

Thermo Scientific GENESYS 20

Unmatched simplicity and reliability for routine analysis

The Thermo Scientific GENESYS 20 is a low-cost, easy-to-use, and reliable Visible spectrophotometer designed to meet the requirements of teaching and routine laboratories. A simple, 4-step measurement process and optional Thermo Scientific VISIONlite 5 software make the GENESYS 20™ the most cost-effective, Visible spectrophotometer available.



For over 60 years, customers in world-renowned research institutions, industrial QA/QC laboratories, and teaching institutions have relied on Thermo Scientific spectrophotometers. Offering best in class photometric accuracy, the GENESYS 20 sets the standard for ease-of-use and reliability in an affordable package.

System Benefits:

- Easy operation and reliable optical system ensure fast, accurate results
- Versatile accessories to handle common cuvette types
- Small size saves valuable lab space
- Low cost to stretch your budget
- Multiple-purpose capabilities to measure a wide range of analytes

Designed for Reliability

With only four moving parts there is little potential maintenance. The optical design incorporates a grating monochromator providing a compact system and an extended wavelength range of 325 to 1100 nm.

Sampling Flexibility

A variety of sample holders and accessories offer measurement flexibility for teaching laboratories and routine industrial or medical use. These accessories enable fast, efficient measurements for common samples.

Thermo
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Compact, low-cost spectrophotometer

with all the essentials for teaching and routine use

Intuitive Design Provides Maximum Ease-of-use

Control the instrument completely from the built-in keyboard. The two line LCD readout displays data and simple instructions.

Measure samples in just four quick steps:

1. Select wavelength
2. Select mode (Abs, %T, C)
3. Insert Blank and press 0 Abs/100%T
4. Insert sample and observe or print readings

More Bench Space

The compact design saves valuable bench space, leaving room for additional laboratory equipment. The optional built-in printer delivers a high-quality printout of data without increasing the system footprint.

With its small footprint and low weight of only 10 pounds, the GENESYS 20 is easy to store when not in use, ideal for educational laboratories.

Low Cost of Ownership

The GENESYS 20 is designed for routine use and maximum reliability. With very few moving parts, the GENESYS 20 provides a robust system you can count on for years of trouble-free operation.

Versatile Accessories Boost Productivity

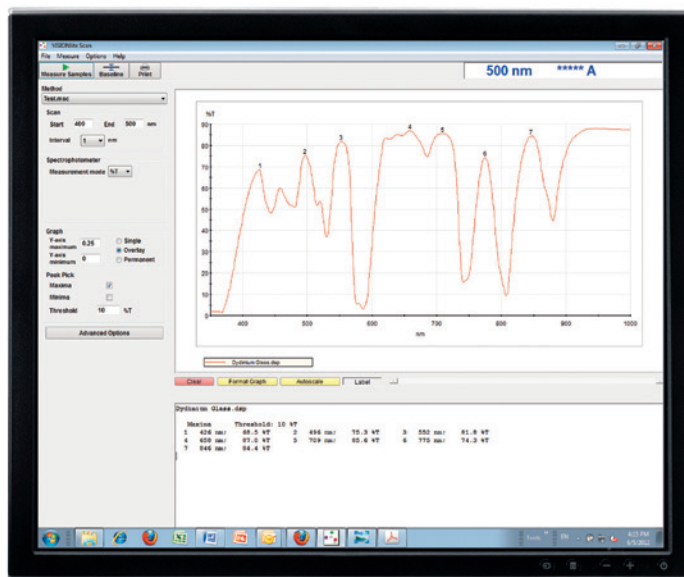
The GENESYS 20 sample compartment is designed to handle a wide range of test tubes, cuvettes, vials, and a solid sample holder accessory. The standard cell holder provided with the instrument is compatible with 10 mm square cuvettes. Convenient snap-in accessories make inserting an optional test tube holder easy and quick when you need to measure samples in vials, test tubes or long path cuvettes.

Optional sample accessory holders are available to accommodate:

- 1.0" diameter test tubes which allow measurement of lower concentration samples without reducing sample volume.
- Test tubes and screw-cap vials up to 25 mm diameter and 100 mm tall can be accommodated in the test-tube/COD vial holder, eliminating the need to transfer reagents from a reaction vial to a cuvette to make a measurement.



The simple operation of the GENESYS 20 makes it ideal for students and technicians



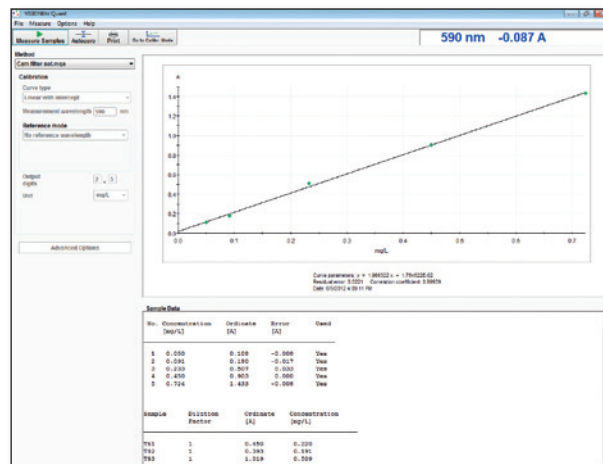
- Cylindrical or rectangular long pathlength cells up to 50 mm provide enhanced sensitivity for low concentration samples.
- Solid sample holder accessory for measurement of glass or plastic samples in either Absorbance or % Transmittance mode.
- Short pathlength cells are available for both rectangular and cylindrical designs. Short pathlength cylindrical cells fit automatically in the cylindrical cell holder. These are ideal for measuring high concentration or highly absorbing samples without dilution.

