



SPECTROPHOTOMETER

DOUBLE BEAM | SINGLE BEAM

Absorption | Reflection | Transmission | Diffuse Reflectance | Thickness Measurements



HOLMARC
OPTO MECHATRONICS LTD

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Single Beam

Single Beam Visible Spectrophotometer

Single Beam Visible Spectrophotometer with Thin Film Characterization Spectrophotometer with Thin Film Characterization

Single Beam Visible Spectrophotometer with Thin Film & DRS

Single Beam UV Visible Spectrophotometer

Single Beam UV Visible Spectrophotometer with Thin Film Characterization

Single Beam UV Visible Spectrophotometer with Thin Film & DRS

Double Beam

Double Beam Visible Spectrophotometer

Double Beam Visible Spectrophotometer with Thin Film Characterization

Double Beam Visible with Thin Film & DRS

Double Beam UV Visible Spectrophotometer

Double Beam UV Visible Spectrophotometer with Thin Film Characterization

Double Beam UV Visible Spectrophotometer with Thin Film & DRS



Spectrophotometer

Holmarc has more than 25 years of experience in manufacturing high-quality spectroscopic instruments for industry and research. We have reliable and affordable single-beam, double-beam, miniature, and modular spectrophotometers, as well as custom spectroscopic instruments. We design, develop, and manufacture all our products in India. We have our own manufacturing facilities for electronics, mechanical, and optical components and systems.

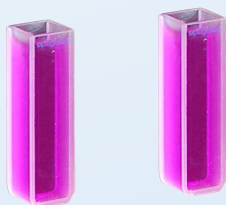
Wide wavelength range (190 nm to 2700 nm) spectrometers and spectrophotometers with different optical configurations are available with deuterium, tungsten, halogen, and xenon light sources, PMT, Si photodiode, and InGaAs detectors. We are using high-quality optical components made from Schott Glass and our own thin film coating center to make reliable and long-lasting optical coatings for the optical components. The 2-ich integrating sphere with a high reflective coating can be used for solid and powder sample measurement. The sphere is integrated with a highly sensitive Si photodiode detector for accurate measurements. The user-friendly spectra scan software provided with the instrument can be used with any computer through USB communication. The dedicated thin film Pro software made the thin film characterization easy.

Holmarc also has hands-on expertise in confocal Raman systems and fluorescence spectrometers. Holmarc manufactures other research equipment like confocal Raman spectrometers, automatic polarimeters, automatic refractometers, and nano spectrophotometers. All the components and complete systems are undergoing a thorough quality inspection procedure before dispatch.



SPE 3000 Series Spectrophotometer

The SPE 3000 series spectrophotometers offer high accurate measurement over wide range of sample. The Czerny turner monochromator design with high quality blazed holographic gratings offer low stray light and greater stability over the entire spectral range. The system is equipped with 7-inch touch screen which helps easy use of all the functions like wavelength scan, Photometric measurement etc. and saving the measurements. It comes with a replaceable sample holder for thin film coated glass slides & 10 mm path length cuvette holder for liquids.



Accessories

Cuvettes, Cuvette holders, Light sources, optical fiber patch cords, calibration samples, long path cuvettes, reflection probes



Pharmaceuticals



Foods



Chemicals



Environment

- Absorbance/Transmittance, Concentration & Kinetics measurements
- Single and multi-wavelength photometry
- Fast and Accurate measurement
- Live plotting of parameters on colour display and PC software
- Cuvette holder, Thin Film sample holder & Integrating Sphere.*
- Thin Film thickness measurement *
- Integrating Sphere for Solid and Powder samples*
- AUTOMATIC DARK CORRECTION
- AUTOMATIC BASELINE CORRECTION
- 2 Years warranty*

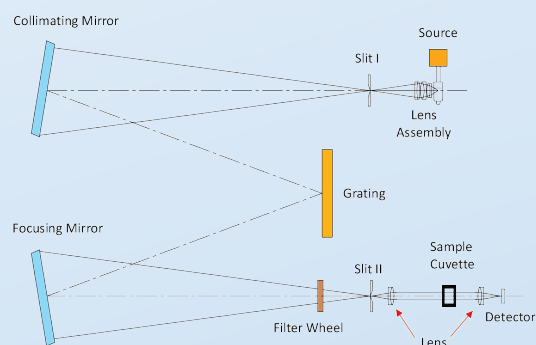
SINGLE BEAM

UV VIS NIR
ACCESSORIES

Customized accessories are available to address individual application requirements. Model SPE-3000S comes with 10 mm path length cuvettes. Cuvettes of smaller path lengths are available as optional accessory.

For most (99%) absorbance measurements 10 mm path length cuvettes are suitable. Cuvettes of shorter path lengths allow the measurement of concentrated samples without dilution

How it Works?



- Wavelength range between 380 to 1100nm
- Selectable scan wavelength interval 1 to 50nm
- Live absorbance plot during scanning
- Plot browser to read absorbance values at each wavelength
- Analyzer to find out absorbance and wavelength of peaks and valleys



Single Beam Visible Spectrophotometer

Model No SPE-3000 S

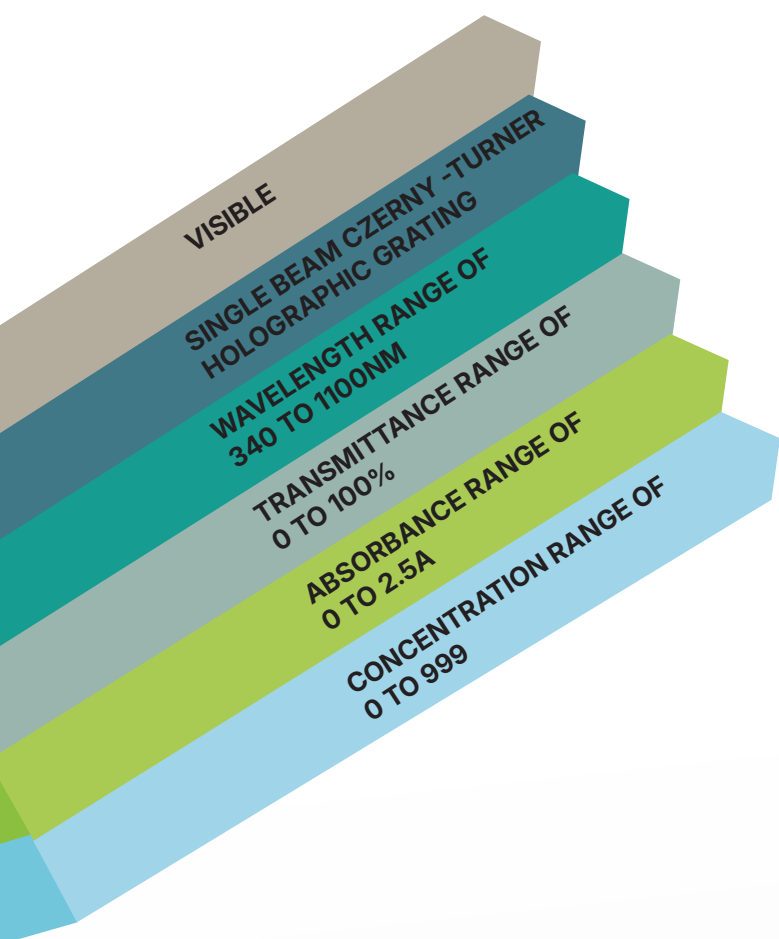
- Thin Film Thickness and Refractive index measurement
- Accurate Absorbance, Concentration & Kinetics measurement
- Fast and Easy measurement with Touch screen
- User selectable scanning speed and interval
- Live plotting of parameters on Display and PC
- Reaction kinetics
- Peak finder and smoothing function
- Solid and liquid sample holder
- Rotatable sample holder and detector

VIS 340-1100 nm

Spectra
Software



SINGLE BEAM

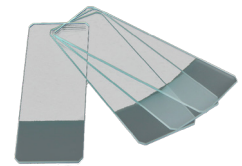


Type of Spectrophotometer	VISIBLE
Type of Optical System	Single Beam Czerny -turner holographic grating
Light Source	Quartz Halogen Lamp 20W
Wavelength	
Range	340 to 1100nm
Resolution	0.1 nm
Accuracy	± 0.5 nm
Transmittance	
Range	0 to 100 %
Resolution	0.1 %
Accuracy	± 0.2 %
Noise Level	< 0.1 %
Stability	+/-0.1% / Hr after warm-up
Absorbance	
Range	0 to 2.5 A
Resolution	0.002 A
Concentration	
Range	0 to 999
Display	In-built display
LCD	Colour Touchscreen
Size	7 Inch
Memory	1 GB
Detector	Silicon Photodiode, dual detector
PC Interface	USB
Software	Spectra Software compatible with Windows
Sample holder	10 pathlength Cuvette
Input Voltage	230V 50Hz
Dimension & Weight	450 x 300x 200 mm, 20 Kg

Single Beam Visible Spectrophotometer with Thin Film Characterization

Model No. SPE-3000-T

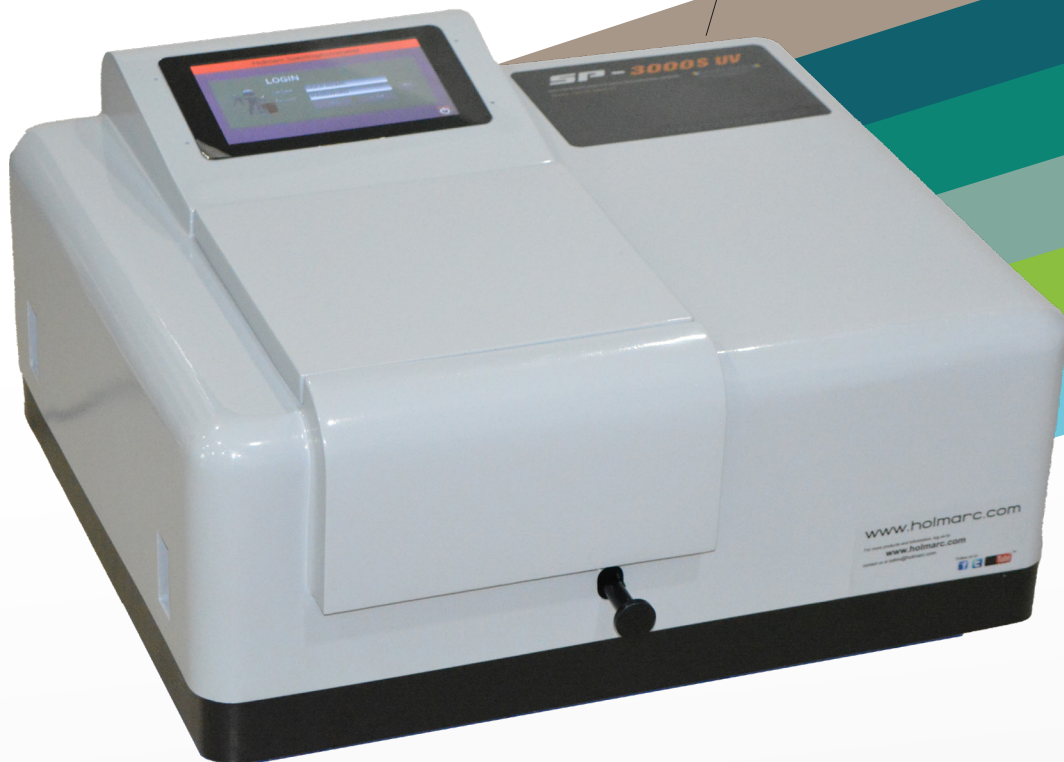
The SPE 3000 series spectrophotometers offer high accurate measurement over wide range of sample. The Czerny turner monochromator design with high quality blazed holographic gratings offer low stray light and greater stability over the entire spectral range. The system is equipped with 7-inch touch screen which helps easy use of all the functions like wavelength scan, Photometric measurement etc. and saving the measurements. It comes with a replaceable sample holder for thin film coated glass slides & 10 mm path length cuvette holder for liquids. The 50 mm integrating sphere attachment helps for the spectral characterization of powder and other solid samples.



