

# LABORTOPS

## COOLING INCUBATOR INC 125 FC

**IKA®**



- **Cooling incubator with decontamination mode**
- **Capacity 125 litres**
- **Simple and intuitive operation**

**New**

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## UV/PCR cabinets UVT-B-AR

**!** UV exposure control with internal socket



Benchtop models for protection against contamination during a variety of DNA/RNA procedures.

- UV surface irradiation, via 1 x 25 W 254 nm open UV lamp
- Patented high-intensity UV air cleaner, 25 m<sup>3</sup>/hour cleaner-recirculation continuous airflow with 1 cm UV irradiation distance
- UV lamp in the upper hood disinfects the working area, inactivating DNA/RNA fragments during 15-30 min of exposure
- UV exposure control, 24-hour digital timer
- Convenient, easy-to-use digital timer for accurate control of UV exposure
- White lamp provides local illumination of the workplace to optimise visual control during operations
- Shockproof glass panels, metal framework and stainless steel work surface
- Automatic switch-off of open UV light when door opened
- Internal power socket

External dimensions (W x D x H) mm	Internal dimensions (W x D x H) mm	Plug type	PK	Cat. No.
690 x 585 x 555	650 x 475 x 450	EU	1	9721070*LLG
690 x 585 x 555	650 x 475 x 450	UK	1	6325716*LLG

## DNA AWAY™ for surface decontaminant



Eliminates unwanted DNA and DNase from glassware and plasticware without affecting subsequent DNA samples. Degrades DNA more quickly and effectively than autoclaving.

Capacity	PK	Cat. No.
250 ml	1	6228401*LLG

## Blue light LED transilluminators runVIEW MINI



By using blue light, both traditionally ethidium bromide-coloured gels and safe stains can be safely illuminated. The viewing window with an orange filter, allows real-time viewing of DNA in electrophoresis chambers, enabling rapid verification of PCR accuracy and restriction digestion results. The device can also be used as a stand-alone transilluminator, where the gel is applied directly to the illuminator.

- High high-intensity blue LED illuminator allows visualization of a wide range of fluorescent gel stains
- Compatible with runSAFE, commercial safe stains and ethidium bromide

**Scope of supply:** Transilluminator, filter (orange)

### Specifications

Wavelength:	470 nm
Viewing size:	112 x 75 mm
Dimensions (W x D x H):	86 x 170 x 25 mm
Weight:	338 g
Power supply:	DC 12 V, 2 A

Type	PK	Cat. No.
runVIEW MINI	1	6313471*LLG

## LLG-Agarose Standard

**!** Made in the EU



LLG-Agarose is ideal for routine separation of DNA and RNA fragments, as well as PCR products with electrophoresis. High transparency and low background of the agarose gel ensure clear and sharply defined bands.

- Very good dissolution and rapid gel formation
- High gel strength even at low agarose concentrations
- Suitable for agarose concentrations from 0.75 up to 2%
- Good separation efficiency for nucleic acid fragments between 250 bp and 23 kb
- Free of DNase and RNase



Appearance:	White powder
Clarity (NTU):	≤4 (1.5% gel)
Gelling point:	36 ±1.5 °C (1.5% gel)
Melting point:	88 ±1.5 °C (1.5% gel)
Gel strength:	≥1000 g/cm <sup>2</sup> (1% gel)
Sulphate:	≤0.15%

Capacity	PK	Cat. No.
g		
100	1	4681511*LLG
500	1	4681512*LLG

## Cooling incubator INC 125 FC



- With inner glass door
- With defrost function
- Wide temperature range



Ideal for microbiological applications thanks to the wide temperature range and precise temperature control.

- Decontamination mode with 100 °C
- Internal air circulation can be influenced by electronically adjustable fan speed
- Use of the natural refrigerant R290
- Additional inner glass door
- Rounded corners and smooth surfaces
- Defrost function with continuous water drainage through the drain opening
- Door hinge on the right can be changed on request
- Optional lockable door



**Scope of supply:** Cooling incubator INC 125 FC, 2 x wire grid trays IO T 2.10, 2 x tilt protection/assembly material, USB A-B cable, calibration certificate at 37 °C and 10 °C, hose adapter (for Ø 9 to 11 mm)

### Specifications

Nominal capacity:	125 l
Temperature:	-5 ... 100 °C
Temperature stability:	±0.2 K
Max. no. of inserts:	6
Ext. dim. (WxDxH):	700 x 635 x 1000 mm
Int. Dim. (WxDxH):	550 x 415 x 550 mm
Weight:	80 kg
Power supply:	220 ... 240 V, 50/60 Hz

Type	Plug type	PK	Cat. No.
INC 125 FC	EU	1	4699384*LLG
INC 125 FC	UK	1	4699416*LLG
INC 125 FC	CH	1	4699436*LLG

## LLG-Inoculation loops, PS, sterile



Made of flexible polystyrene. With ultra-smooth loops for problem-free planting and streaking of cultures. Free of lubricants, oils and electrostatic charges, enabling consistent and complete liquid transfer. The ergonomic design of the loops for optimal grip and an easy orientation of the loop head. The needle end shape is perfect for picking off individual isolated colonies and suitable for making stab inoculations into agar slants or tubes of solid culture medium.

Package: 10 bags of 10 pieces

Type	Capacity	PK	Cat. No.
	µl		
Needle / loop	1	100	9160041*LLG
Needle / loop	10	100	9160042*LLG
Loop / loop	1 / 10	100	9160043*LLG

## Tubes, glass, DURAN®, culture, screw cap



DIN thread. Complete with red PBT screw cap with PTFE-faced sealing wad. Glass Type I/neutral glass as per USP, EP and JP. Autoclavable.

Diam.	Height	Neck thread	PK	Cat. No.
mm	mm	GL		
12	100	14	50	261351155*SCHOTT
13	100	14	50	261351258*SCHOTT
16	150	18	50	261352254*SCHOTT
16	160	18	50	261352151*SCHOTT
18	180	18	50	261352357*SCHOTT
20	150	18	50	261352451*SCHOTT

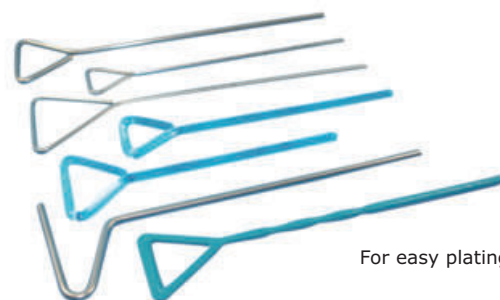
## LLG-Microbiological Media



For numerous micro- and molecular biological applications. The safety data sheets of these products are available at [www.llg-labware.com/en/zertifikate](http://www.llg-labware.com/en/zertifikate).

Description	Capacity	PK	Cat. No.
	g		
Luria Bertani (Miller), Powder	500	1	6271000*LLG
Luria Bertani (Lennox), Powder	500	1	6271010*LLG
Terrific Broth, Powder	500	1	6271007*LLG
2xYT Broth, Powder	500	1	6271001*LLG
Bact. Agar, Powder	500	1	6271003*LLG
Luria Bertani Agar (Miller), Powder	500	1	6271009*LLG
Luria Bertani Agar (Lennox), Powder	500	1	6271008*LLG
YPD Broth, Powder	500	1	6271002*LLG
Yeast Extract, Powder	500	1	6271004*LLG
Tryptone, Powder	500	1	6271005*LLG
Casein Peptone, Powder	500	1	6271011*LLG
Tryptic Soya Agar (Caso-Agar), Powder	500	1	6271006*LLG
Trypticasein Soy Broth (TSB-media), Powder	500	1	6271018*LLG

## LLG-Drigalski spatulas and Inoculation hooks



For easy plating.

Diam.	Width	Length	Material	PK	Cat. No.
mm	mm	mm			
4	40.0	190	Stainless steel 18/10	1	9197490*LLG
5	30.0	150	Borosilicate glass 3.3	1	9197499*LLG
4	51.5	174	PS, sterile*	100	6251768*LLG

\* Individually packed

## Greenough Stereo Microscopes Lab-Line OZL



- Ideal for training purposes
- Flexible all-rounder

The flexible all-rounder with zoom function for schools, training companies, inspection authorities and laboratories.

- Tube 45° inclined
- Wide Field WF 10x/20 mm
- Diopter adjustment: Both-sided
- Illumination: 3 W-LED Incident and 3 W-LED transmitted, separately dimmable
- Protective dust cover, eyepiece rubber caps, as well as multi-lingual user instructions included in the scope of delivery



**KERN**

Type	Description	Magnification	PK	Cat. No.
OZL 463	Binocular	7x ... 45x	1	6286167*LLG

## Transmitted light microscope-digital sets OBE, with tablet camera

The set is the comprehensive digital solution for school, training and laboratory.

- Tube 30° inclined, 360° rotatable
- Diopter adjustment at one eyepiece tube
- Dimmable 3 W LED illumination

**Scope of supply:** Transmitted light microscope, camera, dust cover, eye cups, manual instruction

### Specifications

Tube:	Trinocular
Revolving nosepiece:	4-fold
Magnification eyepieces:	HWF 10x/18 mm
Inclination angle tube:	30°
Light type:	LED
Interpupillary distance:	48 ... 75 mm
Condenser:	Abbe N.A. 1.25
Resolution camera:	5 MP
Sensor:	CMOS 1/2.5"
Interfaces:	WLAN, USB 2.0, HDMI, SD (15 ... 30 FPS)
Stage (WxD):	125 x 115 mm
Dimensions (WxDxH):	320 x 180 x 365 mm
Weight:	5.5 kg



**KERN**

Type	Magnification Objectives	PK	Cat. No.
OBE 134T241	4x, 10x, 40x, 100x	1	4691072*LLG

## Cold Light Source KL 1600 LED Packages



- Suitable for photo documentation
- Very long life time

**SCHOTT**



The KL 1600 LED is an innovative fibre optic light source which uses cold light to illuminate all types of objects in industrial and life science applications.

### Scope of supply:

LED Cold light source KL 1600 LED incl. 2-armed gooseneck light guide, 2 focus lenses, according to a power cord

### Specifications

Colour temperature:	5600 K
Light flux:	680 lm
Dimensions KL 1600 LED (W x D x H):	114 x 231 x 137 mm
Dimensions light guide (Ø x L):	4.5 x 600 mm
Weight:	3.9 kg
Power supply:	100 ... 240 V, 50/60 Hz

Type	Plug type	PK	Cat. No.
KL 1600 LED Package	EU	1	4666289*LLG

## LED Illumination, direct



**SCHOTT**

Innovative and powerful

Spotlight Plus Double

Lens adapter

Ringlight

**EasyLED Ringlight Plus:** Powerful and robust LED ring light with continuous dimming. Ringlight Plus version with basic segment features and segment rotation. Easy and intuitive operation via integrated jog dial wheel. Including a wide input range power supply with a worldwide plug (clip system). External/internal diameter 114/66 mm. If necessary, please order the necessary lens adapter separately.

**EasyLED Spotlight Plus (Double):** Advanced high-power LED gooseneck system with integrated controller and continuous dimming. With the Spotlight Plus Double, the two spots can also be activated individually. Including a wide input range power supply with a worldwide plug (clip system).

