

Partner of Bartelt

LABORTOPS



Mini centrifuge LLG-uniCFUGE 3 pro





- Magnetic Fixing for **Quick Rotor Change**

Safety Lid Lock	
	AN AVANCE PRACE TO MAN CO.
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Laboratory trays LaboPlast®, PP



White all-purpose bowl. Suitable for food. Resistant to many acids and alkalis. Strongly rounded rim. Temperature resistant up to 60 $^{\circ}\text{C}.$

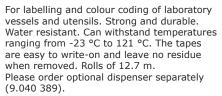
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	20	5%
	-20) ~ (0)

Internal dimensions	Width	Depth	Height	PK	Cat. No.	Price	Now
mm	mm	mm	mm			EUR	EUR
130 x 180	230	180	42	1	9.200 203	5,00	3,70
180 x 240	310	250	65	1	9.200 204	8,90	6,50
240 x 300	370	310	75	1	9.200 205	13,00	9,51
300 x 400	520	420	120	1	9.200 206	21,10	15,29
400 x 500	634	534	140	1	9.200 207	36,70	29,66
500 x 700	846	648	160	1	9.200 208	53,50	40,62

LLG-Labelling tapes



Removal without Residue





-30%

Width	Colour	PK	Cat. No.	Price	Now
mm				EUR	EUR
12.7	white	6	4.663 401	23,30	16,31
12.7	yellow	6	4.663 402	23,30	16,31
12.7	green	6	4.663 403	23,30	16,31
12.7	red	6	4.663 404	23,30	16,31
12.7	orange	6	4.663 405	23,30	16,31
12.7	blue	6	4.663 406	23,30	16,31
12.7	pink	6	4.663 407	23,30	16,31
12.7	3 x blue, 3 x green, 3 x orange, 3 x red, 5 x white, 4 x yellow, 3 x pink	24	4.663 408	51,60	36,12
19.0	white	4	4.663 409	26,20	18,34
19.0	yellow	4	4.663 410	26,20	18,34
19.0	green	4	4.663 411	26,20	18,34
19.0	red	4	4.663 412	26,20	18,34
19.0	orange	4	4.663 413	26,20	18,34
19.0	blue	4	4.663 414	26,20	18,34
19.0	pink	4	4.663 415	26,20	18,34
19.0	2 x blue, 2 x green, 2 x orange, 2 x red, 4 x white, 2 x yellow, 2 x pink	16	4.663 416	51,00	35,70
25.4	white	3	4.663 417	32,10	22,47
25.4	yellow	3	4.663 418	32,10	22,47
25.4	green	3	4.663 419	32,10	22,47
25.4	red	3	4.663 420	32,10	22,47
25.4	orange	3	4.663 421	32,10	22,47
25.4	blue	3	4.663 422	32,10	22,47
25.4	pink	3	4.663 423	32,10	22,47
25.4	1 x blue, 2 x green, 1 x orange, 2 x red, 2 x white, 2 x yellow, 2 x pink	12	4.663 424	50,10	35,07

Aspirator Bottles, series 350, HDPE





Food-grade product according to Regulation (EC) No 10/2011. Natural with printed blue graduations (in L) and screwed closure. With or without threaded connection at base. Inside neck diameter 50 mm.

Please order stopcock separately.

-30%

-30%

Capacity	Ext. diam.	Height	Stopcock connection	Handle	PK	Cat. No.	Price	Now
Litres	mm	mm					EUR	EUR
5	167	330	without	1	1	9.011 009	33,90	23,73
10	206	427	without	1	1	9.011 010	41,20	28,84
25	278	580	without	2	1	9.011 025	83,10	58,17
5	167	330	with	1	1	9.011 069	33,90	23,73
10	206	427	with	1	1	9.011 071	41,20	28,84
25	278	580	with	2	1	9.011 072	83,10	58,17

Height in mm without cap.

Stopcock for Aspirator Bottles



Scintillation Vials, borosilicate glass

- With white screw caps made of PP (caps attached)
- Liner Material metal foil
- Made of WHEATON 180 low potassium borosilicate glass
- High ultraviolet transmission





-25%

Capacity	Cap size	Dimensions (dia. x H)	PK	Cat. No.	Price	Now
ml		mm			EUR	EUR
20	22-400	28 x 61	500	6.253 024	235,70	176,30
20	24-400	28 x 61	500	6.284 229	243,40	182,06

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

Ideal for collecting, transporting and storing liquid samples.

- With screw cap - Very stable design
- Transparent

- With graduation





Capacity	Diam.	Height	Thread external diam.	PK	Cat. No.	Price	Now
ml	mm	mm	mm			EUR	EUR
4	16	40	13	100	6.289 520	28,00	19,60
8	25	44	19	100	6.289 450	34,00	23,80
30	36	61	19	100	6.289 451	59,00	41,30
60	40	85	19	100	6.289 452	70,00	49,00
125	51	99	23	50	6.289 453	51,00	35,70

Mini centrifuge LLG-uniCFUGE 2/5







Speed can be adjusted to 4000 or 6000 rpm. Powerful motor for fast starting. Quick stop when the lid is opened.

Scope of supply: Centrifuge, mains cable, rotor for 4 x 5 ml tubes

Specifications

Max. RCF: 1200 x g and 2000 x g Max. speed: 4000 rpm and 6000 rpm brushless DC motor Motor: Max. load: 4 x 5 ml tubes Dimensions (diam. x H): 140 x 120 mm Weight: 0.7 kg

Power supply: 100 ... 240 V, 50/60 Hz



Description	Plug type	PK	Cat. No.	Price	Now
				EUR	EUR
LLG-uniCFUGE 2/5	EU	1	6.263 515	215,00	150,50
LLG-uniCFUGE 2/5	UK	1	6.263 516	215,00	150,50

LLG-Centrifuge tubes, 5 ml, PP













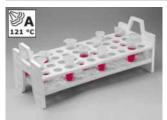


- Max. 25000 x g, suitable for high speed centrifugation
- Graduations every 0.25 ml for easy volume estimation
- A flat, frosted cap and large writing pad for sample labeling and identification
- Autoclavable
- Fits all rotors and racks that hold 15 ml
- conical tubes, no adapters needed - Certified free of RNase and DNase



Description	Package contents	PK	Cat. No.	Price	Now
				EUR	EUR
Clear	1 bag of 250 pieces	250	6.281 113	38,00	26,60
Colour assortment	4 bags of 50 pieces	200	6.281 114	33,00	23,10
areen, vellow, red, blue	(1 colour per hag)				

