



# Thermo Scientific NanoDrop Products

Instruments for rapid microvolume analysis of DNA, RNA and protein samples

# NanoDrop—trusted by scientists worldwide

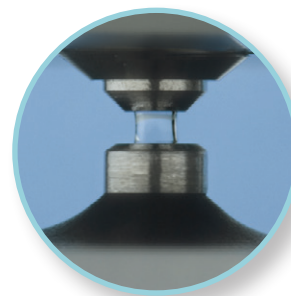
Rely on fast, accurate quantification of DNA, RNA and protein samples using only 1–2  $\mu\text{L}$  with Thermo Scientific™ NanoDrop™ microvolume instruments. No dilutions needed even for highly concentrated samples with pioneering sample-retention technology\* using optical measurement pedestals. For over 20 years and with over 55,000 citations, NanoDrop instruments have been helping scientists around the world do their best work. With preconfigured methods for common life science applications, NanoDrop instruments make a novice perform like an expert. It's as simple as pipette, measure, know!



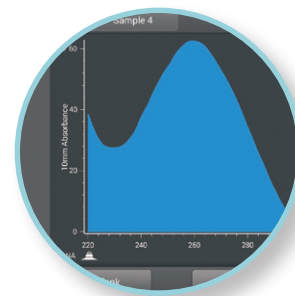
Pipette.



Measure.



Know.



NanoDrop products comparison—  
choose the instrument  
that's right for you

Instrument		Measures 1–2 $\mu\text{L}$ sample	Pre-programmed methods for life sciences	Full-spectral data	NUCLEIC ACID	
					A260	A260/A280
NanoDrop One/One <sup>c</sup>	UV-Vis	✓	✓	✓	✓	✓
NanoDrop Eight	UV-Vis	✓	✓	✓	✓	✓
NanoDrop Lite Plus	UV	✓	✓		✓	✓

1. Bradford, BCA, Lowry, Pierce 660 2. NanoDrop One and NanoDrop Eight systems use absorbance to measure fluorescently-labelled nucleic acids and



## NanoDrop One/One<sup>c</sup> UV-Vis Spectrophotometer

### Intelligent analysis, streamlined workflows

- Contaminant identification and corrected concentrations with Thermo Scientific™ Acclaro™ Sample Intelligence technology
- Touchscreen interface with guided troubleshooting and pre-programmed methods for life sciences
- Modern connectivity allows seamless data transfer to PC or network via Wi-Fi, USB, or Ethernet. Export data to Thermo Fisher™ Connect cloud-based storage and access it anytime, anywhere from any device!



## NanoDrop Eight UV-Vis Spectrophotometer

### Advanced analysis, 8 samples at once

- Measure 8 samples at a time for improved efficiency
- Acclaro Sample Intelligence technology identifies contaminants in your sample
- Pharma ready with 21 CFR Part 11 compliance software and LIMS integration




## NanoDrop Lite Plus UV Spectrophotometer

### Simple analysis, compact design

- Affordable choice for fast, easy measurements
- Measures purified DNA, RNA, and protein concentration up to 30 Abs
- Calculates critical A260/A280 and A260/A230 purity ratios
- Portable instrument requires no PC control
- Optional docking printer prints cryogenic labels

DS SAMPLES		PROTEIN AND PEPTIDE SAMPLES					Custom methods editor	High-res touchscreen interface	Requires computer to operate	Can evaluate FLR-labeled samples <sup>2</sup>	21 CFR Part 11 software option	Auto-measure capability
A260/A230	Acclaro contaminant ID	A280	A260/A280	A205	Colorimetric assays <sup>1</sup>	Acclaro contaminant ID						
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
✓		✓	✓					✓				

