1 Polarimeter AP-300

Model AP-300 is generally used in pharmaceutical, perfume, cosmetic, industrial, chemical, and food factories and is the optimal unit for measuring angle of rotation. In addition, the built-in International Sugar Scale is widely used in sugar refineries. *Atago*

The AP-300 has a manual calibration facility which allows the user to compensate for any differences to standard liquids and measurement values by other standard instruments.

Measurement range	
Angle of Rotation:	-89.99 to 89.99°
International sugar scale:	-130.00 to +130.00
Minimum Indication	
Angle of Rotation:	0.1°
International sugar scale:	0.01°Z
Measurement accuracy	
Angle of Rotation:	±0.01°
International sugar scale:	±0.03°Z
Observation tubes:	1 x 200mm and 1x 100mm
Dimensions:	48.5 x 28.5 x 17.5cm
Weight:	11.5kg

Type	PK	Cat. No.
AP-300	1	**6.227 906**

Spectrophotometer Models 7300 VIS/7305 UV-VIS

NEW!

9.775 440

Models 7300 and 7305 use icon driven software and have an improved navigation system for easy and intuitive usability. These instrument have measurement modes for absorbance, % transmittance and concentration. The 7300 and 7305 are easy to use and are ideal for use in education and general QC laboratories. *Jenway*

- Small footprint
- Autologging capabilities
- Press to read xenon lamp (7305)
- PC software included
- 3 year warranty

Supplied with: Mains lead, pack 100 disposable cuvettes, 10mm x 10mm cell holder, PC Application Software on CD-ROM and operating instructions.

Accessories available include an automatic 8 cell changer, peltier, sipper pump, combined sipper peltier pump, adjustable path length cuvette holders and micro-cuvette holders. Cuvettes and lamps available on request.

Specification

Wavelength	
Range:	320 to 1000nm (7300) 198 to 1000nm (7305)
Resolution:	1nm
Accuracy:	±2nm
Bandwidth:	5nm
Transmittance	
Range:	0 to 199.9%
Resolution:	0.1%
Stray light:	<0.5%T
Accuracy:	±1%
Absorbance	
Range:	-0.300 to 2.500A
Resolution:	0.001A
Concentration:	
Range:	-300 to 9999
Resolution:	Selectable 1/0.1/0.01/0.001
Units:	no units, %, ppm, EBC, SRM, mEq/l, mEq, M, mM, µM, nM, U, U/l, U/ml, g/l, mg/l, µg/l, ng/l, g/dl, mg/dl, µg/dl, mg/ml, µg/ml, ng/ml, µg/µl, ng/µl, mol/l, mmol/l
Outputs:	Analogue (0 to 1999mV d.c.) RS232 serial port optional integrated printer
Light Source:	Tungsten halogen (7300) Xenon lamp (7305)
Dims (WxDxH):	275 x 400 x 220mm
Weight:	6kg
Supply requirements:	24V

Type	PK	Cat. No.
7300 VIS	1	**9.775 440** 2
7305 UV-VIS	1	**9.775 441**

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1 Spectrophotometer Models 6300 VIS/6305 UV-VIS

Jenway

Models 6300 and 6305 are general purpose visible and UV/visible range spectrophotometers which are suited to a wide range of applications in education and quality control.

- Simple operation
- Versatile sampling system
- G.L.P. compliant
- Full interfacing capability
- Simple keypad and operating protocols designed to enable reliable operation by unskilled operators
- LCD gives simultaneously readout of wavelength and photometric result
- Error messages, prompts, mode indication and a choice of concentration units are presented in an easily understood format
- Cuvette holder allow 10mm to 100mm cells

Supplied with: Mains lead, pack 100 disposable cuvettes, 10 x 10mm cell holder, PC Application Software on CD-ROM and operating instructions.

Various accessories e.g. sipper pump, cells, cell holders, cuvettes and lamps available on request.

Specifications

Wavelength	
Range:	198 to 1000nm (6305) 320 to 1000nm (6300)
Resolution:	1nm
Accuracy:	±2nm
Bandwidth:	8nm, 6nm over UV range
Transmittance	
Range:	0 to 199.9%
Resolution:	0.1%
Stray light:	<0.5% at 340 & 220nm
Accuracy:	±1%
Absorbance	
Range:	-0.300 to 1.999A
Resolution:	0.001A
Concentration	
Range:	-300 to 1999
Resolution:	0.1/1
Units:	ppm, mg/l, g/l, M, blank %
Outputs:	analogue (0 to 1999mV d.c.) RS232 serial port
Light Source:	Xenon flash lamp module (6305) Tungsten halogen (6300)
Dims (WxDxH):	365 x 272 x 160mm
Weight:	6kg
Supply requirements:	230V/50Hz

Type	PK	Cat. No.
6300 VIS	1	**9.775 412**
6305 UV-VIS	1	**9.775 411**

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2 Accessories for Spectrophotometer Model 6300/6305

Jenway

Description	PK	Cat. No.
Adjustable path length cuvette holder for 10mm to 100mm cuvettes	1	**9.775 430**

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1 Spectrophotometer Models 7310/7315

NEW!