**Please order the mounting bracket or column adapter separately.**

Type	Description	PK	Cat. No.
Ringlight	no segments	1	6258176*LLG
Ringlight Plus	8 segments	1	6238244*LLG
Spotlight Plus Double	double arm, separately switchable	1	6266981*LLG

## Accessories for SCHOTT Ringlights

Description	PK	Cat. No.
Lens adapter, int. diam. 66 on thread M48 x 0.75	1	6254613*LLG
Lens adapter, 60 mm to 66 mm	1	6270980*LLG
Lens adapter, 58 mm to 66 mm	1	9705272*LLG

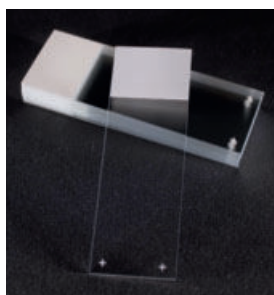
## Square cover slips



Made of D263 M borosilicate glass. Accurate cutting free of flaws and blisters. Further thicknesses are available on request.

Width	Length	Thickness	PK	Cat. No.
mm	mm	mm		
40	24	0.13-0.16	100	9161040*LLG
50	24	0.16-0.19	100	6802036*LLG
50	22	0.13-0.16	100	9161028*LLG
50	24	0.13-0.16	100	9161050*LLG
60	24	0.13-0.16	100	9161060*LLG

## Superfrost® Plus adhesive microscope slides



Size: 75 x 25 x 1.0 mm. Ground edges 90°, white SuperFrost marking area. A new application method provides the surface of a slide with a permanent positive charge. Electrostatic attraction binds fresh, frozen tissue sections and cytology preparations.

Type	PK	Cat. No.
SuperFrost® Plus	72	9161155*LLG

## LLG-Slide dispenser



The slide dispenser can dispense 72 slides, individually. With a transparent, removable upper section for easy viewing of remaining slides and clean storage. For microscope slides with dimensions 75 x 25 mm and 76 x 26 mm.

Type	PK	Cat. No.
LLG-Dispenser	1	9161000*LLG

## LLG-Forceps assortment, 4-parts, chromium-nickel steel

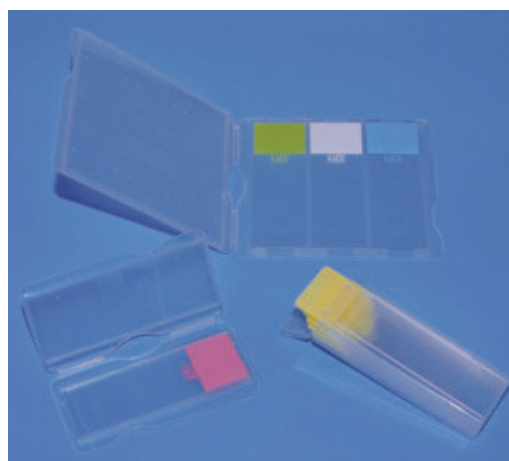


LLG-Forceps assortment, 4-parts, chromium-nickel steel (1.4301) in the synthetic leather bag including:

- 1 Sharp forceps, curved, 115 mm
- 1 Thumb forceps, 115 mm
- 1 Forcep with guide pin straight, 130 mm
- 1 Coverglas forceps, 115 mm
- 1 Synthetic leather bag, 6 subjects 100 x 175 mm

Description	PK	Cat. No.
LLG-Forceps assortment, 4-parts	1	9160394*LLG

## LLG-Slide mailers



Manufactured from high-density polypropylene, for shipping, storing or staining slides. Flat mailers can hold 1, 2, 3 or 5 standard (up to 76 x 26 mm) slides securely.

- Lightweight and flat
- With marking area and "Top" printed on top surface
- With large, easy-to secure snaps.
- Slotted channels inside the mailer keep slides safely separated

To hold microscope slides	PK	Cat. No.
1	10	9161291*LLG
2	10	9161292*LLG
3	10	9161293*LLG
5	10	9161294*LLG

## Steam sterilizers (autoclaves), HV series

**HMC**  
EUROPE  
Labor- & Sterilisationstechnik



Tireless, durable and simple

- Certified according to the Pressure Equipment Directive 2014/68/EU
- Optionally available with flexible temperature sensor for the sterilization of liquids
- For all devices up to 110 litres only a single-phase power supply (220/240 V; 50/60 Hz) is required
- Timer function and 3 program groups with a max. of 6 programs including dissolution program, adaptations for customized programs are always possible
- No installation of a feed water supply required
- Castors for mobile use
- Easy to clean plastic surface with rounded edges in contact areas (no burns or injuries)
- The accessories make it possible to configure the autoclave according to your wishes
- Exhaust air filters for laboratories of safety level S2 and higher are optionally available

Type	Capacity	External dimensions (W x D x H)	PK	Cat. No.
	Litres	mm		
HV-L25	25	480 x 460 x 950	1	7980025*LLG
HV-L50	50	540 x 530 x 1040	1	6232481*LLG
HV-L85	85	660 x 650 x 1000	1	9842418*LLG
HV-L110	110	660 x 650 x 1180	1	6254337*LLG

## LLG-Autoclavable Bags, PP, with Biohazard printing

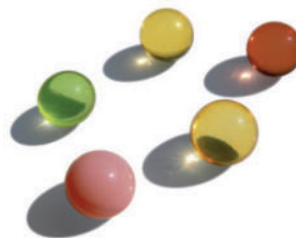


Autoclavable bags imprinted with biohazard labelling. Made of polypropylene. Strong side seams for securely holding items. Front write-on panel. Autoclavable.

Capacity	Length	Width	PK	Cat. No.
L	mm	mm		
12	660	310	50	9404050*LLG
14	600	415	50	9404051*LLG
35	810	610	50	9404052*LLG

## Autoclave deodorant Anabac®

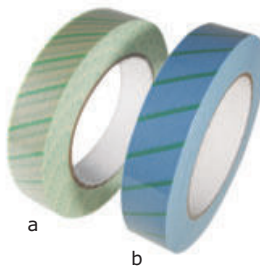
interscience



Laboratories are very concerned about hygiene, cleanliness and comfort in the workplace. Try Anabac® autoclave deodorant balls to improve the working environment in the laboratory. These autoclave deodorant balls bring a discrete scent that speaks of cleanliness.

Type	Description	PK	Cat. No.
Poma	Apple fragrance	100	6231161*LLG
Citrus	Lemon fragrance	100	6231720*LLG

## Indicator tape for steam, hot air and gas sterilisation



Crepe paper, adhesive. With indicator. Colour changes according to DIN EN ISO 11140-1.

Rolls of 50 m.

With	Width	Figure	PK	Cat. No.
	mm			
Steam indicator	19	a	1	9140784*LLG
Steam indicator	25	a	1	9140789*LLG
Steam indicator, strongly adhesive, for non-woven fabric	25	b	1	9140791*LLG



## Homogeniser T 18 mini digital ULTRA-TURRAX®



- High-performance disperser
- Compact design
- Large speed range

Economical high-performance disperser for working with small rotor diameters and high circumferential speeds. Compact design for use in confined spaces, e.g. in fume hoods, with the large TFT display allowing readout from a distance. For simple applications for homogenising samples with low viscosity.

- Digital speed display and adjustment
- Brushless motor
- Timer function for unattended operation
- Wide selection of stainless steel and plastic dispersing elements
- With quick coupling
- USB interface for remote control and documentation with IKA labworldsoft® software

Please order dispersing tools separately.

### Specifications

Working volume:	1 ... 1500 ml
Speed:	3000 ... 25000 rpm
Max. Viscosity:	2000 mPa·s
Dimensions (W x D x H):	66 x 100 x 186 mm
Weight:	1.8 kg
Power supply:	100 ... 240 V, 50/60 Hz

Type	Plug type	PK	Cat. No.
T 18 mini digital ULTRA-TURRAX®	EU	1	4699385*LLG
T 18 mini digital ULTRA-TURRAX®	UK	1	4699417*LLG
T 18 mini digital ULTRA-TURRAX®	CH	1	4699437*LLG

## Dispersing heads for T18 mini digital



S 18 N - 19 G

Stainless steel dispersing heads: Ultimate fineness emulsions 1 to 10 µm and suspensions 10 to 50 µm, sterilisable by all methods.

Type	Diam. rotor / stator mm	Material	PK	Cat. No.
S 18 N - 10 G	7.5 / 10	PTFE, AISI 316L	1	9570841*LLG
S 18 N - 19 G	12.7 / 19	PTFE, AISI 316L	1	9570842*LLG

## Homogeniser T 25 mini control ULTRA-TURRAX®



High-performance disperser with temperature measurement up to 125 °C for working with small rotor diameters and high circumferential speeds. Compact design for use in confined spaces, e.g. in fume hoods, with the large TFT display allowing readout from a distance. For simple applications for homogenising samples with low viscosity.

- Digital speed display and adjustment
- Brushless motor
- Timer function for unattended operation
- Wide selection of stainless steel and plastic dispersing elements
- With quick coupling
- USB interface for remote control and documentation with IKA labworldsoft® software

Please order dispersing tools separately.

### Specifications

Working volume:	1 ... 1500 ml
Speed:	600 ... 25000 rpm
Max. Viscosity:	2000 mPa·s
Dimensions (W x D x H):	66 x 100 x 186 mm
Weight:	1.8 kg
Power supply:	100 ... 240 V, 50/60 Hz

Type	Plug type	PK	Cat. No.
T 25 mini control ULTRA-TURRAX®	EU	1	4699386*LLG
T 25 mini control ULTRA-TURRAX®	UK	1	4699418*LLG
T 25 mini control ULTRA-TURRAX®	CH	1	4699438*LLG

## Dispersing heads for T25 mini control



S 25 N - 25 G

Stainless steel dispersing heads: Ultimate fineness: emulsions 1 to 10 µm and suspensions 5 to 50 µm, sterilisable by all methods.

Type	Diam. rotor / stator mm	Material	PK	Cat. No.
S 25 N - 18 G	12.7 / 18	PTFE, AISI 316L	1	9571119*LLG
S 25 N - 25 G	17.0 / 25	PTFE, AISI 316L	1	9571200*LLG
S 25 EC-T-C-18 G	12.7 / 18	AISI 316L, Keramik	1	4684824*LLG
S 25 EC-T-C-25 G	17 / 25	AISI 316L, Keramik	1	4684825*LLG



- New in assortment!  
- High quality



## Sample bags, TWIRL'EM ECOLO



For collecting, transporting and analysing liquid and solid samples. Integrated secure closure system with 2 round wires

- Sterile
- Biodegradable
- Contaminant-free
- Waterproof and airtight
- RNase, DNase and pyrogen free

Nominal capacity	Dimensions (W x H)	Thickness	Labeling	PK	Cat. No.
ml	mm	µm			
650	114 x 229	63	-	500	4699848*LLG
930	140 x 229	76	-	500	4699849*LLG
2200	178 x 305	76	-	250	4699850*LLG
650	114 x 229	63	+	500	4699851*LLG
930	140 x 229	76	+	500	4699852*LLG
2200	178 x 305	76	+	250	4699853*LLG
230	76 x 178	63	-	500	4699854*LLG
650	114 x 229	63	-	500	4699855*LLG
930	140 x 229	76	-	500	4699856*LLG
2200	178 x 305	76	-	250	4699857*LLG
210	76 x 178	63	+	500	4699858*LLG
650	114 x 229	63	+	500	4699859*LLG
930	140 x 229	76	+	500	4699860*LLG
2200	178 x 305	76	+	250	4699861*LLG

## Sample bags, TWIRL'EM, suitable for cleanroom, without writing area



For collecting, transporting and analysing liquid and solid samples.

