

LABORTOPS

valid until 30.06.2022

LLG-Magnetic stirrer RCT standard 2.0

- Design 2.0
- Made in Germany
- Complete set with Pt1000



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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.	Max. dyn.	PK	Cat. No.
mm	mm	mm	mm	kg	kg		
200	200	60	270	30	7	1	9117220*LLG

Support rods galvanised steel



Galvanised steel.
External diameter 12 mm.
With M10 thread.

Length	PK	Cat. No.
mm		
500	1	9224105*LLG
600	1	9224106*LLG
750	1	9224107*LLG
1000	1	9224110*LLG
1500	1	9224115*LLG

Bossheads



9224251*LLG



9224257*LLG



To DIN 12895. Zinc die casting, powder-coated.
For vertical and horizontal clamping.

Jaw opening mm	Description	PK	Cat. No.
16	Bosshead with steel screws	1	9224251*LLG
16	Bosshead with brass screws	1	9224245*LLG
20	Double cross bosshead with brass screws	1	9224257*LLG

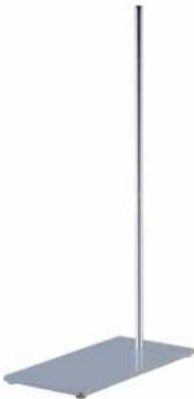
Universal Clamp, Zinc die casting



With cork lined jaws, opening 0 to 80 mm.
Rod diameter 10 mm.

Description	PK	Cat. No.
powder-coated	1	6070007*LLG
natural alloy	1	6077745*LLG
nickel platet	1	7079496*LLG

Rectangular retort stand bases, enamel, coated steel plate



With an M10 threaded hole in the middle of one short side. Rubber support feet prevents the stand from sliding. Laboratory stands are supplied without support rod.

Width	Depth	Weight	PK	Cat. No.
mm	mm	g		
130	210	1725	1	6242701*LLG
150	300	2830	1	4008486*LLG
200	315	4000	1	4008487*LLG

LLG-Magnetic stirrer RCT standard 2.0



The next generation of our top-selling IKA/LLG-Labware co-branded LLG-RCT Standard magnetic stirrer. New design, new features! Trusted and reliable quality!



- Digital controlled speed and temperature
- Clearly arranged LED display
- Digital display of set safety temperature limit
- Hot top indicator, hot surface warning to prevent burns
- Adjustable safety circuit of heating plate temperature
- Digital error code display
- Connection for external PT1000 temperature probe
- Aluminium hotplate for optimal heat transfer
- Enhanced safety due to improved heat control technology
- USB interface
- Powerful motor
- Improved magnetic coupling
- Supplied with housing protection cover
- Tested acc. to DIN EN IEC 61010-1

Scope of supply: Magnetic stirrer, temperature probe PT1000, screwdriver, protective cover, C16 mains cable (H11)



- Digitally controlled speed and temperature
- Clear LED display
- Hot display

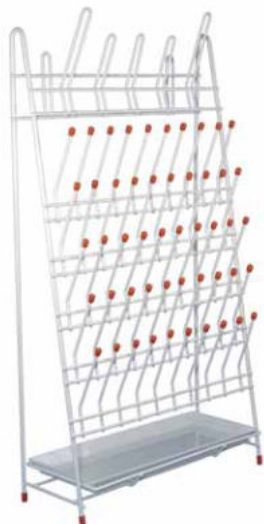


Specifications

Max. stirring quantity (H ₂ O):	20 l
Speed range:	50 ... 1500 rpm
Heating plate:	Ø 135 mm
Temperature range:	RT + device self-heating ... 310 °C
Heat output:	600 W
Safety temperature range:	50 ... 360 °C
Dimensions (W x D x H):	160 x 270 x 85 mm
Weight:	2.4 kg
Power supply:	220 ... 230/115/100 V, 50/60 Hz
IP code:	IP 42

Type	Plug type	PK	Cat. No.
LLG-Magnetic stirrer RCT standard 2.0	EU	1	6320400*LLG
LLG-Magnetic stirrer RCT standard 2.0	CH	1	6320401*LLG
LLG-Magnetic stirrer RCT standard 2.0	UK	1	6320402*LLG

LLG-Draining rack, PE-coated wire



Wall or bench mounting for 50 reagent bottles and 5 flasks
With drip channel and plastic covered feet.
Dimensions (L x W x H):
360 x 130 x 650 mm.

Description	PK	Cat. No.
LLG-Draining rack	1	6281619*LLG

Tube Rack Rota-Rack®, PP



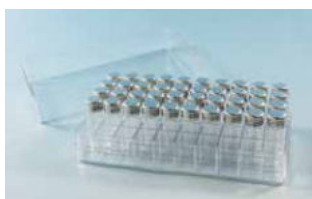
Autoclavable. Interlocked racks. Rotate each of the four modules independently. Use several sizes of test tubes, culture tubes, centrifuge tubes or microcentrifuge tubes at the same time.

Each module of the Rota-Rack® for large tubes holds
2 x 50 ml tubes, 8 x 15 ml tubes,
6 x 20 mm tubes or 10 x 10/13 mm tubes.

Each module of the Rota-Rack® for microtubes holds
6 x 15 ml tubes, 9 x 1.5/2.0 ml tubes,
12 x 0.5 ml tubes or 32 x 0.2 ml PCR tubes
or 4 x 8-tube strips.

Description	PK	Cat. No.
Rota-Rack® for large tubes	1	9193988*LLG
Rota-Rack® for micro tubes	1	9193989*LLG

Storage case for culture tubes, PS



schuett biotec.de

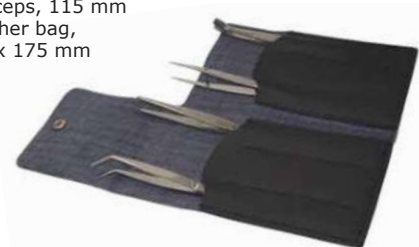
For the protective storage and transportation of culture tubes.

For	PK	Cat. No.
50 jars, 35x12 mm	1	9010609*LLG

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



LLG-Forceps assortment, 4-parts, chromium-nickel steel (1.4301) in synthetic leather bag including:
- 1 Sharp forceps, curved, 115 mm
- 1 Blunt forceps, 115 mm
- 1 Forceps with guide pin straight, 130 mm
- 1 Coverglas forceps, 115 mm
- 1 Synthetic leather bag, 6 subjects 100 x 175 mm

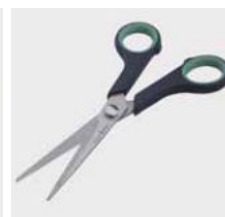


Description	PK	Cat. No.
LLG-Forceps assortment, 4-parts	1	9160394*LLG

Universal scissors, stainless steel, Plastic handle



4008515*LLG



4008516*LLG



4008517*LLG

Form	Length mm	PK	Cat. No.
Straight	130	1	4008515*LLG
Straight	160	1	4008516*LLG
Curved	200	1	4008517*LLG

Trays and bowls, PS



Suitable for foodstuffs and general laboratory use.
High impact polystyrene.

External dimensions (W x D x H) mm	Internal dimensions (W x D x H) mm	PK	Cat. No.
303 x 151 x 42	260 x 110 x 30	1	6225054*LLG
353 x 253 x 41	310 x 210 x 30	1	6225055*LLG
352 x 252 x 81	290 x 190 x 70	1	6227810*LLG
408 x 300 x 21	380 x 270 x 10	1	6205063*LLG
408 x 299 x 81	340 x 240 x 70	1	6227811*LLG

NMR Tube Rack, PP



Polypropylene rack with carrying handles features an upper deck with holes and a lower deck support for tube ends. Stackable. For 72 (6 x 12) tubes with 3 or 5 mm diameter. Autoclavable.

Type	Dimensions (W x D x H) mm	PK	Cat. No.
NMR Tube Rack	210 x 110 x 220	1	9301065*LLG

NMR tubes, diameter 5 mm
borosilicate glass 3.3, standard

The NMR tubes are produced with high precision. They are suitable for routine measurements, high-throughput measurements or NMR systems with autosampler at measurement frequencies up to 600 MHz. The tubes are manufactured from borosilicate glass 3.3 which is conform to USP Type I and ASTM E438, Type I, Class A. Please order closing caps separately.

Outer diam. mm	Int. diam. mm	Length mm	Wall thickness mm	PK	Cat. No.
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 and
EPR tubes

The caps are made of resistant plastic and are manufactured to fit 5 mm NMR tubes as well as corresponding EPR tubes.

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

b.safe-Caps Starter Boxes,
GL 45, PPS

b.safe



6313846*LLG

Initial equipment for HPLC with b.safe-Caps for bottles with thread GL 45. Furthermore fittings for easy connection of capillary tubing, blind fittings for closing unused connections and air valves for a trouble-free withdrawal of solvents are included. For up to 4 storage bottles.

Scope of supply:

Starter Box 1:

- 3 x b.safe-Cap GL 45 with 2 connections UNF 1/4" 28G
- 1 x b.safe-Cap GL 45 with 3 connections UNF 1/4" 28G
- 4 x Air valve with service life indicator
- 5 x Fittings yellow for tubing O.D. 3.2 mm
- 1 x Blind fitting

Starter Box 2:

- 4 x b.safe-Cap GL 45 with 3 connections UNF 1/4" 28G
- 4 x Air valve with service life indicator
- 8 x Fittings yellow for tubing O.D. 3.2 mm
- 4 x Blind fittings

Type	PK	Cat. No.
Starter Box 1	1	6313845*LLG
Starter Box 2	1	6313846*LLG

Exhaust filters V3.0, GL 14



The exhaust air filters are equipped with three different activated carbon layers, which bind acids and alkalis and adsorb organic solvent vapours. Depending on the required capacity, filter with different service lives are available.

- Filter media with a very high performance spectrum for acids and alkalis
- Optimised for binding buffer solutions and solvent vapours
- With splash guard
- With change indicator
- 1500 m²/g adsorption surface area

Filter size	Life time	PK	Cat. No.
S	3 months	4	4681461*LLG
M	6 months	2	4681458*LLG
L	12 months	1	4681462*LLG

LLG Syringe Filters *SPHEROS*



Nylon



PES



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	Sterile	PK	Cat. No.
13	0.22	PP, pink	-	100	6272810*LLG
13	0.45	PP, pink	-	100	6272811*LLG
25	0.22	PP, pink	-	500	4668147*LLG
25	0.45	PP, pink	-	500	4668148*LLG

PES

Hydrophilic membrane for aqueous and polar organic solutions with low protein binding capacity. Especially suitable for sterile filtration of solutions and media in cell culture as well as for ion chromatography and organic acids. With female Luer-Lock inlet and male Luer-Slip outlet. Sterile filters individually packed in a hard blister package.