Jenway

Models 7310 and 7315 use icon driven software and have an improved navigation system for easy and intuitive usability. These instrument have measurement modes for absorbance, % transmittance , concentration, scanning, kinetics and quantitation. The 7310 and 7315 are easy to use and are ideal for routine testing in clinical, veterinary, pharmaceutical and QC laboratories.

- Small footprint
- Autologging capabilities
- Press to read xenon lamp (7315)
- Result and method storage to USB memory stick
- PC software included
- 3 year warranty

Supplied with: Mains lead, pack 100 disposable cuvettes, 10 x 10mm cell holder, 2GB USB memory stick, interface cable, PC Application Software on CD-ROM and operating instructions.

Accessories available include an automatic 8 cell changer, peltier, sipper pump, combined sipper peltier pump, adjustable path length cuvette holders and micro-cuvette holders. Cuvettes and lamps are available on request.

Specifications

Wavelength

Range:	320 to 1000nm (7310) 198 to 1000nm (7315)
Resolution:	1nm
Accuracy:	±2nm
Bandwidth:	5nm

Transmittance

Range:	0 to 199.9%
Resolution:	0.1%
Stray light:	<0.5%T
Accuracy:	±1%
Absorbance:	-0.3 to 2.500
Concentration:	-300 to 9999
Resolution:	Selectable 1, 0.1, 0.01 or 0.001
Calibration:	Blank with a single standard or factor
Quantitation:	-300 to 9999
Resolution:	Selectable 1, 0.1, 0.01 or 0.001
Calibration:	Blank with up to 6 standards
Curve fit algorithms:	Linear regression, interpolation, quadratic, quadratic through zero or linear regression through zero
Kinetics display:	Graphical rate of change, initial and final absorbance/%T and calculated concentration value against standard and factor
Spectrum:	320 to 1000nm (7310) 198 to 1000nm (7315)
Scan Data Internal:	1, 2 or 5nm selectable
Analysis:	Absorbance and wavelength of peaks and troughs
Outputs:	USB, analogue and serial RS232 optional integrated printer
Supply requirements:	24V

Type	PK	Cat. No.
7310	1	**9.775 442**
7315	1	**9.775 443**

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1 Spectrophotometers, 6700 series

Jenway

A range of three double-beam instruments:
Type 6700: Visible range scanning (320nm to 1100nm with 4nm spectral band width)
Type 6705: UV/Visible range scanning (190nm to 1100nm with 4nm spectral band width)
Type 6715: UV/Visible range scanning (190nm to 1100nm with 1.5nm spectral band width)

Modes of operation: Photometrics, Kinetics, Quantitation, Multiwavelength analysis and Spectral scanning.

Featuring:
- Fast scanning rate of 1500nm/minute with data collection at 0.1nm intervals
- Up to 20 point calibration for Quantitative analysis
- Multiwavelength mode for DNA/RNA analysis
- Secure Multi-User Operation, full password protection
- Colour (TFT) LCD with Touch-Screen Interface and sealed QWheel™Control
- Full post scan analysis (Peak/Valley pick, Peak Ratios, Area, Zoom, Wavelength table, Derivatives, Smoothing)
- Removable SD/Multi-Media Memory Card, up to 2GB available
- Plug-In Accessory Modules including 6 cell changer, Peltier devices for temperature controlled measurements and sipper systems for high throughput analysis. A full range of cuvette and test tube holders are available.

Pharos PC Software, giving full instrument control and data transfer.

Type ending A0 supplied with: automated eight-position cuvette holder, 1GB of internal memory, 2GB SD memory card, 100 disposable cuvettes, instruction manual, power cable and PC software on CD ROM with interface cable

Type ending AP additionally supplied with: internal thermal 40-column printer

Type ending B0 supplied with: single 10 x 10mm cuvette holder, 1GB of internal memory, 2GB SD memory card, 100 disposable cuvettes, instruction manual, power cable and PC software on CD ROM with interface cable

Type ending BP aditionally supplied with: internal thermal 40-column printer

Type	Printer	Cuvette holder	PK	Cat. No.
6700B0	Non	Single	1	**9.775 416**
6700BP	Internal	Single	1	**9.775 417**
6700A0	Non	8 Positions	1	**9.775 418**
6700AP	Internal	8 Positions	1	**9.775 419**
6705B0	Non	Single	1	**9.775 420**
6705BP	Internal	Single	1	**9.775 421**
6705A0	Non	8 Positions	1	**9.775 422**
6705AP	Interal	8 Positions	1	**9.775 423**
6715B0	Non	Single	1	**9.775 424**
6715BP	Internal	Single	1	**9.775 425**
6715A0	Non	8 Positions	1	**9.775 426**
6715AP	Internal	8 Positions	1	**9.775 427**

