

LABORTOPS

valid until 31.03.2020

Laboratory Balances Entris[®] II



- With isoCAL
- Large Touch Display
- High Chemical Resistance

NEW



sartorius

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LLG-Weighing Bottles with NS lid,
Borosilicate glass 3.3



With writing area.

Form	Capacity	Diam.	Height	NS	PK	Cat. No.
	ml	mm	mm			
low	3	25	25	19/12	1	9300151*LLG
low	10	35	30	29/12	1	9300152*LLG
low	11	40	25	34.5/12	1	9300150*LLG
low	20	50	30	45/12	1	9300153*LLG
low	29	60	30	50/12	1	9300154*LLG
low	60	80	30	80/12	1	9300155*LLG
tall	9	25	40	19/12	1	9300160*LLG
tall	19	30	50	24/12	1	9300161*LLG
tall	42	35	70	29/12	1	9300162*LLG
tall	66	40	80	34.5/12	1	9300163*LLG
tall	105	50	80	45/12	1	9300164*LLG

LLG-Weighing Brush,
with wooden handle



Excellent tool for cleaning weighing boats, weighing dishes and analytical balances.

Description	PK	Cat. No.
LLG-Weighing brush	1	6267404*LLG

Disposable Spoons SteriPlast®, PS



- Individually packed
- Additionally gamma-sterilised
- Production, assembly and packaging acc. to Cleanroom class 7 (10000)
- According to EU food and FDA guidelines

Type	Sterile	Capacity	Length	PK	Cat. No.
		ml	mm		
SteriPlast®	+	2.5	127	100	6265045*LLG
SteriPlast®	+	10	170	100	6265046*LLG

Weighing Boat Parchment Paper,
Kjeldahl 609



Especially for determination of nitrogen according to Kjeldahl (e.g. determination of total protein content in foodstuff). Made of nitrogen-free parchment paper. Can be dropped into the Kjeldahl flask and be dissolved together with the sample.

Type	Width	Length	Height	PK	Cat. No.
	mm	mm	mm		
Kjeldahl 609	10	55	10	100	9069011*LLG

Laboratory Balances Entris® II



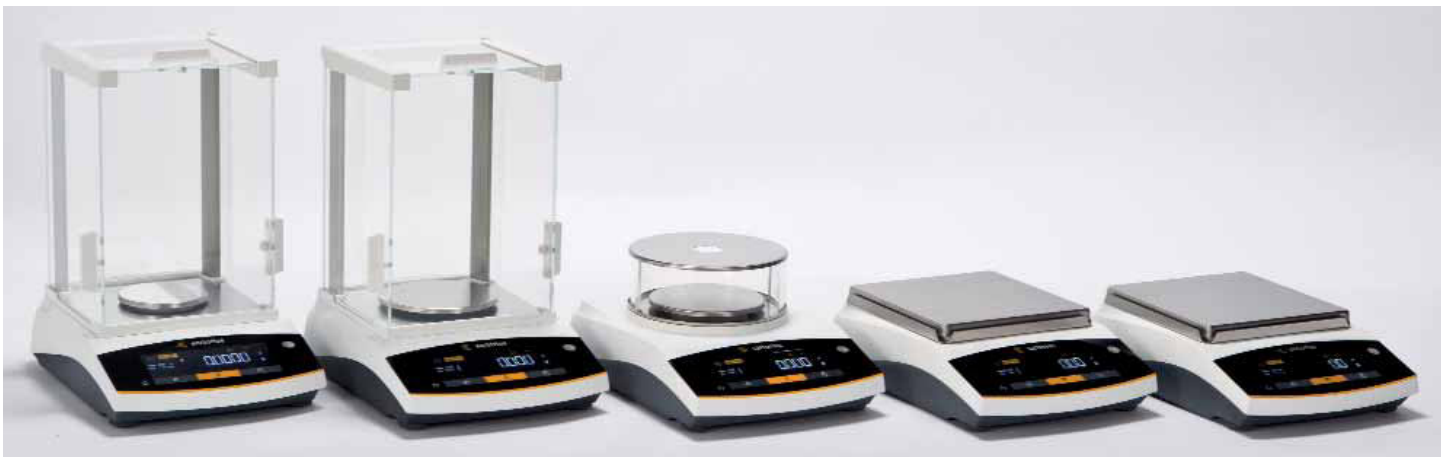
- With isoCAL
- Intuitive User Interface
- High Chemical Resistance



The evolution of the Entris® balance series. The large portfolio offers the right model for every weighing task. With many convenience functions for efficiency and accuracy in the laboratory. "Made in Germany" Quality.

- Modern sensors ensure very fast stabilisation time
- Automatic, internal calibration and adjustment function (isoCAL) for all "i" models
- Weighing platform made of stainless steel

- Excellent readability and operability with hybrid touch display
- Automatic detection of connected Sartorius accessories
- Direct data transfer to connected PCs with USB-C and RS232 interface without the need of additional software
- 12 integrated applications with GLP/GMP-compliant protocol
- Easy to clean, high chemical resistance
- Multilingual interface



Precision Balances Entris® II

Scope of supply: Precision balance, power supply unit, dust protection cover.

Specifications	without windshield // with windshield
Weighing platform:	182 x 182 mm // Ø 120 mm
Dimensions (W x D x H):	219 x 317 x 94 mm // 219 x 317 x 146 mm
Power supply:	100 ... 240 V, 50 ... 60 Hz

Type	Capacity	Readability	Reproducibility	Linearity	Weight	PK	Cat. No.
	g	g	g	± g	kg		
BCE653i-1S*	650	0.001	0.0005	0.0006	4.8	1	4669172*LLG
BCE2201-1S	2200	0.1	0.05	0.06	4.3	1	4669113*LLG
BCE2202-1S	2200	0.01	0.005	0.006	4.3	1	4669117*LLG
BCE2202i-1S	2200	0.01	0.005	0.006	6.2	1	4669120*LLG
BCE4202i-1S	4200	0.01	0.005	0.006	6.2	1	4669140*LLG
BCE6202-1S	6200	0.01	0.005	0.006	4.6	1	4669153*LLG
BCE6202i-1S	6200	0.01	0.005	0.006	6.2	1	4669156*LLG
BCE8201i-1S	8200	0.1	0.05	0.06	6.2	1	4669180*LLG

* with round glass windshield

Precision Balances Entris® II with square windshield

High weighing space, easy access to weighing platform through side doors and upper sliding door. Specially coated windscreen against electrostatic charge.

Scope of supply: Precision balance, power supply unit, dust protection cover.

Specifications	
Readability:	1 mg
Reproducibility:	±1 mg
Weighing platform:	Ø 120 mm
Weighing space height:	240 mm
Dimensions (W x D x H):	219 x 317 x 345 mm
Weight:	6.3 kg
Power supply:	100 ... 240 V, 50 ... 60 Hz

Type	Capacity	Linearity	PK	Cat. No.
	g	± g		
BCE323-1S	320	0.6	1	4669133*LLG
BCE423i-1S	420	0.6	1	4669144*LLG
BCE623i-1S	620	0.6	1	4669164*LLG

Analytical Balances Entris® II

High weighing space, easy access to weighing platform through side doors and upper sliding door. Specially coated windscreen avoids electrostatic charge.

Scope of supply: Analytical balance, power supply unit.

Specifications	
Readability:	0.1 mg
Reproducibility:	±0.1 mg
Weighing platform:	Ø 90 mm
Weighing space height:	240 mm
Dimensions (W x D x H):	219 x 317 x 345 mm
Weight:	6.2 kg
Power supply:	100 ... 240 V, 50 ... 60 Hz

Type	Weighing range	Linearity	PK	Cat. No.
	g	± g		
BCE124-1S	0.0001 ... 120	0.6	1	4669109*LLG
BCE124i-1S	0.0001 ... 120	0.6	1	4669112*LLG
BCE224-1S	0.0001 ... 220	0.6	1	4669125*LLG
BCE224i-1S	0.0001 ... 220	0.6	1	4669128*LLG

Respirators Aura™ 9300+ Series, Folding Masks



Particle masks Series 3M™ Aura™ 9300+ offer effective respiratory protection in industrial applications where workers are exposed to dust and/or non-volatile liquid particles.

Features and advantages of the Aura™ 9300+ series

- Clear vision: Embossed top panel helps reduce fogging of eyewear
- Low breathing resistance filter technology combines the benefits of 3M's electret particulate filter material with advanced low breathing resistance filter technology
- 3M™ Cool Flow™ Valve effectively removes heat build up to provide a cooler and more comfortable wear
- Innovative chin tab improves ease of donning and adjustment to help achieve a comfortable fit
- Ingenious 3-Panel design fits a wide range of face shapes and sizes to accommodate your facial movements
- Coloured headbands for easy identification: yellow for FFP1, blue for FFP 2 and red for FFP3
- Flat fold; easy to store when not in use
- Hygienic individual packaging helps protect the respirator from contamination before use

Authorisation: EU construction test
Testing standards: EN 149:2001 + A1:2009

Type	Description	Protection-level	PK	Cat. No.
Aura™ 9310+	without valve	FFP1	20	9005670*LLG
Aura™ 9312+	with Cool-Flow valve	FFP1	10	9005671*LLG
Aura™ 9320+	without valve	FFP2	20	9005672*LLG
Aura™ 9322+	with Cool-Flow valve	FFP2	10	9005673*LLG
Aura™ 9330+	without valve	FFP3	20	9005674*LLG
Aura™ 9332+	with Cool-Flow valve	FFP3	10	9005675*LLG

LLG-Safety Eyeshields evolution



- CE approved to EN166, EN170
- Panoramic wrapping lens
- 180° field of vision
- Frame made of tested hypo-allergenic material
- Side arms adjustable in length
- Nose pad and arm tips are made from soft, mouldable material offer optimal comfort and individual customisation
- Rubber eyebrow protection for greater shock absorption
- 100 % UV protection (up to 400 nm)
- Lightweight: 30 g only

Colour	Lens	PK	Cat. No.
black/green	clear, anti-scratch plus and anti-fog lens plus, 2C-1.2 U 1 FT CE	1	9006010*LLG

Women and Men's Laboratory Coats (Unisex) 1656

- Fold down collar
- With press studs
- Long sleeved
- Two side pockets are provided
- One outer breast pocket
- Without belt at the back



Material: Sanfor 100 % cotton diagonal twill
Colour: white
Weight: approx. 205 g/m²
Length: approx. 103 cm (Size L)

Size	PK	Cat. No.
XS	1	9414320*LLG
S	1	9414321*LLG
M	1	9414322*LLG
L	1	9414323*LLG
XL	1	9414324*LLG
XXL	1	9414325*LLG

Safety Eyeshields uvex super g 9172



Only 18 g

uvex



One of the lightest safety eyeshields worldwide, weighing only 18 g.

- Extremely thin lenses with exceptional optical clarity
- Ultralight Grilamid® frame
- Non-slip, perfect fit
- Metal-free

The coating of the lens is:

1. uvex supravision excellence, outside scratch-resistant, inside non-fogging, and with 100 % UV protection.
2. uvex supravision sapphire, excellent scratch and chemical resistance with 100 % UV protection.

Colour	Lens	Coating	PK	Cat. No.
crystal	PC transparent/UV, 2-1.2	1	1	6228096*LLG
titan	PC transparent/UV, 2-1.2	2	1	9005164*LLG

Disposable Gloves Microflex® 93-260

EN 388



EN 374



JKL

EN 374




Three layer design nitrile-neoprene-nitrile (100 % latex free and free of silicone) for superior protection against harsh chemicals including acids, solvents and bases. Thin mil construction provides enhanced tactility and dexterity. Extra soft material and ergonomic design for outstanding fit, feel and flexibility for longer wear time. Lower acceptable pinhole rate (0.65 AQL) and extended cuff for reliable protection against hazardous substances. Thickness 0.20 mm Silicone free formulation and processing ensure better product protection. **Cat. III**

Size	Length mm	PK	Cat. No.
XS	300	50	93-260/XS*ANS
S	300	50	93-260/S*ANS
M	300	50	93-260/M*ANS
L	300	50	93-260/L*ANS
XL	300	50	93-260/XL*ANS
XXL	300	50	93-260/XXL*ANS

Safety Gloves Clavies®, Heat Protection up to 230 °C



Soft, pliant, all-cotton terry cloth gloves. They are superb for handling hot objects out of the autoclave or oven, or for other heat protection in the lab, school or industry. Note: Gloves are not waterproof and should not be used to handle dry ice. 1 pair per pack.

