KEFO

LABORTOPS

valid until 30.09.2024

REFRACTOMETER ABBE 5

- **RI and Brix Scale**
- **Complete Measuring Range**
- **Incl. Carrying Case**

BS Bellingham + Stanley

a xylem brand

New

ABBE 5

Page 3

Spirit burner, 18/10 steel

USBECK
Laborgeräte

With a wick height adjuster and sealing cap.
Capacity approx. 60 ml.

Type	PK	Cat. No.
Spirit burner	1	9018560*LLG

Square Quadrupod with glass ceramic plate

USBECK
Laborgeräte

New

Plate attachment can be used as a protective table mat.
Quadruped made of stainless steel, feet removable.

Width	Depth	Height	Weight	PK	Cat. No.
mm	mm	mm	g		
120	120	210	700	1	6273251*LLG
160	160	210	900	1	6273252*LLG
200	200	210	1100	1	6273253*LLG

Safety burner, Ms-Ni

LABORBEDARF BOCHEM® LAB SUPPLY

Maximum temperature 1300 °C, with needle valve,
thermo safety element (bimetallic flame sensor with magnetic lock),
air regulator and pilot light. Nickel-plated brass and steel.
An anti-slip rubber coating under the base ensures absolute stability.

Type	Height	Rating	PK	Cat. No.
	mm	kW		
Natural gas	180	1.53	1	9018388*LLG
Propane	180	2.36	1	9018389*LLG

Gas safety tubing, rubber

DEUTSCH & NEUMANN D&N

Flexible connecting line of rubber tubing with a contracted metal spiral
and double-sided end sockets according to DVGW 5501(P).
Kink resistant. For connecting between safety gas connection fitting
according to DIN 3383-4 and gas burners for laboratories according
to DIN 30665 section 1.
For all gases according to DVGW worksheet G 260, at pressures
up to 100 mbar and temperatures up to 70 °C. Installations
according to DVGW-TRGI 2008 and DVGW worksheet G 621.
DVGW Reg.-No. DG-4607AU2366.

Length	PK	Cat. No.
mm		
500	1	9018935*LLG
750	1	9018937*LLG
1000	1	9018940*LLG
1500	1	9018945*LLG

LLG-uniREFRACTO 5 pro

LLG-uniREFRACTO 5 pro is a compact digital 3-scale handheld refractometer for measuring, e.g. Brix and refractive index of liquids. Two scales are pre-set to 0 - 95% Brix and 1.33 - 1.54 RI, the third scale can be freely selected from more than 45 different scales, including Brix, refractive index, AdBlue®, Baume, Butyro, Ethylene Glycol %, Calcium Chloride % and specific gravity. All three scales can be freely selected and changed.

- Easy switching between the three scales
- 4-digit LCD
- Automatic temperature correction

Scope of supply: Refractometer, protective cover

Specifications

Resolution:	0.1% Brix/0.0001 RI
Accuracy:	±0.2% Brix/±0.0003 RI
Operating temperature:	5 ... 40 °C
Measuring temperature sample:	5 ... 80 °C
Rel. Humidity:	< 95%
Dimensions (W x D x H):	120 x 55 x 35 mm
Weight:	180 g
Power supply:	2 x AAA/LR03
IP code:	IP 65

Type	PK	Cat. No.
LLG-uniREFRACTO 5 pro	1	6263632*LLG

Refractometer Abbe 5

- New in the Range
- Digital Display
- Made in the EU

The refractometer measures both the refractive index over a large measuring range and the Brix value, and is suitable for applications in small laboratories with low sample throughput, schools, colleges, and universities. The prism temperature is monitored electronically and shown on the integrated digital display. Dispersion measurements of solids such as glass, contact lenses, and fibre optics can be performed according to standard procedures.

- Complete measuring range 0 to 95 °Brix
- Water bath connections enable prism temperature control
- Optional LED light source for mounting on the instrument base
- Battery operation 1 x 1.5 V
- Hard case for transport and storage
- Supplied with glass calibration plate and contact liquid

Measuring range	Resolution	Temp. range °C	PK	Cat. No.
0 ... 95 °Brix	0.1 °Brix	5 ... 70	1	4694612*LLG
1.30 ... 1.70 RI	0.0005 RI			

Sucrose (Brix) Standards

Certified stabilized Sucrose (Brix) Standards.
- ISO 17025 accredited

Brix %	Refractive Index at 20 °C	PK	Cat. No.
5	1.340264 nD	1	BS05S*REA
10	1.347824 nD	1	BS10S*REA
15	1.355679 nD	1	BS15S*REA
20	1.363842 nD	1	BS20S*REA
30	1.381149 nD	1	BS30S*REA
40	1.399860 nD	1	BS40S*REA
50	1.420087 nD	1	BS50S*REA
60	1.441928 nD	1	BS60S*REA

Light microscopes Panthera C

Motic MORE THAN MICROSCOPY

Ideal for Training Purposes

Upright transmitted light microscopes for teaching, research and diagnostics. High-quality optics and digital features make them particularly suitable for professional users.

- Tube type Boiling Pot, swivelling
- Wide-field eyepieces for spectacle wearers with dioptre adjustment on both eyepieces
- CCIS® Plan Achromat objectives UC PL nosepiece, rear-facing, coded
- Focussable Abbe condenser with iris diaphragm and sliding slit
- Illumination according to Köhler, with replaceable illuminant
- With Motic LightTracer (Intelligent Light Management): LED brightness display, memory illumination intensity, automatic switch-off, mode display

Scope of delivery: Microscope, eyecups, blue filter, LED and halogen module, immersion oil (5 ml), Allen key, dust cover, mains cable

Specifications

Inclination Tube:	25°
Angle of rotation Tube:	360°
Eyepieces:	Widefield UC-WF10X/22 mm
Nosepiece:	Quintuple
Objectives:	Spring: 4X/0.10 (WD 30.5 mm), 10X/0.25 (WD 17.4 mm), 40X/0.65 (WD 0.6 mm), Spring/oil: 100X/1.25 (WD 0.16 mm)
Interpupillary distance:	48 ... 75 mm
Condenser:	N.A. 0.90/1.25 Abbe condenser
Illumination:	3 W LEDs/30 W Halogen
Focusing stroke:	25 mm
Dimensions Stage (W x D):	185 x 145 mm
Dimensions (W x D x H):	210 x 282 x 394 mm
Netweight:	8.4 kg
Power supply:	110 ... 240 V, 50/60 Hz

Type	Description	PK	Cat. No.
Panthera C2	Trinocular	1	4681955*LLG

C-Mount camera adapter

Motic MORE THAN MICROSCOPY

Description	PK	Cat. No.
Adapter C-Mount 0.5x	1	7626193*LLG

Microscope Camera MOTICAM S

Motic MORE THAN MICROSCOPY

New Generation

The next generation of Moticams offers solutions for a wide variety of applications in digital microscopy. Compact and robust, equipped with high-quality sCMOS sensors with many different resolutions and a fast USB 3.1 connection.

Type	Resolution	Sensor format	PK	Cat. No.
S1	1.2 MP (max. 1280 x 950 px)	1/3'' sCMOS	1	4672118*LLG
S3	3 MP (max. 2448 x 1536 px)	1/2.8'' sCMOS	1	4672119*LLG
S6	6 MP (max. 3072 x 2048 px)	1/1.8'' sCMOS	1	4672120*LLG

Square cover slips

epredia Enhancing precision cancer diagnostics

Made of D263 M borosilicate glass.
Accurate cutting free of flaws and blisters.

Width	Length	Thickness	PK	Cat. No.
mm	mm	mm		
15	15	0.13-0.16	200	9161015*LLG
18	18	0.13-0.16	200	9161018*LLG
20	20	0.13-0.16	100	9161019*LLG
22	22	0.13-0.16	100	9161023*LLG
24	24	0.13-0.16	100	9161025*LLG
26	21	0.13-0.16	100	9161021*LLG
32	24	0.13-0.16	100	9161032*LLG
40	24	0.13-0.16	100	9161040*LLG
50	24	0.13-0.16	100	9161050*LLG
60	24	0.13-0.16	100	9161060*LLG

Microscope slides

epredia Enhancing precision cancer diagnostics

According to ISO 8037/1. Prewashed and polished.
Nominal thickness 1 mm. Size 76 x 26 mm.
Also available with 20mm, frosted, writing patch at one end.

Type	Description	Edge finish	PK	Cat. No.
Without frosted end	Extra white	Cut	50	9161110*LLG
With frosted end	Extra white	Cut	50	9161145*LLG
Without frosted end	Extra white	Ground 45°	50	9161120*LLG

Photometer PrimeLab 2.0 Starter-Kit, all parameters activated, except turbidity (NTU)/PTSA/Fluorescein

WATER-I.D.
WATER TESTING EQUIPMENT ●●●

- Large Colour Touch Display
- 18 Different Wavelengths
- 140 Different Parameter Methods

The photometer with 18 different wavelengths
(3 sensors with 6 wavelengths each) covers the entire
visible spectrum as well as important parts of the UV and IR spectrum.

- 5.5" colour HD touch display
- More than 140 different parameter methods
- Auto-calibration function
- Intelligent OTZ (One-Time-Zero) function
- Can be used with 1 ml, 16 mm and 24 mm cuvettes

Scope of delivery: Multitest Photometer PrimeLab 2.0, carrying case,
10 x 24 mm/10 ml cuvettes with cap, light protection cap, 16 and
24 mm cuvette adapter, stirring rod, 10 ml plastic syringe, cleaning
brush, battery charger with USB cable type C, 20 ml Luer-Lock syringe,
filter adapter, 2 cans with 50 filter papers, 100 ml can with cap

Specifications

Spectral range:	390 ... 950 nm, 18 wavelengths
Ambient temperature:	5 ... 45 °C
Rel. humidity:	30 ... 90%
Internal memory:	150.000 measurements
Datatransfer:	WiFi, GSM
Software:	LabCOM software, LabCOM App, LabCOM Cloud
Power supply:	8500 mA Li-Io battery, 5 V power supply with adapters
Dimensions (W x D x H):	100 x 255 x 59 mm
Weight:	715 g
Protection class:	IP 54
Warranty:	2 years

Type	PK	Cat. No.
PrimeLab 2.0 Starter-Kit	1	6322094*LLG

Spectrophotometer LLG-uni*SPEC* 1

- Universally Applicable
- Stand-alone Device

LLG LABWARE

WARRANTY 3 YEARS

LLG-uni*SPEC* 1 UV/VIS spectrophotometer is the ideal device for various
routine laboratory applications including quality control, basic research
and education.

- Standalone unit with large 2.5" LCD Display
- Automatic wavelength setting

Scope of supply: Spectrophotometer, dust cover, manual,
4 glass cuvettes, 2 quartz cuvettes

Specifications

Optical system:	Single beam, grating 1200 lines/mm
Wavelength range:	190 ... 1000 nm
Bandwidth:	2 nm
Wavelength setting:	Auto
Photometric accuracy:	±0.5% T
Photometric range:	-0.3 ... 3 A, 0 ... 200% T, 0 ... 9999 C
Photometric mode:	T, A, C, F
Stray light:	≤0.1% T
Photometric stability:	≤0.002 A/30 min
Display:	LCD, 128 x 64 Dots
Detector:	Silicon photodiode
Light source:	Tungsten and deuterium lamp
Output:	USB port, parallel port
Dimension (W x D x H):	420 x 280 x 180 mm
Weight:	12 kg
Power supply:	85 ... 250 V

Type	Plug type	PK	Cat. No.
LLG-uni*SPEC* 1	EU/UK	1	6263636*LLG

Colorimeter Ultrospec 35c

Compact, portable colourimetre for measuring the
absorbance/transmission of liquid samples in a cuvette or
test tube at a specified wavelength to determine the molecular
concentration.