Filter diam. mm	Pore size µm	Housing	Sterile	PK	Cat. No.
25	0.22	PP, green	-	50	6272640*LLG
25	0.45	PP, green	-	50	6272641*LLG
25	0.22	PP, green	+	45	6272642*LLG
25	0.45	PP, green	+	45	6272643*LLG

Syringe filter Minisart® SRP, PTFE



SARTORIUS

Housing PP. With a chemical-resistant, hydrophobic PTFE membrane for high purification of solvents or aggressive liquids in HPLC or GC analysis. Low adsorption. Male Luer Slip.

Filter diam. mm	Pore size µm	Colour	Sterile	PK	Cat. No.
25	0.20	White, Printed	+	50	7076124*LLG
25	0.20	White, Printed	-	50	9049115*LLG
25	0.45	White, Printed	-	50	9049116*LLG
15	0.20	White, Printed	+	50	7080155*LLG

Syringe filter Minisart® RC



SARTORIUS

Housing PP. Regenerated cellulose (RC). Ready-to-use units with a hydrophilic, solvent-resistant membrane made of regenerated cellulose, making sample preparation quick and easy. Suitable for aqueous/organic solutions. Male Luer Slip.

Filter diam. mm	Pore size µm	Colour	Sterile	PK	Cat. No.
25	0.20	White, Printed	+	50	7076270*LLG
25	0.20	White, Printed	-	50	9049094*LLG
25	0.20	White, Printed	-	500	9049095*LLG
25	0.45	White, Printed	-	50	9049097*LLG
25	0.45	White, Printed	-	500	9049098*LLG
15	0.20	White, Printed	+	50	7075954*LLG
15	0.20	White, Printed	-	500	9049088*LLG
15	0.45	White, Printed	-	50	9049091*LLG
4	0.20	Blue Tray	-	50	9049081*LLG
4	0.45	Yellow Tray	-	50	9049084*LLG

Syringe filter Minisart® NML, SFAC



6250269*LLG



6900911*LLG



9049103*LLG



9049105*LLG

SARTORIUS

Housing MBS. SFCA/CA (Surfactant-free Cellulose Acetate) membrane. With hydrophilic cellulose acetate membrane for minimum adsorption. Ready-to-use. For Luer connection.

Filter diam. mm	Pore size µm	Description	Colour	Sterile	PK	Cat. No.
28	0.20	Male Luer Lock*	Blue	+	50	6250269*LLG
28	0.20	Male Luer Lock*	Blue	-	500	9049107*LLG
28	0.20	Male Luer Slip*	Blue	+	50	9604009*LLG
28	0.45	Male Luer Lock*	Yellow	+	50	6900911*LLG
28	0.45	Male Luer Lock*	Yellow	-	500	9049108*LLG
28	0.45	Male Luer Slip*	Yellow	+	50	9604011*LLG
28	0.45	Male Luer Slip*	Yellow	-	500	7017213*LLG
28	0.80	Male Luer Lock	Green	+	50	9049103*LLG
28	0.80	Male Luer Lock	Green	-	500	9049109*LLG
28	1.20	Male Luer Lock	Red	+	50	9049104*LLG
28	1.20	Male Luer Lock	Red	-	500	9049122*LLG
28	5.00	Male Luer Lock*	Brown	+	50	9049105*LLG

* CE-marked
x = sterilization by gamma irradiation

LLG-Qualitative filter paper, circles



Made from 100 % cellulose.
Ash content 0.06 %.
Filtration speed according to DIN 53137.
Capacity of separation according to DIN 53135.

Medium fast, pore size 5 to 8 µm or 5 to 13 µm
For fast filtration with fine particles

Diam. mm	Filtration time secs.	Pore size µm	PK	Cat. No.
47	88	5 - 13	100	9045801*LLG
55	88	5 - 13	100	9045802*LLG
70	88	5 - 13	100	9045803*LLG
90	88	5 - 13	100	9045804*LLG
125	88	5 - 13	100	9045806*LLG
150	88	5 - 13	100	9045807*LLG
185	88	5 - 13	100	9045808*LLG
240	88	5 - 13	100	9045809*LLG

Very fast, pore size 12 to 15 µm.
For coarse and voluminous precipitates like hydroxides
and sulphides

Diam. mm	Filtration time secs.	PK	Cat. No.
90	10	100	9045830*LLG
110	10	100	9045831*LLG
125	10	100	9045832*LLG
150	10	100	9045833*LLG
185	10	100	9045834*LLG

LLG-Glass microfibre filters, filter circles



Diam. mm	Filtration time secs.	Pore size µm	Weight g / m ²	Thickness mm	PK	Cat. No.
47	60	1.6	52	0.26	100	9045861*LLG
55	60	1.6	52	0.26	100	6242633*LLG
90	60	1.6	52	0.26	100	6252072*LLG
110	60	1.6	52	0.26	100	7970339*LLG
47	100	1.2	52	0.26	100	6243711*LLG
55	100	1.2	52	0.26	100	6251383*LLG
70	100	1.2	52	0.26	100	9045866*LLG
90	100	1.2	52	0.26	100	9045867*LLG
110	100	1.2	52	0.26	100	9045868*LLG
47	310	0.7	75	0.45	100	7970106*LLG
55	310	0.7	75	0.45	100	7970742*LLG
70	310	0.7	75	0.45	100	6253553*LLG

Filtration velocity according to Herzberg

Universal drying oven LLG-uniOVEN 42



Forced air circulation



Microprocessor controlled universal drying oven with **forced convection** including two shelves. Each shelf of the uniOVEN 42 has a load capacity of 20 kg. The total load capacity of each unit is 50 kg. The maximum number of shelves is 7 for uniOVEN 42 with a distance of 40 mm between shelves.

- Quick and intuitive operation
- Microprocessor control with integrated auto-diagnostic system
- Forced convection with fan
- Digital display for time and temperature
- **Timer:** 1 minute to 99.9 h and continuous
- Delayed start timer: 1 minute to 99.9 h
- Outlet for vapour exhaustion
- Acoustical and visible information for end of program
- Acoustical and optical alarm at temperature differences
- Interior made of stainless steel
- Adjustable over temperature protection at 300 °C

Scope of supply: Drying oven LLG-uniOVEN incl. 2 shelves

Specifications

Internal volume:	42 l
Temperature range:	50 ... 250 °C
Temperature accuracy:	±1 °C (at 70 °C)
Temperature uniformity:	±2 °C (at 70 °C)
Permissible ambient temperature:	5 ... 40 °C
Permissible relative moisture:	80 %, not condensing
Dimensions (W x D x H):	420 x 280 x 360 mm
Weight:	39 kg
Power supply:	230 V, 50/60 Hz

Type	Plug type	PK	Cat. No.
LLG-uniOVEN 42	EU	1	6263670*LLG
LLG-uniOVEN 42	UK	1	6263673*LLG

Multiple hotplate systems behrotest®



- Individually adjustable heating points
- For food analysis, environmental analysis, pharmaceutical industry



Multiple hotplate systems, 360 W, with individually adjustable heating controls and indicator lights. Maximum surface temperature 400 °C.

Type	Description	Dimensions (W x D x H) mm	PK	Cat. No.
HB 4	4 hotplates with metal protective grills, 94 mm diam.	530 x 320 x 150/760*	1	9645590*LLG
HB 6	6 hotplates with metal protective grills, 94 mm diam.	760 x 320 x 150/760*	1	9645591*LLG
HB 8	8 hotplates with metal protective grills, 94 mm diam.	900 x 320 x 150/760*	1	9645594*LLG
HBS 4	Holder for HB 4 incl. 4 support rods		1	9645592*LLG
HBS 6	Holder for HB 6 incl. 6 support rods		1	9645593*LLG
HBS 8	Holder for HB 8 incl. 8 support rods		1	9645595*LLG

*with support rod

LabHEAT®-Heating mantles series KM-G



LabHEAT®-Heating mantles for flasks, round bottom. Flexible glass yarn heating element, outer jacket in glass silk, with diam. 60mm bottom out-let from 500ml, max. heating element temperature 450 °C, 1.5 m power supply (earthed) cable with heating-zone switch and RCD (residual current detection), nominal voltage 230 V AC.

Capacity ml	Flask diam. mm	Rating W	Heating zones	PK	Cat. No.
50	51	75	1	1	9642402*LLG
100	64	120	1	1	9642403*LLG
250	85	180	2	1	9642404*LLG
500	105	250	2	1	9642405*LLG
1000	131	450	2	1	9642406*LLG
2000	166	600	2	1	9642407*LLG

Refrigerated/heated circulators MAGIO MS



Julabo

- Easy control of complex applications
- Powerful pressure/suction pump



For precise, reliable temperature control of demanding external applications.

- Infinitely adjustable, extremely powerful pressure and suction pump
- Large, high-resolution TFT touch display with multilingual user interface
- Medium-contacting parts made of stainless steel
- External Pt100 connection
- USB interface
- RS232 interface
- Ethernet interface
- Classification III according to DIN 12876-1

Specifications

Temperature stability:	±0.01 °C
Flow rate:	16 ... 31 l/min
Pump pressure:	0.24 ... 0.92 bar
Suction pressure:	0.03 ... 0.4 bar
Heating capacity:	2000 W
Permissible ambient temperature:	5 ... 40 °C
Power supply:	230 V/50 ... 60 Hz

Type	Filling volume	Bath opening	PK	Cat. No.
	L	mm		
MS-310F	3 ... 4	130 x 150	1	9858405*LLG
MS-310F*	3 ... 4	130 x 150	1	9858406*LLG
MS-600F	5 ... 7.5	220 x 150	1	4678305*LLG
MS-601F	8 ... 10	220 x 150	1	4678306*LLG
MS-900F	21 ... 30	260 x 350	1	4678307*LLG
MS-1000F	21 ... 30	180 x 130	1	4678308*LLG

* With natural refrigerant

Digital water baths WBE Serie



PolyScience

- Displays actual and set point temperature simultaneously
- Programmable pre-sets for frequently used temperatures



The unstirred, general purpose water baths are available in 5 sizes: 2, 5, 10, 20 and 28 liters.