Length gauntlet mm	Overall length mm	PK	Cat. No.
130	330	1	9005271*LLG
280	470	1	9005272*LLG

LLG-Disposable Gloves *classic*, Latex

EN ISO 374-1

Type C



K P

EN ISO 374-5



VIRUS

EN 420




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

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

According to EN ISO 374-1:2016/Type C, EN ISO 374-5, EN 420 Suitable for food handling.

Glove shape:	flat with rolled edge, ambidextrous
Material:	natural latex
Colour:	natural white
Outside:	textured fingers
Inside:	powder free
Size/Length:	S, M, L, XL/med. 240 mm
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

Cut-Protection Gloves uvex C500 dry/foam

EN 388



2 5 4 x

EN 388



4 5 4 2



dry



foam

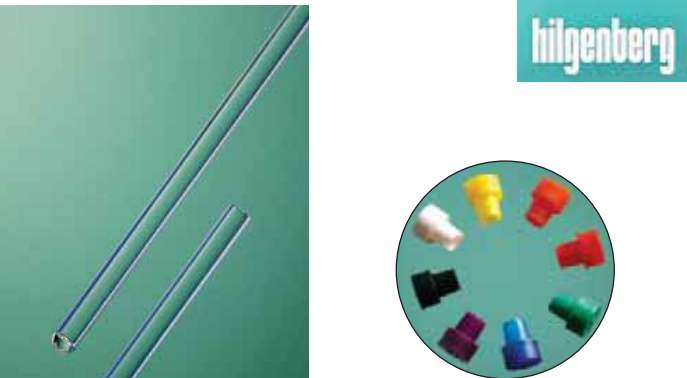
The new uvex C500 range sets standards in protection, comfort, flexibility, dexterity and economy.

- Model C500 Foam: palm and fingertips coated with soft-grip foam, moisture-repellent
- Model C500 dry: palm with micro-nubs, for dry working areas
- Outstanding tactile feel
- Flexible
- Silicone-free according to imprint test
- 1 pair per pack

Length:	270 mm
Colour:	lime/anthracite

Type	Size	PK	Cat. No.
dry	7	1	9414650*LLG
dry	8	1	9414651*LLG
dry	9	1	9414652*LLG
dry	10	1	9414653*LLG
dry	11	1	9414654*LLG
foam	7	1	9414655*LLG
foam	8	1	9414656*LLG
foam	9	1	9414657*LLG
foam	10	1	9414658*LLG

NMR Tubes, 3 and 5mm borosilicate glass 3.3, standard



The NMR tubes have precise tolerances for consistent high accuracy. Most suitable for autosampling NMR systems and high-throughput NMR. Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements

- fire polished rim
- Applicable until 600MHz

Please order closing caps separately.

Outer diam. mm	Int. diam. mm	Length mm	Wall thickness mm	PK	Cat. No.
2.95 ± 0.03	2.36 ± 0.03	178	0.29	50	6281792*LLG
2.95 ± 0.03	2.36 ± 0.03	203	0.29	50	6281793*LLG
4.95 ± 0.05	4.19 ± 0.05	178	0.38	100	9400310*LLG
4.95 ± 0.05	4.19 ± 0.05	203	0.38	100	9400311*LLG

Closing Caps for 5 mm NMR tubes

Colour	PK	Cat. No.
red	100	9400312*LLG
green	100	9400313*LLG
yellow	100	9400314*LLG
blue	100	9400316*LLG

NMR Tube Rack, PP



With carrying handles. It features an upper deck with holes and a lower deck support for tube ends. Stackable. For 72 tubes with 3 or 5 mm diameter. Dimensions (L x W x H): 213 x 115 x 222 mm.

Type	PK	Cat. No.
NMR Tube Rack	1	9301065*LLG

NMR Brushes



For cleaning NMR tubes.

Length mm	PK	Cat. No.
250	5	290740059*SCHOTT

Disposable Syringes HSW HENKE-JECT®, 2-part, non-sterile



- PP barrel
- PE piston
- Wipe-resistant scale
- Transparent cylinder
- Pyrogen-free, non-toxic and PVC-free

Capacity ml	Nozzle type	PK	Cat. No.
1	Luer-Slip	100	4669386*LLG
5	Luer-Slip	100	4669387*LLG
2	Luer-Slip	100	4669388*LLG
10	Luer-Slip	100	4669389*LLG
20	Luer-Slip	100	4669390*LLG
30	Luer-Slip	50	4669391*LLG
50	Luer-Slip	30	4669392*LLG

Hydrogen Generators Precision Hydrogen



Compact, Modular and Stackable System



Precision Hydrogen 100

For the safe and continuous production of hydrogen with a purity of 99.9995 % for GC and GC/MS.

- On demand generation of high-purity hydrogen as detector gas or the FID
- Hydrogen production from deionised water using proton exchange membrane
- Internal leakage detection with automatic switch-off function
- Minimal hydrogen storage in the system
- Front LED touch screen with status display
- Systems are available with different flow rates
- Very low maintenance requirements
- 3 years warranty on the hydrogen cell

Scope of supply: Hydrogen generator, 1 m Tygon® tubing, Deioniser column refill, barbed hose fitting, mains power cable for EU, UK and US, 2 x transit plugs

Specifications

Purity:	99.9995 %
Max. pressure:	6.9 bar/100 psi
Required water quality:	<1.0 µS/cm
Gas connection:	1/8" Swagelok
Permissible ambient temperature:	10 ... 35 °C
Dimensions (W x D x H):	38.0 x 54.0 x 40.6 cm
Power supply:	110/230 V, 50/60 Hz
Warranty:	3 years (cell). 1 year (device)

Type	Flow rate L / min.	Weight kg	PK	Cat. No.
Precision Hydrogen 100	0.1	29	1	4669273*LLG
Precision Hydrogen 200	0.2	29	1	4669274*LLG
Precision Hydrogen 300	0.3	29	1	4669275*LLG
Precision Hydrogen 450	0.45	29	1	4669276*LLG

HPLC SafetyCaps Starter Kits 2.0, GL 45



The integrated air valve blocks hazardous vapours and cleans the inflowing air from dust and dirt particles.

- Air valve with Luer-Lock adapter, PTFE filter and valve membrane
- Reproducible analysis results through stable mobile phase
- Chemically resistant PTFE body, freely rotatable
- Screw cap made of PPS, autoclavable
- Use the supplied blind plugs to tighten connectors which are temporarily inactive or not in use

Contents of the different sets:

HPLC SafetySet 1: 3 x SafetyCaps I 2.0,

1 x SafetyCap II 2.0, 1 x blind plug

HPLC SafetySet 2: 4 x SafetyCaps II 2.0,

4 x blind plugs

Type	PK	Cat. No.
HPLC safety set 1	1	4669378*LLG
HPLC safety set 2	1	4669379*LLG

Copure® QuEChERS Extraction Kits



Extraction and clean-up mixtures for sample preparation in the pesticide analysis of vegetable foodstuffs according to EN 15662.

The samples are first extracted with Mix A. Purification is done with one of the following mixtures:

- **Mix B** for fruits and vegetables with low fat content
- **Mix C** for fruits and vegetables with high fat content
- **Mix D** for moderately chlorophyll/carotenoid-containing fruits and vegetables
- **Mix E** for fruits and vegetables with high chlorophyll/carotenoid content

- **Mix A contains a bag with the required amount of mixture and a 50 ml empty tube**
- **Mix B, C, D and E are pre-weighed into a 15 ml tube**

Type	Capacity ml	Composition	PK	Cat. No.
Mix A	50	4 g MgSO ₄ , 1 g NaCl, 1 g Sodium Citrate, 0.5 g Disodium Citrate	50	4669294*LLG
Mix B	15	0.15 g PSA, 0.9 g MgSO ₄	50	4669295*LLG
Mix C	15	0.15 g PSA, 0.15 g C18, 0.9 g MgSO ₄	50	4669296*LLG
Mix D	15	0.15 g PSA, 0.015 g GCB, 0.9 g MgSO ₄	50	4669297*LLG
Mix E	15	0.15 g PSA, 0.045 g GCB, 0.9 g MgSO ₄	50	4669298*LLG
Homogenising beads		Ceramic	100	4669299*LLG

pH and Conductivity Measurement

LLG-pH Pen



- **Perfect for Measurements in Narrow Vessels**
- **3-Point Calibration**

Cost efficient pH tester, ideal for testing small amounts of liquid and/or in narrow vessels. The supplied storage container prevents the electrode from drying out.

- ATC from 0 °C to 50 °C
- Large, easy-to-read LCD display
- **3-point calibration**

Scope of supply: pH meter

Specifications

pH Measuring range:	0 ... 14
pH Accuracy:	±0.1
pH Resolution:	±0.1
Dimensions with electrode (W x D x H):	36 x 20 x 210 mm
Dimensions electrode (diam. x L):	12 x 110 mm
Weight:	72 g
Power supply:	2 x 3 V CR2032 button cell
IP code:	IP 65
Warranty:	2 years



LLG-pH Meter 5



- **pH/mV-/°C Handheld Instrument**
- **Very Easy to Use**



The pH value and temperature can be stored directly on the SD card (Excel file) or transferred directly from the pH meter to a PC via the RS-232 interface.

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

Please order batteries separately (6 x 1.5 V AA)
Optional: power cable, PC connection cable, PC software

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)

Technical Buffer Solutions



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

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

Description	PK	Cat. No.
LLG-pH Meter 5, set with electrode, temperature sensor, SD card and case	1	6263691*LLG

pH/Conductivity Meters SevenCompact™ Duo S213



Compact, universal dual-channel meter for measuring pH and conductivity as well as resistivity, salinity and TDS.

- Suitable for digital and analogue sensors
- Quick and easy calibration with up to 5 calibration points
- Automatic temperature compensation
- Memory for 2000 values
- Large TFT colour display
- Robust construction
- Intuitive, simple operation

Scope of supply:

Device incl. electrode holder, power adapter, protective cover, operating instructions, declaration of conformity and calibration certificate with InLab® Expert Pro-ISM pH sensor and InLab® 731 ISM conductivity sensor, 2 bags each of buffer pH 4.01, 7.00, 9.21, and 10.01, 2 bags each of conductivity standards 1413 µS/cm and 12.88 mS/cm

Specifications

Temperature range:	-5/-30.0 ... 130 °C // 0.1 °C // ±0.1 °C
pH:	0 ... 14 // 0.001/0.01/0.1 // ±0.002
mV:	-2000 ... 2000 mV // 0.1/1 // ±0.1 mV (-1000 ... 1000); ±0.2 mV (>1000 mV)
Conductivity:	0.001 µS/cm ... 1000 mS/cm // 0.001 ... 1 // ±0.5 %
Resistivity:	0.00 ... 100.0 MΩ x cm // 0.00 ... 1.0 // ±0.5 %
Salinity:	0.00 ... 80.00 psu/ppt // 0.00 ... 1.0 // ±0.5 %
TDS:	0.00 mg/l ... 1000 g/l // 0.01 ... 1 // ±0.5 %
Outputs:	RS232, USB-A/-B
Dimensions (W x D x H):	204 x 174 x 74 mm
Weight:	890 g
IP code:	IP 54

Measuring range // Resolution // Accuracy

Temperature range:	-5/-30.0 ... 130 °C // 0.1 °C // ±0.1 °C
pH:	0 ... 14 // 0.001/0.01/0.1 // ±0.002
mV:	-2000 ... 2000 mV // 0.1/1 // ±0.1 mV (-1000 ... 1000); ±0.2 mV (>1000 mV)
Conductivity:	0.001 µS/cm ... 1000 mS/cm // 0.001 ... 1 // ±0.5 %
Resistivity:	0.00 ... 100.0 MΩ x cm // 0.00 ... 1.0 // ±0.5 %
Salinity:	0.00 ... 80.00 psu/ppt // 0.00 ... 1.0 // ±0.5 %
TDS:	0.00 mg/l ... 1000 g/l // 0.01 ... 1 // ±0.5 %
Outputs:	RS232, USB-A/-B
Dimensions (W x D x H):	204 x 174 x 74 mm
Weight:	890 g
IP code:	IP 54

Type	PK	Cat. No.
SevenCompact™ Duo S213-Standard Kit	1	6284461*LLG

Laboratory Instrument inoLab® pH 7110



Basic pH/mV laboratory instrument for all tasks where reliable, accurate readings are required. With large LCD segment display and easy-to-read keyboard. The AutoRead function ensures correct and repeatable measurement results. A built-in timer reminds the user of periodical calibration.