- Large, backlit 4.3" LCD colour touchscreen display
- Modes: Absorbance, % transmission, kinetics
- Selectable wavelengths: 450, 500, 520, 540, 600, 640 nm

Scope of supply: Colorimeter, USB-C cable, 8 cuvettes, quick start
guide, power supply with plug adapter EU, UK, China/AUS, US

Specifications

Wavelength range:	450 ... 640 nm
Spectral bandwidth:	40 nm
Photometric range:	0.3 ... 2.0 A
Photometric accuracy:	<±0.05A 1A
Photometric repeatability:	±0.02A at 1A
Dimensions (WxDxH):	170 x 210 x 50 mm
Weight:	0.6 kg
Power supply:	100 ... 240 V, 50/60 Hz

biochrom

- Ideal for Determining Concentration
- Large LCD Display

New

Type	PK	Cat. No.
Ultrospec 35c	1	4693771*LLG

Cell density meter Ultrospec 30

biochrom

- Colour Touch Display
- Ideal for Life Science
  Applications

New

Compact, portable device for measuring the density of cells in suspension at 600 nm. Ideally suited for microbiology applications such as plasmid amplification, antibiotic studies, and for performing growth phase analysis in bacterial and yeast suspensions.
With the Ultrospec 30, standard curves can be generated using absorbance values or McFarland standards and stored for future quantification.

- Large, backlit 4.3" LCD colour touchscreen display
- USB ports for exporting measurement data
- Intuitive menu arrangement
- Storage of measurement data
- Easy cleaning and maintenance

Scope of supply: Cell density meter, USB-C cable, 8 cuvettes, quick start guide, power supply with plug adapter EU, UK, China/AUS, US

Specifications

Wavelength:	600 nm
Spectral bandwidth:	40 nm
Photometric range:	0.3 ... 2.0 A
Photometric accuracy:	$<\pm0.05A$ 1A
Photometric repeatability:	$\pm0.02A$ at 1A
Illuminants:	LED
Dimensions (WxDxH):	170 x 210 x 50 mm
Weight:	0.6 kg
Power supply:	100 ... 240 V, 50/60 Hz

Type	PK	Cat. No.
Ultrospec 30	1	4693767*LLG

Hydrometers, relative density (S.G.)

Shot poised. Without thermometer.
Reference temperature: +20 °C.

Length	Measuring range	Sub-divisions	PK	Cat. No.
mm	g / ml	g / ml		
280	0.800 - 1.000	0.002	1	9004008*LLG
280	1.000 - 1.200	0.002	1	9004010*LLG
280	1.200 - 1.400	0.002	1	9004012*LLG
280	1.400 - 1.600	0.002	1	9004014*LLG
280	1.600 - 1.800	0.002	1	9004016*LLG
300	1.000 - 1.500	0.005	1	9004060*LLG
300	1.500 - 2.000	0.005	1	9004065*LLG

Density meters DMA 35

Anton Paar

Ex

- Portable
- Large Display
- Oscillator Principle

Portable, digital measuring device for the determination of density, relative density and concentration. DMA 35 EX and DMA 35 EX Petrol are certified according to ATEX for applications in hazardous environments.

- On-site measurements for fast reactions
- Oscillator principle (borosilicate glass oscillator)
- Sample filling via manual filling pump or syringe
- Measuring of density, relative density, alcohol concentration, sugar/extraction concentration, API functions, H_2SO_4 concentration, ten programmable custom-specific measuring units
- Robust case with exchangeable cell
- 3 years warranty

Scope of supply: Density meter, filling tube, adapter for syringe filling, syringes, transportation case, rubber protection for measuring cell, 3 x batteries, allen key, instructions.

Specification

Density range:	0 ... 3 g/cm³
Resolution:	0.0001 g/cm³
Accuracy:	±0.001 g/cm³
Sample temperature range:	0 ... 100 °C
Temperature measurement range:	0 ... 40 °C
Resolution:	0.1 °C
Accuracy:	±0.2 °C
Reproducibility standard deviation (acc. to ISO 5725):	0.0007 g/cm³
Sample volume:	2 ml
Data memory:	1024 measurement results, 250 sample IDs, 30 measuring methods
Display:	coloured LCD, self-rotating
Interfaces:	Bluetooth®, RFID
Dimensions (W x D x H):	103 x 245 x 126 mm
Weight:	660 g
Power supply:	3 x Mignon alkaline batteries, 1.5 V LR06 AA
IP code:	IP 54

Type	PK	Cat. No.
DMA 35 Standard	1	6313803*LLG
DMA 35 EX	1	6313804*LLG
DMA 35 EX Petrol	1	6313805*LLG

You can find our complete range on our website.

Thermohygrometer testo 608

testo 608-H1

Continuous monitoring of indoor climate
The testo 608-H1 continuously measures humidity, temperature and dew point.
As a precise alarm hygrometer, the testo 608-H2 reliably reports when limit values for humidity and temperature are exceeded.

- Continuous display of temperature and humidity or dewpoint
- With dew point calculation and max/min display
- Battery monitoring

Additional features testo 608 H2:
- LED alarm, warns if limits are exceeded
- High accuracy ±2%rH

Specifications	testo 608-H1 // testo 608-H2
Power supply:	9 V block battery
Dimensions:	111 x 90 x 40 mm
Measuring range:	0 ... 50 °C // -10 ... 70 °C
Accuracy (at 25 °C):	±0.5 °C (±1 digit)
Measuring range:	10 ... 95% rH // 2 ... 98% rH
Accuracy (at 25 °C):	±3% rH // ±2% rH
Operating temperature:	0 ... 50 °C // -10 ... 70 °C

Type	PK	Cat. No.
testo 608-H1	1	9726964*LLG
testo 608-H2	1	9726965*LLG

Laboratory Max./Min. thermometer

DOSTMANN electronic GmbH

Display of current, highest and lowest temperature, hold function, alarm at freely adjustable temperature values optical and audibly (upper/lower limit), selectable °C/°F readout.

Specifications
Sensor:	NTC
Resolution:	0.1 °C
Response time t90:	appr. 15 seconds in water
Dimensions (L x W x H):	86 x 57 x 30 mm
Sensor tube (L x diam.):	30 x 5 mm
Weight:	100 g

Type	Measuring range °C	Accuracy (±) °C	Cable m	PK	Cat. No.
LT102	-50 ... 70	1	3	1	9851022*LLG

Standard PDF Data Logger EBI 300

EBI 300   EBI 300 TE   EBI 300 TH

PDF data logger with different temperature sensors.

- For temperature monitoring HACCP/IFS
- Analysis without software, as automatically generated PDF
- The simple use of the EBI 300 minimises application errors, training and IT costs.
- Complies with EN 12830, ATP, VO(EG) 37/2005

EBI 300: PDF data logger with internal temperature sensor

EBI 300 TE: PDF data logger with external temperature sensor, internal temperature sensor can be used additionally
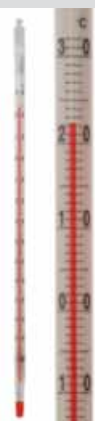
EBI 300 TH: PDF data logger with external humidity and temperature sensor, internal temperature sensor can also be used

Specifications
Ambient Temperature:	-30 to +70 °C
Measuring range Temp. EBI 300/300 TH:	-30 to +70 °C
Measuring range Temp. EBI 300 TE:	-35 to +70 °C
Measuring range Humidity EBI 300 TH:	0 to 100% r.F.
Memory:	40.000 samples
Alarms:	2 values
IP code:	IP 65

Type	PK	Cat. No.
EBI 300	1	7655865*LLG
EBI 300 TH	1	6266910*LLG
EBI 300 TE	1	6266911*LLG

LLG-Low temperature thermometers, -200 to 30 °C

Suitable for official calibration. Enclosed scale type, 8 to 9 mm diameter, with translucent glass scale and Richter seal. Prismatic, uncoated measuring capillary. The -200 to 30 °C thermometer has a luminous blue measuring capillary and is pentane-filled. Further thermometers are available, red toluene filled with uncoated measuring capillary. Graduated every 1 °C.

Measuring range °C	Length mm	PK	Cat. No.
-50 ... 50	300	1	9235705*LLG
-100 ... 30	300	1	9235710*LLG
-200 ... 30	300	1	9235720*LLG

You can find our complete range on our website.

Label printer DYMO® LabelWriter™ 550 Turbo

DYMO

Ethernet interface enables LAN network connectivity.

Scope of supply: Label printer, 1 x label starter roll (28 x 89 mm), power adapter, power cable, USB cable, quick start guide

Max. label width:	59 mm
Print speed:	90 labels/min.
Weight:	645 g
Power supply:	24 V, 2.5 A

Type	External dimensions (W x D x H) mm	PK	Cat. No.
DYMO® LabelWriter™ 550 Turbo	127 x 187 x 136	1	4687586*LLG

High-performance labels LabelWriter™ for DYMO® label printers 550 Turbo, white

LW Labels with industrial adhesive for secure, permanent adhesion to many surfaces, such as paper, plastic, metal, wood, and glass.

Package contents	Dimensions (D x W) mm	PK	Cat. No.
1 roll with 800 labels	32 x 57	1	4687583*LLG
2 rolls with 450 labels	19 x 64	1	4687578*LLG
2 rolls with 350 labels	25 x 89	1	4687579*LLG
2 rolls with 850 labels	25 x 25	1	4687580*LLG

Culture tubes, Borosilicate glass 3.3, screw cap

schuett-biotec.de

Heavy walled, thickness 1.1 mm. Wide neck for easy inoculation and cleaning. Complete with aluminium screw cap (autoclavable/sterilisable) or plastic screw cap (steam autoclavable at 121 °C/sterilisable) and rubber seal.

Diam. mm	Nominal capacity ml	Length mm	Screw cap	PK	Cat. No.
16	15	98	Aluminium	100	9010612*LLG
16	20	150	Aluminium	100	9190600*LLG
16	15	98	Plastic	100	9010613*LLG
16	20	150	Plastic	100	9190605*LLG
25	50	150	Plastic	100	9010620*LLG

Tubes, culture, Soda-lime glass, screw cap

schuett-biotec.de

Complete with aluminium screw cap (autoclavable/sterilisable) or plastic screw cap (steam autoclavable at 121 °C/sterilisable) and rubber seal.

Diam. mm	Nominal capacity ml	Length mm	Screw cap	PK	Cat. No.
12	3	35	Aluminium	100	9010608*LLG
14	5	50	Aluminium	100	9010602*LLG
27	15	45	Aluminium	100	6266815*LLG
27	20	50	Aluminium	100	6264629*LLG
27	30	75	Aluminium	100	6266816*LLG
14	5	50	Plastic	100	9010603*LLG
27	15	45	Plastic	100	9010610*LLG
27	20	50	Plastic	100	9010611*LLG
27	30	75	Plastic	100	9010601*LLG

Gel pens Sharpie® S-Gel

Gel pen with ribbed soft-touch grip.

Colour	Line width mm	PK	Cat. No.
black	0.7	12	4687591*LLG
blue	0.7	12	4687595*LLG
red	0.7	12	4687594*LLG

Industrial jerrycans, HDPE

KAUTEX
A Textron Company

Natural. Jerrycans with capacity of 2 to 20 L. **Please order closures separately.**

Capacity	Dimensions (W x D x H)	Thread external diam.	PK	Cat. No.
L	mm	mm		
2.0	145 x 109 x 196	45	25	4679547*LLG
2.5	153 x 115 x 208	45	25	4679548*LLG
3.0	153 x 115 x 240	45	25	4679550*LLG
10.0	230 x 190 x 310	50	10	4679546*LLG
5.0	190 x 145 x 251	50	16	4679551*LLG
20.0	290 x 246 x 385	60	6	4679549*LLG

Screw caps with tear-off ring for jerrycans, HDPE

For	Colour	PK	Cat. No.
2 / 2,5 / 3 l	Red	10	9140012*LLG
5 / 10 l	Red	10	9140013*LLG
20 l	Red	10	9140014*LLG
5 / 10 l	Black	10	9140015*LLG

Erlenmeyer flasks, wide mouth, PMP, GL 45, with red screw cap, PP

VITLAB
Competence in Labware

Transparent. Suitable for microwaves.
Cleaning up to max. 60° is recommended to protect the printing.

Nominal capacity	Grad.	PK	Cat. No.
ml	ml		
75	10	1	56695*VITL
125	20	1	56795*VITL
250	50	1	56895*VITL
500	100	1	56995*VITL
1000	200	1	57095*VITL

Wide-mouth bottles, soda-lime glass, clear

rixius

! Topseller

Round thread neck by DIN 168.
Please order screw caps separately.

