage

64 GB, unlimited (USB storage, network storage)
A wide variety of interfaces allow connection of keyboards, mice, scanners, and printers for data input and output, as well as access to networks for remote control, data transmission, and sharing. Includes:

- RS232 port (Printer)x1
- USB-B (PC)x1
- USB-A (USB memory)x1
- HUB 3+1 USB 3.0 + C type

Software

The system **comes with UVStudio software**
Optional UVStudio GLP/GMP version. This optional software is required to use the "User Management" module

FUNCTIONS

Photometry, Quantification, Spectrum, Kinetics, Time Scan, Multi-wavelength, DNA/Protein, Custom

HJD014

Zuzi split beam UV/Vis spectrophotometer, model 4510/4

The ZUZI 4510/4 UV/Vis Spectrophotometer offers a fast, precise, and compact solution for photometric, quantitative, and spectral measurements. Its long-life xenon lamp, combined with a split beam optical system and a 5" color TFT LCD touchscreen display, makes it a versatile and efficient tool—ideal for laboratories with intensive and demanding analytical needs.

TECHNICAL SPECIFICATIONS

Code	HJD014
Optical System	Split beam, 1200 lines/mm grating
Wavelength Range	190-1100 nm
Wavelength Accuracy	± 0,5 nm
Wavelength Repeatability	≤0,2 nm
Wavelength Resolution	0,1 nm
Scan Speed	20-3200 nm / min
Wavelength Slew Rate	10000 nm / min
Light Source	Xenon Flash Lamp
Spectral Bandwidth	2 nm
Stray Light	≤0.05 %T@220nm&340nm
Noise	≤0.001 A @ 0.0 A
Photometric Range	-0,3-3 A, 0-200 %T, 0-9999.9 C
Power Supply	100-240 VAC, 50 / 60 Hz, 60 W
Dimensions (LxAxH)	450x370x187 mm
Weight	10.2 kg

FEATURES

Sample Compartment
Holds 4 x 10 mm cuvettes, manual external changer

Interface and Storage
236 KB internal storage, unlimited (USB storage)
The device features functional connectivity, allowing data to be saved, printed, or exported through the available interfaces:

- RS232 port (Printer)x1
- USB-A (USB memory)x1
- USB-B (PC) x1

Software
The system **includes EasyUV Basic software**
Optional EasyUV available

FUNCTIONS
Photometry, Quantification, Spectrum

HJF001 and HJF002

Nanovolume spectrophotometer

The Z-6500 and Z-6500C models are designed for quantitative analysis of very low-volume samples, such as nucleic acids, proteins, and colorimetric compounds. Their advanced optics, combined with a compact and standalone design, allow for reliable results within seconds.

The Z-6500C model adds versatility by incorporating a cuvette-based measurement system as well.

Code		HJF001	HJF002
Detection Modes		Microscale	Microscale / Cuvette
Cuvette	Minimum Sample Volume	-	50 µL
	Minimum Cuvette Height	-	5 mm
	Chamber	-	Anechoic chamber for standard cuvettes
Microscale	Drop Volume	0.3-2.5 µl	
Wavelength Range	UV-Vis	200-900 nm	
	Protein / Nucleic Acid Quantif.	220-360 nm	
	Microarray	200-850 nm	
Wavelength Accuracy		± 1 nm	
Wavelength Resolution		≤ 2 nm	
Optical System		Split beam	
Optical Path Length		1, 0.5, 0.05 mm (adjustable)	
Photometric Range		0-300 A	
Photometric Accuracy		0.002 A	
Light Source		Long-life Xenon Lamp	
Detector		Silicon linear CCD array with 3864 elements	
Measurement Range – Nucleic Acids		0.4-15000 ng/µl (dsADN)	
Measurement Range – Proteins		0.1-400	
Detection Cycle		≤ 5 s	
Power Output		29 W	
Power Supply		100-240 V CA, 50/60 Hz	
Dimensions		300x200x180 mm	
Weight		3.2 kg	

FEATURES

1. Direct microvolume measurement without cuvettes (from 1 µL), ideal for DNA, RNA, and proteins. The Z-6500C also supports standard cuvette analysis, expanding application possibilities.
2. High-definition 7" touchscreen interface with built-in software—no additional installation required. Easy data export via USB or local network.
3. Large internal storage (≥ 32 GB) for methods and results.
4. Compatible with software for full-spectrum analysis, quantification, microarrays, and colorimetric assays.
5. Additional USB ports for peripheral devices such as mouse or keyboard.

Nucleic Acid and Protein Quantification

Colorimetric Assays

UV/VIS Spectral Scanning

HJD010, HJD011 and HJB007

Spectrophotometers – visible and UV/VIS range by Zuzi, single beam

These spectrophotometer models are designed to deliver high-quality optical performance, with a user-friendly and intuitive interface and a robust structure. They feature a 5-inch full-color LCD touchscreen display, allowing clear data visualization and quick access to configuration menus and results. All three models come with IQ/OQ/PQ protocol availability and include functions such as autocalibration and automatic adjustment, making them especially suitable for professional and regulated environments.