Scope of supply: Instrument, mains power adapter, stand

Specifications

Ranges:	All values ±1 digit
pH:	-2.0 ... 20.0 ±0.1 pH -2.00 ... 20.00 ±0.01 pH -2.000 ... 19.999 ±0.005 pH
mV:	±(1200.0 ±0.3) mV ±(2000 ±1) mV
Calibration:	1-, 2- or 3 point WTW technical buffer or DIN/NIST
Temperature:	-5.0 ... 105.0°C ±0.1°C
Power supply:	Universal power supply 100 to 240 V, 50/60 Hz, 4 x 1.5V AA or 4 x 1.2V NiMH rechargeable batteries

Type	Description	PK	Cat. No.
pH 7110	Single unit incl. accessories	1	9920090*LLG
pH 7110 SET 2	Meter incl. SenTix® 41, buffer 4.7/10.01 and 3 mol/l KC1	1	9920091*LLG
pH 7110 SET 4	Meter incl. SenTix® 81, buffer 4.7/10.01 and 3 mol/l KC1	1	9920092*LLG

Cleaning and Storage Solutions for pH-electrodes



Designed to extend the useful life of your pH Electrode.

Type	Capacity	PK	Cat. No.
	ml		
Electrode Storage solution	500	1	ESS5*REA

LLG Dual Timer, 2-channel



2 in 1 - Two Separate Timers

The LLG Dual Timer offers two separate timers in one instrument. One fixed time can be stored per channel.

- Digital stopwatch (counting up)
- Short timer (counting down)
- With memory function
- Stopwatch with tenths of a second
- Stopwatch and countdown up to 99 h 59 min. 59 sec
- Optical (red LED) and acoustic alarm (2 volume levels), when timer expires
- Incl. magnet for mounting, hanging bracket and stand (fold-out)

Dimensions (W x H x D): 97 x 79 x 21 mm
Weight: 95 g
Power supply: 2 x AAA 1.5 V (not included)
Warranty: 12 months

Type	PK	Cat. No.
LLG dual timer	1	6311350*LLG

3-Channel-Short Period Timer



- Indicates three separate times simultaneously
- Measuring range: 1 sec to 20 hours
- Stopwatch function
- Integrated quartz watch
- Supplied with magnet and clip
- Operating temperature: 0 to 50 °C
- Battery 1.5V AAA inclusive

Dimensions (W x H x D): 71 x 88 x 24 mm
Weight: 115g

Type	PK	Cat. No.
3-channel timer	1	6233690*LLG

LLG Timer pro



2 in 1 - Real-Time Clock and Timer

The LLG Timer pro can be used simultaneously as clock and timer. The countdown timer also runs when time is visible.

- Digital stopwatch (counting up)
- Short timer (counting down)
- With memory function
- Stopwatch and countdown up to 23 h 59 min. 59 sec.
- Optical and acoustic alarm when timer expires
- Incl. magnet for mounting, hanging bracket and stand (fold-out)

Dimensions (W x H x D): 82 x 68 x 20.5 mm
Weight (with battery): 82 g
Power supply: 2 x AAA 1.5 V (not included)
Warranty: 12 months

Type	PK	Cat. No.
LLG timer pro	1	6311351*LLG

LLG-Lab Notebook



Numbered, acid-free, grid pages include spaces for title, project number, book number, date, and witness signature. Lined notebooks feature college ruled pages for easy report writing. Covers are waterproof and chemical-resistant. All notebooks contain periodic and conversion tables on the back. Admissible as court evidence when used as prescribed by law. Measures: 216 x 279 mm.

Type	Description	Colour	PK	Cat. No.
grid	100 pages	black	1	9050750*LLG
grid	200 pages	blue	1	9050751*LLG
lined	200 pages	red	1	9050752*LLG

Filter Holders, glass, Type 16309



For vacuum filtration of particles from solutions. Comprises 250 ml. Dismountable, top manifold with filter holder and clamp. For 47 mm and 50 mm diameter filters. Supplied complete with 1 L capacity filter flask with ground joint to fit manifold and PP side-arm for safe connection of flexible vacuum tubing

Type	Capacity ml	Filter size mm	PK	Cat. No.
All-glass unit	250	Ø 47 - 50	1	9604076*LLG

Glass Vacuum Filter Holders, glass, glass frit



Two compact, glass vacuum filter holders for simple particle testing and clarification of solutions. With glass frit membrane filter support and anodised aluminium clamp.

Scope of delivery:

Size 25 mm, 30 ml: Glass vacuum filtration unit with filter support consisting of PTFE ring and glass frit.

Size 47/50 mm, 250 ml: Glass vacuum filtration unit with silicone cover and filter support consisting of PTFE ring and glass frit.

Type	For Filter size	Volume ml	PK	Cat. No.
with glass frit	25 mm dia.	30	1	9604204*LLG
with glass frit	47/50 mm dia.	250	1	9604307*LLG

LLG-Syringe Filters *SPHEROS*

- **Topseller**
- **Tested by an Independent Analytical Laboratory**



- Robust Polypropylene housing
- Multifunctional syringe filters with female Luer-Lock inlet and male Luer-Slip outlet
- Suitable for all syringes with Luer connection

Nylon

Hydrophilic membrane for filtration of aqueous and organic/aqueous liquids with medium polarity. Very good chemical resistance to esters, alkaline solutions and alcohols. With female Luer-Lock inlet and male Luer-Slip outlet.

Filter diam. mm	Pore size µm	Housing	PK	Cat. No.
13	0.22	PP, pink	100	6272810*LLG
13	0.45	PP, pink	100	6272811*LLG
25	0.22	PP, pink	50	6272812*LLG
25	0.45	PP, pink	50	6272813*LLG

PTFE

Hydrophobic membrane for filtration of non-polar liquids and gases. Very good chemical resistance to all kinds of solvents and alkaline solutions. With female Luer-Lock inlet and male Luer-Slip outlet.

Filter diam. mm	Pore size µm	Housing	PK	Cat. No.
13	0.22	PP, white	100	6272816*LLG
13	0.45	PP, white	100	6272817*LLG
25	0.22	PP, white	50	6272818*LLG
25	0.45	PP, white	50	6272819*LLG

Membrane Filters, Grade ME, made from mixed cellulose esters



Distributor
GE Healthcare



- Excellent for gravimetrical analysis
- Especially for aqueous solutions
- Ideally suitable for contamination tests
- Hydrophilic
- Not sterile
- Can be used up to 125°C
- Autoclavable up to 121°C

Type	Diam. mm	Pore size µm	PK	Cat. No.
ME24	47	0.20	100	9058969*LLG
ME24	50	0.20	100	9058987*LLG
ME25	47	0.45	100	9058939*LLG
ME25	50	0.45	100	9058942*LLG

Beakers, Borosilicate glass 3.3, low form



DIN 12 331. ISO 3819. With approximate graduations and spout.

Nominal capacity ml	Diam. mm	Height mm	PK	Cat. No.
50	42	60	10	9013901*LLG
100	50	70	10	9013902*LLG
150	60	80	10	9013903*LLG
250	70	95	10	9013904*LLG
400	80	110	10	9013910*LLG
600	90	125	10	9013911*LLG
1000	105	145	10	9013913*LLG

Silicone Lid DURAN®



- Versatile and Sustainable
- Perfect Fit

Stretchable silicone lid for safe coverage of vessels, e.g. to protect against dust or splashing of solutions. The wide overlapping sides of the silicone lid closes well with the vessel wall. Suitable for temperatures from -40 °C to 180 °C. The prolonged exposure to solvents may cause swelling of the material.

- Labelling field on the flap
- Chemically resistant
- Heat resistant
- Suitable for dishwashers
- Autoclavable



Type	Ø mm	Colour	PK	Cat. No.
Size S	43 ... 61	pink	5	291101119*SCHOTT
Size S	43 ... 61	cyan	5	291101127*SCHOTT
Size S	43 ... 61	green	5	291101135*SCHOTT
Size M	64 ... 76	pink	5	291102115*SCHOTT
Size M	64 ... 76	cyan	5	291102123*SCHOTT
Size M	64 ... 76	green	5	291102131*SCHOTT
Size L	84 ... 116	pink	5	291103111*SCHOTT
Size L	84 ... 116	cyan	5	291103128*SCHOTT
Size L	84 ... 116	green	5	291103136*SCHOTT
Set S / M / L		pink	1	291100011*SCHOTT
Set S / M / L		cyan	1	291100028*SCHOTT
Set S / M / L		green	1	291100036*SCHOTT

Wide-Mouth Bottles, amber glass, PTFE-lined screw caps



The PTFE-lined screw caps make them ideal for taking samples.

Type	Colour	Capacity ml	Thread diam. mm	PK	Cat. No.
RB 250 GT	amber	250	55	1	9072325*LLG
RB 500 GT	amber	500	55	1	9072326*LLG
RB 1000 GT	amber	1000	68	1	9072327*LLG

Wide-Mouth Bottles GLS 80® protect, DURAN®, with screw closure



Laboratory bottle with batch identification (Retrace Code), certificate available via the internet, with GLS80® wide-mouth (o.d. 80 mm). Glass Type I/neutral glass as per USP, EP and JP. With a resistant and transparent plastic coating, based on a cross-linked copolymer. Complete with blue quick release closure (PP, integral lip seal) and pouring ring (PP) for drip-free pouring and clean, safe working.

- Protection of the glass surface against mechanical damage
- Keeps broken glass in place after breakage and avoids or reduces leakage
- Minimises loss of media in case of breakage
- Absorption of light up to a wavelength of 380 nm

Temperature resistance:

- Autoclavable (< 135 °C)
- Can be used in microwaves
- High temperature applications for extended periods (>30 min) and direct heating with a flame not recommended

Capacity ml	Diam. mm	Height without closure mm	PK	Cat. No.
250	95	106	1	218653652*SCHOTT
500	101	148	1	1160152*SCHOTT
1000	101	218	1	1160163*SCHOTT
2000	136	248	1	1160164*SCHOTT
3500	160	271	1	218656958*SCHOTT
5000	182	310	1	1160165*SCHOTT

Single Channel Microliter Pipettes Acura® manual 825/835, variable



- Fast & Reliable Volume Adjustment
- Well Visible Display

Introducing a smooth, modern design with easy volume reading. It also features a number of innovations that allow safe, easy and high-performance pipetting.

- Effortless activation
- Smart and reliable volume adjustment
- Precision digital display, visible at all times
- Justip™ adjustable tip ejector fitting most tips
- Swift-set user calibration system
- Shock, UV-light and autoclaving resistance
- Three-year warranty



Type	Capacity	Increments	Accuracy max. vol. (± R%)	Precision max. vol. (≤ CV%)	PK	Cat. No.
	µl	µl				
825	0,1 - 2	0.002	2.0	1.5	1	9411590*LLG
825	0,5 - 10	0.01	1.0	0.5	1	9411591*LLG
825	1 - 10	0.01	1.0	0.7	1	9411592*LLG
825	2 - 20	0.02	1.0	0.5	1	9411593*LLG
825	5 - 50	0.1	1.0	0.4	1	9411594*LLG
825	10 - 100	0.1	0.8	0.2	1	9411595*LLG
825	20 - 200	0.2	0.6	0.2	1	9411596*LLG
825	100 - 1000	1	0.5	0.2	1	9411597*LLG
835	200 - 2000	0.002	0.5	0.2	1	6230186*LLG
835	500 - 5000	0.01	0.6	0.3	1	9411598*LLG
835	1000 - 10000	0.01	0.5	0.2	1	9411599*LLG

LLG-Pasteur Pipettes, PE



Manufactured from transparent PE.
Sterile or non-sterile. Graduated.