- Double-packed and sterilised
- Integrated secure closure system with 2 round wires
- \*Integrated secure closure system with 1 round wire and 1 flat wire, **heavy sample closure**
- Contaminant-free
- Waterproof and airtight
- RNase, DNase and pyrogen-free

Nominal capacity	Dimensions (W x H)	Thickness	PK	Cat. No.
ml	mm	µm		
960	114 x 305	63	25	4699865*LLG
930	140 x 229	76	25	4699866*LLG
1400	140 x 305*	76	25	4699868*LLG
4000	254 x 305*	101	25	4699867*LLG

## Sample bags, TWIRL'Blue, with writing area



For collecting, transporting and analysing liquid and solid samples. The blue colour allows the bag to be identified quickly if dropped in the production line or on a floor. This can avoid foreign body contamination.

- Integrated secure closure system with 2 round wires
- Steril
- Contaminant-free
- Waterproof and airtight
- RNase, DNase and pyrogen-free

## Sample bags, TWIRL'EM, with writing area, heavy sample closure



For collecting, transporting and analysing liquid and solid samples. Integrated secure closure system with 1 round wire and 1 flat wire

- Sterile
- Contaminant-free
- Waterproof and airtight
- RNase, DNase and pyrogen-free

Nominal capacity	Dimensions (W x H)	Thickness	PK	Cat. No.
ml	mm	µm		
650	114 x 229	63	500	4699863*LLG
5600	254 x 382	101	250	4699862*LLG

Nominal capacity	Dimensions (W x H)	Thickness	PK	Cat. No.
ml	mm	µm		
650	114 x 229	76	500	4699869*LLG
2200	178 x 305	76	250	4699870*LLG

## Sample bags, TWIRL'EM, extra heavy sample closure, without writing area



For collecting, transporting and analysing liquid and solid samples.

- Integrated secure closure system with 2 flat wires
- Sterile
- Contaminant-free
- Waterproof and airtight
- RNase, DNase and pyrogen-free

Nominal capacity	Dimensions (W x H)	Thickness	PK	Cat. No.
ml	mm	µm		
8500	305 x 406	101	250	4699871*LLG
10000	305 x 457	101	250	4699872*LLG
11500	305 x 508	101	250	4699873*LLG
14500	305 x 610	101	250	4699874*LLG



Sampling spoons, PS, sterile, individually packaged

**New**



Designed for precise sampling, this durable polystyrene (PS) spoon is ideal for handling sensitive materials in a laboratory or Industrial settings.

- Individually packaged
- Sterilised

Nominal capacity ml	Overall length mm	Colour	PK	Cat. No.
5	220	Rod	125	4701403*LLG
10	138	White	150	4701402*LLG

Scoops FoodScoop, Stainless steel V2A (1.4301)



Seamless connection of scoop and hollow handle, therefore without crevices and edges.

- Smooth, highly polished surface.
- Especially sturdy model
- With handy suspension eyelet
- Food safe

Capacity ml	Width Scoop mm	Length Scoop mm	Overall length mm	PK	Cat. No.
100	60	120	215	1	6254785*LLG
200	75	140	230	1	6252363*LLG
250	85	155	245	1	6254786*LLG
350	100	180	290	1	6242476*LLG
500	130	220	350	1	6072181*LLG

Disposable scoops for foodstuffs SteriPlast®, PS



Blue. The food scoop is ideal for powders, granulates and pastes. A special additive is added to the product material of the detectable scoops, which enables identification with the aid of metal detectors or X-rays. Individually packed, gamma-sterilized.

Description	Capacity ml	Overall length mm	PK	Cat. No.
Visual identification	25	141	10	6284552*LLG
Visual identification	50	160	10	6284553*LLG
Visual identification	100	205	10	6284554*LLG
Visual identification	150	216	10	6284555*LLG
Visual identification	250	232	10	6284556*LLG
Visual identification	500	280	10	6284557*LLG
Visual identification	1000	332	10	6284558*LLG
Detectable	2000	381	10	4680857*LLG

Sample beakers, PP, sterile, with labeling field and graduation



The attached lid can be opened with one hand and fixed at a 90° angle. Condensate in the lid runs into an absorbing groove integrated into the lid.

- Suitable for deep freezing
- Food safe
- Autoclavable

Nominal capacity ml	Height mm	PK	Cat. No.
50	78	650	4688166*LLG
90	80	350	4688167*LLG
300	88	240	4688168*LLG

## Grinding mill, A11 basic



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).

- 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.
- Optionally, a 250 ml grinding chamber is available.

### 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	Plug type	PK	Cat. No.
A 11 basic	EU	1	9737801*LLG
A 11 basic	UK	1	6202305*LLG
A 11 basic	CH	1	4008002*LLG

Accessories please order separately.

## Mortars and pestles, Agate



Agate. Polished. Standard quality. Other sizes are available on request.

Capacity	Ext. diam.	Int. diam.	PK	Cat. No.
ml	mm	mm		
10	50	40	1	9164050*LLG
25	75	60	1	9164075*LLG
50	100	85	1	9164100*LLG
100	125	100	1	9164125*LLG

## Laboratory Blender Waring® 8011



Versatile laboratory mixer ideally suited for general laboratory work. Supplied either with a 1 L stainless steel container or a 1.2 L glass container.

Models 8010 EG/ES with a mechanical timer (3 minutes).

- Two velocity settings (18000 or 22000 rpm)
- Epoxy-coated motor housing
- Two-piece lid vinyl/styrene

**Scope of supply:** Mixer, container (stainless steel or glass) with handle and lid

Type	With	PK	Cat. No.
8011EG	Glass container, 1.2 l	1	6284693*LLG
8011ES	Stainless steel container, 1 l	1	6284694*LLG

## LLG-Sample containers, PS/PP, with tamper-evident cap, LDPE/PP



White. Sturdy containers made of PS or PP. The tamper-evident closure enables the safe transport of samples.

- Food safe
- No-leak-proof

Nominal capacity	Ø with Cover	Height	Material	Material Lid	PK	Cat. No.
ml	mm	mm				
40	36	52	PS	LDPE	10	9402350*LLG
100	58	58	PP	PP	10	9402353*LLG
250	64	95	PS	LDPE	10	9402356*LLG
1000	116	116	PP	PP	5	9402359*LLG

## Overgoggles uvex super OTG 9169



super f OTG



super OTG



super OTG

The super OTG and the super f OTG are equipped with this state-of-the-art lens technology. Alongside the tried and tested hingeless spectacles and highly flexible soft earpieces, a hinged design has been developed. The revolutionary new design of the super f OTG with hinge combines all the principles of contemporary spectacles with the advantages of state-of-the-art materials. Both designs are well-suited to any wearer situation, and can also be used as overspecs for prescription wearers.

Coating of the lens:

1. uvex supervision sapphire: excellent scratch and chemical resistance, 100% UV protection

2. uvex supervision excellence: excellent scratch and chemical resistance and easy to clean (nano clean hybrid)

Type	Colour	Lens	PK	Cat. No.
super f OTG (1)	black	PC transparent/ UV 2-1.2	1	6252619*LLG
super f OTG (2)	black/white	PC light brown 5-1.4	1	4672691*LLG
super OTG (2)	navy blue	PC transparent/ UV 2-1.2	1	6234320*LLG
super OTG (1)	navy blue	PC transparent/ UV 2-1.2	1	7650112*LLG
super OTG (1)	black	PC grey / UV 5-2.5	1	7653307*LLG
super OTG (1)	black	PC transparent/ UV 2-1.2	1	6258848*LLG

## Lens Cleaning Tissues 9963



- Suitable for all uvex lenses
- Silicone-free
- 100 individually sealed tissues in a box
- Incl. clip for wall mounting

Please order the wall mounting unit separately.

Description	PK	Cat. No.
Cleaning tissues 9963	100	6200654*LLG

## LLG-Disposable Gloves *strong*, Nitrile, Powder-Free

EN ISO 374-1 Type B EN ISO 374-5 EN 421 EN 420



A disposable, nitrile, heavy-walled protective glove offering enhanced resistance against many chemicals. It is a protective glove for applications with higher safety requirements but provides greater comfort in use than traditional chemical protective gloves.

- **Very sturdy - higher material thickness**
  - Tried and tested quality product made of nitrile - excellent resistance to skin irritants in foodstuffs
  - More resilience through special formulation
  - For single use in applications with an increased need for safety when handling chemicals
  - Free from phthalates/softeners and allergenic latex proteins
  - Easy to don and particularly skin-friendly through a special finishing process
  - Colour 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 421, and EN 420 are Suitable for food handling.

You can find the appropriate compatibility list on [www.llg-labware.com](http://www.llg-labware.com) in the Downloads section.

Glove shape:	flat with rolled edge (ambidextrous)
Material:	nitrile
Colour:	blue
Outside:	textured
Inside:	powder-free halogenated
Size/total length:	S, M, L, XL/med. 240 mm
Thickness (measured in double layer):	<b>0.22 mm</b>

Size	PK	Cat. No.
S	100	9006379*LLG
M	100	9006380*LLG
L	100	9006381*LLG
XL	90	9006382*LLG

## Disposable overshoes, PP



These overshoes made of hard-wearing polypropylene (PP) offer reliable protection for your footwear and help to maintain hygiene and prevent soiling.

- Universal size 38 x 16.5 cm
- Elasticated drawstring

Package	Sterile	PK	Cat. No.
10 Pack(s) of 12 pcs	+	120	4701404*LLG
10 Pack(s) of 12 pcs	-	120	4701405*LLG
1 Pack(s) of 500 pcs	-	500	4701406*LLG

Photographic trays, PVC



**Kartell**

With a ribbed base. Stackable.

Internal dimensions (W x D x H) mm	External dimensions (W x D x H) mm	PK	Cat. No.
200 x 150 x 45	245 x 195 x 50	1	9200372*LLG
250 x 200 x 60	305 x 250 x 60	1	9200373*LLG
320 x 260 x 70	385 x 325 x 75	1	9200374*LLG
350 x 300 x 80	420 x 375 x 85	1	9200375*LLG
430 x 330 x 90	505 x 405 x 95	1	9200376*LLG
520 x 420 x 90	600 x 495 x 100	1	9200377*LLG
675 x 530 x 100	765 x 620 x 110	1	9200378*LLG

Draining rack, PS



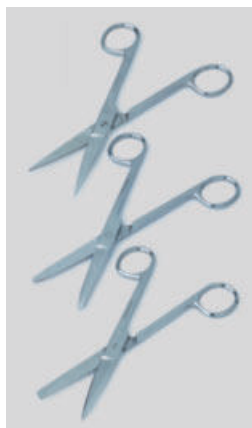
**Kartell**

Wall mounting, with a wide draining trough. Pegs can be inserted as required. Supplied with 72 pegs (15 mm diameter, 95 mm long), 11 small pegs (6 mm diameter, 95 mm long), drain tubing, and fittings for wall mounting.