- Color TFT display with control panel
- Calibration offset feature
- Low liquid alarm
- Over temperature alarm
- 5 user programmable pre-sets (temperature and duration)
- 5 languages (English, German, French, Spanish and Chinese)
- Integrated independent timer
- Safety thermostat
- High-gabled, clear lids accommodate taller media bottles
- Rear-mounted drain (10, 20 and 28 liters)

Scope of supply: Digital water bath, incl. lid

Specifications

Temperature range:	Ambient +5 °C ... 100 °C
Temperature uniformity:	±0.2 °C
Temperature stability:	±0.1 °C
Power supply:	240 V, 50 Hz

Type	Capacity of the bath litres	Internal dimensions (W x D x H) mm	PK	Cat. No.
WBE02A12E	2	109 x 99 x 152	1	6274985*LLG
WBE05A12E	5	274 x 127 x 152	1	6274986*LLG
WBE10A12E	10	295 x 269 x 152	1	6274987*LLG
WBE20A12E	20	432 x 241 x 152	1	6274988*LLG
WBE28A12E	28	432 x 241 x 203	1	6274989*LLG

LLG-Floating pellets, PP



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

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

Scoops FoodScoop, Stainless steel V2A (1.4301)



Very stable hand scoop for various applications. 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	Width	Length	Overall	PK	Cat. No.
ml	Scoop	Scoop	length		
	mm	mm	mm		
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

Detectable Disposable scoops for foodstuffs SteriPlast®, PS, blue, sterile



Ideal for powders, granulates and pastes. The shade of blue that is used does not occur in a natural form in foodstuffs. Because of this, the scoops or parts of them can be quickly found and easily identified in a visual check if they are ever mixed into production. The detectable scoops have a special additive in the material that makes them visible to metal detectors or X rays. They can therefore be rejected with standard systems for checking for foreign objects, even though they are made of plastic.

- Individually packed, gamma-sterilized
- Production, assembly and packaging according to clean room class 7 (10000)
- According to EU food and FDA guideline

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

Sample spatula, v-shaped, PS, sterile



With stable tip for taking sterile specimens and for piercing paper bags or similar packaging.

- Individually sealed and sterilised in a polyethylene bag.
- Food safe
- Production batch traceable
- With certificate of sterilisation

Capacity	Length	Colour	PK	Cat. No.
ml	mm			
15	229	white	100	6201657*LLG

Sample bags SteriBag, PE, sterile



- Transparent
- Sterile, RNase, DNase and pyrogen-free
- Leakproof

Type A: Without write-on panel
Type B: With write-on panel.

Nominal capacity	Width	Length	Description	PK	Cat. No.
ml	mm	mm			
60	76	127	A	500	9404114*LLG
60	76	127	B	500	9404119*LLG
150	76	178	A	500	9404115*LLG
150	76	178	B	500	9404120*LLG
450	114	229	A	500	9404116*LLG
450	114	229	B	500	9404121*LLG
650	140	229	A	500	9404117*LLG
650	140	229	B	500	9404122*LLG
800	114	305	A	500	9404118*LLG
800	114	305	B	500	9404123*LLG
1650	178	305	A	250	6223094*LLG
1650	178	305	B	250	6223093*LLG

Flake ice maker with reservoir, UFP series, air cooled



For fast, HACCP-compliant production of various quantities of compact, granular ice flakes for laboratories, the chemical industry and food production. The ice is produced by a vertical stainless steel evaporator and transported by a worm gear to the head of the cylinder, pressed and broken into the desired size. For the production of up to 153 kg of ice per day. The new refrigerant R290 meets the requirements of the latest EU regulations, reduces energy consumption by up to 30 %, has no ozone depletion potential and only a very low global warming potential.

- Robust stainless steel evaporator
- Easy ice removal
- Suitable for demineralised water
- Closed system for optimum hygiene
- Environmentally friendly refrigerant
- Air-cooled
- Storing capacities from 20 to 55 kg, depending on model
- Stainless steel housing
- Easy to clean
- Height-adjustable feet from 110 to 150 mm
- Comfortable and safe operation
- Low energy consumption

Scope of supply: Flake ice maker with height-adjustable stainless steel feet, ice shovel, water inlet and outlet set

Specifications

Refrigerant:	R290
Permissible ambient temperature:	10 ... 43 °C
Power supply:	230 V, 50 Hz

Type	Capacity kg	Dimensions (W x D x H) mm	PK	Cat. No.
UFP 0244 A	20	500 x 660 x 843	1	4667960*LLG
UFP 0200 A	30	500 x 660 x 843	1	4667961*LLG
UFP 0388 A	40	738 x 690 x 1070	1	4667962*LLG
UFP 0399 A	55	738 x 690 x 1173	1	4667963*LLG

LLG-Dispensing scoops, HDPE



For heavy industrial use. Food safe.

Capacity ml	Length mm	PK	Cat. No.
250	250	25	6321691*LLG
500	300	25	6321692*LLG
1000	350	25	6321690*LLG
1500	400	25	6321693*LLG

Dewar carrying flasks, cylindrical, for CO₂ and LN₂



DURAN®. DIN EN ISO 16496. Cylindrical design with insulated lid, held by two spring clips and aluminium carrying handle. For cooling, storage and transport of small samples of temperature-sensitive goods e.g. dry ice (CO₂). When storing liquid nitrogen (LN₂) or CO₂ a hole (diam. approx. 2 mm) in centre of the lid is required to prevent overpressure in the flask.

Type B: blue-coated metal cover

Type BE: stainless steel cover

Type	Capacity Litres	Int. diam. mm	Int. height mm	PK	Cat. No.
26 B	1	100	150	1	9032726*LLG
27 B	2	138	170	1	9032727*LLG
28 B	3	138	230	1	9032728*LLG
29 B	4	138	310	1	9032729*LLG
26 BE	1	100	150	1	9032736*LLG
27 BE	2	138	170	1	9032737*LLG
28 BE	3	138	230	1	9032738*LLG
29 BE	4	138	310	1	9032739*LLG

Dewar flasks, cylindrical, for CO₂ and LN₂



DURAN®. DIN EN ISO 16496. Cylindrical. With blue coated protective casing made of metal.

Type	Capacity ml	Int. diam. mm	Int. height mm	PK	Cat. No.
3 C	500	57	210	1	9032015*LLG
6 C	800	67	240	1	9032018*LLG
9 C	1000	77	235	1	9032021*LLG
12 C	1500	90	245	1	9032024*LLG

Densitometer DEN-1/DEN-1B



Compact and efficient benchtop densitometers for measuring turbidity of cell suspensions in a variety of life science applications.

Specifications

Light source:	light diode
Wavelength:	565 nm $\pm$ 15 nm
Measuring range DEN-1:	0.3 to 15.0 McF
Measuring range DEN-1B:	0.0 to 15.0 McF
Standard deviation at 3.00 McF units:	$\pm$ 0.1 McF
Precision:	$\pm$ 3 %
Measurement time:	1 sec
Tubes diameter, external:	18 mm
Tube diameter with D16 adapter (included):	16 mm
Sample volume:	$\geq$ 2 ml
Dimensions (W x D x H):	165 x 115 x 75 mm
Power supply:	12 V (DEN-1B additionally 3 x AAA batteries)

Type	PK	Cat. No.
DEN-1	1	6234576*LLG
DEN-1B	1	9721057*LLG
DEN MCF STDS*	1	6237141*LLG

* Set of 5 reference standards (0.5/1.0/2.0/3.0/4.0)

Spectrophotometry cuvettes standards



Reagecon

Product is prepared gravimetrically on a weight/weight basis. Certificates of Analysis and Safety Data Sheets available online at www.reagecon.com.

- Can be used with all UV-VIS Spectrophotometers

Description	PK	Cat. No.
Potassium Dichromate Absorbance / Transmission Standard 60 mg/l and Blank	2	RSPEC0024*REA
Potassium Dichromate Absorbance / Transmission Standard 140 mg/l and Blank (Ph. Eur)	2	RSPEC-EP0030*REA
Potassium Dichromate Absorbance / Transmission Standard Kit 60 mg/l, 600 mg/l and Blank (Ph. Eur)	3	RSPEC-EP0059*REA
Niacin in Hydrochloric Acid Absorbance / Transmission Standard 36 mg/l (Ph. Eur)	1	RSPEC-EP0071*REA
Niacin Blank Hydrochloric Acid (Ph. Eur)	1	RSPEC-EP0072*REA

Spectrocolorimeter Lovibond® LC 100/SV 100



- Portable Spectrophotometer
- Usable without PC



- Hand-Held Imaging Spectrocolorimeter
- Unique housing stand to protect sample from ambient light
- Enables measurement of food, powders, cosmetics and pastes
- Single, Simple, Reliable, no need to connect to PC
- Readings and Comparison Charts within Seconds
- Information on Colour and Surface Texture Effects

The Lovibond® LC 100/SV 100 kit provides a unique solution to users looking to measure food, powders, cosmetics and pastes. The SV 100 mount places the LC 100 at an ergonomic viewing angle.

Scope of supply LC 100/SV 100 kit: LC 100 spectrocolorimeter, SV 100 viewing stand, carrying case, USB cable, cell adapter, 10 x cells (10 mm).

Specifications

Measuring Geometrics:	45/0 Image Capture
Light Source:	Independent tri-directional 25 LED (8*visible wavelengths; 1*UV)
Illuminant/Observer:	D65&A(10)
Standards/Sample Storage:	30/350
Measurement Time:	1.8 seconds
Measuring Area:	4 mm und 8 mm
Short Term Repeatability:	Typical 0.10 Δ E 94 on white (D65/10)
Interface:	USB (Mass Storage Device)

Type	PK	Cat. No.
LC 100	1	9947288*LLG
LC 100 / SV 100 kit	1	9947289*LLG

Nessler tubes for Lovibond® Comparator System 2000



AF306/P

Nessler cylinder AF306/P, 113 mm:

For use with the Nessleriser 2150 for the measurement of the Pt-Co/Hazen colour discs NSH (10-90 mg Pt/l) and NSB (70-250 mg Pt/l) and NSX (50-300 mg Pt/l).

Nessler cylinder DB420, 250 mm:

For use with the Nessleriser 2250 for the measurement of the Pt-Co/Hazen colour discs CAA (0-30 mg Pt/l) and CAB (30-70 mg Pt/l).



Description	PK	Cat. No.
AF306/P, 113 mm with dipping pin, 1 pair	1	9947174*LLG
DB420, 250 mm with dipping pin, 1 pair	1	9947175*LLG

Thermocycler Alpha Cyclers



PCR^{max}

- Compact entry-level PCR instruments
- Active sample cooling
- Gradient function



AC196



AC296

The Alpha Cyclers systems contain a novel programme wizard which allows users to define a protocol based specifically on their primer sequence and template source. Primer sequences or T_m's are entered, amplicon length and source defined and the on board algorithm generates an optimised protocol for your assay.