Solid, Liquid & Thin film sample

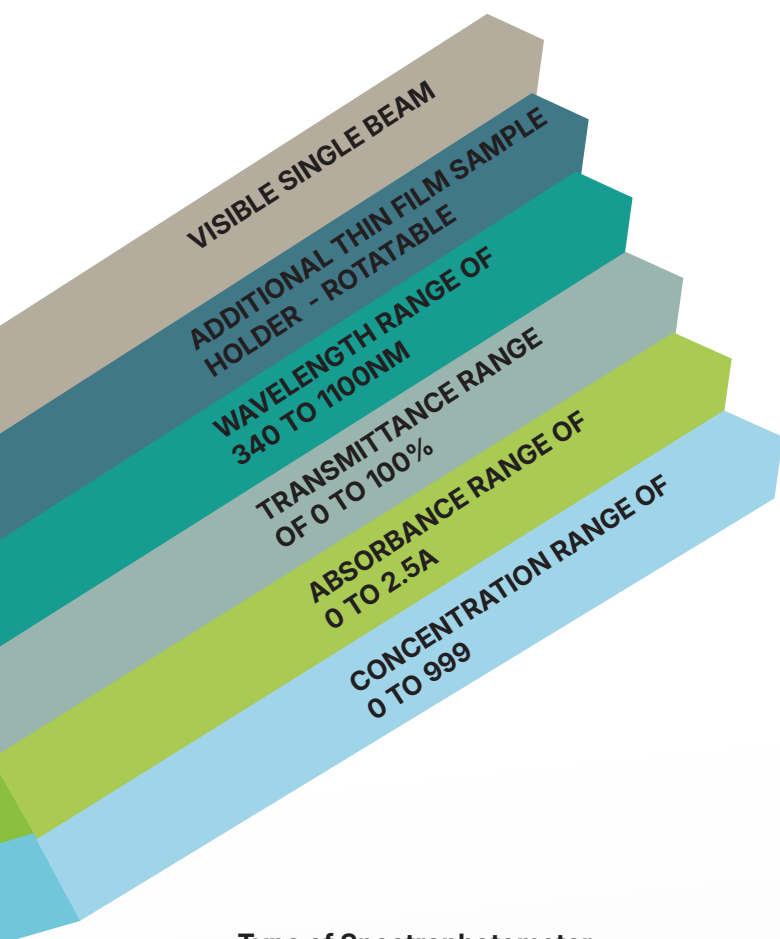
High wave length resolution

VIS 340-1100 nm



Thin Film

SINGLE BEAM



Type of Spectrophotometer

VISIBLE single beam with additional thin film sample holder which also can be rotated and fixed at a particular angle for reflection and transmission measurement. Thin Film Pro software package is included for the thin film thickness measurement.



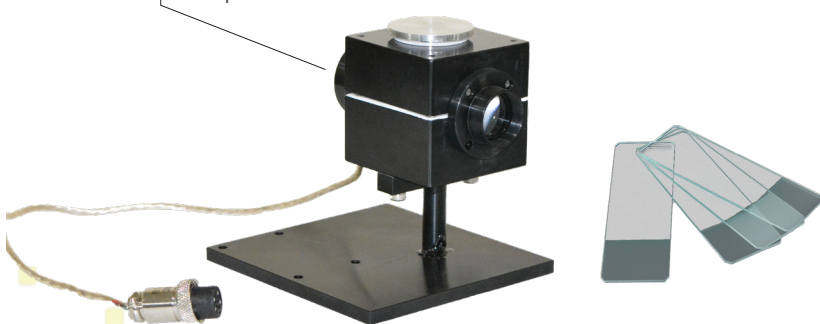
Type of Optical System	Single Beam Czerny -turner holographic grating
Light Source	Quartz Halogen Lamp 20W
Wavelength	
Range	360 to 1100nm
Resolution	0.1 nm
Accuracy	± 0.5 nm
Transmittance	
Range	0 to 100 %
Resolution	0.1 %
Accuracy	± 0.2 %
Noise Level	< 0.1 %
Stability	+/-0.1% / Hr after warm-up
Absorbance	
Range	0 to 2.5 A
Resolution	0.002 A
Concentration	
Range	0 to 999
Display	In-built display
LCD	Colour Touchscreen
Size	7 Inch
Memory	1 GB
Detector	Silicon Photodiode, dual detector
PC Interface	USB
Software	Spectra Software with Thin film Pro compatible with Windows
Sample holder	10 path length Cuvette & Rotatable thin film slide holder
Other measurement modes	Thin film reflection and thickness measurement
Input Voltage	230V 50Hz
Dimension & Weight	450 x 300x 200 mm, 20 Kg

Single Beam Visible Spectrophotometer with Thin Film & DRS

Model No. SPE-3000-TD

Integrating Sphere

The 2-inch integrating sphere with dedicated highly sensitive detector for measuring the solid and powder samples



VIS 340-1100 nm



SINGLE BEAM

VISIBLE SINGLE BEAM

THIN FILM SAMPLE HOLDER -
ROTATABLE

2-INCH INTEGRATING
SPHERE

HIGHLY SENSITIVE
DETECTOR

MEASURE SOLID AND
POWDER SAMPLES

CONCENTRATION RANGE OF
0 TO 999

Type of Spectrophotometer

Single beam Visible with rotatable thin film sample holder and thin film characterization.

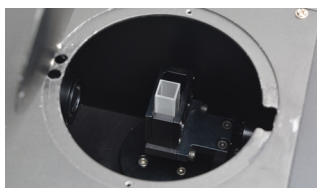


Type of Optical System	Single Beam Czerny -turner holographic grating
Light Source	Quartz Halogen Lamp 20W
Wavelength	
Range	340 to 1100nm
Resolution	0.1 nm
Accuracy	± 0.5 nm
Transmittance	
Range	0 to 100 %
Resolution	0.1 %
Accuracy	± 0.2 %
Noise Level	< 0.1 %
Stability	+/-0.1% / Hr after warm-up
Absorbance	
Range	0 to 2.5 A
Resolution	0.002 A
Concentration	
Range	0 to 999
Display	In-built display
LCD	Colour Touchscreen
Size	7 Inch
Memory	1 GB
Detector	Silicon Photodiode, dual detector
PC Interface	USB
Software	Spectra Software with Thin film Pro compatible with Windows
Sample holder	10 path length Cuvette & Rotatable thin film slide holder
Other measurement modes	Thin film reflection and thickness measurement, Solid and powder sample measurement with Integrating sphere
Input Voltage	230V 50Hz
Dimension & Weight	450 x 300x 200 mm, 20 Kg

Single Beam UV Visible Spectrophotometer

Model No. SPE 3000 UV

Sample Holder

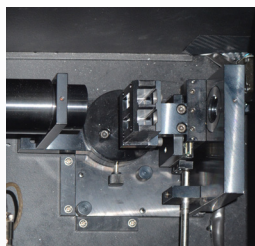
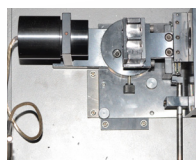
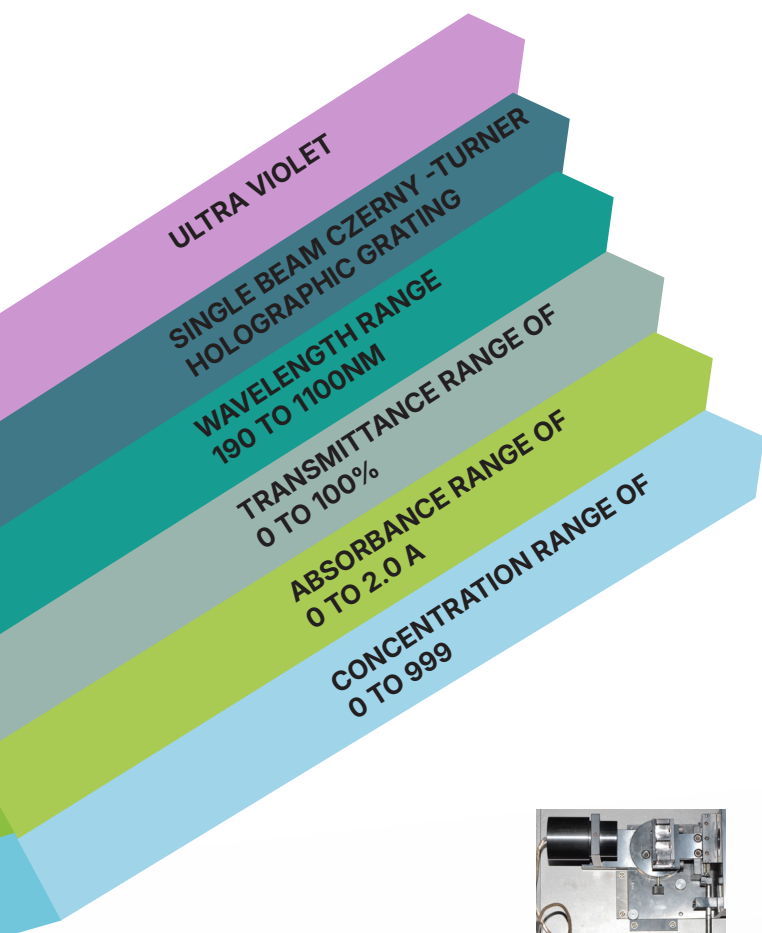


UV -VIS 190-1100 nm



ULTRA VIOLET

SINGLE BEAM



UV VIS NIR
ACCESSORIES

Type of Spectrophotometer	UV – VISIBLE
Type of Optical System	Single Beam Czerny -turner holographic grating
Light Source	Quartz Halogen Lamp 20W & Deuterium 20W
Wavelength	
Range	190 to 1100nm
Resolution	0.1 nm
Accuracy	± 0.5 nm
Transmittance	
Range	0 to 100 %
Resolution	0.1 %
Accuracy	± 0.2 %
Noise Level	< 0.1 %
Stability	+/-0.1% / Hr after warm-up
Absorbance	
Range	0 to 2.0 A
Resolution	0.002 A
Concentration	
Range	0 to 999
Display	In-built display
LCD	Colour Touchscreen
Size	7 Inch
Memory	1 GB
Detector	Silicon Photodiode
PC Interface	USB
Lamps	Tungsten Lamp & Deuterium
Light Source Switching	Automatic switching selectable for 325 nm - 370 nm range
Software	Spectra Software compatible with Windows
Sample holder	10 path length Cuvette
Input Voltage	230V 50Hz
Dimension & Weight	450 x 300x 200 mm, 20 Kg