Tube Rack for 5ml centrifuge tubes,





Dimensions (L x W x H): 260 x 113 x 105 mm

Rows: 4 x 10



Array	PK Cat. No.	Price	Now
		EUR	EUR
40	1 9.194 026	37,30	30,42

Mini centrifuge LLG-uniCFUGE 3 pro





for Quick Rotor Change With Timer and

Digital Display







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
- Microprocessor controlled regulation for load-independent accuracy and integrated imbalance control
- Brushless and non-wearing high-efficiency motor
- Digital display
- Integrated timer
- Starts and stops in seconds
- Electronic safety brake on lid opening for user safety
- 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 brushless DC motor Motor:

8 x 1.5/2 ml or 16 x 0.2 ml PCR tubes Max. load:

Timer: 1 ... 25 min, continuous Dimensions (W \times D \times H): 162 x 157 x 116 mm

Weight: 1.1 kg

100 ... 240 VAC, 50/60 Hz Power supply:

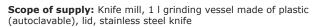


Description	Plug type	PK	Cat. No.	Price	Now
				EUR	EUR
LLG-uniCFUGE 3 pro	EU	1	6.263 522	279,00	195,30
LLG-uniCFUGE 3 pro	UK	1	6.263 527	279,00	195,30

Knife mill HM100

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

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



Specifications

Тур

HM100

40 mm Feed size: Feed quantity: 50 ... 700 ml Ult. fineness: <300 µm Timer: 1 s ... 10 min 2000 ... 10000 rpm Motor speed:

900 W Power consumption:

Dimensions (W x D x H): 260 x 343 x 454 mm

Ро

ower supply:	220 V, 50 Hz		
ре	PK Cat. No.	Price	Now
		FLID	FIID

1 4.669 516

LLG-Mortars, porcelain





30%

3.072.76

3.271.60

POWTER

HM100

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.	Price	Now
ml	mm	mm					EUR	EUR
25	51	32		rough inside	1	9.164 410	8,30	5,81
70	63	41	12906	rough inside	1	6.227 149	11,10	7,77
75	76	45		rough inside	1	9.164 411	12,10	8,47
110	83	50		rough inside	1	6.232 577	17,20	12,04
160	90	56	12906	rough inside	1	6.243 865	19,90	13,93
220	105	64		rough inside	1	9.164 412	21,70	15,19
400	125	71	12906	rough inside	1	9.164 413	45,20	31,64
2250	224	127		rough inside	1	6.252 383	230,90	161,63
110	83	50		glazed inside	1	6.227 289	17,00	11,90
220	105	64		glazed inside	1	6.234 591	20,70	14,49

Homogenising bags Whirl-Pak®, PE, sterile





- Sterile, solid bags for the homogenisation of liquids and solids
- With labelling strips



Nominal capacity	Dimensions (D x W)	Thickness	PK	Cat. No.	Price	Now
ml	mm	mm			EUR	EUR
1627	190 x 300	0.102	500	7.059 855	324,00	226,80

Sample bags Whirl-Pak®, PE, sterile





Whirl-Pak® bags are sterile polyethylene laboratory sample bags used to transport samples for biological testing and other applications. Available with or without writeon label. With integrated wire closing system. Temperature range: -210 to 82 °C.



Nominal capacity	Dimensions (D x W)	Thickness	PK	Cat. No.	Price	Now
ml	mm	mm			EUR	EUR
118	75 x 185*	0.057	500	7.077 212	99,60	69,72
532	115 x 230*	0.064	500	7.058 120	140,40	98,28
710	150 x 230*	0.076	500	6.242 083	184,80	129,36
2721	254 x 380*	0.102	250	6.266 304	273,60	191,52
5441	380 x 508*	0.102	100	6.257 989	208,80	146,16
58	75 x 125	0.057	500	6.091 055	90,00	63,00
710	150 x 230	0.076	500	6.228 639	170,40	119,28
2041	190 x 380	0.076	500	6.305 117	278,40	194,88
*with label						

LLG-Pestles, porcelain





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

-30)%

Head diam.	Length	DIN	Description	PK	Cat. No.	Price	Now
mm	mm					EUR	EUR
14	54		rough	1	6.227 150	7,20	5,04
24	115	12906	rough	1	9.164 420	7,80	5,46
30	135	12906	rough	1	6.232 574	8,90	6,23
36	150	12906	rough	1	9.164 421	12,30	8,61
42	175	12906	rough	1	9.164 422	15,90	11,13
74	250	12906	rough	1	6.252 384	62,30	43,61
42	175	12906	glazed	1	6.227 292	20,90	14,63
36	150	12906	glazed	1	6.234 592	14,00	9,80

Ultrasonic homogeniser, SONOPULS HD 2200.2

For volumes 2 to 1000 ml. Ready-to-operate set for volumes from 20 to 900 ml consisting of:

- HF generator GM 2200.2
- Ultrasonic converter UW 2200
- Standard horn SH 213 G
- Titanium flat tip TT 13, diam. 13 mm

Further Titanium probes with diam. 2 mm, 3 mm, 6 mm, 19 mm and 25 mm available on request.

 HF generator
 GM 2200.2

 Dimensions (W x D x H):
 240 x 210 x 140 mm

 Converter
 UW 2200

 Dimensions (diam. x L):
 70 x 150 mm

 Titanium probes (diam.):
 2/3/6/13/19/25 mm

(not supplied) Ultrasonic nominal power: max. 200 W



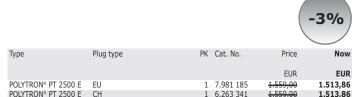


Homogeniser, stand, POLYTRON® PT 2500 E (Ecoline)

24%

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

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



Dispersing tool

The universal geometry uses two rows of teeth, is suitable for a large spectrum of laboratory applications, and it is reliable and efficient.

Coupling type E.

Length Working PK Cat. No. Туре Diam. Price Now volume EUR **EUR** 192 1 9.570 227 PT-DA 25 / 25 100 ... 2500 2EC-E192

Stand and dispersing head must be ordered separately. **Specifications** Application volume: 0.05 ... 2500 ml Motor input power: 500 W diam. 3, 5, 7 and 12 mm and Dispersing heads: diam. 20 mm and 25 mm Stepless 500 ... 30000 rpm Speed range: **Dimensions Drive** $(W \times D \times H)$: 76 x 157 x 236 mm Weight Drive: 1.8 kg Power supply: 90 ... 230 V ±10 %, 50/60 Hz IP code acc. to DIN: IP 20 IEC/EN61326-1/IEC/ Tested to: EN 61000-6-2/ FN 61000-6-4 IFC EN 61010-2-51

KINEMATICA

Stand

Plate stand with two rod design. Height adjustable.