Capacity	Diam.	Height	Neck thread	PK	Cat. No.
ml	mm	mm	GL		
1000	103.5	180.5	68	18	7960506*LLG

Screw caps for wide-mouth bottles, PP/LDPE

Cap PP, seal LDPE

Neck thread	Material	For bottles	PK	Cat. No.
GL		ml		
68	PP	1000	100	9072197*LLG

LLG-Round bottom flasks with standard ground joint, borosilicate glass 3.3

With standard ground joint and white inscription.
Acc. to DIN ISO 4797.

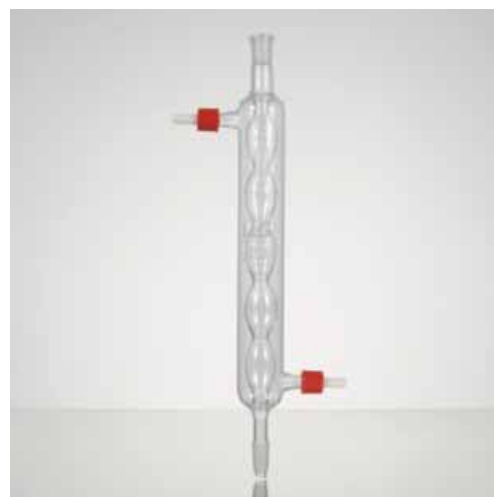| Capacity	Ground size	Height	PK	Cat. No.
ml	NS	mm		
50	29/32	90	2	4686129*LLG
100	29/32	105	2	4686133*LLG
250	29/32	140	2	4686134*LLG
500	29/32	163	2	4686138*LLG
1000	29/32	200	1	4686141*LLG
2000	29/32	240	1	4686143*LLG

LLG-Separating funnel acc. to Squibb, borosilicate glass 3.3

Separating funnel acc. to Squibb with PTFE stopcock.
- DIN ISO 4800
- With standard ground joint and stopper
- White Graduation

Nominal capacity	Bore	Ground size	PK	Cat. No.
ml	mm	NS		
50	2.5	19/26	1	4686263*LLG
100	2.5	19/26	1	4686264*LLG
250	4	29/32	1	4686265*LLG
500	4	29/32	1	4686266*LLG
1000	6	29/32	1	4686267*LLG
2000	6	29/32	1	4686268*LLG

LLG-Two-neck round bottom flasks with standard ground joint, borosilicate glass 3.3, angled side neck

Side neck at 20° angle to the middle neck.
With white inscription. Acc. to DIN 12394.

Nominal capacity	Dimensions (dia. x H)	Centre neck	Side necks	PK	Cat. No.
ml	mm	NS	NS		
50	51 x 92	14/23	14/23	1	4686152*LLG
100	64 x 107	14/23	14/23	1	4686153*LLG
250	85 x 142	14/23	14/23	1	4686155*LLG
100	64 x 107	29/32	14/23	1	4686154*LLG
250	85 x 142	29/32	14/23	1	4686156*LLG
500	105 x 165	29/32	14/23	1	4686157*LLG
1000	131 x 203	29/32	14/23	1	4686158*LLG

LLG-Condenser acc. to Allihn, borosilicate glass 3.3

For condensing vapours.
Water connection with with PP olives.
With standard ground cone and socket.
Acc. to DIN 12576.

Effective length	Cone	Socket	PK	Cat. No.
mm	NS	NS		
250	29/32	29/32	1	4686196*LLG
400	29/32	29/32	1	4686197*LLG

LLG-Serological pipettes, PS, sterile

Topseller

LLG LABWARE

All LLG serological pipettes are plugged, sterile, pyrogen-free and have an increased volume capacity through extra graduations.

- Also available as short pipettes (5 ml, 10 ml and 25 ml) or wide-mouth pipettes (10 ml)
- Single-packed in easy-to-open plastic/paper packaging

Volume	Grad.	Colour code	Negative graduations	PK	Cat. No.
ml	ml				
1	1/100	yellow	0.3	500	9380440*LLG
2	1/50	green	0.6	500	9380441*LLG
5	1/10	blue	3	200	7930401*LLG
10	1/10	orange	3	200	6268240*LLG
10	1/10	orange (wide mouth)	3	200	9380442*LLG
25	2/10	red	8	150	7930403*LLG
50	5/10	purple	10	100	9380443*LLG
5	1/10	blue (short form)	3	200	6265881*LLG
10	2/10	orange (short form)	10	150	6265882*LLG
25	5/10	red (short form)	9	100	6265883*LLG

Media Bottles Nalgene™, PETG, square, with screw cap, HDPE

Clear. For the storage of pH-sensitive liquids, such as culture media.

- Gamma-sterilized
- Pyrogen-free
- Non-cytotoxic
- Leakproof
- Reduced permeability of CO_2 and O_2
- USP class VI

thermo scientific

Capacity	Diam.	Height	Neck diam. int.	PK	Cat. No.
ml	mm	mm	mm		
30	38	64	14	280	4661898*LLG
60	41	82	18	200	7662116*LLG
125	53	109	28	96	6289580*LLG
250	59	145	28	60	4666084*LLG
500	74	177	28	40	4652706*LLG
1000	94	220	28	24	7634832*LLG
2000	116	271	39	12	7633706*LLG

Aspirator LLG-uni*VACUUSYS*

LLG LABWARE

- Integrated vacuum pump with vacuum control
- Self-closing connectors for quick installation and prevention of liquid or aerosol escape
- **Liquid level sensor** prevents liquid overflow
- Autoclavable waste collection bottle and nozzle

Scope of supply: Vacuum Aspiration System with integrated vacuum pump, 4-litre waste collection bottle, single channel needles and 8-channel needle aspirator handles, single channel and 8-channel adaptor for 200 μl pipette tips, single channel adaptor for 1000 μl pipette, tubing and quick-connectors

Specifications

Vacuum range:	0 ... 600 mbar (adjustable)
Aspiration rate:	1 ... 15 ml/s
Noise emission:	<50 dB(A)
Dimensions (W x D x H):	180 x 320 x 530 mm
Weight:	3.4 kg
Power supply:	100 ... 240 V, 50/60 Hz

Type	Plug type	PK	Cat. No.
LLG-uni*VACUUSYS*	EU	1	6263585*LLG
LLG-uni*VACUUSYS*	UK	1	6263586*LLG

Filter units, PES membrane, sterile

JET BIOFIL®

These bottle-top filter units are ideally suited for separating or purifying samples contained in large volumes.

- Bottle-top filter and reservoir bottle are included
- Lightweight and stable wall construction
- Pyrogen-free

Capacity	Pore size	Neck thread	PK	Cat. No.
ml	μm	mm		
250	0.22	45	12	6267180*LLG
250	0.45	45	12	6267181*LLG
500	0.22	45	12	6267182*LLG
500	0.45	45	12	6267183*LLG
1000	0.22	45	12	6267184*LLG
1000	0.45	45	12	6267185*LLG

⚠️ - Made in Germany
- High Quality from Brand

BRAND

Single PCR tubes with attached caps, PP

🔄 A 121 °C

Colourless 0.2 ml and 0.5 ml PCR tubes with attached lids are suitable for use in thermal cyclers with heatable lids from all common manufacturers.

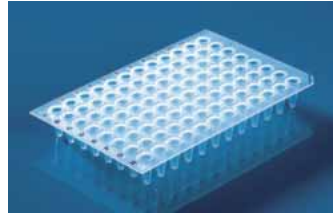| Capacity	Description	PK	Cat. No.
ml			
0.2	domed cap	1000	9409370*LLG
0.2	flat cap	1000	9409371*LLG
0.5	flat cap	1000	9409372*LLG

Strips of 8- PCR tubes plus detached cap strips, PP
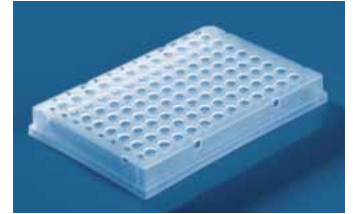
🔄 A 121 °C

Colourless 8 contiguous 0.2 ml tubes. The separate lids are also available in strips of 8 or 12. Extra thin, even walls for optimum heat transfer. Made of high-quality polypropylene, RNase-, DNase- and DNA-free.

Capacity	Description	PK	Cat. No.
ml			
0.2	without caps	125	9409374*LLG
0.2	with separate flat caps	250	4007894*LLG
0.2	with separate domed caps	250	4007895*LLG

96 well PCR-Plates, PP, for PCR or qPCR

9409247*LLG	9409351*LLG

The particularly thin-walled design of the PCR plates enables even, fast and precise heat transfer. The edges of the wells are shaped to protect against cross-contamination and allow reliable sealing with the sealing mats designed for the plates. With blue alphanumeric coding and cut corners for easy orientation, or as indicated.

96-well, non-skirted
PP. 0.2 ml wells. 96-well non-skirted PCR plates are suitable for most commercially available thermocyclers.

96-well, semi-skirted
PP. 0.2 ml wells. 96-well semi-skirted PCR plates can easily be labelled or tagged with a barcode.

96-well, skirted
PP. 0.2 ml wells. 96-well-skirted PCR plates are especially rigid and are optimally suited for use with automatic pipetting systems and for being transported.

Description	Volume	Cut corner	PK	Cat. No.
	ml			
Low Profile, non-skirted	0.15	H12	50	9409247*LLG
Low Profile, semi skirted	0.15	A12	50	9409256*LLG
Low Profile, fully skirted*	0.15	H1	50	9409351*LLG
Standard profile, non-skirted	0.20	A12	50	9409254*LLG
Standard profile, semi skirted	0.20	A12	50	9409264*LLG
Standard profile, non-skirted, elevated rim	0.20	H12	50	9409381*LLG

*Black alphanumeric code, no additional markings on the cut corner.
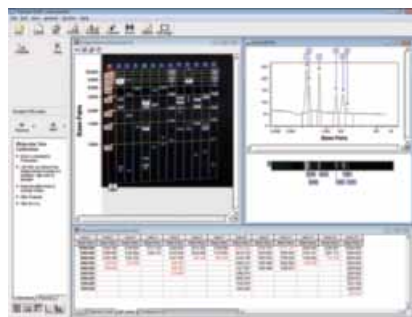
Sealing Films, Self-adhesive, PES

In case the microplates, PCR- and Deepwellplates need not only to be covered but also securely sealed, self-adhesive sealing films are available. These film sheets can be easily applied on the plates and removed also without the use of expensive equipment. They are available in different versions and are especially well-suited for storage or cell- and tissue culture.

Description	Application	PK	Cat. No.
single film	ELISA, PCR	100	9409386*LLG
single film, highly transparent	ELISA, Real-Time PCR	100	4000237*LLG

Gel documentation system microDOC with UV-Transilluminator

Ideal for Training Purposes

Cleaver SCIENTIFIC

Data transfer to the computer is possible with the optional TotalLab™ 1D software. Use in conjunction with any 21 x 21 cm UV transilluminator. Data storage on the memory card is possible in RAW, TIFF-RGB and JPEG.

microDOC BASIC: The microDOC BASIC is a simple low-cost system comprising a lift-off dark room hood and a 24.1-megapixel digital camera, through which the gel is viewed directly. This system can be supplied with optional TotalLab™ 1D Analysis Software and any one of the 21 x 21 cm transilluminators (please enquire).

TotalLab™ 1D software: is supplied only as part of a complete package with each of the microDOC and transilluminator options. Its main functions include lane creation, background subtraction, band detection, profile deconvolution, and molecular size, pI and quantity calibration. More sophisticated standalone software options are available for 1D applications that require band matching, array, colony counting and image ToolBox functionalities.

