

## DS-11 FX+ Cuvette Spectrophotometer - Fluorometer

Microvolume / Cuvette Spectrophotometer / Fluorometer. Combines UV-Vis absorbance and fluorescence methods in one compact ,

maintenance-free instrument.

Rating: Not Rated Yet

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Manufacturer [DeNovix](#)

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## Description

The DeNovix DS-11 FX+ Series of Spectrophotometer / Fluorometers combine UV-Vis absorbance and fluorescence methods in one compact, maintenance-free instrument. Rapidly quantify seven orders of magnitude of nucleic acids and protein samples selecting your choice of UV-Vis or Fluorescent modes.

- **1µL/Cuvette UV-Vis and Fluorescence**
- **Broadest Dynamic Range**
- **Stand-Alone (no PC required)**
- **Maintenance and Calibration Free**

**Unique all-in-one absorbance and fluorescence design.** The choice of microvolume or cuvette absorbance and fluorescence methods delivers unmatched flexibility and dynamic range. Coupled with the DeNovix dsDNA quantification assays, a range of 0.5 pg/µL to 37500 ng/µL can be rapidly measured.

**Easy to learn. Fast to use.** DS-11 FX Series instruments are powered by intuitive, pre-installed DeNovix EasyApps® and a breakthrough Android™ touchscreen interface. Dedicated applications ensure error-free operation and sample to data in under 4 seconds. Every instrument is ready for absorbance and fluorescence measurements right out of the box – no PC set-up or software installation.

**Fluorescence Freedom!** DeNovix fluorometers give scientists the flexibility to choose any fluorescent assay, not just the assays supplied by one manufacturer. Fluorometer apps are pre-configured for common commercially available assays measured in standard 0.5 mL thin-wall PCR tubes. Four fluorescent channels encompass a wide fluorophore excitation (361-662 nm) and emission (435-740 nm) range.

**Calibration and Maintenance free.** SmartPath® Technology ensures the DS-11 FX is always accurate and always precise – no performance drift and no service down-time. Our patent pending design controls the pathlength in real-time while compressing the sample during analysis. Be confident in results from 1µL, even for difficult to measure samples like protein, thanks to SmartPath® Technology.

**Connect to Your Results.** Built-in Wi-Fi, Ethernet and USB allows easy export of data you want in the format you need. Email a csv or color jpg of your results...save data to LIMS or network drives...print results or graphs to network and label printers...and more!

**FX series Spectrophotometer / Fluorometers** are available in four colors and two models:

? DS-11 FX+ (1µL UV-Vis, cuvette UV-Vis + fluorescence)

? DS-11 FX (1µL UV-Vis + fluorescence)

## 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 0.03 mm)
Light Source	Pulsed Xenon flash lamp
Detector Type	2048 element CCD
Wavelength Range	190-840 nm
Wavelength Accuracy	0.5 nm
Spectral Resolution	1.5 nm (FWHM at Hg 253.7 nm)
Absorbance Precision	0.002 AU (0.5 mm path), or 1%, whichever is greater
Absorbance Accuracy	2% at 0.75 AU at 260 nm
Absorbance Range	0.0015 – 750 (1 cm equivalent path length)
Detection limit	0.04 mg/ml BSA; 0.75 ng/µl dsDNA
Maximum Concentration	1125 mg/ml BSA; 37500 ng/µl dsDNA
Lower Sample Surface Material of Construction	303 stainless steel and sapphire window
Upper Sample Surface Material of Construction	303 stainless steel and quartz fiber

### 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
Absorbance Range	0.0008-1.5 AU (1 cm path length)

Detection Limit	0.04 ng/µl dsDNA
Maximum Concentration	75 ng/µl dsDNA (1 cm path length)
<b>Fluorometer Mode (DS-11 FX, DS-11 FX+ and FX Module)</b>	
Light Sources	Blue LED (~470 nm), Green LED (~525 nm), Red LED (~635 nm), UV LED (~375 nm)
Excitation Filters	Blue: 442-497 nm, Green: 490-558 nm, Red: 613-662 nm, UV: 361-389 nm
Emission Filters	Channel 1: 514-567 nm, Channel 2: 565-650 nm, Channel 3: 664-740 nm, Channel 4: 435-485 nm
Detectors	Photodiode, detection range 300-1000 nm
Tube Type	0.5 mL Real Time thin-wall PCR tube (polypropylene)

**Onboard Controller (No PC required)**

Operating System	Custom Android™ OS
CPU	T1 OMAP 1.5 GHz Dual Core ARM Processor
Display	1280 X 800 high definition color display
User Input	Touch screen with swipe and pinch motion; glove compatible
Internal Storage	32GB flash drive
Connectivity	3 USB ports for printer, barcode reader and USB drive
Networking	Ethernet and Wi-Fi

**General**

Colors	Arctic White, Brazilian Blue, Fire Red, Tungsten Silver
Measurement Time for Spectrophotometry	
Measurement Time for Fluorescence	2 seconds
Footprint	20 cm X 33 cm
Weight	2 kg
Operating Voltage	12 VDC
Operating Power Consumption	10 W; max 30 W
Approvals	CE, UL/CSA, FCC and Japan CAB
Manufacture Location	USA

## Reviews

14 Scientists have reviewed the DeNovix DS-11 Spectrophotometer.

Average Rating: 4.8

Ease of use - 5 out of 5

After sales service - 5 out of 5

Value for money - 5 out of 5

Nancy H., Rutgers University - DS-11 UV-Vis Spectrophotometer review

"Very easy to use instrument! We tried out the demo for about a week and immediately loved it. The interface is fantastic and great for measuring DNA/RNA/and protein concentrations. Highly recommended for labs that are in need of a spectrophotometer."