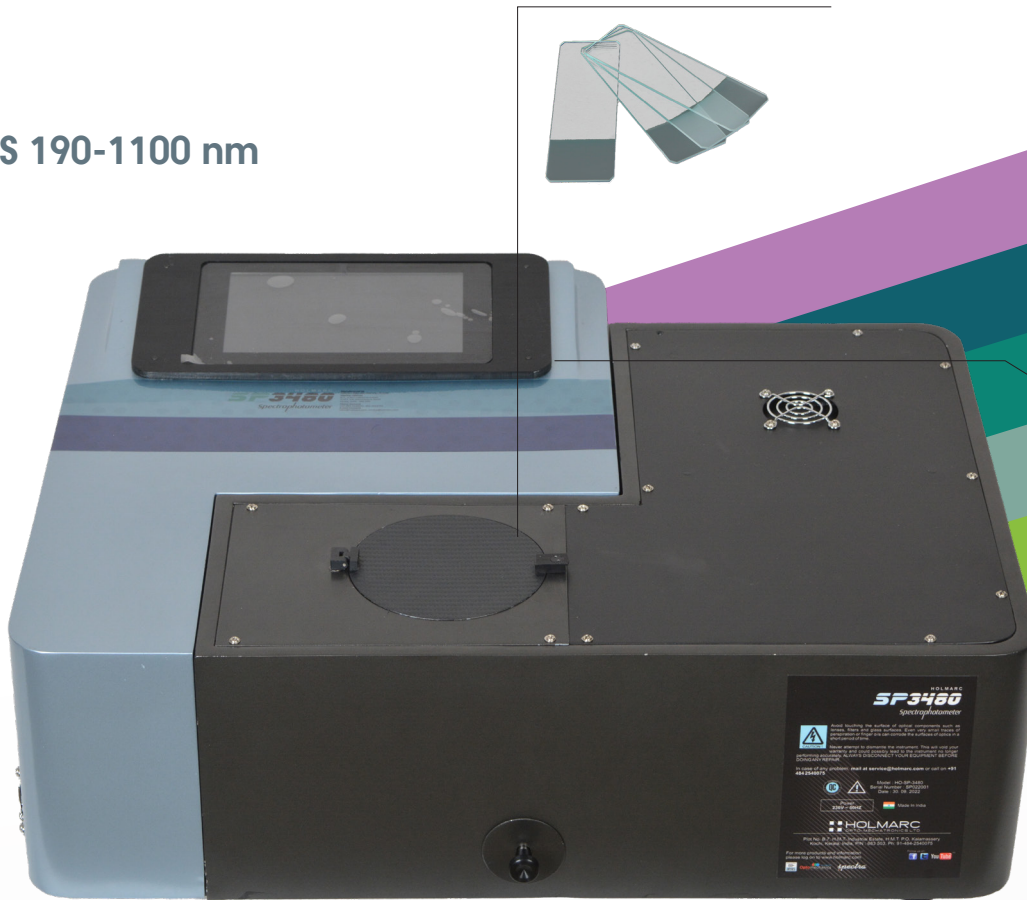
Single Beam UV Visible Spectrophotometer with Thin Film Characterization

Model No. SPE 3000 UV-T

UV – VISIBLE single beam spectrophotometer with rotatable sample and detector for thin film characterization. Thin Film Pro software package is included for the thin film thickness measurement.

UV -VIS 190-1100 nm

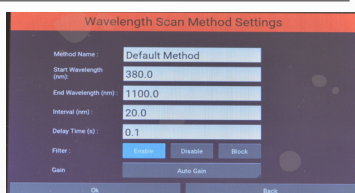
Thin Film Samples



ULTRA VIOLET

SINGLE BEAM

ULTRA VIOLET

SINGLE BEAM CZERNY -TURNER
HOLOGRAPHIC GRATINGWAVELENGTH RANGE
190 TO 1100NMTRANSMITTANCE RANGE OF
0 TO 100%ABSORBANCE RANGE OF
0 TO 2.0 ACONCENTRATION RANGE OF
0 TO 999**Colour Touch Screen**

Type of Optical System	Single Beam Czerny -turner holographic grating Light Source: Quartz Halogen Lamp 20W & Deuterium 20W
Light Source	Quartz Halogen Lamp 20W & Deuterium 20W
Wavelength	
Range	190 to 1100nm
Resolution	0.1 nm
Accuracy	± 0.5 nm
Transmittance	
Range	0 to 100 %
Resolution	0.1 %
Accuracy	± 0.2 %
Noise Level	< 0.1 %
Stability	+/-0.1% / Hr after warm-up
Absorbance	
Range	0 to 2.0 A
Resolution	0.002 A
Concentration	
Range	0 to 999
Display	In-built display
LCD	Colour Touchscreen
Size	7 Inch
Memory	1 GB
Detector	Silicon Photodiode
PC Interface	USB
Lamps	Tungsten Lamp & Deuterium
Light Source Switching	Automatic switching selectable for 325 nm - 370 nm range
Software	Spectra Software compatible with Windows & Thin Film Pro
Sample holder	10 path length Cuvette & Thin film sample holder
Input Voltage	230V 50Hz
Dimension & Weight	450 x 300x 200 mm, 20 Kg

Single Beam UV Visible Spectrophotometer with Thin Film & DRS

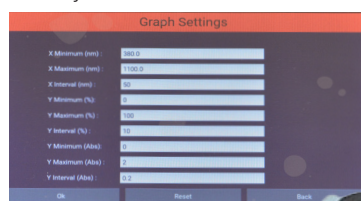
Model No. SPE 3000-UV-TD

UV – VISIBLE single beam spectrophotometer with rotatable sample and detector for thin film characterization. Thin Film Pro software package is included for the thin film thickness measurement. 2 inch integrating sphere with high reflective coating and Si highly sensitive Si photodiode detector for powder and solid sample measurement

UV -VIS 190-1100 nm

LCD

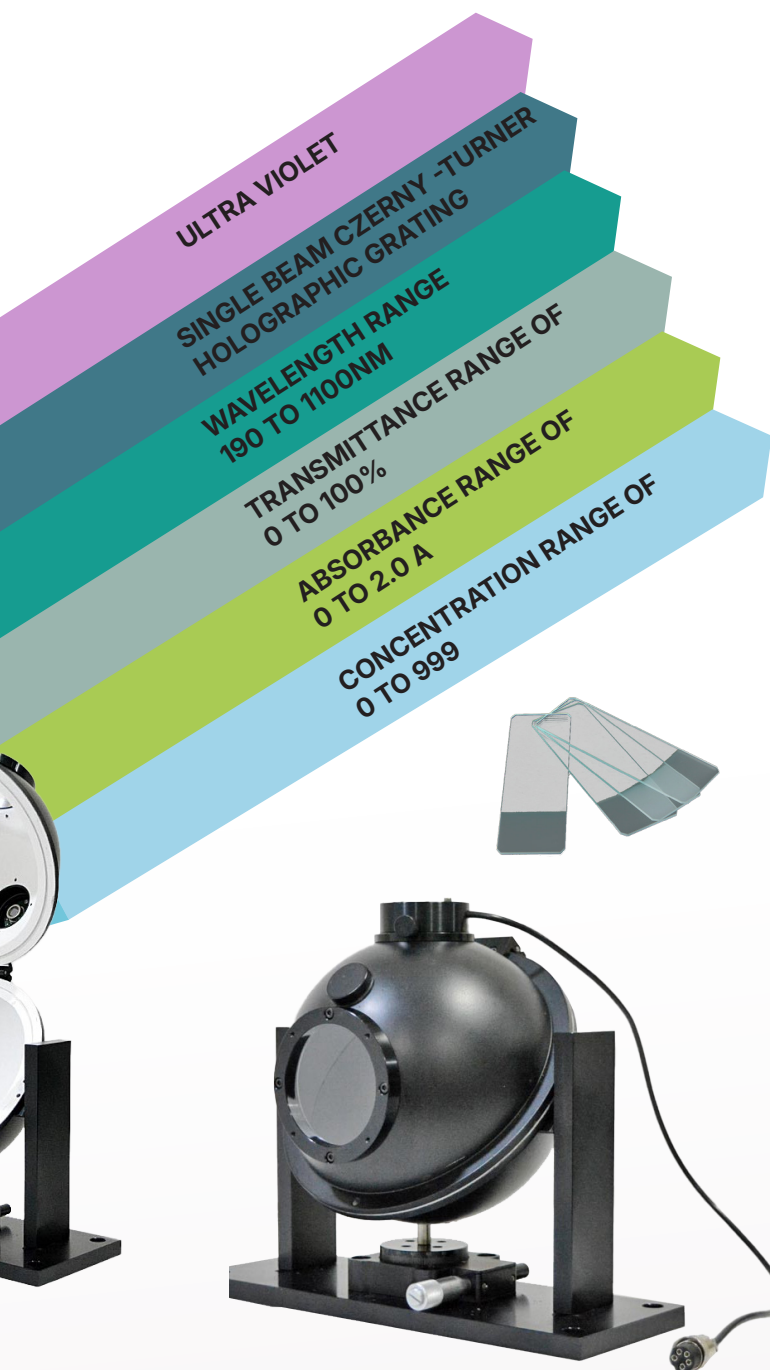
Colour Touch Screen and User friendly Software



ULTRA VIOLET

SINGLE BEAM

UV Thin Film DRS



SINGLE BEAM

Type of Spectrophotometer	
Type of Optical System	Single Beam Czerny -turner holographic grating
Light Source	Quartz Halogen Lamp 20W & Deuterium 20W
Wavelength	
Range	190 to 1100nm
Resolution	0.1 nm
Accuracy	± 0.5 nm
Transmittance	
Range	0 to 100 %
Resolution	0.1 %
Accuracy	± 0.2 %
Noise Level	< 0.1 %
Stability	+/-0.1% / Hr after warm-up
Absorbance	
Range	0 to 2.0 A
Resolution	0.002 A
Concentration	
Range	0 to 999
Display	In-built display
LCD	Colour Touchscreen
Size	7 Inch
Memory	1 GB
Detector	Silicon Photodiode
PC Interface	USB
Lamps	Tungsten Lamp & Deuterium
Light Source Switching	Automatic switching selectable for 325 nm - 370 nm range
Software	Spectra Software compatible with Windows & Thin Film Pro
Sample holder	10 path length Cuvette , Thin film sample holder& Integrating sphere with detector
Input Voltage	230V 50Hz
Dimension & Weight	450 x 300x 200 mm, 20 Kg

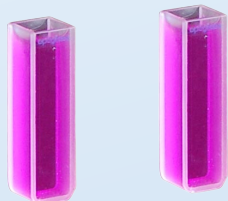
SPE 6000 Series Spectrophotometer

The SPE 6000 S Spectrophotometer comes inbuilt colour touch screen which helps easy use of all the functions like wavelength scan, Photometric measurement etc. and saving the measurements. It utilizes a double lamp Czerny turner design to achieve high light throughput and best spectral performance over the 190 nm to 1100nm wavelength range. The high-quality optical grating, detector and control electronics assure low stray light and greater stability over the entire spectral range. The 7-inch touch screen integration provides easy use of the system with all the software functions. The system is equipped with 7-inch touch screen.

The user-friendly spectra software provided with the instrument to use with any computer through the USB communication.