- Multi-block units have totally independent blocks for maximum flexibility
- HD Android driven touchscreen interface for simplified programming
- Generate and send instrument reports to diagnose the health of your system and identify any issues before they impact users work
- Lock programs with user defined password
- Alpha Track mobile app allows remote monitoring of run progress

Alpha Track App (free of charge): Track the progress of runs and health of your system remotely via the mobile app.

The Alpha Track Application is used in conjunction with your Alpha Cyclers and allows users to:

- Remotely track the progress of runs
- Send a health report for diagnosis by the technical support team
- Be notified of any issues and prevent system failures before occurring

Specifications

Block temperature:	10 to 100 °C
Block uniformity at 55 °C:	±0.3 °C
Temperature accuracy at 55 °C:	±0.25 °C
Max. Heating rate:	3.4 °C/s

Type	Description	Dimensions (W x D x H) mm	PK	Cat. No.
AC196	1 x 96 well block	430 x 260 x 200	1	4658855*LLG
AC296	2 x 96 well blocks	470 x 535 x 330	1	4658857*LLG

UV/PCR cabinets UVT-B-AR

grant^o



Bench-top model 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 m³/hour cleaner-recirculator continuous air flow with 1cm 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
- Shock proof glass panels, metal framework and stainless steel work surface
- Automatic switch-off of open UV light when door opened
- With 1 x internal outlet

Type	External dimensions (W x D x H) mm	Weight kg	PK	Cat. No.
UVT-B-AR	690 x 585 x 555	32	1	9721070*LLG

Biohazard Disposal Bags, PP, 38 µm

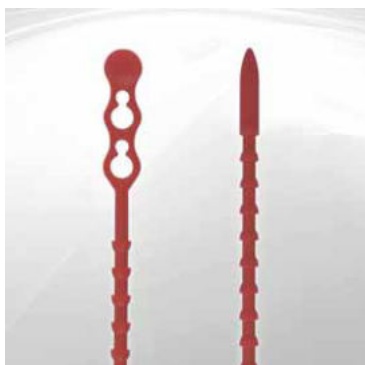


Red. With pre-printed sterilization indicator patch, which darkens when bag is autoclaved.

- ASTM 1709 and ASTM 1922
- Can be autoclaved at 135 °C
- Print: standard biohazard warning symbol
- Precautionary protocols in four languages: English, French, German and Spanish

Width	Length	PK	Cat. No.
mm	mm		
360	480	200	6240465*LLG
480	580	200	9404010*LLG
640	890	200	6301637*LLG
970	1220	100	9404011*LLG

Quick-Lock Ties, PE



Red. Polyethylene, round, can be reopened. Further colours available on request.

Diam.	Length	PK	Cat. No.
mm	mm		
3.5	120	1000	9404182*LLG
3.5	180	1000	9404184*LLG
3.9	240	1000	9404186*LLG
4.4	320	1000	6235096*LLG

LLG-Autoclavable bags, PP



Constructed from very strong PP film with a broad seam at the bottom. For the disposal of contaminated labware. When autoclaving, the neck of the bag must be left open. Film thickness: 50 µm. Packaging: Carton (9.404 099 and 9.404 020 in dispenser box)

Description	Width	Length	Capacity	PK	Cat. No.
	mm	mm	L		
standard	200	300	1.5	100	9404099*LLG
standard	300	500	6.0	500	9404220*LLG
standard	400	780	22.0	250	9404221*LLG
standard	500	780	25.0	250	9404222*LLG
standard	600	800	32.0	250	9404223*LLG
standard	600	780	32.0	100	9404103*LLG
standard	700	1100	72.0	250	9404224*LLG
standard	700	1100	72.0	75	9404105*LLG
highly transparent	200	300	1.5	100	9404020*LLG

Needles and waste containers Medibox®



6321707*LLG



6321708*LLG



6321709*LLG

- Break-resistant, penetration-resistant and stable when used as intended in accordance with the specifications of DIN EN ISO 23907
- Large opening for disposal of medical instruments
- Free-standing lid due to easy snap-in in open position
- Temporarily closable with one hand
- Permanent end closure by pressing on the marked pressure points on the lid of the boxes 2.4 L, 4.7 L and 5.7 L; the end closure can be heard and felt.
- Permanent end closure of the 0.8-litre box is achieved by folding down the flap on the hinged lid and pressing it into the opening in the base of the lid.
- Labelling of the maximum fill level on the lid or directly on the box
- Autoclavable at 134° for up to 18 minutes (does not apply to Medibox® 0.8 litres)
- Certified according to aDr2015, 2008/68/ec and ISO 23907 (does not apply to Medibox® 0.8 litres)
- Meets the requirements for waste containers according to TrBa 250

Volume	Filling volume	Dimensions (W x D x H)	PK	Cat. No.
litres	L	mm		
0.8	0.67	98 x 98 x 180	9	6321710*LLG
2.4	2.0	151 x 151 x 200	9	6321707*LLG
4.7	3.9	190 x 190 x 200	5	6321708*LLG
5.7	4.8	190 x 190 x 257	5	6321709*LLG

Colony counter eCount™



- Count and mark at the same time
- No more overlooked or double counted colonies

The ergonomically designed counter is designed for easy counting of bacterial and mold colonies.

- Accurate electronic counter and Sharpie® permanent marker in one product.
- Includes a thumb insert for use of the eCount as a handheld digital counter
- Easy to understand functions
- Stores 32 different counting operations
- Counts with acoustic or optical (LED) signal



Type	PK	Cat. No.
Colony counter eCount™ incl. Sharpie® pen (black, fine-point) and stand	1	9521783*LLG

Culture flasks, glass DURAN®, straight neck



DURAN®. Erlenmeyer. Straight neck. Suitable for metal caps.
Glass Type I/neutral glass as per USP, EP and JP.
With retrace code (Batch Identification).
Certificate available via the Internet. Autoclavable.

Capacity	Diam.	Neck diam.	Height	PK	Cat. No.
ml	mm	mm	mm		
100	64	38	114	1	217712401*SCHOTT
200	79	38	138	1	217713209*SCHOTT
250	85	38	149	1	217713603*SCHOTT
300	87	38	161	1	217713903*SCHOTT
500	105	38	183	1	217714402*SCHOTT
1000	131	38	229	1	217715407*SCHOTT

Metal caps, Erlenmeyer, Aluminium



Colored anodized. Anodically oxidized. Sterilizable.
Close vessels sterile but not hermetically.
Caps for culture flasks (without beaded rim) and culture medium bottles with straight neck diam. 38 mm.

For neck diam. mm	Colour	PK	Cat. No.
37/39	silver	10	9231456*LLG
37/39	blue	10	9231457*LLG
37/39	red	10	9231458*LLG

LLG-Inoculation loops, PS, sterile

Made of flexible polystyrene.
With ultra-smooth loops for problem-free planting and streaking of cultures.
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

LLG-Microbiological Media



For numerous micro- and molecular biological applications. The safety data sheets of these products are available under www.llg-labware.com/en/zertifikate.

Description	Capacity	PK	Cat. No.
	g		
Luria Bertani (Miller), Powder	500	1	6271000*LLG
2xYT Broth, Powder	500	1	6271001*LLG
Bact. Agar, Powder	500	1	6271003*LLG
Yeast Extract, Powder	500	1	6271004*LLG
Tryptone, Powder	500	1	6271005*LLG
Casein Peptone, Powder	500	1	6271011*LLG

Single channel microliter pipettes, Transferpette® S, variable



- **Comfortable one-handed operation**
- **Safe: volume adjustment protection prevents accidental adjustment**



- Volume range from 0.1 µl to 10000 µl
- Volume-change protection
- Easy Calibration technology: Calibration without tools
- Universal tip cone

Scope of supply: Transferpette® S type adjustable volume, with performance certificate, shelf/rack mount, labeling foil, silicone grease

Capacity	Accuracy max. vol.	Precision max. vol.	Tip	PK	Cat. No.
µl	(± R%)	(≤ CV%)	µl		
0.1 ... 1	2	1.2	0.1 ... 20	1	9280140*LLG
0.1 ... 2.5	1.4	0.7	0.5 ... 20	1	9280141*LLG
0.5 ... 10	1.0	0.5	0.5 ... 20	1	9280142*LLG
2 ... 20	0.8	0.4	2 ... 200	1	9280143*LLG
5 ... 50	0.8	0.3	2 ... 200	1	9280144*LLG
10 ... 100	0.6	0.2	2 ... 200	1	9280145*LLG
20 ... 200	0.6	0.2	2 ... 200	1	9280146*LLG
100 ... 1000	0.6	0.2	50 ... 1000	1	9280147*LLG
500 ... 5000	0.6	0.2	500 ... 5000	1	9280148*LLG
1000 ... 10000	0.6	0.2	1000 ... 10000	1	9280149*LLG

LLG-Disposable Reagent reservoirs economy, PS



Angled sides and a V-shaped base allow maximum recovery of reagents.

- DNase-, RNase- and pyrogen-free certified

Description	Capacity	PK	Cat. No.
	ml		
non-sterile, bulk	25	100	6282144*LLG
sterile, single packed	25	100	6282145*LLG
non-sterile, bulk	50	100	6282146*LLG
sterile, single packed	50	100	6282147*LLG

Single channel microliter pipettes Initial package Acura® electro XS 926, variable



- **Optimal ergonomics, low weight**
- **Easy to understand, logical programme sequences**
- **Large display**



Initialpack is recommended for the purchase of the first Acura® electro. Separately purchased pipettes can also be loaded on the existing station.

Scope of supply Initialpack:

Electronic pipette with 4.8 V battery, 4.8 V replacement battery, charging station, mains connection 100-240 V and cable, operating instructions and QK certificate, samples of Qualitix® pipette tips (rack or bag), tube of silicone grease

Capacity	Increments	Tip	Accuracy max. vol.	Precision max. vol.	Plug type	PK	Cat. No.
µl	µl	µl	(± R%)	(≤ CV%)			
0.1 - 2	0.01	Ultra 10	0.9	0.8	EU	1	9411668*LLG
0.5 - 10	0.05	Ultra 10	0.6	0.35	EU	1	9411669*LLG
0.5 - 10	0.05	200	0.6	0.4	EU	1	9411670*LLG
1 - 20	0.1	200	0.5	0.3	EU	1	9411671*LLG
2.5 - 50	0.25	200	0.5	0.25	EU	1	9411672*LLG
5 - 100	0.5	200	0.5	0.2	EU	1	9411673*LLG
10 - 200	1.0	200	0.4	0.15	EU	1	9411674*LLG
50 - 1000	5.0	1000	0.4	0.1	EU	1	9411675*LLG
0.1 - 2	0.01	Ultra 10	0.9	0.8	UK	1	4684662*LLG
0.5 - 10	0.05	Ultra 10	0.6	0.35	UK	1	4684663*LLG
0.5 - 10	0.05	200	0.6	0.4	UK	1	4684664*LLG
1 - 20	0.1	200	0.5	0.3	UK	1	4684665*LLG
2.5 - 50	0.25	200	0.5	0.25	UK	1	4684666*LLG
5 - 100	0.5	200	0.5	0.2	UK	1	4684667*LLG
10 - 200	1.0	200	0.4	0.15	UK	1	4684668*LLG
50 - 1000	5.0	1000	0.4	0.1	UK	1	4684669*LLG

Bottle-top dispenser Dispensette® Analog S



Red color code. Wide range of applications, ideal for dispensing aggressive reagents, e.g. concentrated bases and acids such as H_3PO_4 , H_2SO_4 (except as HCl, HNO_3 and HF), saline solutions and a variety of organic solvents.

