

LABORTOPS

valid until 31.03.2022

Precision balances Entris® II, LLG Premium Line



SARTORIUS

- High Quality
- Precise Results

NEW



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Halogen Moisture Analyser DBS 60-3



10 memory locations for drying programmes

KERN



Modern moisture analyser with 10 memories and graphic display

- Halogen quartz glass heater 400 W
- Backlit LCD display, digit height 15 mm: Previous drying time, current temperature, unit for displaying the results, current moisture content in %, drying mode/Status display drying
- Observation window over the sample, useful during initial adjustment
- Internal memory for automatic sequence of 10 drying programs and 100 drying processes carried out
- Sample description for up to 99 samples, 2 digits, freely programmable, and is printed in the measuring protocol
- 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

Balance brush



Oval.

Type	Size	Diam.	PK	Cat. No.
		mm		
Brush	2	6	1	6266807*LLG
Brush	4	9	1	6074169*LLG
Brush	6	12	1	6266808*LLG
Brush set*	2, 4, 6		1	6266825*LLG

*consisting of one brush each size 2/6 mm, size 4/9 mm and size 6/12 mm

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

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.

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

Precision balances Entris® II, LLG Premium Line

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

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



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- Very fast stabilisation and settling times
- High chemical resistance

Entris® II

Scope of supply: Precision balance, power supply unit, display protection cover



Specifications

Readability: 0.01 g
 Weighing platform: 182 x 182 mm
 Dimensions (W x D x H): 219 x 317 x 94 mm
 Power supply: 100 ... 240 V, 50 ... 60 Hz

Type	Capacity	PK	Cat. No.
	g		
BCE622i-1S	620	1	4669160*LLG
BCE822i-1S	820	1	4669184*LLG
BCE2202i-1S	2200	1	4669120*LLG
BCE3202i-1S	3200	1	4669132*LLG
BCE4202i-1S	4200	1	4669140*LLG
BCE6202i-1S	6200	1	4669156*LLG

Entris® II with square windshield

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



Scope of supply: Precision balance, power supply unit, display protection cover, windshield

Specifications

Readability: 1 mg
 Reproducibility: ±1 mg
 Linearity: ±0.6 mg
 Weighing platform: Ø 120 mm
 Weighing space height: 240 mm
 Dimensions (W x D x H): 219 x 317 x 345 mm
 Weight: 6.3 kg
 Power supply: 100 ... 240 V, 50 ... 60 Hz

Type	Capacity	PK	Cat. No.
	g		
BCE223i-1S	220	1	4669124*LLG
BCE323i-1S	320	1	4669136*LLG
BCE623i-1S	620	1	4669164*LLG

Precision balances Type EMB

The Precision balances EMB are entry-level devices in the field of laboratory balances. They can be stacked with a stack frame (optionally available) and can also be operated by battery, as an alternative to mains power, which means that they have the flexibility to be used in different locations.



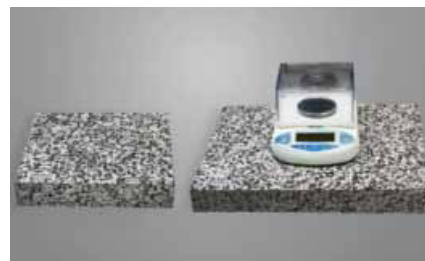
- Simple and convenient 2-key operation
- Tare function facilitates formulation work
- Flat design
- Batteries included
- Hook for underfloor weighing
- Large LCD display
- AUTO-OFF function after 3 min



Dimensions (W x D x H)
 EMB 200-3: 170 x 240 x 54 mm
 EMB 600-2/EMB 500-1: 170 x 240 x 39 mm
 Net weight: approx. 750 g

Type	Capacity	Readability	Plate diam.	PK	Cat. No.
	g	g	mm		
EMB 200-3	200	0.001	82	1	7655256*LLG
EMB 600-2	600	0.01	105	1	9901321*LLG
EMB 500-1	500	0.1	150	1	9901322*LLG

Anti-vibration platform Vibrasorb



For absorbing and damping vibrations down to 16 Hz. Comprises of a moulded terrazzo slab supported on four vibration absorbers with non-slip feet. Suitable for isolating sensitive analytical instruments such as balances and microscopes. Will support up to 16 kg.

- Polished surface
- Resists scratches and chemical attack

Dimensions (W x D x H)	Weight	PK	Cat. No.
mm	kg		
350 x 350 x 76	19	1	9941600*LLG
450 x 560 x 76	39	1	9951600*LLG

LLG-Microtube racks, PP, 80-well



Designed to hold 1.5 ml/2.0 ml microtubes (5 x 16 arrays) in a temperature range from -80 °C to 121 °C. Molded numbers on the surface for easy samples identification. Suitable for autoclaving at 121 °C.

Colour	PK	Cat. No.
yellow, red, blue, orange, green	5	4672062*LLG
yellow	5	4672063*LLG
red	5	4672064*LLG
blue	5	4672065*LLG
green	5	4672068*LLG

LLG-Buckets, PP



White. With lid and temper-evident closure. For transport, packaging and storage of foodstuffs, building materials and non-corrosive chemicals. Stability 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

Safety Gloves Clavies®, Heat Protection up to 232 °C



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

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

Adhesive Tape, PVC



PET-coated Adhesive PVC-tape with water-soluble adhesive. Available in different widths and colours.

- Easy to remove without stains
- Thickness: 0.14 mm
- Core: PE

Width	Length	Colour	PK	Cat. No.
mm	m			
12	33	red	10	4659106*LLG
12	33	blue	10	4659107*LLG
12	33	yellow	10	4659108*LLG
12	33	green	10	4659109*LLG
12	33	white	10	4659110*LLG
25	33	red	10	4659111*LLG
25	33	yellow	10	4659113*LLG
25	33	green	10	4659114*LLG
25	33	white	10	4659115*LLG
50	33	red	5	4659117*LLG
50	33	yellow	5	4659119*LLG
50	33	green	5	4659120*LLG
50	33	white	5	4659121*LLG

Wash bottles, narrow neck, PE



The dispensing tip can be cut back to regulate the flow rate.

Capacity	PK	Cat. No.
ml		
250	10	9223510*LLG
500	10	9223511*LLG
1000	10	9223512*LLG

LLG-Labeling tapes



Strong and durable. Water resistant. Can withstand temperatures ranging from -23 °C to 121 °C. The tapes are easy to write-on and leave no residue when removed. Rolls of 12.7 m.

Width	Colour	PK	Cat. No.
mm			
12.7	3 x blue, 3 x green, 3 x orange, 3 x red, 5 x white, 4 x yellow, 3 x pink	24	4663408*LLG
19.0	2 x blue, 2 x green, 2 x orange, 2 x red, 4 x white, 2 x yellow, 2 x pink	16	4663416*LLG
25.4	1 x blue, 2 x green, 1 x orange, 2 x red, 2 x white, 2 x yellow, 2 x pink	12	4663424*LLG

LLG-Lab Notebooks



Paginated pages with space for title, project number, date and author's signature. Waterproof and chemical-resistant cover. At the end of the notebook there is a periodic table and conversion tables. Our notebooks comply with GLP, GMP and GCP guidelines. US Letter format, 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

Lab-Marker Securline®



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

- Permanent, quick-drying ink
- Fine tip

Colour	PK	Cat. No.
Black	10	4665487*LLG
Red	10	6312384*LLG
Blue	10	6312385*LLG

Piezoelectric gas lighter Clipper



Piezoelectric.

Type	PK	Cat. No.
Piezoelectric gas lighter Clipper	1	9018820*LLG

Safety gas hoses, rubber, without reinforcement



According to DIN 30664 section 1. Without cable armor. Connecting line for safety gas connection fitting according to DIN 3383-4 and gas burners for laboratories according to DIN 30665 section 1. For all gases according to DVGW worksheet G 260, at pressures up to 100 mbar and temperatures up to 70 °C. Installations according to DVGW-TRGI 2008 and DVGW worksheet G 621. DVGW Reg.-No. NG-4607AU2362.

Int. diam. mm	Wall thickness mm	PK	Cat. No.
10	2	1	9018970*LLG

Teclu burner with needle valve



Acc. to DIN 30665, with air regulation, with low flame.

Rubber sucker base (Art. Nr. 9.018 360) please order separately.

Type	Height mm	Weight g	PK	Cat. No.
Natural	155	260	1	9018375*LLG
Propane	155	260	1	9018376*LLG

Bunsen burner with needle valve



DIN 30665. Air regulation, pilot flame.

Rubber sucker base (Art. Nr. 9.018 360) please order separately.

Type	Height mm	Weight g	PK	Cat. No.
Natural with needle valve	155	220	1	9018365*LLG
Propane with needle valve	155	220	1	9018366*LLG

Rubber sucker for burners



Type	PK	Cat. No.
Rubber sucker base for bunsen burner and teclu burner	1	9018360*LLG

Laboratory dryer HT0141



For drying DC plates



- Power: approx. 2100 W.
- 2 speed settings,
- 3 temperature settings with cold air-stream button.
- Metallic paint housing.
- Air-inlet grill detachable for cleaning.
- Cable retracts at the touch of a button.
- Weight: 594 g.

Type	PK	Cat. No.
HT 0141	1	6268487*LLG

Microwave Severin MW 7873



- Wattage: approx. 900 W
- Interior capacity: approx. 30 l
- Interior height: approx. 210 mm, suitable for 800 ml Erlenmeyer flask
- Turntable dia. approx. 315 mm
- Dimensions (W x D x H) : 510 x 430 x 305 mm
- 5 steps selectable
- Power continuously variable, (by time or weight)
- 35 minute timer with acoustic signal

Type	PK	Cat. No.
Severin MW 7873	1	7672991*LLG

Thermo coffee machine KA 6037 CB



For the break in between!

Coffee machine for preparing filter coffee. Thanks to the double-walled stainless steel thermo jug with aroma seal, the brewed coffee stays warm for a long time.

- 1.2 l water tank (8 to 10 cups)
- Removable filter insert
- Water level indicator
- Anti-drip protection
- Automatic switch-off
- On/off switch with indicator light



Specifications

Nominal power:	800 W
Dimensions (W x D x H):	183 x 226 x 327 mm
Weight:	1.85 kg
Power supply:	220 ... 240 V, 50/60 Hz

Type	PK	Cat. No.
KA 6037 CB	1	9106784*LLG

Kettle 4110



The concealed safety lid opens simply by pressing a button.