Dimensions (L x W x H): 450 x 110 x 630 mm

Description	PK	Cat. No.
Draining rack	1	9003240*LLG

LLG-Scissors general purpose, stainless steel



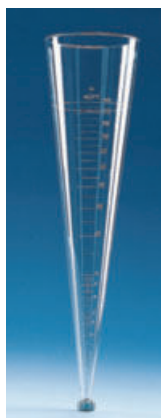
Excellent grade polished stainless steel with straight form and close shanks.

Available in 3 types:

- sharp/sharp points
- blunt/blunt points
- sharp/blunt points

Form	Length mm	PK	Cat. No.
sharp - sharp	130	1	6237703*LLG
sharp - sharp	160	1	9204231*LLG
blunt - sharp	130	1	9204232*LLG
blunt - sharp	160	1	9204233*LLG
blunt - blunt	130	1	9204234*LLG
blunt - blunt	160	1	9204235*LLG

Sedimentation cone, plastic, SAN



**Kartell**

Imhoff pattern. DIN 12672. Transparent SAN (Styrene acrylonitrile). With a screw cap for draining the contents. Temperature-resistant up to max. 85 °C.

Graduations, ml:	Subdivisions, ml:
0 to 2	0.1
2 to 10	0.5
10 to 100	1.5
100 to 300	10
300 to 1000	50

Type	PK	Cat. No.
With screw cap	1	9304280*LLG

Sedimentation cones, accessory stand, Acrylic/PP



Acrylic/PP. To hold two Imhoff sedimentation cones. Compact and easy to transport even when fully loaded.

Width mm	Length mm	Height mm	PK	Cat. No.
150	300	294	1	9304281*LLG

Graduated jugs, PP, moulded graduations



Highly transparent. With a raised scale, spout and stable, easy-grip handle. Autoclavable at 121 °C (2 bar) according to DIN EN 285. Food-safe product according to regulation (EU) No. 10/2011. To preserve markings, do not clean at temperatures exceeding 60 °C. Conditionally autoclavable at 121 °C (2 bar) according to DIN EN 285.

Nominal capacity	Grad.	Ext. diam.	Height	PK	Cat. No.
ml	ml	mm	mm		
250	5	74	120	12	4672398*LLG
500	10	92	140	12	4672399*LLG
1000	20	117	181	6	4672400*LLG
2000	50	152	213	6	4672401*LLG
3000	50	172	242	6	4672402*LLG
5000	100	204	270	6	4672403*LLG

LLG-Buckets, PP



White. With lid and tamper-evident closure. For transport, packaging and storage of foodstuffs, building materials and non-corrosive chemicals. Stability is guaranteed when filling up with material up to 80 °C.

Capacity	Diam.	Height	PK	Cat. No.
Litres	mm	mm		
1	131	127	10	6291418*LLG
2	179	133	10	6291419*LLG
3	198	141	10	6291420*LLG
5	224	193	10	6291421*LLG
10	266	265	10	6291422*LLG

LLG-Lab Notebook



For recording research data, experimental procedures, and design ideas. Use these notebooks to keep your information safe and well-organised. 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. The covers are waterproof and chemical-resistant. All notebooks contain periodic and conversion tables in 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

Laboratory Trolley clax Mobil comfort with Box



Stable, multi-use trolley with parking brake. Push-button collapsing/unfolding.

Load capacity

Total: 60 kg  
Upper shelf: 20 kg  
Lower shelf: 40 kg

Dimensions and weight

unfolded (L x W x H): 900 x 580 x 1020 mm  
collapsed (L x W x H): 710 x 550 x 190 mm  
Weight without box: 6.9 kg

Folding box dimensions

Inner dimensions (W x D x H): 335 x 495 x 258 mm  
Outer dimensions (W x D x H): 350 x 500 x 260 mm

Type	PK	Cat. No.
Laboratory Trolley clax Mobil comfort, incl. 1 clax folding box, 46 litres	1	9148100*LLG

Clax folding box, 46 litres

Sturdy folding box, made of high-quality plastic, for use with the Clax Mobil comfort laboratory trolley.

Nom. capacity	Dimensions (W x D x H) mm	Colour	PK	Cat. No.
46	380 x 540 x 270	Grey	1	9148099*LLG
46	380 x 540 x 270	Black	1	6492973*LLG

## Membrane filters, cellulose acetate



SARTORIUS



Type 111. Resistant to steam sterilisation up to 134 °C, or in dry heat up to 180 °C. Very low adsorption (important when filtering proteinaceous solutions). Suitable for particle removal and ultra cleaning of aqueous solutions, methanol, ethanol, high-grade alcohols and residue analysis of fuels and oils. The extractable content of these filters makes up <1% of their weight.

Other pore sizes and formats are available on request.

Diam. mm	Pore size µm	PK	Cat. No.
25	0.20	100	9053064*LLG
25	0.45	100	9053044*LLG
47	0.20	100	9053068*LLG
47	0.45	100	9053048*LLG
50	0.20	100	9053069*LLG
50	0.45	100	9053049*LLG

Other patterns are available on request.

## LLG Syringe Filters SPHEROS, 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. Suitable for all syringes with a Luer connection.

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	0.22	PP, pink	500	4668147*LLG
25	0.45	PP, pink	50	6272813*LLG
25	0.45	PP, pink	500	4668148*LLG

## LLG-Inline filters, PTFE



LLG-Inline filters with PP housing. The PTFE membrane is particularly suitable for filtration of aggressive chemicals, including acids and non-aqueous solutions. Also ideal for clarifying the filtration of organic solutions, sterile filtration of gases, as well as sterile aeration and deaeration.

- Multiple autoclavable at 121 °C for 20 minutes at 2 bar, max. 3 cycles
- High throughput with low-pressure drop
- For air and gases in both directions

Diam. mm	Pore size µm	PK	Cat. No.
50	0.22	20	4685658*LLG
50	0.45	20	4685659*LLG

## Filter paper, qualitative, Grade 3 hw, folded filters

SARTORIUS



Diam. mm	PK	Cat. No.
125	100	9049403*LLG
150	100	9049404*LLG
185	100	9049405*LLG
240	100	9049406*LLG
270	100	9049407*LLG
320	100	9049408*LLG

Other diameters/formats are available on request.

## LLG-Funnels, PP



Ideal for easy filling of laboratory bottles and filtration of liquids.

- Good temperature and chemical resistance
- Autoclavable at 121 °C and 1.1 bar for 30 minutes

Funnel diam. mm	Shaft diam. mm	For filter paper diam. mm	Stem length mm	PK	Cat. No.
40	6	55 - 70	40	10	9251185*LLG
60	8	70 - 90	60	10	9251186*LLG
80	8	125 - 150	80	10	9251187*LLG
100	10	150 - 185	100	10	9251188*LLG
120	16	185 - 240	120	10	9251189*LLG
150	16	240 - 270	150	10	9251190*LLG

Vial disposer Arnold/Marco, PP

- ! - Complete disposal of vials
- Lid protects against contamination

For the safe and quick disposal of HPLC vials. Thanks to the safety funnel with an extra large neck diameter, your vials fall easily through the opening without jamming or clogging the opening. The hinged lid safely holds back solvent vapours and other contaminants.

- For the disposal of large quantities of sample vials
- Connection for optional activated carbon filter available
- Low overall height, also suitable for safety storage cabinets (Marco)

Scope of supply: 10 l canister, safety funnel



Arnold



Marco



Type	Nom. capacity L	Dimensions (W x D x H) mm	Thread	Funnel diam. mm	PK	Cat. No.
Arnold	10	195 x 195 x 570	S90	185	1	6328027*LLG
Marco	10	180 x 180 x 450	S90	140	1	6328028*LLG

Exhaust Filter, PP

Lid with integrated ventilation openings and service life indicator. The filling of activated carbon is protected by two porous membranes made of PE. This allows an unobstructed flow of exhaust air, solvents are adsorbed by the activated carbon and only filtered air streams out.



Type	Life time	Neck thread	PK	Cat. No.
		GL		
SMALL	3 months	14	2	6313839*LLG
MEDIUM	6 months	14	2	6313840*LLG
LARGE	12 months	14	2	6313841*LLG

LLG Crimp Neck Vials ND11, small and wide opening (flat bottom)



Capacity ml	o.d. x Height mm	Colour	Form	PK	Cat. No.
1.5	11.6 x 32	clear	wide opening	100	6291635*LLG
1.5	11.6 x 32	amber	wide opening	100	6263047*LLG
1.5	11.6 x 32	amber, labeling field	wide opening	100	6291636*LLG
1.5	11.6 x 32	clear, labeling field	wide opening	100	6290019*LLG

LLG-Aluminium Crimp Seals ND11, ready assembled



Type	Caps	Septa	Hardness	Thickness mm	PK	Cat. No.
(1)	aluminium, silver, centre hole	Natural rubber red-orange / TEF transparent	60° shore A	1.00	100	9003441*LLG
(2)	aluminium, silver, centre hole	Natural rubber / Butyl red-orange / TEF transparent	45° shore A	1.00	100	7060469*LLG
(3)	aluminium, silver, centre hole	Silicone white / PTFE red	45° shore A	1.30	100	9003446*LLG
(4)	aluminium, silver, centre hole	PTFE virginal, white	53° shore D	0.25	100	4001559*LLG
(5)	aluminium, silver, centre hole	PTFE red / Silicone white / PTFE red	45° shore A	1.00	100	7050759*LLG
(6)	aluminium, silver, centre hole	Red Rubber / PTFE beige	45° shore A	1.00	100	6291637*LLG

## pH meter FiveEasy™ pH F20

FiveEasy™ benchtop meters provide high-quality pH/mV measurements with the simple click of a button.

- Large, easy to read and easy to understand display with all information visible at a glance
- Five self-explanatory buttons make operation simple and easy
- Electrode arm extension pole included

### Scope of supply:

Meter with CD operating instructions, QuickGuide, declaration of conformity, test certificate, power supply, plastic LE438 3-in-1 pH electrode, 1 each x 4.01 pH, 7.00 pH, 9.21 pH buffer sachets.



### Specifications

#### Measuring range (Accuracy)

pH:	0.00 ... 14.00 pH
mV:	-2000 ... 2000 mV (±1 mV)
Temperature:	0 ... 100 °C (0.5 °C)
Input:	BNC, Cinch (NTC 30 kΩ)
Temperature compensation:	ATC and MTC
Power supply:	100 ... 240 V, 50/60 Hz/12 V DC
Calibration:	3 points, linear, 4 predefined buffer groups

Type	PK	Cat. No.
F20-Standard Kit	1	6280101*LLG

## Multi-parameter measuring device Liquiline Mobile CML18, Set 3 and Set 5

Endress+Hauser   
 People for Process Automation



- Complete Set
- Portable Multimeter
- Digital Memosens Sensors
- Easy Change of Sensors

Mobile hand-held measuring device for measuring various parameters (pH/ORP, conductivity, temperature, dissolved oxygen) with digital Memosens sensors. All sensor data and measured values can be transferred to tablets or smartphones via a secure Bluetooth connection. With the free Memobase Pro app, all sample measurements can be traceably stored, documented, and visualised and sensors can be calibrated and adjusted using a guided procedure.