Camera:
- File Format Design rule for Camera File system, DPOF (version 1.1) compliant
- Focus-Area Selection AF mode and manual focus are available
- Hood
- Multi-power source for camera, Inner light lamp, TFT screen (excludes MicroDOC Basic/1D models)
- Safety Door Switch Automatically disconnects UV transilluminator, while opening the chamber door during operation

Specifications Camera:

Effective Pixels:	24.1 megapixels
Type:	TTL-CT-SIR with CMOS sensor
Lens:	Canon EF/EF-S 18-55 mm
Maximum Aperture:	f/2.8 - f/5.6
Image Resolution:	720 × 480 up to 5.184 × 3.456
Data Type Still images:	Exif 2.3 (JPEG), RAW (CR2)
Movies:	MOV (Image data: H264 ; Audio data: Linear PCM (stereo))
Filter:	Ethidium Bromide or SYBR Green (58 mm)
Inner White Light:	2 x 3 W white light LED (excl. MDOC Basic Models)
Monitor:	8" TFT liquid crystal screen
Display Format:	960 x 234 mm
Luminance:	300 cd/m²
Display Mode:	NTSC/PAL mode switchable
Dimensions with camera (W x D x H):	290 x 325 x 515 mm
Rated Voltages:	110 - 220 V
Weight approx.:	7.7 kg

Description	PK	Cat. No.
microDOC with UV-Transilluminator 254/312 nm	1	9584756*LLG
microDOC with UV-Transilluminator 254/365 nm	1	9584757*LLG
microDOC basic system with lift-off dark room hood and camera only	1	9584758*LLG

* incl.Analysis Software TotalLab1D.

UV Crosslinker CL-508

Cleaver SCIENTIFIC

The UV Crosslinker is a UV irradiation system for versatile applications in the field of molecular biology, such as fixing nucleic acids on membranes and removing PCR contamination.

- Spacious stainless steel exposure chamber
- Programmable microprocessor control
- 9 preset programmes for UV dose and exposure time
- LED display and membrane keypad
- Viewing window with UV protection
- Safety interlock

Specifications

Wave length:	254 nm
Light source:	5 x 8 W bulb
Energy:	0 ... 9.999 J or 0 ... 99.99 J
Timer:	0 ... 999.9 min
Internal dimensions (W x D x H):	260 x 330 x 145 mm
External dimensions (W x D x H):	350 x 360 x 305 mm
Weight:	10 kg
Power supply:	240 V

Type	PK	Cat. No.
CL-508	1	6272847*LLG

Colony counter, Scan® 50/Scan® 50 pro

interscience

- **Intuitive Operation Ergonomic**
- **Automatic Tip Ejection**

Manual colony counter for Petri dishes (from Ø 55 to 90 mm), PetriFilm™, MC-Media Pads™, easyPlate™ and filtration membranes. Counting is performed by a simple touch pressure and is then recorded.

- Counting buttons on both sides, for left or right-handed users
- With inclined counting surface and hand rest
- Light signal for each colony counted
- 9 different sounds and headphone connection
- Darkfield 2, high-contrast, indirect LED lighting
- Counting range 0 - 1999

Scope of supply: Colony counter Scan 50, mains cable, USB cable, black pen, manual

Scope of supply: Colony counter Scan® 50 pro, headset, power cord, USB cable, black marker pen, user manual

Dimensions (WxDxH):	273 x 295 x 151 mm
Power supply:	100 ... 240 V, 50/60 Hz
IP code:	IP 20
Waranty:	3 years

Type	Plug type	PK	Cat. No.
Scan® 50	EU	1	4688030*LLG
Scan® 50 pro	EU	1	6491432*LLG
Scan® 50	UK	1	6325238*LLG

Pipette Fillers Profiller™ 447

SOCOREX SWISS

Electronic pipette filler which allows longer and fatigue-free pipetting due to comfortable hand adjustment. The shape is ideal for working with glass or plastic pipettes. A powerful, quiet motor and a switch to set both aspiration and dispensing speeds enable maximal working efficiency even with large pipetting volumes.

- Powerful pump (fills 25 mL in 3 seconds)
- Comfortable finger triggers
- Low battery light
- NiMH battery rechargeable during use
- Interchangeable protection membrane filter

Scope of delivery: Pipette filler Profiller™ 447, power supply, four plug adaptors (EU, US/JP, GB, AUS/NZ), two spare hydrophobic filters (0.45 µm and 0.2 µm), bench and wall stands and instruction manual.

Type	PK	Cat. No.
Profiller™ 447	1	4665542*LLG

LLG-Volumetric pipettes, soda glass, class AS, 1 mark, blue graduated

LLG LABWARE

- DIN EN ISO 648, DIN 12687
- Conformity-certified
- With batch date identification
- Calibrated to deliver (EX)
- Ring mark and inscriptions in permanent blue enamel

Nominal capacity	Tolerance	Length	PK	Cat. No.
ml	± ml	mm		
1	0.007	310	10	6272207*LLG
2	0.010	330	10	6272208*LLG
3	0.010	360	10	6272209*LLG
4	0.015	360	10	6272210*LLG
5	0.015	400	10	6272211*LLG
10	0.020	440	10	6272212*LLG
15	0.030	455	10	6272213*LLG
20	0.030	510	10	6272214*LLG
25	0.030	520	10	6272215*LLG
50	0.050	540	10	6272216*LLG

Pipette controller, Profiller™ manual 437

SOCOREX SWISS

For glass and plastic pipettes with a volume of up to 100 ml.

- With a large suction ball
- Soft action lever button
- Efficient blow-out system
- PTFE protection membrane filter, exchangeable
- Alternative colour-coded cones (white, blue, green)

Description	Colour	PK	Cat. No.
Pipette controller, Profiller™ manual 437	blue	1	6320760*LLG

LLG-Graduated pipettes, soda glass, class AS, type 3

LLG LABWARE

- DIN EN ISO 835, DIN 12699
- Conformity-certified
- With batch date identification
- Calibrated to deliver (EX)
- Ring marks and graduations in permanent blue enamel

Nominal capacity	Graduations	Tolerance	Length	PK	Cat. No.
ml	ml	± ml	mm		
1	0.01	0.007	360	10	6272200*LLG
2	0.02	0.01	360	10	6272201*LLG
5	0.05	0.03	360	10	6272202*LLG
10	0.1	0.05	360	10	6272203*LLG
20	0.1	0.1	450	10	6272204*LLG
25	0.1	0.1	450	10	6272205*LLG
50	0.1	0.2	720	10	6272206*LLG

Chemically-resistant Diaphragm Dosing Pumps SIMDOS® 02/10

- Application: Metering liquids
- Flow rate from 0.03 up to 100 ml/min/Pressure head 60 mWg,
  suction head 2 mWg and 3 mWg respectively
- Pump heads available in your choice of PP, PVDF or PTFE-diaphragms
  available in PTFE, valves in FFKM
- Delivery rate adjustable manually and by means of external control
  and including RS 232 interface
- Additional safety diaphragm for maximum security
- RC Plus control

Advantages:
- Intuitive operation, easy calibration
- Adjustable to liquid characteristics
- Self-priming and dry-running
- Spray water protected IP 65

- Additional Timer Free of Charge
- Small Size
- IP 67 Protection Class

Specifications

Pressure:	6 bar
Allowed ambient temperature:	+5 ... +40 °C
Allowed liquid temperature:	+5 ... +80 °C
Dimensions (WxDxH):	93 x 150 x 144 mm
Pump head:	optional PP, PVDF, PTFE or stainless steel
Diaphragm:	PTFE
Valves:	FFKM
Power supply:	100-240 V, 50-60 Hz
Weight:	0.9 kg

Type	Head	Flow rate	Dosing volume	Max. suction height	PK	Cat. No.
SIMDOS® 02 FEM 1.02KT.18RCP	PP	30 µl/min - 20 ml/min	30 µl - 999 ml	2 m	1	7940190*LLG
SIMDOS® 02 FEM 1.02TT.18RCP	PVDF	30 µl/min - 20 ml/min	30 µl - 999 ml	2 m	1	6280030*LLG
SIMDOS® 02 FEM 1.02FT.18RCP	PTFE	30 µl/min - 20 ml/min	30 µl - 999 ml	2 m	1	6288412*LLG
SIMDOS® 10 FEM 1.10KT.18RCP2	PP	1 - 100 ml/min	1 - 999 ml	3 m	1	6310685*LLG
SIMDOS® 10 FEM 1.10FT.18RCP2	PTFE	1 - 100 ml/min	1 - 999 ml	3 m	1	6274454*LLG
SIMDOS® 10 FEM 1.10ST.18RCP2	stainless steel	1 - 100 ml/min	1 - 999 ml	3 m	1	6313297*LLG
SIMDOS® 10 FEM 1.10TT.18RCP2	PVDF	1 - 100 ml/min	1 - 999 ml	3 m	1	6285974*LLG

Pipette stand, vertical, PP

The pipette carousel can be rotated 360° and hold up to 94 pipettes.

Type	PK	Cat. No.
Pipette stand, vertical	1	9273895*LLG

Pipette teats

Natural rubber (NR)/Latex or Silicone (VMQ)

Capacity ml	Colour	Material	PK	Cat. No.
2	red	NR/Latex	100	4661160*LLG
2	transparent/white	VMQ	10	9072682*LLG

LLG-Pasteur pipettes, Soda-lime-glass

Single use. With long drawn, 1.1 mm diameter fine tip, 20 mm suction tube and constriction for tight fitting of cotton wool plugs. External diameter: 7.1 mm.

Please order Pipette teats separately.

Length mm	Acc. to	PK	Cat. No.
150	ISO 7712	1000	9411015*LLG
230	ISO 7712	1000	9411020*LLG

Repetitive pipette
HandyStep® touch/HandyStep® touch S

- Intuitive Operation
- Ergonomic
- Automatic Tip Ejection

BRAND

HandyStep® touch   HandyStep® touch S

Repetitive pipette with colour touch display and automatic tip size recognition.

HandyStep® touch with the standard modes Multi-Dispensing, Auto-Dispensing, Pipetting and Favorites
HandyStep® touch S with the additional functions of Sequential Dispensing, Multi-Aspiration and Titration

- Touchscreen operation with intuitive menu navigation and integrated help function
- Important functions and parameters visible at a glance
- Automatic tip ejection by the press of a button
- Variable volume adjustment from 1.0 µl to 50 ml
- USB-C connection for quick charging by cable
- Inductive charging with optional charging stand
- Compatible third-party tips can also be used

Scope of supply: Repetitive pipette, includes universal AC adapter (for Europe, UK, USA, Japan, Australia and New Zealand), Li-Ion battery, USB-Type C cable, shelf/rack mount, sample PD-Tips II, operating manual, performance certificate

Type	Colour	PK	Cat. No.
HandyStep® touch	White	1	9284015*LLG
HandyStep® touch, incl. charging stand	White	1	6275957*LLG
HandyStep® touch S	Black	1	9284016*LLG
HandyStep® touch S, incl. charging stand	Black	1	6275958*LLG

Laboratory bottles, Borosilicate glass 3.3, GL45, with retrace code

DURAN WHEATON KIMBLE
Excellence in your hands

DIN 168 - 1. EN ISO 4796-1.
With graduations and retrace code, pouring ring, PP screw cap with ISO thread. Certificates are available on request.

Capacity	Ext. diam.	Height	PK	Cat. No.
ml	mm	mm		
100	56	100	10	9072331*LLG
250	70	138	10	9072332*LLG
500	86	176	10	9072334*LLG
1000	101	225	10	9072335*LLG
2000	136	260	10	9072336*LLG
5000	186	330	1	9072337*LLG
10000	234	410	1	9072338*LLG

Dispenser tips, PD-Tips II

121 °C A

BRAND

Thanks to patented size coding, HandyStep® touch, HandyStep® touch S, HandyStep® electronic, Gilson® Repetman® and Rainin AutoRep™ E automatically detect the tip volume. The tips are also compatible with all other instruments of the HandyStep® family and with repetitive pipettes from other manufacturers.

- Cylinder: PP/piston: HDPE, 0.1 ml piston: LCP
- Volumes from 0.1 ml to 50 ml
- Comply with the requirements of ISO 8655
- Supplied with batch certificate
- Adapter for sizes 25 ml and 50 ml included
- PD-Tips II cannot be autoclaved; the adapters are autoclavable
- Loose-packed and not sterile

Nominal capacity	PK	Cat. No.
ml		
0.10	100	9280950*LLG
0.50	100	9280951*LLG
1.00	100	9280952*LLG
1.25	100	9280953*LLG
2.50	100	9280954*LLG
5.00	100	9280955*LLG
10.00	100	9280956*LLG
12.50	100	9280957*LLG
25.00	50	9280958*LLG
50.00	25	9280959*LLG

Laboratory bottles protect+ DURAN®, with retrace code

New

DURAN WHEATON KIMBLE
Excellence in your hands

Highly transparent. The coating provides scratch, leak and splinter protection.