Туре	Weight	PK	Cat. No.	Price	Now
	g			EUR	EUR
ST-P20/600	370	1	4.013 060	344,00	334,04

-3%

Space-saving jerrycans, HDPE, electrically conductive





Black. For use in explosion-protected areas.

- Surface resistance < 10⁵ Ohm
- With or without threaded connector 3/4"
- Space-saving due to its narrow width
- Grounding by means of antistatic set (available as accessory)
- Electrically conductive stopcock StopCock PA (available as accessory)



Capacity	Description	Width	PK	Cat. No.	Price	Now
I		mm			EUR	EUR
5	Space-saving jerrycans with threaded connector	65	1	4.665 332	46,00	40,66
5	Space-saving jerrycans without threaded connector	65	1	4.665 330	44,10	38,94
5	Compact jerrycan set, with StopCock PA	65	1	4.665 322	64,80	57,24
10	Space-saving jerrycans with threaded connector	125	1	4.665 333	60,50	53,48
10	Space-saving jerrycans without threaded connector	125	1	4.665 331	58,60	51,76
10	Compact jerrycan set, with StopCock PA	125	1	4.665 329	78,30	69,17

Anti-static Set





When dispensing combustible/explosive liquids pump, both dispensing and filling drum involved in the process must be sufficiently earthed, in order to prevent ignition or explosion through electrostatic discharges. Antistatic set, includes three colour-coded connecting cables with clamps, supplied complete in plastic case.



Туре	PK	Cat. No.	Price	Now
			EUR	EUR
Antistatic set	1	9.001 346	4 6,50	36,99

Safety containers, HDPE, electrically conductive





Black. For use in explosion-protected areas. Electrically conductive, with or without floater for level control.

- Surface resistance < 10⁵ Ohm

-7%

Capacity	Dimensions (W x D x H)	Thread	PK	Cat. No.	Price	Now
1	mm				EUR	EUR
10	185 x 290 x 265*	S 60 / 61	1	4.005 602	47,60	44,04
20	185 x 290 x 500*	S 60 / 61	1	4.005 671	62,00	59,91
30	240 x 364 x 455*	S 60 / 61	1	4.664 150	-	82,93
60	330 x 395 x 625*	S 70 / 71	1	4.005 593		155,00
10	185 x 290 x 265	S 60 / 61	1	4.005 682	110,60	92,40
20	185 x 290 x 500	S 60 / 61	1	4.005 683	126,50	123,53

^{*} Without floater, with UN approval

Safety containers with viewing stripe, HDPE, electrostatic conductive, with UN-approval





Black. For use in explosion-protected areas. Electrostatic conductive container for a safe collection and transportation of flammable solvents and solvent waste. Made of electrostatic conductive HDPE to avoid ignition risks. The viewing strip allows a permanent control of the solvent level.

- Surface resistance < 10⁵ Ohm



Capacity	Dimensions (W x D x H)	Thread	PK Cat. No.	Price	Now
I	mm	S		EUR	EUR
10	195 x 195 x 380	90	1 6.251 593	100,10	98,18
10	190 x 230 x 319	50	1 6.270 296	53,60	52,16

Antistatic Explosion Proof Tubing, electrically conductive





Manufactured from a special "Antistatic Compound" with pure PTFE and finest carbon dust. This makes them particularly suitable for use with light-sensitive substances, for example. The PTFE content of the hose ensures the greatest possible chemical resistance.

Thermal resistance: -200 to +250 °C.

Delivery quantity: 1 m

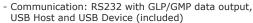


Int. diam.	Ext. diam.	PK	Cat. No.	Price	Now
mm	mm			EUR	EUR
1.6	3.2	1	9.205 601	8,70	7,81
2.0	3.0	1	9.205 602	7,50	6,73
4.0	6.0	1	9.205 603	$\frac{12,10}{1}$	10,84
6.0	8.0	1	9.205 604	15,50	13,90
8.0	10.0	1	9.205 605	20,60	18,56
10.0	12.0	1	9.205 606	24,30	21,87
12.0	14.0	1	9.205 607	40,70	36,68

Halogen moisture balances MB90 and MB120

Moisture Analysis Made Simple and Powerful.

- The precisely controlled halogen heating dries samples quickly and ensures uniform heating to yield fast, precise and repeatable results
- Designed with effortless maintenance in mind; removable pan handler and heating chamber components that make cleaning quick and easy.
- Icon-based menu navigation on the easy-to-read touchscreen display makes operating intuitive
- Applications: Percent Moisture Determination, Percent Moisture Regain Determination, Percent Solid Determination, Weighing
- Display 4.3": TFT color touchscreen display



- Construction: Metal base, ABS top housing, halogen heat source, stainless steel pan support, stainless steel pan handler, in-use cover



Design Features MB90: Three shut-off criteria (manual, timed or auto), two drying profiles (standard and fast), storage up to two methods, user guide, 40 to 200 °C heating temperature range (1 °C increments), 13 operational languages

Design Features MB120: Seven shut-off criteria (manual, timed, autofree %/s, autofree mg/s, A30, A60 and A90), four drying profiles (standard, fast, ramp and step), storage up to 100 methods and 1000 test results for all methods, user guide, 40 to 230 °C heating temperature range (1 °C increments), 13 operational languages

Specifications

Capacity:

Repeatability 3 g/10 g:

Readability:

Temperature range:

Operating temperature:

Pan size (diam.): Dimensions (W \times D \times H):

Weight:

Power supply:

MB90 // MB120

90 g // 120 g

0.18 %/0.02 % // 0.05 %/0.015 % 0.01 % or 0.001 g

40 ... 200 °C // 40 ... 230 °C

10 ... 40 °C 90 mm

210 x 350 x 180 mm

5.23 kg

120 or 240 VAC,

50 ... 60 Hz



PK	Cat. No.	Price	Now
		EUR	EUR
1	6.282 764	2.535,00	1.999,61
1	6.282 765	3.810,00	3.005,33
	1	PK Cat. No. 1 6.282 764 1 6.282 765	EUR 1 6.282 764 2.535,00

Compact Balances EK-AEP, Ex-protected

MB90

Compact, lightweight balance for precise weighing in potentially explosive atmospheres (zones 0, 1 and 2). Equipped with an optical data output for transferring measuring results to device in a distant, safe area.