- 1.7 l plastic water container
- 360° base
- Large water level indicator on the outside
- Limescale filter
- Control lamp
- Automatic switch-off
- Overheating and dry-running protection
- Concealed heating element



Nominal power:	1850 ... 2200 W
Dimensions (W x D x H):	220 x 145 x 245 mm

Type	PK	Cat. No.
4110	1	6267077*LLG

LLG-2in1 KITs with Screw Neck Vials ND8 (small opening)



The 2in1 KITs contain 100 vials (1.5 ml) and 100 closures in an orange PP-Box. As both components are always required at the same time. The 2in1 KITs are a convenient way to obtain and store all required items for analysis. All advantages of the individual components (cleanroom packaging of the vials, recloseability of the packaging, etc.) remain unchanged.



Description	Cover type	PK	Cat. No.
clear	Screw Cap, black, hole, Silicon white / PTFE red	100	6238965*LLG
amber	Screw Cap, black, hole, Silicon white / PTFE red	100	9003557*LLG
amber, labelling field	Screw Cap, black, hole, Silicon white / PTFE red	100	9003558*LLG
clear, labelling field	Screw Cap, black, hole, Silicon white / PTFE red	100	9003559*LLG

LLG-2in1 KITs with Short Thread Vials ND9 (wide opening)



Description	Cover type	PK	Cat. No.
clear	Short Thread Cap, blue, hole, Silicon white / PTFE red	100	9003560*LLG
clear	Short Thread Cap, blue, hole, Silicon white / PTFE blue, slitted	100	7621765*LLG
clear	Short Thread Cap, transparent, hole, Silicon white / PTFE red	100	9003561*LLG
clear, labelling field	Short Thread Cap, blue, hole, Silicon white / PTFE blue, slitted	100	9003562*LLG
clear, labelling field	UltraClean Short Thread Cap, blue, hole, Silicon white / PFE red	100	7970892*LLG
amber, labelling field	UltraBond Short Thread Cap, blue, hole, Silicon beige / PTFE white, slitted	100	9003563*LLG
amber, labelling field	UltraClean Short Thread Cap, blue, hole, Silicon white / PFE red	100	6266871*LLG

Syringes for GC autosampler from Perkin-Elmer



GC syringes for all Perkin-Elmer autosampler e.g. Clarus.
 - Two different needle diameters
 - All needles are 70 mm long with a cone point style
 - High reproducibility, low carry-over



Capacity	Needle length	Gauge (OD)	Needle Typ	PK	Cat. No.
µl	mm	mm			
5	70	23 (0.63)	fixed	1	9221282*LLG
5	70	26 (0.47)	fixed	1	9221281*LLG
5 (Gas tight)	70	23 (0.63)	fixed	1	6204955*LLG
5 (Gas tight)	70	26 (0.47)	fixed	1	9221283*LLG

Precision SL Hydrogen Generators, white

The smallest hydrogen generator from the Precision Hydrogen SL line, safely and continuously produces laboratory-grade hydrogen, with a purity of 99.9995 %, for GC-FID. This generator comes in a choice of manual water fill, auto water fill or with pressurised water fill. Also available in black.

- Minimal hydrogen storage in the system
- Very low maintenance requirements
- Auto-shutdown fail-safe



Specifications

Purity:	99.9995 %
Max. pressure:	6.9 bar
Required water quality:	<1.0 µS/cm
Gas connection:	1 x 1/8"
Permissible ambient temperature:	10 ... 35 °C
Dimensions (W x D x H):	160 x 355 x 250 mm
Weight:	8.0 kg
Power supply:	100 ... 240 V, 50/60 Hz
Warranty:	2 years



- **Small footprint**
- **Also available in black**

Type	Description	Flow rate	PK	Cat. No.
		L / min.		
SL 100	With manual water fill	100	1	4678138*LLG
SL 100	With auto water fill	100	1	4678140*LLG
SL 100	With pressurised water fill	100	1	4678142*LLG
SL 200	With manual water fill	200	1	4678144*LLG
SL 200	With auto water fill	200	1	4678146*LLG
SL 200	With pressurised water fill	200	1	4678148*LLG

Funnels, DURAN®



DIN ISO 4798. With short stem.
Glass Type I/neutral glass as per USP, EP and JP.

Diam. mm	For filter paper diam. mm	Height mm	DIN	PK	Cat. No.
35	45 - 55	60	4798	1	213512308*SCHOTT
45	55 - 70	80		1	213512805*SCHOTT
55	70 - 90	95	4798	1	213513304*SCHOTT
70	110 - 125	125		1	213513801*SCHOTT
80	125 - 150	140		1	213514103*SCHOTT
100	150 - 185	180	4798	1	213514609*SCHOTT
120	185 - 240	210		1	213515108*SCHOTT
150	240 - 270	265	4798	1	213515708*SCHOTT
200	320 - 385	325		1	213516104*SCHOTT

Filter paper, qualitative, Grade 3 hw, folded filters



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

LLG-Filtering apparatus, borosilicate glass



Universally applicable filtration unit made of high-quality borosilicate glass. Wide range of applications for filtration with filter paper or membrane filters (47 mm).

- Large funnel (300 ml) with scale
- Filter flask 1 or 2 litres, with scale
- Safe plastic olive
- Filter plate with porosity 2
- Filter plates with porosity 1 or 3 optionally available
- All components available as spare parts

Scope of supply:

Filter flask NS 45/40, funnel 300 ml, filter holder NS 45/40 with connector GL 14 and filter plate 47 mm (por. 2), clamp



Description	PK	Cat. No.
LLG-Filtering apparatus 1000 ml	1	6291850*LLG
LLG-Filtering apparatus 2000 ml	1	6291851*LLG

LLG-Qualitative filter paper, circles



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

Diam. mm	Filtration time secs.	PK	Cat. No.
47	88	100	9045801*LLG
55	88	100	9045802*LLG
70	88	100	9045803*LLG
90	88	100	9045804*LLG
110	88	100	9045805*LLG
125	88	100	9045806*LLG
150	88	100	9045807*LLG
185	88	100	9045808*LLG
240	88	100	9045809*LLG

Automatic Titrators TitroLine® 5000

SI Analytics



Compact titrator for simple routine titrations



Very compact titrator for simple routine titrations. Thanks to the standard methods the creating of methods is no longer required. Just load the method and press the start button. GLP compliant results with titration curve can be documented on a connected printer or USB-memory stick.

- Following titration modes are possible:
- Titrations to pH, mV and μA endpoint (2 EP)
- Titrations to one equivalence point (pH und mV) with dynamic or linear titration addition
- Manual titrations with the controller
- Dosing tasks
- Number of methods: 5

Scope of supply:

TL 5000/20 M2: Basic unit with pH combination electrode and buffer set, with ready to use assembled 20 ml dosing unit TZ 3130 with hoses, fittings and titration tip, controller TZ 3880, titration clamp Z 305, stand rod TZ 1748 magnetic stirrer TM 50 and power supply 100-240 V
TL 5000/50 M2: as TL 5000/20 M2, only with ready to use assembled 50 ml dosing unit TZ 3160

Specifications

Measuring input electrode:	pH/mV-input with DIN or BNC socket
Measuring input Pt 1000/NTC 30:	Temperature sensor connection for resistance probes Pt 1000 or NTC 30 (socket: 2 x 4 mm)
Interfaces:	1 x USB A und 1 x USB-B 2 x RS-232-C
Stirrer connection:	TM 50 power supply directly through piston burette
Keyboard:	The unit is operated using the keys on the device itself, the controller TZ 3880 and optional PC-keyboard (USB)
Display:	graphics-capable TFT display
Dosing units:	20 ml or 50 ml dosing unit, interchangeable
Burette resolution:	8000
Dosing accuracy:	systematic error 0.15 %, random error 0.05 % in compliance with EN ISO 8655-6
Supply requirements:	230 V, 50/60 Hz
Conformity:	ISO 8655, part 6
CE-mark:	EMC: 2004/108/EG; safety EG- Directive 2006/95

Type	PK	Cat. No.
TL 5000/20 M2	1	9863186*LLG
TL 5000/50 M2	1	9863187*LLG

Automatic burettes with splinter protection, Schilling pattern, borosilicate glass 3.3



Burette according to Dr. Schilling with splinter protection, with Schellbach stripes, automatic zero point extraction and Bürkle dosing device. The glass burette is covered with a plastic sheet which increases the tensile strength and serves as splinter protection. The dosing device allows precise dosage via the pushbutton or via the micro-screw as well as precise dispensing via a fine spout tip.

- With splinter protection
- Adjusted to Ex
- Shatterproof, resistant to chemicals
- Exact spout tip, fine droplet formation
- Parts in contact with the medium: PE, natural rubber, PP, Borosilicate glass

Capacity	Grad.	Tolerance	Height	PK	Cat. No.
ml	ml	\pm ml	mm		
15	0.1	0,045	520	1	6280403*LLG
25	0.1	0,075	650	1	6280404*LLG
50	0.1	0,075	920	1	6280405*LLG

Griffin beakers, PP



Made of transparent Polypropylen. Low form with practical spout and easy-to-read blue graduation.

- Autoclavable at 121 °C
- Good chemical resistance
- Stackable
- According to ISO 7056



Nominal capacity	Grad.	Diam.	Height	PK	Cat. No.
ml	ml	mm	mm		
25	5	32	47	2	9013670*LLG
50	10	39	60	2	9013671*LLG
100	10	50	70	2	9013672*LLG
250	25	67	93	2	9013673*LLG
500	50	88	119	2	9013674*LLG
1000	50	109	147	2	9013675*LLG
2000	100	133	184	1	9013676*LLG

LLG-pH Meter 5



- pH/mV/°C handheld meter
- Complete set

The LLG-pH meter 5 is a very easy to use pH/mV/°C handheld meter. The pH value and temperature can be stored directly on the SD card (Excel file) or transferred directly from the pH meter to a PC via the RS-232 interface.

