

# GENESYS Vis and UV-Vis Spectrophotometers

Legendary reliability. Unrivaled usability.



# GENESYS—developed for users, designed for results

Built on the foundation of 60 years of spectroscopy experience, the Thermo Scientific™ GENESYS™ family of Vis/UV-Vis spectrophotometers provides exceptional performance with a contemporary design.

- Start taking measurements immediately with the simple-to-use, high-resolution, color-display start menu
- Exchange samples with ease with large, accessible sample compartment
- Save your data any way you want it with multiple data-export options

There is a GENESYS spectrophotometer you can count on to provide accurate, reproducible results for your application requirements.



# Outstanding features to help you meet your teaching, quality control, and research UV-Vis needs

For teaching labs, research labs, and industrial QC requiring robust construction for easier software capability.





# GENESYS 30 Visible Spectrophotometer

#### Modern power meets traditional simplicity

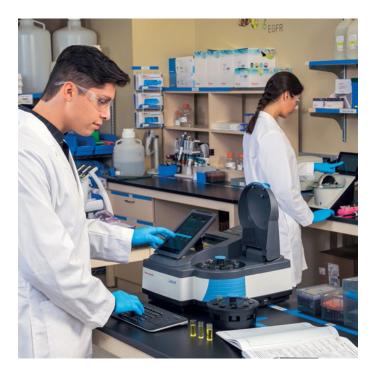
- The gold standard in basic spectrophotometers
- Large sample compartment supports the use of cuvettes and test tubes
- Removable, washable compartment liner for easy clean-up
- Ideal solution when OD600 is your primary need

## GENESYS 40 Vis/50 UV-Vis Spectrophotometers

### Advanced usability, modern functionality

- 7-inch, high-resolution touchscreen interface
- Local control increases speed and reliability for routine analysis
- Large sample compartment with front access simplifies sample handling
- Wi-Fi ready—save data and methods, print results from on-board control

For advanced teaching labs, R&D, research and life science applications requiring higher throughput or temperature control.





# GENESYS 140 Vis/150 UV-Vis Spectrophotometers

### Elite performance, enhanced capabilities

- Tiltable 7-inch, high-resolution touchscreen tablet to avoid glare
- Compatible with automated cell changers, Peltier, sipper and fiber optic probe accessory options
- Wi-Fi ready—save data and methods, print results from on-board control

# BioMate<sup>™</sup> 160 UV-Vis Spectrophotometer

#### Life science enabled

- Software includes pre-programmed life science methods such as Nucleic Acid A260; Protein A280 and A205; Protein Colorimetric assays and OD600
- Extend your capabilities with a microcell holder or Peltier thermostatted cell holder or cell changer option

#### Choose the instrument that's right for you

Instrument	Spectral region	Optics	Display	Supports test tubes	Removable and washable sample compartment	4 and 8-cell changer compatible	Sipper, Peltier, fiber probe compatible	A-T-C	Scanning
GENESYS 30	Vis	Single Beam	5-inch color screen	$\checkmark$	$\checkmark$	Single only		$\sqrt{}$	√
GENESYS 40	Vis	Dual Beam	7-inch touchscreen	V	V	Single only		J	<b>√</b>
GENESYS 50	UV-Vis	Dual Beam	7-inch touchscreen	1	J	Single only		1	1
GENESYS 140	Vis	Dual Beam	7-inch touchscreen, tiltable			J	V	1	<b>√</b>
GENESYS 150	UV-Vis	Dual Beam	7-inch touchscreen, tiltable			J	√	J	√
BioMate 160	UV-Vis	Dual Beam	7-inch touchscreen, tiltable			J	√	1	1
GENESYS 180	UV-Vis	Double Beam	7-inch touchscreen, tiltable			<b>√</b> *	V	J	J

For laboratories requiring double beam with a reference cell position.



# GENESYS 180 UV-Vis Spectrophotometer

### High-throughput ready

- Double-beam optics
- Ideal solution when a reference beam is required, such as for kinetics
- 8-cell changer standard
- Make measurements outside the sample compartment without cuvettes using fiber optic coupler and probe

Quant, fixed, live display, OD600	Kinetics	VISION <i>lite</i> <sup>™</sup> software compatibl	Wi-Fi ready	Snap-on printer available	Warranty
1		J		$\checkmark$	2 years**
V	$\checkmark$	√	√	$\sqrt{}$	2 years**
1	1	1	<b>√</b>	J	2 years**
√	J	1	1	J	2 years**
J	J	V	1	J	2 years**
J	J	√	1	J	2 years**
V	J	<b>V</b>	<b>√</b>	V	2 years**

# Walk-up convenience

Simple-to-use, touchscreen user interface features the methods and applications most important to you.