- Easy-to-read backlit LCD display, digit size 16 mm
- Hygienic and chemically resistant stainless steel (SUS304) weighing pan

MB120

- Comparator function for faster and more accurate filling, packing, sorting, etc
- Adjustable response characteristics depending on the degree of drafts and vibrations at the location
- Multiple weighing units: g, oz, lb, ozt, ct, mom, dwt, gr, N, in addition to pcs (counting mode), % (percent mode), SG (specific gravity)

Battery operation

(4 x AA alkaline batteries 1.5 V, approx. 250 hours)

Auto power OFF function

Auto pov	ver orr rund	LIOII					
Туре	Plate dimensions	Capacity	Readability	PK	Cat. No.	Price	Now
	mm	g	g			EUR	EUR
EK-300AEP	Ø 110	300	0.01	1	4.672 673	1.395,00	1.053,89
EK-3000AEP	133 x 170	3000	0.1	1	4.672 674	1.395,00	1.053,89
EK-12AEP	133 x 170	12000	1.0	1	4.672 675	1.395,00	1.053,89



Balance brushes



			11111111		`	
Туре	Size	Diam.	PK	Cat. No.	Price	Now
		mm			EUR	EUR
Brush	1	5	1	2.600 069	7,20	5,04
Brush	2	6	1	6.266 807	8,25	5,78
Brush	4	9	1	6.074 169	11,00	7,70
Brush	6	12	1	6.266 808	14,80	10,36
Brush set*	2, 4, 6		1	6.266 825	34,00	23,80
*consisting of o	ne hrush each si:	e 2/6 mm size 4/9	mm and s	ize 6/12 mm		

LLG-Weighing paper

- Not treated with nitrogen during production
- Smooth surface
- 45 g/m² paper
- Block of 500 sheets





30%

Dimensions (D x W)	PK	Cat. No.	Price	Now
mm			EUR	EUR
76 x 76	500	6.272 246	21,60	15,12
102 x 102	500	6.272 247	25,70	17,99
152 x 152	500	6.272 248	33,10	23,17

Chest Freezers LT/XLT Series, up to -65 °C

Freezer for temporary to longer term storage or daily use. Ideal where space is limited, but the user still needs a regular storage capacity. The unit is easy to install. Due to the small footprint, transport through all standard sized doors is possible. The freezer also has four castors (XLT C75 without castors, with legs), which makes it very mobile. The material is galvanized and pre-coated steel on the outside, precoated white steel on the inside and cyclopentane for efficient insulation.

- Digital controller with display
- Audible and visual alarm
- High/low temperature alarm
- Porthole for external probe & CO2 backup Ø12 mm
- Integrated lock
- Eco-friendly, HCFC-free Nature R refrigerant at -65 °C and HCFC-free R290 refrigerant at -45 °C
- ISO 9001, 14001 & 18001 OHSAS certified

Extended exchange warranty - in warranty cases which cannot be quickly solved onsite the client receives a new unit.

Please contact us to arrange a customised rack configuration.

Specifications

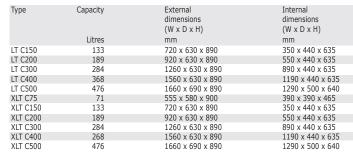
Baskets: 1 (3 for LT C500 and XLT C300/C500/4

for XLT C400)

Internal humidity: <5 %

Temperature probes: 1/PTC at -45 °C/1/PT 1000 at -65 °C

Noise level: 55 dB Power supply: 230 V/50 Hz





Now	Price	Cat. No.	PK	Weight	Temp. range
EUR	EUR			kg	max. °C
1.439,42	1.814,00	4.672 437	1	51	-4510
1.542,24	1.944,00	4.672 438	1	65	-4510
1.645,06	2.073,00	4.672 439	1	71	-4510
1.927,80	2.430,00	4.672 440	1	80	-4510
2.506,14	3.159,00	4.672 441	1	108	-4510
2.513,28	2.816,00	4.672 430	1	48	-6530
2.756,04	3.088,00	4.672 431	1	56	-6530
3.277,26	3.672,00	4.672 432	1	65	-6530
3.341,52	3.744,00	4.672 433	1	71	-6530
3.641,40	4.080,00	4.672 434	1	80	-6530
4.541,04	5.088,00	4.672 435	1	108	-6530

Dewar flasks, cylindrical, for CO₂ and LN₂





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

-10%

Туре	Capacity	Int. diam.	Int. height	PK	Cat. No.	Price	Now
	ml	mm	mm			EUR	EUR
3 C	500	57	210	1	9.032 015	97,69	88,29
6 C	800	67	240	1	9.032 018	108,67	98,22
9 C	1000	77	235	1	9.032 021	113,14	102,26
12 C	1500	90	245	1	9.032 024	156,15	141,14
13 C	2000	90	340	1	9.032 025	165,03	149,16
15 C	1500	100	240	1	9.032 027	159,71	144,35
16 C	2000	100	290	1	9.032 028	161,64	146,09
18 C	2500	110	290	1	9.032 030	194,49	175,78
S 21 C	4000	138	310	1	9.032 033	274,66	248,25

Protection Gloves Waterproof Cryo-Grip® Gloves

EN 511 EN 388 EN 420









-3%

The Waterproof Cryo-Grip® Gloves are particularly suitable for handling cryogenic liquefied gases such as liquid nitrogen. The breathable lining ensures that hands stay dry. These Cryo-Grip Gloves offer the highest level of safety when handling cryogenic liquefied gases, together with dexterity, flexibility and better grip.

Package of 1 pair.

forearm length: 335 - 395 mm elbow length: 440 - 500 mm

Size	PK	Cat. No.	Price	Now
			EUR	EUR
S	1	4.672 246	239,50	232,56
М	1	4.672 247	239,50	232,56
L	1	4.672 248	239,50	232,56
XL	1	4.672 249	245,50	238,39
S	1	4.672 250	293,50	285,00
М	1	4.672 251	293,50	285,00
L	1	4.672 252	293,50	285,00
XL	1	4.672 253	297,50	288,89
	S M L XL S M L	S 1 M 1 L 1 XL 1 S 1 M 1 L 1	S 1 4.672 246 M 1 4.672 247 L 1 4.672 248 XL 1 4.672 249 S 1 4.672 250 M 1 4.672 251 L 1 4.672 252	EUR S 1 4.672 246 339,50 M 1 4.672 247 229,59 L 1 4.672 248 339,59 XL 1 4.672 249 245,50 S 1 4.672 250 293,50 M 1 4.672 251 293,50 L 1 4.672 252 293,50

Recirculating chillers ULK



FRYKA





For cooling applications and processes in laboratory and industry. Thanks to the space-saving design and the particularly quiet cooling unit, the chiller are ideally suited for installation directly at the workplace.

