

## HMS-100/HMS-300/HMS-400 Micro-Spectrophotometer

HMS-100



HMS-300



HMS-400



### Description

**1. User-friendly software, easy to use**

It is easy to use, free software updates are available

**2. Micro-volumes measuring**

Only require 0.5~2 $\mu$ l sample to accurately determine nucleic acids, proteins

**3. Fast and easy measurements**

Turn on and instantly measure without lamp warm up time; Easy measurement within 8 sec

**4. Long life's Xenon flash lamp**

Xenon flash lamp, 10 flashes, up to 10 years, no cells or cuvettes, no dilutions and expensive consumables

**5. No consumables required**

Direct microvolume measurements from 1~2 $\mu$ L of sample. Eliminates the need for expensive accessories

**6. No computer required and with touch screen (Nano-300, Nano-400)**

Nano-300 is equipped with Android system operation

**7. The Nano-100 / Nano-300 are full range of wavelength (200-800nm) detection ability; The Nano-400 is a basic UV spectrophotometer specifically designed (only three types of wavelength 230nm, 260nm and 280nm) for nucleic acids and proteins**

## HMS-100/HMS-300/HMS-400 Micro-Spectrophotometer

### 01

#### HMS-100 Highlights

1. Turn on and instantly measure without lamp warm up time;  
Full scan capability from 200-800nm within 5 sec
2. Detects Nucleic Acids up to 4500ng/ul (dsDNA)
3. 3864-Element linear silicon CCD array

### 02

#### HMS-300 Highlights

1. HMS-300 is an improved Micro-Spectrophotometer based on Nano-100 with 200-800nm. It is added a function of bacterium cell concentration detection (OD600)
2. Android system operation, 7 inch touch screen no computer, APP soft, simple interface, easy to use
3. Turn on and instantly measure without lamp warm up time;  
Full scan capability from 200-800nm within 6 sec
4. The data can be printed with built-in printer, and can output via SD-RAM Card and USB memory
5. When the HMS-300 is idly left more than 5mins, it will switch off automatically. Then, the user can awake the machine by touching the screen

### 03

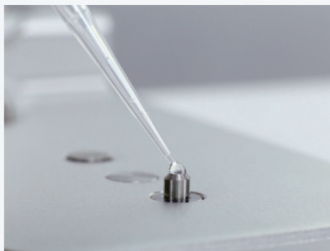
#### HMS-400 Highlights

1. HMS-400 is a basic micro-volume UV spectrophotometer designed (only 3 types of wavelength: 230nm, 260nm and 280nm) for the measurement of nucleic acids and proteins. It is added a function of bacterium cell concentration detection (OD600)
2. Android system operation, 7 inch touch screen no computer, APP soft, simple interface, easy to use
3. The data can be printed with built-in printer, the data can output via SD-RAM Card and USB memory
4. Measure nucleic acids concentration at 260nm, and purity using the 260/280 ratio. Measure purified protein at 280nm

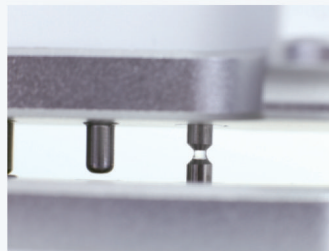


### 04

#### Easy Handling:



■ Adding sample

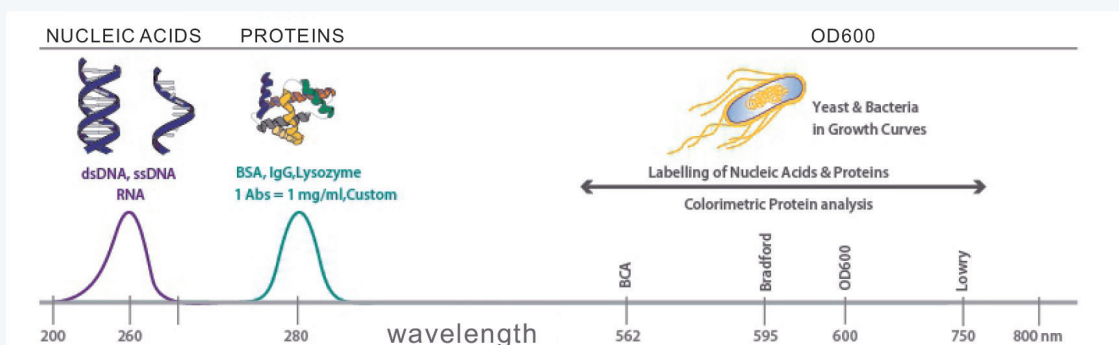


■ Measuring sample



■ quick and easy cleaning

## Applications



### Specification

Type	HMS-100	HMS-300	HMS-400
Wavelength Range	200-800nm	200-800nm	230nm, 260nm, 280nm
Minimum Sample Size	0.5-2.0 $\mu$ l	0.5-2.0 $\mu$ l	0.5-2.0 $\mu$ l
Path Length	0.2mm (High concentration) 1.0mm (Ordinary concentration)	0.2mm (High concentration) 1.0mm (Ordinary concentration)	0.2mm (High concentration) 1.0mm (Ordinary concentration)
Light Source	Xenon flash lamp	Xenon flash lamp	Xenon flash lamp
Detector Type	3864-Element linear CCD array	3864-Element linear CCD array	UV-sillion photocell
Wavelength Accuracy	1nm	1nm	—
Spectral Resolution	$\leq$ 3nm (FWHM at Hg546nm)	$\leq$ 3nm (FWHM at Hg546nm)	—
Absorbance Precision	0.003Abs	0.003Abs	0.003Abs
Absorbance Accuracy	1% (7.332Abs at 260nm)	1% (7.332Abs at 260nm)	1% (7.332Abs at 260nm)
Absorbance Range	0.02 - 90A	0.02 - 100A	0.02 - 80A
Detects Nucleic Acid up to	2-4500ng/ul (dsDNA)	10-5000ng/ul (dsDNA)	10-4000ng/ul (dsDNA)
Measurement Time	<8S	<6S	<15S
Data Output	Connect PC	USB	USB
Sample Pedestal Materia	Aluminum alloy and Quartz fiber	Aluminum alloy and Quartz fiber	Aluminum alloy and Quartz fiber
Operating Voltage	24V DC	24V DC	24V DC
Operating Power Consumption	20W	40W	25W
Standby Power Consumption	5W	5W	5W
Dimension (W x D x H)mm	200 x 250 x 166	210 x 268 x 181	210 x 280 x 181
Weight	2.6kg	3.6kg	3.6kg
Software Compatibility	WinXP, Win7, Win8	Android System	Android System
OD600nm Measurement			
Light Source	—	LED	LED
Wavelength Range	—	600 $\pm$ 8nm	600 $\pm$ 8nm
Absorbance Range	—	0-4A	0-4A

### Ordering information

No.	Code	Description
01	AS-11010-00	HMS-100 Micro-Spectrophotometer, DC24V 5W
02	AS-11020-00	HMS-300 Micro-Spectrophotometer, DC24V 5W
03	AS-11040-00	HMS-400 Micro-Spectrophotometer, DC24V 5W
04	AS-11021-01	Cuvette for HMS-300

**We are developing another new version's micro-spectrophotometer, please waiting...**