

# DS-Series

## Spectrophotometers / Fluorometers

Nano UV-Vis

Integrated Fluorescence

Powerful Sample QC



# Why Do Scientists Choose the DS-Series?

**Nano UV-Vis, Fluorescence and Cuvette**  
Unmatched Specificity and Sensitivity

**Powerful EasyApps™ Software**  
Designed by Life Scientists, for Life Scientists

**Trusted by Thousands of Researchers**  
475+ Reviews | 9,000+ Citations

**Flexible Export and Connectivity**  
Wi-Fi, USB, Email, Ethernet and more



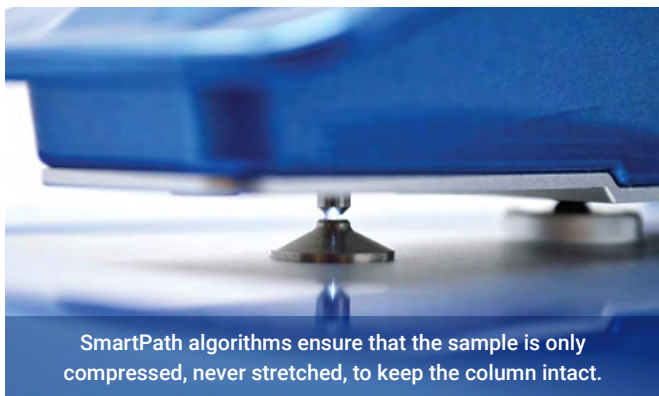
## Rapid and Reliable 1 µL UV-Vis



### SmartPath™ Technology

The DeNovix team developed a combination of opto-mechanical components and software algorithms that optimize results for every sample. Micron-level pathlength control and immediate absorbance feedback deliver sensitive, accurate microvolume measurements.

**Bridge Testing™** verification eliminates unreliable results that stem from broken sample columns or loading issues. The algorithm detects unbridged samples and automatically adjusts in real-time to deliver accurate results, even for challenging 1 µL protein samples.



SmartPath algorithms ensure that the sample is only compressed, never stretched, to keep the column intact.

### Key Features

- Quantify DNA, RNA and protein using 1 µL of sample
- Widest dynamic range and lowest detection limit
- No routine maintenance or recalibration required
- Full spectrum UV-Vis analysis (190 - 840 nm)
- Single or eight channel format

### SmartQC™ Contamination Alerts

Multiple algorithms ensure confidence in results while also providing important information about possible sample anomalies.

Surface Check	SmartPath™	Bridge Testing™	Spectral Analysis	Alert	Report
Check that previous sample has been removed.	Precisely select optimum pathlength for each sample.	Dynamic monitoring and adjustment ensures that sample column is formed.	Analyze for negative spectra, absorbance, within range, calculate purity ratios and quantify.	Check against threshold purity values. Flag contaminated samples. Display user guidance.	Save and report data ready for export. Optional auto-save to network drive.

## Fluorescence



DeNovix 4-channel fluorometers increase the quantification sensitivity up to 1000x. Fluorescence mode is available either integrated into an instrument or through the convenient plug-and-play USB FX Module. DeNovix Fluorometers are compatible with a wide range of commonly used quantification assays.

### 1 Sensitivity

Extend the lower detection limit for low concentration samples. Quantify down to 0.5 pg/ $\mu$ L dsDNA.

### 2 Specificity

Selectively quantify a sample in the presence of contaminants using DeNovix Fluorescence Quantification Assays.

### 3 Total Sample QC

Combine Absorbance and Fluorescence measurements for specific quantification and reliable contamination detection.



## Cuvette Absorbance



Use standard quartz or disposable cuvettes for up to 10 mm pathlength absorbance measurements (190 - 840 nm).

Cuvette applications include nucleic acids, proteins, colorimetric assays, OD600 and custom standard curves. Systems include a cuvette block heater for Kinetics studies from 37 - 45°C.