- Higher energy efficiency through fan with EC technology
- Pleasantly quiet and space saving
- Refrigeration unit: fully hermetically sealed, air-cooled, low maintenance
- Integrated funnel
- Self-sealing hose connector with quick coupling
- Touchscreen controller with high-grade glass screen and integrated flow and digital fill level indicators
- Freeze-up and thermal overload protection
- Flow control with dry running protection
- Optical and acoustical alarm
- MOD bus interface optionally available

Туре	Working Temp. range	Pressure	Flow rate	Cooling capacity kW at 20 °C	PK	Cat. No.	Price
	°C	bar	L / min.				EUR
ULK 602	-10 40	0.6	10	650	1	6.284 440	3.055,10
ULK 1002	-10 40	2.9	12	1200	1	6.284 441	3.677,44
ULK 2002	-10 40	2.9	12	2300	1	6.284 442	5.714,18

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.

30% Description PK Cat. No. EUR EUR Floating pellets 250 6.266 611

Heating circulators MAGIO MS and MX

Julaba



For precise temperature control of internal and external applications from 3 to 26 litres.

- Simple control of complex applications
- Infinitely adjustable, extremely powerful pressure and suction pump
- Large, high-resolution TFT touch display with multilingual user
- Medium-contacting parts made of stainless steel
- Integrated programmer
- External Pt100 connection
- USB interface
- RS232 interface
- Ethernet interface
- Analogue interfaces (optional)
- Classification III according to DIN 12876-1
- High quality thermal insulation of the bath tanks
- Integrated drain cock for easy and safe emptying

Specifications: MS-BC // MX-BC Temperature stability: ±0.01 °C 20 ... 300 °C Temperature range:

Flow rate: Pump pressure: Suction pressure: Heating capacity:

Permissible ambient temperature:

2000 W // 3000 W 5 ... 40 °C Power supply: 230 V/50 ... 60 Hz

Туре	Filling volume	Dimensions (W x D x H)	Bath opening	PK	Cat. No.	Price
	L	mm	mm			EUR
MS-BC4	3 4.5	230 x 410 x 420	130 x 150	1	4.678 303	3.843,22
MX-BC6	4.5 6	240 x 440 x 470	130 x 150	1	4.678 310	4.387,77
MX-BC12	8.5 12	330 x 490 x 470	220 x 150	1	4.678 311	4.597,21
MX-BC26	19 26	390 x 620 x 480	260 x 350	1	4.678 312	4.921,84

16 ... 31 l/min

0.24 ... 0.92 bar

0.03 ... 0.4 bar

Manifolds Microsart®, stainless steel



SVILLE

Monitors Biosart® 100

SASTURIUS



- Completely Autoclavable
- Easy and Flexible Installation
- Compatible with Different Filter Models



For microbiological quality control. Quick connectors at both sides of the manifolds enable fast connections of either tubing, another manifold or end caps. Various funnel and filtration units are available.

- Full autoclavability without disassembly
- Sterile venting
- Reduced risk of secondary contamination
- Low working height
- Rubber feets providing better stability at the workplace

Scope of supply:
Microsart® Manifolds for Biosart® 100 monitors: Manifold, filter base support with sinter frit, Biosart® adapter, blind coupling, 20 cm tubing and venting filter

Microsart® Manifolds for Biosart® 250 funnels: Manifold, filter base support with sinter frit, blind coupling, 20 cm tubing and plug for venting holes

Туре	Description	Dimensions (W x D x H) mm	PK	Cat. No.	Price EUR
Microsart® Manifolds for Biosart® 100 monitors	1 branch	176 x 98 x 120	1	4.669 474	1.534,08
Microsart® Manifolds for Biosart® 100 monitors	3 branch	474 x 98 x 120	1	4.669 476	2.872,32
Microsart® Manifolds for Biosart® 100 monitors	6 branch	924 x 98 x 120	1	4.669 477	4.395,52
Microsart® Manifolds for Biosart® 250 funnels	1 branch	176 x 98 x 120	1	4.669 478	1.490,56
Microsart® Manifolds for Biosart® 250 funnels	3 branch	474 x 98 x 120	1	4.669 479	2.817,92
Microsart® Manifolds for Biosart® 250 funnels	6 branch	924 x 98 x 120	1	4.669 480	4.362,88
Dimensions wi	ithout funnels and	tubing.			



Filtration unit for use with a Sartorius vacuum manifold or direct attachment to a special vacuum pump. Biosart® 100 Monitors have been specifically designed for the microbiological testing of pharmaceuticals, food, beverages, water and other liquids. These sterile disposable units with built-in membrane filter and cellulose pad are ready to use. After filtration, just remove the 100 ml funnel to convert the monitor into a petri dish.

Туре	Diam.	Pore size	Colour Filter / Grid	PK	Cat. No.	Price
	mm	μm				EUR
K	47	0.45	white / black	48	9.049 300	150,96
ACK	47	0.20	white / black	48	9.049 311	233,58
ACK	47	0.45	white / black	48	9.049 312	233,58
ACK= ind	ividually sterile	packed.	K= sterile.			

Filter funnels, Biosart® 250





For microbiological and analytical quality assurance in industry. 250 ml sterile plastic funnels reduce process time in colony and particle analysis.

Туре	PK	Cat. No.	Price
			EUR
BioSart® 250 disposable funnel, sterile	50	9.049 340	80,99
BioSart® 250 disposable funnel, sterile,	50	9.049 341	94,96
individually packed			

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 delivery: Filter flask NS45/40, funnel 300 ml, filter holder NS45/40 with connector GL 14 and filter plate 47 mm (por. 2), clamp.



Description	PK	Cat. No.	Price	Now
			EUR	EUR
LLG-Filtering apparatus 1000 ml	1	6.291 850	329,00	230,30
LLG-Filtering apparatus 2000 ml	1	6.291 851	379.00	265,30

LLG-Qualitative filter paper, circles





Very fast, pore size 12 to 15 μm.

For coarse and voluminous precipitates like hydroxides and sulphides.