- Measurement of pH, conductivity, and oxygen in one device
- Small, handy design
- All calibration data, history, and measured values are stored directly in the electrode
- Data logger function for storing over 10000 measured values with time, date, and sample ID stamp
- True Plug & Play with pre-calibrated Memosens sensors enables quick changeover between parameters

The device can either be charged inductively via a pad (not included) or with the supplied USB data and charging cable.

**Scope of supply SET 3:** Multi-parameter measuring device, USB data and charging cable, pH electrode CPL51E

**Scope of supply SET 5:** Multi-parameter measuring device, protection cover, USB data and charging cable, pH electrode CPL51E, measuring cable CYK20 (1.5 m), field case

Type	External dimensions (W x D x H) mm	PK	Cat. No.
CML18 (Set 3)	54 x 47 x 84	1	4696931*LLG
CML18 (Set 5)	54 x 47 x 84	1	4699886*LLG

## LLG-Universal indicator paper, rolls



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

Range	PK	Cat. No.
pH		
1 ... 14	10	4667570*LLG
1 ... 11	10	4667572*LLG

## Storage solutions for pH-electrodes



Storage solution. Designed to extend the useful life of pH electrodes.

Capacity	PK	Cat. No.
ml		
100	1	ESS001*REA
500	1	ESS5*REA
1000	1	ESS01*REA



### Conductivity meter ProfiLine Cond 3310



Complete Set

The ProfiLine pocket conductivity meter has a waterproof (IP 67) housing with a completely sealed silicone membrane keypad with tactile feedback. The device has a backlit graphic display and menu control. A selection of application-specific conductivity cells covers all measuring tasks.

Comfortable and versatile conductivity meter with integral, time controlled, data logger and 5000 GLP-compliant record memory for extended data collection. Menu controlled, with backlit, graphics display for comfortable, safe operation. Wide range of conductivity cells attachable. GLP-supporting functions, enhanced choice of cell constants, automatic and manual temperature compensation (which can be switched off) with linear and non-linear functions for pure water and natural waters acc. to EN 27888.

**Scope of supply:** Case set including conductivity probe TetraCon 325 and accessories.

**Specifications:**

Measuring ranges/Resolution

Conductivity: as Cond 3110, but additionally with  
 0.00 µS/cm ... 19.99 µS/cm (when K=0.1 cm<sup>-1</sup>)  
 0.000 µS/cm ... 1.999 µS/cm (when K=0.01 cm<sup>-1</sup>)

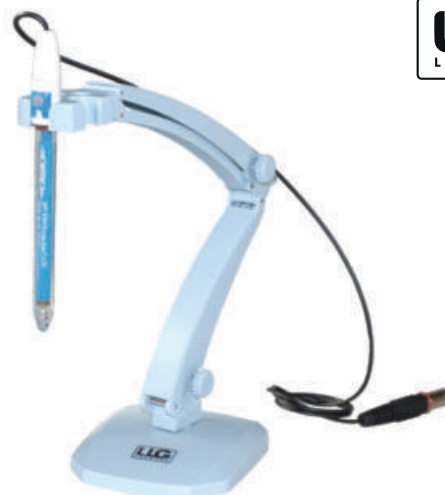
TDS: 0 ... 1999 mg/l, 0.0 ... 199.9 g/l

Spec. resistance: 0.0 ... 999 MΩ/cm

Memory: 5000 records (measured value, temperature, date, time, ID)

Type	PK	Cat. No.
Cond 3310 Set 1	1	9774400*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

### Conductivity standards, ISO 17034



Aqueous-based conductivity standards for calibration of conductivity sensors, quality control, method validation and instrument qualification.

- Tested and ISO 17034 certified at 25 °C
- Traceability according to N.I.S.T.
- High accuracy of ±1% at 25 °C
- Supplied in 500 ml HDPE bottles

Type	PK	Cat. No.
µS/cm		
20	1	CRMCSKC20*REA
50	1	CRMCSKC50*REA
84	1	CRMCSKC84*REA
100	1	CRMCSKC100*REA
147	1	CRMCSKCS*REA
200	1	CRMCSKC200*REA
500	1	CRMCSKC500*REA
1000	1	CRMCSKC1000*REA
1413	1	CRMCSKCL*REA
2000	1	CRMCSKC2M*REA
3000	1	CRMCSKC3M*REA
5000	1	CRMCSKCSM*REA
10000	1	CRMCSKC10M*REA

### IDS conductivity cell probes TetraCon® 925



For IDS conductivity meter



For connection to **WTW IDS measuring instruments.**

Intelligent digital 4-pole cell with integral temperature sensor. Automatic transfer of the cell constant. Cable length 1.5 metres. Measuring range: 1 µS/cm to 2 S/cm.

Electrode	Shaft	Cell constant	Length	PK	Cat. No.
Graphite	Epoxy resin	K = 0.475	mm 120	1	7653077*LLG

## Wireless thermometer XENA HOME



XENA HOME

Wireless thermometer for monitoring the outdoor temperature and indoor climate with temperature and humidity. The outdoor temperature is measured wirelessly via the supplied temperature transmitter. The range is 100 m at a transmission frequency of 433 MHz. Up to 3 temperature transmitters can be linked to the base station.

- Radio-controlled clock with entire date, time zone correction  $\pm 12$  hours
- Highest and lowest values are saved with time and date, an automatic reset can be set
- For standing or wall mounting
- Additional temperature transmitters can be ordered separately with article number 6521430\*LLG

**Scope of supply:** Base station, temperature transmitter

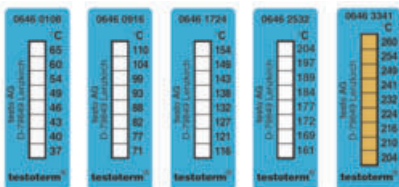
**Please order batteries separately.**

### Specifications

Relative int. humidity:	10 ... 99%
Int. temperature:	0 ... 50 °C
Ext. temperature:	-40 ... 60 °C
Dimensions (W x D x H):	82 x 27 x 140 mm
Weight:	128 g
Battery/rechargeable battery:	2 x 1.5 V, AA

Type	PK	Cat. No.
XENA HOME	1	6521429*LLG
Temperature transmitter with cable sensor	1	6521430*LLG

## 8-step irreversible temperature strips testoterm®



Strips for 8 temperatures. 5 types cover the measuring range 37 to 260 °C, each strip displays 8 different temperatures. Each strip measures 50 x 18 mm.

Measuring range °C	PK	Cat. No.
37 ... 65	10	9246002*LLG
71 ... 110	10	9246003*LLG
116 ... 154	10	9246004*LLG
161 ... 204	10	9246005*LLG
204 ... 260	10	9246006*LLG

## Laboratory thermometer LT-105, with glass bottle



Ergonomically shaped laboratory thermometer with alarm function for monitoring the temperature.

- MAX/MIN function
- Hi-Lo alarm
- Cable probe (external sensor) with approx. 1 m cable
- °C/°F switchable
- With calibration certificate at -18 °C and 4 °C

**Scope of supply:** Laboratory thermometer with cable probe in a 30 ml glass bottle. Incl. Glysofor L sachet for self-filling, 1 x AAA battery, operation manual

### Specifications

Int. temperature:	-10 ... 50 °C
Ext. temperature:	-50 ... 70 °C
Resolution:	0.1 °C
Accuracy:	$\pm 1$ °C
Sensor ( $\varnothing$ x L):	5 x 25 mm
Cable length:	1 m
Battery/rechargeable battery:	1 x AAA battery

Type	PK	Cat. No.
LT-105	1	4691794*LLG

## Disposable data logger TempLOG TS60



Ideal for low-cost temperature monitoring of transports. For evaluation, the data logger is connected to the USB interface and a PDF report is generated automatically.

- 60 days runtime
- 10000 measurements every 10 minutes
- LED Alarm display
- Inclusive certificate
- Food-safe according to HACCP
- Compliant to EN12830 S,T,C,D,1 and GDP

### Specifications

Temperature range:	-30 ... 60 °C
Accuracy:	$\pm 0.5$ °C at -20 °C ... 40 °C/ $\pm 1.0$ °C in remaining range
Resolution:	0.1 °C
Data memory:	10000 measurements
Recording cycle:	60 days
Sampling interval:	10 minutes
Shelf life:	24 months
Dimensions (L x W x H):	69 x 33 x 5 mm
Weight:	10 g
IP code:	IP 67

Type	PK	Cat. No.
TempLOG TS60	1	4684342*LLG

## Digital refractometer RFM700



Robust, fully automated measuring device with °Brix scale and automatic temperature compensation to 20 °C following ICUMSA for demanding applications in the food, sugar, and beverage industries. The refractometer can be connected to a printer or laboratory PC and output measurement results in standard print, CSV, or secure PDF formats.

- Additional user scales allow measurement in various formats (e.g. RI, Öchsle, Baumé)
- Integrated library for user scales
- AG temperature equalisation enables range calibration for AG solutions
- Bright, high-resolution 4" HD colour display
- Two display modes (red or colour)
- Alphanumeric keypad
- "Hands-free" auto-sense measurement
- Time-delayed measurement
- Flat prism surface facilitates cleaning
- Wide beam scan for non-homogeneous samples
- USB (A), USB (B), and Ethernet interface

### Specifications

Resolution:	0.1 °Brix 0.0001 RI
Temperature:	5 ... 40 °C
Accuracy temperature:	±0.05 °C
Power supply:	100 ... 240 V, 50/60 Hz

Type	Measuring range	Accuracy	PK	Cat. No.
RFM712-M	0 ... 50 °Brix 1.33 ... 1.42 RI	±0.1 °Brix ±0.0001 RI	1	4694483*LLG
RFM732-M	0 ... 100 °Brix 1.33 ... 1.54 RI	±0.1 °Brix ±0.0001 RI	1	4694484*LLG
RFM742-M	0 ... 100 °Brix 1.33 ... 1.54 RI	±0.04 °Brix ±0.00005 RI	1	6317586*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. The operation is quick and easy, calibration can simply be done with distilled water. The waterproof housing (IP 65) allows cleaning under running water.

- Easy switching between the three scales
- 4-digit LCD display
- Automatic temperature correction
- Sample plate made of stainless steel

**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
Warranty:	3 years

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

## Sucrose (Brix) Standards



Certified stabilized Sucrose (Brix) Standards.

- ISO 17025 accredited
- Uncertainty of measurement of 0.11% for all Brix values at 20 °C
- Equivalent Nominal Refractive Index values from ICUMSA published tables reported on the Certificate of Analysis
- Compatible with any brand of Refractometer
- 12-month shelf life
- Provided in high-quality HDPE 15 ml dropper bottles

Brix	Refractive Index at 20 °C	PK	Cat. No.
%			
0	1.332986 nD	1	BS00S*REA
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

## Volumetric flasks, borosilicate glass 3.3, class A, blue graduated, with PE stoppers, coated



**ISOLAB**  
Laborgeräte GmbH

The flasks are coated with a specially formulated coating that holds the broken parts together in case of breakage.