Spectrophotometer UviLine

SI Analytics GmbH

UviLine 9100 for measurements at VIS-range from 320nm to 1100nm
UviLine 9400 for measurements at UV-VIS-range from 190nm to 1100nm
Wide performance range
- measurements of absorbance, transmission and concentration up to 8 standards
- multi-wavelength e.g. for measurements of DNA/RNA or the determination of protein according to Warburg-Christian
- spectra scan with online graphic and various evaluation functions
- kinetics (short and long term measurements)

Easy accessible accessories are available on request:
Quick-lock system requires no tools.
- 10mm cell holder (standard)
- 10mm cell holder (water thermostatable)
- 10mm cell holder (peltier thermostatable from 15 - 40°C)
- cell holder from 10mm up to 100mm
- sipper (incl. flow trough cell)
- automatic 5+1 cell changer

Peltier cell holder, sipper and 5+1 cell changer can be fully controlled from the software.
Modern Interfaces
- USB A interface fort the connection of USB-sticks, keyboard or printer.
  More than 1 device can be conncected at the same time using a USB-hub.
- RS232 and USB-(B)-interfaces for the PC connection.

Specifications:

Technigue:	Single beam
Wavelength accuracy:	±1 nm
Wavelength repeatability:	< ±0.5 nm
Photometric range:	-3.3 to 3.3A
Photometric accuracy:	±0.003A (from 0- 0.3 A); 0.5 % from 0.3 to 2.5A
Photometric linearity:	< 1% at 2 A between 340 to 900nm
Stray Light:	< 0.1% at 340 and 400nm
Display:	Back graphic display with 320 x 240 signs
Data storage:	1000 values; for spectra and cinetics appr. 4 MB
Interfaces:	1 x USB master 1 x USB-slave, 1 x RS232-C
Power supply:	100 - 260V, 50/60Hz
Temperature range:	Operating temp. + 10°C to 35°C, Storage: - 25°C to 65°C
Dimensions (W x H x D):	404 x 197 x 314mm
Weight:	3.7 kg without power supply

Type	Wave-length nm	Band-width nm	Light Source	PK	Cat. No.	
UviLine 9100	320 to 1100	4	Halogen-lamp	1	**9.775 450**	1
UviLine 9400	190 to 1100	4	Xenon-lamp	1	**9.775 451**	2

Extensive accesories on request!

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9.775 450

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9.775 451

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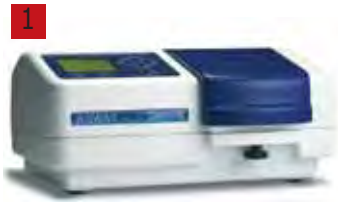

1 Spectrophotometer Life Science Analyser Genova

Jenway

- pre-programmed for DNA/RNA analysis
- DNA purity scan
- established protein methods pre-loaded
- standard spectrophotometer functions

Genova allows the standard procedures for DNA purity ratios to be measured at 260/280nm and 260/230nm with correction at a third wavelength. In all cases the product allows the standard procedures to be run immediately or a modified version to be set up.
The purity scan gives a clear and graphic display of DNA purity. Shifted or distorted peaks that may be affecting results can be identified, as can the effects of interferences and contamination.
Five established methods for protein analysis are all pre-programmed. Standard default settings for the Bradford, Lowry, Biuret, Biccinchonic and Direct UV methods are included.

Supplied with: Mains lead, 8 x 750µl UV plastic cuvettes, cell holder and operating instructions

Specifications

Wavelength Range:	198 to 1000nm
Resolution:	1nm
Accuracy:	±2nm
Spectral bandwidth:	5nm typical at 270nm
Transmittance/Resolution:	0 to 199.9%/0.1%
Absorbance/Resolution:	-0.300 to 1.999/0.001
Concentration/Resolution:	-300 to 9999/0.001, 0.01, 0.1, 1
Concentration Units:	ppm, mg/l, g/l, M, %, blank, mg/ml, µg/ml, ìg/l, ng/ml
Outputs:	Analogue and RS-232 serial
Dimensions (WxDxH):	365 x 272 x 160mm
Weight:	6kg
Supply requirements:	230V/50Hz

Type	PK	Cat. No.
Life Science Analyser Genova	1	**6.233 864**

2

2 Micro Volume Analysis TrayCell

Hellma

Fibre-Optic Micro Measuring Cell.
Accessory for standard spectrophotometer for droplet analysis.
Sample volume 0.5µl to 10µl.