Didili.	time	PK	Cat. No.	Price	NOW
mm	secs.			EUR	EUR
90	10	100	9.045 830	7,00	4,90
110	10	100	9.045 831	8,10	5,67
125	10	100	9.045 832	9,90	6,93
150	10	100	9.045 833	12,20	8,54
185	10	100	9.045 834	14,70	10,29

LLG-Qualitative filter paper, circles





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



Diam.	Filtration time	PK	Cat. No.	Price	Now
mm	secs.			EUR	EUR
47	88	100	9.045 801	5,05	3,54
55	88	100	9.045 802	5,25	3,68
70	88	100	9.045 803	5,55	3,89
90	88	100	9.045 804	6,25	4,38
125	88	100	9.045 806	7,40	5,18
150	88	100	9.045 807	10,80	7,56
185	88	100	9.045 808	14,70	10,29
240	88	100	9.045 809	25,20	17,64

LLG-Quantitative filter paper, circles





Very fast, pore size 12 to 15 $\mu m. \,$

- For coarse, high volume precipitates
- For determinations according to the German Standard Methods for the examination of water, waste water and sludge.
- For Fe(OH)₂, Al(OH)₃, NaSO₄
- Ashless, equivalent black ribbon



Diam.	Filtration time	PK	Cat. No.	Price	Now
mm	secs.			EUR	EUR
70	10	100	9.045 840	8,10	5,67
90	10	100	9.045 841	11,60	8,12
110	10	100	9.045 842	15,70	10,99
125	10	100	9.045 843	19,60	13,72
150	10	100	9.045 844	25,80	18,06
185	10	100	9.045 845	37.90	26.53

Filter paper, qualitative, Grade 3 hw, folded filters

SJISCISAS





Diam.	PK	Cat. No.	Price	Now
mm			EUR	EUR
125	100	9.049 403	27,60	19,32
150	100	9.049 404	27,60	19,32
185	100	9.049 405	27,60	19,32
240	100	9.049 406	47,20	33,04
270	100	9.049 407	51,80	36,26
320	100	9.049 408	68,20	47,74

Anaerobic jars, stainless steel

schuett biotec.de



For the cultivation of anaerobic or microaerophilic microorganisms in a defined gas atmosphere which can be developed quickly. The tanks are made of robust stainless steel or transparent PC. The vessel lids are made of UV-stable plastic or transparent polycarbonate and are equipped with two angle valves including a hose olive for vacuum hoses (5 mm inner diameter) and a manometer for precise control of the vacuum or overpressure (-1 to +0.2 bar).

Anaerobic types: 3 x evacuation and gas flushing, gas flushing for 5 minutes and chemical gas generation (GasPacks).



Capacity	Int. diam.	Int. height	To hold dishes	PK	Cat. No.	Price	Now
1	mm	mm	quantity			EUR	EUR
3	120	270	15 (60-100 mm diam.)	1	9.520 056	295,00	273,09

Stainless steel jar with UV-resistant plastic lid (2 valves, 1 manometer)

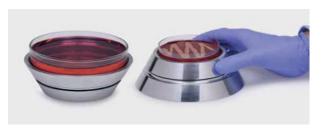
Accessories for anaerobic jars



Туре	To hold dishes	PK	Cat. No.	Price	Now
	quantity			EUR	EUR
Rack "standard"	15 (60 to 100 mm dia.)	1	9.520 053	4 5,90	42,43
GasPack-Kit "anaerobic" (1 x 3.5 l)		10	9.520 064	110,00	97,92
GasPack-Kit "CO2" (1 x 2.5 l)		10	9.520 065	110,00	97,92
GasPack-Kit "microaerophil" (1 x 3.5 l)		10	9.520 066	107,00	95,20

Inoculating Turntable





Double-sided construction accomodates petri dishes from 60 to 150 mm diameter by inverting the turntable. Ball bearings provide smooth and effortless spinning, ensuring rapid inoculation steps and extended operation life. Light weight but robust body manufactured from aluminum with non-skid footprint. The silicone pad holds the petri dishes firmly and always keeps the dish centered during inoculation steps.

Description	PK	Cat. No.	Price	Now
			EUR	EUR
Inoculating Turntable	1	6.286 850	231,60	162,12

LLG-Petri dishes, PS



30%



Made of high quality optical clear polystyrene. Produced under aseptic conditions in an ISO 6 cleanroom. Contact plate with counting grid.

- With a smooth surface for an optimal distribution of the transport medium
- Stable thickness to prevent any deformations while using
- Stackable
- With or without vents
- Aseptic (90 mm diam.) or beta irradiated sterile versions (all sizes)
- Packed in sleeves á 10 dishes or 20 dishes (90 mm diam. dishes)

30%

Ext. diam.	Description	Height approx.	PK	Cat. No.	Price	Now
mm		mm			EUR	EUR
90	with triple vents, aseptic	16	480	6.285 823	48,00	33,60
90	without vents, aseptic	16	480	6.285 824	4 8,00	33,60
90	with triple vents, sterile	16	480	6.285 816	63,30	44,31
90	without vents, sterile	16	480	6.285 817	63,30	44,31
60	with triple vents, sterile	14	1080	4.678 371	119,90	83,93
60	without vents, sterile	14	1080	4.678 372	119,90	83,93
55	contact plate, sterile	17	1000	6.285 821	225.70	157.99



UV sterilisation cabinets



- Ideal for PCR Preparations
- Efficient Decontamination with UV Light
- Doors with Safety Switches

These UV sterilisation cabinets provide a convenient area for setting up PCR reactions in a nucleic acid free environment thus limiting PCR reaction contamination. Acting effectively as a low cost alternative to a Cleanroom, the powerful UV lights on the cabinets denature nucleic acids in 5 to 30 minutes making them unsuitable for amplification. The cabinet incorporates safety features to prevent user exposure to UV light. The UV lights themselves are timer controlled and there are safety switches on the cabinets doors which turn off the UV lights when opened. Constructed from 10 mm acrylic, the cabinets also act as efficient shields from beta radiation emissions and can therefore be safely used with isotopes such as ³²P.