- Coating made of polyamide
- With dust cap
- Graduated
- UV protection up to approx. 380 nm
- DIN ISO 4796-1
- USP compliant

Nominal capacity	Neck thread	PK	Cat. No.
ml	GL		
100	45	1	218052486*SCHOTT
250	45	1	218053688*SCHOTT
500	45	1	218054487*SCHOTT
1000	45	1	218055483*SCHOTT

Single channel pipette Tacta

SARTORIUS

- Optiload Function
- Completely Autoclavable

- Low force for pipetting and tip ejection
- Ergonomic design for comfortable pipetting
- Fully autoclavable without disassembling
- Materials have high chemical and UV resistance to ensure a long life span for the pipette

Capacity	Increments	Accuracy max. vol.	Precision max. vol.	PK	Cat. No.
µl	µl	(± R%)	(≤ CV%)		
0.1 - 3	0.002	1.30	0.80	1	6284794*LLG
0.5 - 10	0.01	1.00	0.60	1	6282658*LLG
2 - 20	0.02	0.90	0.40	1	7645491*LLG
10 - 100	0.10	0.80	0.15	1	6282657*LLG
20 - 200	0.20	0.60	0.15	1	7645492*LLG
100 - 1000	1.00	0.70	0.20	1	6282656*LLG

LLG-Labware pipette tips, economy 2.0, PP

LLG LABWARE

The new generation of LLG Labware Pipette tips economy. Compatible with all common pipette brands. You can find the appropriate compatibility list on www.llg-labware.com in the Downloads section.

- Improved optical clarity and pipette fit
- Autoclavable
- DNase and RNase free

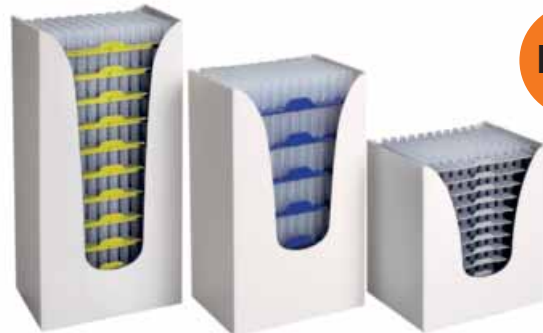| Capacity	Colour	Package contents	PK	Cat. No.
µl				
0.1 ... 10	transparent	10 x 96 tips in rack	960	4668776*LLG
0.1 ... 10	transparent	10 x 96 tips in rack	960	6491406*LLG
1 ... 200	transparent	10 x 96 tips in rack	960	4668778*LLG
1 ... 200	yellow	10 x 96 tips in rack	960	4668779*LLG
100 ... 1000	transparent	8 x 96 tips in rack	768	4668782*LLG
100 ... 1000	blue	8 x 96 tips in rack	768	4668783*LLG

LLG-Pipette tips Low Retention, PP, reload

LLG LABWARE

- Compatible with all LLG-Labware Boxes
- Environmentally Friendly

New

Environmentally friendly and cost-effective refill system for pipette tips for use with the separately available reusable LLG-Pipette tip box. The reload system saves space, reduces plastic waste, and is characterised by safe and easy handling. The pipette tips have a hydrophobic inner surface and ensure maximum sample recovery and high-precision pipetting.

- Colour-coded racks facilitate tip identification
- With volume graduation
- DNase- and RNase-free
- Autoclavable

For research and development only.

Please order pipette tip boxes or economy 2.0 pipette tips in racks separately.

Capacity	Length	Colour	PK	Cat. No.
µl	mm			
10	31.2	transparent	960	4694453*LLG
10	45.8	transparent	960	4694454*LLG
200	53.4	transparent	960	4694455*LLG
1000	84.3	transparent	480	4694456*LLG

LLG-Pipette tip box

LLG LABWARE

For Reload System and Bagged Tips

New

The empty, refillable pipette tip box in 8 x 12 format can be filled with the reload tip racks of the LLG-Pipette tips Low Retention.

- Easy opening and closing of the container with one hand
- Secure rack box closing
- Stackable
- Autoclavable

For	PK	Cat. No.
tips		
10 µl/10 µl XL	10	4694461*LLG
200 µl	10	4694462*LLG
1000 µl	8	4694463*LLG

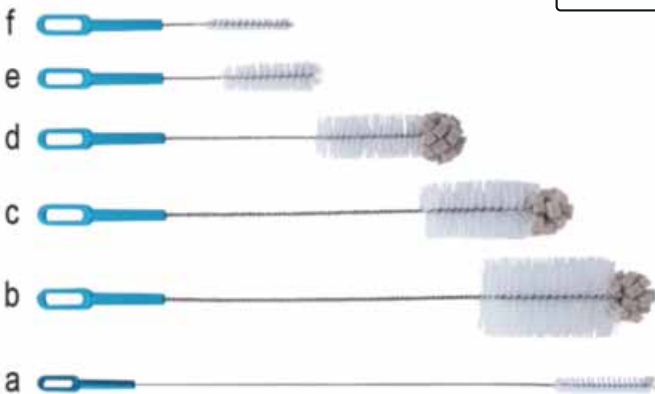## LLG-Laboratory and hygienic tissues, 2-ply, 150 wipes

Laboratory and hygienic tissues in dispenser box
- Contains 150 white, double-ply tissues, 210 x 220 mm
- Highly absorbent and ultra-soft
- For sensitive application areas

Carton of 30 boxes with 150 wipes

Package contents	PK	Cat. No.
Carton of 30 boxes with 150 wipes	30	9413220*LLG

LLG-Cleaning brushes

Excellent tools for washing and cleaning all types of laboratory bottles, flasks, tubes, condensers, burettes, etc. Brush material is manufactured from the highest quality of fibre/person for a long life cycle. Brush stem is manufactured from corrosion-proof twisted steel wire. The brush handle is manufactured from polypropylene and offers extremely easy handling and use of the brush. The unique handle design enables the hanging of the brush to a convenient place for easy reach. The spherical sponge top part enables access to every corner of the labware and guarantees perfect cleaning results.

For	Description	Length mm	Figure	PK	Cat. No.
burettes and tubings	20 x 125 mm	845	a	10	6267293*LLG
large size bottles	70 x 130 mm	460	b	10	6267294*LLG
medium size bottles	50 x 110 mm	460	c	10	6267295*LLG
small size bottles	40 x 110 mm	380	d	10	6267296*LLG
test tubes	25 x 100 mm	295	e	10	6267297*LLG
narrow test tubes	12 x 80 mm	235	f	10	6267298*LLG

LLG-Wipe rolls of 102 sheets, 3-ply

Proven Quality

Roll with 102 sheets (220 x 260 mm).
- strong when wet
- absorbent
- low lint

Package contents	PK	Cat. No.
Roll of 102 tissues	2	9413224*LLG
Roll of 102 tissues	30	4679906*LLG

Wipes Multiclean®, 3-ply

- High Wet Strength
- Bulk Pack
- Different Sizes

Handy cleaning cloths, resistant and with high wet strength, they are ideal for light and coarse dirt work. The appropriate holder, whether as a floor stand or for wall mounting is available on request.

Width mm	Length mm	Weight g / m²	Package contents	PK	Cat. No.
220	380	60	2 rolls with 500 tears	2	7618013*LLG
360	380	54	2 rolls with 500 tears	2	7618212*LLG
360	380	54	Roll with 1000 tears	1	7671903*LLG

LLG-Disposable Gloves *ergo*, Nitrile, Powder-Free

EN ISO 374-1
Type B   EN ISO 374-5   EN 420

KPT   VIRUS

Topseller

The *ergo* disposable, protective, nitrile gloves combine the comfort and "feel" of latex with the physical and chemical endurance of nitrile, with no risk of allergies. The ideal glove for all applications requires high tactile sensation and protection against chemicals.

- **Thin - very comfortable to wear**
- Excellent tactile sensitivity - similar to latex
- Tried and tested quality products made of nitrile
- Excellent resistance to skin irritants in foodstuffs
- Free from phthalates/softeners and allergenic latex proteins
- Colour: Lavender Blue
- Suitable for areas subject to HACCP standards
- **Cat. III low chemical resistance. AQL 1.5**

According to EN ISO 374-1:2016/Type B, EN ISO 374-5:2016, EN 420 is Suitable for food handling.
You can find the appropriate compatibility list on www.llg-labware.com in the Downloads section.

Outside:	textured fingers
Inside:	powder-free halogenated
Thickness **(measured in double layer)**:	**0.12 mm**

Size	PK	Cat. No.
XS	200	9006370*LLG
S	200	9006371*LLG
M	200	9006372*LLG
L	200	9006373*LLG
XL	180	9006374*LLG

LLG-Safety Eyeshields *classic*

- CE approved EN166 and EN170
- Integrated side lenses with vents, 180° field of vision
- Frame made of tested hypo-allergenic material
- Side arms adjustable in length and inclination
- 100% UV protection (up to 380 nm)
- Weight: 34 g only

Colour	Lens	PK	Cat. No.
Blue	Clear, anti-scratch lens, 2C-1.2 U 1 F CE	1	9006001*LLG

LLG-Disposable Gloves *classic*, Latex

EN ISO 374-1
Type C   EN ISO 374-5   EN 420

K P   VIRUS

Proven Quality

The ideal glove for all applications which require a high tactile sensitivity.

- Skin-friendly
- Powder-free
- Excellent tactile sensitivity
- High durability due to special formulation
- **Cat. III Low Chemical resistance**. AQL 1.5.
- Thiuram-free, reduced risk of contact eczemas

According to EN ISO 374-1:2016/Type C, EN ISO 374-5:2016, EN 420 is Suitable for food handling.
You can find the appropriate compatibility list on www.llg-labware.com in the Downloads section.

Outside:	textured fingers
Inside:	powder free
Thickness (measured in double layer):	0.20 mm

Size	PK	Cat. No.
S	100	9006383*LLG
M	100	9006384*LLG
L	100	9006385*LLG
XL	90	9006386*LLG

LLG-Disposable Visitor Gowns, PP

White PP nonwoven 30 g/m², universal size with shirt collar and elastic at the wrists, latex-free, without pocket, 4 push buttons

Description	PK	Cat. No.
LLG-Visitors gown	50	6282796*LLG

LLG-Electrode stand for 3 electrodes

With cable duct. For three electrodes, 3 openings with diam. 16 mm. Additional opening for a temperature sensor. Three joints for high flexibility and adjustment options.

Base plate: 105 x 125 mm
Base plate weight: 0.7 kg
Max. arm height: 320 mm

Type	PK	Cat. No.
LLG-Electrode stand	1	6286248*LLG

LLG-Universal indicator paper, rolls

For the determination of pH values.
Plastic dispensing reel with 1 roll of 5 m.

Range	Description	PK	Cat. No.
pH			
1 ... 11	Dispensing reel with 1 roll	1	9129800*LLG
1 ... 14	Dispensing reel with 1 roll	1	9129802*LLG
1 ... 11	Refill packs with 3 rolls	3	9129801*LLG
1 ... 14	Refill packs with 3 rolls	3	9129803*LLG

pH combination electrode, gel electrolyte, SenTix®

Basic pH combination electrodes, with plastic body, gel reference system. Sentix 21-3 and Sentix 41-3 with 3 m fixed cable.