Code	HJD010	HJD011	HJB007
Model	4320/3	4320/4	4310/3
Optical System	Single beam, 1200 lines/mm grating	Single beam, 1200 lines/mm grating	Single beam, 1200 lines/mm grating
Wavelength Range	190-1100 nm	190-1100 nm	320-1100 nm
Wavelength Accuracy	± 0,5 nm	± 0,5 nm	± 0,5 nm
Wavelength Repeatability	≤0,2 nm	≤0,2 nm	≤0,2 nm
Wavelength Resolution	0,1 nm	0,1 nm	0,1 nm
Scan Speed	20-4200 nm/min	20-4200 nm/min	20-4200 nm/min
Wavelength Slew Rate	10000 nm/min	10000 nm/min	10000 nm/min
Light Source	Tungsten, Deuterium	Tungsten, Deuterium	Tungsten
Spectral Bandwidth	4 nm	2 nm	4 nm
Stray Light	≤0,05%T@220nm&340nm	≤0.05 %T@220nm&340nm	≤0,05%T@340 nm
Noise	≤0.0005 A @ 0.0 A	≤0.001 A @ 0.0 A	≤0.0005 A @ 0.0 A
Photometric Range	-0,3-3 A, 0-200 %T, 0-9999.9 C	-0,3-3 A, 0-200 %T, 0-9999.9 C	-0,3-3 A, 0-200 %T, 0-9999.9 C
Power Supply	100-240 VAC, 50/60 Hz, 120 W	100-240 VAC, 50/60 Hz, 120 W	100-240 VAC, 50/60 Hz, 75 W
Dimensions (LxAxH)	450x370x187 mm	450x370x187 mm	450x370x187 mm
Weight	10,5 kg	10,5 kg	10,5 kg

FEATURES

Sample Compartment
Holds 4 x 10 mm cuvettes, manual external changer

Interface and Storage
Storage of 236 KB of internal memory, unlimited through an external USB storage. The equipment features functional connectivity; thanks to the interfaces, data can be saved, printed, or exported. The available outputs are:

- RS232 port (Printer)x1
- USB-A (USB memory)x1
- USB-B (PC) x1

Software
The equipment **includes EasyUV Basic** software for analysis from the computer. **Optional Easy UV** to operate with more advanced options.

FUNCTIONS
Photometry, Quantification and Scanning

HJB008

Spectrophotometer 4265/50 Zuzi-CHEMetrics

Model specifically designed for the analysis of water and wastewater using CHEMetrics instrumental Vacu-vials® and COD test kits. It is programmed with more than 40 methods covering 23 analytes. The programs provide direct reading test results in mg/L (ppm).

It can also be used in other applications, as it is equipped with an adjustable cuvette holder and features three other operating modes: photometric, quantitative, and scanning. It includes availability of IQ/OQ/PQ protocols and functions such as autocalibration and automatic adjustment, making it especially suitable for professional and regulated environments.

TECHNICAL SPECIFICATIONS

Code	HJB008
Model	4265/50
Optical System	Single beam, 1200 lines/mm grating
Wavelength Range	320-1100 nm
Wavelength Accuracy	±0,5 nm
Wavelength Repeatability	≤0,2 nm
Wavelength Resolution	0,1 nm
Scan Speed	20-4200 nm/min
Light Source	Tungsten
Spectral Bandwidth	2 nm
Stray Light	≤0,05%T@340 nm
Noise	≤0.0005 A @ 0.0 A
Detector	Silicon photodiode
Photometric Range	-0,3-3 A, 0-200 %T, 0-9999.9 C
Power Supply	100-240 VAC, 50/60 Hz, 75 W
Dimensions (LxAxH)	450x370x187 mm
Weight	10,5 kg

FEATURES

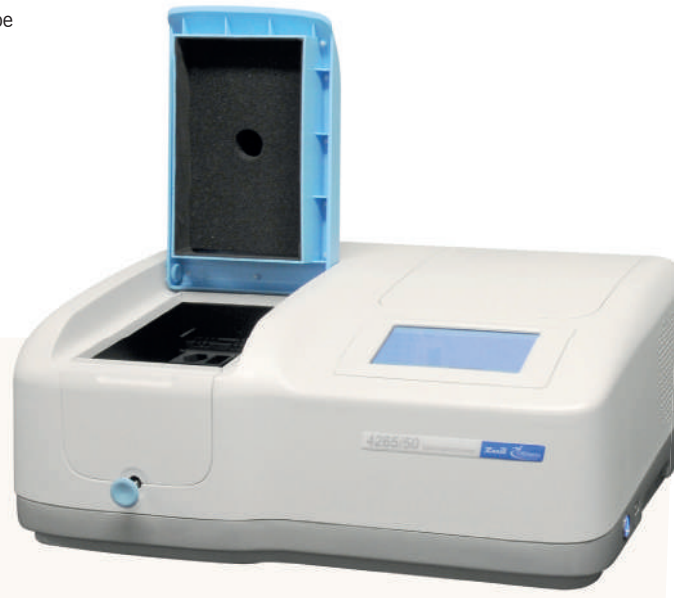
Interface and Storage

Storage of 236 KB of internal memory, unlimited through an external USB storage. The equipment features functional connectivity; thanks to the interfaces, data can be saved, printed, or exported. The available outputs are:

- RS232 port (Printer)x1
- USB-A (USB memory)x1
- USB-B (PC) x1

Software

The equipment **includes EasyUV Basic software** for analysis from the computer. **Optional Easy UV** to operate with more advanced options.