# Flexible computer control

Optional VISION/ite software offers complete control from a Microsoft® Windows® computer providing applications for:

- Scanning
- Quantitative analysis
- Kinetics
- Fixed wavelength measurements

### **GENESYS** instrument specifications

Description		GENESYS 30	GENESYS 40	GENESYS 140	GENESYS 50	GENESYS 150	BioMate 160	GENESYS 180		
Optical Design		Single Beam			Dual Beam			Double Beam		
Spectral Ban		<u> </u>	5 nm			2 nm				
Light source		_		10 hours)						
(Typical Lifetime)			ungsten-Halogen (>100		Xenon Flash Lamp (>5 years typical, 3 years guaranteed)					
Detector		Silicon Photodiode			Dual Silicon	Photodiodes				
	Range	325–1100 nm 190–1100 nm								
Wavelength	Accuracy	±2 nm			±0.5 nm					
	Repeatability	<±1 nm			<±0.2 nm					
	Scan Speed	Automatic—up to 1200 nm/min	Automatic-	up to 1800 nm/min	Slow, medium and fast (up to 1600 nm/min)					
	Data Resolution	1 nm		0.2	m, 0.5 nm, 1 nm, 2 nm, 5 nm					
	Range	-3A to +3A	-3	3A to +3.5A	-2A to +3.5A					
Photometric	Display	-3A to +3A, 0 to 200 000 %T, 0 to 9 999 999 C	−3A to +5A							
	Accuracy	±0.002A (0-0.3A) 0.5% of ABS reading (0.301A - 2.5A)			±0.002A at 0.5A ±0.004A at 1.0A ±0.008A at 2.0A					
	Repeatability <sup>1</sup>	±0.002 A		±0.001A at 1A						
	Noise <sup>2</sup>	≤0.001A at 0A ≤0.001A at 1A ≤0.002A at 2A		≤0.00020A at 0A at 260 and 500 nm ≤0.00030A at 1A at 260 and 500 nm ≤0.00040A at 2A at 260 and 500 nm						
	Drift <sup>3</sup>	<0.002A/Hr	<(	0.0010A/Hr	<0.0005A/Hr					
Stray Light		<0.1%T at 340 nm and 400 nm	<0.05%T at 340 nm a	and 400 nm	$<$ 1.0%T 198 nm (KCl) , $<$ 0.05%T at 220 nm (NaI), $<$ 0.03%T at 340 nm (NaNO $_{2}$					
Baseline Flat	ness	<0.003A		±0.005A		±0.002A				
Display		5-inch diagonal, 32-bit color display, 800 × 480 pixels	7-inch color touchscreen, fixed, high definition, 800 × 1280 pixels	7-inch color touchscreen, tiltable, high definition, 800 × 1280 pixels	7-inch color touchscreen, fixed, high definition, 800 × 1280 pixels	7-inch color touchscreen, tiltable, high definition, 800 × 1280 pixels				
Keypad		Tactile rubber 23 keys with numeric keypad			Touchscreen					
Sample Compartment		All platforms can accommodate 100 mm cells     Available accessory for test-tubes up to 25 mm diameter and 150 mm height     Removable, washable sample compartment liner with magnetic.		(long path cells)  • Peltier thermostatted cell holder (20–60 °C)	Accessible from top, front or side to accommodate cells up to 100 mm pathlength  Available accessory for test-tubes up to 25 mm diameter and 150 mm height  Removable, washable sample compartment liner with magnetic placement and hold-down	Able to accommodate cells up to 100 mm pathlength  Available accessory for test- tubes up to 25 mm diameter and 150 mm height  Removable, washable sample compartment liner with magnetic placement and diameter and				
Printer					Snap-on printer available	1				
Connectivity		<ul> <li>USB-A on front face supports flash memory devices for method and data storage</li> <li>USB-B on side supports connection to a Windows computer running optional remote control software, keyboard, mouse exported that to PC via USB.</li> <li>Single USB-A supports flash memory devices for method and data storage</li> <li>Duplex USB-A supports connection to a Windows computer running optional remote control software, keyboard, mouse export data to PC via Ethernet or Wi-Fi</li> <li>Print via USB, Ethernet or Wi-Fi</li> <li>Print via USB, Ethernet or Wi-Fi</li> </ul>								
Languages		English (Available soon: Spanish, German, French, Italian, Portuguese, Russian, Chinese, Japanese, Korean, Thai)								
Dimensions		35.5 × 38.5 × 19.5 cm (L × W × H)								
Weight					7.5 kg					
Power Requi	rements	External AC to DC converter. Voltage and Frequency (Hz) selected automatically, 100–240 volts, 50–60 Hz.								
. orror rroquii		2 years standard with 1 year extension upon registration of the instrument with Thermo Fisher Scientific within 6 months of purchase								

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