Custom Glass Cuvettes

We can manufacture quartz cells and cuvettes of custom specifications for spectrometer, spectrophotometer, colorimeter, and other instruments



For Custom Glass Cuvettes, please Specify the Material, Optical path, Dimensions (mm), Volume (ml), Beam width (mm)

DOUBLE BEAM



Pharmaceuticals



Foods



Chemicals

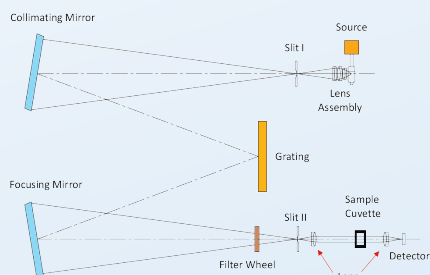


Environment

- Double beam optical system
- Low noise and Low stray light
- Absorbance, Concentration & Kinetics measurements
- 7" Colour Touch screen display
- Automatic wavelength and photometric calibration
- SEPARATE LOGIN FOR ADMINISTRATOR AND USER
- AUTOMATIC DARK CORRECTION
- AUTOMATIC BASELINE CORRECTION
- Live plotting of parameters on front panel display and PC software
- Cuvette and Glass slide holder
- Thin Film Thickness measurement*
- Integrating Sphere for Solid powder samples*
- 2 Years warranty*

HOLMARC
SPECTRA
INSTRUMENTS

UV VIS NIR
ACCESSORIES



- Integrating Sphere
- Thinfilm & Powder Sample Holder
- Peltier Kinetic Test System
- Flow Through System
- Variable Angle Reflection Measurement Unit

Easy to Operate, Measurements made easy and accurate

Easy to use interface design
Touch Screen Display

High Performance to Meet Different Needs

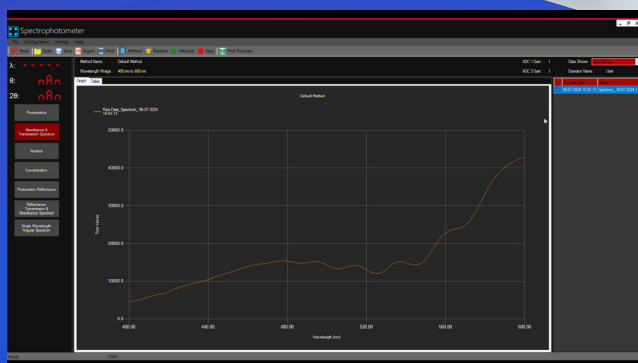
The instrument is equipped with an high speed scan, which can acquire a spectrum in a few seconds, with lowest level of stray light and noise in its class

- Compact Design
- Large LCD and friendly interface make the operation extremely easy.
- Precise measurements over a wide photometric range.
- Step scan function provides reliable peak assignment of samples with sharp or narrow absorption peaks.
- User-friendly graphical interfaces.
- Excellent signal-to-noise ratio for the entire UV to NIR spectral range.

Easy to Use Interface

Ergonomic Hardware Design

Low Stray Light



Software Overview

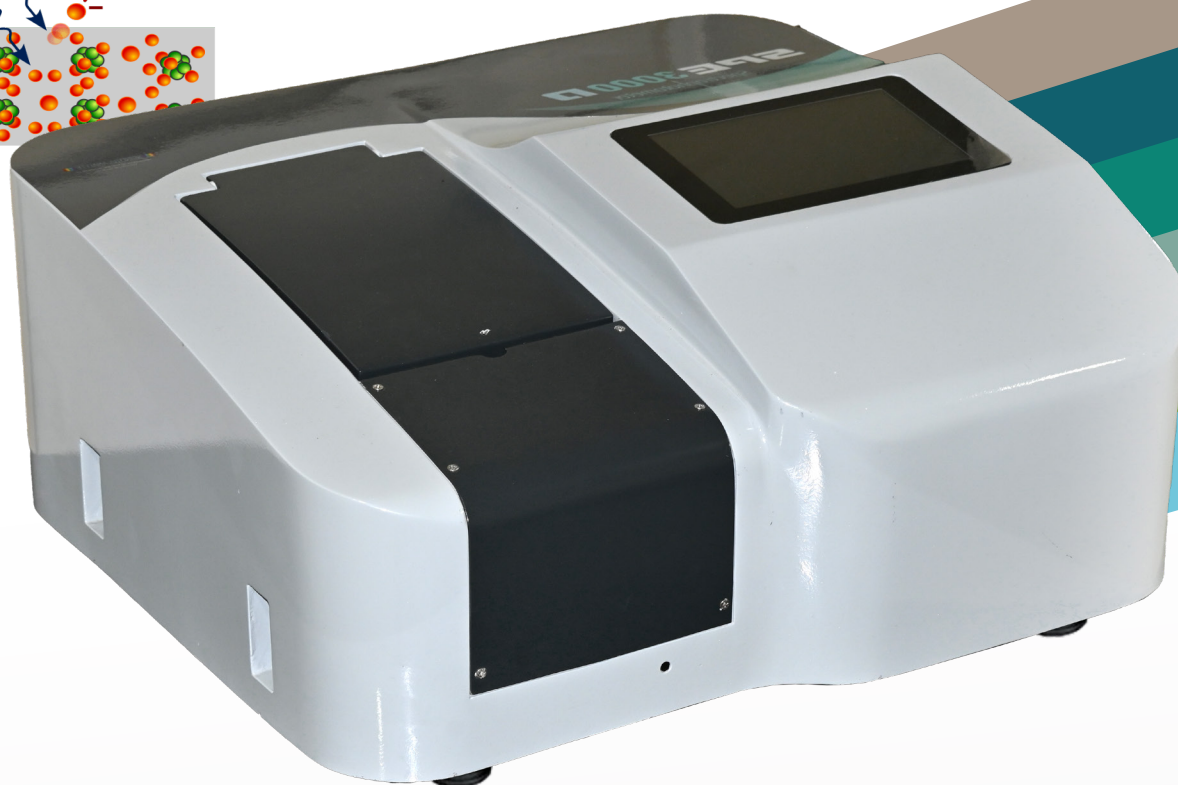
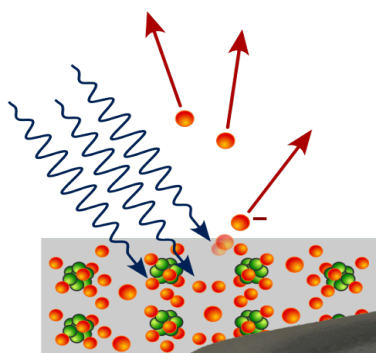
- Spectrum scanning
- Photometric measurements
- Kinetic measurements
- Quantitative determination
- Multi component analyses Powerful data processing
- Printing report

Double Beam Visible Spectrophotometer

Model No. SPE 6000

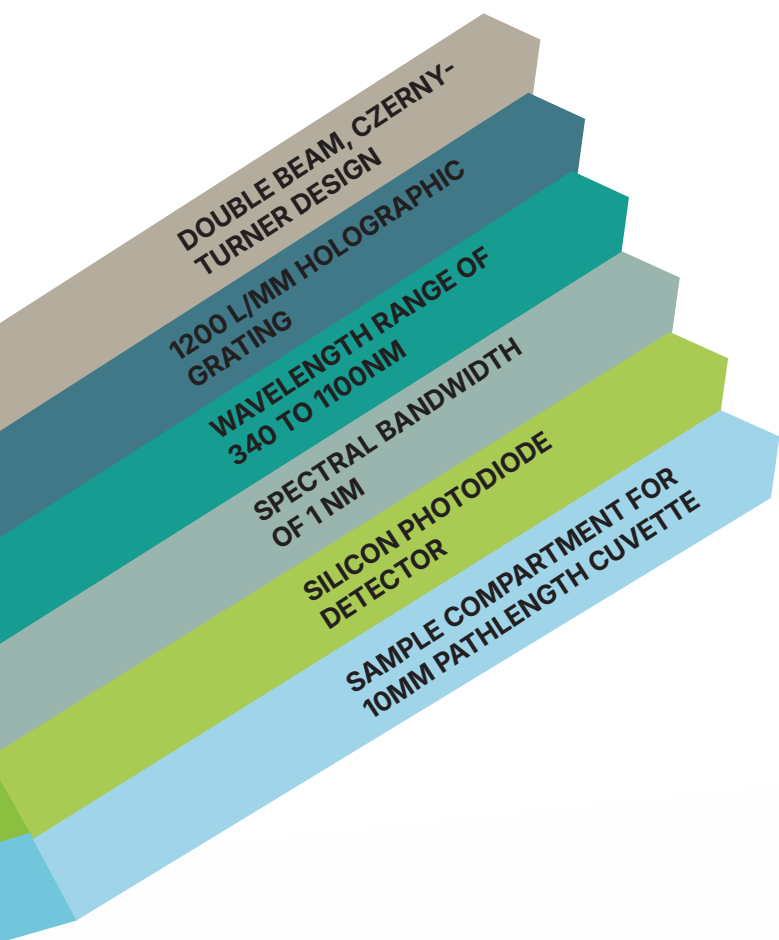
The Holmarc Spectrophotometer is a sophisticated device designed for precise spectroscopic analysis. It operates in a wavelength range of 340-1100nm with a spectral bandwidth of 1nm and features a double beam, Czerny-Turner optical system with a 1200 l/mm holographic grating.

340-1100nm



Visible

DOUBLE BEAM



Wavelength Range	340-1100nm
Spectral Bandwidth	1nm
Optical System	Double Beam, Czerny-Turner design with 1200 l/mm Holographic Grating
Wavelength Accuracy	$\pm 0.25\text{nm}$
Wavelength Repeatability	$\leq 0.2\text{nm}$
Wavelength Resolution	0.1nm
Photometric Range	0-100%T, 0-2.5A, 0-9999C
Photometric Accuracy	$\pm 0.005\text{A}$ $\pm 0.5\%T$
Scan Speed	High, Medium,
Stability	$\pm 0.25T$ / Hr
Sample Compartment	10mm Pathlength Cuvette
Detector	Silicon Photodiode
Lamps	Tungsten Lamp
Display	In-built display
	LCD: Colour Touchscreen
	Size- 7 Inch
	Memory – 1 GB (expandable)
Output Port	USB Port
Printer	USB Printer
PC Software	Holmarc Spectra scan
Operating System	Windows 10 or Higher
Security	Password Protection (Admin and User Login)
Power Requirements	AC 90-250V, 50/60Hz
Dimension	500x400x225mm
Weight	20kg
Accessories	Cuvette, Pendrive USB Cable, User Manual

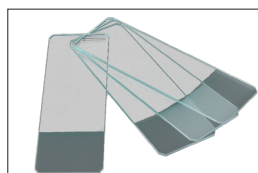
Double Beam Visible Spectrophotometer with Thin Film Characterization

Model No. SPE 6000-T

VISIBLE double beam with additional thin film sample holder which also can be rotated and fixed at a particular angle for reflection and transmission measurement. Thin Film Pro software package is included for the thin film thickness measurement.