- Conformity certified, with batch certificate
- DIN EN ISO 1042
- Calibrated to contain (IN)

Nominal capacity ml	Joint size (NS)	PK	Cat. No.
5	10/19	2	4678019*LLG
10	10/19	2	4678020*LLG
20	10/19	2	4678021*LLG
25	10/19	2	4678022*LLG
25	12/21	2	4678023*LLG
150	14/23	2	4678028*LLG
250	14/23	2	4678030*LLG
300	14/23	2	4678031*LLG
400	19/26	2	4678032*LLG

## Volumetric trapezoidal flasks, borosilicate glass 3.3, class A, blue graduations



**BRAND**

All BLAUBRAND® volumetric flasks are delivered with batch number and one batch certificate included per pack.

- DIN EN ISO 1042
- DE-M marking
- Graduations and inscriptions in highly contrasting blue enamel
- Calibrated to contain (IN)

Nominal capacity ml	Tolerance ± ml	Joint size (NS)	PK	Cat. No.
1	0.025	7/16	2	4680322*LLG
2	0.025	7/16	2	4680323*LLG
5	0.025	7/16	2	4680324*LLG
10	0.04	10/19*	2	4680325*LLG
20	0.04	10/19	2	4680326*LLG
25	0.04	10/19	2	4680327*LLG
50	0.06	12/21	2	4680328*LLG

\* Wide neck version

## LLG-Measuring cylinders, borosilicate glass 3.3, tall form, class A



**LLG**  
LABWARE

Tall form. Calibrated to contain IN. Conformity certified with batch ID.

- DIN ISO 4788
- With a hexagonal base and spout
- Blue Graduation

Capacity ml	Graduation	Tolerance ± ml	PK	Cat. No.
5	0.1	0.05	2	4686202*LLG
10	0.2	0.10	2	4686203*LLG
25	0.5	0.25	2	4686204*LLG
50	1.0	0.50	2	4686205*LLG
100	1.0	0.50	2	4686206*LLG
250	2.0	1.00	2	4686207*LLG
500	5.0	2.50	2	4686208*LLG
1000	10.0	5.00	1	4686209*LLG
2000	20.0	10.00	1	4686210*LLG

## Graduated pipettes, Class AS, AR-glas®, blue graduation, type 2



**BRAND**

All BLAUBRAND® graduated pipettes are supplied with batch numbers and one batch certificate per manufacturer's outer pack.

- DIN EN ISO 835
- DE-M marking
- Marks and inscriptions in high-contrast blue enamel
- Calibrated to deliver (TD, EX)
- Waiting time 5 seconds

Volume ml	Graduation	Tolerance ± ml	Overall length ± 10 mm	PK	Cat. No.
0.5	0.01	0.006	360	12	4689247*LLG
1	0.01	0.007	360	12	4689248*LLG
2	0.02	0.01	360	12	4689250*LLG
2	0.1	0.01	360	12	4689251*LLG
5*	0.05	0.03	360	12	4689252*LLG
10*	0.1	0.05	360	12	6322138*LLG
20*	0.1	0.1	360	6	4689244*LLG
50*	0.1	0.2	450	6	4689246*LLG

\* Cotton plugged

## Bottle-top dispenser Dispensette® Analog S

The Dispensette® S bottle-top dispenser makes liquid dosing easy and secure.

- Discharge tube, with and without recirculation valve
- Minimal force needed to operate - especially with high-volume devices
- Autoclavable (121 °C)
- Easy to calibrate and adjust to comply with ISO 9001 and GLP guidelines
- Easy to disassemble for cleaning
- DE-M marking
- Analog volume display
- Quickly adjustable dosing volume

Red color code. Wide range of applications, ideal for dispensing aggressive reagents, e.g. concentrated bases and acids such as H<sub>3</sub>PO<sub>4</sub>, H<sub>2</sub>SO<sub>4</sub> (except as HCl, HNO<sub>3</sub> and HF), saline solutions and a variety of organic solvents. Incl. performance certificate.

### Included items:

Bottle-top dispensers Dispensette® S, DE-M marked and supplied with performance certificate, telescope filling tube, recirculation valve (optional), mounting tool and adapters made of PP.



Volume	Grad.	Accuracy max. vol.	Precision max. vol.	Recycle valve	PK	Cat. No.
ml	ml	(± R%)	(≤ CV%)			
0.1 - 1	0.02	0.6	0.2	without	1	9284380*LLG
0.1 - 1	0.02	0.6	0.2	with	1	9284381*LLG
0.2 - 2	0.05	0.5	0.1	without	1	9284459*LLG
0.2 - 2	0.05	0.5	0.1	with	1	9284462*LLG
0.5 - 5	0.10	0.5	0.1	without	1	9284384*LLG
0.5 - 5	0.10	0.5	0.1	with	1	9284385*LLG
1 - 10	0.20	0.5	0.1	without	1	9284386*LLG
1 - 10	0.20	0.5	0.1	with	1	9284387*LLG
2.5 - 25	0.50	0.5	0.1	without	1	9284388*LLG
2.5 - 25	0.50	0.5	0.1	with	1	9284389*LLG
5 - 50	1.00	0.5	0.1	without	1	9284390*LLG
5 - 50	1.00	0.5	0.1	with	1	9284391*LLG
10 - 100	1.00	0.5	0.1	without	1	9284392*LLG
10 - 100	1.00	0.5	0.1	with	1	9284393*LLG

## Single channel microliter pipettes Acura® manual 825, variable

With variable volume adjustment.



Ergonomic and lightweight

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

Capacity	Increments	Accuracy max. vol.	Precision max. vol.	PK	Cat. No.
µl	µl	(± R%)	(≤ CV%)		
0.1 - 2	0.002	2.0	1.5	1	9411590*LLG
0.5 - 10	0.01	1.0	0.5	1	9411591*LLG
1 - 10	0.01	1.0	0.7	1	9411592*LLG
2 - 20	0.02	1.0	0.5	1	9411593*LLG
5 - 50	0.1	1.0	0.4	1	9411594*LLG
10 - 100	0.1	0.8	0.2	1	9411595*LLG
20 - 200	0.2	0.6	0.2	1	9411596*LLG
100 - 1000	1	0.5	0.2	1	9411597*LLG

## LLG-Pipette tips Low Retention, PP, sterile

LLG-Pipette tips with hydrophobic inner surfaces ensure maximum sample recovery and high-precision pipetting. Compatible with all common pipette brands.



Environmental friendly



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

For research and development only.

Capacity	Length	Colour	Point style	PK	Cat. No.
µl	mm				
10	31.2	Transparent	standard	960	4694457*LLG
10	45.8	Transparent	XL	960	4694458*LLG
200	53.4	Transparent	standard	960	4694459*LLG
1000	84.3	Transparent	standard	768	4694460*LLG

## LLG-Carboy, PP, with handles



LLG-Carboy with screw cap made of PP for storing and dispensing media, solutions and other liquids. The practical shoulder handle facilitates transport and pouring.

- With graduation
- Autoclavable
- Stable bottom with curved corners
- Leak-proof

Capacity	Dimensions (dia. x H) mm	Cap size	Neck diam. mm	PK	Cat. No.
10	249 x 376	83	65	1	4692534*LLG
20	285 x 518	83	65	1	4692535*LLG
50	376 x 665	83	65	1	4692536*LLG

## Erlenmeyer flasks, narrow neck, DURAN®



DIN ISO 1773, with graduation and beaded rim. With retrace code (batch identification), certificate via Internet. Glass type 1/neutral glass according to USP/EP and JP. Autoclavable.

Capacity ml	Neck diam. mm	Bottom diam. mm	Height mm	PK	Cat. No.
25**	22	42	75	10	212161407*SCHOTT
50	22	51	90	10	212161707*SCHOTT
100	22	64	105	10	212162403*SCHOTT
200*	34	79	131	10	212163202*SCHOTT
250	34	85	145	10	212163605*SCHOTT
300*	34	87	156	10	212163905*SCHOTT
500	34	105	180	10	212164404*SCHOTT
1000	42	131	220	10	212165409*SCHOTT
2000	50	166	280	10	212166302*SCHOTT

\* Not to DIN, \*\*without retrace code

## LLG-Wide mouth bottle, HDPE, rectangular



Space-saving, rectangular wide mouth bottle with sturdy, uniform wall construction. Ideal for easy filling, storage or transport of liquids, powders and granulates.

- With screw cap
- Very good chemical resistance to most acids, bases and alcohols
- Autoclavable
- Leak-proof

Capacity ml	Dimensions (W x D x H) mm	Cap size	Neck diam. int. mm	PK	Cat. No.
125	39.4 x 60.0 x 97.3	28	21.1	12	4692551*LLG
250	54.0 x 75.5 x 112.0	38	28.8	12	4692552*LLG
500	64.7 x 100.0 x 140.6	48	38.0	12	4692553*LLG
1000	70.2 x 125.2 x 175.0	53	43.7	6	4692554*LLG

## Erlenmeyer flasks DURAN® Super Duty, wide neck



With approximate graduations. Reinforced, sturdy rim and increased mechanical strength for heavy duty. Glass Type I/neutral glass as per USP, EP and JP. With retrace code (Batch Identification). Certificate available via the Internet. Autoclavable.

Capacity ml	Neck diam. mm	Bottom diam. mm	Height mm	PK	Cat. No.
100	34	64	105	1	212272402*SCHOTT
250	50	85	140	1	212273604*SCHOTT
500	50	105	175	1	212274403*SCHOTT
1000	50	131	220	1	212275408*SCHOTT

## Wide-mouth bottles with GLS 80® neck, DURAN®, clear, with screw cap



Laboratory bottle with GLS 80® wide neck (80 mm diameter), autoclavable and up to 500 °C temperature resistant. Neutral/Type 1 glass acc. to USP/EP. With Retrace code (Batch identification). Certificate available via the Internet. With PP screw cap and pouring ring (autoclavable and temperature resistant up to 140 °C).



Capacity ml	Diam. mm	Height without closure mm	PK	Cat. No.
250	95	105	1	218603656*SCHOTT
500	101	152	1	1112627*SCHOTT
1000	101	222	1	1112713*SCHOTT
2000	136	252	1	1112715*SCHOTT
5000	182	314	1	1113949*SCHOTT



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 ml	Bore mm	Ground size NS	PK	Cat. No.
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

Pear shape flasks with standard ground joint, borosilicate glass 3.3



With standard ground joint and white inscription.

Nominal capacity ml	Dimensions (dia. x H) mm	Ground size NS	PK	Cat. No.
10	31 x 75	14/23	1	4686145*LLG
25	42 x 90	14/23	1	4686146*LLG
50	51 x 100	14/23	1	4686147*LLG
50	51 x 100	29/32	1	4686150*LLG
100	64 x 130	14/23	1	4686148*LLG
100	64 x 130	29/32	1	4686151*LLG
250	85 x 150	14/23	1	4686149*LLG

LLG-Splash heads, straight, borosilicate glass 3.3



Straight, with standard ground cone and socket.

