

## BOECO LIFE SCIENCE SPECTROPHOTOMETER MODEL S-300

The BOECO S-300 life science spectrophotometer allows measurement of nucleic acid concentrations and purity (using ratio function) including protein concentrations. As a high quality spectrophotometer, the S-300 features touch screen operation packaged as a lightweight system with a compact footprint for life science and education related applications.



S-300

### ► Life Science Programs

The S-300 contains onboard functions for the quantification of nucleic acid, including dsDNA, ssDNA, RNA and Oligonucleotides. The purity of the nucleic acid can also be determined with the ratio A260/A280 calculation. Protein concentrations can be measured from a range of colourimetric assays such as Bradford, Lowry, Biuret and BCA. Standard calibration data and curves can also be displayed. Furthermore, proteins can be quantified at 280nm. Bacterial cell density at 600nm can also be measured under the OD600 cell culture optical density function. It can define a bacterial culture in exponential growth phase and at the most appropriate time for harvest or induction.

### ► Compact Optics with Full Range Scanning

The single beam optics are compact resulting in significant bench space saving. The long life Hamamatsu Xenon lamp optics system in the S-300 ensures quick and reliable performance.

### ► Color Touch Screen Operation

The intuitive color touch screen provides simple access to an extensive range of function. The touch screen is sensitive to stylus or hands (with and without gloves). Icon driven on board software improves accessibility and the quick action keys are another convenience feature.

### ► Various measurement modes

In addition to the Lifescience program, the S-300 also features conventional spectrophotometer functions such as single/ multiple wavelength analysis, spectrum scanning, kinetics and concentration measurement.

### ► Optional accessories

A various selection of optional accessories is available such as flow cell with sipper, temperature control holder, long path length cuvette holder & multiple cell holder to enhance different application needs.

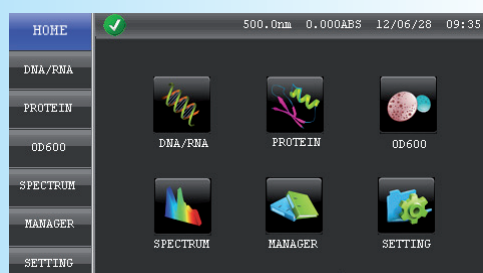
### ► Storage and data output

External storage with SD card allows data export to PC in compatible text or spreadsheet format. Free downloadable PC Software MasterReport ([www.boeco.com](http://www.boeco.com)) allows data export to PC in compatible text or spreadsheet format for further data processing in the PC.

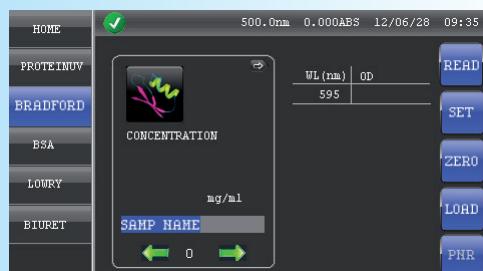
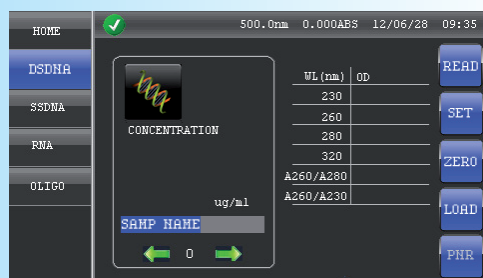
Method and result storage is almost unlimited by exchanging SD card when needed. Printer options are available for direct result printing with graphics.

### ► Validation function

To ensure optimum instrument performance, self diagnosis functions are equipped in GLP/GMP feature for performance validation and auditing.



MAIN MENU



Code	Description
BOE 8630000	Model S-300 UV/Vis Life Science Spectrophotometer, single beam with full range scanning and color touch screen operation. Supplied with installed micro cuvette holder (centre height 15mm) and with optional 10 x 10 mm cuvette holder and sample pack of 8 pcs. disposable UV Micro Cuvettes

<b>Specification</b>	<b>S-300 UV/Vis</b>
Wavelength Range:	190 to 1000nm
Wavelength Resolution:	0,2nm
Spectral Bandwidth:	5nm
Transmittance accuracy:	±1% T (NIST 930 Filter)
Transmittance repeatability:	0.50% T
Detection limit Concentration:	dsDNA 1.5 - 100µh/ml (for 100µl cell)
Noise level:	0.005 Abs ( at 250 nm)
Stray light:	≤ 0.5% T at 220, 340 nm
Wavelength accuracy:	± 2nm
Wavelength repeatability:	≤ 1nm
Absorbance:	-0.3 to 1.999
Transmittance:	0 to 199.9%
Spectrum Scanning:	Yes
Concentration:	0 to 1999
Light source:	pulsed-Xenon lamp
Detector:	Silicon photodiode
Display screen:	4,3 inches colorful touch LCD screen
Printer:	specified 80-column thermal printer (series port)
Metering mode:	Single beam
Memory:	SD card storage
Time Scan:	Graphical and calculated reaction activity
Wavelegh Scan Analysis:	Absorbance and wavelength of peaks and valleys
GLP:	Real time clock and calendar, Self Diagnosis
Size:	400 (W) x 280 (D) x160 (H) mm
Power requirement:	AC, 100-240V, 50/60Hz
Power consumption:	100VA
Communication ports:	Serial printer port connects thermal printer USB port connects PC SD card port saves data and measurement methods Accessories port connects and controls serval options
Weight:	4 kgs

## TRAYCELL

The HELMA® TrayCell is a fibre-optic ultra-micro cell designed to the UV/Vis analysis of DNA/RNA and proteins. The dimensions of the TrayCell are equivalent to a standard cuvette in order to work in most spectrophotometers.

► **Efficient accessory**  
for your spectrophotometer

► **Extremely flexible and cost-effective solution**  
for the analysis of vers smal sample volumes (0,7 - 5µl)

► **Ideal for biomolecular laboratories,**  
to perform the analysis of nucleic acids and proteins in very small volumes

<b>Specification</b>	<b>TrayCell 105.810-UVS</b>
Window material:	Quartz SUPRASIL
Wide/depth	12,5 x 12,5 mm
Height:	59,5 mm
Volume:	0,7 - 5 µl
Light path:	0,2 mm or 1 mm (± 0,02) dependng on th cap
Max. temperature:	50 °C
Centre height:	15 mm
Fibre optic cable:	built in, not exchangeable UV/Vis low solarisation 190 nm - 1.100 nm

Code	Description
HEL 105810-A3-V1-46	Tray Cell 105.810-UVS, centre height 15 mm
HEL 665-703-1-40	TrayCell Cap 665.703, 1 mm Light path
HEL 665-703-0.2-40	TrayCell Cap 665.704, 0,2 mm Light path