## Models & Modes to Fit the Quantification Needs of Any Lab



### DS-11 Series

Spectrophotometer / Fluorometer  
0.0005 - 37,500 ng/ $\mu$ L (dsDNA)



### DS-8X

Eight Channel Spectrophotometer  
2 - 11,000 ng/ $\mu$ L (dsDNA)



### DS-7

Spectrophotometer  
2 - 15,000 ng/ $\mu$ L (dsDNA)



### Helium

1  $\mu$ L UV Spectrophotometer  
2 - 1,600 ng/ $\mu$ L (dsDNA)



### DS-C

Cuvette Spectrophotometer  
0.04 - 75 ng/ $\mu$ L (dsDNA)



### QFX

Fluorometer  
0.0005 - 4,000 ng/ $\mu$ L (dsDNA)



1 $\mu$ L UV-Vis



Cuvette

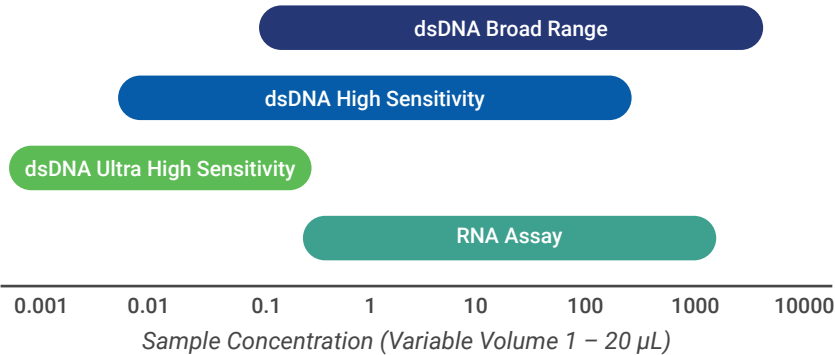


Fluorescence



Optional

# DeNovix Fluorometers & Assays Combine for Unmatched Sensitivity



- dsDNA Broad Range Assay  
0.1 – 4000 ng/ $\mu$ L
- dsDNA High Sensitivity Assay  
0.005 – 250 ng/ $\mu$ L
- dsDNA Ultra High Sensitivity Assay  
0.0005 – 0.3 ng/ $\mu$ L
- RNA Assay  
0.25 – 1500 ng/ $\mu$ L

## DS-Series Specifications

Full Specs



	DS-11 Series	DS-8X	DS-7	Helium	DS-C	QFX
Abs Wavelength Range (nm)	190 - 840	190 - 840	190 - 840	230, 260, 280	190 - 840	N/A
Abs Range (AU 1 cm equiv)	0.015 - 750	0.04 - 220	0.04 - 300	0.04 - 32	0.0008 - 1.5	N/A
Pathlength (mm)	0.5 - 0.02	0.5 - 0.03	0.5 - 0.04	0.5 - 0.04	N/A	N/A
Measurement Speed	2 sec	~10 sec (8 samples)	8 sec	5 sec	2 sec	<2 sec
AutoRun	Yes	Yes	No	No	No	No
Purity Ratios	Yes	Yes	Yes	Yes	Yes	N/A
Contamination Alerts	Yes	Yes	No	No	Yes	N/A
Wi-Fi / Ethernet	Yes		Software Updates Only	No	Yes	
Data Export	USB, Email, Network Folders, Network Printers, Label Printers		USB, Label Printers		USB, Email, Network Folders, Network Printers, Label Printers	
Colors	Arctic White, Brazilian Blue, Fire Red, Tungsten Silver			Arctic White	Fire Red	

**UV-Vis Spectrophotometer**  
(DS-11 Series, DS-8X, DS-7, Helium, DS-C)  
Light Source Xe Flash Lamp  
Detector Type 2048 Element CCD

**Spectrophotometer Cuvette Mode**  
(DS-11 FX+, DS-11+, DS-8X+, DS-7+, DS-C)  
Beam height 8.5 mm  
Heating 37 - 45°C +/- 0.5°C  
Pathlength 10, 5, 2, 1, 0.5, 0.2, 0.125 mm  
Detection Limit 0.04 ng/ $\mu$ L (dsDNA - 1 cm)  
0.002 mg/mL (BSA - 1 cm)  
Max Concentration 75.0 ng/ $\mu$ L (dsDNA - 1 cm)  
2.25 mg/mL (BSA - 1 cm)

**Fluorometer Mode**  
(DS-11 FX+, DS-11 FX, QFX, FX Module)  
LED Sources UV (375 nm), Blue (470 nm), Green (525 nm), Red (635 nm)  
Excitation Filters UV (361-389 nm), Blue (442-497 nm), Green (490-558 nm), Red (613-662 nm)  
Emission Filters 435-485 nm, 514-567 nm, 565-650 nm, 665-740 nm  
Detectors Photodiode, Detection Range 300-1000 nm  
Tube Type 0.5 mL thin-wall PCR tubes

**General Approvals**  
CE, UL/CSA, FCC, Japan CAB  
**Warranty**  
2 Year Standard

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