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

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

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

Specifications

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

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

pH meter FiveEasy Plus™ FP20



FP20-Standard Kit



- Measurement made easy
- Compact design saves space
- Simple and secure data transfer

FiveEasy™ Plus benchtop 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 making operation simple and easy
- Fast and easy connectivity for simple and secure data transfer
- Electrode arm extension pole included

Scope of supply:

FP20-Meter Standard Kit: Meter with CD operating instructions, QuickGuide, declaration of conformity, test certificate, power supply plus plastic LE438 3-in-1 pH electrode, 1 each x 4.01 pH, 7.00 pH, 9.21 pH buffer sachets

FP20-Bio: as FP20 Standard-Kit, plus glass LE410 3-in-1 pH electrode, 1 each x 4.01 pH, 7.00 pH, 9.21 pH buffer sachets

Specifications

Measuring range (Accuracy)	0.00 ... 14.00 pH/-2.00 ... 16.00 pH (±0.01 pH)
pH:	-2000 ... 2000 mV (±1 mV)
mV:	0 ... 100 °C (0.5 °C)/-5 ... 105 °C (0.3 °C)
Temperature:	BNC, Cinch (NTC 30 kΩ)
Input:	ATC and MTC
Temperature compensation:	100 ... 240 V/50 ... 60 Hz/12 V DC
Power supply:	5 points, linear/segmented, 4 predefined buffer groups
Calibration FP20:	200 measurements
Memory:	RS232, USB, Reference input
Interface:	

Type	PK	Cat. No.
FP20-Standard Kit	1	6280103*LLG
FP20-Bio	1	6280104*LLG

LLG-pH buffer solutions with colour coding



- Accuracy ±0.01, tested and certified at 25 °C
- Temperature dependence data table printed on the label
- Traceable to NIST



pH-value at 25 °C	Colour	Capacity ml	PK	Cat. No.
4.00	Red	1000	1	9040865*LLG
7.00	Yellow	1000	1	9040866*LLG
10.00	Blue	1000	1	9040867*LLG

Bottletop dispenser



- High chemical resistance
- PTFE piston
- Metering valve



- High chemical resistance due to springless PTFE valve block and PTFE piston including chemically resistant ETP O-ring.
- Glass cylinder made of borosilicate glass 3.3
- Back-dosing valve enables easy filling and bubble-free dosing
- Specially developed bottle adapter allows 360° rotation
- Dispensing angle can be adjusted to suit the user by means of the flexible outlet nozzle
- The telescopic suction tube can be easily adjusted to different bottle heights
- Five bottle adapters included (28 mm, 32 mm, 37 mm, 40 mm and 45 mm), standard thread: 30 mm
- Fully autoclavable at 121 °C, 15 psi for 10 to 15 min
- Individually calibrated to ISO 8655 standards, each unit is supplied with an individual calibration certificate

Volume	Graduations	Accuracy max. vol.	Precision max. vol.	PK	Cat. No.
ml	ml	(± R%)	(≤ CV%)		
0.25 - 2.5	0.05	0.6	0.2	1	6282275*LLG
0.5 - 5	0.1	0.6	0.2	1	6282276*LLG
1 - 10	0.2	0.6	0.2	1	6282277*LLG
2.5 - 30	0.5	0.6	0.2	1	6282278*LLG
5 - 60	1.0	0.6	0.2	1	6282279*LLG
10 - 100	2.0	0.6	0.2	1	6282280*LLG

Special Set Microlitre Pipette Acura® manual 826 XS with tips and rack



- Extremely gentle activation
- Low weight
- Optimised instrument guidance
- Easy access in microtubes



- Digital display visible at all times
- Short, narrow shaft fitting smaller microtubes
- Self-locking click-stops for precise and safe volume setting
- Justip™ adjustable tip ejector
- Swift-set user calibration system
- Shock and UV-light resistance
- Autoclavable at 121 °C
- 3 years warranty

The package consists of:

- Acura® manual 826 XS 0.5 to 10 µl
- Acura® manual 826 XS 10 to 100 µl
- Acura® manual 826 XS 20 to 200 µl
- Acura® manual 826 XS 100 to 1000 µl
- Pipette stand Twister™ (orange)
- 1 rack of Qualitix® pipette tips 10 µl
- 2 racks of Qualitix® pipette tips 200 µl
- 1 rack of Qualitix® pipette tips 1000 µl
- Control certificate for each pipette

Description	PK	Cat. No.
Special Set Microlitre Pipette Acura® manual 826 XS with tips and rack	1	6320262*LLG

Laboratory bottles DURAN® Protect, with retrace code



Highly transparent. The coating provides scratch, leak and splinter protection and is ideally suited to both the transport and storage of hazardous media or valuable samples. Service temperature limit of the PU plastic coating: -30 to 135 °C. With screw cap and pouring ring.

- Graduated
- UV protection up to approx. 380 nm
- DIN thread
- DIN ISO 4796-1
- Suitable for microwaving
- USP compliant
- Autoclavable



Nominal capacity	Ext. diam.	Height	Neck thread	PK	Cat. No.
ml	mm	mm	GL		
100	56	100	45	1	218052453*SCHOTT
250	70	138	45	1	218053655*SCHOTT
500	86	176	45	1	218054454*SCHOTT
750	95	203	45	1	218055159*SCHOTT
1000	101	225	45	1	218055459*SCHOTT
2000	136	260	45	1	218056352*SCHOTT

Peristaltic pump LLG-uniPERISTALTICPUMP 1



The extra compact peristaltic pump

The extra compact peristaltic pump. Ideal for continuous dosing applications. Space-saving, robust and with a wide range of easily exchangeable pump heads.

- Stable flow rates
- **Compact design**
- Reversible working direction
- Pump heads easily exchangeable
- Various pump heads with different hose diameters available as accessory
- Low power consumption
- Corrosion-resistant ABS housing
- OLED display for indication of speed and working direction

Scope of supply: Pump, pump head, Pharmed® hose connectors 3 mm ID, 5 mm AD

Specifications

Speed range:	0.1 ... 150 rpm
Speed accuracy:	±0.1 rpm
Flow rate range:	0.004 ... 63.69 ml/min
Weight:	0.8 kg
Dimensions (W x D x H):	180 x 115 x 125 mm
IP code:	IP 31
Working temperature range:	0 ... 40 °C
Max. humidity:	80 %
Power rating:	10 W
Power supply:	100 ... 240 V, 50/60 Hz

Type	Plug type	PK	Cat. No.
LLG-uniPERISTALTICPUMP 1	EU	1	6263540*LLG
LLG-uniPERISTALTICPUMP 1	UK	1	6263541*LLG

Peristaltic pump LLG-uniPERISTALTICPUMP 3



- The peristaltic pump with high pumping capacity
- High pumping capacity of 398 ml/min

The peristaltic pump with high pumping capacity. Ideal for continuous dosing applications. Space-saving, robust and with stable flow rate.

- **High pumping capacity of 398 ml/min**
- Reversible working direction
- Hose connectors easily exchangeable
- Low power consumption
- Corrosion-resistant ABS housing
- OLED display for indication of speed and working direction

Scope of supply: Pump, pump head, Pharmed® hose connectors 6.4 mm ID, 9.6 mm AD

Specifications

Speed range:	0.1 ... 150 rpm
Speed accuracy:	±0.1 rpm
Flow rate range:	0.08 ... 398 ml/min
Weight:	0.8 kg
Dimensions (W x D x H):	190 x 128 x 135 mm
IP code:	IP 31
Working temperature range:	0 ... 40 °C
Max. humidity:	80 %
Power rating:	20 W
Power supply:	100 ... 240 V, 50/60 Hz

Type	Plug type	PK	Cat. No.
LLG-uniPERISTALTICPUMP 3	EU	1	6263550*LLG
LLG-uniPERISTALTICPUMP 3	UK	1	6263551*LLG

Peristaltic pump tubing Tygon® LMT-55 with 2 colour-coded bridges



With 2 colour-coded bridges (international standards). Shore: 55. Fits most common peristaltic pump models. Standard tubing, transparent. Length 380 mm. Long working lifespan. Good resistance to acids and alkalis. Food-safe.



Colour	Int. diam. mm	Wall thickness mm	PK	Cat. No.
black-black	0.76	0.85	12	9208207*LLG
orange-orange	0.89	0.85	12	9208208*LLG
white-white	1.02	0.85	12	9208209*LLG
red-red	1.14	0.85	12	9208210*LLG
yellow-blue	1.52	0.85	12	9208219*LLG
blue-blue	1.65	0.85	12	9208213*LLG
green-green	1.85	0.85	12	9208214*LLG
purple-purple	2.06	0.85	12	9208215*LLG
purple-white	2.79	0.85	12	9208218*LLG
black-white	3.18	0.85	12	9208222*LLG

Gel electrophoresis package omniPAGE TETRAD Mini-Set



The gel electrophoresis tank OmniPAGE Mini is suitable for parallel treatment of up to 4 gels with 20 samples each. The tank is easy to handle, especially leak proof and guarantees an efficient cooling.

- omniPAGE Mini, 10 x 10 cm Dual
- 1x CVS10DIRM Sliding Clamp PAGE insert
- 1x CVS10EXCASTER External Casting Upstand
- 1x VS10TANK Tank
- 1x VS10LID Lid
- 1x VS10DP Dummy plate
- 1x CSL-CAB set of electrophoresis cables, one black, one red
- 2x VS10PGS1 Plain glass plates with 1 mm bonded spacer (pack of 2)
- 2x VS10NG Notched glass plates (pack of 2)
- 2x VS10NGS1 Notched glass plates with 1 mm bonded spacer (pack of 2)
- 4x VS10-12-1 = 4x 12 sample combs, 1 mm thick
- 1x VS10DCAST Casting base with casting mat

Description	PK	Cat. No.
omniPAGE TETRAD Mini-Set	1	7930247*LLG

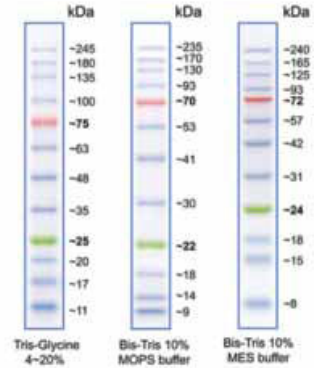
Membrane Tweezers



Swiss made. Made of austenitic steel. Non-magnetizable. Good corrosion resistance to most chemicals, salts and acids. Especially suitable for safe handling of transfer membranes.

