

DeNovix®

Absorbance & Fluorescence Combined!



Patents Pending

Spectrophotometer / Fluorometer Series

- 1 μ L and Cuvette Full Spectrum UV-Vis
- Multi-Channel Fluorescence
- Stand-Alone, Compact Design (no PC)
- Intuitive Android™ Interface & Built-in EasyApps®
- Flexible Export to Network, USB, Wi-Fi, LIMS, Print

The DS-11 Spectrophotometer & FX Fluorometer Series



Instruments available in any of the four colors shown! (except FX Module)

Combined Absorbance and Fluorescence!

The DS-11 FX - A New Standard for Dynamic Range

The DeNovix DS-11 FX Spectrophotometer / Fluorometer (patent pending) gives life scientists the most complete tool available for rapidly measuring nucleic acid and protein samples. Quantify the widest concentration range of any single instrument by using fluorescence or UV-Vis absorbance methods. Whether you are measuring 10 pg/ μ L dsDNA samples or 750 mg/mL BSA, DeNovix handles your application. DeNovix offers multiple model choices allowing labs to select the right instrument for your current and future research.

Measurement Modes



Fluorometer: 0.5 mL thin-walled PCR tube

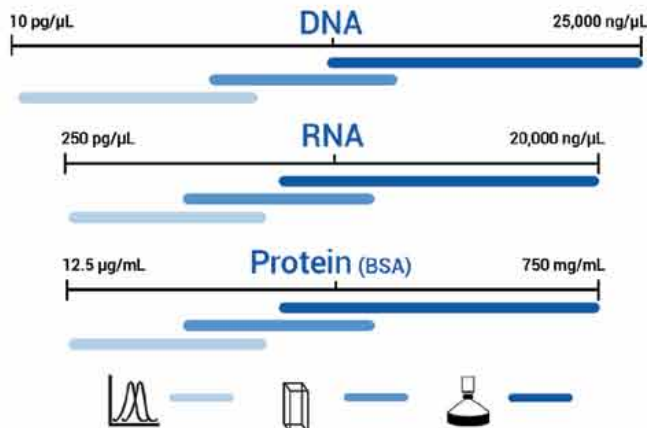





Cuvette: standard quartz and disposable cuvettes, full spectrum UV-Vis



Microvolume: 0.5 - 1.0 μ L full spectrum UV-Vis

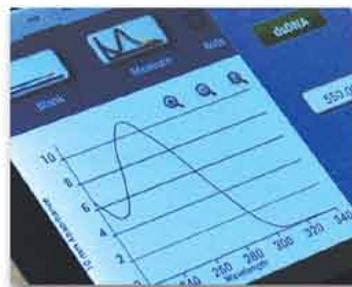
Microvolume



Model Choices			
DS-11 FX +	✓	✓	✓
DS-11 FX	✓		✓
DS-11 +	✓	✓	
DS-11	✓		
QFX Fluorometer			✓

Full Spectrum Analysis

DeNovix Spectrophotometers enable absorbance measurements of 0.5 to 1.0 μL samples. The 190 to 840 nm full spectrum capability makes it an ideal choice for UV-Vis applications such as protein and nucleic acid quantification. Just pipette and measure. **It's that simple!**



Microvolume Mode: SmartPath® Technology with BridgeTesting™

The DS-11 is always calibrated - no drift and no service downtime. SmartPath® Technology controls the pathlength in real time ensuring accurate and precise measurements. BridgeTesting™ is our proprietary process to compress and monitor a sample during measurements to ensure the liquid column is intact. This guarantees even $1\mu\text{L}$ protein samples are measured with confidence.



Cuvette Mode: Lower UV-Vis Detection Limits & Added Functionality

Utilize standard quartz or disposable cuvettes in the DS-11+ or DS-11 FX+ models for up to 10 mm pathlength absorbance measurements. Cuvette models also include a built-in cuvette heater and a Kinetics app for temperature controlled studies at 37-45°C.

Fluorescence Freedom!

DeNovix fluorometers provide assay independence unlike any other. FX instruments are pre-configured for common commercially available quantification assays. Easily run assays such as Qubit® dsDNA BR, Qubit® dsDNA HS, or Quant-iT™ PicoGreen®. Assay standard curves, including simple two-point methods, are conveniently built in to fluorometer EasyApps®. All instruments also include a spare channel for future customization to new assays or fluorophores.

QFX Stand-Alone Fluorometer

The QFX is a feature-rich, highly-sensitive fluorometer. Each QFX includes DeNovix Android™ OS functionality such as Wi-Fi, Ethernet and USB connectivity as well as easy export to printers, LIMS, network drives, etc.