Cone	Socket	PK	Cat. No.
NS	NS		
14/23	14/23	2	4686184*LLG
29/32	29/32	1	4686185*LLG

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



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

Capacity ml	Ground size NS	Height mm	PK	Cat. No.
50	14/23	90	2	4686126*LLG
50	19/26	90	2	4686127*LLG
50	24/29	90	2	4686128*LLG
100	14/23	105	2	4686130*LLG
100	19/26	105	2	4686131*LLG
100	24/29	105	2	4686132*LLG
250	19/26	140	2	4686136*LLG
250	24/29	140	2	4686135*LLG
500	24/29	163	2	4686137*LLG
500	45/40	163	2	4686139*LLG
1000	24/29	200	1	4686140*LLG
1000	45/40	200	1	4686142*LLG
2000	45/40	240	1	4686144*LLG

## Cleanroom sword CR/A



Flexible holder for cleaning hard-to-reach areas and narrow gaps.

- Autoclavable
- ClinoConnect Lock handle
- Locking mechanism
- Cleaning of hard-to-reach areas and narrow interstitial spaces
- Material handle: polyamide, glass fibre reinforced
- Material fin: Plastic Purell, FE silicon manganese wire

Dimensions (D x W) mm	PK	Cat. No.
30 x 650	1	4692744*LLG

## Disposable cover for cleanroom sword CR/A



Cleaning hard-to-reach areas. Autoclavable.

Dimensions (D x W) mm	PK	Cat. No.
500 x 40	5	4692745*LLG
500 x 40	5	4692746*LLG

## ESD clean room chair WS 1720 RR ESD



- Backrest upholstered with leatherette, colour: black, (W top/bottom x H: 340/445 x 515 mm), backrest tilt: -10° to +8°
- Seat upholstered with leatherette, colour: black, (W back/front x D: 480/510 x 470 mm), seat tilt: -4° to +10°
- Column, chrome-plated, with column cover
- Five-star base, polished with conductive dual castors
- Conductive chair for discharging static electricity electrical resistance:  $6 \times 10^6 \text{ Ohm}$
- Certified for class-5 clean rooms acc. to DIN EN ISO 14644-1
- 5 years warranty

Seat height adjustment mm	PK	Cat. No.
510-630	1	4661513*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
- Lasercut
- Cleaned with ultrapure water
- Double packed

Dimensions mm	Cleanroom Class	Package contents	PK	Cat. No.
229 x 229	ISO 5	1 x 150 pieces	150	4659070*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**

Wall Mount, wire, white-coated with wall mounting material for packaging up to 70 mm depth, please order separately.

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

Disposable Towel Rolls



Description	Package contents	PK	Cat. No.
nature, 1-ply	6 rolls with 840 tears	6	7659047*LLG
blue, 2-ply	6 rolls with 395 tears	6	7659048*LLG
nature, 2-ply	10 rolls with 142 tears	10	7670997*LLG

Hand brush, PP



- Soft bristles
- To remove fine particles
- Food-safe
- For colour coding
- Autoclavable

Bristle length mm	Overall length mm	Colour	PK	Cat. No.
50	330	green	1	4666176*LLG
50	330	blue	1	4666177*LLG
50	330	red	1	4666178*LLG
50	330	white	1	4666179*LLG
50	330	yellow	1	4666180*LLG

Dustpan, PP



- Ergonomically designed
- Food-safe
- For colour coding
- Autoclavable

Length mm	Colour	PK	Cat. No.
330	green	1	4666171*LLG
330	blue	1	4666172*LLG
330	red	1	4666173*LLG
330	white	1	4666174*LLG
330	yellow	1	4666175*LLG

## BOD measurement system OxiTop®-i IS 6/12



- Easy to use
- For 6 or 12 samples



Easy-to-use, respirometric measuring system for determining the biological oxygen demand (BOD). The BOD can be determined simultaneously in up to 6 or 12 samples.

- No dilution of the sample required
- Direct reading of the BOD, the time course and the intermediate values on the graphical display of the measuring heads
- Input of the used sample volume directly at the measuring head
- Monitoring time between 1 and 7 days
- Permanent display of the current status at each measuring head
- Coloured measuring heads with adjustable, numerical sample identification

### Scope of supply:

**OxiTop®-i IS 6:** 6 x measuring heads (3 x blue, 3 x grey), 6 x sample bottles PF600, 6 x rubber quivers, overflow measurement flasks, 6 x stirring rods, stirring rod remover, stirring platform SI 6

**OxiTop®-i IS 12:** 12 x measuring heads (6 x blue, 6 x grey), 12 x sample bottles PF600, 12 x rubber quivers, overflow measurement flasks, 12 x stirring rods, stirring rod remover, stirring platform SI 12

**An incubator is required to operate the OxiTop®-i IS.**

**Please order separately.**

### Specifications

Pressure range: 500 ... 1250 hPa  
 BOD range: 0 ... 4000 mg/l  
 Display: Graphical LCD, background-illuminated  
 Power supply of measuring heads: 1 x CR 2450  
 Power supply of stirring platform: 100 ... 240 V, 50/60 Hz

Type	PK	Cat. No.
OxiTop®-i IS 6	1	7940936*LLG
OxiTop®-i IS 12	1	4667879*LLG

## Calibrating standards TOC



Total Organic Carbon (TOC) standards are manufactured from high purity raw materials and are suitable for calibrating of TOC analysers to a high accuracy. These standards are independent, traceable and certified. TOC750P contains preservatives.

Concentration	Accuracy	Package	PK	Cat. No.
	(±)			
5 ppm	5%	amber glass bottle	1	TOC5*REA
10 ppm	5%	amber glass bottle	1	TOC10*REA
15 ppm	5%	amber glass bottle	1	TOC15*REA
20 ppm	5%	amber glass bottle	1	TOC20*REA
25 ppm	5%	amber glass bottle	1	TOC25*REA
30 ppm	5%	amber glass bottle	1	TOC30*REA
50 ppm	5%	amber glass bottle	1	TOC50*REA
100 ppm	1%	HDPE twin neck bottle	1	TOC100*REA
250 ppm	1%	HDPE twin neck bottle	1	TOC250*REA
500 ppm	1%	HDPE twin neck bottle	1	TOC500*REA
1000 ppm	0.5%	HDPE twin neck bottle	1	TOC1M*REA
2000 ppm	0.5%	HDPE twin neck bottle	1	TOC2M*REA
5000 ppm	0.5%	HDPE twin neck bottle	1	TOC5M*REA

## Dissolved oxygen bottles, Soda-lime glass



According to Winkler. For determining the oxygen dissolved in water. The measured volume is accurate to ±0.01 ml. With a white labelling field. Each bottle is adjusted with the corresponding stopper. Stopper and bottle are therefore not interchangeable. Clear assignment of bottle and stopper by pairwise numbering.

Nominal capacity ml	NS	Snap-on clip	PK	Cat. No.
100 to 150	14/23	4.684 046	1	9304038*LLG
250 to 300	19/26	4.684 047	1	9304048*LLG

## Clamps for oxygen determination bottles acc. to Winkler



Stainless steel, nickel-plated. For securing the NS stopper.

For bottles ml	For	PK	Cat. No.
100 ... 150	NS 14/23	1	4684046*LLG
250 ... 300	NS 19/26	1	4684047*LLG

## Vortex-Genie®-series 2

- ! - Topseller
- Proven quality



Robust and reliable shakers for speedy mixing and shaking of samples. Variable speed for precise mixing from gentle to vigorous. A broad range of attachments for most tubes, plates and other containers. Hands-Free or Touch On control.

**Scope of supply:** Vortexer, platform (diam. 76 mm) with a rubber cover, Pop-off cup

### 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	Plug type	PK	Cat. No.
Vortex Genie® 2	EU	1	9730060*LLG
Vortex Genie® 2	UK	1	6251939*LLG
Vortex Genie® 2	CH	1	6235684*LLG

## LLG-Microcentrifuge tubes, PP, with Safe-Lock lid



LLG-Microcentrifuge tubes are versatile and suitable for general laboratory applications such as incubation, centrifugation, and storage of samples. With a tight-fitting Safe-Lock lid, which prevents unintentional opening of the lid during centrifugation.

- Frosted labelling area on the lid
- Lid membrane can be easily pierced
- Easy opening and closing with one hand
- Graduation lines for visual volume control
- RNase- and DNase-free

Volume	Form	PK	Cat. No.
ml			
1.5	Conical	1000	6490852*LLG
2.0	Round	1000	6490853*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
- 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
- Autoclavable at 121 °C and freezable to -80 °C
- Free of pyrogens
- DNase/RNase-free

Capacity	Description	Form	PK	Cat. No.
ml				
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

## Test Tube Racks Mega Rack®, ABS



- Stores a high quantity of samples eliminating the need for multiple racks
- Alphanumeric grid for quick location and retrieval of tubes
- Sturdy, lightweight material for easy transport

For tubes	Array	Colour	PK	Cat. No.
ml				
50	100	Blue	1	6492925*LLG
50	100	White	1	6492926*LLG

## Magnetic stirrer with heating LLG-uniSTIRRER 3 pro, complete set

- ! - Complete Set
- New Design

Universal magnetic stirrer with outstanding price-performance ratio and new, improved design.

- Stainless steel plate with ceramic coating
- Digital speed and temperature control
- LED display
- "HOT" display for hot surfaces, even when the device is switched off

### Scope of supply:

Magnetic stirrer,  
PT1000 temperature probe,  
rod, holder



### Specifications

Max. Stirring volume:	3 l
Speed:	200 ... 1500 rpm
Heating temperature:	RT ... 280 °C
Ø working area:	135 mm
Stirring point material:	Stainless steel/ceramic
Permissible ambient temperature:	5 ... 40 °C
Dimensions (WxDxH):	220 x 160 x 95 mm
Weight:	1400 g
Power supply:	200 ... 240 V/100 ... 120 V, 50/60 Hz
Protection class (IP):	IP 21

Type	Plug type	PK	Cat. No.
LLG-uniSTIRRER 3 pro	EU	1	6263400*LLG
LLG-uniSTIRRER 3 pro	UK	1	6263401*LLG

## Multiposition magnetic stirrer with heating Multi-HS digital



For synchronous stirring and heating at homogeneous temperatures up to 120 °C.

- Brushless motor guarantees constant speed
- SpeedServo™ technology maintains speed constant when viscosity changes



### Multi-HS 6 // Multi-HS 15

### Specifications

Max. stirring quantity per stirring position (H <sub>2</sub> O):	400 ml // 250 ml
Number of stirring positions:	6 // 15
Temperature range:	0 ... 120 °C
Speed range:	100 ... 1000 rpm
Timer:	1 min ... 99 h : 59 min
Plate dimension:	223 x 432 mm
Distance between stirring positions:	100 mm // 74 mm
Dimensions (W x D x H):	240 x 550 x 65 mm
Power supply:	230 V, 50/60 Hz

Type	PK	Cat. No.
Multi-HS 6	1	4678195*LLG
Multi-HS 15	1	4678196*LLG

## Magnetic stirrers for cell cultures with external control, bioMIXdrive 1/2/3/4



Due to the external control, these magnetic stirrers are suitable for use in ovens, incubators, safety cabinets or for underwater operation, depending on the device.