Form	Length	PK	Cat. No.
thin, squared, bent tips	105	1	6272053*LLG
flat, round tips	115	1	9160131*LLG
smooth and flat tips	120	1	6269622*LLG

Protein Ladders, BLUE Wide Range, Prestained



The marker is covalently bound to a blue colour chromophore to produce a ladder of evenly interspersed bands of uniform intensity. The coloured reference bands are used as visual indicators for the process of gel electrophoresis and the efficiency of the transfer to membranes in the Western Blot. The marker is suitable for the precise identification of the molecular weight of most cellular proteins.

- Easy identification in gels and blots
- Detectable from 2.5 µl
- 2 years stable at - 20 °C
- Vials of 500 µl

Size	Bands	Reference bands	PK	Cat. No.
10 - 245 kDa	12	25, 75 kDa	1	4661311*LLG

Blotting paper



Recommended for blotting techniques with gels, like Southern, Northern and Western Blots, even Semidry-Blots of proteins

- Made from ultrapure cotton linters and cellulose, entirely without additives to ensure that no contamination will occur during the transfer steps
- Tested specifically for chromatographic and blotting techniques to ensure high and uniform capillary actions
- High wet strength for safe handling

Width	Length	Thickness	Weight	PK	Cat. No.
mm	mm	mm	g / m ²		
570	460	0.35	192	100	4006154*LLG
600	580	0.35	192	100	4006155*LLG
600	580	0.90	320	50	4006156*LLG
600	580	1.50	570	25	4006157*LLG

Culture Plates 3M™ Petrifilm™



- Ready to use
- 90 % less material volume
- Validated methods
- Time and energy saving
- Increased productivity and reliability
- Low operating costs
- Fast and reliable evaluation

Description	PK	Cat. No.
Total bacteria count aerobic bacteria	100	6237738*LLG
Total bacteria count coliforms	50	6269820*LLG
Bacteria count <i>E. coli</i> and coliforms	50	6257512*LLG
Bacteria count Enterobacteriaceae	50	6251171*LLG
Bacteria count <i>S. aureus</i>	50	6257510*LLG
Rapid test Yeast and Fungi	50	6282104*LLG
Bacteria count Yeast and Fungi	100	7657837*LLG

Rack for 3M™ Petrifilm™



White. Steel wire with epoxy powder coating.
For space-saving use in incubators.

Description	Dimensions (W x D x H) mm	PK	Cat. No.
Rack for approx. 100 petrifilms	82 x 93 x 97	1	4672138*LLG

Petri dishes, DUROPLAN®, DURAN®



With lid. Petri dishes are manufactured in a special production process which results in an even media dispersion and a uniform cell growth. Bottom and lid are absolute planar and free from bubbles and cords. Glass Type I/neutral glass as per USP, EP and JP. Autoclavable. DIN 13132.

Ext. diam. mm	Height mm	PK	Cat. No.
60	20	1	217554101*SCHOTT
80	20	1	217554307*SCHOTT
100	15	1	217554607*SCHOTT
100	20	1	217554804*SCHOTT
120	20	1	217555106*SCHOTT
150	30	1	217555303*SCHOTT

LLG-Dry swabs, sterile



Description	Ext. diam. mm	Length mm	PK	Cat. No.
with Cotton tip and wooden stick, individually wrapped		150	1000	9404004*LLG
with Rayon tip and plastic stick, individually wrapped		150	1000	9404006*LLG
with clear Amies medium, Rayon tip and plastic stick, in PP test tube	12	150	150	9404007*LLG

Temperature measurement

Mini data logger testo 174T



- High data integrity, even with empty battery
- Large measurement data memory

- High data integrity, even with empty battery
- Large measurement data memory
- Watertight in accordance with IP65
- Compact and robust
- Conforms to EN12830
- Issue of alarms via display
- Data transfer to the PC via USB interface
- Reliable temperature measurement for the monitoring of sensitive goods and cold chain during storage and transport



Scope of supply:

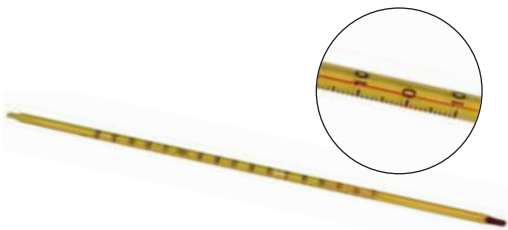
- testo 174T:** Mini data logger, 1-channel, incl. wall bracket, battery (2 x CR 2032 Lithium) and calibration protocol
- testo 174T-Set:** Mini data logger, 1-channel, incl. USB interface for programming and reading out the logger, wall bracket, battery (2 x CR 2032 lithium), calibration protocol
- testo 174T Starter kit:** 3 x mini data loggers, USB interface, PC software ComSoft Basic on CD-ROM, wall bracket, 6 x Lithium batteries CR2032, calibration protocol

Specifications

Probe type:	Internal NTC temperature sensor
Measuring range:	-30 to +70 °C
Accuracy:	±0.5 °C
Resolution:	0.1 °C
Operating temperature:	-30 to +70 °C
Storage temperature:	-40 to +70 °C
Battery type:	2 x 3V button cell (2 x CR 2032 lithium), can be changed by user
Battery life:	500 days (15 min measuring cycle, +25 °C)
Protection class:	IP65
Meas. cycle:	1min - 24h (can be selected)
Memory:	16000 readings
Software:	can be used with Windows XP, Vista, Win7, Win 10

Type	PK	Cat. No.
testo 174T	1	7626604*LLG
testo 174T-Set	1	7626614*LLG
testo 174T Starter kit	1	4680543*LLG

General purpose thermometers economy



Solid stem, with loop, capillary yellow enameled, graduation resistant against acids and alkalis. Red filling.

Measuring range °C	Graduations °C	Length mm	Diam. mm	PK	Cat. No.
-10 ... 50	1	300	6	10	4679534*LLG
-10 ... 100	1	300	6	10	4679530*LLG
-10 ... 150	1	300	6	10	4679531*LLG
-10 ... 200	1	300	6	10	4679532*LLG
0 ... 250	1	300	6	10	4679533*LLG

Digital handheld thermometer TTX 200



- Easy handling, easy to read

For measuring the core temperature with fixed probe with cable and handle.

- Very large display with large figures
- Easy handling, easy to read
- Replaceable battery
- Factory calibration certificate



Specifications

Temperature range:	-30 ... +199.9 °C
Resolution:	0.1 °C
Accuracy:	±0.5 °C (-30 ... +100 °C), otherwise ±1 %
Temperature sensor:	Type T
Sensor length/diam.:	120 mm/3 mm
Cable length:	600 mm
Housing:	ABS
Working temperature:	-20 .. +60 °C
Storage temperature:	-30 .. +70 °C
Dimensions (L x W x H):	127 x 60 x 16 mm (without sensor)
Weight:	approx. 220 g
Power supply:	CR 2032
Battery life time:	approx. 100 h (continuous use)
Protection class:	IP 55

Type	PK	Cat. No.
TTX 200	1	6291272*LLG

Infrared Thermometer TFI 260



Non-contact measurement of the surface temperature with infrared. Ideal for fast and secure measurements of moving or energized parts and food. With batteries and factory calibration certificate.

Specifications

Measurement range:	-60 °C to +550 °C
Accuracy:	±2 °C or 2 % (at 0 to +550 °C), whichever is larger
Resolution:	0.1 °C
Distance : spot ratio:	12:1
Operating temperature:	0 to +50 °C
Response time:	1 sec.
Emissivity factor:	0.95 fixed (0.1 to 1.0 possible)
Dimensions (L x W x H):	153 x 115 x 48 mm
Weight (with batteries):	177 g
Power supply:	2 x 1.5 V AAA, replaceable
IP code:	IP 20

Type	PK	Cat. No.
TFI 260	1	6272762*LLG

Cooling incubator LLG-uniINCUB 28 Cool



- Digital control
- Ideal for long-term trials



The LLG-uniINCUB 28 Cool is a small cooling incubator with 28 litres and a temperature range of 3 °C - 45 °C. Natural convection prevents the samples from drying and enables cultivation and storage of long-term samples. The device is suitable for food controls, research, various cultivation processes and protein crystallization.

- Control panel for temperature setting
- Good temperature distribution due to 5 cooling and heating surfaces
- Peltier cooling and heating system
- Lockable
- Max. 6 shelves possible

Scope of supply: Cooling incubator LLG-uniINCUB 28 Cool with power plug, 2 shelves, key, instruction manual

Specifications

Temperature range:	3 °C ... 45 °C
Accuracy/Temperature uniformity:	±0.5 °C
Capacity:	28 l
External dimensions (W x D x H):	420 x 413 x 485 mm
Internal dimensions (W x D x H):	329 x 219 x 369 mm
Weight:	13.5 kg
Power supply:	100 ... 240 V, 50/60 Hz

Type	Plug type	PK	Cat. No.
LLG-uniINCUB 28 Cool	EU	1	6263575*LLG
LLG-uniINCUB 28 Cool	UK	1	6263418*LLG

Incubators Series BF - Avantgarde.Line with circulating air



- Very good temporal and spatial temperature accuracy
- High process reliability



The new Avantgarde.Line incubators, with their exceptional efficiency and perfect temperature accuracy thanks to the very latest APT.line™ technology has the real appeal.

- Up to 30 % lower energy consumption compared to the previous model
- APT.Line™ technology for homogenous temperature distribution and accuracy
- Electromechanical control of the exhaust air flap
- Controller with LCD display
- Inner door made of tempered safety glass
- 2 chrome-plated racks
- Stackable
- Class 3.1 integrated independent temperature safety device (DIN 12880) with visual alarm
- USB port for recording data

Specifications

Temperature range:	ambient temperature plus 7-8 °C to 100 °C
Accuracy/Temperature uniformity:	±0.3 K/±0.1 K
Capacity:	56 l 115 l
External dimensions (W x D x H):	560 x 565 x 625 mm 710 x 605 x 735 mm
Internal dimensions (W x D x H):	400 x 340 x 440 mm 550 x 380 x 550 mm
Weight:	38 kg 54 kg
Power supply:	230 V, 50/60 Hz

BF 56 | BF 115

Temperature range:	ambient temperature plus 7-8 °C to 100 °C
Accuracy/Temperature uniformity:	±0.3 K/±0.1 K
Capacity:	56 l 115 l
External dimensions (W x D x H):	560 x 565 x 625 mm 710 x 605 x 735 mm
Internal dimensions (W x D x H):	400 x 340 x 440 mm 550 x 380 x 550 mm
Weight:	38 kg 54 kg
Power supply:	230 V, 50/60 Hz

Type	Plug type	PK	Cat. No.
BF 56	EU	1	4658058*LLG
BF 115	EU	1	6280293*LLG

LLG-Safety Eyeshields *basic*



- CE approved to EN166 and EN170
- Perfect for visitors as well as over goggles for spectacle wearers
- Integrated side lens with venting, 180° visual field
- Frame made of tested hypo-allergenic material
- 100 % UV protection (up to 380 nm)
- Weight: 43 g

Colour	Lens	PK	Cat. No.
Clear	Clear, uncoated, 2-1.2 U 1 F CE	10	9006002*LLG

Safety Eyeshields *uvex x-fit*



- Classic safety spectacles with good coverage of the whole eye area
- Lightweight at just 23 grams
- Innovative hinged sidearm design
- Completely metal-free
- Reliable UV 400 protection

uvex supervision excellence coated lenses are anti-fog (for at least 16 seconds) on the inside, while the outside offers extreme scratch and chemical resistance. The anti-fogging properties are permanent even after repeated cleaning. The lenses are also easy to clean and less susceptible to dirt due to the non-stick nanotechnology.