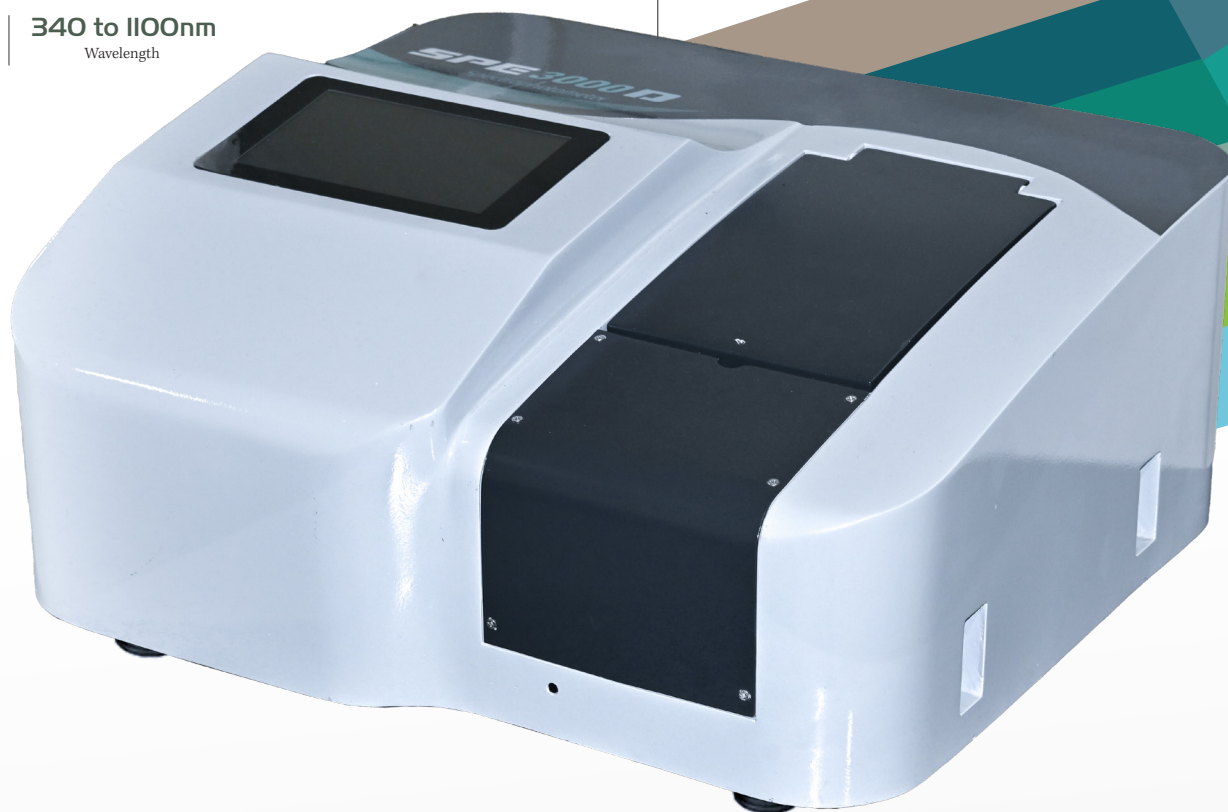
340-1100nm

Thin film sample



Spectra
Software

340 to 1100nm
Wavelength



Thin Film

DOUBLE BEAM

THIN FILM SAMPLE
HOLDER

SAMPLE COMPARTMENT FOR
10MM PATHLENGTH CUVETTE

WAVELENGTH RANGE OF
340 TO 1100NM

SPECTRAL BANDWIDTH
OF 1NM

DOUBLE BEAM, CZERNY-
TURNER DESIGN

1200 L/MM HOLOGRAPHIC
GRATING

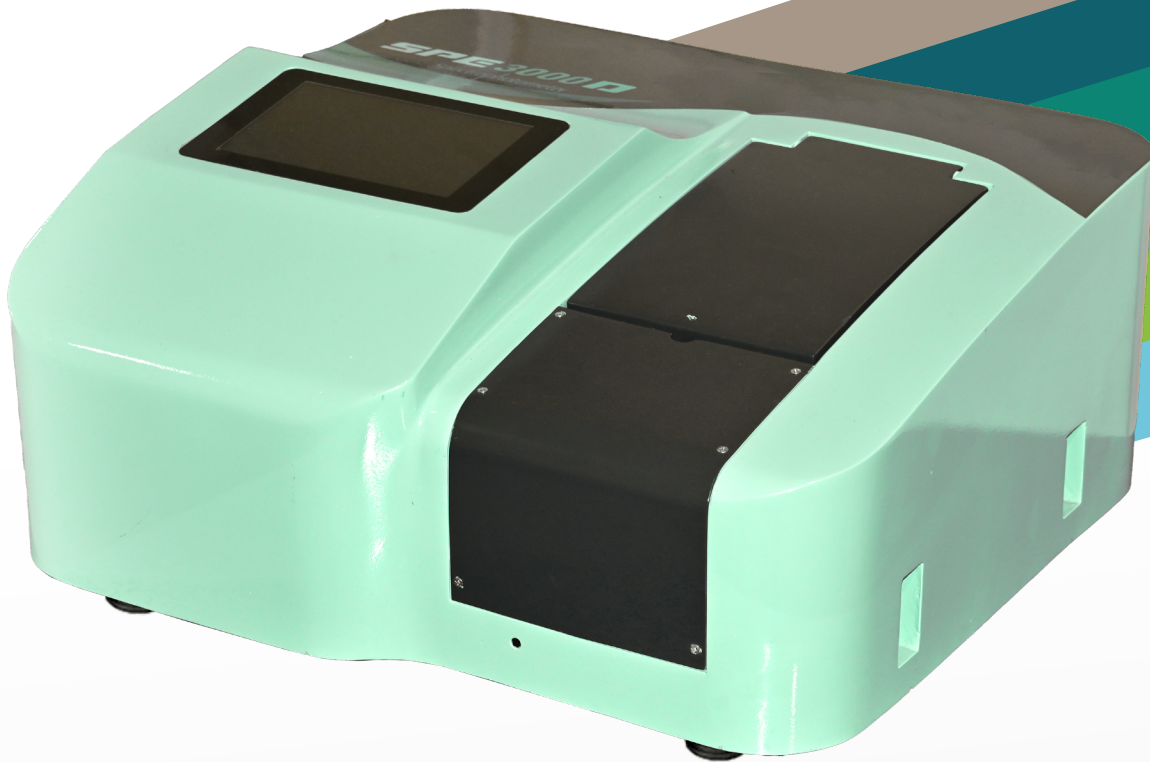
Wavelength Range	340-1100nm
Spectral Bandwidth	1nm
Optical System	Double Beam, Czerny-Turner design with 1200 l/mm Holographic Grating
Wavelength Accuracy	$\pm 0.25\text{nm}$
Wavelength Repeatability	$\leq 0.2\text{nm}$
Wavelength Resolution	0.1nm
Photometric Range	0-100%T, 0-2.5A, 0-9999C
Photometric Accuracy	$\pm 0.005A \pm 0.5\%T$
Scan Speed	High, Medium, Low.
Stability	$\pm 0.25T / \text{Hr}$
Sample Compartment	10mm Pathlength Cuvette, Thin Film Sample Holder
Detector	Silicon Photodiode
Lamps	Tungsten Lamp
Display	In-built display LCD: Colour Touchscreen Size- 7 Inch Memory – 1 GB (expandable)
Output Port	USB Port
Printer	USB Printer
PC Software	Holmarc Spectra scan, Thin Film Pro
Operating System	Windows 10 or Higher
Security	Password Protection (Admin and User Login)
Power Requirements	AC 90-250V, 50/60Hz
Dimension	500x400x225mm
Weight	20kg
Accessories	Cuvette, Pendrive USB Cable, User Manual

Double Beam Visible with Thin Film & DRS

Model No. SPE 6000-TD

VISIBLE double beam spectrophotometer with rotatable sample and detector for thin film characterization. Thin Film Pro software package is included for the thin film thickness measurement. 2 inch integrating sphere with high reflective coating and Si highly sensitive Si photodiode detector for powder and solid sample measurement. The reference diffused reflection sample will be provided with the instrument.

340-1100nm



Thin Film & DRS

DOUBLE BEAM

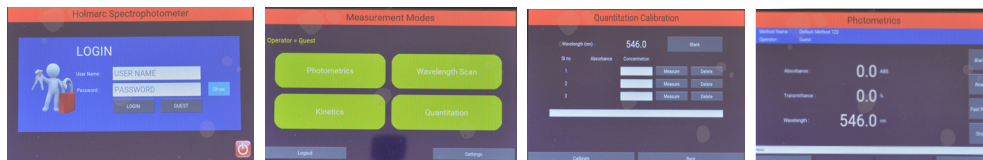


HOLMARC
SPECTRA
INSTRUMENTS

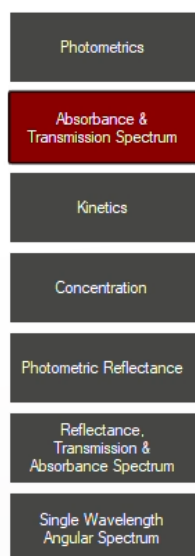
Wavelength Range	340-1100nm
Spectral Bandwidth	1nm
Optical System	Double Beam, Czerny-Turner design with 1200 l/mm Holographic Grating
Wavelength Accuracy	$\pm 0.25\text{nm}$
Wavelength Repeatability	$\leq 0.2\text{nm}$
Wavelength Resolution	0.1nm
Photometric Range	0-100%T, 0-2.5A, 0-9999C
Photometric Accuracy	$\pm 0.005\text{A}$ $\pm 0.5\%T$
Scan Speed	High, Medium, Low.
Stability	$\pm 0.25T / \text{Hr}$
Sample Compartment	10mm Pathlength Cuvette, ,
Detector	Thin Film Sample Holder
Lamps	Integrating Sphere
Display	Silicon Photodiode
	Tungsten Lamp
	In-built display
	LCD: Colour Touchscreen
	Size- 7 Inch
	Memory – 1 GB (expandable)
Output Port	USB Port
Printer	USB Printer
PC Software	Holmarc Spectra scan, Thin Film Pro
Operating System	Windows 10 or Higher
Security	Password Protection (Admin and User Login)
Power Requirements	AC 90-250V, 50/60Hz
Dimension	500x400x225mm
Weight	20kg
Accessories	Cuvette, Pendrive USB Cable, User Manual

Double Beam UV Visible Spectrophotometer

Model No. SPE-6000-UV



190-1100 nm

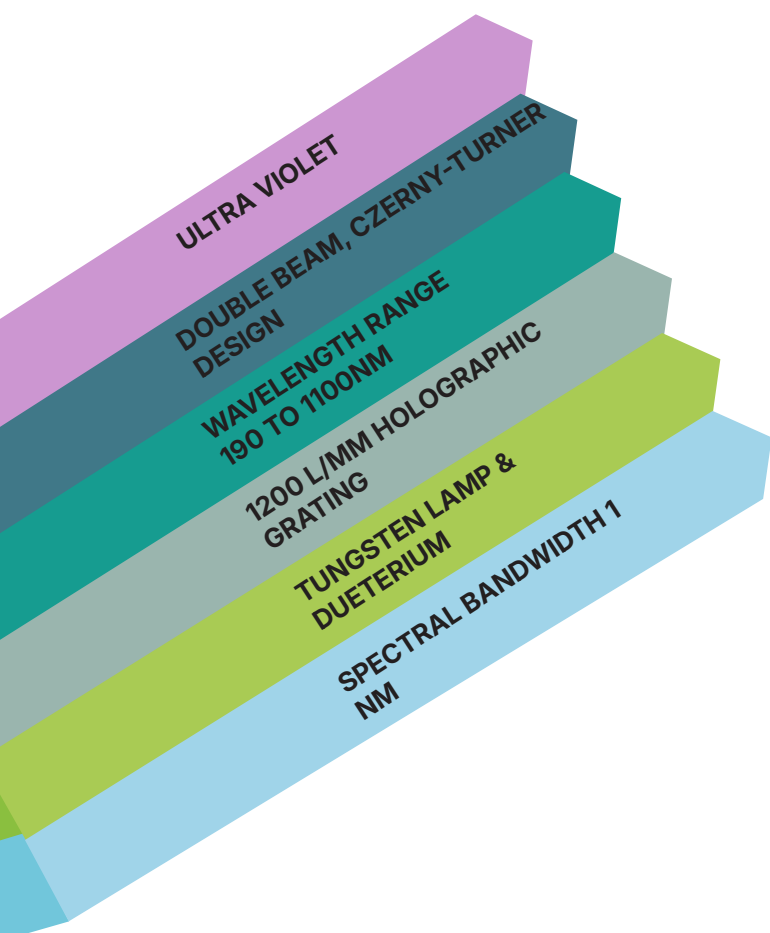


Spectra Software | 340 to 1100nm Wavelength



ULTRA VIOLET

DOUBLE BEAM



Wavelength Range	190-1100nm
Spectral Bandwidth	1nm
Optical System	Double Beam, Czerny-Turner design with 1200 l/mm Holographic Grating
Wavelength Accuracy	±0.25nm
Wavelength Repeatability	≤0.2nm
Wavelength Resolution	0.1nm
Photometric Range	0-100%T, 0-2.5A, 0-9999C
Photometric Accuracy	±0.005A ±0.5%T
Scan Speed	High, Medium, Low.
Stability	±0.25T
Sample Compartment	10mm Pathlength Cuvette
Detector	Silicon Photodiode
Lamps	Tungsten Lamp & Dueterium
Light Source Switching	Automatic switching selectable for 325 nm - 370 nm range
Display	In-built display LCD: Colour Touchscreen Size- 7 Inch Memory – 1 GB
Output Port	USB Port
Printer	External Printer (Optional)
PC Software	Holmarc Spectra scan
Operating System	Windows 10 or Higher
Security	Password Protection (Admin and User Login)
Operating Temperature	10-45
Power Requirements	AC 90-250V, 50/60Hz
Dimension	500x400x225mmmm
Weight	20kg
Accessories	Cuvette, Pendrive USB Cable, User Manual

Double Beam UV Visible Spectrophotometer with Thin Film Characterization

Model No. SPE-6000-UV-T

UV -VISIBLE double beam with additional thin film sample holder which also can be rotated and fixed at a particular angle for reflection and transmission measurement. Thin Film Pro software package is included for the thin film thickness measurement.