Typical applications are:
- nucleic acid analysis.
- determination of the incorporation frequency of fluorescent dye labels (FOI).
- protein analysis (A280, BCA, Lowry etc.).
- all UV/Vis analysis utilising wavelength range 190nm to 1100nm.
- material: SUPRASIL® quartz.

Please state the required cell centre height (8.5mm, 15mm or 20mm) when placing your order!
TrayCell is supplied as standard with caps for both 0.2mm and 1mm light path.
Additional light path of 0.1mm and 2mm are available.

Path length mm	Description	Capacity µl	Height mm	Centre height mm	PK	Cat. No.
0,2 / 1	TrayCell	0,5 to 10	68.5 / 75 / 80	8.5 / 15 / 20	1	**6.224 913**
0,2 / 1	TrayCell	0,5 to 10	53 / 59.5 / 64.5	8.5 / 15 / 20	1	**6.230 433**

3

3 Caps for TrayCell

NEW!

Hellma

Traditional spectrophotometrical analysis of nucleic acids is carried out in 10mm cuvettes. Modern drop analysis uses light paths of 1mm and 0.2mm and it is thus not necessary to dilute the sample. In applications with very high or very low DNA concentrations these light paths are often no longer sufficient. When using the TrayCell from Hellma Analytics simply adjust the light path by exchanging the cap. Cap with integrated mirror to change the light path.

Path length mm	PK	Cat. No.
2	1	**9.145 705**
0,1	1	**9.145 706**
1	1	**6.224 914**
0,2	1	**6.224 915**

1 Photometer BioPhotometer plus

1

Eppendorf AG

The BioPhotometer plus, a compact UV/Vis photometer, is optimized for use in molecular biology, biochemistry and cell biology labs.
The photometer provides instant access to 32 routine methods, of which 9 methods are freely programmable. Measurements as well as calculations of results are performed at the press of a button. The results of the analysis and all accompanying data are available at a glance. This guarantees safe and error-free operation. In addition to its low weight, the photometer is small, yet extremely sturdy due to a robust metal housing, which allows for easy transport and cleaning. The BioPhotometer plus is designed for use with cuvettes such as the Eppendorf UVette®, but is also optimized for measurement of small volumes through the use of microliter cells. Fast and reliable analysis of nucleic acids and proteins, cell density measurements, determination of incorporation rates of fluorescent dyes in biomolecules, absorption measurement of single wavelengths, and endpoint detection for cell biological and biochemical assays.

Product features:
- 9 wavelengths suitable for the common methods in molecular biological, biochemical and cell biological labs
- Preprogrammed methods for quantification of nucleic acids and proteins as well as incorporation rate of fluorescent dyes
- Assays at 340nm, 405nm, and 490nm are user defined for highest flexibility
- Automatic calculation of dilution factors
- Measurement of single wavelengths without any calculation
- Storage of the last 100 results and all corresponding data
- Simple user guidance for error-free operation
- Compact design and robust housing
- No pre-warming required
- Stand-alone unit without need for PC connection
- Xenon flash lamp with long lifetime and high light intensity

Type	PK	Cat. No.
BioPhotometer plus	1	**9.776 608**

Accessories for BioPhotometer plus

Eppendorf AG

Description	PK	Cat. No.
Secondary UV-VIS filter	1	**9.776 604**
Thermo printer DPU 414, incl. power adapter for 230V and printer cable	1	**9.776 601**
Thermo printer paper (pk. 5 rolls)	5	**9.776 609**
UVettes, 80 x individually wrapped, disposable cells for direct use in BioPhotometer	80	**9.409 392**
UVette routine pack, Eppendorf Quality	200	**9.409 398**
Adapter for photometers/spectrophotometers with beam centre height of 8.5mm	1	**9.409 393**
Adapter for photometers/spectrophotometers with beam centre height of 10mm	1	**9.409 394**
Adapter for photometers/spectrophotometers with beam centre height of 15mm	1	**9.409 395**
Adapter for photometers/spectrophotometers with beam centre height of 20mm	1	**9.409 399**
Adapter for photometers/spectrophotometers with beam centre height of GeneQuant I/II	1	**9.409 396**
Starter kit, 80 x UVettes + 1 universal adapter for photometers/spectrophotometers with beam centre height of 15mm, convertible	1	**9.409 397**

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1 Flame Photometer PFP7

Jenway

- industrial analysis
- low temperature
- incl. Na, K, Ca, Ba und Li filters
- electronic flame failure detection
- fine & coarse sensitivity controls
- operates on propane, butane, natural gas or L.P.G. supplies

Fitted with automatic flame failure detection for user safety, making it ideal for use in clinical, industrial and educational applications.

