

True Double Beam
Atomic Absorption
Spectrophotometer

SL 243



Burner Alignment



Double Beam



Touchscreen



Auto Ignition



PC

Built in PC 7" High Resolution Touch Screen LCD Color Graphical Display.

Supports USB-Pen Drive to store/retrieve Mass Spectral Data.

Automated Six or Eight lamp turret compatible to coded & non-coded Hollow Cathode Lamps with independent Power Supply and Alignment for each Lamp.

High Energy True Double Beam Optics with Narrow Beam, fully sealed and Quartz over coated mirrors.

SALIENT FEATURES

- Modes of operation include Absorbance, Emission and Concentration and Standard Addition.
- Background correction with D₂ lamp source.
- Automatic Setting of Parameters by selecting the Element (including Hollow Cathode Lamp).
- Auto Saving of all parameters & Auto-Bandwidth Selection.
- Self Diagnosis, Automatic Wavelength Selection and Auto scan for Peak Searching.
- Integral Micro Controller based Auto Flame control with all safety features.
- Burner Movement through Computer and Manual in all three directions - height, rotation and lateral.
- The Software has facilities to repeat the result of the sample and data treatment.
- Automatic calculation of percentage and ppm in base material.
- Optimization of flame conditions for each element with detachable burner.
- Energy Profile Mode to scan the energy of HC Lamp, D₂ Lamp and Flame.
- Absorbance Mode has the facility to measure sample absorbance for selected number of points and to calculate Mean, SD and RSD.
- Linear / Quadratic curve equation to predict the sample concentrations.
- Saving facility for the scanned Data.
- Print facility for all the scanned Data in Graph and Tabular formats.
- Automatic burner optimization.
- Optional PC Compatibility through USB.
- Microsoft Windows® based software for Data processing, Storage, Retrieval, Interpretation etc.
- **OPTIONAL** : Autosampler Attachment, Hydride Generator.

SOFTWARE FEATURES

Microsoft Windows® based PC operating Software.

- Easy User Interface.
- Flame Control through Software.
- We provide Open Source Software complying International Quality norms, compatible to run on MS- Windows® Platform.
- Software is 21 CFR Part 11 compliant with password method protection, Instrument logbook etc.

SPECIFICATIONS

SPECTRAL		PHOTOMETRIC	
Range	185 to 900 nm	Range	0 to 2 Abs
Bandwidth	Automatic variable slit from 0 to 2.5 nm continuously variable with increment of 0.1 nm	Accuracy	± 0.010 Abs at 1.0 Abs
Readability	0.1 nm	Integration Time	0.04 to 99 sec
Accuracy	± 0.5 nm	LIGHT SOURCE	
Repeatability	± 0.2 nm	6/8 Lamps Automatic Turret with Independent Power Supply compatible to coded and non coded HC Lamps.	
DETECTOR		BACK GROUND CORRECTION	
Wide Range Photo Multiplier Tube (PMT)		Deuterium Lamp (D ₂)	
POWER SUPPLY		MONOCHROMATOR	
HC Lamp	0 to 30 mA modulated	Czerney Turner 1/3 m with 1800 lines/mm Holographic Grating and Hard Coded Optics.	
D ₂ Lamp	15 to 300 mA modulated	DATA PROCESSING	
PMT	-200 to -1000 Volts	Built in Windows® based Operating Software with following modes of Operations.	
DATA PRESENTATION		1. Absorbance 2. Concentration (Standard Calibration and Addition), Curve fit Options - Linear and Quadratic 3. Emission 4. Energy Profile	
Display	7" (800X480 High Resolution Graphic Display)	PORTS	
Hard Copy	On printer (USB Interface)	3 USB Ports - Can be used for Printer, Keyboard, Pen Drive and Mouse	
Soft Copy	Mass Data Storage through USB Pen drive	TCP/IP Port - Network Connectivity	
		PC Port - PC Connectivity	
FLOW CONTROL		BURNER	
Integral Auto Gas Control System with LCD Display, Keyboard and all Fault Indicators with all safety features		Titanium construction, Premix Laminar Flow 100mm burner for Air - Acetylene (C ₂ H ₂)	
Automatic Flame Changeover, Auto Ignition and Shut Off		Optional - 50 mm burner for Nitrous Oxide (N ₂ O) - Acetylene (C ₂ H ₂)	
Optimization of Flame Conditions for each Element with programmable Flame Control		The Spray Chamber is made of Inert Material .i.e., PTFE (Teflon) fitted with adjustable impact bead Aerosol	
SAFETY FEATURES		FUEL	
Full Safety Interlocks including Pressure Sensors on both lines, Flame failure Detection, Burner Presence and Recognition, Nebulizer Presence and Drain Sensor, Power Failure Protection and Emergency Flame Shut Off Switch and Flash Back Arrester on the Cylinder		Acetylene (C ₂ H ₂)	
		OXIDANT	
		Air / Nitrous Oxide (N ₂ O)	

NEBULIZER		PHYSICAL DIMENSIONS	
Made of fully Inert Material with 90% Platinum and 10% Iridium Alloy Capillary		Size (WxDxH) in mm	822 (+90) x 550 x 395
SAMPLE FEED RATE	3 to 8 ml/min (Adjustable)	Weight (in kg)	Approx. 70
POWER REQUIREMENT		SYSTEM UPGRADATION	
230 V ± 10% AC, 50 Hz, 1ϕ, 200 VA Max.		Instrument can be upgraded to Hydride and Cold vapour Generator	
ACCESSORIES SUPPLIED			
With Instrument	100 mm burner for Air - C ₂ H ₂ , Nebulizer with SS Capillary, Back Ground Correction with D ₂ Lamp, Oil free Air Compressor with 100% Dustfree Air Filter, Acetylene (C ₂ H ₂) regulator with Flashback Arrester.		
At extra Cost	50 mm burner for N ₂ O - C ₂ H ₂ , Nebulizer with Pt - Ir Capillary, N ₂ O Regulator, Nitrogen Regulator, HC Lamps for desired Elements coded or non coded, Hydride and Cold vapour Generator, Printer, Computer, PC Software, Exhaust Fumehood Chamber, Servo Controlled Voltage Stabilizer of suitable rating, Acetylene Gas Cylinder, Nitrous Oxide Gas Cylinder and Nitrogen Gas Cylinder.		

ACCESSORIES