Specifications

Specifications			
UV Lights:	4 x 15 W		
White Lights:	15	- 1	-30%
Dimensions (H x W x D):	770 x 580 x 420	mm \	30 70
Weight:	19 kg		
Description	PK Cat. No.	Price	Now
		EUR	EUR
UV sterilisation cabinets Maxi with timer, four UV lights and white light	1 9.584 774	2.311,90	1.618,33
Padiation hazard tray vollow 600 v E40 mm	1 0 59/1 799	112 00	70 10

Thermocycler Alpha Cycler



The Alpha Cycler systems also contain a novel programme wizard which allows users to define a protocol based specifically on their primer sequence and template source. Primer sequences or $T_{\rm H}$'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 Cycler 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	(W x D x H)	PK	Cat. No.	Price	Now
		mm			EUR	EUR
AC196	1 x 96 well block	430 x 260 x 200	1	4.658 855	4.909,40	4.339,83
AC296	2 x 96 well blocks	470 x 535 x 330	1	4.658 857	8.634,40	7.632,78

Single PCR tubes with attached caps, PP





0.2 ml and 0.5 ml PCR tubes with attached caps are compatible with leading thermocyclers with heated lids. The caps are easy to open and close without tools, yet ensure a tight fit to reduce sample evaporation. DNase-, DNA- and RNase-free.



-1	8%

Capacity	Description	Colour	PK	Cat. No.	Price	Now
ml					EUR	EUR
0.2	domed cap	clear	1000	9.409 370	55,60	45,33
0.2	flat cap	clear	1000	9.409 371	45,70	36,07
0.5	flat cap	clear	1000	9.409 372	42,00	34,23

LLG-Electrical pipette Plus











Ergonomic and precise - the cordless and lightweight LLG-Electrical pipette Plus enables fast and exact pipetting with glass and plastic pipettes.

- UV resistant housing
- Fatigue-proof pipetting due to ergonomically shaped handle
- LED display with speed display: High, Low or Gravity mode (for free liquid flow without drive operation)
- Extremely quiet and powerful drive
- Low-Battery LED indicator

Scope of supply: Electrical pipette, Charger (5 V micro USB), Li-Ion battery, 5 coloured nose pieces, 3 membrane filters, adapter for 1 ml pipettes, benchtop rack, magnetic wall mounting

Specifications

Membrane filters: PTFE/Ø 25 mm /0.45 um

1 to 100 ml, glass and plastic pipettes Capacity:

Pipette attachment: Polypropylene, autoclavable

Dimensions: 15 x 152 x 41 mm Weight

Powe

er supply: rechargeable Li-Ion battery, 8 h continous operation	-30
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Description	PK	Cat. No.	Price	Now
			EUR	EUR
LLG-Electrical pipette <i>Plus</i>	1	9.281 041	240,00	168,00

LLG-Serological pipettes, PS, sterile

Serological pipettes from LLG are ideally suited for sterile serological and cell culture applications. Easy to read graduation scales facilitate volume measurement and dosing. All LLG serological pipettes are plugged, sterile, pyrogen-free and have an increased volume capacity through extra graduations.



- 1 ml, 5 ml, 10 ml, 25 ml and 50 ml pipettes contain a bi-directional secondary graduation scale for precise dosing
- Colour coded ringmark for easy volume identification
- Single packed in easy-to-open plastic/paper packaging

-3	00/-
(-3	0%)

Volume	Grad.	Colour code	Negative graduations	PK	Cat. No.	Price	Now
ml	ml					EUR	EUR
1	1/100	yellow	0.3	500	9.380 440	56,00	39,20
2	1/50	green	0.6	500	9.380 441	67,20	47,04
5	1/10	blue	3	200	7.930 401	33,20	23,24
10	1/10	orange	3	200	6.268 240	52,90	37,03
10	1/10	orange (wide mouth)	3	200	9.380 442	44,80	31,36
25	2/10	red	8	150	7.930 403	53,30	37,31
50	5/10	purple	10	100	9.380 443	62,60	43,82

Cell Culture Flasks EasYFlask™, treated, PS/HDPE, sterile





Cell culture flasks with Nunclon™∆. Surface modifications are certified pyrogen-free and tested for monolayer formation and cloning efficiency with primary and immortalized cell lines. Sterile. Bottleneck at an angle. Sterile.

Material flasks: Polystyrene Material caps: HDPE Cover type: Filter Neck: Oblique



Working volume	Culture surface	Surface	PK	Cat. No.	Price	Now
ml	cm ²				EUR	EUR
7	25	Nunclon™	200	9.390 331	236,40	165,48
25	75	Nunclon™	100	9.390 333	199,20	139,44
55	175	Nunclon™*	30	7.510 686	106,60	74,62
70	225	Nunclon™*	30	6.236 539	224,40	157,08

^{*} Batch no. and cat. no. printed on each flask.

Cell culture flasks TripleFlask Nunclon™∆ Surface, PS/HDPE, sterile





Cell culture flasks with three parallel growth surfaces provide a total culture area of 500 cm² - with external dimensions of a 175 cm² standard flask. Certified pyrogen-free and tested for both monolayer formation and cloning efficiency employing primary cells as well as repeating cell lines. Sterile

Material flasks: Polystyrene Material caps: HDPE Cover type: Filter Neck: Straight

Working volume surfa

Now	Price	Cat. No.	PK		ure
				e	ace
EUR	EUR) ²	cm ²
293,79	419,70	9.390 351	32	0	500

Filter units, PES membrane, sterile

These bottle-top filter units are ideally suited for the separation or purification of samples which are contained in large volumes. The units are available with either $0.22~\mu m$ or $0.45~\mu m$ pore sizes and 3 different volumes (250, 500 and 1000 ml).

Features:

- Bottle-top filter and reservoir bottle are included
- Light weight and stable wall construction
- Large knurls on the reservoir bottle cap for easy screwing
- Wide bottle mouth for efficient pouring out
- Volume graduation
- Hose connector fits multiple diameters
- Pyrogen-free
- Membrane material: Polyethersulfone (PES)





Capacity	Pore size	Neck thread	PK	Cat. No.	Price	Now
ml	μm	mm			EUR	EUR
250	0.22	45	12	6.267 180	81,50	57,05
250	0.45	45	12	6.267 181	81,50	57,05
500	0.22	45	12	6.267 182	134,50	94,15
500	0.45	45	12	6.267 183	134,50	94,15
1000	0.22	45	12	6.267 184	172,40	120,68
1000	0.45	45	12	6.267 185	169,70	118,79

Cell Culture Plates, treated, PS, sterile





These standard surface treated cell culture plates for the cultivation of adherent cells exhibit a reduced evaporation due to raised well rims and uniform rings on the lids.