Supplied with: Fitted with electronic flame fail safe and supplied with Na, K, Li, Ba & Ca filters, connecting hoses and clips, compressor plug, drain trap, fuses and operating/service instructions

Specifications

Ranges:	0 to 199.9ppm
Limits of detection	
Na/K:	< 0.2ppm
Li:	< 0.25ppm
Ca:	< 15ppm
Ba:	< 30ppm
Reproducibility:	< 1%/Coefficient of Variation for 20 consecutive samples using 10ppm Na set to read 50
Linearity:	Better than 2% when concentration of 3ppm Na/K and 5ppm Li are set to read 100
Specificity:	Interference from Na, K and Li equal in concentration to test element will be < 0.5%
Recorder o/p:	Nominal 1.00V for a reading of 100.0
Electrical:	90 - 125V or 190 - 250V 50/60 Hz
Air:	Moisture and oil free 6 l/min at 1 Kg/cm² (14psi)
Fuel:	Propane, Butane, natural gas or L.P.G.
Size:	420 x 360 x 300mm
Weight:	8kg
Supply requirements:	230V, 50Hz

Type	PK	Cat. No.
PFP7	1	**9.309 409**

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2 Accessories to Flame Photometer PFP7

Jenway

Please Note:
These products will only operate with the correct type of air compressor and gas regulator as specified below.

It is recommended that the filters listed below are factory fitted at the time of ordering - please specify.

Description	PK	Cat. No.
Air compressor	1	**9.309 410**
Butane regulator	1	**9.309 411**
Propane regulator	1	**9.309 412**
Natural gas regulator	1	**9.309 413**
Ca filter	1	**9.309 414**
Li filter	1	**9.309 415**
Ba filter	1	**9.309 416**
Dilutor (230V 50 Hz)	1	**9.309 417**
Water separator (small)	1	**9.309 419**
Water separator (large)	1	**9.309 420**
Dust cover	1	**9.309 421**
Minor spares kit	1	**9.309 423**
Major spares kit	1	**9.309 424**
Industrial standard 1000 ppm K	1	**9.309 425**
Industrial standard 1000 ppm Li	1	**9.309 426**
Industrial standard 3000 ppm Ba	1	**9.309 427**
Industrial standard 1000 ppm Na	1	**9.309 428**
Industrial standard 1000 ppm Ca	1	**9.309 429**

3 Secondary standards to calibrate spectrophotometers

NEW!

Hellma

Certified Calibration Standards ensure measurement results

Spectrophotometers only provide correct results in the long run, if they are recalibrated regularly. UV/ Vis calibration standards from the accredited Hellma Analytics calibration laboratory are traceable to primary standards of the NIST (National Institute of Standards and Technology) and thus assure the international comparability of measurement results. Internal quality requirements can therefore be met ideally.

Glass Filters: For testing spectrophotometers. Photometric accuracy and wavelength accuracy in the visible spectral region.

Liquid Filters: For testing spectrophotometers according to European Pharmacopoeia, wavelength accuracy, photometric accuracy, stray light behaviour, resolution.

Periodical Recalibration

Usually customers choose a recalibration of the solid filters every 12 months for the first two years of use and after that every 24 months, recalibration of the liquid filters not later than every 12 months. The periodicity of these intervals should be determined by the user and depends on the laboratory environment and the conditions of use.

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9.190 973

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9.190 980

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Accredited to DIN EN ISO 17025

Description	Dimensions (W x D x H) mm	PK	Cat. No.	
Complete Set Glass Filters	12.5 x 12.5 x 48	1	**9.190 973**	1
Complete Set Liquid Filters	12.5 x 12.5 x 48	1	**9.190 980**	2

Filters also available individually.

4 5 6 7 8 9 Macro cells

For photometers and spectrophotometers. With lid or stopper as outlined below. 45/46mm high, 12.5mm wide. Interior width 9.5mm.

Hellma

Path length mm	Material	Capacity µl	Operating range nm	PK	Cat. No.
10,0*	Optical glass	3500	360 to 2500	1	**9.144 300**
20,0*	Optical glass	7000	360 to 2500	1	**9.144 302**
50,0*	Optical glass	17500	360 to 2500	1	**9.144 350**
10,0*	HOQ 310 H	3500	230 to 2500	1	**9.144 301**
10,0**	Special optical glass	3500	320 to 2500	1	**9.144 110**
20,0**	Special optical glass	7000	320 to 2500	1	**9.144 120**
50,0**	Special optical glass	17500	320 to 2500	1	**9.144 150**
10,0**	Silica SUPRASIL®	3500	200 to 2500	1	**9.144 210**
20,0**	Silica SUPRASIL®	7000	200 to 2500	1	**9.144 220**
50,0**	Silica SUPRASIL®	17500	200 to 2500	1	**9.144 250**
10,0***	Special optical glass	3500	320 to 2500	1	**9.144 510**
10,0***	Silica SUPRASIL®	3500	200 to 2500	1	**9.144 610**

* without profiled lid or stopper. **with profiled lid. ***with stopper.
Other path lengths available - details on request.