FX Fluorometer Channels

Channel	Excitation	Emission
Blue	470 nm	514-567 nm
Green	525 nm	565-650 nm
Red	635 nm	665-740 nm

FX Fluorometer Module - Instant Flexibility

Add fluorometer capability to any DS-11 or DS-11+ Spectrophotometer by utilizing a FX Fluorometer Module. Simply plug this USB accessory into your DeNovix instrument and immediately all fluorometer applications are at your fingertips!

Stand-Alone with Intuitive EasyApps®

Built-in EasyApps® and our breakthrough Android™ operating system make DeNovix instruments easy to learn and quick to use. Our compact instruments are ready right out of the box - no PC set-up or software installation is required. Make rapid absorbance and fluorescence measurements utilizing application-specific EasyApps®. Easily build and save your own applications using powerful, yet simple, custom method apps. DeNovix systems also include account management, built-in email and free software updates for the life of your instrument.



Glove-compatible 7" HD touchscreen provides a responsive, fluid interface with pinch/zoom/swipe control

Connect to Your Results



Want data saved to your network drive? Printed in a table? Need to email a color jpg of overlaid UV-Vis spectra? How about scanning a barcode or printing a cryotube label? Customized field names for your LIMS system? No problem! DeNovix instruments give you all the Wi-Fi, Ethernet, USB and printer export options you need to get your data just where you want it and how you like it.

Free Trial Program ★★★★★

Find out why scientists love DeNovix instruments! Evaluate a system in your lab at no charge. Register at denovix.com for a free 7 day trial. DeNovix covers all shipping costs. Trial terms on website.

Specifications

Spectrophotometer Microvolume Mode (DS-11, DS-11+, DS-11 FX, DS-11 FX+)

Minimum Sample Size	0.5 µL
Pathlength	0.5 mm (auto ranging to 0.030 mm)
Light Source	Pulsed Xenon flash lamp
Detector Type	2048 element CCD
Wavelength Range	190 - 840 nm
Wavelength Accuracy	1 nm
Absorbance Precision	0.002 AU (0.5 mm path) or 1%, whichever is greater
Absorbance Accuracy	2% at 0.75 AU at 260nm
Spectral Resolution	1.50 FWHM @253.65 nm
Absorbance Range	0.04 – 500 (1 cm equivalent)
Detection limit	0.10 mg/mL BSA; 2.0 ng/µL dsDNA
Maximum Concentration	750 mg/mL BSA; 25,000 ng/µL dsDNA
Measurement Time	Less than 4 seconds
AutoRun Function	Yes with electromagnetic arm position relay
Power Consumption	10 W (max 30 W)

Spectrophotometer Cuvette Mode (DS-11+, DS-11 FX+)

Beam height	8.5 mm
Heating	37 - 45°C +/- 0.5°C
Pathlength	10, 5, 2, 1 mm
Detection Limit	0.10 ng/µL dsDNA (10mm pathlength)
Maximum Concentration	75.0 ng/µL dsDNA (10mm pathlength)

Fluorometer Mode (DS-11 FX, DS-11 FX+, QFX)

Light Sources	Blue LED (~470 nm), Green LED (~525 nm), Red LED (~635 nm)
Excitation Filters	Blue: 442-497 nm, Green: 490-558, Red: 613-662 nm
Emission Filters	Channel 1: 514-567 nm, Channel 2: 565-650 nm, Channel 3: 665-740 nm
Detectors	Photodiode, detection range 300-1000 nm
Tube Type	0.5 mL thin-wall PCR (polypropylene) tubes

Onboard Controller (No PC required)

Operating System	Custom Android™ OS
CPU	TI OMAP Dual Core ARM Processor
Display	1280 X 800 high definition color display
Touch Screen	Projective capacitive
Gesture Recognition	Multipoint touch, swipe, pinch
Glove Compatibility	All common lab gloves
Internal Storage	8GB flash memory
Audio	Built-in speaker
Connectivity	Wi-Fi, Ethernet, 3 USB ports
Accessories	USB printer; Barcode reader

General

Weight	2 kg
Footprint	20 cm X 33 cm
Operating Voltage	12 VDC
Approvals	UL/CSA, CE, FCC, Japan CAB
Manufacture Location	USA

Qubit®, Quant-iT™ and PicoGreen® are the property of Thermo Fisher Scientific and its subsidiaries. Android is a trademark of Google, Inc.