



Single Beam Visible Spectrophotometer



SINGLE BEAM VISIBLE SPECTROPHOTOMETERS 100 SERIES

Labocon Single Beam Visible spectrophotometers LVS-100 Series offers measurement range of 320-1100nm at bandwidth of 4nm; which provides high accuracy, reproducibility and high throughput at each run.

These LVS-100 Series are inbuilt with highly durable tungsten halogen lamp, which best suitable for:

- For measurement of DNA, RNA and oligonucleotide and Protein
- Proteins can be quantitated by BCA, Biuret, Bradford, Direct UV and Lowry
- The OD of bacterial cell culture solutions can be measured to optimize harvest times
- For the determination of metal and organic non-metal analytes in water
- Ideal to be use in petrochemical labs as they are solvent resistant such as Naphthalene in aviation.

Features

- **Wavelength range**
 - 320-1100nm
- **Optical System**
 - High quality Czerny Turner Diffraction Grating monochromator ensures high resolution, high photometric accuracy and low stray light
- **Bandwidth**
 - 4nm
- **Detector**
 - Silicon Photodiode
- **Measurement Range with ultra-low Stray Light**
 - With its ultra-low stray light ($\leq 0.2\%T$ (220nm, 340nm)) is achieved on wavelength range of 320 - 1100 nm
- **Sample size**
 - A wide range of standard cuvettes can be used based on the sensitivity or sample volume requirements.
- **Sophisticated and simplified Sample analysis software**
 - The Sample analysis software deliver scanning, fixed wavelength analysis, quantitative analysis,

data collection, storage, export, and reporting.

With additional feature of an easy access USB port available in the unit, which enables results to be stored directly to a USB memory stick for easy transfer of data.

Additional Features

- **Model LVS-101 and LVS-102:**
 - Manual wavelength setting
- **Model LVS-102:**
 - Microprocessor controlled technology
 - Can save 200 standard curve and 500 groups of data
 - USB data port
 - Built-in printer and anti-controlled PC software (optional)



LVS-101



LVS-102

Application

Labocon Visible Spectrophotometer LVS-100 Series is widely used in educational institutes, medical and health clinics, biochemistry field, chemical engineering, environmental protection, food industry, pharmaceutical industry, quality control departments, etc.

Specification

Model	LVS-101	LVS-102
Wavelength Range	320-1000nm	320-1100nm
Wavelength Accuracy	$\pm 2\text{nm}$	
Wavelength Repeatability	$\pm 1\text{nm}$	
Spectral Bandwidth	4nm	
Stability	$\pm 0.002 \text{ A/hr}$ at 500nm, 0 A	
Photometric Range	-0.3 to 3 A; 0-200 %T; -9999 to 9999 C	
Photometric Accuracy	$\pm 0.5\%T$ (0-100%T)	
Photometric Repeatability	$\pm 0.2\%T$ (0-100%T)	
Monochromator	Littrow Diffraction Monochromator	
Stray Light	$\leq 0.2 \%T$ (220nm, 340nm)	
Light Source	-	
Display	LED	LCD
Overall Dimension	470x380x200mm	
Power Supply	-	-
Weight (Net/Gross)	14 kg	
Catalog No.	9141145164	9141146164

SINGLE BEAM VISIBLE SPECTROPHOTOMETER LVS-200 SERIES

Labocon Single Beam Visible spectrophotometers LVS-200 Series offers measurement range of 320-1100nm at bandwidth of 2 and 4nm; which provides high accuracy, reproducibility and high throughput at each run.

These LVS-200 Series are inbuilt with highly durable tungsten halogen lamp, which best suitable for:

- For measurement of DNA, RNA and oligonucleotide and Protein
- Proteins can be quantitated by BCA, Biuret, Bradford, Direct UV and Lowry
- The OD of bacterial cell culture solutions can be measured to optimize harvest times
- For the determination of metal and organic non-metal analytes in water
- Ideal to be use in petrochemical labs as they are solvent resistant such as Naphthalene in aviation

Features

- **Wavelength range**
 - 320-1100nm
- **Optical System**
 - 1200 lines/mm line Czerny Turner Diffraction Grating monochromator ensures high resolution, high photometric accuracy and low stray light
- **Bandwidth**
 - 2 & 4nm
- **Detector**
 - Silicon Photodiode
- **Measurement Range with ultra-low Stray Light**
 - With its ultra-low stray light $\leq 0.05\%T$ is achieved on wavelength range of 320 - 1100 nm
- **Sample size**
 - A wide range of standard cuvettes can be used based on the sensitivity or sample volume requirements.
- **Sophisticated and simplified Sample analysis software**
 - The Sample analysis software deliver scanning, fixed wavelength analysis, quantitative analysis, data collection, storage, export, and reporting.
With additional feature of an easy access USB port available in the unit, which enables results to be stored directly to a USB memory stick for easy transfer of data.