Colour	Lens	PK	Cat. No.
blue	transparent/UV 2-1.2	1	4664173*LLG
pink	transparent/UV 2-1.2	1	4675235*LLG

Panoramic Eyeshield *uvex ultrasonic 9302*



Extremely safe and comfortable, semi-elastic frame incorporating two-component technology. Panoramic lens with two separate lacquer coatings.

Coating of the lens
uvex supervision excellence: outside scratch-resistant, inside non-fogging, 100 % UV protection

Colour	Lens	PK	Cat. No.
black/grey	transparent / UV 2-1.2	1	6801200*LLG

FFP2 Respiratory protection masks



White. Respiratory protection mask made of skin friendly nonwoven material with integrated nose clip and practical earloops.

- Made in EU
- 4 layers effective filtration system
- EN 149:2001+A1:2009

Type	Protection-level	PK	Cat. No.
Respiratory protection mask	FFP 2	2	4680572*LLG

Disposable Visitor Gowns, PP



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

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

PU Coated Gloves, nylon



The PU-coated nylon gloves are processed on the cuffs in a fraying preventing way.

- Very flexible
- Lint-free
- PU coated fingertips
- Particularly handy and suitable for handling smooth and slippery objects
- Colour coding of the cuffs
- Pack of 10 pairs

Size	Colour	PK	Cat. No.
7 (S)	white	10	4659034*LLG
8 (M)	green	10	4659033*LLG
9 (L)	grey	10	4659032*LLG
10 (XL)	brown	10	4659031*LLG

Disposable Chemical protective Coverall uvex 5/6 classic light

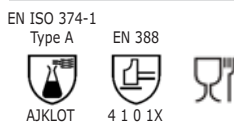


White. Made of PP spunbound, laminated with PE film. Optimal fit thanks to the elastically bands on waist, hood, arms and legs. Middle finger loops prevent the sleeves from riding up.

- Breathable
- Skin-friendly
- Self-adhesive zipper flap
- Protection against infectious agents
- PPE-Category 3, EN ISO 13982-1 (Type 5), EN 13034 (Type 6), EN 1149-5, EN 14126, EN 1073-2

Size	PK	Cat. No.
S	1	4682321*LLG
M	1	4682322*LLG
L	1	4682323*LLG
XL	1	4682324*LLG
XXL	1	4682325*LLG
XXXL	1	4682326*LLG

Chemical Protection Glove uvex profastrong NF33, Nitrile



Nitrile safety gloves, proven in environments involving exposure to acids, grease and solvents.

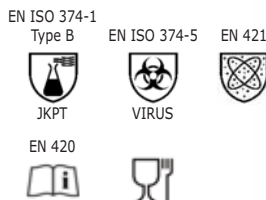
- Outstanding abrasion resistance
- Good grip for wet surfaces
- Anatomic shape
- Good dexterity
- Pack of 12 pairs
- **Cat. III**

According to EN ISO 374-1:2016/Type A, EN 388, EN 420 Suitable for food handling.

Colour: green
Length: approx. 330 mm
Thickness: approx. 0.38 mm

Size	PK	Cat. No.
7 (S)	12	9414605*LLG
8 (M)	12	6241238*LLG
9 (L)	12	9414606*LLG
10 (XL)	12	9414607*LLG

Disposable Gloves TouchNTuff® 92-600, Nitrile



- Manufactured from nitrile, TouchNTuff® offers up to four times the puncture resistance of comparable natural-latex gloves, and three times the resistance of similar neoprene gloves
- It contains no natural rubber proteins, which means no risk of Type I allergies for the wearer. Primary skin irritation studies and Insult Patch tests have also shown no evidence of risk from irritation or allergic contact dermatitis
- With a unique "Thin Nitrile Technology" formulation, this glove offers easy donning and strong grip in wet or dry conditions
- The glove is highly versatile and suitable for many different uses
- AQL 1.5 (EN374)
- **Cat. III**
- 100 % nitrile, powder-free, green, 0.12 mm thick, smooth
- Supplied in dispenser box containing 100 gloves

According to EN ISO 374-1:2016/Type B, EN ISO 374-5:2016, EN 421, EN 420 Suitable for food handling

Size	Length	PK	Cat. No.
	mm		
S (6.5 - 7)	240	100	9005400*LLG
M (7.5 - 8)	240	100	9005401*LLG
L (8.5 - 9)	240	100	9005402*LLG
XL (9.5 - 10)	240	100	9005403*LLG

Mop frames Clino® Synchro CR and Clino® Synchro Hybrid



The mop frames made of autoclavable technical high-performance plastics (Clino® Synchro CR) or in combination with stainless steel (Clino® Synchro Hybrid), especially for clean rooms, are easy to clean. They are suitable for detachment with MopDrop CR and impregnation with EasyMop®.

- Clino® Synchro Hybrid with metal wings made of V4A stainless steel
- With locking system Clino® Connect Lock
- Can be opened by hand and foot
- Symmetrical opening for easier mop pick up
- 100 % contact surface
- Autoclavable
- Suitable for all PPS mop handles

Type	Dimensions (D x W) mm	PK	Cat. No.
Clino® Synchro CR	400 x 100	1	4668001*LLG
Clino® Synchro Hybrid	400 x 100	1	4668005*LLG

Mop covers Clino® One Way Ultra PW/I, single-use, gamma-sterilised



For all standard cleanroom and pharmaceutical floors.

- 100 % PES microfiber with special structure for optimum particle absorption
- ISO class 5
- GMP class A/B
- Very high-quality processing suitable for clean rooms
- Particularly smooth-running and effective due to soft bristles
- Pre-washed and single double packaged

Type	Dimensions (D x W) mm	PK	Cat. No.
Clino® One Way Ultra PW-I	400 x 120	5	4668011*LLG

Transport Trolley, stainless steel



Transport trolley made of stainless steel. Rugged construction made from two tubular steel bar push handles, Ø 25 mm with welded deep drawn shelves with elevated perimeter flange inbetween. Shelves are bevelled by 35 mm all over, with flat safety return to the inside. Chassis with 4 swivel castors, 2 of them with brake, Ø 125 mm, antistatic. Massive plastic bumper protect against damage.

Specifications

Max. load per shelf:	40 kg
Shelf dimensions:	800 x 500 mm
External dimensions (W x D x H):	895 x 595 x 950 mm

Description	Load capacity	PK	Cat. No.
	kg		
2 shelves	80	1	6291558*LLG
3 shelves	120	1	6290737*LLG

Telescopic handles



- Suitable for all PPS mop handles
- Tilting lever and hand grip made of PP, optical fiber reinforced
- Sleeve made of heat-stable special plastic
- Quick-release fastener
- For Clino® Connect and Clino® Connect Lock
- Autoclavable

Material	Length	PK	Cat. No.
	mm		
Aluminium	1000 ... 1800	1	4668000*LLG
Stainless steel	1000 ... 1800	1	6276283*LLG

Gas Pump Accuro®



Fast measurement with one hand: The Dräger-Tube Pump Accuro® allows you to use the established Dräger-Tubes® to take measurements under extreme conditions. The easy-to-use Dräger-Tubes® have already been calibrated and form a perfect unit with this pump.

Scope of supply:

Dräger-Tube pump accuro®, ready bag, with tube opener and spare part set

Description	PK	Cat. No.
Gas pump set accuro®	1	9620411*LLG

Dräger-Tubes®



9.620 408

9.620 404

For Gas Pump accuro®. The Dräger-Tubes® measuring system is the safe method for measuring pollutants in the soil, water and air. More than 500 substances can be measured in varying concentrations. You can find more test tubes in our online shop.

Type	Measuring range	PK	Cat. No.
Carbon dioxide 100 / a	100-3,000 ppm	10	9620408*LLG
Carbon dioxide 5% / a	5 - 60 vol.-%	10	6050554*LLG
Carbon monoxide 2 / a	2 - 60 ppm 23 - 300 ppm	10	9620432*LLG
Nitrous fumes 0,2 / a	0,2-6 ppm 5-30 ppm	10	6266890*LLG
Ammonia 2/a	2 - 30 ppm	10	9620404*LLG
Ammonia 5/a	5 - 70 ppm 50 - 600 ppm	10	9620405*LLG
Formaldehyde 0,2/a	0,2 - 2,5 ppm 0,5 - 5 ppm	10	9620429*LLG
Hydrochloric acid 1/a	1 - 10 ppm	10	9620413*LLG
Sulphur dioxide 0,5/a	0,5 - 5 ppm 1 - 25 ppm	10	9620420*LLG
Hydrogen sulphide 1/c	1 - 20 ppm	10	6052630*LLG
Hydrogen sulphide 1/d	10 - 200 ppm 1 - 20 ppm	10	9620443*LLG
Hydrogen sulphide 100/a	100 - 2 000 ppm	10	6050553*LLG

Room climate monitor RM 100



- Objective evaluation of the indoor climate
- Large display
- Alarm when limit is exceeded



For reliable control and evaluation of indoor air quality. Simultaneous measurement and display of temperature, CO₂ concentration and humidity. The CO₂ concentration in the air is additionally indicated by three LEDs as good, medium or bad.