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1 2 3 Semi-micro cells

For photometers and spectrophotometers. With lid or stopper as indicated. *Hellma*
45/46mm high, 12.5mm wide. Interior width 4mm.

Path length mm	Material	Capacity µl	Operating range nm	PK	Cat. No.
10,0	Optical glass	1400	360 to 2500	1	**9.144 360**
10,0**	Special optical glass	1400	320 to 2500	1	**9.144 410**
10,0* **	Special optical glass	1400	320 to 2500	1	**9.144 480**
10,0***	Special optical glass	1400	320 to 2500	1	**9.144 710**
10,0	HOQ 310 H	1400	230 to 2500	1	**9.144 361**
10,0**	SUPRASIL® silica	1400	200 to 2500	1	**9.144 460**
10,0* **	SUPRASIL® silica	1400	200 to 2500	1	**9.144 490**
10,0***	SUPRASIL® silica	1400	200 to 2500	1	**9.144 730**
10,0* ***	SUPRASIL® silica	1400	200 to 2500	1	**9.144 372**

* Side panels black. **with profiled lid. ***with stopper.
Other path lengths are available - details on request.

4 5

4 5 Micro cells

For photometers and spectrophotometers. *Hellma*
45mm high (46mm high with lid), internal width 2mm.

Path length mm	Material	Capacity µl	Operating range nm	PK	Cat. No.
10,0	Special optical glass	700	320 to 2500	1	**9.144 750**
10,0	SUPRASIL® silica	700	200 to 2500	1	**9.144 751**
10,0*	Special optical glass	700	320 to 2500	1	**9.144 755**
10,0*	SUPRASIL® silica	700	200 to 2500	1	**9.144 756**
10,0	SUPRASIL® silica	400	200 to 2500	1	**9.144 758**
10,0*	SUPRASIL® silica	400	200 to 2500	1	**9.144 385**

* Black side panels.

6 7 8

6 7 8 Ultra-micro cells

For photometers and spectrophotometers. 40/45mm high, *Hellma*
with PE stoppers and pipette ports. Window material: SUPRASIL® silica.
Optical range 200nm to 250nm.

Path length mm	Capacity µl	Centre height mm	Aperture mm	Chamber vol. µl	PK	Cat. No.
10,0	70	8.5	2.5 dia.	50	1	**9.144 104**
10,0	70	15.0	2.5 dia.	50	1	**9.144 098**
10,0	10	8.5	0.8 dia.	5	1	**9.144 157**
10,0	10	15.0	0.8 dia.	5	1	**9.144 156**
10,0	120	8.5	5 x 2	100	1	**9.190 965**
10,0	120	15.0	5 x 2	100	1	**9.190 968**
10,0	40	8.5	1.5 dia.	20	1	**9.144 103**
10,0	40	15.0	1.5 dia.	20	1	**9.144 099**

Alternative path lengths available on request!

1 2 3 4 Fluorescence macro/semi-micro cells

For fluorescence. All 4 windows optically worked.
45mm high (46mm high with lid), 12.5mm wide.

Hellma

Path length mm	Material	Chamber vol. µl	Operating range nm	PK	Cat. No.
10 x 10	SUPRASIL® silica	3500	200 to 2500	1	**9.144 761**
10 x 4	SUPRASIL® silica	1400	200 to 2500	1	**9.144 781**
10 x 10	SUPRASIL® silica	3500	200 to 2500	1	**9.144 771**
10 x 4	SUPRASIL® silica	1400	200 to 2500	1	**9.144 791**

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5 Fluorescence ultramicro cells

Ultramicro, for fluorimetry. 45mm high, 12.5mm wide.
SUPRASIL® silica. Wavelength range: 200nm to 2500nm.

Hellma

Path length mm	Centre height mm	Adapter	Chamber vol. µl	Capacity µl	PK	Cat. No.
3 x 3	8.5	5 x 3	45	70.0	1	**9.144 390**
3 x 3	15.0	5 x 3	45	70.0	1	**9.144 391**

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6 LLG-Disposable plastic cells

NEW!

The new generation of cuvettes with clearly improved, photometric properties. The new optimized shape and narrow wall thickness of the cuvettes provides increased heat transfer resulting in more constant sample temperatures during photometric measuremens.

- cavity sorted
- glass clear polystyrene (PS).
- applicable wavelength range 340nm to 900nm
- very low variation of extinction values
- excellent optical transmission range
- path length 10mm
- overall dimensions 12.5mm x 12.5mm x 45mm
- styrofoam racks: 100 cuvettes in a styrofoam box with a re-sealable cover

6

Description	Path length mm	Material	Operating range nm	PK	Cat. No.
Macro	10.0	PS	340 to 900	100	**9.406 011**
Semi-micro	10.0	PS	340 to 900	100	**9.406 012**

1 Disposable cuvettes

Kartell

Disposable cuvettes for spectroscopy, in optical-quality PS and UV grade PMMA with optical windows for optimum transmittance when using wavelengths from 340nm to 800nm (PS) and from 280nm to 800nm (PMMA). Moulding and quality control determine the reproducibility of cuvettes. Kartell cuvettes are strictly controlled and varations should be within the range ±1% absorption. This is the vital when batch analysis is being undertaken.
Dust proof packaging: 100 pcs in expanded polystrene box with lid, 5 boxes in inner carton and 12 inner cartons (60 boxes) per case.