FUNCTIONS

Photometry, Quantification, Spectrum

SAMPLE COMPARTMENT

- Manually operated two-position sample holder: tube holder and adjustable cuvette holder
- Ampoules/Tubes: Ø 13-16 mm, height 45-110 mm
- Cuvettes: 10/20/30/50 mm

List of programmed methods and their corresponding analysis kits

The equipment allows access to 44 programmed methods for use with Chemetrics instrumental kits

Prog.	Analyte	CHEMetrics cat. No.	Auxilab code	Cell Size mm	Blank Y/N	Wavelength, nm	Range (ppm)	Method
1	Ammonia	K-1413	NBC009	13	N	610	0,20 – 3,00	Hydroxybenzyl Alcohol
2		K-1413	NBC009	13	N	610	4,00 – 60,0	Hydroxybenzyl Alcohol
3		K-1503	NBC010	13	N	430	0,50 – 7,00	Direct Nesslerization
4		K-1513	NBC036	13	N	430	0,50 – 10,00	Direct Nesslerization (extended shelf-life)
5		K-1513	NBC036	13	N	430	7,5 - 150	Direct Nesslerization (extended shelf-life)
6		K-1523	NBC011	13	N	430	1,5 – 14,0	Direct Nesslerization
7	Chloride	K-2103	NBD016	13	Y	455	2,5 – 40,0	Ferric Thiocyanate
8	Chlorine	K-2513	NBD009	13	N	515	0,40 – 5,00	DPD
10	Chlorine Dioxide	K-2703	NBD018	13	N	540	0,8 – 11,0	DPD + Glycine
11	Chromate	K-2803	NBR002	13	N	485	0,20 – 3,50	Diphenylcarbazide
12	Copper	K-3503	NBP002	13	Y	600	0,25 – 7,00	Bathocuproine
13	Cyanide	K-3803	NBG020	13	N	560	0,040 – 0,400	Isonicotinic/Barbituric Acid
14	DEHA	K-3903	NCH003	13	N	470	0,15 – 2,00	PDTS
15	Hydrogen Peroxide	K-5543	NBB008	13	N	505	0,50 – 6,00	Ferric Thiocyanate
16	Iron	K-6003	NBJ009	13	N	505	0,30 – 6,00	Phenanthroline
18		K-6203	NBJ011	13	N	505	0,30 – 6,00	Phenanthroline
19	Manganese	K-6503	NBS003	13	N	520	2,0 – 30,0	Periodate
20	Molybdate	K-6703	NBT004	13	N	400	1,0 – 25,0	Catechol
21	Monochloramine	K-6803	NCL005	13	N	690	0,50 – 8,00	Hydroxybenzyl Alcohol
22	Nitrate	K-6903	NBG007	13	N	520	0,20 – 1,50	Cadmium Reduction
23		K-6913	NBG008	13	N	520	0,20 – 1,50	Zinc Reduction
24		K-6923	NBG009	13	N	520	1,00 – 7,50	Cadmium Reduction
25		K-6933	NBG010	13	N	520	5,0 – 50,0	Cadmium Reduction
26		K-7003	NBG018	13	N	520	0,08 – 1,00	Azo Dye Formation
27		K-7013	NBG046	13	N	520	0,020 – 0,750	Azo Dye Formation (NED)
28	COD, LR	K-735X	NDB001_004	16	Y	420	10 – 150	Dichromate Reactor Digestion
29	COD, HR	K-736X	NDB005_008	16	Y	620	30 – 1500	Dichromate Reactor Digestion
30	COD, HR+	K-737X	NDB009_012	16	Y	620	300 – 15000	Dichromate Reactor Digestion
31	Ozone	K-7423	NBF001	13	N	515	0,20 – 5,00	DPD
32	Oxygen	K-7513	NBH007	13	N	520	2,0 – 15,0	Indigo Carmine
33		K-7553	NBH008	13	N	520	0,100 – 1,000	Rhodazine D™
34	Peracetic Acid	K-7913	NCD001	13	N	515	0,40 – 5,00	DPD
35	Phenols	K-8003	NCB006	13	N	505	0,40 – 8,00	4-Aminoantipyrine
36		K-8023	NCB007	13	N	505	1,0 – 20,0	4-Aminoantipyrine
37	Phosphate	K-8503	NBK009	13	N	420	5,0 – 80,0	Vanadomolybdo- phosphoric Acid
38		K-8513	NBK008	13	N	690	0,30 – 5,00	Stannous Chloride
39	Silica	K-9003	NBM003	13	N	815	0,25 – 4,00	Heteropoly Blue
40	Sulfate	K-9203	NBL013	13	N	420	25,0 – 100,0	Turbidimetric
41		K-9503	NBL006	13	N	660	0,10 – 1,00	Methylene Blue
42		K-9523	NBL007	13	N	610	0,60 – 6,00	Methylene Blue
43	Zinc	K-9903	NBV001	13	Y	620	0,30 – 3,00	Zincon
44		K-9923	NBV002	13	Y	620	1,5 – 15,0	Zincon

HJD008 and HJD009

Zuzi UV/Vis spectrophotometer, Single beam

Spectrophotometer models designed for high-quality optical performance, with a simple and intuitive user interface and a robust structure. They feature a 5-inch color LCD touchscreen display that facilitates data visualization and quick access to configuration menus and results. Both instruments come with availability of IQ/OQ/PQ protocols and functions such as autocalibration and automatic adjustment, making them especially suitable for professional and regulated environments.