190-1100 nm

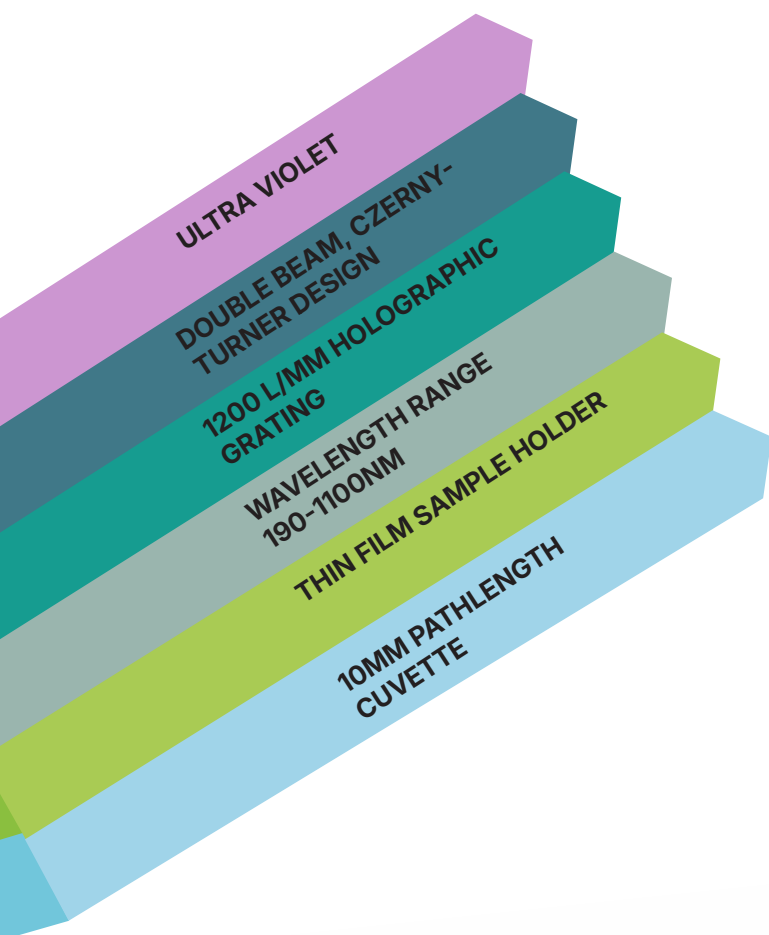
Spectra | 190 to 1100nm
Software | Wavelength



Thin Film

ULTRA VIOLET

DOUBLE BEAM



UV VIS NIR
ACCESSORIES

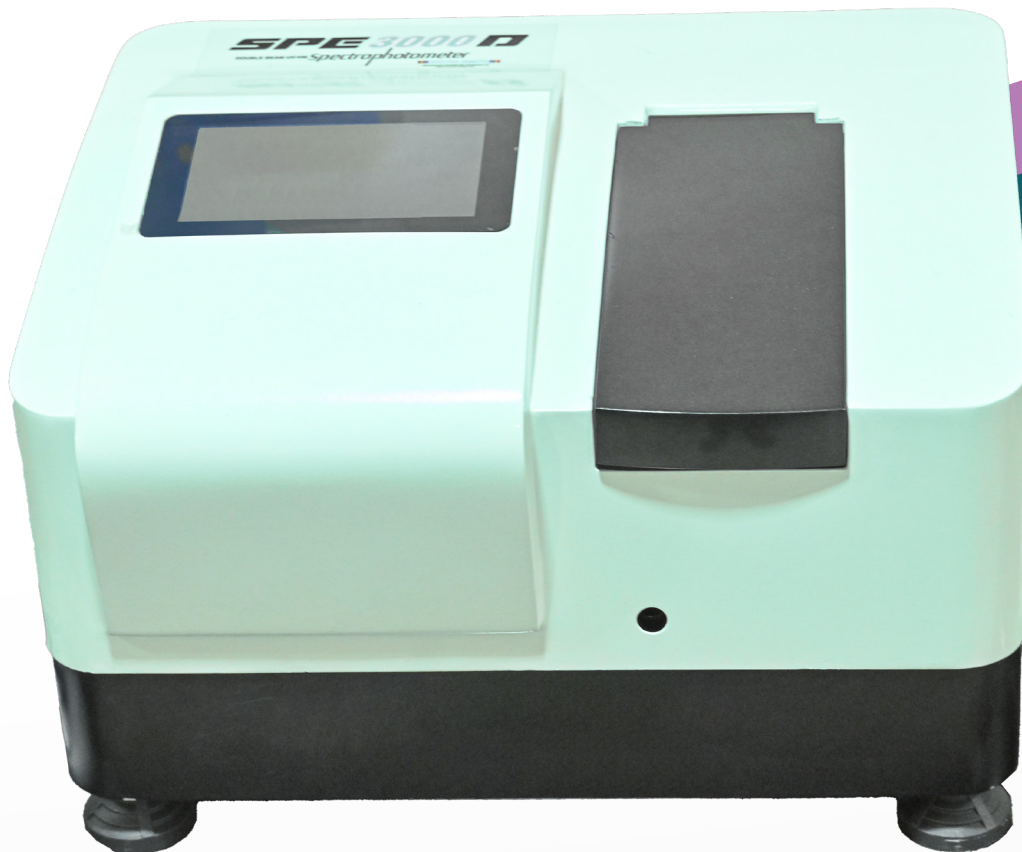
Wavelength Range	190-1100nm
Spectral Bandwidth	1nm
Optical System	Double Beam, Czerny-Turner design with 1200 l/mm Holographic Grating
Wavelength Accuracy	$\pm 0.25\text{nm}$
Wavelength Repeatability	$\leq 0.2\text{nm}$
Wavelength Resolution	0.1nm
Photometric Range	0-100%T, 0-2.5A, 0-9999C
Photometric Accuracy	$\pm 0.005\text{A}$ $\pm 0.5\%T$
Scan Speed	High, Medium, Low.
Stability	$\pm 0.25T$
Sample Compartment	10mm Pathlength Cuvette Thin Film sample Holder
Detector	Silicon Photodiode
Lamps	Tungsten Lamp & Dueterium
Light Source Switching	Automatic switching selectable for 325 nm - 370 nm range
Display	In-built display LCD: Colour Touchscreen Size- 7 Inch Memory – 1 GB
Output Port	USB Port
Printer	External Printer (Optional)
PC Software	Holmarc Spectra scan, Thin Film Pro
Security	Password Protection (Admin and User Login)
Operating Temperature	10-45
Power Requirements	AC 90-250V, 50/60Hz
Dimension	500x400x225mmmm
Weight	20kg
Accessories	Cuvette, Pendrive USB Cable, User Manual

Double Beam UV Visible Spectrophotometer with Thin Film & DRS

Model No. SPE 6000-UV-TD

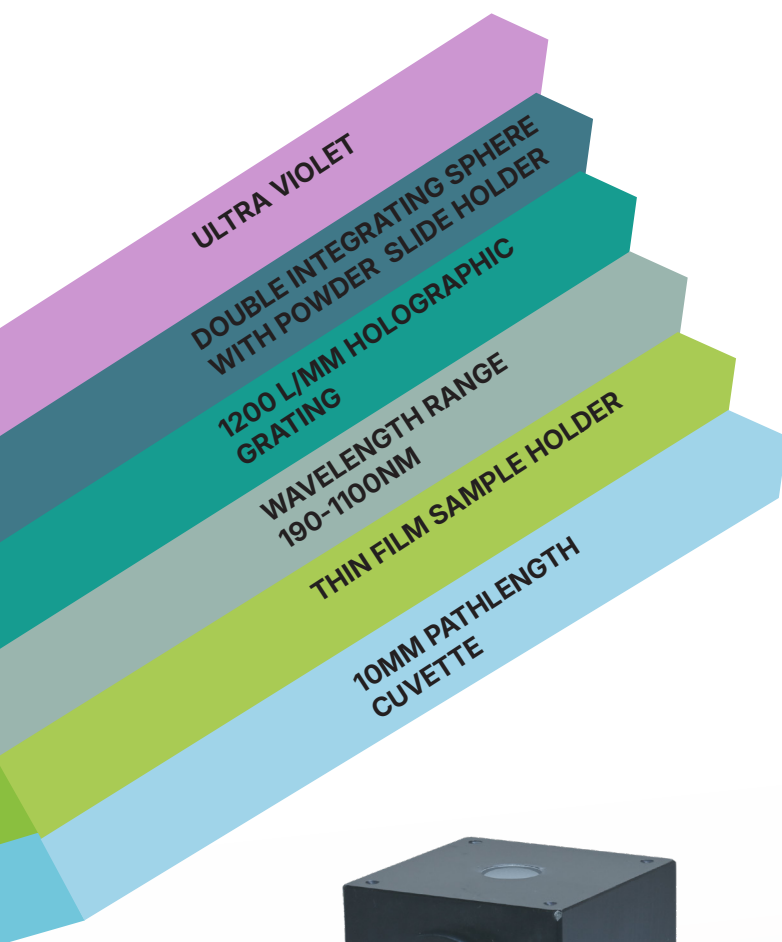
UV – VISIBLE double beam spectrophotometer with rotatable sample and detector for thin film characterization. Thin Film Pro software package is included for the thin film thickness measurement. 2 inch integrating sphere with high reflective coating and Si highly sensitive Si photodiode detector for powder and solid sample measurement. The reference diffused reflection sample will be provided with the instrument.