- Alarming when limit is exceeded
- Large, illuminated display
- Factory calibration certificate

Scope of supply: Room climate monitor RM 100, external AC/DC adapter

Specifications

CO ₂ range:	0 ... 3000 ppm
Resolution:	1 ppm (0 ... 1000 ppm), 5 ppm (1001 ... 2000 ppm), 10 ppm (2001 ... 3000 ppm)
Accuracy:	below 25 °C: ±80 ppm or ±5 % of measured value (<2000 ppm); ±7 % (>2000 ppm)
LED's:	green: <800 ppm, yellow: 800 ... 1200 ppm, red: >1200 ppm
Temperature range:	0 ... 50 °C
Resolution:	0,1 °C
Accuracy:	±1 °C
Relative humidity:	20 ... 90 %
Resolution:	1 %
Accuracy:	±5 %
Dimensions (L x D x H):	137 x 51 x 99 mm
Weight:	200 g
Electricity supply:	USB or 5 VDC adapter
Power supply:	100-240 VAC 50/60 Hz

Type	PK	Cat. No.
RM 100	1	6288263*LLG

Photometer system MD 600/MD 610



Multi-talent and professional for all water parameters



Modern, mobile photometers for rapid, reliable water testing. The devices cover all important parameters of water analysis, from aluminium to zinc. Six long-term stable LEDs as light source in combination with interference filters guarantee highest accuracy. Maintenance-free measuring unit. MD 600 can store up to 1000 data sets, MD 610 stores 500 data sets.

- Highest/reproducible precision with interference filter
- Display with background lighting
- More than 120 pre-programmed methods
- Automatic selection of wavelength
- User guidance in German, English, French, Spanish, Italian, Portuguese, Polish
- Buffer for up to 1000 data records
- More than 35 user-specific methods possible
- Waterproof housing (as defined in IP 68, 1 hour at 0.1 meter)
- Handheld format, portable

MD 600 only:
- Infrared interface

MD 610 only:
- Bluetooth interface for connection to smart phones and tablets
- Cost-free iOS®- and Android™-App for data management and email delivery

Scope of supply: The instrument is supplied complete and ready-to-use in a carrying case, incl. 4 batteries, 3 vials diam. 24 mm, 3 vials diam. 16 mm, 1 adapter each for 16 mm and 13 mm vials.

Please order reagents separately.

Specifications

Optics:	High-quality Interference Filters
Power Supply:	4 batteries (Mignon AA/LR6)
Operation time:	approx. 26 hours; continuous operation or 3500 tests
Dimensions (W x D x H):	approx. 210 x 95 x 45 mm (unit) approx. 395 x 295 x 106 mm (case)
Wavelengths:	530/560/610/430/580/660 nm
Wavelength Accuracy:	±1 nm
Photometric Accuracy:	0.005 A

Type	PK	Cat. No.
MD 600	1	9699235*LLG
MD 610	1	9699237*LLG

Thermoreactor RD 125



Preparation for photometric determination



Chemical digestion of samples is required for the photometric determination of COD, TOC, total chromium, total phosphate and total nitrogen. The required temperatures and reaction time can be selected by using the membrane keypad of the reactor RD 125. The unit works at three different temperatures (100/120/150 °C) and three pre-set reaction times (30/60/120 minutes). The RD 125 reactor is fitted with 24 holes for 16 mm diameter vials.

Specifications

Power supply:	230 V/50-60 Hz
Power:	550 W
Dimensions:	248 x 219 x 171 mm
Weight:	3.9 kg
Holes in the aluminium block:	24 holes, 16.2 mm ±0.2 mm
Selectable temp.:	100/120/150 °C
Selected time:	30/60/120/min. and continuous operation (∞)
Heating up:	from 20 °C to 150 °C in 12 min.
Environmental conditions:	10 - 40 °C max. 85 % rel. humidity

Type	PK	Cat. No.
COD reactor RD 125	1	9920204*LLG

Digital Refractometer, DR6000-T IBN



- Online installation included
- All-rounder for measuring all liquids and pastes



The DR6000 refractometer is with hardly any service and are very quiet, good for long-term work in the lab. Very easy to operate due to an intuitive touch screen. High precision through integrated peltier thermostat. The device is used wherever a substance in watery solutions has to be measured. Including online installation. Areas of usage: beverage, chemistry, pharma, food, paper, sewerage, textile, petrochemistry, cosmetics.

Including commissioning and instruction (online).

Specifications

Interface:	RS-232, USB, Ethernet
Temperature range:	10 ... 80 °C
Resolution:	0.1 °C
Accuracy:	0.1 °C
Measurement modes:	Single, interval
Scales:	Refractive index (nD), concentration of sucrose, glucose, fructose and invert sugar (%Brix), user-defined
Power supply:	90 ... 240 V, 47/63 Hz

Measuring range	Accuracy	Resolution	PK	Cat. No.
nD 1.3200 ... 1.5800	nD ±0.0001	nD 0.0001	1	6320751*LLG
0 ... 95 %Brix	±0.1 %Brix	0.1 %Brix		

Handheld Refractometer LLG-uniREFRACTO 5 pro



- Easy switching between the three scales
- Automatic temperature correction



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

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 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

Dry Block Heaters, analogue and digital



analog



digital



Ideal for incubation and activation of cultures, enzyme reactions, immunoassays, melting and boiling points and a wide range of other laboratory procedures. Anodised aluminium blocks provide outstanding temperature stability and heat transfer.

- Microprocessor control
- Adjustment knobs

- Digital version additionally with:
- Temperature calibration mode
 - Heat warning indicator
 - Acoustic alarm

Please order blocks separately.

Specifications

Temperature range	analogue:	ambient +5 to 100 °C
	digital:	ambient +5 to 120 °C
Uniformity within block at 37 °C:		±0.2 °C
Temperature stability at 37 °C:		±1.5 °C
Uniformity across blocks at 37 °C/		
Heat up time to 100 °C:		-/45 min
Permissible ambient conditions:		18 to 33 °C
Power supply:		230 V, 50/60 Hz

Type	Dimensions (l x w x h) mm	PK	Cat. No.
1 block, analogue	315 x 203 x 89	1	4659489*LLG
1 block, digital	315 x 203 x 89	1	4659491*LLG

Blocks for Dry Block Heaters



4.659 852



4.659 856

For	No. of wells	PK	Cat. No.
1.5 ml Eppendorf™ Tubes	20	1	4659846*LLG
2 ml Eppendorf™ Tubes	20	1	4659875*LLG
50 ml Conical Tubes	5	1	4659852*LLG
15 ml Conical Tubes	12	1	4659856*LLG

Thermo shaker Matrix Orbital Δ/Orbital Δ +



Powerful thermoshakers available for samples with smallest volumes. Without cross-contamination and with an optimal mixing result. Thermo shaker Orbital Δ + with heating/cooling function (cooling rate 2.5 K/min).

- Large and clear display with a convenient menu structure allows for intuitive operation
- Two different speed modes for optimal mixing
- Speed adjustment according to insert, attachment and filling volume
- Robust aluminum housing

Specifications

Temperature range:	Orbital Δ // Orbital Δ + ambient +5 ... 100 °C // ambient -15 ... 100 °C
Temperature control:	1 ±K
Uniformity:	0.5 °C
Orbit:	1.5 mm
Display:	TFT
Programs:	2
Timer:	1 s ... 6000 min
Capacity:	0.3 kg
Dimensions (W x D x H):	220 x 350 x 150 mm // 220 x 350 x 125 mm
Weight:	9.5 kg // 8.8 kg
Power consumption:	100 W
Power supply:	100 ... 240 V, 50/60 Hz
IP code:	IP 21

Type	Description	PK	Cat. No.
Matrix Orbital Δ F0.5	fix attachment, 24 x 0.5 ml	1	4664742*LLG
Matrix Orbital Δ F1.5	fix attachment, 24 x 1.5 ml	1	4664740*LLG
Matrix Orbital Δ F2.0	fix attachment, 24 x 2.0 ml	1	4664743*LLG
Matrix Orbital Δ+	variable attachments	1	4664744*LLG

Accessories for Thermo shaker Matrix Orbital Δ+



4.672 755



4.672 761

Description	PK	Cat. No.
Cover	1	4672749*LLG
Attachment for 96 well PCR plate	1	4672751*LLG
Attachment for 24 x 1.5 ml vessels	1	4672754*LLG
Attachment for 24 x 2.0 ml vessels	1	4672755*LLG
Attachment for 8 x 15 ml vessels	1	4672758*LLG
Attachment for microplates	1	4672761*LLG

Vortex mixers ZX4/WIZARD/TX4 with IR sensor



- With IR sensor
- Starts automatically



Vortexers with patented IR sensor for sample recognition: the shaking process starts automatically when the sample tube approaches the mixing cup head. This enables fatigue-free working, as the sample doesn't have to be pressed on the device.

- For IR sensor and continuous operation
- Electronic speed control
- Adjustable shaking speeds up to 3000 min⁻¹
- Very good chemical resistance
- Broad range of accessories available

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

Scope of delivery: Vortex mixer with mixing head

Specifications

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

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

Roller Mixers LLG-uniROLLER 6 easy and pro



- Max speed 70 rpm
- For gentle rolling of samples
- Easy to clean



Analog or digital tube rollers with 6 rolls for the efficient mixing of biological samples, viscous substances and liquid-solid suspensions. Used in a variety of applications, such as the prevention of blood coagulation, immune precipitation.

- Max speed 70 rpm
- For gentle rolling of samples
- Easy to clean

LLG-uniROLLER 6 easy:

- Analog control
- Easy to use

LLG-uniROLLER 6 pro:

- LCD display
- Continuous or timer operation

Specifications

Type of movement:	rocking and rolling
Amplitude:	24 mm
Speed:	0 ... 70 rpm
Timer:	- // 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
Weight:	4.5 kg // 5.1 kg
Power consumption:	25 W // 30 W
Power supply:	100 ... 240 V, 50/60 Hz
IP code:	IP 21

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

LLG-Centrifuge tubes, PP



Polypropylene tubes with very good thermal, mechanical and chemical stability. Sterile tubes with screwed-on closure. Packed in boxes or bags. With graduations and labelling area.



Centrifugation capacity (Max. RCF): 6000 x g
 Height: 120 mm

Description	Capacity		PK	Cat. No.
	ml	Diam. mm		
aseptic, bulk pack	15	17	50	6263886*LLG
big pack	15	17	500	9316063*LLG
big pack	50	30	500	9316065*LLG
big pack, bulk pack	50	30	50	4008506*LLG

*Cytotoxicity-free, DNase/RNase- and human DNA-free.