Additional Features

- Large sample compartment to accommodate 5-100mm cuvettes with holders
- Pre-aligned design allows convenient changing of lamps
- USB port and parallel port
- PC software (optional)

- **For Model LVS-201:**

- Equipped with tungsten halogen lamp
- Automatic zero adjustment
- Easy to use and operate
- Two-points method measures concentration of unknown samples

- **For Model LVS-202:**

- Can display 50 groups of data
- Automatic switching between deuterium and tungsten lamp
- Automatic wavelength calibration and dark current setting
- Data can be restored in case of power failure
- 10mm cell holder (optional)

- **For Model LVS-203, LVS-204, LVS-203PC, LVS-204PC:**

- Electric circuit design ensures low stray light
- Can store up to 200 results
- Equipped with Tungsten lamp
- **Model LVS-203PC, LVS-204PC:** Optical system with PC software



LVS-201



LVS-203

Application

Labocon Visible Spectrophotometer LVS-200 Series is widely used in educational institutes, medical and health clinics, biochemistry field, chemical engineering, environmental protection, food industry, pharmaceutical industry, quality control departments, etc.

Specification

Model	LVS-201	LVS-202	LVS-203
Wavelength Range	325-1000nm		320-1100nm
Wavelength Accuracy	±1nm		±0.8nm
Wavelength Repeatability	0.5nm		0.3nm
Spectral Bandwidth	4nm		2nm
Stability	± 0.002A/h at 500nm		
Baseline Flatness	None	None	±0.002A/h
Photometric Range	-0.3-3A,0-200%T		-0.3-3A,0-200%T,0-9999C
Photometric Accuracy	±0.5%T		±0.3%T
Photometric Repeatability	0.3%T		0.2%T
Photometric Mode	T, A, C, F		
Stray Light	≤0.3%T		≤0.05%T
Display	LED	LCD	
Detector	Silicon Photodiode		
Overall Dimension	420x280x180mm		460x360x225mm
Power	300W		
Power Supply	AC 85-250V		110-220V 50-60Hz
Weight	8 kg	10kg	18 kg
Catalog No.	9141147347	9141148347	9141149348

Specification

Model	LVS-204	LVS-203PC	LVS-204PC
Wavelength Range	320-1100nm		
Wavelength Accuracy	±0.5nm	±0.8nm	±0.5nm
Wavelength Repeatability	0.2nm	0.3nm	0.2nm
Spectral Bandwidth	2nm		
Stability	± 0.002A/h at 500nm		
Baseline Flatness	±0.0015A/h	±0.002A/h	±0.0015A/h
Photometric Range	-0.3-3A,0-200%T,0-9999C		
Photometric Accuracy	±0.3%T		
Photometric Repeatability	0.2%T		
Photometric Mode	T, A, C, F		
Stray Light	≤0.05%T		
Display	LCD		
Detector	Silicon Photodiode		
Overall Dimension	460x360x225mm		
Power	300W		
Power Supply	110-220V 50-60Hz		
Weight	18 kg		
Catalog No.	9141150347	9141151347	9141152347

SINGLE BEAM VISIBLE SPECTROPHOTOMETER LVS-300 SERIES

Labocon Single Beam Visible spectrophotometers LVS-300 Series offers measurement range of 320-1100nm at bandwidth of 2 and 4nm; which provides high accuracy, reproducibility and high throughput at each run.

These LVS-300 Series are inbuilt with highly durable tungsten halogen lamp, which best suitable for:

- For measurement of DNA, RNA and oligonucleotide and Protein
- Proteins can be quantitated by BCA, Biuret, Bradford, Direct UV and Lowry
- The OD of bacterial cell culture solutions can be measured to optimize harvest times
- For the determination of metal and organic non-metal analytes in water
- Ideal to be use in petrochemical labs as they are solvent resistant such as Naphthalene in aviation

Features

- **Wavelength range**
 - 320-1100nm
- **Optical System**
 - 1200 lines/mm line Czerny Turner Diffraction Grating monochromator ensures high resolution, high photometric accuracy and low stray light
- **Bandwidth**
 - 2 & 4nm
- **Detector**
 - Silicon Photodiode
- **Measurement Range with ultra-low Stray Light**
 - With its ultra-low stray light $\leq 0.05\%T$ is achieved on wavelength range of 320 - 1100 nm
- **Sample size**
 - A wide range of standard cuvettes can be used based on the sensitivity or sample volume requirements.
- **Sophisticated and simplified Sample analysis software**
 - The Sample analysis software deliver scanning, fixed wavelength analysis, quantitative analysis, data collection, storage, export, and reporting.

With additional feature of an easy access USB port available in the unit, which enables results to be stored directly to a USB memory stick for easy transfer of data.

Additional Features

- LCD display
- Large sample compartment to accommodate 5-100mm cuvettes with holders
- USB port and parallel port
- PC software (optional)
- **For Model LVS-301:**
 - Manually set wavelength
 - Automatic zero adjustment
- **For Model LVS-302, LVS-303, LVS-304, LVS-303PC, LVS-304PC:**
 - Can store up to 200 results
 - Automatic switching between deuterium and tungsten lamp
 - Automatic wavelength setting
 - Data can be restored in case of power failure
- **Model LVS-302:**
 - Can display 50 groups of data along with standard curve and curve equation
 - Equipped with 22 membrane keyboard
 - Provides Photometric, Quantitative, Kinetics, Wavelength scan, Multi-wavelength and DNA/Protein Test functions
- **Model LVS-303PC, LVS-304PC:** Optical system with PC software



Application

Labocon Visible Spectrophotometer LVS-300 Series is widely used in educational institutes, medical and health clinics, biochemistry field, chemical engineering, environmental protection, food industry, pharmaceutical industry, quality control departments, etc.