Description	Path length mm	Material	Capacity ml	PK	Cat. No.
Standard cuvettes	10.0	PS	4.5	100	**9.406 431**
Semi-micro cuvettes, low form	10.0	PS	1.5	100	**9.406 432**
Semi-micro cuvettes, high form	10.0	PS	2.5	100	**9.406 433**
Standard cuvettes, 4 clear faces	10.0	PS	4.5	100	**9.406 434**
Standard cuvettes	10.0	PMMA	4.5	100	**9.406 435**
Semi-micro cuvettes, high form	10.0	PMMA	2.5	100	**9.406 436**
Semi-micro cuvettes, low form	10.0	PMMA	1.5	100	**9.406 437**
Standard cuvettes, 4 clear faces	10.0	PMMA	4.5	100	**9.406 438**

2 Accessories for standard and semi-micro cuvettes

Kartell

Description	Material	PK	Cat. No.
Disposable stirrer	PS	100	**9.406 439**
Caps for cuvettes	PP	1000	**9.406 440**
Cuvette holder for 12 cuvettes	PE	1	**9.406 441**

3 Macro and semi micro cells, PLASTIBRAND®

BRAND

Plastibrand®. Sorted by mould cavity number. PMMA or PS.
What does "sorted by mould cavity number" mean? Injection moulds which produce 8 cells in one cycle have 8 cavities. For serial analysis only cells with the same cavity number should be used, to minimise cell-to-cell variation.
Quality characteristics:
- Minimal extinction value variation.
- Optically perfect transmission range
- Recessed window, to protect against scratches
- Arrow head marking shows the direction of transmission.

Advantages to user:
- Ideal for kinetics measurements
- 1000 cells from the same cavity in each pack
- Practical packaging: clear, re-closable.

Polymethylmethacrylate (PMMA) cells
Typical operating range: from 300nm to 900nm.
Standard deviation at 320nm ±0.004 extinction units.

Polystyrene (PS) cells
Typical operative range: from 340nm to 900nm.
Standard deviation at 360nm ±0.005 extinction units.

Dimensions: 12.5mm x 12.5mm x 45mm
Window: Macro cell 10mm x 35mm
Semi micro cell 4.5mm x 23mm

Description	Path length mm	Material	Capacity ml	Operating range nm	PK	Cat. No.
Macro	10.0	PMMA	2.5 to 4.5	300 to 900	100	**9.406 111**
Semi-micro	10.0	PMMA	1.5 to 3.0	300 to 900	100	**9.406 115**
Macro	10.0	PS	2.5 to 4.5	340 to 900	100	**9.406 110**
Semi-micro	10.0	PS	1.5 to 3.0	340 to 900	100	**9.406 114**

1 Plastic disposable UV-Cuvettes for the UV/VIS range

BRAND

UV-transparent plastic Brand cuvettes replace fragile glass or quartz cuvettes in many applications that were previously beyond the range of plastic cuvettes. Designed for single use, they eliminate time-consuming washing, and the cross-contamination risk associated with washing and re-using cuvettes. Their very high chemical resistance allows use with most polar solvents, acids and alkalis (e.g. Acetone, Butanone, DMF, hydrochloric acid).
The UV-uvette micro has a working range from 220nm - sample volumes as small as 70 µl are sufficient.

The UV-Cuvette is also available in macro and semi-macro sizes for applications from 220nm to 900nm.
- Specially designed for photometric determination of proteins, ssDNA, dsDNA, TNA and oligonucleotides in the UV range.
- Ideally suited for measurements at 260 nm, 280 nm and in the visible range.
- Two different centre heights (8.5 mm and 15 mm) allow use in most commercial spectrophotometers without adapters (for more information please visit the Brand website, www.brand.de).
- Round caps provide a tight seal and allow storage of samples at -20°C.
- Coloured caps are available for easy sample identification.
- Grouped by mould cavity number to minimize extinction value variation.
- Recessed windows protect against scratching.
- Arrow indicates optical path orientation.