- For long-term use, e.g., in CO<sub>2</sub> incubators
- Fully sealed housing
- 3 years warranty

### Please always order control units separately.

### Specifications

Stirring quantity (H <sub>2</sub> O):	5 ... 5000 ml
Permissible ambient temperature:	-10 up to +50 °C at 100% H.R. max. +50 °C submerged in water
Housing:	Stainless steel
Protection class:	IP 68

Type	Stirring positions	Dimensions (W x D x H) mm	PK	Cat. No.
bioMIXdrive 1	1	180 x 180 x 38	1	9645950*LLG
bioMIXdrive 2	2	130 x 270 x 38	1	9645978*LLG
bioMIXdrive 3	3	130 x 410 x 38	1	9645979*LLG
bioMIXdrive 4	4	270 x 270 x 38	1	9645980*LLG

## Control units for bioMIXdrive



### bioMIXcontrol

Control unit for 1x bioMIXdrive 1/2/3/4, power setting (10-stage), digital display, stainless steel housing, 3-year warranty.

### bioMIXcontrol S

Identical to bioMIXcontrol, but with stackable housing and vertical control panel.

### Specifications

Speed:	5 ... 250 rpm
Permissible ambient temperature:	0 ... 40 °C (at 80% r. H.)
Power supply:	100 ... 240 V, 50/60 Hz
IP code:	IP 20

Type	Dimensions (W x D x H) mm	PK	Cat. No.
bioMIXcontrol	200 x 155 x 38	1	9645951*LLG
bioMIXcontrol S	215 x 120 x 57	1	9645981*LLG

## Overhead stirrer LS

### ! Complete Set

Robust overhead stirrers for low to high-viscosity liquids. With overload, overtemperature and overcurrent protection. For general tasks. Stir media with low to medium viscosities up to 25000 mPas.

- No tool is required for the assembly of the stirring tool

**Set with support rod and base, double clamp and stirring shaft with fixed blade**



#### Specifications

Volume (H <sub>2</sub> O):	25 l
Viscosity (max.):	25000 mPas
Speed range:	50 ... 2000 rpm
Power rating:	120 W
Torque (max.):	40 Ncm
Chuck range:	Ø 1 ... 10 mm
Display:	Analog
Dimensions (W x D x H):	80 x 196 x 215 mm
Weight:	2.3 kg
IP code:	IP 40
Power supply:	110 ... 230 V, 50/60 Hz
Warranty:	3 years

Type	Plug type	PK	Cat. No.
LS Package	EU	1	4666711*LLG

## Microplate shaker MultiPlate Genie®

### ! For PCR preparation



Shaker for vigorous, uniform vortex mixing of up to 4 microplates.

- Variable adjustable speed
- Timer or continuous operation
- Programmable pulse function: 0.1 sec to 99 min
- Can be used in cold rooms and incubators (except CO<sub>2</sub> incubators)

Type of movement:	orbital
Shaking stroke:	1 mm
Speed:	500 ... 2700 rpm
Timer:	1 ... 99 min
No. of plates	4
Permitted ambient conditions:	0 ... 38 °C , 95% RH
Dimensions (WxDxH):	250 x 380 x 150 mm
Weight:	6 kg
Power supply:	230 V, 50 Hz

Type	Plug type	PK	Cat. No.
MultiPlate Genie®	EU	1	4688684*LLG
MultiPlate Genie®	UK	1	4688685*LLG
MultiPlate Genie®	CH	1	4688686*LLG

## Roller Mixers LLG-uniROLLER 6 easy and pro



easy



pro

#### Specifications

Type of movement:	rocking and rolling
Amplitude:	24 mm
Speed:	0 ... 70 rpm
Timer (LLG-uniROLLER 6 pro):	1 ... 1199 min
Load max.:	4 kg
Ambient temperature:	5 ... 40 °C
Max. humidity:	80% r. H.
Dimensions (W x D x H):	260 x 450 x 120 mm
Power supply:	100 ... 240 V, 50/60 Hz
IP code:	IP 21

Analogue or digital roller mixer with 6 rollers for efficient mixing.

- Max speed 70 rpm

#### LLG-uniROLLER 6 easy:

- Analog control

#### LLG-uniROLLER 6 pro:

- LCD display
- Continuous or timer operation

Type	Plug type	PK	Cat. No.
LLG-uniROLLER 6 easy	EU	1	6263645*LLG
LLG-uniROLLER 6 easy	UK	1	6263646*LLG
LLG-uniROLLER 6 pro	EU	1	6263647*LLG
LLG-uniROLLER 6 pro	UK	1	6263648*LLG



## Halogen Moisture Analyser DBS 60-3



With Viewing Window



Modern moisture analyser with 10 memories and graphic display.

- Halogen quartz glass heater 400 W
- Backlit LCD, digit height 15 mm: Previous drying time, current temperature, unit for displaying the results, current moisture content in %, drying mode/Status display drying
- The last value measured remains on the display until it is replaced by a new measurement
- Date and time display as standard
- 10 sample plates included

### Specifications

Readability:	0.01% or 0.001 g
Weighing range, max:	60 g
Reproducibility, weight of sample 2 g:	0.15%
Reproducibility, weight of sample 10 g:	0.02%
Temperature range:	50 ... 200 °C
Dimensions (W x D x H):	204 x 336 x 167 mm

Type	PK	Cat. No.
DBS 60-3	1	9901441*LLG

## LLG-Sample dishes, Aluminium



High-quality aluminium sample dishes, for moisture determination.

Description	Diam.	Height	PK	Cat. No.
	mm	mm		
Sample dishes	90	7	80	6282670*LLG
Sample dishes	100	7	80	6265408*LLG
Sample dishes with rim	100	7	80	6281537*LLG

## LLG-Weighing boats, PS, diamond, antistatic



Biologically inert and resistant to dilute and weak acids, aqueous solutions, alcohols, and bases. Temperature range -10 to 70 °C. Can be used with microwave moisture analysers. Features a diamond shape that easily flexes for accurate pouring and a wide, flat bottom to resist tipping.

Capacity	Colour	Dimensions	PK	Cat. No.
ml		mm		
5	White	55 x 35 x 6	1000	9900788*LLG
30	White	85 x 65 x 14	500	9950194*LLG
100	White	125 x 100 x 19	250	9950195*LLG

## LLG-Spoon spatulas, 18/10 steel



- One side with curved spoon
- One side with straight, triangular spatula

Dimensions Spoon (L x W)	Dimensions Spatulas (L x W)	Overall length	PK	Cat. No.
mm	mm	mm		
35 x 15	25 x 13	150	1	9150800*LLG
35 x 15	25 x 13	180	1	9150801*LLG
35 x 15	25 x 13	210	1	9150802*LLG
35 x 15	25 x 13	250	1	9150073*LLG
35 x 15	25 x 13	300	1	9150074*LLG

## Weighing scoops, glass



Made of high-quality Borosilicate glass 3.3. Ideal for powders or granules which are dispensed via the tubular stem. Funnel shape for loss-free ejection of the weighing sample.

Capacity	Length	PK	Cat. No.
ml	mm		
3	52	1	9301066*LLG
6	56	1	9301067*LLG
10	80	1	9301068*LLG

## Precision Balances Explorer® EX



EX6202



- High-resolution, colour VGA touchscreen, multilingual, with symbols 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
- Interfaces: Easily accessible communication interfaces (USB, RS232), additional 3rd slot for communication (Ethernet or 2nd RS232). Data output according to GMP/GLP with time and date, direct data transmission
- Construction: Metal housing, ABS upper housing shell, stainless steel weighing pan, glass draft shield with hinged door at the top, replaceable protective cover
- Equipment: Modular display design with adjustable angle (mounting on the housing, on the wall or a stand). 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	Readability	Plate dimensions	PK	Cat. No.
	g		mm		
EX1103	1100	1 mg	Ø 130	1	9902379*LLG
EX6202	6200	0.01 g	190 x 200	1	9902384*LLG
EX10201	10200	0.1 g	190 x 200	1	9902388*LLG

## Weighing boats MN 808, Paper, nitrogen-free



Pack of 100 pieces.

Type	Width	Length	Height	PK	Cat. No.
	mm	mm	mm		
MN 808	10	58	10	100	9301069*LLG

Other sizes and weighing aids available on request.

## Analytical balances Pioneer® PX



High-performance, economical balances with high accuracy and repeatability for applications in laboratories, industry and education. For basic weighing, parts counting, per cent weighing, dynamic weighing and density determination.

- 2-line, backlit LCD
- 4 quick keys enable the most common weighing modes
- Draftshield
- USB and RS 232 interface for data exchange with PCs and PLCs
- User-selectable span calibration points
- Real-time clock with GLP/GMP data
- Cast metal lower housing, removable stainless steel weighing pan
- Integrated weigh-below-hook
- Auto-tare
- Overload, underload and stability indicator
- 4 menu languages

**Specifications**

Permissible ambient temperature range:	10 ... 30 °C
Height in draftshield:	235 mm
Dimensions (W x D x H):	209 x 321 x 309 mm
Weight:	4.5 kg
Power supply:	100 ... 240 V, 50/60 Hz

Type	Weighing range	Readability	Plate diam.	PK	Cat. No.
	g	mg	mm		
PX85	82	0.01	80	1	4663322*LLG
PX225D*	82 / 220	0.01 / 0.1	80	1	4663324*LLG
PX124	120	0.1	90	1	4663327*LLG
PX224	220	0.1	90	1	4663330*LLG
PX224/E**	220	0.1	90	1	4663329*LLG

\* Dual range, \*\*External calibration

## LLG-Weighing brush, with wooden handle



Fine hair weighing brush with pointed tips and wooden black handle. Excellent tool for cleaning weighing boats, weighing dishes and analytical balances.

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

# LABORTOPS

## Centrifuges Frontier™ Multi Pro FC5816/FC5816R



Pro FC5816



- Cooling and non Cooling
- Easy to use

Powerful and versatile Universal Centrifuges for almost every laboratory application.

- Backlit Liquid Crystal Display (LCD)
- Corrosion-resistant stainless steel chamber with polycarbonate/ABS plastic lid
- 10 acceleration and deceleration rates, selection of running time from 10 s to 99 h 59 min or continuous as well as quick spin
- Over-speed protection
- Dual imbalance sensing

**Please order rotors separately.**

### Specifications

Max. RCF:	21.379 x g // 24.325 x g
Max. Speed:	15.000 rpm // 16.000 rpm
Max. Load:	6 x 250 ml
Power consumption:	530 W // 785 W
Temperature setting range:	- // -20...40 °C
Dimensions (W x D x H):	446 x 538 x 354 mm // 723 x 538 x 354 mm
Weight:	52 kg // 77 kg
Power supply:	230 V, 50/60 Hz

### FC5816 // FC5816R

Type	PK	Cat. No.
Frontier™ Multi Pro FC5816	1	4661521*LLG
Frontier™ Multi Pro FC5816R	1	4661520*LLG

## Swing-out rotor 16 x 50 ml, ID for Frontier™ Multi Pro FC5816/FC5816R



Description	PK	Cat. No.
Swing-out rotor 16 x 50 ml, ID	1	4661563*LLG
Rack, 4 x 50 ml, diam. 29 mm FA	2	4661620*LLG
Rack, 10 x 15 ml, diam. 17 mm FA	2	4661621*LLG

ID: Auto rotor identification, FA: Conical bottom tubes