Desiccators Mini Basic/Premium, polycarbonate



Mini 1 Basic

Mini 1 Premium

Premium Version incl. 2 shelves, hygrometer. Bottom with non-slip rubber feet.

Specifications

Panels: clear
Temperature resistance: from -35 °C to +70 °C

Type	Volume litres	External dimensions (W x D x H) mm	PK	Cat. No.
Mini 1 Basic	6.2	221 x 214 x 183	1	9042646*LLG
Mini 1 Premium	6.2	221 x 214 x 183	1	9042652*LLG

LLG-Desiccant drying agents, silica gel, self-indicating



With orange indicator colour. Grain size 1 to 3 mm or 2 to 5 mm. The gel is naturally orange when active and at a 6 weight-% saturation level. As the gel adsorbs moisture, the colour changes into green. The range of application is identical to silica gel. The colour change, however, represents a great advantage since it allows monitoring of the saturation level. The gel can be regenerated when heated at a temperature of maximum 120 °C until it turns to its original orange colour.

Adsorption capacity (RH : residual moisture)

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

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

Desiccator Star, PMMA



Includes four transparent acrylic shelves, tray, hygrometer and desiccant, with positions for up to 26 shelves and stackable.

Specifications

Panels: clear
Temperature resistance: -20 °C to +70 °C

Type	Volume litres	External dimensions (W x D x H) mm	PK	Cat. No.
Star	42	310 x 375 x 525	1	9042651*LLG

Desiccator Nalgene™, Type 5311, PC



Transparent, lightweight, unbreakable, for vacuum or non-vacuum use. With stopcock. Large, stable base. No danger of implosion. Capable of maintaining 0.95 bar negative pressure over a 24 hour period. With silicone O-ring, no lubrication required. Suitable for 230 mm diameter desiccator discs or plates. Max. height over plate 195 mm. Plate not included.

External diameter: 280 mm
Internal diameter: 251 mm

Type	PK	Cat. No.
5311	1	9042690*LLG

Desiccator disc Nalgene™, Type 5312, enamel



With numbered quadrants. Autoclavable.

Type	Ext. diam. mm	PK	Cat. No.
5312	230	1	9042573*LLG

Diaphragm vacuum pump MPC 090 E, chemical-resistant



Vacuum filtration and solid phase extraction (SPE) are widely used as sample preparation methods in life sciences, chemistry and analytical processes. The diaphragm pump MPC 090 E has been specifically designed for these applications and is used for single funnel filtration, vacuum manifolds and desiccators. Its well proven diaphragm technology ensures ultra-quiet operation and long service life. The MPC 090 E is characterised by ultra-quiet operation and long service life to make filtration safe and simple. The vacuum regulator with manometer permits instant control over the vacuum applied.

- 100 % oil-free operation
- Maintenance-free
- Connection DN6 for inner tubing diameter 6 mm
- Integrated manometer and vacuum regulator

Scope of supply: Diaphragm pump, hose nozzle DN 6, exhaust silencer, power adapter, plug heads for EU and UK

Specifications

Pump speed:	13 l/min
Ultimate vacuum:	100 mbar
Suction/pressure connection:	DN 6
Noise level:	<45 dB(A)
Dimensions (W x D x H):	144 x 198 x 244 mm
Weight:	2.7 kg
Power supply:	90 ... 260 V AC, 50/60 Hz, 18 V DC
IP code:	IP 44

Type	PK	Cat. No.
MPC 090 E	1	7980626*LLG

Vacuum tubing, rubber (NR)



Red.
Durometer 45 Shore A.



Int. diam. mm	Wall thickness mm	PK	Cat. No.
4	4	10	4679011*LLG
6	5	10	9205812*LLG
7	4	10	4679012*LLG
7	5	10	9205813*LLG
8	5	10	9205814*LLG

VACUU-VIEW-Vacuum measuring instruments



VACUU-VIEW



VACUU-VIEW extended

The rough vacuum gauge VACUU-VIEW covers the measuring range from atmospheric pressure down to 0.1 mbar very precisely. The combined rough and fine vacuum gauge VACUU-VIEW extended works in the enhanced range from atmosphere down to 10^{-3} mbar.

- Chemically resistant, heavy duty vacuum sensors, highly reliable at harsh laboratory conditions even in case of very aggressive chemicals
- High repeatability
- Display with menu driven handling
- Compatible to gauge DCP 3000 and controller CVC 3000 or VACUU-SELECT
- The product is delivered ready for use

VACUU-VIEW

Chemically resistant ceramic diaphragm sensor for measurement in the rough vacuum range. VACUU-VIEW provides gas-independent pressure indication with precise capacitive readout. Highest precision and chemical resistance in the range from atmosphere down to 0.1 mbar, a perfect gauge for all rough vacuum applications.

VACUU-VIEW extended

The heavy duty combination of ceramic diaphragm sensor and ceramic jacketed Pirani sensor ensures reliable readings in the wide range from atmosphere down to 10^{-3} mbar. Precision and chemical resistance in an exceptionally wide range, one gauge covers all applications in the fine and rough vacuum range

Specifications

Measuring range	1100 to 0.1 mbar(hPa) / 825 to 0.075 torr
VACUU-VIEW:	
Measuring range	1100 to 0.001 mbar(hPa) / 825 to 0.001 torr
VACUU-VIEW extended:	
Accuracy VACUU-VIEW:	±1 mbar(hPa)
Accuracy VACUU-VIEW extended:	±15 % of indicated value in the range from 0.01-5 mbar(hPa) ±3 mbar for > 5 mbar(hPa)
Vacuum connection:	KF DN 16/hose nozzle DN 6/10 mm
Dimensions (L x W x H):	103 x 62 x 50 mm
Weight:	190 g
Power supply:	100-230 V, 50/60 Hz

Type	Plug type	PK	Cat. No.
VACUU-VIEW	EU, UK, CH, US, AUS, CN	1	6268865*LLG
VACUU-VIEW extended	EU, UK, CH, US, AUS, CN	1	6268864*LLG

LLG-Wide-mouth bottles, with screw cap, LDPE



Natural, translucent. Thick-walled. Ideal for taking, storing and transporting samples of liquids, pastes and granulated products. Ideal for liquids, pastes and granulates.

Capacity	Diam.	Thread external diam.	Height	PK	Cat. No.
ml	mm	mm	mm		
50	39	32	76.0	50	9073510*LLG
100	48	32	93.5	20	9073511*LLG
250	64	40	120.0	10	9073512*LLG
500	77	50	154.0	10	9073513*LLG
1000	95	65	205.0	4	9073514*LLG
2000	120	65	247.0	1	9073516*LLG

LLG-Sample containers, with screw cap, PP



White, with screwed-on lid.

Nominal capacity	Ø with Cover	Height	PK	Cat. No.
ml	mm	mm		
30	58	19	10	9402310*LLG
75	58	47	10	9402313*LLG
310	81	81	10	9402318*LLG
600	119	67	10	9402321*LLG
1250	119	130	5	9402324*LLG

Spray bottles Turn'n'Spray with overhead valve, PE/PP



Spraying upwards overhead is not possible with standard spray bottles. As soon as the suction tube is no longer immersed in liquid, you can't spray any more. Not so with our overhead spray bottle, Turn'n'Spray. It features a special technology that allows you to spray from any position. That means you can spray practically and conveniently from any angle and reach hard-to-access places easily and without straining.

- Uninterrupted spraying, even upside down
- Parts in contact with media made of PP, PE, silicon and stainless steel
- Nozzle diameter 0.6 mm; nozzle is continuously adjustable
- Amount sprayed per stroke: 1.2 ml ±0.1 ml

Capacity	Neck diam. int.	Height with closure	PK	Cat. No.
ml	mm	mm		
250	18.0	220	1	6252153*LLG
500	18.0	240	1	6252154*LLG
1000	17.5	295	1	6252166*LLG

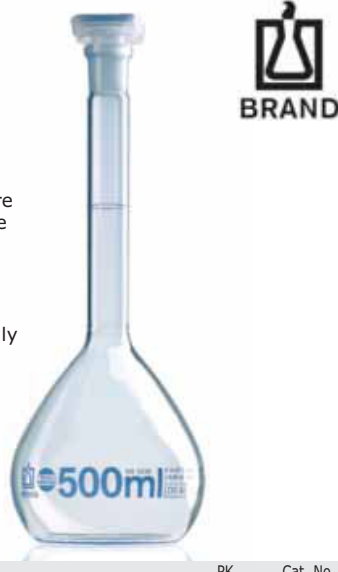
Cylindrical jars with ribbed cap, HDPE



The cylindrical jars are supplied with insert and cap. Suitable for foodstuff according to EC Regulation 1935/2004 and EC Regulation 10/2011.

Nominal capacity	Ext. diam.	Neck i. d.	Height	PK	Cat. No.
ml	mm	mm	mm		
70	50	36	60	10	4672397*LLG
120	56	36	71	10	4672394*LLG
250	69	50	94	10	4672395*LLG
500	86	70	107	10	4672396*LLG
1000	111	85	128	10	4672393*LLG
1500	111	87	182	10	9073444*LLG
2000	111	87	235	10	9073446*LLG

Volumetric Flasks, Borosilicate Glass 3.3, Class A, Blue Graduations, with PP-/PE-stoppers



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

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

Capacity	Tolerance	Joint size (NS)	Cover type	PK	Cat. No.
ml	± ml				
5*	0.04	10/19	PP	2	4683911*LLG
10*	0.04	10/19	PP	2	4683912*LLG
20	0.06	12/21	PP	2	4683913*LLG
20*	0.04	10/19	PP	2	4683914*LLG
25	0.04	10/19	PP	2	4683915*LLG
25*	0.06	12/21	PP	2	4683916*LLG
50	0.06	12/21	PP	2	4683917*LLG
50*	0.10	14/23	PP	2	4683918*LLG
100	0.10	12/21	PP	2	4683919*LLG
100	0.10	14/23	PP	2	4683920*LLG
200	0.15	14/23	PP	2	4683921*LLG
250	0.15	14/23	PP	2	4683922*LLG
500	0.25	19/26	PP	2	4683923*LLG
1000	0.40	24/29	PP	1	9276453*LLG
2000	0.60	29/32	PP	1	9276454*LLG
5000	1.20	34/35	PE	1	9276455*LLG

*Wide mouth

Volumetric Flasks, Borosilicate Glass 3.3, Class A, Amber Glass, White Graduation, PP stoppers

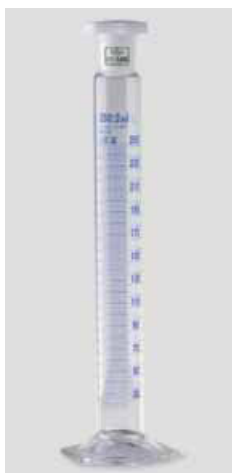


BLAUBRAND®, DIN EN ISO 1042, DE-M marking. Calibrated to contain (TC, IN). Marks and inscriptions in high contrast white enamel. All BLAUBRAND® volumetric flasks are supplied with a batch number and an accompanying batch certificate in the original packaging.