Volume	Grad.	Accuracy	Precision	PK	Cat. No.
ml	ml	max. vol. (± R%)	max. vol. (≤ CV%)		
0,1 - 1	0.02	0.6	0.2	1	9284381*LLG
0,2 - 2	0.05	0.5	0.1	1	9284462*LLG
0,5 - 5	0.10	0.5	0.1	1	9284385*LLG
1 - 10	0.20	0.5	0.1	1	9284387*LLG
2,5 - 25	0.50	0.5	0.1	1	9284389*LLG
5 - 50	1.00	0.5	0.1	1	9284391*LLG
10 - 100	1.00	0.5	0.1	1	9284393*LLG

Bottle-top dispensers, seripettor®



The economy dispensers for routine dispensing. For dispensing alkaline, buffer and vitamin solutions, as well as culture media, e.g. agar nutrient medium, up to 60 °C.

- Low-cost replaceable dispensing cartridge with wiping seal. One spare dispensing cartridge included
- Semi-automatic dispensing. The spring loaded piston refills the cylinder after dispensing

Scope of supply: Discharge tube, filling tube, spare dispensing cartridge and adapters, PP (GL 45/32, GL 45/S40 and GL 45/38).

Volume	Grad.	Accuracy	Precision	PK	Cat. No.
ml	ml	max. vol. (± R%)	max. vol. (≤ CV%)		
0.2 - 2	0.04	1.2	0.2	1	9284849*LLG
1 - 10	0.2	1.2	0.2	1	9284850*LLG
2.5 - 25	0.5	1.2	0.2	1	9284851*LLG

End test values relate to the nominal values (= max. volume) printed on the dispenser when the temperature (20 °C) of the device, environment and distilled water is uniform, and when operated smoothly.

Manual Serial Dispenser LLG-uniDISPENS pro



The ergonomically designed manual dispenser LLG-uniDISPENS pro enables single-handed volume selection, loading and dispensing. Due to its lightweight design, it is ideally suited for serial dosing. You can flexibly select your desired dosing volume from 120 dosing programs for 12 tip sizes and with 10 stroke adjustments. You can view all settings and volumes at a single glance through the viewing window of the manual dispenser. The dispenser is compatible with Ritips® from Ritter, PD-Tips® from Brand, Combitips® and Combitips advanced® from Eppendorf™. Thanks to a purely mechanical, maintenance-free construction, the manual dispenser is a practical and convenient device for daily laboratory use. Dosing volume 1 µl to 5500 µl.

Scope of supply: Dispenser, adapter for 25 ml tips, 3 years warranty

Description	PK	Cat. No.
LLG-uniDISPENS pro	1	9284239*LLG
Adapter for 50 ml tips	1	6310548*LLG

LLG-Surface protector DescProtect



DescProtect is a durable paper which quickly absorbs liquid spills. The PE-coated base layer stops liquids reaching the work surface.

- Stays flat, does not ripple or curl to de-stabilise vessels
- White surface can be written on using pens or pencils
- Rapid absorption of liquid spills
- Excellent fluid protection
- No contamination of work surfaces or laboratory cabinets
- Suitable for school laboratories, wet chemistry, industry

Type	Size	PK	Cat. No.
Sheets	460 mm x 570 mm	50	9160270*LLG
Spool	400 mm x 50 m	1	9160271*LLG

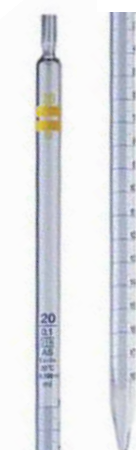
LLG-Volumetric pipettes, soda glass, class AS, 1 mark, blue graduated



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

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

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



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

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

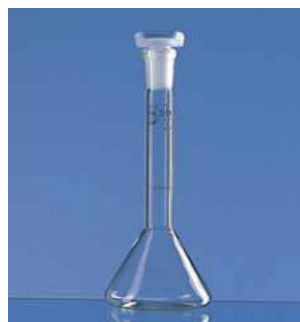
LLG-Safety pipette bulb, rubber, red



Chemically resistant rubber. With valves for suction, emptying and air release, controlled by thumb and finger pressure.

Type	Figure	PK	Cat. No.
LLG-Safety pipette bulb, normal	A	1	6270265*LLG
LLG-Safety pipette bulb, universal	B	1	6270266*LLG

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



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

Variable pipette boxes, aluminium



Comprising two, sliding aluminium sections which can be gently pressed together in a telescopic fashion to fit the length of the pipettes to be sterilized. This means that only one container size for 280 to 420 mm long standard pipettes and one for 145 to 235 mm long short or pasteur pipettes are required. 2 mm thick silicone rubber pad prevents damage to pipettes when loading and transporting.

Type	Int. diam. mm	Variable length mm	PK	Cat. No.
Pipette box	60	145-235	1	9010801*LLG
Pipette box	60	280-420	1	9010800*LLG
Silicone pad	58		1	9010770*LLG

Crown stopper, mechanical



hanhart
CHRONOGRAPHEN 1882

Impact resistant, dustproof and water resistant. With diamond-turned metal case. 55 mm diameter. Built-in strap ring.

Type	Measuring capacity	PK	Cat. No.
	hr: min: sec		
Crown stopper 1 / 5 s	00:30:00	1	9262005*LLG

Stopwatch Amigo, mechanical



hanhart
CHRONOGRAPHEN 1882

Impact resistant. Unbreakable spring movement. 55 mm diameter ABS case. Supplied with 120 cm lanyard.

Type	Measuring capacity	PK	Cat. No.
	hr: min: sec		
Amigo 1/5 s	00:30:00	1	9262411*LLG

Stopclock, analogue, Mesotron



hanhart
CHRONOGRAPHEN 1882

Quartz-accurate timer with large, analogue display. Measuring range: 0 to 60 secs, 0 to 60 mins. Inner scale 1 to 100 secs/100 mins. 110 mm dia. Battery life over 18 months with a 1.5 V button cell.

Dimensions (W x D x H): 130 x 40/95 x 175 mm
Weight: 375 g

Type	PK	Cat. No.
Mesotron	1	9262080*LLG

Stopwatch, digital



DOSTMANN electronic GmbH

1/100 seconds, split time, clock, date with weekday, hourly chime, alarm with snooze function, lanyard.
Measuring range:
Time up to 23 h, 59 min, 59 sec.
Dimensions (W x H x D): 65 x 79 x 21 mm,
Weight: 50 g,
incl. 1x 1.5V LR44 battery, EK-EL

Type	PK	Cat. No.
Stopwatch	1	9851018*LLG

LLG-Timer pro



LLG
LABWARE

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

- Big 6-digit LCD display
- 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

Alkaline Batteries, Energizer®



Type	Volt	PK	Cat. No.
LR03/EN92/AAA/Micro	1.5	10	9012944*LLG

Disposable gloves Kimtech™ Opal™, purple, nitrile

EN ISO 374-1
Type B



KPT

EN ISO 374-5



VIRUS



Exceptional
Workplaces™



The disposable gloves guard against contamination by chemical splash and micro-organism hazards.

- Powder free
- High tactile sensitivity
- With beaded cuff and textured fingertips
- Good wet and dry grip
- Improved comfort for extended wearing time
- Thickness : finger 0.07 mm, palm 0.05 mm
- Ambidextrous
- AQL 1.5
- **Cat III**

According to EN ISO 374-1 Type B (KPT), EN 374-4, EN ISO 374-5. Manufactured in accordance with Quality System ISO 9001 and ISO 13485.

Size	Length	PK	Cat. No.
	mm		
XS	240	200	4684352*LLG
S	240	200	4684353*LLG
M	240	200	4684354*LLG
L	240	200	4684355*LLG
XL	240	170	4684356*LLG

LLG-Disposable Gloves classic, Latex

EN ISO 374-1



K P

EN ISO 374-5 EN 420



VIRUS



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

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

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

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

Disposable Gloves Touch N Tuff® 92-670 Blue, Nitrile

EN ISO 374-1
Type B



KPT

EN ISO 374-5 EN 420



VIRUS



- Made from an innovative nitrile compound which offers outstanding chemical and mechanical properties, comfort and dexterity.
- Three times the puncture resistance of latex or PVC disposable gloves. Lighter and cooler, yet safer and more durable
- 100 % nitrile; no waxes, silicone or plasticizers
- Powder-free. No risk of contaminating food with corn starch used to powder gloves
- Textured finish on fingertips. Improved grip
- Thickness: palm 0.11 mm, fingers 0.13 mm
- Rolled cuff. Provides added protection at wrist and ensures a secure fit
- AQL 1.5 (EN374)
- **Cat. III Low Chemical resistant**

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

Size	Length	PK	Cat. No.
	mm		
S	240	100	6090788*LLG
M	240	100	6090366*LLG
L	240	100	6091887*LLG
XL	240	100	6304322*LLG

Cryo Protection Gloves CRYOKIT 400

EN 511 EN 388 EN 420



2422



Suitable for all work with liquid nitrogen and other cryogenic gases up to approx. minus 196 °C. Protects against cold and contact burns in case of leakage of liquid gas. The waterproof glove is made of a special elastic and laminated fabric.

Interior insulation: polyester multi-layer fabric (410 g/m²) and polyolefin porelle membrane.

According to normative EN 511, EN 420, EN 388, Cat III. Warning: Not intended for immersion in liquid nitrogen or other liquid cryogenics.