TECHNICAL SPECIFICATIONS

Code	HJD008	HJD009
Model	4320/1	4320/2
Optical System	Single beam, 1200 lines/mm grating	Single beam, 1200 lines/mm grating
Wavelength Range	195-1050 nm	195-1050 nm
Wavelength Accuracy	± 0,8 nm	±0,8 nm
Wavelength Repeatability	≤0,3 nm	≤0,3 nm
Wavelength Resolution	0,1 nm	0,1 nm
Scan Speed	20-4200 nm/min	20-3200 nm/min
Wavelength Slew Rate	10000 nm/min	10000 nm/min
Light Source	Tungsten, Deuterium	Tungsten, Deuterium
Spectral Bandwidth	4 nm	2 nm
Stray Light	≤0,2%T@220nm&340nm	≤0,2%T@220nm&340nm
Noise	≤0.0005 A @ 0.0 A	≤0.0005 A @ 0.0 A
Photometric Range	-0,3-3 A, 0-200 %T, 0-9999.9 C	-0,3-3 A, 0-200 %T, 0-9999.9 C
Power Supply	100-240 VAC, 50/60 Hz, 120 W	100-240 VAC, 50/60 Hz, 120 W
Dimensions (LxAxH)	450x370x187 mm	450x370x187 mm
Weight	10,5 kg	10.5 kg

FEATURES

Sample Compartment
Holds 4 x 10 mm cuvettes, manual external changer

Interface and Storage
Storage of 236 KB of internal memory, unlimited through an external USB storage. The equipment features functional connectivity; thanks to the interfaces, data can be saved, printed, or exported. The available outputs are:

- RS232 port (Printer)x1
- USB-A (USB memory)x1
- USB-B (PC) x1

Software
The equipment **includes EasyUV Basic software** for analysis from the computer. **Optional Easy UV** to operate with more advanced options.

OPERATING MODE
Photometric and quantitative

HJD004

Spectrophotometer Zuzi 4255/50, Single beam

Complete spectrophotometer capable of performing quantitative, kinetic, and specific DNA/Protein analyses, greatly expanding its range of applications. It is a highly versatile instrument ideal for clinical and research laboratories. Equipped with a large LCD display to facilitate data reading and navigation through various work menus. Calibration coefficients can be entered manually or by using up to 10 standard samples.

TECHNICAL SPECIFICATIONS

Code	HJD004
Optical System	Single beam, 1200 lines/mm grating
Wavelength Range	190-1100 nm
Wavelength Accuracy	± 0,5 nm
Wavelength Repeatability	0,3 nm
Wavelength Resolution	±0,1 nm
Scan Speed	High, medium, low, max.: 3000 nm/min
Light Source	Tungsten and Deuterium
Spectral Bandwidth	2 nm
Stray Light	≤0.05%T@220nm&360nm
Photometric Range	--0,3-3 A, 0-200 %T, 0-9999.9 C
Power Supply	110VAC, 60Hz / 220VAC, 50Hz (manual switch)
Dimensions (LxAxH)	490x360x160 mm
Weight	16 kg

FEATURES

Sample Compartment
Holds 4 x 10 mm cuvettes, manual external changer

Interface
Includes USB and parallel ports for direct connection to computer and printer:
- Parallel port (Printer)x1
- USB-A (USB memory)x1

Software
The equipment **includes** the **UV/Vis Analyst software** for computer-based analysis.
It also comes with 4 glass cuvettes and 2 quartz cuvettes with a 10 mm light path.

OPERATING MODE
Photometric, quantitative, Spectrum
Kinetics, DNA/Protein
Multi-wavelength

HJD003

Spectrophotometer Zuzi 4251/50, Single beam

The ZUZI 4211/50 model is designed to provide reliable and efficient solutions for qualitative and quantitative analysis within the ultraviolet-visible spectrum. This equipment is ideal for research, development, and quality control laboratories in sectors such as pharmaceutical, food, environmental, and academic industries, as it combines high-performance optical technology with intuitive handling.

TECHNICAL SPECIFICATIONS

Code	HJD003
Optical System	Single beam, 1200 lines/mm grating
Wavelength Range	190-1100 nm
Wavelength Accuracy	± 2 nm
Wavelength Repeatability	± 0,2 nm
Wavelength Resolution	±0,1 nm
Light Source	Tungsten and Deuterium
Spectral Bandwidth	2 nm
Stray Light	≤0,2%T@360 nm
Photometric Range	-0,3-3,000 A, 0-200% T
Power Supply	110VAC, 60Hz / 220VAC, 50Hz (manual switch)
Dimensions (LxAxH)	490x360x210 mm
Weight	12 kg

FEATURES

Sample Compartment
Holds 4 x 10 mm cuvettes, manual external changer

Interface
USB and parallel ports for direct connection to computer and printer.
- Parallel port (Printer)x1
- USB-A (USB memory)x1

Software
The equipment **includes MWave Basic software** for computer-based analysis.
Optional MWave Professional is available to operate with more advanced options.
In addition, the equipment is supplied with 4 glass cuvettes and 2 quartz cuvettes

Storage
Memory allows storage of up to 200 absorbance and transmittance data points. It is also possible to save and retrieve up to 200 standard curves.

OPERATING MODE
Photometry, Quantification and Kinetics

HJD001, HJD002 and HJB004

Spectrophotometers Single beam, Visible and UV/VIS Range

Instruments designed to offer reliable and efficient solutions for qualitative and quantitative analysis. With a compact design, precise optics, and intuitive operation, they are suitable for research, development, and quality control laboratories. They are highly useful in sectors such as the pharmaceutical, food, environmental, and academic industries. Data is displayed on the large LCD screen, which also allows access to the main functions of the instrument.