Type	Capacity	Length	PK	Cat. No.
	ml	mm		
non-sterile	1	150	500	9401081*LLG
non-sterile	3	150	500	9401080*LLG
sterile, single wrapped	1	150	1000	9401085*LLG
sterile, single wrapped	3	150	1000	9401084*LLG

LLG-Labware Pipette Tips, economy 2.0, PP



Colour-Coded Rack Inserts

The new generation of LLG Labware Pipette tips economy. Available in bulk quantities in bags or in easy-to-open boxes with colour-coded racks. Racked-tip boxes are delivered in a dispenser, which can be opened from two sides facilitating the use of the product on two work spaces. Compatible with all common pipette brands.

- Improved optical clarity and pipette fit
- Colour-coded rack inserts for easy identification
- Graduated
- Autoclavable
- DNase and RNase free



Capacity	Colour	Sterile	Package contents	PK	Cat. No.
µl					
0.1 ... 10	transparent	-	1000 tips in bag	1000	4668775*LLG
0.1 ... 10	transparent	-	10 x 96 tips in rack	960	4668776*LLG
1 ... 200	yellow	-	1000 tips in bag	1000	4668777*LLG
1 ... 200	yellow	-	10 x 96 tips in rack	960	4668779*LLG
100 ... 1000	blue	-	1000 tips in bag	1000	4668781*LLG
100 ... 1000	blue	-	8 x 96 tips in rack	768	4668783*LLG

Safety Laboratory Gas Burners
Fuego SCS series



- The low profile body facilitates ergonomic operation and the streamlined design reduces air flow disturbances in a Cleanroom workbench. Made of stainless steel, with fireproof controls.
- SCS Safety Control System with gas safety cut off: ignition and flame control, temperature monitor, automatic unit switch off, residual heat display, burner head assembly monitor
 - BHC Burner Head Control
 - Removable burner head
 - Tilt mechanism right/left
 - Turbo flame
 - Holding device for 3 inoculation loop holders
 - Nozzles for natural gas, propane/butane gas
 - Approved by DIN-DVGW, approval no. NG2211AS0167
 - Warranty: 2 years

Fuego SCS basic: With stainless steel foot pedal. The foot pedal regulates the burning time either by continuous foot pressure or by start-stop function. Instrument with ON/OFF button function.

Fuego SCS: with Double-Click IR-sensor, button function and foot pedal operation. (foot pedal optional). Double-Click IR-sensor: This adjustable safety function ensures that the burner can only be ignited by activating the IR-Sensor twice. Adjustable IR-sensor reaction distance: 5 to 50 mm.

Illuminated graphic display: The self-explanatory and language-less symbol display facilitates a rapid selection of all functions. 6 standard-programs with count down display: 1sec to 2hrs selectable.

The first safety laboratory gas burner with comfort package: Cooling time reminder for inoculation loops, temperature regulation for heating media, gas consumption display for gas cartridges.

Additional accessories are available on request.

Specifications	
Dimensions (W x D x H):	103 x 130 x 49 mm
Power supply:	100-240 V 50/60 Hz, max. 0.3 A; 9 V DC, 1.3 A
Weight:	700 g

Type	PK	Cat. No.
Fuego SCS basic	1	6232207*LLG
Fuego SCS	1	6231770*LLG

Bunsen Burners and Gas Cartridges

Labogaz® 206

For operation with gas cartridge C 206 GLS. DVGW-authorized.

Weight: 380 g without cartridge
Height: 200 mm with cartridge
Consumption: 55 g/h

Type	PK	Cat. No.
Labogaz® 206	1	9018510*LLG

Labogaz® 470

For operation with gas cartridge CV 470 Plus. DVGW-authorized.

Weight: 380 g without cartridge
Height: 190 mm with cartridge
 CV 300 Plus
 240 mm with cartridge
 CV 470 Plus
Consumption: 55 g/h

Type	PK	Cat. No.
Labogaz® 470	1	9018511*LLG

Gas Cartridges



C 206 GLS Pierceable Cartridge
Piercing cartridge with integrated gas lock system according to EN 417: 2012. For bunsen burner without safety valve. For bunsen burners Labogaz® 206 and Soudogaz blow torches.

CV470 Plus
With safety valve. For bunsen burner Labogaz® 470.

Safety valve allows removal of partially used valve gas cartridges.

Type	Description	Height	Capacity	PK	Cat. No.
		mm	g		
C 206 GLS	80/20 Butane/Propane	90	190	5	6290860*LLG
C 206 GLS	80/20 Butane/Propane (large pack)	90	190	36	6261010*LLG
CV 470 Plus	80/20 Butane/Propane	140	450	1	9018512*LLG
CV 470 Plus	80/20 Butane/Propane (large pack)	140	450	12	6261011*LLG

Colony Counter SC6+, manual

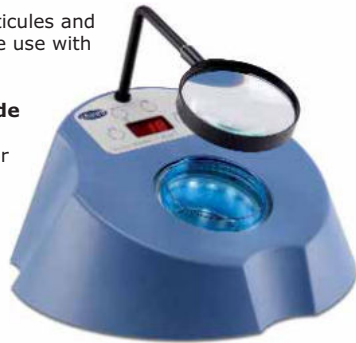


- Pressure sensitive counting
- Pressure can be adjusted
- Audible confirmation
- Choice of light or dark background
- Bright white energy saving LED lighting
- Average count facility
- With BioCote® antimicrobial protection
- Connectivity to printer or computer

Supplied with two Wolffhugel graticules and dish centering adapters to facilitate use with 50 mm to 90 mm dishes.

Please note this does not include magnifier.

Magnifier 1.7x Cat.No. 9.645 281 or magnifier 3x Cat.No. 6.223 318



Specification

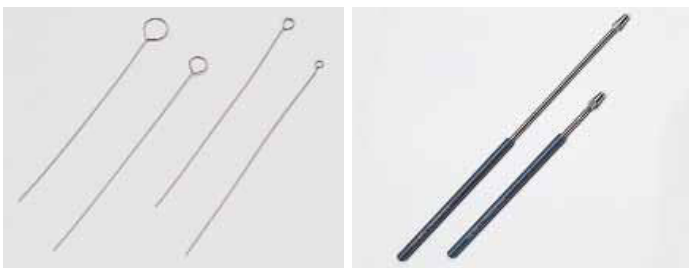
Digital display:	3 digit LED
Lighting:	White LED
Magnifier glass:	1.7x and 3x (option)
Counter:	0 to 999
Petri dishes:	diam. 50 to 90 mm
Dimensions (W x D x H):	310 x 300 x 140 mm
Weight:	1.5 kg
Power supply:	120-230 V, 50/60 Hz, 70 W
Warranty:	3 years

Type	PK	Cat. No.
SC6+	1	9645280*LLG

Inoculation Loops, Loop Holder



schuett biotec.de



Inoculation loops made from stainless steel, special stainless steel wire or platinum-iridium wire (90/10). Can be heated to red heat. Length: 60 mm. Wire diameter: 0.5 mm.

Inoculation loop holder according to Kolle for 0.3 to 0.7 mm wire diameter.

Type	Description	Loop diam. mm	PK	Cat. No.
P-I 1	Platinum-iridium	1	1	9520180*LLG
P-I 2	Platinum-iridium	2	1	9520181*LLG
P-I 3	Platinum-iridium	3	1	9520182*LLG
E 3	Stainless steel, special wire	3	10	9520172*LLG
E 5	Stainless steel, special wire	5	10	9520174*LLG
Inoculation loop holder	160 mm long		1	9520178*LLG

Loop Sterilizer SteriMax smart

WLD-TEC



IR-HotSpot Technology: High-Speed Annealing and Sterilising the Smart Way.

- Instantly ready to work without any unnecessary warm-up
- Auto-Start through touchless IR-Sensor technology
- Adjustable sterilisation and cool-down timers for two users
- Touch operation
- Annealing tube made of special quartz glass
- Simple cleaning of the device and the annealing tube

Supplied with: SteriMax smart incl. quartz glass annealing tube, inoculation loop holder with inoculation loop, diam. 3mm, holding device for 3 inoculation loop holders.

Specifications

Dimensions (W x D x H):	110 x 170 x 180 mm
Power supply:	220 - 240 V, 50/60 Hz
IP code:	IP 20

Type	PK	Cat. No.
Loop Sterilizer SteriMax smart	1	6261507*LLG

Culture Flasks, Borosilicate glass 3.3



Erlenmeyer. With 3 side baffles. Neck straight, without beaded rim.

Capacity ml	Diam. mm	Neck diam. mm	Height mm	PK	Cat. No.
100	64	38	112	1	9010120*LLG
250	85	38	145	1	9010121*LLG
500	105	38	183	1	9010122*LLG
1000	131	38	232	1	9010123*LLG
2000	166	38	305	1	6236466*LLG

LED Incident Lamps IL1-Lab



The modul-LED® concept allows a quick change of the light source.
The modules must be ordered separately.

- Brightness control with memory function
- Flexible illumination thanks to semi-rigid arms
- Flicker-free lighting for photographs and video
- Solid aluminium housing

Scope of delivery: LED incident lamp IL1, multi adapter power supply (EU, UK, US), user manual

Modular LED concept

Specifications

Illuminant:	3 W LED Module 21 mm
Brightness control:	0 - 100 %
Fixing rod Ø:	12 mm
Dimensions control unit (W × D × H):	40 × 80 × 37 mm
Power supply:	100 ... 240 V AC, 50/60 Hz

Description	Weight	Plug type	PK	Cat. No.
	kg			
1-arm, arm length 450 mm	0.5	EU, UK, US	1	4668073*LLG
1-arm, arm length 600 mm	0.5	EU, UK, US	1	4668074*LLG
2-arms, arm length 450 mm	0.7	EU, UK, US	1	4668075*LLG
2-arms, arm length 600 mm	0.7	EU, UK, US	1	4668076*LLG

LED-Modules

21 mm. Available in different colours and beam angles.

Description	Colour	Colour temperature	Shaft length	PK	Cat. No.
		K	mm		
Spot (10°)	pure white	6000		1	4668085*LLG
Spot (10°)	natural white	4000		1	4668086*LLG
Spot (10°)	red		625	1	4668088*LLG
Spot (10°)	green		528	1	4668089*LLG
Spot (10°)	blue		470	1	4668090*LLG
Flood (28°)	pure white	6000		1	4668092*LLG
Flood (28°)	natural white	4000		1	4668093*LLG
Flood (28°)	red		625	1	4668095*LLG
Flood (28°)	green		528	1	4668096*LLG
Flood (28°)	blue		470	1	4668097*LLG
Diffuse (40°)	pure white	6000		1	4668099*LLG
Diffuse (40°)	natural white	4000		1	4668100*LLG
Diffuse (40°)	red		625	1	4668102*LLG
Diffuse (40°)	green		528	1	4668103*LLG
Diffuse (40°)	blue		470	1	4668104*LLG

Basic Biological Microscope for Education and Routine, BA210E



- Infinity Optics [CCIS®]
- Observation Tube Siedentopf Type, Binocular -/Phototube 30°, F.N. 20
- Interpupillary Distance 55-75 mm
- Eyepieces High-Eyepoint N-WF 10x/20 mm with dioptre adjustment on both eyepieces and rubber eyecups
- Reversed quadruple revolving nosepiece
- Objectives CCIS EC Plan 4x, 10x, 40x-S, 100x-S-Oil
- Build in low position coaxial, rackless mechanical stage (right hand control)
- Focusable Abbe condenser N.A. 1.25 with iris diaphragm and slot
- Illumination 6V/30W halogen with intensity control
- Universal power supply 100-240 V (CE)
- Interchangeable LED module available

Scope of delivery: Ø 45 mm blue filter, immersion oil (5 ml), power cord, Allen hexagonal key, thumb crew, vinyl dust cover

Type	Description	PK	Cat. No.
BA210E	Binocular	1	6265838*LLG
BA210E	Trinocular	1	6266907*LLG

Microscope Cleaning Kit



Content: 1 power blower, cotton swabs, cleaning liquid, cleaning cloth, lens cleaning paper, retractable brush

Type	PK	Cat. No.
Microscope Cleaning Kit	1	6280087*LLG

Gel Electrophoresis Tank MultiSUB Mini DUO



Designed for low to medium numbers of samples. The cost-effective small gel size does not compromise versatility as two tray options are available: 7 x 7 cm and 7 x 10 cm. Easy preparation up to 16 samples. Simply by altering the gel tray or comb, this compact unit is capable of resolving up to 64 different samples, prepping 1 ml of sample or separating sample bands over a distance of 9 cm.