1 pair per pack

Size	Length	PK	Cat. No.
	mm		
7	400	1	6270632*LLG
8	400	1	6270633*LLG
9	400	1	6270634*LLG
10	400	1	6270635*LLG
11	400	1	6270636*LLG

Panoramic vision safety goggles ultravision 9301



- Panoramic lens for unrestricted peripheral vision, 180° field of view
- Available in polycarbonate (PC) and acetate (CA) lenses
- Close-conforming, gentle fit
- Comfort optimised by soft padding around the frame and nosebridge
- Innovative ventilation system
- Non-misting lens resists steaming-up
- Ideal for prescription spectacle wearers
- Matt-finish upper frame prevents glare
- Comfortable, adjustable, water-repellent headband
- Mouth shield adaptor available
- EN approved
- Colour: grey

Applications:

Chemical splashes and smoke (acetate - CA)

Colour	Lens	PK	Cat. No.
transparent grey	transparent CA, anti-fogging	1	9005163*LLG

LLG-Safety Eyeshields classic



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

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

Anti-fog cleaner



This advanced cleaning solution easily removes dirt, grease and sweat deposits and significantly reduces fogging. The cleaner is suitable for all glasses, particularly for sensitive plastic lenses and plastic surfaces, even if they are coated. Easy spraying vial with pump mechanism (without propellant) in pocket format.

Volume	PK	Cat. No.
ml 17	1	6270626*LLG

Mini-Ultrasonic Cleaner LLG-uniSONIC 1



For convenient cleaning of goggles or smaller laboratory instruments. Eco-friendly, only needs warm water.

- Automatic 3-minute-operation can be stopped anytime
- Stainless steel tank

Scope of supply: Ultrasonic Cleaner, lid

Specifications

Capacity:	approx. 340 ml
Frequency:	45 kHz
Cleaning performance:	30 Watt
Outer Dimensions (W x D x H) approx.:	200 x 115 x 115 mm
Dimensions tank (W x D x H) approx.:	155 x 80 x 40 mm
Weight:	630 g
Power supply:	220 ... 240 V, 50 Hz

Type	PK	Cat. No.
LLG-uniSONIC 1	1	6263560*LLG

Anti Fog Cloth



The new high-quality microfiber Anti-Fog cloth is reusable up to 200 times. The cloth applies tensioactive substances to the lens (both sides) for an anti-fog effect that lasts 6-8 hours after application.

- It does not grease the lens
- It does not alter the lens
- Cloth dimensions (L x W): 150 x 180 mm

Type	PK	Cat. No.
Anti Fog Cloth	1	6320977*LLG

Overshoe dispenser HYGOMAT COMFORT/CLEANROOM



- No electrical power needed
- Easy to use, no need for bending over
- Easy and quick handling
- With handrail for extra comfort
- Capacity: two packs of overshoes
- With window for easy control of rest capacity
- Refilled with overshoes within seconds
- Weight: 21 kg



COMFORT

Description	PK	Cat. No.
COMFORT, 740 x 300 x 730 mm	1	6257283*LLG
CLEANROOM, stainless steel, 740 x 300 x 730 mm	1	6269779*LLG

Overshoes for HYGOMAT



6257285*LLG:

- Polypropylene nonwoven, CPE coated, white
- Waterproof sole
- Very slip resistant
- Perfect for smooth surfaces

6257286*LLG:

- PP overshoe with CPE sole, blue
- Polypropylene nonwoven
- At the top nonwoven, at the bottom strong waterproof CPE sole
- Very tearproof and slip resistant

6257287*LLG:

- CPE, blue
- Strong quality, approx. 60 µm
- Light protection against liquids

6257288*LLG:

- Polypropylene nonwoven, blue
- Structured bottom made of CPE
- Permeable to air and slightly slip resistant
- For dry areas

Length	PK	Cat. No.
mm		
440	80	6257285*LLG
440	70	6257286*LLG
470	110	6257287*LLG
460	100	6257288*LLG

Laboratory coat Kimtech™ A7 P+, PP

EN 1149



Exceptional Workplaces

- Certified PPE Cat III acc. to directive 89/686/EEC
- Type 6 limited chemical splash protection
- Micro-organism protection tested
- EN1149-1:1995 Antistatic clothing
- High performance chemical resistant fabric
- Low lint fabric, Helmke Drum Category II
- 99 % particle and bacterial filtration efficiency
- Individually packed, 15 pcs. in an outer package for ISO 7 Grade C areas
- Silicon-free
- Abrasion-resistant film-coated polypropylene
- Mandarin collar
- Elastic cuff, thumb-loops and extra-length arms
- High strength triple stitched seams



Size	PK	Cat. No.
S	15	4653906*LLG
M	15	4653907*LLG
L	15	4653908*LLG
XL	15	4653909*LLG
XXL	15	4653910*LLG

Adhesive Mats ASPURE, MDPE



Removes dust and dirt from shoe soles, thickness of 35 µm per layer.

If the top adhesive mat is soiled, you can simply remove this layer and work directly on the next one of the stack. The number of remaining mats on the stack is indicated by the number in the corner.

1 carton with 10 mats, 30 layers.

Colour	Dimensions (D x W) mm	PK	Cat. No.
blue	450 x 900	10	4659087*LLG
blue	600 x 900	10	4659088*LLG
blue	600 x 1200	10	4659089*LLG
white	450 x 900	10	4659092*LLG
white	600 x 900	10	4659090*LLG
white	600 x 1200	10	4659091*LLG

LLG-Lab Stool



6287757*LLG

The extra-large seat provides optimum comfort. The solid black plastic star base and the upholstery edge protector that runs all the way round guarantee a long working life. The practical gas spring system with easy ring control allows a comfortable seat height adjustment.

- Resistant to all of the usual disinfectants and chemicals.
- Seat upholstery made of artificial leather, 400 mm diameter (soft and comfortable, washable and antibacterial) or soft-touch PU foam, 350 mm diameter (extremely robust, washable and antibacterial) in black.
- Extra-large seat: Encourages healthy posture and upright seating in the laboratory.
- Round front edge of the seat: Prevents blocked circulation in the thighs.
- Seat height adjustment by gas spring.
- Practical ring release: The height adjustment can be operated comfortably and easily in sitting position.
- Solid black plastic star base, flat design.
- The chrome-plated foot ring for the high chairs provides support through the wide tread area and can be easily and quickly adjusted in height.
- With certificate "Tested Safety" (GS mark).
- 10 years warranty, Made in Germany.

Material	Description	Seat height adjustment	PK	Cat. No.
		mm		
PU foam	Castors	460 ... 630	1	6287757*LLG
Artificial leather	Castors	460 ... 630	1	6287758*LLG

Folding steps K80



Made of aluminum, with large steel steps of 30 x 21 cm and anti-slip mats. Narrowly foldable to 5 cm.

- Stands securely due to the non-slip plug-in foot that stands up over the entire surface.
- Folding safety mechanism (safety lock)
- Can be loaded up to 150 kg



Number of steps	Height*	Colour	PK	Cat. No.
2	46	black	1	4668331*LLG
3	69	black	1	7623704*LLG

* Height of first step (cm)

LLG-Lab Chair



6287752*LLG



6287753*LLG

Entry model for healthy sitting! The permanent contact backrest provides best support when working sitting down in the laboratory. The generously proportioned seat and backrest with integrated lumbar support provide additional support and therefore offer best laboratory ergonomics.

- Minimal joints: Hygienic design for easy cleaning and disinfection
- Resistant to disinfectants and chemicals: Resistant to all of the usual disinfectants and chemicals.
- Seat and backrest upholstery made of artificial leather (soft and comfortable, washable and antibacterial) or soft-touch PU foam (extremely robust, washable and antibacterial) in black.
- Quick adjustment: Every function can be operated comfortably and easily in sitting position.
- Seat height adjustment by gas spring.
- Permanent contact backrest.
- Backrest adjustable in height and inclination.
- Solid black plastic star base, flat design.
- The chrome-plated foot ring for the high chairs provides support through the wide tread area and can easily and quickly be adjusted in height.
- With certificate "Tested Safety" (GS mark).
- 10 years warranty, Made in Germany.

Accessories: Multifunctional armrests (pair): Adjustable in height, width and depth as well as swivelling.

Material	Description	Seat height adjustment	PK	Cat. No.
		mm		
PU Foam	Castors	440-620	1	6287750*LLG
PU Foam	Stop and Go Castors, Foot Ring	620-890	1	6287752*LLG
Artificial Leather	Castors	440-620	1	6287753*LLG
Artificial Leather	Stop and Go Castors, Foot Ring	620-890	1	6287755*LLG
-	Armrests	-	1	6287756*LLG

Rotary Evaporator RV 3 V/RV 3 V-C



- Ideal entry-level models
- New 4 l heating bath up to 99 °C
- Adjustable immersion angle

IKA®



- Cooling surface from 1500 cm²
- 4 L water heating bath with digital temperature display and carrying handles
- Mechanical lift end-point safety stop
- Manual lift for precise positioning of the glassware
- Adjustable immersion angle
- Stepless speed setting with dial control and speed display
- Flask clamping mechanism with integrated push-off function for easy exchange of evaporation flasks

Scope of supply:

RV 3 V: Rotary Evaporator RV 3 eco, Heating bath HB eco, vertical glassware RV 10.1

RV 3 V-C: Rotary Evaporator RV 3 eco, Heating bath HB eco, vertical coated glassware RV 10.10

Specifications

Speed range:	20 ... 300 rpm
Stroke displacement:	150 mm
Bath volume:	4 L
Temperature range:	ambient ... 90 °C
Heating power:	1400 W
Permissible ambient temperature:	5 ... 40 °C
Permissible relative humidity:	80 %
Dimensions (W x D x H):	440 x 330 x 530 mm
Weight:	13.5 kg
Protection class according to DIN EN 60529:	IP 20
Power supply:	100 ... 240 V/50/60 Hz

Type	PK	Cat. No.
RV 3 V	1	6273133*LLG
RV 3 V-C	1	4661996*LLG

Rubber Balloon with Hose Connection, Latex (NR)

DEUTSCH & NEUMANN



- For Rotary Evaporators
- Suitable for mixture or collection and short-term storage of gases
- For control of air/gas entry or tread out of gas in instruments

Other sizes on request.

Size	Volume litres	PK	Cat. No.
5	approx. 1.5 ... 2	1	9115515*LLG
8	approx. 3.5 ... 4	1	7652667*LLG

Splash head adapter, borosilicate glass 3.3

ISOLAB
Laborgeräte GmbH



Suitable to be used in distillation assemblies to prevent raw liquid step over from flask to condenser.

Cone	Socket	PK	Cat. No.
NS	NS		
29/32	29/32	1	6255503*LLG

Evaporating flasks with conical ground joint, DURAN®

Lenz
Laborglas GmbH & Co. KG



Especially for rotary evaporators, with center neck and conical joint, pear-shaped, with labelling field, material: DURAN®

Nominal capacity ml	Socket	Flask diam. mm	PK	Cat. No.
50	29/32	56	1	9196020*LLG
100	29/32	60	1	9196024*LLG
250	29/32	81	1	9196036*LLG
500	29/32	101	1	9196044*LLG
1000	29/32	126	1	9196054*LLG
2000	29/32	158	1	9196063*LLG

Disc rotator LLG-uniLOOPMIX 2



Analogue Disc rotator for gentle and effective sample mixing.
For a maximum of 48 x 1.5 ml, 16 x 5 or 15 ml, 8 x 50 ml tubes.
Also for parallel use of different sizes, can be equipped individually.