Additional Flexibility with PC Control Application Programs

There are two PC-control application programs available for the GENESYS 20 series instruments:

- The common PC-control software control platform for Thermo Scientific GENESYS and SPECTRONIC spectrophotometers, VISIONlite™ 5, consists of applications for wavelength scanning, fixed multi-wavelength analysis, quantitative analysis, and kinetics.
- For food and beverage customers, EnzLab, an analyzer software application for enzymatic food analysis is available.

Each of these application packages completely controls the GENESYS 20 spectrophotometer.



The Quant application of VISIONlite 5 software automates sample concentration measurements based on either a standard curve or an entered calibration factor. Standard curve graphs, tabular data and calibration curve fitting parameters are viewed on one screen. Use up to 20 standards and 4 different curve fitting options to measure your most demanding samples.

Accessories for Your Sample

The design of the GENESYS 20 cell holders means no tools are required to change from one accessory to another. Simply click the accessory holder in place, and you are ready to go.



1" Test Tube Holder
4015-000



Cylindrical Long Pathlength Cell Holder
4011-000



Rectangular Long Pathlength Cell Holder
4012-000



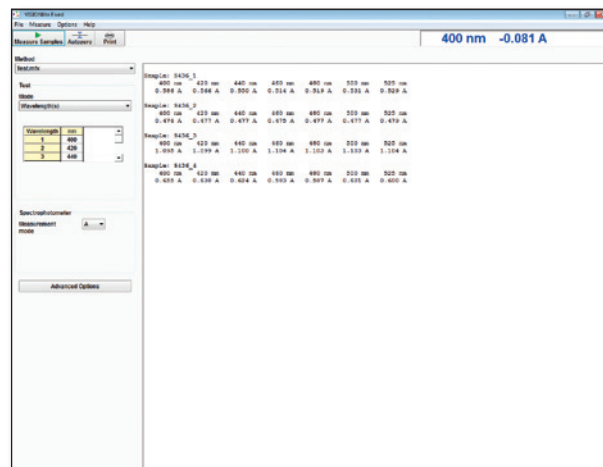
Single Cell Holder
Supplied with the instrument



Test Tube/COD Vial Holder
4014-000



Solid Sample Holder
4028-000



The fixed wavelength analysis application of VISIONlite 5 software performs measurements at one to 31 wavelengths. More advanced features allow reference wavelength correction, wavelength addition, subtraction, multiplication and division, and correction factors for more complex analyses. VISIONlite 5 software allows you to import or export data in CSV or ASCII format.

GENESYS 20 Spectrophotometer

Part Number 4001 & 4004 Series	
Optical Design	Single beam
Spectral Bandwidth	≤8 nm
Light Source	Tungsten-Halogen
(Typical Service Life)	(1000 hours)
Detector	Silicon Photodiode
Wavelength	
Range	325 to 1100 nm
Accuracy	±2.0 nm
Photometric	
Range	-0.1–2.5A; 0–125%T, 0–1999C
Readout	Absorbance, % Transmittance, Concentration
Accuracy	±0.003A from 0.0 to 0.3A 1.0% from 0.301A to 2.5A, NIST 930D filters
Noise	≤0.001A at 0A ≤0.004A at 2A, 500 nm
Drift	0.003A/hour
Stray Light	<0.1%T at 340 nm and 400 nm
Display	20-character, 2-line LCD
Keypad	Sealed Membrane Keypad
Standard Interfaces	RS-232C and Centronics ports
Languages	Software, printouts and operator's manual: English, French, German, Spanish, Italian (user selectable)
Power Requirements	Selected automatically; 100–240 Volts
Dimensions	30 cm W x 33 cm D x 19 cm H (12" W x 13" D x 7" H)
Weight	4.5 kg (10 lbs)
Warranty	1 Year

Ordering Information

Description	Part Number
GENESYS 20, 120 V (US line cord)	4001-000
GENESYS 20 with Printer, 120 V (US line cord)	4004-000
GENESYS 20, 240 V (Euro CE line cord)	4001-03
GENESYS 20 with Printer, 240 V (Euro CE line cord)	4004-03
GENESYS 20, 240 V (UK CE line cord)	4001-04
GENESYS 20 with Printer, 240 V (UK CE line cord)	4004-04

Optional Software and Accessories

Application Software	Part Number
VISION <i>lite</i> 5	834-091300
EnzLab Enzymatic Food Analysis Software	869-131500

Sample Holders	Part Number
Single Cell Holder	4010-000
Test Tube/COD Vial Holder	4014-000
Rectangular Cell Holder (up to 50 mm)	4012-000
Cylindrical Cell Holder (up to 50 mm)	4011-000
1" Test Tube Holder (1" pathlength up to 104 mm tall)	4015-000
Solid Sample Holder (up to 8 mm thick)	4028-000

Miscellaneous	Part Number
Serial RS232C Cable for PC Connection	335942-000
Absorption Spectroscopy Wall Chart (24" x 36")	269-268100

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