Supplied with:

MultiSUB Mini DUO: 7 x 7 cm and 7 x 10 cm UV Tray, 2 x 8 sample combs.

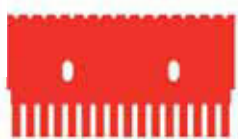
Each model has an additional loading guides and dams.

Specifications

Gel dimensions (W x L):	7 x 7cm and 7 x 10 cm
Unit dimensions (W x L x H):	21 x 9 x 9 cm
Max. sample capacity:	7 x 7 cm tray, 32 samples 7 x 10 cm tray, 64 samples
Buffer volume:	225 ml

Description	PK	Cat. No.
MultiSUB Mini DUO	1	7920043*LLG

Accessories for Gel Electrophoresis Tank MultiSUB Mini



Description	Thickness mm	Sample volume µl	PK	Cat. No.
Comb prep 4, marker 2	2.00	96	1	7671891*LLG
Comb 8 sample	1.00	25	1	9584655*LLG
Comb 10 sample	1.00	18	1	7659130*LLG
Comb 16 sample	0.75	7	1	6227254*LLG
Comb 16 sample	1.50	15	1	9584656*LLG

Power Supply nanoPAC-300 Mini for Gel Electrophoresis Tanks



The nanoPAC-300 is capable of running all Cleaver Scientific horizontal multiSUB™ systems and vertical omniPAGE mini gel systems.

- Maximum constant current output of 400 mA
- Simple two step feature to set a programmable change in voltage, current and time during the run
- Constant voltage up to 300 V
- Adjustable in 1 V and 1 mA increments
- Two parallel outputs
- Continuous run or timed setting up to 999 minutes
- Automatic safety shutdown
- Alarm function
- Easy-to-clean polycarbonate housing
- 3-digit LED display

Type	Rating W	Supply requirements	PK	Cat. No.
nanoPAC-300P Mini	60	300 V / 400 mA	1	6272711*LLG

Agarose for Gel Electrophoresis



Agaroses are suitable for routine analysis of nucleic acids. They combine tensile strength with low electroosmotic effects to achieve high resolving power for a wide size range of nucleic acid fragments.

Specifications

CAS:	9012-36-6
Appearance:	White to off-white powder
EEO:	≤ 0.13 %
Gelling Point:	36 °C ±1.5 °C (1.5 % gel)
Melting Point:	88 °C ±1.5 °C (1.5 % gel)
Solubility:	Clear, colourless solution at 1 g in 100 ml water
Moisture:	< 10 %
Gel Strength:	≥ 1200 g/cm ² (1% gel)
Sulphate:	< 0.20 %
DNase, RNase, Protease, Endonuclease:	None Detected

Type	Capacity g	PK	Cat. No.
CSL-AG100	100	1	9584695*LLG
CSL-AG500	500	1	9584696*LLG

Cryovials with external Screw Thread, PP, sterile



With screw cap (HDPE), self-standing. Increase storage capacity in mechanical and gaseous phase liquid nitrogen freezers. With writing area and graduation. Gamma radiation sterilised. Single-handed operation possible. DNase/RNase free. Pyrogen-free and non-cytotoxic. Type 5000

Capacity	Ext. diam.	Height	Sterile	PK	Cat. No.
ml	mm	mm			
1.20	13.50	38	+	25	9400941*LLG
2	13.50	48	+	25	9400942*LLG
5	13.50	92	+	50	6290797*LLG

Also available in a larger pack size (1000 pc.).

Nalgene Freezing container Mr. Frosty, PC



With 120 mm diameter screw cap in blue HDPE, vial holder made of white HDPE. Suitable for 18 x 1.2/2.0 ml cryovials. Foam interior. Cooling rate 1 °C/min. Tubes can be easily removed. Each aperture has a moulded number for identification. Stackable.

For tubes	Diam.	Height	No. of tubes	PK	Cat. No.
ml	mm	mm			
1.0-2.0	117	86	18	1	9400945*LLG
3.6	117	151	12	1	9400990*LLG
4.5-5.0	117	151	12	1	9400991*LLG

Aspirator with Trap Flask FTA-1

Designed for routine aspiration of the supernatant alcohol/buffer from the walls of microtubes during DNA/RNA purification and other macromolecule reprecipitation techniques.

- All in one system with integrated pump and aspiration tip
- Pump is for 1.5 ml reaction tubes and very small volumes with an average suction power of 600 ml/min
- Trap flasks volume 1 l
- Fitted with hydrophobic microbiological filter
- Vacuum pressure of 500 mbar
- The hydrophobic microbiological suction filter eliminates risk of contamination from the trap flask. Efficiency up to 99.9 %, holds particles bigger than 0.027 micron, which are smaller than agents of Hepatitis A, B and C.
- Polyethylene tube connects collecting tip to the trapping flask
- Built-in micro-compressor creates negative pressure in trapping flask for removal of liquid from microtubes
- 1 l trap flask for collection of alcohol/buffer from microtest tube walls during reprecipitation techniques
- Tube holder to accommodate two tubes for collecting tip washing and storing, enabling re-use of the tip.



Type	Description	PK	Cat. No.
FTA-1	All in one system	1	9721058*LLG

LLG-Centrifuge Tubes economy, PP, sterile



- With flat PE caps
- With conical bottom (15 and 50 ml) or with self-standing bottom (50 ml)
- Easy-to-read black volume graduations
- With a large frosted writing area
- 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
- Freezable to -80 °C
- Leak-proof
- Free of heavy metals, pyrogens and endotoxins
- DNase/RNase-free



Capacity	Description	Form	Height	PK	Cat. No.
ml			mm		
15	Sterile, in bag of 25 pieces	conical	119,6	500	4668482*LLG
50	Sterile, in bag of 25 pieces	conical	113,9	500	4668483*LLG
50	Sterile, in bag of 25 pieces	with rim	116,5	500	4668486*LLG

Tissue Vial CryoELITE®, sterile



The CryoELITE® Tissue Vials are specifically designed for tissue collection, transport and storage. Different from cells and biofluids, tissue specimens have particular requirements for cryogenic storage. Offering researchers a uniform vial able to maintain sample integrity while maximising storage capacity and organisation. The CryoELITE Tissue Vials feature a wide-mouth opening, 5 mL capacity and high integrity closure. The CryoELITE Tissue Vial offers ease of use, convenience and security to researchers who work with tissue samples.

- Lot certified RNase/DNase and Endotoxin Free providing assurance of product integrity
- Cap seal exceeds DOT and IATA regulations ensuring ultimate protection of samples during transportation and demanding freeze-thaw handling
- Wide mouth for insertion and removal of tissue with forceps
- 5 ml volume for use with tissue sections
- Directional indicators to allow orientation of tissue within the vial

Description	PK	Cat. No.
Tissue Vial CryoELITE®, sterile	250	4658776*LLG

Blades for Microtoms, stainless steel



MS200: Universal blade with plasma coating for daily routine, suitable for all types of tissue. Especially suitable for ribbon sectioning, excellent sharpness, even with very thin cuts. Allrounder with unique hardened blade cutting edge, excellent durability.

MS33: Blade for applications where extremely thin, high-quality sections are required. Suitable also for skin biopsy. Short trimming time and increased durability.

MS24: For hard tissue, but also for soft tissue and biopsies. Excellent long life and sharpness, very suitable for ribbon sectioning.

MS100: For daily routine like ribbon and thin sectioning. Excellent sharpness and durability. All-purpose, even for difficult tissue. High-quality stainless steel, extra hard teflon coated.

MS300: Very sharp blade with plasma coating, especially recommended for cutting bone tissue. Also perfect for all other tissue types as well as for ribbon sectioning.

HP (High Profile Plasma): Excellent references for cryostat and ribbon sectioning. Special hardened blade with plasma coating, short trimming time, excellent durability.

Type	Description	Width mm	Length mm	Thickness mm	Angle	PK	Cat. No.
MS200	Low Profile	8	80	0.25	35	50	6270924*LLG
MS33	Low Profile	8	80	0.25	30	50	6270926*LLG
MS24	Low Profile	8	80	0.25	35	50	6270927*LLG
MS100	Low Profile	8	80	0.25	35	50	6270928*LLG
MS300	Low Profile	8	80	0.25	35	50	6310681*LLG
HP	High Profile Plasma	14	80	0.32	35	50	4670750*LLG

Drawer Boxes Styrokay



White modular drawer box with 6 drawers for histology cassettes, documents and small laboratory utensils.

- Including inscription labels
- 49 histology cassettes per drawer
- 294 histology cassettes per box

Internal dimensions (W x D x H): 230 x 318 x 45 mm
External dimensions (W x D x H): 270 x 345 x 340 mm

Type	PK	Cat. No.
Drawer cabinet with 6 drawers without insert	1	4662136*LLG
Drawer cabinet with 6 drawers with insert	1	4662137*LLG

Histology Cassettes, POM



Tissue embedding cassettes for paraffin inclusions. With clip-on lid that breaks when closing, which allows an easy removal.

Colour	Dimensions (W x D x H) mm	PK	Cat. No.
white	28 x 40 x 6.8	500	6207173*LLG
blue	28 x 40 x 6.8	500	6280220*LLG
yellow	28 x 40 x 6.8	500	6284765*LLG
red	28 x 40 x 6.8	500	6284766*LLG
green	28 x 40 x 6.8	500	6284767*LLG
pink	28 x 40 x 6.8	500	6226853*LLG
white	28 x 40 x 13.6	100	7910449*LLG
green	28 x 40 x 13.6	100	6284772*LLG
pink	28 x 40 x 13.6	100	6284773*LLG

LLG-Mini Narrow-Neck vials, PP, Heavy Duty



- With screw cap
- Very stable design
- Transparent
- With graduation

Capacity	Diam.	Thread	Height	PK	Cat. No.
ml	mm	external diam.	mm		
4	16	13	40	100	6289520*LLG
8	25	19	44	100	6289450*LLG
30	36	19	61	100	6289451*LLG
60	40	19	85	100	6289452*LLG
125	51	23	99	50	6289453*LLG

Set with Graduated Jugs, PP, coloured



1 Set 4 Colours



Transparent, in different colours. With stable handle and easily readable, printed graduations on both sides. The volume is thus easy to read for left- and right-handed users. To preserve markings, do not clean at temperatures exceeding 60 °C.

- Stackable
- Blue, yellow, red, green (1 pc each)
- Food-safe



Nominal capacity	Grad.	Ext. diam.	Height	PK	Cat. No.
ml	ml	mm	mm		
500	10	100	140	1	6285273*LLG
1000	10	125	167	1	7644924*LLG

Jars with Screw Cap, PP



Transparent. Excellent chemical resistance. Autoclavable, undo cap before autoclaving.

Nominal capacity	Ø with Cover	Height	PK	Cat. No.
ml	mm	mm		
15	38	46	12	9033230*LLG
30	43	48	12	9033231*LLG
60	53	45	12	9033232*LLG
125	70	74	12	9033233*LLG
250	70	119	6	9033234*LLG
500	120	88	6	9033235*LLG
1000	120	151	6	9033236*LLG

Wide-Mouth Bottle Economy, HDPE, with screw cap, PP



Economical, ruggedly constructed bottle. Guaranteed leakproof for safe sampling, shipping and storage. Translucent bottle allows viewing of liquid level. EPA-specified sample bottle material for a wide variety of inorganic compound and elemental analyses.