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Chris A., Faculty of Medicine and Health Sciences, State Islamic University Jakarta-Indonesia - DS-11 UV-Vis Spectrophotometer review

Application Area: nucleic acid and protein

"We have been trying this tool, and is very satisfied with the ease and practicality. Does not require a PC so spending a space. The appliance is equipped with a large screen and is compatible with android application that enables users to read the results through mobile devices."

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Seth C., NIDDK - DS-11 UV-Vis Spectrophotometer review

Application Area: Measuring nucleotide concentration

"Very easy to use and produces accurate repeatable results! Simple interface that is intuitive."

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Jamie D., US Army Research Laboratory - DS-11 UV-Vis Spectrophotometer review

Application Area: DNA, RNA, and Protein Concentration Analysis

"This product was purchased to replace two older nano analysis machines. This machine is very easy to use, especially with the integrated touch screen pad. The small, compact unit is perfect for a busy, cramped lab. The results are quick and accurate and we have found more uses for that than either of the older nano specs. Great addition to the lab."

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Heidy M., UTRGV - DS-11 UV-Vis Spectrophotometer review

"Not only easy to use but also compact enough to maintain a cluttered free lab."

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Tammy M., UTRGV Biomedicine Brownsville - DS-11 UV-Vis Spectrophotometer review

Application Area: Department of Health and Biomedical Sciences Teaching Labs

"We originally saw the units as a demo for another department and quickly decided to find some money in our budget to purchase, not one but two of the Denovix systems. We love how they work. The touch screen function is so easy to use. We loved the idea of not needing a desktop computer to analyze our samples. We did purchase the printers with it, but have rarely used them. I have found that our students just take pictures of the screen with their smart phones. We also love all the apps that are with the units and the WiFi capabilities. I have already recommended the Denovix spectrophotometer to another lab and they received it about a month ago. We would definitely buy more and recommend them to anyone who is looking into purchasing a spectrophotometer."

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Sara H., University College Cork - DS-11 UV-Vis Spectrophotometer review

"We primarily use this spec for DNA quantification and it works great - it's easy to use, time efficient, and doesn't waste reagents. We had hoped it would be better for bacterial quantification (OD600), but it isn't great for this application. Overall, we like this product very much and would recommend it to other laboratories."

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Kamila C., Medical University of Warsaw - DS-11 UV-Vis Spectrophotometer review

Application Area: Analysis of genomic RNA and DNA

"A very good tool used in our department for screening of RNA and DNA concentrations. It offers a friendly interface, fast results and their reproducibility."

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Karol P., Warszawski Uniwersytet Medyczny - DS-11 UV-Vis Spectrophotometer review

Application Area: Measurements of DNA quantity in CSF samples

"Very good equipment. Easy to handle based on Android system. Measurements are precise and efficient to perform PCR with good results."

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Maria R., CSUF - DS-11 UV-Vis Spectrophotometer review, Jun 2015

"We are using it to measure DNA, RNA and OD. It is very simple to use, the instructions are clear and the platform is very easy to use."

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Josmar R., Universidade de São Paulo - DS-11 UV-Vis Spectrophotometer review

Application Area: Protein and DNA quantification, OD600

"The DS-11+ is everything I expected and more. It is very easy to use, precise, versatile, compact and robust. Before purchasing I read a lot

about other equipment and decided to go for DeNovix. I chose it because it seemed to be more well designed and more up to date than the others. Today, I can say with no doubt that it was the best choice. "

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Minerva F., Northern Biologics - DS-11 UV-Vis Spectrophotometer review

Application Area: Using it for protein, DNA and RNA quantitation

"Really easy to use and very accurate. Recommend this product to anyone !!!"

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Xiaojia G., Yale University - DS-11 UV-Vis Spectrophotometer review

Application Area: To measure concentration and quality of everything

"We bought this machine a month ago and everyone in the lab loves it! We use it daily to measure RNA, protein, peptide, antibody, etc... It is very accurate and takes small amount of sample. We can see the absorbance curve for each sample to tell if the sample is in good quality. We get result to our computer digitally through WIFI. Unlike Nanodrop, it offers wide spectra and option of micro-volume or Cuvette measurement."

0.0015 – 750 (1 cm equivalent pathlength)

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## Reviews

There are yet no reviews for this product.