TECHNICAL SPECIFICATIONS

Code	HJD002	HJD001	HJB004
Model	4211/50	4201/50	4211/20
Range	UV/VIS	UV/VIS	Visible
Optical System	Single beam, 1200 lines/mm grating	Single beam, 1200 lines/mm grating	Single beam, 1200 lines/mm grating
Wavelength Range	200-1000 nm	200-1000 nm	325-1000 nm
Wavelength Accuracy	± 2 nm	± 2 nm	± 2 nm
Wavelength Repeatability	± 0,8 nm	± 1 nm	± 0,8 nm
Wavelength Resolution	±0,1 nm	±0,1 nm	±0,1 nm
Light Source	Tungsten, Deuterium	Tungsten, Deuterium	Tungsten
Spectral Bandwidth	4 nm	4 nm	4 nm
Stray Light	≤0.2%T@220nm& 360nm	≤0.2%T@220nm& 360nm	≤0.2%T@220nm& 360nm
Photometric Range	-0,3-3,000 A, 0-200% T	-0,3-3,000 A, 0-200% T	0-200%T , -0.3 - 3A
Power Supply	110VAC, 60Hz / 220VAC, 50Hz (manual switch)	110VAC, 60Hz / 220VAC, 50Hz (manual switch)	110VAC 60Hz / 220VAC, 50Hz (Manual switch)
Dimensions (LxAxH)	490x360x210 mm	490x360x210 mm	490x360x210 mm
Weight	12 kg	12 kg	12 kg

FEATURES

Sample Compartment
Holds 4 x 10 mm cuvettes, manual external changer

Interface
USB and parallel ports for direct connection to computer and printer.
- Parallel port (Printer)x1
- USB-A (USB memory)x1

Software
The equipment **includes MWave Basic software** for computer-based analysis. **Optional MWave Professional** is available to operate with more advanced options. They include 4 glass cuvettes and 2 quartz cuvettes *(except reference HJB004)*

Storage
Memory allows storage of up to 200 absorbance and transmittance data points. It is also possible to save and retrieve up to 200 standard curves.

CODE - HJD001
HJD002

CODE - HJB004

OPERATING MODE
Photometry and Quantification

HJB003 and HJD017

Visible and UV/VIS spectrophotometers, Single beam

The ZUZI Series 4200 spectrophotometers are designed to operate in the visible and UV/Vis range of the spectrum, making them the ideal choice for routine and experimental applications in universities and educational centers. They include user assistance that guides the steps to follow. The equipment features a color TFT display.

TECHNICAL SPECIFICATIONS

Code	HJB003	HJD017
Model	4201/20	4201/30
Range	Visible	UV/Vis
Optical System	Single beam, 1200 lines/mm grating	Single beam, 1200 lines/mm grating
Wavelength Range	325-1050 nm	200-1050 nm
Wavelength Accuracy	± 1 nm	± 1 nm
Wavelength Repeatability	≤ 0.5 nm	≤ 0.5 nm
Wavelength Resolution	±0,5 nm	±0,5 nm
Wavelength Slew Rate	10000 nm/s	10000 nm/s
Light Source	Tungsten	Tungsten and Deuterium
Spectral Bandwidth	4 nm	4 nm
Stray Light	≤0,2%T@360 nm	≤0,2%T@360 nm
Photometric Range	-0,3/3 A ; 0-200% T ; 0-9999.9 C	-0,3/3 A ; 0-200% T ; 0-9999.9 C
Power Supply	100-240 VAC,50/60 Hz 75 W	100-240 VAC,50/60 Hz 75 W
Dimensions (LxAxH)	456x360x185 mm	456x360x185 mm
Weight	10,5 kg	10,5 kg

FEATURES

Sample Compartment
Holds 4 x 10 mm cuvettes, manual external changer

Interface
USB and parallel ports for direct connection to computer and printer.
- Parallel port (Printer)x1
- USB-A (USB memory)x1

Includes
HJB003: includes 4 glass cuvettes
HJD017: 4 glass cuvettes + 2 quartz cuvettes

Software
The system **includes EasyUV Basic software** for computer-based analysis.

OPERATING MODE
Photometry and Quantification

HJB001 and HJB002

Spectrophotometers Single beam, Range visible

The ZUZI Series 4100 spectrophotometers are the simplest and most accessible option within the range, ideal for basic measurements in the visible region of the spectrum. Their intuitive design and manual wavelength adjustment make them a reliable tool for educational laboratories and general applications in healthcare, industry, and the environment. Both models are equipped with a manual wavelength selector.

TECHNICAL SPECIFICATIONS

Code	HJB001	HJB002
Model	4101	4111RS
Optical System	Single beam, 1200 lines/mm grating	Single beam, 1200 lines/mm grating
Wavelength Range	330-1000 nm	330-1000 nm
Wavelength Accuracy	±2 nm	±2 nm
Wavelength Resolution	1 nm	1 nm
Light Source	Tungsten halogen lamp	Tungsten halogen lamp
Bandwidth	6 nm	6 nm
Detector	Silicon photodiode	Silicon photodiode
Photometric Range	0-1,999 A / 0-100% T	0-1,999 A / 0-100% T
Concentration	-	0-1999 C / 0-1999 F
Sample Compartment	For 1 cuvette/tube with 10 mm light path	For 1 cuvette/tube with 10 mm light path
Display	LCD	LCD
Interface	-	RS232 port × 1
Power Supply	100-240 VAC, 50/60 Hz	100-240 VAC, 50/60 Hz
Dimensions (LxAxH)	320x280x120 mm	320x280x120 mm
Weight	4,5 Kg	4,5 Kg

FEATURES

Sample Compartment
Holds 1 x 10 mm cuvettes.

Interface
The HJB002 code includes USB and parallel ports for direct connection to computer and printer.

- Parallel port (Printer)x1
- USB-A (USB memory)x1

Includes
2 glass cells, 10 mm path length

Software
The HJB002 code comes with application software based on the Windows operating system.