Capacity	Cover type	PK	Cat. No.
ml	mm		
30	28	72	9103228*LLG
60	28	72	9103229*LLG
125	38	72	9103230*LLG
250	43	72	9103231*LLG
500	53	48	9103232*LLG
1000	63	24	9103233*LLG

Cleanroom Wipes ASPURE, polyester



Extremely low particle number and evaporation residues. Laser cutting techniques minimise the formation of dust and lint on cutting edges. The use of polyester long fibres prevents the generation of lint.

- Knitted made of 100 % polyester
- Cleaned with ultrapure water
- Double packed

Dimensions	Cleanroom Class	PK	Cat. No.
mm			
229 x 229	ISO 5	150	4659070*LLG

Precision-Swabs



Ideal for use with cleaner degreasers, flux removers and other solvents for fast, precision cleaning. Cleanroom class ISO 4.

Variants:

- Head made of wrapped PU foam
- Sealed polyester head
- Head made of sealed PU foam

Length	Head size	Head	Material Head	Material shaft	PK	Cat. No.
mm	mm					
150	4,7 x 5,4	rounded	Polyester/Nylon	PP	125	4655171*LLG
70	3,7 x 3,7	wrapped, pointed	PU-foam	Nylon	125	6266882*LLG
70	2,4 x 3,0	rounded	Polyester	PP	125	6266884*LLG
70	1,6 x 3,0	rounded	Polyester	PP	125	6266885*LLG
70	1,0 x 3,0	rounded	Polyester	PP	125	6266886*LLG
70	3,3 x 3,5	rounded	PU-foam	PP	125	6266887*LLG
80	2,7 x 3,3	pointed	PU-foam	PP	125	6266888*LLG
68	2,5 x 3,0	rounded	PU-foam	PP	125	6266889*LLG

Cleanroom Gloves, KIMTECH PURE*G3 nitrile, sterile

EN 374 EN 374



Sterile validated and clean processed, with lot testing for low levels of particles. PPE Category III certified under CE directive 89/686/EEC for Personal Protective Equipment. Tested for permeation resistance to cytotoxic drugs. Ideal for use in sterile pharmaceutical manufacturing EU GMP ISO 5 CLASS A areas. Providing protection against chemical splash and micro-organism hazards acc. to EN374-1:2003, EN374-3:2003, ASTM 6978-05. AQL 1.5/EN374-2.

- ISO16604 virus resistant. Sterile Validated to SAL 10⁻⁶
- Available as one pair of hand specific gloves; 30 cm long, with beaded cuff for added strength and fully textured palm and fingertips, combining enhanced grip with easy double donning.
- Powder-free
- Comfortable fit, with silicone free formulation
- Individually packed in sterile wallets 10 x 20 pairs

Size	PK	Cat. No.
6	200	6257260*LLG
6,5	200	6240584*LLG
7	200	6265204*LLG
7,5	200	6240077*LLG
8	200	6230011*LLG
8,5	200	6252634*LLG
9	200	6235083*LLG
10	200	6265205*LLG

Finger Cots "High Grip", natural rubber



The finger cots made of antistatic natural rubber, with a thickness of min. 0.09 mm, are ideal for applications where the highest precision and fingertip sensation is required. Due to microtexturing, they are also especially handy.

- Surface resistance: 10¹⁰ - 10¹²Ω
- Bag with 1440 pieces

Size	Length	Description	PK	Cat. No.
	mm			
S	65	natural rubber, rolled edge	1440	4659035*LLG
M	65	natural rubber, rolled edge	1440	4659036*LLG
L	65	natural rubber, rolled edge	1440	4659037*LLG
S	65	natural rubber, cut edge	1440	4659038*LLG
M	65	natural rubber, cut edge	1440	4659039*LLG

Sample Preparation

Homogeniser, stand, POLYTRON® PT 2500 E (Ecoline)



The PT 2500 is able to perform homogenisations with volumes from 0.05 to 2500 ml. The electronic control system continuously monitors the speed and automatically adjusts it, keeping it constant with changing viscosity. The speed is easily seen on the large digital display. Dispersing heads with a variety of styles and diameters are available to provide optimum particle size reduction when using this drive. There are many different styles of aggregates available from 3 mm up to 25 mm.

- Aggregate tip speeds up to 32 m/s
- Soft start prevents splashing of homogenate from sample vessel
- Thermal fuse for overload protection
- Aggregate replacement using one-handed quick-release coupling
- Insulated motor housing keeps motor noise to a safe, approved level
- Various models of EasyClean dispersing aggregates

Stand and dispersing heads must be ordered separately.

Specifications

Application volume:	0.05 ... 2500 ml
Motor input power:	500 W
Dispersing heads:	diam. 3, 5, 7 and 12 mm and diam. 20 mm and 25 mm
Speed range:	Stepless 500 to 30.000 rpm
Dimensions Drive (L x W x H):	157 x 76 x 236 mm
Weight Drive:	1.8 kg
Power supply:	230 V ±10 %, 50 Hz
Protection class acc. to DIN:	IP 20
Tested to:	IEC/EN61326-1/ IEC/EN 61000-6-2/ EN 61000-6-4 IEC/EN 61010-2-51



Dispersing Head

Type addition EC (STANDARD DISPERSING HEAD): The universal geometry uses two rows of teeth, is suitable for a large spectrum of laboratory applications, and it is reliable and efficient.

Type	Length	Diam.	Working volume	PK	Cat. No.
	mm	mm	ml		
PT-DA 25/2 EC-E192	192	25	100 - 2500	1	9570227*LLG

Stand

Plate stand with two rod design. Height adjustable.

Type	Weight	PK	Cat. No.
	g		
ST-P20/600	370	1	4013060*LLG

Knife Mill HM100

POWTEQ®



Especially Suitable for Samples with a High Water, Oil or Fat Content

The HM100 knife mill is used for grinding soft, medium-hard, brittle and fibrous materials. Especially suitable for samples with a high water, oil or fat content. The 2 knives are driven by a 900 W motor to achieve a reliable grinding result. Suitable for applications in agriculture, biology, medicine and food technology.

- For soft, elastic, fibrous, aqueous, oily or fatty samples
- Electronically controlled speed
- Samples are grinded in only 10 to 30 seconds
- Up to 700 ml sample volume
- Autoclavable grinding vessels
- Grinding vessels available in various materials
- Cutting knives with 2 stainless steel and titanium blades available
- Easy operation
- Quick start
- Coarse and fine grinding in one step
- Interval, reverse and manual mode available

Scope of supply: Knife mill, 1 l grinding vessel made of plastic (autoclavable), lid, stainless steel knife

Specifications

Feed size:	40 mm
Feed quantity:	50 ... 700 ml
Ult. fineness:	<300 µm
Timer:	1 s ... 10 min
Motor speed:	2000 ... 10000 min ⁻¹
Power consumption:	900 W
Dimensions (W x D x H):	260 x 343 x 454 mm
Weight:	16 kg
Power supply:	220 V, 50 Hz

Type	PK	Cat. No.
HM100	1	4669516*LLG

Accessories for Knife Mill HM100

Grinding vessels, lids, blades and scrapers for use with knife mill HM100.



Description	PK	Cat. No.
Grinding vessel 1 l, stainless steel	1	4669518*LLG
Gravity lid for stainless steel grinding vessels, PP	1	4669527*LLG

Magnetic Stirrer LLG-uniSTIRRER 2



Compact & Affordable

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.

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 min ⁻¹
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 53 mm
Weight:	0.5 kg
Power supply:	100 ... 230 V, 50/60 Hz
IP code:	IP 21

Type	PK	Cat. No.
LLG-uniSTIRRER 2 with EU-plug	1	6263430*LLG
LLG-uniSTIRRER 2 with UK-plug	1	6263431*LLG

Magnetic Stirrer HSC

Flat, heating magnetic stirrer with ceramic heating plate.

- Electronic speed control
- Suitable for stirring quantities up to 15 l
- Housing and set-up plate resistant to acids, bases, solvents and scratches
- Ergonomic control panel separated from the heating plate



Specifications

Volume (H ₂ O):	15 l
Motor rating:	800 W
Speed (max.):	1300 min ⁻¹
Number of stirring positions:	1
Display:	Analog
Temperature range:	RT ... 400 °C
Stirring position material:	Ceramic
Stirring position (W x D):	180 x 180 mm
Dimensions (W x D x H):	203 x 344 x 94 mm
Weight:	3.3 kg
IP code:	IP 42
Power supply:	230 V, 50/60 Hz
Warranty:	3 years

Type	Plug type	PK	Cat. No.
HSC	EU	1	4666689*LLG

Magnetic Stirrer AMI and AMI 4, illuminated



AMI



AMI 4

Magnetic stirrer with illuminated stirring positions for stirring volumes up to 5 l per position. With epoxy-coated metal housing for protection against liquid spills. AMI 4 with four separately controlled positions.

Specifications

Stirring volume each (H ₂ O):	5 l // 5 l
Motor rating:	1.2 W // 4.8 W
Speed (max.):	1100 min ⁻¹
Number of stirring positions:	1 // 4
Distance between stirring positions:	- // 150 mm
Display:	Analog
Dimensions (W x D x H):	150 x 270 x 55 mm // 600 x 270 x 55 mm

Weight:	1.2 kg // 4.0 kg
Power supply:	100 ... 240 V, 50/60 Hz
Warranty:	3 years

AMI // AMI 4

Stirring volume each (H ₂ O):	5 l // 5 l
Motor rating:	1.2 W // 4.8 W
Speed (max.):	1100 min ⁻¹
Number of stirring positions:	1 // 4
Distance between stirring positions:	- // 150 mm
Display:	Analog
Dimensions (W x D x H):	150 x 270 x 55 mm // 600 x 270 x 55 mm
Weight:	1.2 kg // 4.0 kg
Power supply:	100 ... 240 V, 50/60 Hz
Warranty:	3 years

Type	Plug type	PK	Cat. No.
AMI	EU	1	4666684*LLG
AMI 4	EU	1	4666685*LLG

LLG-Magnetic Stirring Bars, cylindrical, PTFE, eco pack



Circular, smooth and PTFE-coated. Packaging size: 10 pieces

Diam.	Length	PK	Cat. No.
mm	mm		
6	10	10	9198910*LLG
3	12	10	9198766*LLG
6	15	10	9198919*LLG
6	20	10	9198920*LLG
6	25	10	9198925*LLG
6	30	10	9198930*LLG
8	40	10	9198940*LLG

Disc Rotator LLG-uniLOOPMIX 2



Flexible Feeding of
Different Vessel Types



Analogue Disc rotator for gentle and effective sample mixing. With easily interchangeable clamps that allow a **quick cleaning** of the rotator.
For a maximum of 48 x 1.5 ml; 16 x 5 or 15 ml, 8 x 50 ml tubes.
It also can be equipped individually for parallel use of different sizes.

- Variable speed 0 - 80 rpm
- Compact design
- Housing easy to clean

Scope of delivery: Disc rotator incl. 12 clamps each for 2 ml, 15 ml and 50 ml tubes

Specifications

Type of movement:	rotating
Speed:	0 ... 80 min ⁻¹
Rotation angle:	360°
Permissible shaking weight (incl. attachment):	2 kg
Permissible relative moisture:	80 %
Permissible ambient temperature:	5 ... 40 °C
Motor rating input/output:	20 W
Dimensions (W x D x H):	220 x 300 x 310 mm
Power supply:	100 ... 240 V, 50/60 Hz
IP code:	IP 21

Type	Plug type	PK	Cat. No.
LLG-uniLOOPMIX 2	EU	1	6263665*LLG
LLG-uniLOOPMIX 2	UK	1	6263666*LLG

Orbital Shaker Hula Dancer Basic/Digital



Hula Dancer basic



Hula Dancer digital

The Hula Dancer is a powerful orbital shaker with robust housing for high stability. It is suitable for a maximum load of 100 g. Hula Dancer basic with fixed speed of 2800 rpm.