Specifications
Temperature range: 0 ... 80 °C
pH range: 0 ... 14 pH
Length/diam.:   120 mm/12 mm
Electrolyte: Gel
Diaphragm: Fibre
Membrane shape: Cylindrical
Membrane resistance at 25°C: 1 GΩ
Plug: DIN, waterproof

Type	Temperature sensor	Cable m	PK	Cat. No.
SenTix® 21	-	1	1	9040872*LLG
SenTix®21-3	-	3	1	9040873*LLG
SenTix® 41	NTC 30 kΩ	1	1	9040876*LLG
SenTix® 41-3	NTC 30 kΩ	3	1	9040877*LLG

Technical buffer solutions

Identified by colour-coded labels.
Tolerance ±0.03 pH.

pH-value at 25 °C	Capacity ml	PK	Cat. No.
4.01	250	1	9040727*LLG
4.01	1000	1	9040722*LLG
7.00	250	1	9040728*LLG
7.00	1000	1	9040723*LLG
10.01	250	1	7401072*LLG
10.01	1000	1	9040725*LLG

Pocket Tester SD10 pH/SD40 Multi

SD10 pH

SD40 Multi

New

SD10 pH: Pocket Tester with waterproof housing for measuring pH, mV, and temperature. Ideal for regular checks in industrial plants or swimming pools. With lanyard and clip on the device head.

SD40 Multi: Pocket Tester with waterproof housing for measuring pH, conductivity, TDS, salinity, and temperature. Ideal for regular checks in industrial plants or swimming pools. With lanyard and clip on the device head.

- Three-colour LED lighting system (blue, green, red) and display symbols for easy handling
- 3 multifunction buttons with symbols
- Up to 3 calibration points
- With stability indicator, alarm for limits, auto-hold, and auto-off function
- Transparent lid for measurement, calibration, and storage of the electrode
- Optimised lid design for an upright and stable position of the tester
- Battery operation (4 x AAA batteries)
- Easy battery and electrode replacement

Specifications	SD10 pH || SD40 Multi
pH measuring range:	0.00 ... 14.00
Resolution:	0.01
Accuracy:	±0.01 (±1 digit)
Conductivity:	- || 0.01 ... 20.00 mS/cm
mV measuring range:	-1000 ... 1000 mV
Resolution:	1 mV || 0.1 µS/cm, 1 µS/cm, 0.01 mS/cm
Accuracy:	±0.2% FS || ±1% FS
TDS:	- || 0.01 ... 20.00 ppt
Resolution:	- || 0.1 ppm, 1 ppm, 0.01 ppt
Dimensions (WxDxH):	40 x 180 x 40 mm
Permissible ambient temperature:	0 ... 60 °C
Max. relative humidity:	80%
Protection class:	IP 67
Weight:	151 g

Type	PK	Cat. No.
SD10 pH	1	4694724*LLG
SD40 Multi	1	4694730*LLG

LLG-pH Meter 5

3 YEARS WARRANTY

The LLG-pH meter 5 is a very easy-to-use pH/mV/°C handheld meter.

- Gel-filled pH electrode with an external temperature sensor with a 1 m cable
- BNC connector
- Automatic temperature compensation (ATC)
- Large, easy-to-read LCD display
- 3 point calibration
- Suitable for all standard SD cards with up to 16 GB

Please order batteries separately (6 x 1.5 V AA)

Scope of supply: pH meter, pH electrode with temperature sensor, buffers pH 4 and pH 7, 4 GB SD-Memory card, transport case

Specifications	
Measuring range pH:	0 ... 14
pH resolution:	0.01
pH accuracy:	±0.02 + 2d
Ambient conditions:	0 ... 50 °C, max. 85% r.H.
Temperature range electrode:	0 ... 60 °C
Dimensions (W x D x H):	68 x 177 x 45 mm
Weight:	490 g
Power supply:	6 x 1.5 V AA batteries/ 9 V mains adapter (optional)
IP code:	IP 51
Warranty:	3 years (1 year on the electrode)

Type	PK	Cat. No.
LLG-pH Meter 5	1	6263691*LLG

pH meter SevenDirect™ SD20-Kits

For an easy start, choose one of our ready-to-use kits which includes the pH meter, an application-specific sensor and calibration standards.

pH electrode InLab® Expert Pro-ISM with robust PEEK shaft, integrated NTC 30 kO? temperature sensor and ARGENTAL™ reference system. The electrode is always ready for use as the solid XEROLYT® reference electrolyte does not need to be refilled.

Scope of supply: pH meter SevenDirect™ SD20, electrode arm EasyPlace™, pH electrode InLab® Expert Pro-ISM, 3 x 2 calibration buffer sachets pH 4.01, 7.00 and 9.21 or 10.01, protective cover, power supply, get-started-guide

METTLER TOLEDO

Specifications	
pH range:	-2.000 ... 20.000
Accuracy:	±0.002
Resolution:	0.1/0.01/0.001
Temperature range:	-30 ... 130 °C
Accuracy:	±0.1 (0 ... 100 °C)
Protection class:	IP 54

Type	PK	Cat. No.
SD20-Kit	1	4684936*LLG

Refrigerated/heated circulating baths ecocoolR

grant

Environmentally Friendly Coolant

Consisting of two models, all products in the ecocoolR range are supplied assembled as ready to use kits, complete with accessory hosing, clips and connectors as standard.

- Choice of two models, temperature range -25 °C to 150 °C (model dependent)
- 3 year warranty with Grant renowned service and support, no registration required
- Active cooling through the whole temperature range
- True energy saving of up to 80% against standard compressor units
- Thermostat and chiller work in harmony, neither will operate alone, eliminating any danger of overheating or freezing
- Single front switch for user convenience
- Modern, sleek, attractive design

ecocool 150R

Specifications	ecocool 100R || ecocool 150R
Volume:	5 L || 6 L
Heating capacity:	2160 W || 2280 W
Cooling capacity kW at 20/0/-20 °C:	0.25/0.2/0.05 || 0.45/0.35/0.2
Max. Temperature range:	-20 ... 100 °C || -25 ... 150 °C
Dimensions (W x D):	150 x 120 mm

Type	PK	Cat. No.
ecocool 100R	1	4685694*LLG
ecocool 150R	1	4685695*LLG

Metal-cased heating mantles series KM-M, without controller

ISOHEAT®

LabHEAT® - Heating mantles for flasks, round bottom. Flexible glass yarn heating element in a plastic-coated, chemical-resistant metal housing with built-in power-on and heating zone switch; max. heating element temperature 450 °C; 1.5 m power supply (earthed) cable and RCD (residual current detection); nominal voltage 230V AC.

Capacity	Flask diam.	Rating	Heating zones	PK	Cat. No.
ml	mm	W			
100	64	100	1	1	9642501*LLG
250	85	150	2	1	9642502*LLG
500	105	200	2	1	9642503*LLG
1000	131	300	2	1	9642504*LLG
2000	166	500	2	1	9642505*LLG
3000	185	600	2	1	9642506*LLG
4000	207	750	2	1	9642507*LLG
5000	223	860	2	1	9642508*LLG
6000	236	1000	2	1	9642509*LLG

Serial heating units and Heating mantles with other specifications available on request.

Water baths PURA™

Julabo

Flexible in use for all purposes in research and quality control. All PURA™ water baths (except PURA™ 4) have an integrated drain screw. The bright, easy-to-read white LED display is visible, even from a distance. With integrated side recessed grips for easy transport and non-slip rubber feet for safe standing.

- Including platform
- Integrated timer
- Bright display with membrane keypad
- Splash-proof
- Built-in dry-running protection

Please order bath cover separately.

Working temperature range: 18 ... 99.9 °C
Temperature stability: ±0.15 °C
Power supply: 230 V, 50 ... 60 Hz

Type	Capacity of the bath litres	External dimensions (W x D x H) mm	PK	Cat. No.
PURA™ 4	0.8 ... 4.5	210 x 350 x 220	1	4667880*LLG
PURA™ 10	1.4 ... 9.5	310 x 350 x 220	1	4667881*LLG
PURA™ 14	2.0 ... 14.0	420 x 350 x 220	1	4667882*LLG
PURA™ 22	3.4 ... 25.5	640 x 350 x 260	1	4667883*LLG
PURA™ 30	4.8 ... 36.0	860 x 350 x 260	1	4667884*LLG

Lids for Water baths, PURA™

Hinged bath cover.

For model	PK	Cat. No.
PURA™ 4	1	9857931*LLG
PURA™ 10	1	9857932*LLG
PURA™ 14	1	9857933*LLG
PURA™ 22	1	9857934*LLG
PURA™ 30	1	9857935*LLG

LLG- Floating pellets, PP

LLG LABWARE

Pellets with 20 mm diameter. Can cover 0.1 m². Protect against evaporation and rapid temperature loss. Decreases hazardous vapors. Resistant against most acids, bases, solvents and mineral oils. Temperature stable up to 100 °C.

Description	PK	Cat. No.
Floating pellets	250	6266611*LLG

Quality Made in EU

Ultra-low temperature upright freezers ULT series, up to -86 °C

Compact ultra-low temperature freezer for temporary to long-term cold storage of biological samples.

- Temperature logger with USB port
- Battery backup for 48 h
- Digital controller with display
- High/low temperature alarm
- Audible and visual alarm
- Contact for remote alarm
- Porthole for external probe and CO_2 backup
- Eco-friendly, HCFC-free Nature R refrigerant

Type designation -PLUS: With extended exchange warranty.
In warranty cases which cannot be solved quickly on site,
the client receives a new device.

Specifications

Temperature range:	-86 ... -60 °C
Temperature probes:	1 x PT 1000
Power supply:	230 V, 50 Hz

Type	Capacity	External dimensions (W x D x H)	Internal dimensions (W x D x H)	Weight	PK	Cat. No.
	Litres	mm	mm	kg		
ULT U35	37	630 x 675 x 650	439 x 271 x 433	59	1	6322824*LLG
ULT U35-PLUS	37	630 x 675 x 650	439 x 271 x 433	59	1	6490712*LLG
ULT U100	93	595 x 630 x 825	430 x 425 x 625	60	1	4672408*LLG
ULT U100-PLUS	93	595 x 630 x 825	430 x 425 x 625	60	1	4672428*LLG

Ultra-low temperature chest freezers ULT series, up to -86 °C

Ultra-low temperature freezer for temporary to long-term cold storage of biological samples. Ideal for daily use in laboratories and scientific facilities.

- Digital controller with display
- Audible and visual alarm
- High/low temperature alarm
- Contact for remote alarm
- Battery backup for 48 h
- Porthole (Ø12 mm) for external probe and CO_2 backup
- Integrated lock
- With 4 castors
- Eco-friendly, HCFC-free Nature R refrigerant

Specifications

Internal humidity:	-86 ... -60 °C
Temperature probes:	1 x PT 1000
Power supply:	230 V, 50 Hz

Type	Capacity	External dimensions (W x D x H)	Internal dimensions (W x D x H)	Weight	PK	Cat. No.
	Litres	mm	mm	kg		
ULT C75	71	555 x 630 x 630	387 x 387 x 465	45	1	4672404*LLG

Telescopic Rods, aluminium

The individual rods have been provided with an end stop. This means that one rod cannot accidentally slip out of another rod. The telescopic rods cannot be rotated radially.

- Increased rigidity by using a cold-rolled profile rod
- Springs made of stainless steel

Length	PK	Cat. No.
m		
0.65 ... 1.20	1	9303800*LLG
0.70 ... 1.80	1	6266590*LLG
1.25 ... 2.50	1	9303802*LLG
0.95 ... 2.80	1	9303801*LLG
1.15 ... 3.00	1	9303804*LLG
1.65 ... 4.50	1	9303806*LLG
1.75 ... 6.00	1	9303807*LLG

Angular, sample beakers, angled for TeleScoop, PP

With individually variable angle adjustment.

Capacity	Material	PK	Cat. No.
ml			
600	PP	1	9303810*LLG
2000	PP	1	9303814*LLG

Bottle holder for TeleScoop, PP/PA

Holds bottles up to max. 88mm diameter incl. 750 ml bottle (Spare bottle Cat. No. 9.072 987). Suitable for plastic and glass bottles. With a universal quick-action clamping strap.

Type	PK	Cat. No.
Bottle holder	1	9303830*LLG

Sampling lance milky, stainless steel V4A, acc. to EN ISO 707

Universal powder and granules sampler collector made of AISI 316 stainless steel. Developed especially for milk powder samples, conforms to the standards of DIN and IDF (Int. Dairy Federation). The collector is inserted into bags or casks and the sample is removed using a semi-circular profile lance. Autoclavable.