Capacity	Tolerance	PK	Cat. No.
ml	± ml		
5*	0.04	2	4683924*LLG
10*	0.04	2	4683925*LLG
20	0.04	2	4683926*LLG
25	0.04	2	4683927*LLG
50	0.06	2	4683928*LLG
50*	0.10	2	4683929*LLG
100	0.10	2	4683930*LLG
200	0.15	2	4683931*LLG
250	0.15	2	4683932*LLG
500	0.25	2	4683933*LLG
1000	0.4	2	4683934*LLG

*Wide mouth

Mixing cylinders, Borosilicate Glass 3.3, tall form, class A, blue graduations, with PE-stoppers



- Conformity certified
- DIN EN ISO 4788
- Hexagonal foot
- Inscriptions are printed with blue enamel
- Batch certificate can be downloaded from website

Capacity	Tolerance	Max. height	PK	Cat. No.
ml	± ml	mm		
25	0.250	195	1	9275071*LLG
50	0.500	230	1	9275072*LLG
100	0.500	290	1	9275073*LLG
250	1.000	370	1	9275074*LLG
500	2.500	410	1	9275075*LLG
1000	5.000	520	1	9275076*LLG

Measuring cylinders, DURAN®, tall form, Class A, blue graduations



IN (TD) calibrated. With spout and hexagonal glass base. Main point ring graduation. Declaration of conformity acc. to DIN 12600. Graduation in durable blue enamel, acc. to DIN EN ISO 4788.

Capacity	Grad.	Tolerance	Height	PK	Cat. No.
ml	ml	± ml	mm		
5	0.1	0.05	115	2	4683903*LLG
10	0.2	0.1	140	2	4683904*LLG
25	0.5	0.25	170	2	4683905*LLG
50	1	0.5	200	2	4683906*LLG
100	1	0.5	260	2	4683907*LLG
250	2	1.0	335	2	4683908*LLG
500	5	2.5	390	2	4683909*LLG
1000	10	5.0	470	1	9274187*LLG
2000	20	10.0	500	1	9274188*LLG

Also available with dated batch identification acc. to USP (US Pharmacopeia).

Platform tumbling shaker PMR-30



Smooth rocking motion for gentle sample agitation in tubes, culture flasks, dishes and boxes. Continuous or timed operation with automatic switch-off.

Scope of supply: shaker and non-slip mat



Specifications

Type of movement:	tumbling
Tumbling angle:	7°
Speed range:	5 to 30 rpm
Max. Load:	1.0 kg
Timer:	1 min to 23 h 59 min
Ambient Temperature:	+4 to 40 °C
Dimensions Platform (W x D):	215 x 215 mm
Dimensions (W x D x H):	220 x 205 x 120 mm
Weight:	2 kg
Power supply:	12 V

Type	Plug type	PK	Cat. No.
PMR-30	EU/UK	1	9721011*LLG

Orbital shakers 0415AL



Suitable for applications with loads up to 3.6 kg.

- Microprocessor Control
- Triple Eccentric Drive
- Speed Ramping Feature
- Spill-Resistant Design
- Suitable for CO₂ environments

Scope of supply:

Shaker incl. built-in tray and non-slip rubber mat

Specifications

Type of movement:	orbital
Max. Load:	3.6 kg
Motor:	brushless DC motor
Timer:	1 s to 160 h (0415AL without Timer)
Dimensions (L x W x H):	413 x 254 x 102 mm
Weight:	11.3 kg
Power supply:	230 V, 50/60 Hz

Type	Min. speed rpm	Max. speed rpm	PK	Cat. No.
0415AL	40	300	1	4659467*LLG

Rocking Shakers 07AL series



The Rocking Shakers are ideal for cell culture and blotting applications and are designed to be used in a variety of environmental conditions.

- Variable control for speed, tilt and time
- Two-tier model 07AL2 doubles workable capacity
- Low Profile Design
- Microprocessor Control
- Independent Control Knobs (analogue)
- Overload Protection
- Speed Ramping Feature
- Spill-Resistant Design
- Clock timer
- Suitable for CO₂ environments

Scope of supply:

07AL1: Shaker incl. built-in tray with non-slip rubber mat

07AL2: as 07AL1, additionally incl. second tray with screws and mat

Specifications

Type of movement:	rocking
Rocking angle:	0 to 15°
Timer models analogue/digital:	1 to 120 min/1 s to 160 h
Motor:	Stepper Motor
Permissible ambient conditions:	-10 to +60 °C
Weight:	7 kg
Power supply:	230 V, 50/60 Hz

Type	Dimensions (l x w x h) mm	PK	Cat. No.
07AL1	425 x 279 x 140	1	4659476*LLG
07AL2	425 x 279 x 241	1	4659477*LLG

Mini-Centrifuge Sprout® plus



Mini but Mighty - Ideal for small runs



The SnapSpin™ rotors offer a new approach to compact design and more efficiency in the lab. Easy change of rotors without tools due to click mechanism. Transparent lid, shatterproof housing base made of ABS. Automatic start/stop function when opening and closing the lid.

- Safe grip and reduced vibration due to anti-slip nubs.
- Rotors (glass-filled PC) and adapter together can hold up to 6 microtubes (2.0/1.5/0.5 ml)
- Fixed-angle rotor (unfilled PC) holds up to 16 PCR tubes, 0.2 ml (single or 2 x 8)
- Mains adapter incl. plug variants for global use
- Lockable lid for additional protection during operation
- Higher lid for the use of longer tubes, tubes with standing rim and for higher tube lids

Scope of delivery:

- 2 interchangeable rotor attachments. One rotor for 1.5/2 ml tubes, one rotor for 0.2 ml tubes. 1st rotor, round (for one tube size): for 6 x 1.5 ml or 2.0 ml tubes, with adapter for 6 x 0.5 ml tubes, 2nd rotor, square: for 2 PCR strips for 8 or for 16 individual 0.2 ml PCR tubes each, PC
- storage box, PP. Safe and convenient storage of unused rotors and adapters on the work surface or in drawers.
- Tube Rack, PP. For transport and sorting of 16 x 2.0/1.5 ml microcentrifuge tubes (Ø 12 mm)
- 4 spare lid seals

Specifications

Max. RCF:	2000 x g
Max. speed:	6000 rpm
Max. capacity:	6 x 1.5/2.0 ml tubes or 2 x 8-strips PCR
Power consumption:	7.3 W
Dimensions (W x D x H):	128 x 153 x 104 mm
Weight:	1.45 kg
Power supply:	100-240 VAC, 50/60 Hz, 0.6 A
Warranty:	5 years

Type	Colour	Dimensions (W x D x H) mm	PK	Cat. No.
Sprout® plus	green	128 x 153 x 109	1	4666426*LLG
Sprout® plus	blue	128 x 153 x 109	1	4666427*LLG

Midi centrifuge G-L



Due to the material separation at medium speeds, this midi centrifuge is ideal for all types of separation processes, such as in molecular biology. It can be used with standard 1.5/2 ml tubes as well as with PCR strips. The cover opens automatically at the press of a button.

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



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

Specifications

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

Type	PK	Cat. No.
G-L	1	4664755*LLG

LLG-Microcentrifuge tubes, PP



Certified DNase-, RNase- and pyrogen-free. Clear, in bags. Suitable for microbiology.

Specifications

Autoclavability	
Temperature:	121 °C
Pressure:	1.05 bar or 15 psi
Time:	20 min or less
Centrifugation	
Fixed angle rotor:	25000 x g
Swing out rotor:	70000 x g

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

LABORTOPS

Magnetic stirrer Hei-Tec, LLG Premium Line, incl. temperature sensor PT 1000 with holder and support rod



- High and proven quality
- Complete set

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

Convincing quality

- The sealed housing protects the electronic and mechanical components from aggressive chemicals and liquids
- The patented Kera-Disk® hot plate made of anodized aluminum is chemical-resistant and scratch-resistant
- The Hei-Tec magnetic stirrer is characterized by careful processing and high-quality material, which guarantees long-term and safe use with reduced maintenance costs

Excellent functionality and best user comfort

- The Kera-Disk® top plate allows for fastest heat-up times
- Accurate to the degree adjustment of the desired hotplate temperature by turn-push-button
- Precise setting options and monitoring of the device parameters via the digital display
- Fast and precise temperature control without overshoot via two selectable heating modes (FAST/PRECISE) and the Pt1000 temperature sensor

- The values can easily be read from a distance in the illuminated display
- An illuminated button indicates clearly if the stirring mode is activated

Highest safety

- In case the heating function fails, stirring will not be discontinued to prevent bumping
- A separate on/off button for heating prevents unintentional heat-up
- The fire-resistant aluminum die-cast housing prevents the stirrer from damage, even if exposed to highest temperatures
- In case of a short-circuit, damage to the temperature sensor or disorder of the process, the unit powers off completely
- An independent second safety circuit switches off heating in case of any overtemperature situation
- Overheating protection by a safety circuit that switches off heating if the temperature sensor is not immersed in the media vessel



Specifications

Stirring quantity (H ₂ O):	20 l
Speed range:	100 ... 1400 rpm
Heating power:	800 W
Temperature range:	20 ... 300 °C
Permissible ambient temperature:	5 ... 31 °C
Permissible relative moisture:	80 %
Plate Dimensions:	Ø 145 mm
Dimensions (W x D x H):	173 x 277 x 94 mm
Weight:	2.9 kg
Power supply:	230 V
IP code:	IP 32
Warranty:	3 years

Type

PK

Cat. No.

Hei-Tec, LLG Premium line

1

6319733*LLG