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 rpm
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

Magnetic stirrer LLG-uniSTIRRER 2



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

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

Tumbling Shakers SHWV series



Specifications

Type of movement:	tumbling
Tilt angle Model analogue/digital:	0 to 16°/0 to 20°
Max load:	2.3 kg
Timer Model analogue/digital:	1 to 120 min/1 s to 160 h
Motor:	Stepper Motor
Permissible ambient conditions:	-10 to +60 °C
Weight:	approx. 7 kg
Power supply:	230 V, 50/60 Hz

The tumbling shakers are ideal for cell cultures and are designed for use in a wide range of environmental conditions.

- Variable control (analogue model) or display (digital model) for speed, tilt angle and time
- Overload protection

Scope of supply: 02DG/02AL Shaker incl. built-in tray with non-slip rubber mat

Type	Display type	Dimensions (l x w x h) mm	PK	Cat. No.
02AL	analogue	425 x 279 x 165	1	4659478*LLG
02DG	digital	413 x 254 x 165	1	4659475*LLG

Temperature Measurement

Combination Infrared and Penetration Thermometer TLC 750i



- **Optimal incoming goods inspection**
- **With retractable insertion probe**
- **Use for core temperature measurement of food**

Handy, waterproof infrared thermometer with large measuring range and retractable insertion probe. Compliant with HACCP and DIN EN 13485. With battery and factory calibration certificate.

- Display with backlight for reading in dark environments
- Display can be upside down for reading from both sides
- Double laser pointer

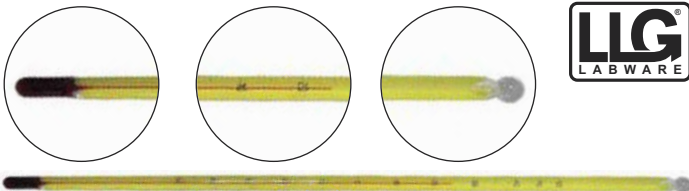


Specifications

Measurement range:	-50 to +250 °C
Accuracy infrared:	±4 °C (-50 to -30.1 °C) ±2.5 °C (-30 to -18.1 °C) ±1.5 °C (-18 to -0.1 °C) ±1.0 °C (0 to +65 °C) ±2.0 °C or 2 % (+65 to +250 °C)
Accuracy penetration probe:	±0.5 °C (-30 to +99 °C) otherwise ±1 °C (1 %), larger value applies
Resolution:	0.1 °C
Distance : spot ratio:	8 : 1
Sensor:	Type T
Operating temperature:	-25 to +50 °C
Dimensions (L x W x H):	169.5 x 44 x 23 mm
Weight:	approx. 140 g
Power supply:	2 x AAA (Micro), replaceable
IP code:	IP 65

Type	PK	Cat. No.
TLC 750i	1	6289927*LLG

LLG-Precision thermometer, red filling



Capillary: yellow enameled, round.
Immersion depth: total.

Measuring range	Graduations	Length	Diam.	PK	Cat. No.
°C	°C	mm	mm		
-10 ... 100	1.0	305	6 ±1	1	9236783*LLG
-10 ... 150	1.0	305	6 ±1	1	9236784*LLG
-10 ... 200	1.0	350	6 ±1	1	9236788*LLG
-10 ... 100	0.5	270	6 ±1	1	9236785*LLG
-10 ... 150	0.5	350	6 ±1	1	9236786*LLG
-1 ... 101	0.1	610	6 ±1	1	9236790*LLG
-0 ... 50	0.1	420	6 ±1	1	9236787*LLG

Disposable data logger TempLOG TS60



DOSTMANN electronic GmbH

Ideal for low-cost temperature monitoring of transports. No hardware or software necessary.

- Auto generating PDF format data report
- 60 days runtime
- 10000 measurements every 10 minutes
- Integrated USB connector
- Start by button
- LED Alarm display
- Serial number sticker
- Inclusive certificate
- Food-safe according to HACCP
- Compliant to EN12830 S,T,C,D,1 and GDP

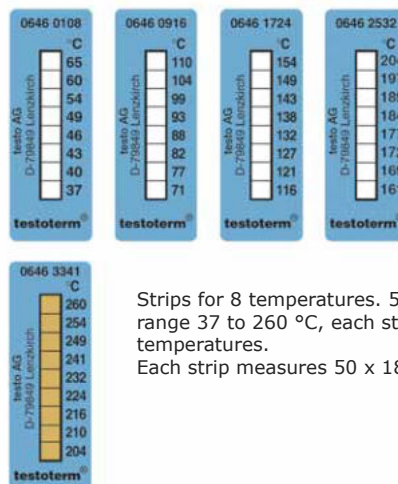


Specifications

Temperature range:	-30 ... 60 °C
Accuracy:	±0.5 °C at -20 °C ... 40 °C/ ±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:	IP67

Type	PK	Cat. No.
TempLOG TS60	1	4684342*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	PK	Cat. No.
°C		
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

Viscosimeters ROTAVISC



- For product development, quality control and reaction monitoring
- Precisely determine the flowability



IKA®

Viscosimeters with a large range of functions to determine the viscosity of liquids.

- Highest measurement accuracy
- Stepless speed adjustment
- 4.3" TFT display
- Digital level
- Simple ramp function
- With connection for ext. PT100 sensor

Scope of supply: Viscosimeter incl. standard spindle set, protective bracket, temperature sensor, ROTASTAND stand

Specifications

Rotation speed:	0.01 ... 200 rpm
Temperature range:	-30 ... +300 °C
Accuracy:	1 %
Repeatability:	0.2 %
Stroke max.:	200 mm
Dimensions stand (L x W x H):	351 x 372 x 629 mm
Weight:	7.1 kg
Power supply:	100 ... 240 V, 50/60 Hz
IP code acc. to DIN EN 60529:	IP 40

Type	Viscosity range mPas	PK	Cat. No.
ROTAVISC lo-vi Complete	1 ... 6,000,000	1	4662322*LLG
ROTAVISC me-vi Complete	100 ... 40,000,000	1	4662323*LLG
ROTAVISC hi-vi I Complete	200 ... 80,000,000	1	4662324*LLG
ROTAVISC hi-vi II Complete	800 ... 320,000,000	1	4662325*LLG

Shore Hardness Testers, Digital, HD

Compact handheld durometer for plastics with digital display.

- Large display with backlight
- Selectable: AUTO-OFF function or continuous operation, charge indicator
- Delivered in a hard carrying case



SAUTER

Specifications

Precision:	1 % of max. measuring value
Dimensions (W x D x H):	162 x 65 x 38 mm
Net weight:	173 g

Type	Measuring range HS	Readability HS	PK	Cat. No.
HDA 100-1.	100 HA	1,0 HA	1	4665533*LLG
HDO 100-1.	100 HAO	1,0 HAO	1	4665590*LLG
HDD 100-1.	100 HD	1,0 HD	1	4665591*LLG

Shore hardness testers, analogue, HB



SAUTER



Shore hardness testers for hardness determination of plastics through penetration measurement. Compact handheld durometer for plastics with drag indicator.

- Max mode: Holds the maximum value in the display
- Point mode: Shows one instant value
- Delivered in a plastic carrying case

Shore A for rubber, elastomers, neoprene, silicone, vinyl, soft plastics, felt, leather and similar materials
Shore A0 for foams, sponges
Shore D for plastics, synthetic resin, Resopal®, epoxides, Plexiglas® etc.

Specifications

Precision:	3 % of max. measured value
Dimensions (W x D x H):	60 x 25 x 115 mm
Net weight:	approx. 160 g

Type	Measuring range HS	Readability HS	PK	Cat. No.
HBA 100-0	100 HA	1,0 HA	1	6284083*LLG
HBD 100-0	100 HD	1,0 HD	1	6270975*LLG

Hardness comparison plates for Shore hardness testers, HB/HD

SAUTER



4664627*LLG

Description	PK	Cat. No.
7 plates for Shore A, tolerance up to ±2 HA	1	4664627*LLG
3 plates for Shore D, tolerance up to ±2 HD	1	6290428*LLG

Mixers MICROTRON® MB 550

Specially designed for mixing, dispersing, homogenizing, emulsifying and size reduction of cuttable materials. Four different attachments made from glass with volumes of 125 ml, 250 ml, 500 ml and 1000 ml are available. Grounded, double safety isolated, radio screened. A safety system prevents uncontrolled starting and therewith personal injuries: the mixer can only be started with well attached safety hood or lid. In case the hood or lid will be removed during operation the device will be stopped automatically.

Mixing jars and protective hoods - please order separately.
Mixer MICROTRON® MB 550 can only be started with attached safety hood.

Specifications

Motor input power: 550 W
 Speed range: Stepless, 1000 ... 15000 rpm
 Dimensions (Ø x H): 190 x 245 mm



MBA 1000



MBH 1000

Type	Max. Feed quantity/ Flow rate	PK	Cat. No.
	ml		
MB 550	1000	1	6241879*LLG

Accessories for Mixer MICROTRON® MB 550

The mixing attachments MBA 125 to 1000 ml made of glass can be dismantled completely and easily.

Type	Description	Volume	Material	PK	Cat. No.
		ml			
MBA 125	Mixing attachment	125	Glass	1	6257342*LLG
MBA 250	Mixing attachment	250	Glass	1	6260922*LLG
MBA 500	Mixing attachment	500	Glass	1	6241880*LLG
MBA 1000	Mixing attachment	1000	Glass	1	6260923*LLG
MBH 125	Safety hood	-	Acrylic glass	1	6257343*LLG
MBH 250	Safety hood	-	Acrylic glass	1	6260925*LLG
MBH 500	Safety hood	-	Acrylic glass	1	6241881*LLG
MBH 1000	Safety hood	-	Acrylic glass	1	6260926*LLG

Grinding mill, A11 basic



Impact grinding of hard, brittle or non-elastic grinding materials with high-grade stainless steel beater. This beater can be used for a Mohs hardness up to 6 (incl. with delivery).

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

Accessories can be found in our online shop.



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

LLG-Mortars, porcelain



According to DIN 12906. Suitable for easy grinding, comminution or crushing of ground material during sample preparation. With practical spout.

Please order pestle separately.

