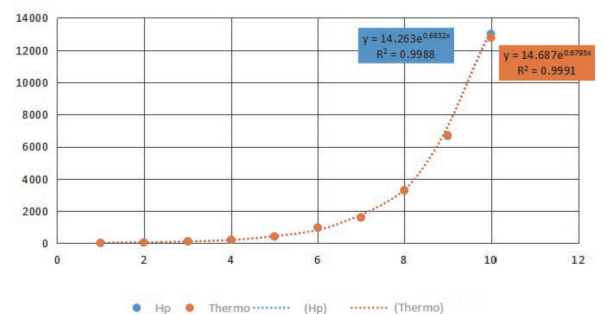


Ultramicro Spectrophotometer



Product Characteristics

- Short light-source flicker frequency helps extend light-source service life and enables faster detection with lower risk of degradation.
- Fluorescence function: with fluorescence quantitative reagents, dsDNA concentrations down to pg level can be detected.
- 4 optical-path detection technology provides improved stability, repeatability, linearity and a wider measurement range.
- Built-in printer option allows reports to be printed directly from the instrument.
- OD600 bacterial / microbial solution detection provides convenient concentration measurement for cultures and microorganisms.
- High repeatability and linearity for reliable routine measurements.



Product Introduction

Ultramicro spectrophotometer is a fast and accurate system for detecting nucleic acid, protein and cell solution concentration without preheating. Sample volume is only 0.5 to 2 µL, while cuvette mode can be used for bacteria and other culture media. The fluorescence detection function can be paired with fluorescence quantitative analysis kits to quantify DNA, RNA and protein; the minimum dsDNA concentration can reach 0.5 pg/µL.

Technical Parameters

Parameter	NBMUV-3100F	NBMUV-3100
Wavelength range	190-850 nm	190-850 nm
Optical path	0.01 / 0.02 / 0.05 mm (high concentration) 0.2 / 1.0 mm (general concentration)	0.01 / 0.02 / 0.05 mm (high concentration) 0.2 / 1.0 mm (general concentration)
Number of detection channels	1	1
Detector	HAMAMATSU UV-enhanced CMOS linear array sensing	HAMAMATSU UV-enhanced CMOS linear array sensing
Nucleic acid detection range	0-27,500 ng/µL dsDNA	0-27,500 ng/µL dsDNA
Protein detection range	0.06-820 mg/mL BSA	0.06-820 mg/mL BSA
OD600 absorbance range	0-6.000 Abs	0-6.000 Abs
OD600 absorbance stability	[0,3] ≤0.5%; [3,4] ≤2%	[0,3] ≤0.5%; [3,4] ≤2%
OD600 absorbance accuracy	[0,2] ≤0.005 A; [2,3] ≤1%; [3,4] ≤2%	[0,2] ≤0.005 A; [2,3] ≤1%; [3,4] ≤2%
OD600 absorbance repeatability	[0,3] ≤0.5%; [3,4] ≤2%	[0,3] ≤0.5%; [3,4] ≤2%
Fluorescence sensitivity	dsDNA: 0.5 pg/µL	/
Fluorescence linearity	≤1.5%	/
Sample volume requirement	0.5-2 µL	0.5-2 µL
Light absorption range	0.02-300 A (equivalent to 10 mm)	0.02-300 A (equivalent to 10 mm)
Absorbance accuracy	0.002 Abs (0.2 mm optical path)	0.002 Abs (0.2 mm optical path)
Absorbance accuracy	±1% (7.332 Abs at 260 nm)	±1% (7.332 Abs at 260 nm)
Spectral resolution	<1 nm	<1 nm
Photometric accuracy	±0.005 A or ±1%	±0.005 A or ±1%
Wavelength accuracy	±1 nm	±1 nm
Wavelength reproducibility	<±0.2 nm	<±0.2 nm
Sample wavelength scanning	190-850 nm	190-850 nm
Base measurement only	0.5-2 µL	0.5-2 µL
Sample base material	Quartz fiber and stainless steel	Quartz fiber and stainless steel
Detection time	<6 s	<6 s
Standby power consumption	5 W	5 W
Data output mode	USB	USB
Illuminant	Xenon flash lamp	Xenon flash lamp
Printer	Yes	Yes
Power adapter	24 V DC	24 V DC
Power dissipation	25 W	25 W
Overall dimension	W205 × D260 × H200 mm	W205 × D260 × H200 mm
Weight	4.05 kg	4.05 kg