Specifications

Mixing:	orbital
Orbit:	4.5 mm
Capacity, volume:	100 g
Motor rating input/output:	9.5/5 W
Permissible ambient temperature:	5 ... 40 °C
Permissible relative moisture:	80 %
Dimensions (Diam. x H):	123 x 123 x 42 mm
Weight:	700 g
Power supply:	100 ... 240 V, 50 ... 60 Hz
Enclosure according to DIN EN 60529:	IP 40

Type	Speed range	PK	Cat. No.
	rpm		
Hula Dancer basic	2800	1	6274875*LLG
Hula Dancer digital	1200 ... 2800	1	4665611*LLG

Vortex-Genie® 2



Robust and reliable, for speedy mixing and shaking of samples.

Variable speed for precise mixing from gentle to vigorous.
Hands-Free or Touch On control.

Specifications

Shaking movement:	orbital
Speed display/Timer:	Scale
Speed range:	600-2700 rpm
Dimensions (L x W x H):	165 x 122 x 165 mm
Permissible ambient conditions:	0 to 38 °C at 95 % rh
Weight:	4 kg
Power supply:	230 V, 50/60 Hz

Type	Min. speed rpm	Max. speed rpm	Plug type	PK	Cat. No.
Vortex Genie® 2	600	2700	EU	1	9730060*LLG
Vortex Genie® 2	600	2700	UK	1	6251939*LLG
Vortex Genie® 2	600	2700	CH	1	6235684*LLG

Microtitre Shaker LLG-uniPLATESHAKER 1



- **Compact**
- **Variable Speed**
- **Suitable for Different Micro Plate Sizes**

The LLG-uniPLATESHAKER 1 has been designed for accommodating and mixing a single micro plate. Due to its **small footprint**, it can be used in working areas with limited space, such as fume hoods and bio safety cabinets. It can also be used inside a cold-room.

- Digital display with speed and time settings
- **Variable speed** from 300 to 1800 min⁻¹
- Maintenance-free brushless DC motor
- Orbital Diameter of 2 mm for thorough mixing
- Timer setting from 1 to 99 min and continuous mode
- **Universal fit**; comes with interchangeable clamps for different micro plate sizes
- Comes with foam attachment for 20 x 1.5/2 ml microtubes

Scope of supply: shaker, mains adapter, 2 attachments (foam attachment and attachment for microtitre plates), 6 clamps

Specifications

Type of movement:	orbital
Orbital diameter:	2 mm
Speed range:	300 ... 1800 min ⁻¹
Max. load:	1 kg
Motor:	brushless DC motor
Timer:	1 ... 99 min, continuous
Power consumption:	15 W
Permissible ambient temperature:	4 ... 40 °C
Dimensions (W x D x H):	127 x 85 x 86 mm
Weight:	1.4 kg
Power supply:	100 ... 230 V, 50/60 Hz

Type	Plug type	PK	Cat. No.
LLG-uniPLATESHAKER 1	EU	1	6263488*LLG
LLG-uniPLATESHAKER 1	UK	1	6263489*LLG

Refrigerator Thermometers TMX series



Display of the current temperature and the set minimum/maximum limit values. Models 310 and 320 are equipped with an internal and an external temperature sensor, models 410 and 420 with 2 external temperature sensors.

- Visual and acoustic alarm when limit values are exceeded
- The external temperature sensor is located in a glycol bottle or in a metal capsule, depending on the device.
- With 3-point calibration option
- Incl. factory calibration certificate for -20 and 60 °C

Specifications

Temperature range external sensor:	-50 ... 70 °C
Temperature range internal sensor:	0 ... 50 °C
Resolution:	0.1 °C
Accuracy:	-20 ... 40 °C: ±0.5 °C/±1.0 °C for remaining temperature range
Cable length:	3 m
Housing material:	ABS
IP code:	IP 20
Dimensions (W x D x H):	100 x 23 x 110 mm
Power supply:	1 x AAA

Type	PK	Cat. No.
310, with internal and external sensor in glycol bottle	1	4666540*LLG
320, with internal and external sensor in metal capsule	1	4666541*LLG
410, with 2 external sensors in glycol bottle	1	4666542*LLG
420, with 2 external sensors in metal capsule	1	4666543*LLG

Time/Temperature Indicators 3M™ MonitorMark™



- Clear display of temperature exceedances and the duration of the exceedance
- Self-adhesive, easy to apply

Type	Temp. range °C	For	PK	Cat. No.
9860C	10 °C	48 H	500	4668641*LLG
9860H	31 °C	1 Week	500	4668642*LLG
9860E	26 °C	48 H	500	4668643*LLG

Data Logger EBI 20-T1

- **With Internal Temperature Sensor**
- **Waterproof**

For transport and storage monitoring and refrigeration areas and coldrooms. Waterproof, visual Alarm, max/min values on display, stores 40.000 readings, can be read off at any time.

Scope of supply:

EBI 20-T1: Temperature Logger
EBI 20-T1-Set: Temperature Logger, evaluation software, Interface



Specifications

Measuring range temperature:	-30 to +70 °C
Accuracy, temperature:	±0.5 °C (-20 to +40 °C); ±0.8 °C for remaining measuring range
Resolution temperature:	0.1 °C
Memory:	40.000 samples
Sensor:	NTC
Operating temperature:	-30 to +70 °C
Storage temperature:	-40 to +70 °C
Measuring period:	1 minute to 24 hours
Measuring mode:	immediate loop measurement, measurement from starting point, start immediately until memory full, start/stop measuring, start when button pressed
Battery:	3 V lithium (CR 2450), can be replaced
IP code:	IP 67
Housing:	ABS
Dimensions:	69 x 48 x 22 mm
Weight:	approx. 45 g

Type	PK	Cat. No.
EBI 20-T1	1	9908069*LLG
EBI 20-T1-Set	1	9908073*LLG

Time/Temperature Indicators WarmMark™

- Selection of different temperatures
- Clear display of temperature exceedances and the duration of the exceedance
- Self-adhesive, easy to apply
- ISO-certified
- Dimensions (W x D x H): 19 x 46 x 1.5 mm



Temp. range	PK	Cat. No.
-18 °C	100	4668449*LLG
0 °C	100	4668450*LLG
8 °C	100	4668451*LLG
25 °C	100	4668452*LLG

Piston Pump LLG-uniVACUUPUMP 1



- **Portable**
- **Can also be used as a Compressor**

The **portable** piston pump has been developed for **vacuum and pressure applications** in the laboratory, in particular in the field of Life Science. The pump operates oil-free and can also be used as a compressor to a pressure up to 3.3 bar. This allows you, for example, pressure filtration, if vacuum filtration is not sufficient. Not recommended for pumping organic, acidic, or basic vapours.

Advantages:

- Can be used as a vacuum pump and compressor
- Cost-effective alternative for water pumps
- Compact, light weight and portable
- Oil-free, suitable for continuous operation
- Suction/pressure connection: hose nozzle DN 6 for hose inner diameter 6 mm

Scope of delivery: Pump, incl. 2 hose clamps, EU + UK-plug power cord.

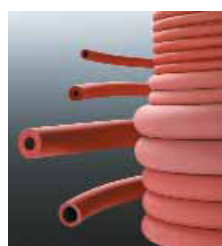
Specifications

Pump speed 50/60 Hz at atmospheric pressure: 9.2/11 l/min
 Final pressure: 292 mbar
 Max. overpressure: 3.3 bar
 Max. operating gas temperature: 60 °C
 Permissible ambient temperature: 10 ... 40 °C
 Suction/pressure connection: DN 6
 Noise emission: <45 dB(A)
 Motor power: 25 W
 Dimensions (W x D x H): 194 x 114 x 191 mm
 Weight: 2.0 kg
 Power supply: 230 V/50 Hz
 IP code: IP 20

Type	PK	Cat. No.
LLG-uniVACUUPUMP 1	1	6263580*LLG

Vacuum Tubing, rubber

DEUTSCH & NEUMANN



Red. Rubber (NR).
 Durometer 45 Shore A.
 Supplied per metre or standard coils of 25 m.

Int. diam. mm	Wall thickness mm	PK	Cat. No.
6	5	1	9205806*LLG
7	5	1	9205807*LLG
8	5	1	9205808*LLG

Portable Desiccator DURAPorter™, PC



Suitable for the transport and storage of hazardous samples, small equipment and samples that must be stored in dust-free and dry environments.

A waterproof silicone seal and three locking clamps ensure an absolutely safe and tight closure.
 Suitable for some test tube sites with holes of 13 mm or 16 mm.
 Includes dividers for 6 compartments on the inside for the transport of bags or small parts.
 Autoclavable.

Dimensions (W x D x H): 380 x 196 x 160 mm

Type	Colour	PK	Cat. No.
DURAPorter™	Clear with blue handles	1	9194005*LLG
DURAPorter™	Yellow with yellow handles	1	9194006*LLG
DURAPorter™	Red with red handles	1	9194007*LLG

LLG-Desiccant Drying Agents, silica gel, self-indicating



With orange indicator colour. The gel is naturally orange when active and at a 6 weight-% saturation level. As the gel adsorbs moisture, the colour changes into dark.

The gel can be regenerated when heated at a temperature of maximum 120 °C until it turns to its original orange colour.

Adsorption capacity
 (RH : residual moisture)

RH 20% 12 weight %
 RH 35% 20 weight %
 RH 50% 27 weight %
 RH 90% 40 weight %

Granulation	Package contents	PK	Cat. No.
1 to 3mm	Tin, 1kg	1	9042584*LLG
1 to 3mm	Bucket, 3kg	1	9042585*LLG
1 to 3mm	Bucket, 8kg	1	9042586*LLG
2 to 5mm	Tin, 1kg	1	9042581*LLG
2 to 5mm	Bucket, 3kg	1	9042582*LLG
2 to 5mm	Bucket, 8kg	1	9042583*LLG

LLG-Laboratory Jack, stainless steel



Plates made of stainless steel. Top plate with Ø 10 mm hole. With non-skid rubber feet. Acc. to DIN 12897.

Width	Depth	Min. height	Max. height	Max. stat. kg	Max. dyn. kg	PK	Cat. No.
mm	mm	mm	mm	kg	kg		
200	200	60	270	30	7	1	9117220*LLG

LLG-Trolleys, Stainless Steel



Made of CNS 18/10, material no. 1.4301, with micro-polished surface. The load capacity per shelf is 80 kg.

Description	Width	Depth	Height	PK	Cat. No.
	mm	mm	mm		
2 shelves, vertical spacing 585mm	900	600	950	1	9148101*LLG
3 Shelves, vertical spacing 275mm	900	600	950	1	9148104*LLG

Lab-Marker Securline®



For permanent marking on plastic, metal and porcelain labware. Will write even when labware surface is damp.

- Permanent, quick-drying ink
- Fine tip

Liquid Dispenser, ESD



Ideal for a wide range of applications in chemistry and medical laboratories. Made of antistatic HDPE with Teflon tube inside, for a great chemical resistance, ESD-safe. With hinged lid. Just touch the dispensing dish with a brush, cloth or other applicator and solvent is brought to the surface the instant it is needed. Stainless steel valves seal contents in bottle until used, preventing spills, dripping and escaping fumes from endangering the user. Fluid pumped into the dish does not drip back into the bottle, keeping stored liquids uncontaminated.

Capacity	Description	PK	Cat. No.
ml			
120	Fluid dispenser, pink	1	4666353*LLG
120	Anti-splash fluid dispenser	1	4666354*LLG
180	Anti-splash fluid dispenser	1	6272060*LLG

Colour	PK	Cat. No.
Black	10	4665487*LLG

Mini Centrifuges LLG-uniCFUGE 2/5



Compact and reasonably priced mini centrifuges. Speed can be adjusted to 4000 min⁻¹ or 6000 min⁻¹. Powerful motor for fast starting. Quick stop when the lid is opened. With **rotor for 4 x 5 ml tubes**.