Capacity	Ext. diam.	Height	DIN	Description	PK	Cat. No.
ml	mm	mm				
70	63	41	12906	rough inside	1	6227149*LLG
110	83	50		rough inside	1	6232577*LLG
220	105	64		rough inside	1	9164412*LLG
400	125	71	12906	rough inside	1	9164413*LLG
110	83	50		glazed inside	1	6227289*LLG
220	105	64		glazed inside	1	6234591*LLG

LLG-Pestle, porcelain



According to DIN 12906. With rough or glazed friction surface for easy crushing of ground material during sample preparation.

Head diam.	Length	DIN	Description	PK	Cat. No.
mm	mm				
14	54		rough	1	6227150*LLG
24	115	12906	rough	1	9164420*LLG
30	135	12906	rough	1	6232574*LLG
36	150	12906	rough	1	9164421*LLG
74	250	12906	rough	1	6252384*LLG
42	175	12906	glazed	1	6227292*LLG
36	150	12906	glazed	1	6234592*LLG

Mortars and pestles, Agate



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

Batch mills Tube Mill control



- Batch mill with disposable grinding cups
- Cross-contamination is avoided



Suitable for disposable and reusable grinding chambers. By using the disposable grinding chambers the possibility of cross-contamination and the effort of cleaning is eliminated. The mills can be used for hard (Mohs hardness up to 5), dry and brittle materials. They are especially suitable for grinding seeds, such as corn and wheat.

- Clearly arranged, multilingual OLED-display
- USB interface for control and documentation of all the parameters
- Interval operation available
- Stepless adjustable speed
- Adjustable safety speed and time
- Programmable and storable test conditions
- Timer
- Dust proof sealed housing

Accessories can be found in our online shop.

Scope of supply:

Tube Mill control incl. 1 x grinding chamber MT 40 and MMT 40.1 each

Specifications

Operating principle:	cutting/impact
Motor rating input/output:	100/80 W
Speed:	5000 to 25000 rpm
Chamber volume:	40 ml
Timer:	5 s to 3 min
Interval timer:	5 s to 60 s
Overload protection:	yes
Circumferential speed:	65 m/s
Max. feed hardness:	5 Mohs
Dimensions (W x D x H):	180 x 300 x 170 mm
Weight:	2.7 kg
IP code:	IP 30
Power supply:	220-240 V, 50/60 Hz

Type	PK	Cat. No.
Tube Mill control	1	9737790*LLG

Mini centrifuge LLG-uniCFUGE 3 pro



This compact Mini centrifuge offers versatility, simplicity, safety and ease of usage in just one package and is specially suitable for microfiltration, cell separations and spin down applications.

- Easy rotor change via magnetic fixing
- Brushless and non-wearing high-efficiency motor
- Digital display
- Integrated timer
- Lid safety interlock
- Smooth and silent, discreet running

The following types of vessel can be used:

- 8 x 1.5 ml micro tubes
- 8 x 2 ml micro tubes
- 16 x 0.2 ml PCR tubes

By using the fitting adapter:

- 8 x 0.2 ml micro tubes
- 8 x 0.5 ml micro tubes

Scope of supply: Centrifuge, rotor for 8 x 1.5/2 ml tubes, rotor for 16 x 0.2 ml PCR tubes, adapter for 8 x 0.2/0.5 ml tubes, power adapter (24 V, 1.5 A)

Specifications

Max. RCF:	2000 x g
Max. speed:	1000 ... 6000 rpm
Motor:	brushless DC motor
Max. load:	8 x 1.5/2 ml or 16 x 0.2 ml PCR tubes
Timer:	1 ... 25 min, continuous
Dimensions (W x D x H):	162 x 157 x 116 mm
Weight:	1.1 kg
Power supply:	100 ... 240 VAC, 50/60 Hz

Description	Plug type	PK	Cat. No.
LLG-uniCFUGE 3 pro	EU	1	6263522*LLG
LLG-uniCFUGE 3 pro	UK	1	6263527*LLG

Microcentrifuge Sigma 1-14/1-14K



Sigma 1-14K

6234818*LLG

Available as uncooled (Sigma 1-14) and cooled (Sigma 1-14K) model.

- Clearly organised display
- Large buttons
- Zero-maintenance motor
- Motorised cover lock, automatic lid unlocking
- Speed/RCF indication
- Two acceleration and braking curves, soft or fast
- Window in lid for independent speed measurement
- Overspeed monitoring
- Manufactured in compliance with EN 61010-2-020

Cooled centrifuge Sigma 1-14K

- Stainless steel bowl
- Quick cool program
- 10 programs
- R134a refrigerant (CFC-free)

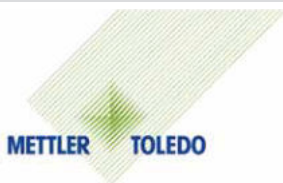
Specifications

Max. RCF Sigma 1-14/1-14K:	16163 x g/16602 x g
Max. speed Sigma 1-14/1-14K:	14800 rpm/15000 rpm
Max. capacity:	24 x 1.5/2 ml
Cooling temperature 1-14K:	-10 ... 40 °C
Timer:	10 s ... 99 min
Power consumption Sigma 1-14/1-14K:	95 W/230 W
Dimensions (W x D x H) Sigma 1-14/1-14K:	266 x 212 x 176 mm/ 515 x 273 x 236 mm
Weight Sigma 1-14/1-14K:	6 kg/19 kg
Power supply:	220 ... 240 V, 50/60 Hz

Type	PK	Cat. No.
Microcentrifuge Sigma 1-14	1	6234817*LLG
Microcentrifuge Sigma 1-14K	1	6263897*LLG
Fixed-angle rotor, aluminium, 12 x 1.5/2.0 ml, incl. lid, PS	1	6234818*LLG
Fixed-angle rotor, PP, 24 x 1.5/2.0 ml, incl. lid, PS	1	6241448*LLG
Fixed-angle rotor, aluminium, 24 x 1.5/2.0 ml, incl. lid, PS	1	6259496*LLG

pH electrodes InLab® Expert Pro

pH-combination electrode with chemically resistant PEEK shaft, ARGENTAL™ reference system.
Fixed BNC/RCA (Cinch) cable (1.2 m).
InLab® Expert Pro ISM for SevenCompact and SevenExcellence.



InLab® Expert Pro

Specifications

Temperature range:	0 ... 100 °C
pH range:	0 ... 14 pH
Temperature sensor:	NTC 30 kΩ
Length/Diam.:	120mm/12mm
Electrolyte:	XEROLYT® polymer
Diaphragm:	open junction
Membrane resistance at 25 °C:	< 250 MΩ

Type	PK	Cat. No.
InLab® Expert Pro-ISM	1	9041508*LLG
InLab® Expert Pro	1	9041506*LLG

LLG-Indicator paper sticks



For pH determination. Indicator paper sticks of 80 mm length.

Range	Package contents	PK	Cat. No.
pH			
0 ... 14	50 sticks per pack	50	9129806*LLG
0 ... 14	100 sticks per pack	100	9129807*LLG

pH-Fix indicator strips, universal



For determination of pH-value. Permanent colour. Non bleeding.

Range	PK	Cat. No.
pH		
0.0 ... 6.0	100	9130382*LLG
0 ... 14 PT*	100	9130379*LLG
7.0 ... 14.0	100	9130384*LLG

* PlopTop tube.

LLG pH meter 7



- Complete Set
- Electrode "Made in Germany"



The LLG pH Meter 7 is an easy-to-use, robust table-top instrument for measuring pH and redox potential. The large color-touch-display and the intuitive, language-independent user interface ensure fast and easy use. Particularly suitable for routine applications in laboratories, production plants and schools.

- Available as set with gel combination electrode ("Made in Germany") with temperature sensor
- Large color-touch-display with language-independent graphical user interface
- Automatic temperature compensation
- Memory for 500 values
- 3-point calibration
- Reminder function for upcoming calibrations
- BNC connection for the electrode
- RS232 interface for data transfer
- Electrode holder can be mounted left and right

Scope of supply:

LLG-pH Meter 7 set: pH meter, combination electrode, electrode holder, protective cover, power supply unit

Specifications

pH range:	0 ... 14
pH resolution:	0.01
pH accuracy:	±0.01
Temperature range electrode:	0 ... 80 °C
Dimensions (W x D x H):	180 x 240 x 80 mm
Weight:	0.7 kg
Power supply:	9 V DC/1A
IP code:	IP 54

Type	Plug type	PK	Cat. No.
LLG-pH Meter 7 set	EU	1	6263601*LLG
LLG-pH Meter 7 set	UK	1	6263607*LLG

LABORTOPS

pH/Redox meter pH 3110 Set SM PRO, LLG Premium Line, incl. pH electrode Sentix 41 and protective cover SM Pro



The **LLG Premium Line** is our best selection of high quality and proven devices from our top suppliers.

The meter pH 3110 Set SM PRO is ready-to-use for portable pH and Redox measurement.

Convincing quality

- With proven, universal pH electrode Sentix 41
- Robust with sturdy housing made of ABS
- Additional protection due to protective cover SM Pro made of silicone
- Waterproof according to IP67

Excellent functionality and best user comfort

- Ready-to-use in carrying case
- Large, clear LCD segment display, easy to read thanks to high contrast
- Clear keyboard with only 6 keys made of a gap-free silicone mat
- Keyboard can be operated with gloves due to tactile feedback
- Easy to clean

Highest safety

- Automatic AutoRead function for reproducible and reliable readings
- 3-point calibration with technical or DIN/NIST buffers
- Integrated calibration timer for reminding to calibrate regularly

Scope of supply: pH meter pH 3110 ProfiLine, pH electrode Sentix 41, buffer STP 4/STP 7 (50 ml each), protective cover SM Pro, KCL solution, measuring beaker (50 ml), electrode holder, carrying case

Specifications

Measuring ranges

pH: -2.0 ... 20.0 ; -2.00 ... 20.0 ; -2.000 ... 19.999

Accuracy: ±0.01 (±1 digit) ±0.005 (15 °C ... 35 °C)

mV/Accuracy: ±1200.0/±0.3 ±2000/±1

Temperature: -5.0 ... 105.0 °C

Accuracy: ±0.1 °C

Temperature compensation: automatic via pH electrode with integral temperature probe

pH electrode Sentix 41

Plug type: DIN

Temperature sensor: NTC 30 kOhm

Length: 120 mm

Ø: 12 mm

Electrolyte: Gel

Length cable: 1 m



- **Complete set!**
- **Incl. pH electrode Sentix 41 and protective cover**



Type	PK	Cat. No.
pH 3110 Set SM PRO, LLG Premium Line	1	4684148*LLG