Capacity	Length	Imm. depth	Ext. diam.	PK	Cat. No.
ml	cm	mm	mm		
150	48	385	28	1	6051629*LLG

Anti-tamper seal-it, self-adhesive roll

If a container opening is sealed with seal-it, the container cannot be opened without destroying the seal-it label. The white labelling field of seal-it can be written on with all conventional writing instruments.

- Clear identification via numbers in sequence
- Integrated control label with the same number, for accompanying documents
- 500 consecutively numbered labels in each roll
- Format 178 mm long, 30 mm wide
- Tear-off perforation for each label

Type	PK	Cat. No.
Seal-it	500	7622477*LLG

Grinding mill, A11 basic

IKA

Batch mill for 2 different grinding procedures: Impact grinding of hard, brittle or non-elastic grinding materials with a high-grade stainless steel beater. This beater can be used for a Mohs hardness up to 6 (incl. with delivery). Cutting grinding for pulverizing soft, fibrous materials with a cutting blade (not incl. with delivery).

- Moist and gluey materials can be pulverized by adding water
- Grinding chamber made of Tefcel (PTFE, glass fibre-reinforced) with stainless steel inlet (1.4571), useful volume 80 ml (incl. with delivery). For embrittlement of grinding materials with liquid nitrogen in the grinding chamber

Specifications

Motor rating input/output:	160/100 W
Speed:	28000 rpm (off load)
Chamber vol.:	80 ml
Power-on time ON/OFF:	1/10 min
Auto power off:	yes
Tangential speed:	53 m/sec.
Max. sample granule size:	10 mm
Dimensions (W x D x H):	85 x 85 x 240 mm
Weight:	1.5 kg
IP code:	IP 43
Supply requirements:	230 V 50/60 Hz
Tested to DIN EN IEC 61010-1.	

Type	Max. speed	Max. Feed quantity/ Flow rate	Plug type	PK	Cat. No.
	rpm	ml			
A 11 basic	28000	80	EU	1	9737801*LLG
A 11 basic	28000	80	UK	1	6202305*LLG
A 11 basic	28000	80	CH	1	4008002*LLG

Accessories please order separately.

Accessories for Grinding mill, A11 basic

A 11.2   A 11.3   A 11.4

A 11.2 Cutter: For pulverising soft, fibrous grinding materials.

A 11.3 Beater, hard metal: For pulverising substances with a Mohs hardness up to 9, chrome-carbide coated

A 11.4 Grinding container, 250ml: Made of polycarbonate with stainless steel inlet. Not suitable for cooling with N_2, only applicable with double beater A 11.6.

Type	Description	PK	Cat. No.
A 11.2	Cutter	1	9737806*LLG
A 11.3	Beater	1	9737807*LLG
A 11.4	Grinding container, 250 ml	1	9737805*LLG

Ultrasonic homogeniser SONOPULS HD 5020, complete set

BANDELIN

Complete Set

New

For volumes from 0.1 to 25 ml (depending on the sonotrode used).

Ready-to-operate set for volumes from 0.1 to 10 ml consisting of:
- Ultrasound generator GM 5000
- Ultrasonic converter UW 5020
- Sonotrode MS 1.5, Ø 1.5 mm

Specifications

HF-Generator	**GM 5000**
Dimensions (W x D x H):	195 x 385 x 215 mm
Converter	**UW 5020**
Dimensions (Ø x L):	50 x 150 mm
Ultrasonic nominal power:	max. 20 W
Working frequency:	40 kHz
Power supply:	90 ... 250 V, 50/60 Hz

Type	Plug type	PK	Cat. No.
SONOPULS HD 5020	EU	1	4686319*LLG

Stand (4.672 126) and processing vessel are not included.

Temperature probe TM 5000

The temperature probe can be connected to the socket of the ultrasonic transducer.

Specifications

Diam. Probe Shaft Tip:	1.9 mm
Length Probe shaft:	150 mm
Temp. range:	-10 ... 125 °C

Type	PK	Cat. No.
TM 5000	1	6323235*LLG

LLG-2in1 KITs with Short Thread Vials ND9

2in1 KITs contain 100 vials (1.5 ml) and 100 closures in an orange PP Box.

Description	Cover type	PK	Cat. No.
clear	Short Thread Cap, blue, hole, Silicon white / PTFE red	100	9003560*LLG
clear	Short Thread Cap, blue, hole, Silicon white / PTFE blue, slitted	100	7621765*LLG
clear	Short Thread Cap, transparent, hole, Silicon white / PTFE red	100	9003561*LLG
clear, labelling field	Short Thread Cap, blue, hole, Silicon white / PTFE blue, slitted	100	9003562*LLG
clear, labelling field	UltraClean Short Thread Cap, blue, hole, Silicon white / PFE red	100	7970892*LLG
amber, labelling field	UltraClean Short Thread Cap, blue, hole, Silicon white / PFE red	100	6266871*LLG

Tubing, PEEK

For use in LC, LCMS and automation technology.
The polyetheretherketone (PEEK) tubing is a flexible alternative to stainless steel tubing in high-pressure applications.

- Smooth inner surface
- Good chemical resistance
- Bio-inert and biocompatible
- Operating temperature up to max. 100 °C
- Pressure stable up to 483 bar (7000 psi, 48000 kPa)

Int. diam. mm	Ext. diam. mm	Length m	Colour	PK	Cat. No.
0.13	1.6	1.5	red	1	4662782*LLG
0.18	1.6	1.5	yellow	1	4662783*LLG
0.25	1.6	1.5	blue	1	4662784*LLG
0.13	1.6	3	red	1	4662785*LLG

Accessories for PEEK Tubing

Fingertight fittings for HPLC tubing made of PEEK.

Type	Pressure max. bar	PK	Cat. No.
1/16" ... 10-32 UNF	345	10	4664157*LLG
1/32" ... 10-32 UNF	345	10	4664159*LLG

b.safe caps, GL45, PP/PPS, PFAS Analytic

Ideal for PFAS-Analysis

Screw caps, with freely movable insert made of PP, with female threads UNF ¼" 28G, for connecting capillary tubing (O.D. 3.2 mm) and a b.safe air valve. Free from polyhaloolefins.

- Insert made of PP
- Fittings made of PE
- Ideal for PFAS analysis

Scope of supply: Cap, fittings (PE), blind fittings (PE), air valve with service life indicator

Capillary connections:	3
Quantity of fittings:	3 x 3.2 mm
Quantity of blind fittings:	2
Neck thread:	GL 45

Type	PK	Cat. No.
b.safe-Cap	1	4694468*LLG

Ultrapure water system
Ultra Clear™ TP ED Polisher

eVOQUA
WATER TECHNOLOGIES

- Large Touch Display
- For Demineralised Water

The Ultra Clear™ TP ED Polisher models are designed for deionised water feed at conductivity < 20 µS/cm and deliver up to 2 l/min ultrapure water.

- 7" Multi-color touch display
- For deionised water with max. 20 µS/cm
- TOC oxidation and monitoring (TM)
- User-guided, integrated disinfection mode
- Temperature compensation can be switched off
- Energy saving mode
- Wall mounting possible
- Modbus connectivity
- USB, printer and SD card connection

Scope of supply: ultrapure water system, 1 set of modules and filters

Specifications
TOC value:	< 3 ppb
Conductivity:	0.055 µS/cm
Ultra pure water output:	up to 2 l/min
Resistance:	18.2 MΩ-cm
Bacteria:	< 0.1 KbE/ml
Particle > 0.2 µm/ml:	< 1
Weight:	23 kg
Rating:	225 W
Supply requirements:	100 ... 240 V, 50/60 Hz

Type	PK	Cat. No.
Ultra Clear™ TP ED UV	1	4683652*LLG

Water, ultra pure

Water for a variety of applications in analytical chemistry.
H_2O - LF < 1 µS/cm - 0.4 µm, UV filtrated.

Type	Nominal capacity ml	PK	Cat. No.
Water, ultra pure	5000	1	4675028*LLG

Distilled water

DR. WEIGERT

Deionized and UV irradiated. Acc to DIN 43530/EN 385.
In plastic canister.

Specifications
pH value:	<7.0
Conductivity:	<5 µS/cm
Hardness:	<0.02 mmol/l
Chlorine content:	<2 mg/l

Capacity L	PK	Cat. No.
10.0	1	6273852*LLG
20.0	1	6280900*LLG

You can find our complete range on our website.

Desiccator cabinets, vacuum

Vakuum 2

Solid walls of 25 mm thickness, circular silicone gasket, vacuum gauge, Vaccum 1 including two shelves, usable with up to three shelves, Vacuum 2 including three shelves, usable with up to five shelves, and Vacuum 3 including four shelves, usable with up to seven shelves.

- Clear acrylic panels, the interior is visible from all sides
- Circular silicone seal
- Variable height shelves
- Vacuum gauge (0 to 760 mm of mercury)
- Vacuum up to 0.0001 Torr
- Two needle valves with O.D. 9.0 mm

Specifications	Vacuum 1/Vacuum 2/Vacuum 3
Usable volume/Total volume:	18 l/25 l/32 l
Maximum all-over load per shelf:	9 kg
Total all-over load:	30 kg/40 kg/50 kg

Type	Internal dimensions (W x D x H) mm	External dimensions (W x D x H) mm	PK	Cat. No.
Vacuum 1	260 x 260 x 260	300 x 300 x 340	1	9042002*LLG
Vacuum 2	260 x 260 x 360	300 x 300 x 440	1	9042003*LLG
Vacuum 3	265 x 260 x 460	315 x 310 x 550	1	9042004*LLG

Water jet pump, nickel-plated

Nickel-plated brass, non-return valve, with connection for quick coupling.

Description	Thread	Weight g	PK	Cat. No.
Water jet pump	G 1/2	188	1	9303000*LLG
Quick coupling for water jet pump			1	9303001*LLG

Diaphragm pumps chemistry design, ME 1C

Thanks to their user-friendly functionality, compactness and high performance, the ME 1C diaphragm pumps are the perfect partner for single filtration and multiple suction devices.
Single-stage diaphragm pumps are ideal for continuous, oil-free pumping of gases with low vacuum requirements.
In chemical diaphragm pumps ("C"), the pumped gases and vapours only come into contact with chemical-resistant fluoroplastics.
An optional vacuum fine adjustment head with a manual control valve and pressure gauge allows infinitely variable adjustment of the effective pumping speed and the ultimate vacuum.

Type	Flow rate (50/60 Hz) L / min.	Ultimate vacuum without / with gas ballast mbar	Connector	PK	Cat. No.
ME 1C	11.66 / 14.16	100	CEE	1	9880934*LLG
ME 1C	11.66 / 14.16	100	CH	1	9880935*LLG
ME 1C	11.66 / 14.16	100	UK	1	9880936*LLG

Vacuum tubing, rubber (NR)

Red. Durometer 45 Shore A.
Supplied: 1 x 10 metres.

Int. diam. mm	Wall thickness mm		PK	Cat. No.
6	5		10	9205812*LLG
7	4		10	4679012*LLG
8	5		10	9205814*LLG

Precision balance PCJ, IoT-Line

KERN

New

- LIMS Connection
- Large Display

PCJ 600-2M

The KERN Universal Port (KUP) permits the connection of an external KUP interface adapter, such as RS-232, USB, Bluetooth, WiFi or Ethernet, for the exchange of data and control commands, without any installation outlay. Data query and remote control of the balance via computer or CRM/ERP systems using KERN Communication Protocol.

- Backlit LCD, digit height 21 mm
- Alibi memory for paperless archiving of weighing results
- Internal adjustment using the rotary control on the side
- The balance can be adjusted in battery operation
- Connection to laboratory information systems (LIMS)
- GLP/ISO record
- Battery operation, 4 × 1.5 V AA standard, operating time up to 20 h
- Permissible ambient temperature 15-35 °C

Scope of supply: Precision balance, protective working cover, hook for underfloor weighing

Specifications	PCJ 600-2M || PCJ 6000-1M
Max. load:	600 g
Readability:	0.01 g || 0.1 g
Reproducibility:	0.01 g || 0.1 g
Linearity:	±0.03 g || ±0.3 g
Weighing plate (WxD):	130 x 130 mm || 150 x 170 mm
Dimensions (WxDxH):	163 x 245 x 80 mm
Power supply:	100 ... 240 V AC, 50/60 Hz
Weight:	2.0 kg || 2.8 kg

Type	PK	Cat. No.
PCJ 600-2M	1	6326962*LLG
PCJ 6000-1M	1	6326961*LLG

Balance bench with granite slab

KERN

Designed to absorb shocks and vibrations that would otherwise falsify the weighing result. With a granite stone plate supported on rubber elements, which serves as a standing surface for an analytical balance. The worktop encloses the stone plate and offers many storage options.