190-1100 nm



UV Thin Film & DRS

DOUBLE BEAM



UV VIS NIR
ACCESSORIES

Wavelength Range	190-1100nm
Spectral Bandwidth	1nm
Optical System	Double Beam, Czerny-Turner design with 1200 l/mm Holographic Grating
Wavelength Accuracy	$\pm 0.25\text{nm}$
Wavelength Repeatability	$\leq 0.2\text{nm}$
Wavelength Resolution	0.1nm
Photometric Range	0-100%T, 0-2.5A, 0-9999C
Photometric Accuracy	$\pm 0.005A \pm 0.5\%T$
Scan Speed	High, Medium, Low.
Stability	$\pm 0.25T$
Sample Compartment	10mm Pathlength Cuvette Thin Film sample Holder Double Integrating sphere with powder and slide holder
Detector	Silicon Photodiode
Lamps	Tungsten Lamp & Dueterium
Light Source Switching	Automatic switching selectable for 325 nm - 370 nm range
Display	In-built display LCD: Colour Touchscreen Size- 7 Inch Memory – 1 GB
Output Port	USB Port
Printer	External Printer (Optional)
PC Software	Holmarc Spectra scan, Thin Film Pro
Security	Password Protection (Admin and User Login)
Operating Temperature	10-45
Power Requirements	AC 90-250V, 50/60Hz
Dimension	500x400x225mmmm
Weight	20kg
Accessories	Cuvette, Pendrive USB Cable, User Manual

Portable UV-Visible-NIR CCD Spectrophotometer

Fiber coupled 200-1050 nm 340-1050 nm

Holmarc CCD spectrophotometers are modular spectrophotometers with CCD spectrometer light source and sample holder. The spectrometer uses a linear array detector to record the spectrum data. The main advantage of these CCD spectrophotometer is that there is no scanning required for getting the complete spectrum data. A single capture of reference and sample spectrum gives the complete spectrum parameters like transmission, absorption graph etc. Fiber coupled modules like spectrometer light source and sample holder make the system flexible and can be used in situ conditions.

VIS and UV VIS models having a wavelength range of 360-1050nm & 200-1050 nm respectively. Custom wavelength options are also available. The Deuterium halogen dual light source covers the complete wavelength range from 190-1050 nm.

Optical Platform	Czerny-Turner / Concave
Effective Spectral Range	200 to 1050 nm
Input Fiber Connector	SMA 905
Input Fiber NA	0.22
Stray Light	< 0.06 % @ 532 nm (< 0.1% overall)
Detector	Toshiba TCD1304AP Linear CCD Array
Pixel Number	3648
Pixel Size	8 x 200 μ m
Pixel Well Depth	100,000 electron
Signal-to-noise Ratio	1,000:1 (at full scale)-
A / D Resolution	16 bit
Integration Time	0.1 to 6,500 ms
Frame Rate	up to 138 fps
Trigger Input	Optional
PC interface	USB 2.0
Software	Spectra Analyte
	Includes DLL libraries and SDKs for easy custom application development

CUVETTE HOLDER WITH FIBER COLLIMATOR UNIT

Fiber optic cuvette holders are for standard 10mm path length cuvettes. They are designed to work in UV-VIS-NIR spectral range. They have two terminals and one slot for transmittance / absorbance measurements.



FIBER OPTIC DIP PROBE



NV16 spectrophotometer fiber optic model extend their capabilities to the use of dip probes for facilitating analysis while lending themselves to real-time monitoring of kinetic reactions.

The probe body material is built entirely of 316 stainless steel construction and lined with a quartz or glass. Fiber optic cable lengths can also be configured to meet customer needs

FLOW THROUGH CELLS



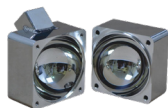
Our Fiber optic flow through cells are ideal for demanding applications including process control, chromatography and when monitoring reactions in remote locations. The flow through cell is built entirely of 316 stainless steel construction and lined with a quartz or glass, the flow through cell is virtually maintenance free. Small size and variable length fiber optic cables allow the flow through cell to be mounted just about anywhere

FIBER OPTIC REFLECTANCE PROBE

Reflectance Probes are ideal for measuring the absorption characteristics of solid surfaces, powdered substrates and liquids

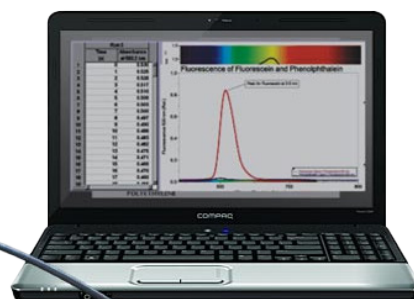


INTEGRATING SPHERES FOR REFLECTANCE MEASUREMENTS



Fiber optic coupled integrating sphere attachments for uniform, diffused illumination and total reflectance measurements of sample. They are suitable for solid surface analysis, color analysis and for the measurement of samples of varying gloss texture.

ACCESSORIES

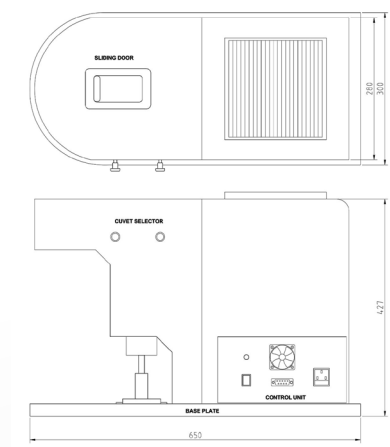


Diffused Reflectance Spectrophotometer

Model No. HO-SP-DRSP100 Solid & liquid sample measurement

Diffuse reflectance spectrophotometer is designed for measuring the spectral characteristics of opaque solid samples, Liquid, solids and thin film samples. Diffused reflectance measurement is based on the principle that not only does light reflected from the material come from the surface (specular reflection) but some is reflected internally (diffuse reflectance). Diffuse reflectance spectroscopy is most readily applicable to powders, any sample that scatters radiation can be characterized using this technique. While spectrophotometer setup in the instrument that measures the amount of light intensity absorbed after it passes through sample.

Multi-angle spectral photometric measurements / Absolute variable angle reflectance and transmission accessory can be provided on request. Model : HO-SP-DRSP100 provides researchers with more experimental information than conventional spectroscopy.



Wavelength Range	380 to 1100 nm
Resolution	1 nm
Accuracy	± 1 nm
Spectral bandwidth	2 nm
Transmittance	
Range	0 to 100 %
Resolution	0.1 %
Accuracy	± 1 %
Noise Level	± 1 %
Noise Level	< 1 %
Stability	1% / Hr after warm-up
Absorbance	
Range	0 to 2 A
Resolution	0.001 A
Concentration	
Range	0 to 999
Selectable resolution	1, 0.1, 0.01 or 0.001
Calibration with	1 or 2 known standards
Direct factor entry	
10 method memory	
Sample compartment Nos	2 Nos(one for 10 mm standard cuvette and other for integrating sphere)
Integrating Sphere Attachment size	100 mm
Coating	Barium Sulphate (BaSO4)
Angle of incident light	0°
Maximum size of sample	25 mm Dia
Detector	Si Photodiode
Active Area	5.8 x 5.8 mm
Light Source	50W Quartz Halogen Lamp
PC Interface	USB
Input Voltage	230V 50Hz



DIFFUSED



Highlights

380 1100nm Wavelength Range
0 to 2A Absorbance Range
2 Number of Sample Compartments

Theta 2 Theta Advanced scanning Spectrophotometer SPA216 Series

Reliable measurement techniques for optical characterization of thin film is a must for any laboratory. HOLMARC's Theta 2 Theta Spectrophotometer is a useful tool for characterizing absorption, transmission, and reflectivity of a variety of materials such as pigments, coatings, windows, and filters. Automated Theta 2 Theta goniometer tool is used for measuring absolute reflectance and transmittance of samples at different angles for characterization of the optical or electronic properties of materials. Reflectance measurements can identify the color of a sample or examine differences between objects for sorting or quality control. Integrating sphere attachment also provided for solid and powder sample measurements.

Three models	340- 1100 nm	190 – 1100 nm	190- 2400 nm
Bandwidth	1 nm	0.5 nm	
Optical system	C-T monochromator, 1200 l/mm holographic grating		
Wavelength range	340 ~1100 nm	190 ~ 900 nm	190 -2400 nm
Photometric method	Transmittance, Absorbance, Concentration		
Wavelength accuracy	± 0.5 nm	± 0.5 nm	± 0.5 nm
Wavelength repeatability	± 1 nm	± 1 nm	± 1 nm
Absorbance range	0 - 2Abs	0 - 2Abs	0 - 2Abs
Photometric accuracy	± 0.002 A (0 ~ 0.5 A)	± 0.004 A (0.5 ~ 1A), ± 0.3% T	
Photometric repeatability	≤ 0.001 A (0 ~ 0.5 A)	≤ 0.002 A (0.5 ~ 1 A), ± 0.1% T	
Stray light	≤ 0.05% T		
Baseline straightness	± 0.002 A		
Detector	Si – Photodiode, PMT& InGaAS		
Light source	Quartz Halogen Lamp/Deuterium &Halogen		
Cell holder	Two-position 10mm standard cuvette holder		
Theta 2 Theta measurements			
Goniometer for Angular Measurements			
Type	Theta 2 Theta Measuring Stage		
Sample Holder	Up to 50 x 50mm size, Custom Size Available		
Angular Measurement Range	30° - 180°		
Positioning Resolution	0.5°		
Control Mode	PC control		
Dimensions (L x W x H) mm	606 x 352 x 135 606 x 352 x 230		

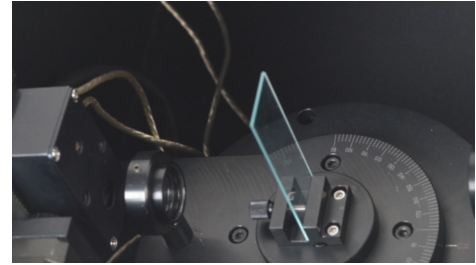
System Features

- Specially designed for optical characterization
- Ideal for reflectance, transmission, absorption and optical density measurements
- Design optimized for low stray light
- Interchangeable holders for solid, liquid and thin film samples

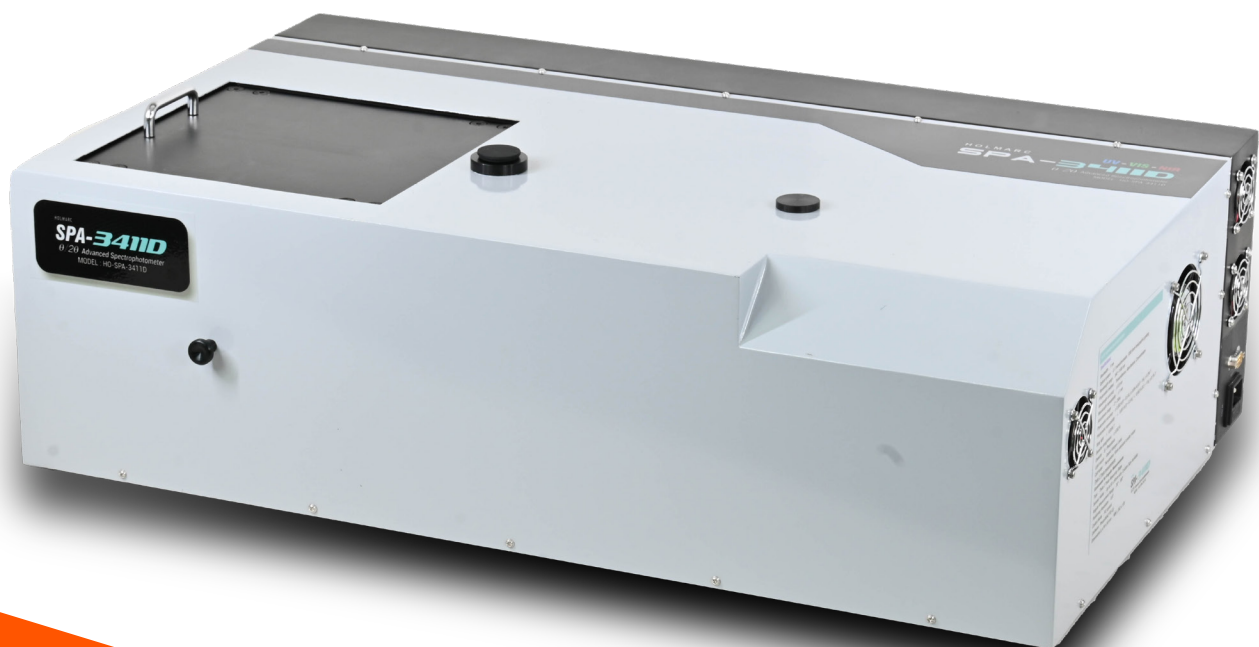
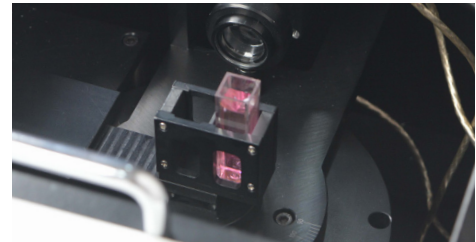
Software designed for photometry