Description	Path length mm	Capacity µl	Operating range nm	PK	Cat. No.
UV micro cuvette (centre height 8.5 mm)	10,0	70 to 850	220 to 900	100	**9.406 120**
UV micro cuvette (centre height 8.5 mm)	10,0	70 to 850	220 to 900	500	**9.406 121**
UV micro cuvette (centre height 15 mm)	10,0	70 to 550	220 to 900	100	**9.406 122**
UV micro cuvette (centre height 15 mm)	10,0	70 to 550	220 to 900	500	**9.406 123**
Cap for UV micro cuvette, blue				100	**9.406 124**
Cap for UV micro cuvette, yellow				100	**9.406 125**
Cap for UV micro cuvette, green				100	**9.406 126**
Cap for UV micro cuvette, orange				100	**9.406 127**
UV macro cuvette	10,0	2.5ml to 4.5ml	220 to 900	100	**9.406 119**
UV semi-micro cuvette	10,0	1.5 to 3.0ml	220 to 900	100	**9.406 118**

2 3 UV cuvette UVette®

Eppendorf AG

The plastic material of the UVettes provides a transparency range of 220nm to 1600nm.
It is possible to carry out measurements in the UV range as well as the entire VIS range.
Pipetting can be monitored clearly through the crystal-clear plastic and is always completely bubble-free, even the minute 50µl sample volume. The design of the cuvette incorporates a funnel-shaped base, which prevents the capillary effect, and ensures that the liquids constantly remain in the centre of the measuring area.

Product features:
- Suitable for measuring small volumes, min. 50µl
- Individually blister-packed for sterile work
- DNA-/RNase- and protein-free
- Choice of two optical path lengths: 2mm and 10mm
- UV- and VIS-transparent between 220nm and 1600nm
- Volume markings at 500µl and 1000µl
- Total transparent material with outstanding surface properties
- Optimal filling guaranteed by tapered cuvette base
- Recessed optical window prevents scratches
- Self-standing design
- Marking possible on frosted gripping surface
- Optimal use in BioPhotometer and in most common spectrophotometers, using adapters.

Description	Path length mm	PK	Cat. No.
UVettes, 80 x individually wrapped, disposable cells for direct use in BioPhotometer	2 and 10	80	**9.409 392**
UVette routine pack, Eppendorf Quality	2 and 10	200	**9.409 398**
Adapter for photometers/spectrophotometers with beam centre height of 8.5 mm		1	**9.409 393**
Adapter for photometers/spectrophotometers with beam centre height of 10 mm		1	**9.409 394**
Adapter for photometers/spectrophotometers with beam centre height of 15 mm		1	**9.409 395**
Adapter for photometers/spectrophotometers with beam centre height of GeneQuant I/II		1	**9.409 396**
Starter kit, 80 x UVettes + 1 universal adapter for photometers/spectrophotometers with beam centre height of 15 mm, convertible		1	**9.409 397**

1

1 HELLMANEX® III liquid

NEW!

HELLMANEX® III is an alkaline liquid concentrate used for the highly effective cleaning of glass or silica cells and other sensitive optical components. Laboratory equipment made of glass, quartz, sapphire and porcelain can also be cleaned using the solution. Available in 1.3kg PE-bottle.

Hellma

Type	Capacity L	PK	Cat. No.
HELLMANEX® III	1	1	**9.190 985**

2

2 Cell rack

Grey. Plastibrand®. PP. 16 numbered positions.
Autoclavable (121°C).

BRAND

Width mm	Length mm	Height mm	PK	Cat. No.
70	210	38	1	**9.145 020**

3

3 Cell rack, PP

NEW!

Holds up to 12 cells with a 10mm light path. Rack features a hinged lid with secure clasp and a removable insert for easy cleaning. The height of the lid will accommodate the tallest of spectrophotometer cells, even those with covers or stoppers (maximum 51mm). Stackable. Autoclavable.

Heathrow Scientific

Length mm	Width mm	Height mm	PK	Cat. No.
115	121	60	1	**9.406 451**

4

4 Cell storage container, Küvibox 2

Dust-proof, rigid container for storing clean cells. Accommodates cells up to 55mm in height. Cells are immediately ready for use when required.

schuett-biotec

Küvibox 1 holds up to 16 x 10mm path length cells
Küvibox 2 holds up to 8 x 10mm and up to 4 x 20mm path length cells.

Type	PK	Cat. No.
KÜVIBOX 1	1	**9.145 124**
KÜVIBOX 2	1	**9.145 118**

5

5 Mini cell washer, Vakuwasch

PE construction. Practically unbreakable.
Glass cuvettes are washed and dried in a few seconds during one operating cycle, using a simple process.
All that is required is a filter flask (with pierced rubber bung and pressure tubing) and a slight vacuum.

schuett-biotec

Type	PK	Cat. No.
VAKUWASCH	1	**9.145 300**
Rubber bung with hole	1	**9.145 301**
Filter flask, DURAN® 500ml	1	**9.051 444**
Pressure tubing, per metre	1	**9.205 806**
Density bottle adapter	1	**9.145 305**