Specifications

Dimensions (W x D x H):	768 x 648 x 800 mm (height adjustable)
Dimensions granite slab (W x D x H):	410 x 270 x 115 mm
Net weight:	approx. 55 kg

Description	PK	Cat. No.
Balance bench with granite slab	1	6262477*LLG

Analytical balances Explorer® EX

OHAUS®

- High-resolution, colour VGA touchscreen, multilingual, with icons for easy operation
- Application: Weighing functions (17 weighing units plus free weighing units), piece counting, percentage weighing, animal weighing/dynamic weighing, check weighing, filling weighing, totalising, formulation, differential weighing, density determination, maximum value hold, ingredient calculation, pipette calibration, gross/net/tare function
- Operation: Mains operation
- Interfaces: Easily accessible communication interfaces (USB, RS232), additional 3rd slot for communication (Ethernet or 2nd RS232). Data output by GMP/GLP with time and date, direct data transfer

EX224

Glass draft shield with a hinged door at the top, replaceable labour protection cover.

Equipment: 3-door, frameless draft shield with interchangeable panes for models with 0.1 mg and 1 mg, optionally with automatic draft shield door. Automatic internal calibration AutoCal. Illuminated bubble level. Selectable ambient and pressure settings. Integrated underfloor weighing hook. Labour protection cover. Locking switch for the software.

Type	Weighing range g	Readability	PK	Cat. No.
EX125	120	0.01 mg	1	6268202*LLG
EX224	220	0.1 mg	1	9902371*LLG
EX224/AD*	220	0.1 mg	1	6266074*LLG
EX225D	120 / 220**	0.01 / 0.1 mg	1	6268203*LLG
EX225D/AD*	120 / 220**	0.01 / 0.1 mg	1	6268204*LLG

*Automatic door, **Dual range

Weight set E2, cylindrical shape, with wooden box

KERN

Stainless steel, polished. In fully lined wooden boxes. With glove for handling weights (included in weight sets up to 100 g), tweezers and dust brush. Internationally recognised DAkkS certificates are available.

Description	PK	Cat. No.
1 mg ... 500 g	1	7631331*LLG

Magnetic stirrer LLG-uniSTIRRER 2

Ideal for Training Purposes

Compact and cost-efficient magnetic stirrer without heating for volumes up to 1000 ml. Adjustable speed from 0 to 2000 rpm. Plate diameter 120 mm. Body made of ABS.

Support rod, aluminium (Cat. No. 6.263 435) available as an optional accessory.

Scope of supply: Magnetic stirrer, mains adapter, 2 stirring rods 27 x 8 mm and 34 x 8 mm

Specifications

Stirring quantity (H$_2$O):	1000 ml
Speed range:	0 ... 2000 rpm
Permissible ambient temperature:	0 ... 50 °C
Magnetic bar:	25 x 8 mm
Display:	Analog
Heating plate:	120 x 120 mm
Dimensions (W x D x H):	150 x 135 x 53mm
Weight:	0.5 kg
Power supply:	100 ... 230 V, 50/60 Hz
IP code:	IP 21

Type	Plug type	PK	Cat. No.
LLG-uniSTIRRER 2	EU	1	6263430*LLG
LLG-uniSTIRRER 2	UK	1	6263431*LLG

Multi-position magnetic stirrers MIX 15 eco

- Induction Drive
- Digital Display
- Made in Germany

Without heating. Non-mechanical, electronic induction drive, 100% wear-free and maintenance-free. With 15 stirring positions, e.g. for 6 L x 1 L Erlenmeyer flasks or 15 ml x 250 ml beakers (high form). Suitable for mass screening and biological applications, even in humidity incubators. With a built-in controller, digital speed indicator and SoftStart drive. Supplied with mains adapter. 3-year warranty. Made in Germany.

Specifications

Max. stirring volume (H$_2$O):	3 l
Motor rating input:	10 W
Stirring positions:	15
Speed range:	120 ... 1200 rpm
Permissible ambient temperature:	-10 ... 50 °C
Permissible humidity:	80%
Display:	digital
Dimensions (W x D x H):	245 x 425 x 38 mm
Weight:	7.7 kg
IP code:	IP 65
Power supply:	115/230 V, 50/60 Hz

Type	PK	Cat. No.
MIX 15 eco	1	9645958*LLG

Magnetic stirrer Hei-Mix

- Up to 5 Litres
- White PVDF Plate

- Without heating
- The white surface makes the device suitable for titrations
- The Hei-Mix S has a PVDF control plate and a polyamide housing

Specifications

Stirring quantity (H$_2$O):	5 l
Speed range:	0 ... 2200 rpm
Permissible ambient temperature:	5 ... 31 °C
Permissible relative moisture:	80%
Plate Material:	PVDF
Plate Dimensions (Ø):	104 mm
Dimensions (W x D x H):	126 x 140 x 80 mm
Weight:	1.1 kg
Power supply:	230 V
Protection class:	IP 21

Type	Plug type	PK	Cat. No.
Hei-Mix S	EU	1	9720167*LLG
Hei-Mix S	UK	1	6201570*LLG

Vortex mixers ZX4/WIZARD/TX4 with IR sensor

WIZARD

ZX4

TX4

Vortexers with patented IR sensor for sample recognition: the shaking process starts automatically when the sample tube approaches the mixing cup head.

- For IR sensor and continuous operation
- Electronic speed control
- Adjustable shaking speeds up to 3000 min^{-1}
- Very good chemical resistance

ZX4: Analog vortex mixer
WIZARD: Compact, analogue vortex mixer
TX4: Digital vortex mixer with timer and LCD

Scope of delivery: Vortex mixer with mixing head

Specifications

Type of movement:	orbital
Orbital diameter:	4.5 mm
Speed range:	0 ... 3000 rpm
Input power	15 W
IP code:	IP 42
Power supply:	100 ... 240 V, 50 ... 60 Hz
Warranty:	3 years

Type	Net weight kg	Plug type	PK	Cat. No.
ZX4	2.7	EU	1	7971461*LLG
ZX4 with foam stands	2.7	EU	1	4666714*LLG
WIZARD	2.2	EU	1	4666536*LLG
TX4	2.7	EU	1	4666537*LLG

Centrifuge Frontier™ Multi FC5707

- New in the Range
- For 15 and 50 ml Tubes

Compact multifunctional centrifuge for general laboratory applications, with splash-proof control panel and touch-wheel control. The pre-installed angle rotor is suitable for round-bottom and conical tubes, as well as for conventional blood tubes.

- Backlit, two-lined LCD
- Quiet brushless motor
- 10 acceleration and deceleration rates
- Fast spin for small measurement runs
- Timer 10 s to 99 h 59 min 59 s
- Memory for up to 99 programmes
- Lid locking system
- Imbalance sensor
- Angle rotor for 4 x 50 ml or 4 x 15 ml tubes

Scope of supply: Centrifuge, 4 x 50/15 ml angle rotor

Specifications

Max. rcf:	4445 x g
Speed:	200 ... 6800 rpm
Permitted ambient temperature:	2 ... 35 °C
Dimensions (WxDxH):	277 x 356 x 236 mm
Power supply:	230 V, 50/60 Hz
Weight:	10 kg

Type	PK	Cat. No.
FC5707+R09	1	6492207*LLG

LLG-Centrifuge Tubes economy, PP

- With flat PE caps
- With conical bottom (15 and 50 ml) or with self-standing bottom (50 ml)
- Easy-to-read black-volume graduations
- Engraved graduation at the conical bottom of each tube
- Max. rotate speed up to 12000 x g for conical bottom tubes and 6000 x g for self-standing tubes
- Autoclavable at 121 °C and freezable to -80 °C
- Free of pyrogens
- DNase/RNase-free

Capacity ml	Description	Form	PK	Cat. No.
15	Sterile, in bag of 25 pieces	conical	500	4668482*LLG
50	Sterile, in bag of 25 pieces	conical	500	4668483*LLG
50	Sterile, in bag of 25 pieces	with rim	500	4668486*LLG
15	Aseptically, bulk pack	conical	500	6270403*LLG
50	Aseptically, bulk pack	conical	500	6270404*LLG
50	Aseptically, bulk pack	with rim	500	6270405*LLG

Midi centrifuge G-L

For 1,5 and 2 ml Tubes

Ideal for all types of separation processes, such as in molecular biology. It can be used with standard 1.5/2 ml tubes as well as with PCR strips. The cover opens automatically at the press of a button.

- High-performance motor
- With metal cover
- Starts only when the cover is firmly closed
- Direct and easy setting of speed, rotational speed and programs via membrane keypad

Scope of delivery: Midi centrifuge inkl. metal rotor and cover for 12 vessels, with a capacity of 1.5/2 ml

Specifications

Max. RCF:	16500 x g
Max. speed:	15700 rpm
Max. capacity:	12 x 1.5/2.0 ml
Power consumption:	65 W
Dimensions (W x D x H):	200 x 280 x 140 mm
Weight:	3.9 kg
Power supply:	220 ... 230 V, 50 ... 60 Hz
Protection class:	IP 20

Type	Plug type	PK	Cat. No.
G-L	EU	1	4664755*LLG
G-L	UK	1	6327434*LLG
G-L	CH	1	6327435*LLG

LLG-Microcentrifuge tubes, PP

LLG Microtubes cover standard volumes for a variety of sample tests. Certified DNase-, RNase- and pyrogen-free. Clear, in bags. Suitable for microbiology.

Specifications
Autoclavability

Temperature:	121 °C
Pressure:	1.05 bar or 15 psi
Time:	20 minutes or less

Centrifugation

Fixed angle rotor:	25000 x g
Swing out rotor:	70000 x g

Form	Volume ml	Max. rcf	PK	Cat. No.
conical	0.5	20000	1000	9409023*LLG
conical	1.5	25000	1000	9409024*LLG
round	2.0	25000	1000	9409025*LLG

KEFO

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PARTNER OF THE
LLG
Laboratory Supply Solutions

LABOR**TOPS**

Rotary Evaporator Hei-VAP Core

heidolph
research made easy

Organised and with direct access to the basic parameters of rotation speed and heating bath temperature at all times. For integration into an existing vacuum system or configuration with an optional vacuum controller.

- Clear digital display for showing the current values and button for displaying the set values
- Direct access to rotation and heating bath via separate rotary pushbuttons with LED light to indicate activity
- Locking function for the values to prevent unintentional adjustment or overheating
- Residual heat warning at >50 °C
- Easy adjustment of the immersion depth up to 155 mm and the angle of inclination of the vaporiser bulb from 20° to 80°
- Grease-free glass sets thanks to innovative sealing technology
- Optional cable extension means the control panel can also be installed outside closed fume cupboards

Scope of supply: Flask clamp Easy-Clip, vapour tube, ventilation cap, heating bath, 1-l receiving flask, 1-l evaporating flask.
Supplied condenser as indicated.

Specifications
Drive
Speed range: 10 ... 280 rpm
Speed display: Digital
Stroke displacement: 155 mm
Protection class: IP 20
Heating bath
Bath volume: 4.5 L
Temperature range: Ambient ... 210 °C
Power input: 1300 W
Protection class: IP 67
General data
Max. size evaporating flask: 5 L
Condensing surface: 1400 cm²
Condensing surface XL condenser: 2200 cm²
Power supply: 230 V

! - Residual Heat Warning
- With Hand Lift
- Vertical Glass Set

Description	Glassware set	Plug type	PK	Cat. No.
G1 Angled condenser	standard	EU	1	4666085*LLG
G1 Angled condenser	standard	UK	1	4666107*LLG
G1 Angled condenser	standard	CH	1	4666127*LLG