thermoscientific



Thermo Scientific GENESYS Vis and UV-Vis Spectrophotometers

Legendary reliability. Unrivaled usability.

ThermoFisher SCIENTIFIC

GENESYS—developed for users, designed for results

Built on the foundation of 60 years of spectroscopy experience, the next generation 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 fast 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

For teaching labs, research labs and industrial QC requiring robust construction, ease-of-use and 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

Choose the instrument that's right for you

Instrument	Spectral region	Optics	Display
GENESYS 30	Vis	Single Beam	5-inch color screen
GENESYS 40	Vis	Dual Beam	7-inch touchscreen
GENESYS 50	UV-Vis		
GENESYS 140	Vis	Dual Beam	7-inch touchscreen, tiltable
GENESYS 150	UV-Vis		
BioMate 160	UV-Vis	Dual Beam	7-inch touchscreen, tiltable
GENESYS 180	UV-Vis	Double Beam	7-inch touchscreen, tiltable

**8-cell changer comes standard with the GENESYS 180* ***Three-year warranty available upon instrument registration*

control and research UV-Vis needs

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

For laboratories requiring double beam with a reference cell position.



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 local control



Thermo Scientific™ BioMate™ 160 UV-Vis Spectrophotometer

Life science enabled

- Includes Life Science Application Software package
- 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



GENESYS 180 UV-Vis Spectrophotometer

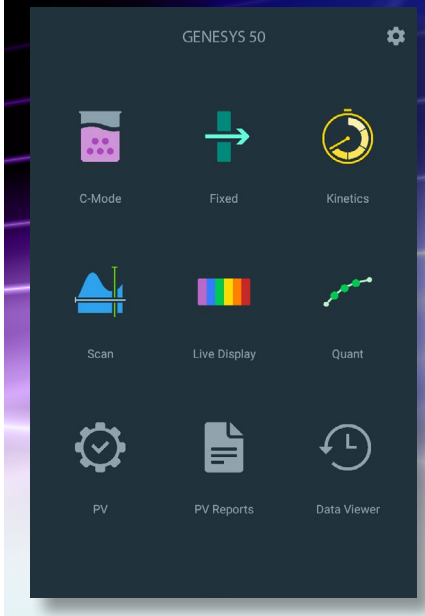
High-throughput ready

- 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

Supports test tubes	Removable and washable sample compartment	4 and 8-cell changer compatible	Sipper, Peltier, fiber probe compatible	A-T-C	Scanning	Quant, fixed, live display, OD600	Kinetics	Thermo Scientific™ VISION*lite*™ software compatible	Wi-Fi ready	Snap-on printer available	Warranty
✓	✓	Single only		✓	✓	✓		✓		✓	2 years**
✓	✓	Single only		✓	✓	✓	✓	✓	✓	✓	2 years**
		✓	✓	✓	✓	✓	✓	✓	✓	✓	2 years**
		✓	✓	✓	✓	✓	✓	✓	✓	✓	2 years**
		✓*	✓	✓	✓	✓	✓	✓	✓	✓	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*lite* 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 Bandwidth		5 nm			2 nm			
Light source (Typical Lifetime)		Tungsten-Halogen (>1000 hours)			Xenon Flash Lamp (>5 years typical, 3 years guaranteed)			
Detector		Silicon Photodiode	Dual Silicon Photodiodes					
Wavelength	**Range**	325–1100 nm			190–1100 nm			
	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 nm, 0.5 nm, 1 nm, 2 nm, 5 nm					0.1 nm, 0.2 nm, 0.5 nm, 1 nm, 2 nm, 5 nm
Photometric	**Range**	–3A to +3A	–3A to +3.5A		–2A to +3.5A			
	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[1]	±0.002 A	±0.001A at 1A					
	Noise[2]	≤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[3]	<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 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 Flatness		<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		• Accessible from top, front or side • 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 placement and hold-down		Accommodates (optional): • 8-position cell changer • 4-posiiton cell changer (long path cells) • Peltier thermostatted cell holder (20–60 °C) • Sipper accessory	• Accessible from top, front or side • 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 hold-down	Accommodates (optional): • 8-position cell changer • 4-posiiton cell changer (long path cells) • Peltier thermostatted cell holder (20–60 °C) • Sipper accessory • Fiber optic probe coupler		
Printer		Snap-on printer available						
Connectivity		• USB-A on front face supports flash memory devices for method and data storage • USB-B on side supports connection to a Windows computer running optional remote control software; export data to PC via USB	• Single USB-A supports flash memory devices for method and data storage • Duplex USB-A supports connection to a Windows computer running optional remote control software, keyboard, mouse • Export data to network or PC via Ethernet or Wi-Fi • Print via USB, Ethernet or Wi-Fi					
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 Requirements		External AC to DC converter. Voltage and Frequency (Hz) selected automatically, 100–240 volts, 50–60 Hz.						
Warranty		2 years standard with 1 year extension upon registration of the instrument with Thermo Fisher Scientific within 6 months of purchase						

*1. Measured at 1.0A at 546 nm 2. RMS at 500 nm. 60 consecutive measurements. 3. At 500 nm after warmup. 2hrs GENESYS 30, 1hr all others. *** Visit www.thermofisher.com/connect for details*

Find out more at **thermofisher.com/genesys**

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