OPERATING MODE

- HJB001: Photometry
- HJB002: Photometry and Quantification

ACCESSORIES SPECTROPHOTOMETERS ZUZI

- **Printers:** thermal
- **Analysis software:** MWave Professional, EasyUV, UVStudio GLP/GMP
- **Holders**
- **Peltier/Sipper modules**
- **Spectrophotometry cuvettes:** glass, quartz, and plastic

In this section, we present the most common accessories for working with spectrophotometers: printers, analysis software, holders, and cuvettes.

Additionally, we offer a wider range including adapters, replacement lamps, and various models of controllers designed to expand the instrument's functionalities and adapt to different applications.

You can consult the full offer on our website or contact our technical team for more information.

ACCESSORIES - SPECTROPHOTOMETERS

Printers – Direct documentation from the Spectrophotometer

To facilitate documentation and traceability of results, several Zuzi spectrophotometer models are compatible with external printers. These allow direct printing of measurement results, spectral curves, and calibration data without the need for a computer.

Equipment Code	Description	Printer Code
HJB003, HJB007, HJB008, HJD008, HJD009 HJD010, HJD011, HJD014	Thermal printer for spectrophotometer	HJH063

PRINTER FEATURES

Printing method:
Thermal dot matrix

Printing speed:
65 mm/s — Fast results output

Paper compatibility:
Width: 57 ± 0.5 mm
Diameter: up to Ø45 mm

Resolution:
8 dots/mm (384 dots/line)
Clear and sharp data printing

ACCESSORIES - SPECTROPHOTOMETERS

Analysis Software: Control, Precision, and Versatility

All Zuzi spectrophotometers include a basic analysis software that enables standard operation of the instrument and data management. However, for laboratories requiring extended functionalities — such as validation according to GLP/GMP standards, advanced kinetic analysis, multicomponent quantification, or custom reports — a range of optional software compatible with each model is available. These solutions allow the instrument to be adapted to different levels of operational requirements, significantly enhancing user experience and analytical capabilities.

Equipment Code	Included Software	Compatible Optional Software	Optional Software Code
HJB004, HJB001, HJD002, HJD003	MWave Basic	MWave Professional	HJH008
HJB007, HJB008, HJD008, HJD009, HJD010, HJD011	EasyUV Basic	EasyUV	HJH064
HJD016, HJD015, HJD013, HJD012	UVStudio	UVStudio GLP/GMP	HJH067
HJD004, HJD007	UV-VIS Analyst	—	—

ADVANCED LEVEL

UV Studio (integrated)

UV Studio GLP/GMP

1/ Photometry
2/ Kinetics
3/ Quantification: 3 available methods to establish the standard curve
4/ Spectrum
5/ Time Scan
6/ Multi-wavelength
7/ DNA/Protein
8/ Formula editor for photometric calculations
9/ Instrument performance verification
10/ File management
11/ User management – GLP/GMP version ensures traceability for audits, complying with Good Laboratory/Manufacturing Practices and FDA 21 CFR Part 11

INTERMEDIATE LEVEL

UV-VIS Analyst

MWave Professional

EasyUV

1/ Photometry
2/ Kinetics
3/ Quantification: 2 available methods to establish the standard curve
4/ Spectrum
5/ Multi-wavelength
6/ DNA/Protein
7/ Energy scan: except for UV-VIS Analyst model
8/ Wine colorimetric analysis: except for UV-VIS Analyst model
9/ Data export: only available in MWave Professional model

BASIC LEVEL

MWave Basic

EasyUV Basic

1/ Photometry
2/ Kinetics
3/ Quantification: 2 available methods to establish the standard curve

ACCESSORIES - SPECTROPHOTOMETERS

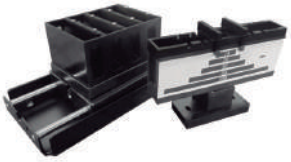
Holders

CODE - HJH001
Cuvette holder, Series 4100

For codes: HJB001, HBJ002

CODE - HJH027
Holder for 4 cuvettes from 10 to 50 mm

For codes: HJB004, HBJ003, HJD001, HJD002, HJD003
HJD004, HJB008, HJD008,HJD009, HJD010
HJD011, HJD012, HJD014, HJD015



CODE - HJH032
Holder for 4 cuvettes from 10 to 50 mm, Double beam

For codes: HJD007, HJD013, HJD016

CODE - HJH035
Holder for 4 cuvettes of 10 mm

For codes: HJB004, HJB003, HJD001, HJD002, HJD003,
HJD004

CODE - HJH036
Holder for 4 cuvettes of 100 mm

For codes: HJB004, HJB003, HJD001, HJD002, HJD003,
HJD004, HJB008, HJD008, HJD011,
HJD012, HJD014, HJD015

CODE - HJH037
Holder for 4 cuvettes up to 100 mm, Double beam

For codes: HJB008, HJD013, HJD016

ACCESSORIES - SPECTROPHOTOMETERS

Holders

CODE - HJH049
Automatic holder with 8 positions for 10 mm cuvettes, type A

For codes: HJD001, HJD002, HJD004, HJD007

CODE - HJH050
Automatic holder with 5 positions for cuvettes from 10 to 100 mm

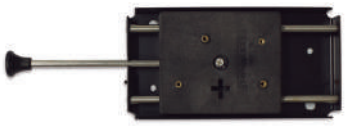
For codes: HJB008, HJD008, HJD009, HJD010, HJD011, HJD012, HJD014, HJD015