Specification

Model	LVS-301	LVS-302	LVS-303
Wavelength Range	325-1000nm		320-1100nm
Wavelength Accuracy	±2nm		±0.5nm
Wavelength Repeatability	1nm	0.8nm	0.3nm
Bandwidth	4nm		2nm
Stability	±0.004A/h at 500nm	±0.002A/h at 500nm	±0.001A/h at 500nm
Baseline Flatness	-	-	-
Photometric Range	0.200%T, -0.3-3A, 0-1999C	0.200%T, -0.3-3.0A, 0-9999C	
Photometric Accuracy	±0.5%T or ±0.004A at 1A	±0.5%T or ±0.003A at 1A	±0.5%T or ±0.004A at 1A
Stray Light	0.2%T		0.05%T at 360nm
Light Source	Tungsten Halogen Lamp		
Display	LCD		
Detector	Silicon Photodiode		-
Overall Dimension	440x387x180mm		470x373x187mm
Power Supply	85-265V 50/60Hz	220V 60Hz	
Weight	8 kg	12 kg	
Catalog No.	9141153346	9141154346	9141155346

Model	LVS-304	LVS-303PC	LVS-304PC
Wavelength Range	320-1100nm		
Wavelength Accuracy	±0.5nm		
Wavelength Repeatability	0.3nm		
Bandwidth	2nm		
Stability	±0.001A/h at 500nm		
Photometric Range	0.200%T, -0.3-3.0A, 0-9999C		
Photometric Accuracy	±0.5%T or ±0.004A at 1A		
Stray Light	0.05%T at 360nm		
Light Source	Tungsten Halogen Lamp		
Display	LCD		
Overall Dimension	470x373x187mm		
Power Supply	220V 60Hz		
Weight	12 kg		
Catalog No.	9141156346	9141157346	9141158346

SINGLE BEAM VISIBLE SPECTROPHOTOMETER LVS-401 SERIES

Labocon Single Beam Visible spectrophotometers LVS-401 offers measurement range of 320-1100nm at bandwidth of 2nm; which provides high accuracy, reproducibility and high throughput at each run.

This LVS-401 is inbuilt with highly durable tungsten halogen lamp, which best suitable for:

- For measurement of DNA, RNA and oligonucleotide and Protein
- Proteins can be quantitated by BCA, Biuret, Bradford, Direct UV and Lowry
- The OD of bacterial cell culture solutions can be measured to optimize harvest times
- For the determination of metal and organic non-metal analytes in water
- Ideal to be use in petrochemical labs as they are solvent resistant such as Naphthalene in aviation.

Features

- **Wavelength range**
 - 320-1100nm
- **Optical System**
 - 1200 lines/mm line Czerny Turner Diffraction Grating monochromator ensures high resolution, high photometric accuracy and low stray light
- **Bandwidth**
 - 2nm
- **Detector**
 - Silicon Photodiode
- **Measurement Range with ultra-low Stray Light**
 - With its ultra-low stray light $\leq 0.05\%T$ is achieved on wavelength range of 320 - 1100 nm
- **Sample size**
 - A wide range of standard cuvettes can be used based on the sensitivity or sample volume requirements.
- **Sophisticated and simplified Sample analysis software**
 - The Sample analysis software deliver scanning, fixed wavelength analysis, quantitative analysis, data collection, storage, export, and reporting.
With additional feature of an easy access USB port available in the unit, which enables results to be stored directly to a USB memory stick for easy transfer of data.

Additional Features

- Suspended posture optical system
- 24-bit high speed and high precision A/D conversion technique improves sensitivity
- Can store up to 200 groups of data and 200 standard curves
- Automatic wavelength setting
- Automatic wavelength calibration and automatic deviation repair
- USB port and parallel port
- Inclusive of standard PC software

Application

Labocon Visible Spectrophotometer LVS-401 is widely used in educational institutes, medical and health clinics, biochemistry field, chemical engineering, environmental protection, food industry, pharmaceutical industry, quality control departments, etc.



LVS-401

Specification

Model	LVS-401
Wavelength Range	320-1100nm
Wavelength Accuracy	±0.5nm
Wavelength Repeatability	≤0.2nm
Bandwidth	2nm
Stability	±0.0001A/h at 500nm
Baseline Flatness	±0.0001A/h
Photometric Range	0.200%T, -0.3-3A, 0-9999C
Photometric Accuracy	±0.3 %T
Photometric Repeatability	≤0.15 %T
Stray Light	≤0.05 %T
Light Source	Tungsten Halogen Lamp
Display	LCD
Detector	Silicon Photodiode
Noise	±0.0005A
Overall Dimension	460x380x180mm
Power	300 W
Power Supply	220V 60Hz
Weight	15 kg
Catalog No.	9141159252

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