## NanoDrop instrument specifications

Description	NanoDrop One/One <sup>®</sup> Spectrophotometer	NanoDrop Eight Spectrophotometer	NanoDrop Lite Plus Spectrophotometer
<b>Instrument Control</b>	Built-in touchscreen or computer software	Computer software	Built-in touchscreen
<b>Minimum Sample Size</b>	1 µL	1 µL	1 µL
<b>Sample Number</b>	1	Up to 8	1
<b>Pathlength(s)</b>	0.030 to 1.0 mm auto-ranging	1.0, 0.2, 0.1 mm, auto-ranging	1.0 mm and 0.2 mm (auto-ranging)
<b>Light Source(s)</b>	Xenon flash lamp	Xenon flashlamp	Xenon flashlamp
<b>Excitation Maxima of LEDs</b>	N/A	N/A	N/A
<b>Detector Type</b>	2048-element CMOS linear image sensor	2048-element CMOS linear image sensor	2048-element CMOS linear image sensor
<b>Wavelength Range</b>	190–850 nm	190–850 nm	230 nm, 260 nm, 280 nm
<b>Wavelength Accuracy</b>	±1 nm	±1 nm	± 1 nm
<b>Spectral Resolution</b>	≤1.8 nm (FWHM at Hg 254 nm)	≤ 1.8 nm (FWHM at Hg 254 nm)	≤ 1.8 nm (FWHM at Hg 254 nm)
<b>Typical Measurement Repeatability</b>	0.002 A (1.0 mm path) or 1% CV, whichever is greater	0.002 A (1.0 mm path) or 1% CV, whichever is greater*	Typical: 0.002 A (1.0 mm path) or 1%CV, whichever is greater*
<b>Absorbance Accuracy**</b>	3% (at 0.97 A, 302 nm)	3% at 0.97 A, 302 nm, 23 ± 2 C°	3% at 0.97 A, 302 nm, 23 ± 2C°
<b>Absorbance Range (10 mm equivalent)</b>	Pedestal: 0–550A, Cuvette: 0–1.5A	0.04–200 Abs (10 mm equivalent)	0.04–30 Abs (10 mm equivalent)
<b>Lower Limit of Detection</b>	Pedestal: 2 ng/µL (dsDNA) 0.06 mg/mL (BSA) Cuvette: 0.2 ng/µL (dsDNA) 0.006 mg/mL (BSA)	2.0 ng/µL (dsDNA) 1.6 ng/µL (RNA) 0.06 mg/mL (BSA) 0.03 mg/mL (IgG)	2.0 ng/µL (1.6 ng/µL) dsDNA (RNA) 0.06 mg/mL (0.03 mg/mL) BSA. (IgG)
<b>Maximum Concentration</b>	Pedestal: 27,500 ng/µL (dsDNA) 820 mg/mL (BSA)	10,000 ng/µL (dsDNA) 8,000 ng/µL (RNA) 300 mg/mL (BSA) 145 mg/mL (IgG)	1,500 ng/µL (1,200 ng/µL) dsDNA (RNA) 45 mg/mL (21 mg/mL) BSA (IgG)
<b>Measurement and Data Processing Time</b>	8 seconds	< 20 seconds	≤ 5 seconds
<b>21 CFR Part 11 Compliance</b>	Yes	Yes	No
<b>Footprint</b>	20 × 25.4 × 32.3 cm (wdh)	24 cm x 33 cm x 17 cm (wdh)	27 cm x 22 cm x 22 cm (wdh)
<b>Weight</b>	3.6 kg	3.7 kg	2.7 kg (no printer). 3.2 kg (printer)
<b>Sample Pedestal</b>	303 stainless steel and quartz fiber	303 stainless steel and quartz fiber	303 stainless steel and quartz fiber
<b>Cuvette Position</b>	Optional (with stirring)	N/A	N/A
<b>Operating Voltage</b>	12 V (DC)	12 V (DC)	12 V (DC)
<b>Operating Power Consumption</b>	12–18 W	15 W	18 W
<b>Standby Power Consumption</b>	5 W	3 W	< 3 W
<b>Software Compatibility</b>	Standalone control. PC Software: Windows <sup>®</sup> 10 Professional (64 bit)	Windows <sup>®</sup> 10 Version 1607 Professional or Enterprise	Standalone control with data export via USB Flash Drive
<b>Advanced Connectivity</b>	 NanoDrop One Cloud Application*** Thermo Fisher Connect Platform	USB 3.0 port	USB 2.0 Port

\* SD of 10 individual measurements at 0.74 Abs • \*\* Absorbance expressed as Abs/mm measured at 25 °C • \*\*\* Visit [www.thermofisher.com/connect](http://www.thermofisher.com/connect) for details

**Service and support:** Our global teams are ready to support your NanoDrop instruments from installation and warranty to service plans. Compliance services are also available for NanoDrop One/One<sup>®</sup> and NanoDrop Eight Spectrophotometers. Ensure optimal performance, reliability, and longevity of your instrumentation with plans tailored to your needs. Contact your local sales representative for more information.

Find out more at [thermofisher.com/nanodrop](http://thermofisher.com/nanodrop)

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