CODE - HJH051
Automatic holder with 5 positions for cuvettes from 10 to 100 mm

For codes: HJD013, HJD016

CODE - HJH052
Automatic holder with 8 positions for 10 mm cuvettes

For codes: HJB007,HJB008, HJD008, HJD009, HJD010, HJD011, HJD013, HJD015, HJD016



CODE - HJH061
Sliding base for 4-cuvette holder

For all models

ACCESSORIES - SPECTROPHOTOMETERS

PELTIER - SIPPER Modules

Peltier and Sipper systems have been developed to provide **absolute control** over analysis conditions in spectrophotometry. Peltier systems allow highly precise temperature regulation of samples, **maintaining stability between 10 and 90 °C**. This is essential for ensuring reliable results in temperature-sensitive applications. On the other hand, **Sipper systems automate the aspiration, filling, and cleaning of cells,** providing a constant and reproducible sample flow. This automation reduces operational errors and speeds up repetitive or high-volume analyses. Auxilab presents the full range of equipment compatible with spectrophotometer models, featuring a compact design, intuitive touchscreen display, and multilingual operation options:

- **HJH054 and HJH055:** Precise thermal control and automatic cycle programming. Ideal for applications where temperature is a critical factor.
- **HJH056 and HJH057:** Full automation of sample handling, with control of speed, aspiration time, recovery, and cleaning.
- **HJH058 and HJH059:** Combined systems integrating temperature control and automatic Sipper in one device, maximizing efficiency.

CODE - HJH054
Peltier System Type A
For codes: HJD003, HJD004, HJD007, HJD013, HJD016

CODE - HJH055
Peltier System Type B
For codes: HJB007, HJB008, HJD008, HJD009, HJD010, HJD011, HJD012, HJD014, HJD015

CODE - HJH056
Sipper System Type A
For codes: HJD003, HJD004, HJD007, HJD013, HJD016

CODE - HJH057
Sipper System Type B
For codes: HJB007, HJB008, HJD008, HJD009, HJD010, HJD011, HJD012, HJD014, HJD015

CODE - HJH058
Combined Peltier/Sipper System Type A
For codes: HJD003, HJD004, HJD007, HJD013, HJD016

CODE - HJH059
Combined Peltier/Sipper System Type B
For codes: HJB007, HJB008, HJD008, HJD009, HJD010, HJD011, HJD012, HJD014, HJD015

The classification of systems into type A and B is due to compatibility with two groups of spectrophotometer models. Type A and B devices have the same specifications.

ACCESSORIES - SPECTROPHOTOMETERS

Spectrophotometry Cuvettes – Glass and Quartz

All our cuvettes are supplied in perfectly matched pairs, ensuring uniformity in measurements. They are manufactured under strict quality standards and designed to offer high performance in both VIS and UV applications.

Available Materials:

- Optical glass (340–2500 nm): Suitable for measurements in the visible spectrum (VIS).
- Synthetic quartz (190–2500 nm): Ideal for analysis in the ultraviolet (UV) and visible range.

Manufacturing Process:

Cuvettes are produced through sintering of fine base material particles. This process involves heating the material aggregates without reaching their melting point and shaping them through controlled pressure, ensuring high precision in the parallelism and flatness of the optical surfaces.

Verified Chemical Resistance:

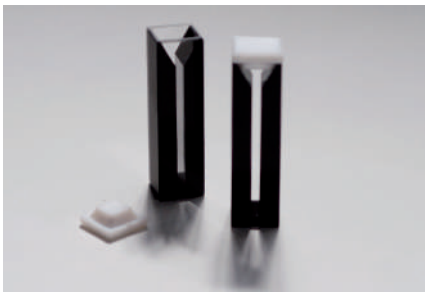
Cuvettes have been tested with the following agents for 24 hours without cracks, leaks, or deformations:

- Alkaline solutions: Sodium hydroxide (NaOH) 6 mol/L
- Strong acids: Hydrochloric acid (HCl) 6 mol/L
- Organic solvents: Ethanol (C_2H_6OH), carbon tetrachloride (CCl_4), benzene (C_6H_6)

Standard Macro

Classic cuvette widely used in analytical chemistry. It features two polished sides and a standard non-hermetic cap, suitable for routine applications. Light path width: 10 mm / External dimensions: 12.5 × B × 45 mm.

Glass	Quartz	Light Path	Volume
HJK001	HJL001	1 mm	0,35 mL
HJK002	HJL002	2 mm	0.70 mL
HJK003	HJL003	5 mm	1.70 mL
HJK004	HJL004	10 mm	3.50 mL
HJK005	HJL005	20 mm	7.00 mL
HJK006	HJL006	40 mm	14.00 mL
HJK007	HJL007	50 mm	17.50 mL
HJK018	HLJ018	100 mm	40 mL



Semi-micro with Black Walls

Designed to reduce the required sample volume. The black side walls eliminate stray light, enhancing precision and sensitivity in low-volume measurements. Light path width: 4 mm / External dimensions: 12.5 × B × 45 mm.

Glass	Quartz	Light Path	Volume
HJK009	HJL009	5 mm	0.50 mL
HJK010	HJL010	10 mm	1.00 mL
HJK011	HJL011	20 mm	2.00 mL

Standard Macro with Hermetic Cap

Equipped with a PTFE cap, recommended for volatile liquids. Light path width: 10 mm / External dimensions: 12.5 × 12.5 × 45 mm.

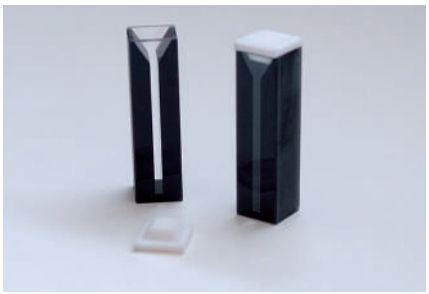
Glass	Quartz	Light Path	Volume
HJK008	HJL008	10 mm	3.50 mL

ACCESSORIES - SPECTROPHOTOMETERS

Spectrophotometry Cuvettes – Quartz

Micro with black walls and hermetic cap
Equipped with a PTFE cap, recommended for volatile liquids. Light beam width: 2 mm / External dimensions: 12.5 × B × 48 mm.