- Spectrum Scanning
- Photometric measurements
- Quantitative determination
- Multi component analysis
- Powerful data processing abilities

Single Glass Slide Holder



Cuvette Holder

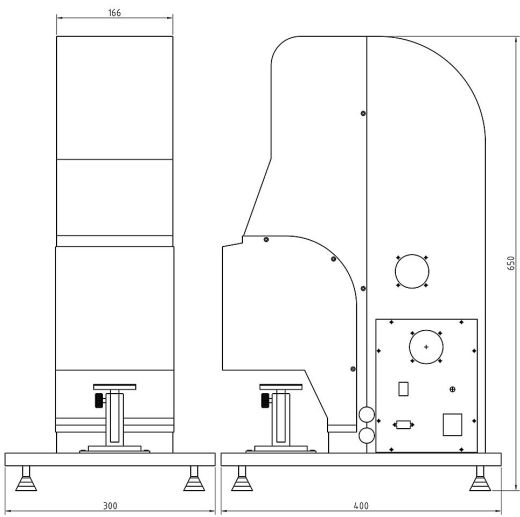


Diffuse Reflectance Spectrophotometer

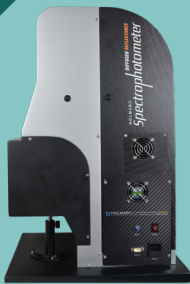
Model HO-SP-DRS 100

Diffuse reflectance spectroscopy is a well-established technique for studying the spectral characteristics of opaque solid samples, based on the principle that not only does light reflected from the material come from the surface (specular reflection) but some is reflected internally (diffuse reflectance). Diffuse reflectance spectroscopy is most readily applicable to powders, any sample that scatters radiation can be characterized using this technique.

Diffuse reflectance UV-visible spectroscopy is mostly used in the applied sciences for the analysis of dyestuffs, printing inks, paints and pigments, paper, ceramics, and so on. For color matching/analysis, visible diffuse reflectance spectroscopy is used for denture materials, tiles, cosmetics, and medicinal tablets, to name a few applications.



Wavelength Range	380 to 1100 nm (Optional: 200 to 1100 nm)
Resolution	1 nm
Accuracy	± 1 nm
Spectral bandwidth	2 nm
Integrating Sphere	100 mm
Attachment size	
Coating	Barium Sulphate (BaSO4)
Angle of incident light	0°
Wavelength range	200 to 1100 n
Maximum size of sample	25 mm Dia
Detector	Si Photodiode
Active Area	5.8 x 5.8 mm
Light Source	50W Quartz Halogen Lamp
PC Interface	RS232 - USB
Input Voltage	230V 50Hz





100mm
Integrating Sphere
Attachment Size



380 to 1100nm
Wavelength



Modular Spectrophotometer

Model HO-SP-SQR-MS200F

Holmarc's Modular spectrophotometer model no HO-SP-SQR-MS200F is designed for flexible analysis of spectrophotometric applications & angular based thin film transmittance via multimode fibre. This system comes up with Monochromator model no SQR200F, Deuterium & Halogen lamps with power supply unit, spectrophotometric chamber unit, multimode fibre 1500µm with coupling unit & UV enhanced Si photo detector. Holmarc's customized type spectrophotometer is ease to operation by arranging the spectrophotometer in different modules. Chamber unit can placed either in input /output according to the customer needs. Holmarc's modular spectrophotometer is easy for cleaning solutions which spill over chamber unit. Customized Software is available with mode selection for lamps & wavelength base scanning.

Light from deuterium lamp (200nm to 380nm) & halogen (380nm to 1100nm) enters to the input slit of the Czerny turner monochromator which collects the light at output slit via multimode fibre which then directs light to the spectrophotometric chamber which detects by the Si photo detector.



Monochromator	Czerny Turner Design, 200F Mirrors, grating density : 1200 l/mm, Wavelength range 200-1100 nm, wavelength Resolution : 0.5 nm
Source	Halogen - Deuterium combined light source, halogen 12V, 20W
Fibrer	Multimode 1500 µm, Core glass, Cladding plastic
Chamber unit	Rectangular type, With Cuvette holder & Angle based stage unit for thin film slides
Software	Customized software

- Ease of Usage - Modules of optical units
- Easy for cleaning of sample chamber
- Mode selection (UV-VIS) scanning for sample analysis
- High stabilized UV enhanced SI photo detector with control box
- Research grade cuvette samples
- Standalone monochromator unit
- High core sized Multimode fibre (with SMA) for light collection
- Mounting & dismantling of cuvette holder & Angle based goniometric sample holder unit.



Deuterium Halogen Source

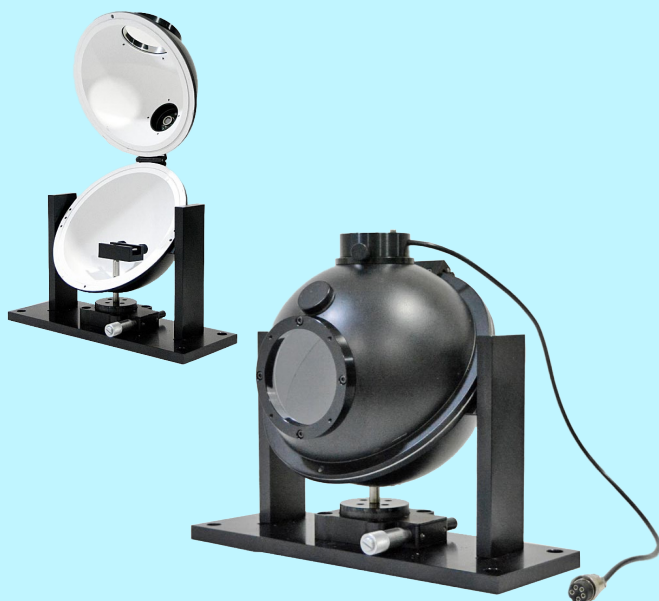
Holmarc's Deuterium Halogen source is a specially designed light source that covers 200 nm to 2500 nm wavelength range. In this compact lamp house both Deuterium and Halogen lights are combined to a single optical path using and motorized rotation mechanism. Output port provided with SMA connector for fiber coupling. High quality optical design delivers maximum light coupling to the optical fiber.

Model No.	HO-HDL-01
Wavelength Range	190 nm - 2.5 μ m
Source	Deuterium & Tungsten Halogen
Lamp Wattage	20W Deuterium & 20W halogen
Input Voltage	230 V

This light source can be used as a UV-VIS-NIR source for different spectroscopic applications. Filter holder, shutter, cuvette / sample holder can be provided optionally.



ACCESSORIES



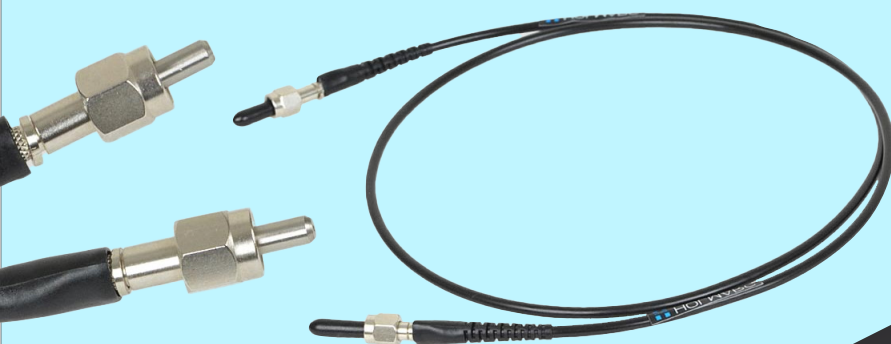
Integrating Sphere

An integrating sphere is a valuable tool used in various scientific and industrial applications to measure and manipulate light. It's essentially a hollow sphere with a highly reflective inner coating, typically made of a diffuse white material. This special coating ensures light entering the sphere scatters and reflects multiple times before exiting through a designated port. Holmarc integrating spheres come with different diameters, ports and detector configurations. The body material is aluminum and the inner walls are highly polished and coated with diffused reflecting material. Baffles are fixed inside to reduce the direct light entry to the detector port. Custom Integrating spheres are available up to 300 mm diameter and different port configurations.

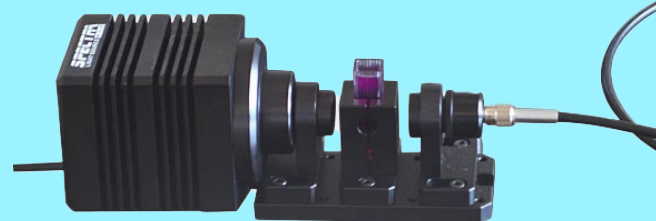
Integrating sphere attachment- Single beam UV Price 65 K
Integrating sphere attachment- Double beam UV Price 1.25 Lakhs

Fiber Optic Patchcords

HOLMARC offers multimode step index fiber optic patch cables with SMA905 connectors on both ends and are ideal for applications requiring optimum transmission in the UV-VIS range (190 - 1600nm). These cables incorporate fused silica (0.22 numerical aperture) fiber, sheathed in rugged 3/16" OD PVC monocoil and are available in 1.5m length. Each patch cable includes two protective caps that shield the connector ends from dust and other hazards.

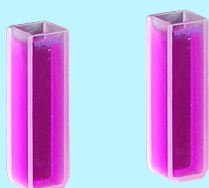


Cuvette holder with fiber optic collimator unit



SINGLE BEAM AND DOUBLE BEAM SPECTROPHOTOMETER

calibration samples



We have the opportunity
to accelerate research by
producing cost- effective
Spectrophotometer
right here in India. Lets
harness our expertise and
contribute to scientific
advancements

Team Holmarc

**Quartz Halogen Lamp with
power supply unit**



Deuterium Lamp with power supply unit

Deuterium lamps are excellent sources of high intensity ultraviolet radiation ranging from 185nm to 400nm. Emission in visible and infrared regions are negligible. This makes deuterium lamps ideal sources for UV spectroscopy, and as UV spectral irradiance standards.



SPECTROPHOTOMETER

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GST No: 32AAACH9492C1ZQ
MSME : UDYAM-KL-02-0043524

Holmarc Opto-Mechatronics Ltd has been organized as a provider of engineering tools
for scientific research.