Scope of supply: centrifuge, mains cable

Specifications

Max. RCF:	1200 x g and 2000 x g
Max. speed:	4000 min ⁻¹ and 6000 min ⁻¹
Motor:	brushless DC motor
Max. load:	4 x 5 ml
Dimensions (diam. x H):	140 x 120 mm
Weight:	0.7 kg
Power supply:	100 ... 240 V, 50/60 Hz

Description	PK	Cat. No.
LLG-uniCFUGE 2/5 with EU-plug	1	6263515*LLG
LLG-uniCFUGE 2/5 with UK-plug	1	6263516*LLG

LLG-Centrifuge Tubes, 5 ml, PP



The LLG-Centrifuge tubes, 5ml, represent the perfect solution for all laboratory applications requiring incubation, centrifugation and sample handling in an intermediate volume range.

- Max. 25.000 x g, suitable for high speed centrifugation
- Graduations every 0.25 ml for easy volume estimation
- A flat, frosted cap and large writing pad for sample labeling and identification
- Autoclavable
- Fits all rotors and racks that hold 15 ml conical tubes, no adapters needed
- Certified free of RNase and DNase

Description	Package contents	PK	Cat. No.
Clear	1 bag of 250 pieces	250	6281113*LLG
Colour assortment green, yellow, red, blue	4 bags of 50 pieces (1 colour per bag)	200	6281114*LLG
Amber	1 bag of 250 pieces	250	6281115*LLG

Centrifuge, Combispin PCV-2400



Centrifuge & Vortexer in One



Combined centrifuge/vortex mixer for microtubes and 0.2 ml strips. For independent centrifuge and vortex mixing, or mixing of an individual tube concurrently with spinning of multiple tubes. The vortex cup, located at the top of the central shaft, emerges through an opening in the closed lid. In spin-mix-spin applications, the Combispin can be used with very low reagent volumes.

- Continuous operation or short spin
- Further rotors on option: 8 x 1.5/2.0 ml + 8 x 0.5 ml microtubes or 6 x 1.5/2.0 ml + 8 x 0.5 ml microtubes or 2 x 8-well 0.2 ml strips

Scope of supply: Centrifuge, rotor for 12 x 1.5 ml tubes, rotor for 12 x 0.5 ml + 12 x 0.2 ml tubes

Specifications

Max. RCF:	700 x g
Max. speed:	fixed at 3500 rpm
Max. capacity:	12 x 1.5 ml or 12 x 0.5 ml + 12 x 0.2 ml or 2 x 8-well strips 0.2 ml
Power consumption:	11 W
Dimensions (W x D x H):	190 x 235 x 125 mm
Weight:	2.1 kg
Power supply:	120 ... 230 VAC, 50/60 Hz, 12 VDC

Type	Description	PK	Cat. No.
PCV-2400	incl. 2 rotors	1	9721001*LLG

Tube Rack for 5 ml Centrifuge Tubes, PP



Designed specifically for 40 x 5 ml centrifuge tubes this rack will also accommodate other tubes with a diameter of 13 to 16 mm. Made of durable and corrosion resistant white polypropylene. End plates have handles for easy transport and stacking.

- Steam autoclavable at 121 °C
- Dimensions (L x W x H): 260 x 113 x 105 mm
- Rows: 4 x 10

For tubes diam.	Array	PK	Cat. No.
mm			
13 - 16	40	1	9194026*LLG

Ultra Pure Water System OmniaTap

OmniaTap is the ideal system when both pure water and ultrapure water are required - but in relatively small amounts. It provides both types from a single system. It is also possible to connect the system directly to a drinking water tap. A touch on the flexible dispenser button activates dispensing of ultrapure water type ASTM I via the digital dispenser control. The recirculation of the pure water held in the installed 10 litre tank keeps it permanently at type ASTM II quality. The pure water tank has a second outlet for feeding downstream end users.

Applications:

OmniaTap 6/12: AAS, IC, ICP, buffers and media preparation

OmniaTap 6 UV/12 UV: Ultra-trace analysis, ICP-MS, HPLC, TOC-analysis

Scope of supply: Instrument incl. filter cartridges and sterile filter capsule 0.2 µm

stakpure



Specifications

ASTM II

Ultrapure water output:

Resistivity:

Conductivity:

Pure water tank pressurized outlet:

ASTM I

Dispensing performance:

Resistivity:

Conductivity:

Bacteria (with end filter):

Particles (with end filter):

Feed water requirements:

Dimensions (W x D x H):

Weight:

Power supply:

OmniaTap/OmniaTap V

6 or 12 l/h

15-10 MΩ-cm

0.067-0.1 µS/cm

yes

up to 2 l/min

18.2 MΩ-cm

0.055 µS/cm

< 0.1 CFU/ml

< 1/ml

Drinking water acc. to DIN 2000

390 x 615 x 720 mm

22 kg/23 kg

90-240 V, 50/60 Hz



For Analysis Supply, Autoclaves and Laboratory Rinsing Devices

Type	TOC value	PK	Cat. No.
OmniaTap 6	5-10 ppb	1	6272145*LLG
OmniaTap 6 UV	1-5 ppb	1	6272146*LLG
OmniaTap 12	5-10 ppb	1	6272148*LLG
OmniaTap 12 UV	1-5 ppb	1	6272149*LLG

Mono Water Stills

Fully automatic water stills for bench or wall mounting, with distillation capacities from 2 to 12 l/h. Models with storage tank for twice the hourly capacity of the unit. Manual and automatic cleaning indicator when the water in the bubble is very dirty.

- Evaporator with splash water barrier, condenser and storage tank made of stainless steel

Without storage tank:

- Cooling water temperature is displayed on a thermometer

- Water supply with connection to cooling water inlet 1/2" (i.D. 12.7 mm), cooling water drain 1/2" (i.D. 12.7 mm)

- A cooling water pressure of 1-2 bar is required

With storage tank:

- Water that has not evaporated drains off via the cooling water drain

- Electronic level switch switches the still off when the storage tank is full and restarts it automatically when distillate is withdrawn

- Double-walled housing

- Distillate withdrawal through drain cock with continuous and touch position

- Water supply via solenoid valve with connection for pressure hose

1/2" (i.D. 12.7 mm), cooling water drain with hose connection

3/4" (i.D. 19 mm)

- A cooling water pressure of 3-7 bar is required



Compact & Powerful

Type	Description	Output L / hr.	Water consumption approx. L / hr.	Dimensions (W x D x H) mm	Power W	Voltage 50/60 Hz	Weight kg	PK	Cat. No.
2002	With storage tank	2	30	540 x 290 x 420	1500	230 V	15.4	1	9910602*LLG
2004	With storage tank	4	48	620 x 330 x 460	3000	230 V	20.2	1	9910604*LLG
2008	With storage tank	8	72	780 x 410 x 540	6000	400 V*	35.3	1	9910608*LLG
2012	With storage tank	12	198	780 x 410 x 670	9000	400 V*	43.0	1	9910612*LLG
2001/2	Without storage tank	2	20	280 x 250 x 490	7500	230 V	7.5	1	9910600*LLG
2001/4	Without storage tank	4	40	280 x 250 x 490	7500	230 V	7.5	1	9910601*LLG

* 400 V/3ph/N/PE/three-phase current

Other voltages available - details on request.

Muffle Furnaces up to 1100 °C

SNOL



High temperature furnaces with glass fibre insulated chamber.
Suitable for applications in industry, science and medicine.

- Ceramic bottom plate
- Controls easily accessible in the socket
- Fast heating times
- Furnace housing made of powder-coated metal
- Good temperature stability
- Energy saving
- Models with Omron E5CC controller: time and temperature can be set
- Models with Omron E5CC-T controller: 8 storable programs
- Power supply: 230 V/50 Hz



High-Temperature Furnaces up to 1100 °C

Type	Nom. capacity	Description	Internal dimensions (W x D x H) mm	PK	Cat. No.
	L				
SNOL 3/1100 LHM01*	3	Top-opening	120 x 200 x 105	1	4669202*LLG
SNOL 8.2/1100 LHM01*	8	Top-opening	195 x 310 x 135	1	4669203*LLG
SNOL 8.2/1100 LSM01*	8	Side-opening	195 x 310 x 135	1	4669204*LLG
SNOL 8.2/1100 LZM01*	8	Down-opening	195 x 310 x 135	1	4669205*LLG
SNOL 13/1100 LHM01*	13	Top-opening	220 x 335 x 170	1	4669206*LLG
SNOL 22/1100 LHM01*	22	Top-opening	280 x 500 x 160	1	4669207*LLG
SNOL 3/1100 LHM01**	3	Top-opening	120 x 200 x 105	1	4669220*LLG
SNOL 8.2/1100 LHM01**	8	Top-opening	195 x 310 x 135	1	4669221*LLG
SNOL 8.2/1100 LSM01**	8	Side-opening	195 x 310 x 135	1	4669222*LLG
SNOL 8.2/1100 LZM01**	8	Down-opening	195 x 310 x 135	1	4669223*LLG
SNOL 13/1100 LHM01**	13	Top-opening	220 x 335 x 170	1	4669224*LLG
SNOL 22/1100 LHM01**	22	Top-opening	280 x 500 x 160	1	4669225*LLG

* with Omron E5CC controller

**with Omron E5CC-T controller

Safety Gloves, Heat Protection up to 500 °C

EN 388 EN 407



2543



- 5-finger glove, 1 pair
- Protection against contact heat short term up to 500 °C
- Made of aramid fabric with special insulation
- Usable on both sides
- Abrasion resistant

Length: 400mm
EN: 388, 407

Description	PK	Cat. No.
Heat Protection, 5 finger	1	9006893*LLG

Crucible Tongs, 18/10 steel



18/10 steel. Electro polished.
With bow and gripping tips.

Length mm	Description	PK	Cat. No.
160	18/10 E-Poli	1	9310116*LLG
200	18/10 E-Poli	1	9310120*LLG
220	18/10 E-Poli	1	9310122*LLG
250	18/10 E-Poli	1	9310125*LLG
300	18/10 E-Poli	1	9310130*LLG

LABORTOPS

Refrigerated Circulators CORIO™ CP

With insulated stainless steel bath tanks, flexible performance and an operating temperature range of up to 200 °C. Temperature control is possible either in the internal bath or in a connected external application.

- Suitable for internal and external applications
- High-quality stainless steel bath vessels including bath lid and drain
- Refrigerating units without side ventilation openings
- More space in the bath due to space-saving evaporator coils
- External pump connections M16x1
- Bright, white, easily visible display, even from a distance
- Low-level warning system
- Simple switching between internal and external circulation
- Powerful, continuously variable pump
- Pump capacity adjustable from 8 to 27 l/min
- Very quiet
- Rubber feet for secure standing
- Removable air vent
- USB connection
- RS232 interface
- Class III (FL) according to DIN 12876-1

Scope of supply: refrigerated circulator, mains power cable, connection box, bath cover, connecting cable, refrigerator, hose connectors 8 and 12 mm

Julabo



CP-600F



CP-300F



- **New Generation of Laboratory Thermostats**
- **For Heating and Cooling**

NEW



CP-201F

Specifications

Setting accuracy:	0.01 °C
Temperature uniformity:	±0.03 °C
Pump output:	8 ... 27 l/min
Pump pressure:	0.1 ... 0.7 bar
Heat output:	2 kW
Timer:	0 ... 999 min
Hose connector inner width:	8/12 mm
Permissible ambient temperature:	5 ... 40 °C
Power supply:	230 V/50 Hz

Type	Capacity of the bath litres	Bath opening / Bath depth mm	Temp. range °C	External dimensions (W x D x H) mm	PK	Cat. No.
CP-200F	4	130 x 150 / 150	-20 ... 200	230 x 390 x 650	1	4670680*LLG
CP-201F	4	130 x 150 / 150	-20 ... 200	440 x 410 x 440	1	4670681*LLG
CP-300F	4	130 x 150 / 150	-30 ... 200	240 x 420 x 660	1	4670683*LLG
CP-600F	7.5	220 x 150 / 150	-35 ... 200	330 x 470 x 690	1	4670684*LLG
CP-601F	10	220 x 150 / 200	-35 ... 200	360 x 460 x 740	1	4670685*LLG