Quartz	Light Path	Volume
HJL014	5 mm	0.25 mL
HJL015	10 mm	0.50 mL



Micro with black walls
Equipped with a PTFE cap, recommended for volatile liquids. Light beam width: 10 mm / External dimensions: 12.5 × 12.5 × 48 mm.

Quartz	Light Path	Volume
HJL013	10 mm	0.50 mL

ACCESSORIES - SPECTROPHOTOMETERS

Spectrophotometry Cuvettes – Plastic

Cuvettes designed for spectrophotometric measurements in the visible and near-UV spectrum, made from optical-grade PS and UV-grade PMMA, offering excellent optical transparency. They feature universal compatibility and are suitable for use with most spectrophotometers.

Spectral range:

- Optical PS: 340-800 nm
- PMMA UV: 280-800 nm

Available formats

- Macro: 4,5 mL
- Low semi-micro 1,5 mL

Optical PS Cuvette
External dimensions: 12 × 12 × 45 mm
Light beam width: 10 mm

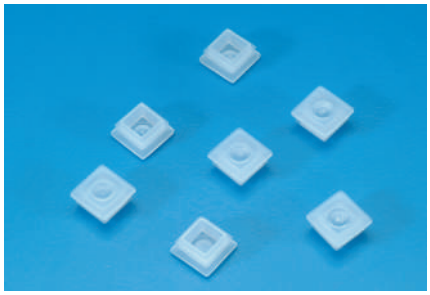
Code	Description	Volume	Pack
HJM004	Macro	4.5 mL	100 pcs
HJM005	Semi - micro	1.5 mL	100 pcs
HJM007	Semi - micro	2.5 mL	100 pcs
HJM010	4 optical sides	4.5 mL	100 pcs

ACCESSORIES - SPECTROPHOTOMETERS

Spectrophotometry Cuvettes – Plastic

PMMA (UV) Cuvette
External dimensions: 12 × 12 × 45 mm
Light beam width: 10 mm

Code	Description	Volume	Pack
HJM006	Macro	4.5 mL	100 pcs
HJM008	Semi - micro	1.5 mL	100 pcs
HJM009	Semi - micro	2.5 mL	100 pcs
HJM011	4 optical sides	4.5 mL	100 pcs



LDPE Cuvette Cap
Snap-on polyethylene cap for sealing cuvettes with a square mouth (10 × 10 mm)

Code	Dimensions	Pack
HJM012	10x10 mm	100 pcs

PE Cuvette Rack
Holds up to 12 cuvettes of 10 mm. Stackable design for better storage.

Code	Dimensions
HJM012	170x50x15 mm
HJM020	210x70x35 mm

ACCESSORIES - SPECTROPHOTOMETERS

Verification filters

To comply with major national and international regulations and standardization requirements, such as Good Laboratory Practice (GLP) and the ISO 9000–9004 series standards, it is essential to carry out periodic inspections to ensure the proper functioning of spectrophotometers. Regular verification of instrument performance is a key element in guaranteeing the quality of analytical procedures and ensuring the accuracy and reliability of the results obtained.
Each filter is mounted in a housing compatible with 1 cm cuvette holders and is supplied with an individual calibration certificate indicating the absorbance and wavelength values.

Neutral density glass filters

1/ Grey glass filters for verifying photometric accuracy (absorbance) in the visible range (440 nm to 635 nm).
2/ Neutral density filters show a relatively constant transmission across the visible spectrum and are calibrated at specific wavelengths.
3/ The thickness of the glass filter has been adjusted to provide nominal absorbance values of 0.25 A, 0.5 A, and 1 A.

Code	HJG003	HJG004	HJG005
Description	F2	F3	F4
Tolerance (A)	± 0,05	± 0,10	1
Nominal absorbance (nm)	0,25	0,5	1
Measured wavelengths at (nm)	440, 465, 546, 590, 635		

Didymium Glass Filter

Code	HJG001
Description	Didymium F5
Peak positions (nm)	327, 473, 513, 684, 875
Absorvancia nominal (nm)	5.0 (280 nm); 3.0 (300 nm); 0.5 (320 nm); 0.2 (340 nm)

Holmium oxide glass filter

Recommended for UV/Vis spectrophotometers

Code	HJG008
Description	Holmium oxide glass filter F1
Peak positions (nm)	279, 364, 454, 536, 638

Filter set

Includes 1 Holmium Oxide (Ho_2O_3) filter for wavelength accuracy verification and 3 neutral density filters for photometric verification. Supplied in a wooden case with an empty mount and a calibration certificate indicating absorbance and wavelength values. A copy of these values is included on the inside lid of the case.

Code	HJG007
Composed of	Holmium Oxide Filter (F1) (HJG008) Neutral Density Optical Filter (F2) (HJG003) Neutral Density Optical Filter (F3) (HJG004) Neutral Density Optical Filter (F4) (HJG005)

The group:

AUXILAB
Material de laboratorio
Laboratory supplies

948 31 05 13
correo@auxilab.es
www.auxilab.es
Pol. Morea Norte Calle D - 31191 Beriain, Navarra

ROGO-SAMPAIC
matériel de laboratoire

rogosampaic@rogosampaic.com
www.rogosampaic.com

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