- Available with 4-, 6-, 12-, 24-, 48- or 96-wells (lid included)
- Flat well bottom
- 96-well plate also available as round bottom plate (6.267 171)
- Single position lid reduces the risks of cross-contaminations $% \left(1\right) =\left(1\right) \left(1\right) \left($
- Wells are labeled with alphanumeric code for easy identification
- Sterilized by gamma irradiation
- Pyrogen-free
- Material: Polystyrene



Working volume	Culture surface	No. of wells	PK	Cat. No.	Price	Now
ml	cm ²				EUR	EUR
1.96	1.96	4	100	4.672 523	150,90	105,63
2.90	9.60	6	100	6.267 166	122,40	85,68
1.14	3.85	12	100	6.267 167	131,30	91,91
0.57	1.93	24	100	6.267 168	169,10	118,37
0.29	0.84	48	100	6.267 169	129,50	90,65
0.20	0.33	96	100	6.267 170	110,10	77,07
0.20	0.58	96	100	6.267 171	181,50	127,05

Automated cell Counter EVE™ Plus



Nano**EnTek**

- Fast Counting under 1 sec.
- Wi-Fi Data Transfer
- Storing 500 Results



 $\mathsf{EVE^{TM}}$ Plus is a benchtop automatic cell counter designed to accurately and precisely measure cell count and viability of different cell cultures. It uses the standard trypan blue technique.

- Fine distinction of clumped cells: Accurate results with advanced analysis algorithm
- Touchscreen interface
- Auto save function up to 500 results
- Data transfer via Wi-Fi
- Acoustic signal after each count

Specifications

Manual counting time: 1 second or less
Auto focus counting time: 10 seconds or less
Measuring range: $1 \times 10^4 \sim 2 \times 10^7$ cells/ml
Zählbarer Zellgrößenbereich: $5 \sim 60 \ \mu m$

Туре	PK	Cat. No.	Price
			EUR
Automated cell Counter EVE™ Plus	1	4.669 246	3.307,52

Slides for automated Cell Counter EVE™

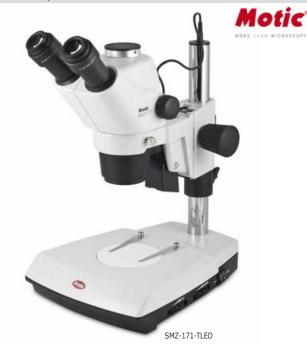


50 6.284 818

Cell counting slides incl. 1 x 1.5 ml trypan blue (0.4 %) for 100 counts

58,80

High-performance Greenough Stereo Microscope with LED, SMZ-171 Serie



Versatile Stereo microscope for a wide range of biological and material science applications.

- Improved image contrast due to multi-layer lens coating
- ESD compatible set ups available
- Various accessories available
- Observation Tube Binocular -/Phototube 45°, 360° rotating, F.N. 23
- Fixed optical split 50:50
- Widefield adjustable eyepieces WF10X/23 mm, incl. eyecups
- 6.7:1 Zoom ratio, WD=110 mm
- Objective magnification range: 0.75X-5X
- SMZ-171 Pole type stand with large working area and head holder
- Coarse focusing system with tension adjustment
- 3W incident and transmitted LED illumination with independent intensity controls
- Transmitted light with tilting reflector (oblique illumination)
- Option to adapt flexible light guide
- Main supply 100 V-240 V (CE)
- Black/White and frosted glass stage plates, and dust cover

40	20/
-15	3%)

Туре	Description	PK	Cat. No.	Price	Now
				EUR	EUR
SMZ-171-BLED	Binocular	1	6.264 087	1.126,00	928,01
SMZ-171-TLED	Trinocular	1	7.671 016	1.190,00	980,75

C-Mount camera adapters to SMZ-171 series



Description	PK	Cat. No.	Price	Now
			EUR	EUR
Adapter C-Mount 0.5x	1	7.626 193	136,00	112,09
Adapter C-Mount 0.65x	1	6.243 486	136,00	112,09

USB Handheld microscope with integrated 2 megapixels camera, **D-EL1** ecoline

- With integrated LED illumination and Motic application software
- Sensor CMOS 1/3
- 2 megapixel with USB 2.0 output
- Illumination 8-LED in ring formation with 2-step brightness control
- Power direct from computer through USB 2.0 connection
- Soft-grip focus wheel
- Direct capture button
- 2 Steps First Magnification 10x-50x. Second magnification at 200x (depending on screen size)
- Motic EcoLine Tool application software
- Can be used on a Mac with preinstalled application Photo Booth

Calibration slide and metal stand included.



Туре	PK Cat. No.	Price	Now
		EUR	EUR
D-EL1 ecoline	1 9.727 034	93,00	76,65

Microscope Cameras MOTICAM S

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



Resolution Sensor format PK Cat. No. Price Type Now EUR 1.2 MP (max. 1280 x 950 px) 1/3" sCMOS 3 MP (max. 2448 x 1536 px) 1/2.8" sCMOS 6 MP (max. 3072 x 2048 px) 1/1.8" sCMOS 1 4.672 118 1 4.672 119 317,30 S3 398,07 Pro S5 Lite 5 MP (max. 2448 x 2048 px) 2/3" sCMOS 1 4.672 121

Lens Cleaning Tissues 9963

- Suitable for all kind of oculars
- Silicone-free
- 100 individually sealed tissues in a box
- Incl. clip for wall mounting





Description	PK	Cat. No.	Price	Now
			EUR	EUR
Cleaning tissues 9963	100	6.200 654	34,40	24,08

Viscosimeters ROTAVISC

Viscosimeters with a large range of functions to determine the viscosity of liquids in all areas of application, ranging from laboratory to quality control. The devices are suited for different viscosity ranges.

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

Scope of supply:

Viscosimeter incl. standard spindle set, protective bracket, temperature sensor and ROTASTAND stand.



Specifications

Rotation speed: Temperature range:

Accuracy: Repeatability: Stroke max.:

Dimensions stand (L x W x H):

Weight:

Power supply:

IP code acc. to DIN EN 60529:

0.01 ... 200 rpm -30 ... +300 °C

1 % 0.2 % 200 mm

351 x 372 x 629 mm

7.1 kg

100 ... 240 V, 50/60 Hz

IP 40

-18	8%

Туре	Viscosity range	Torque	PK	Cat. No.	Price	Now
	mPas	mNm			EUR	EUR
ROTAVISC lo-vi Complete	1 6,000,000	0.0673	1	4.662 322	3.144,00	2.565,50
ROTAVISC me-vi Complete	100 40,000,000	0.7187	1	4.662 323	3.144,00	2.565,50
ROTAVISC hi-vi I Complete	200 80,000,000	1.4374	1	4.662 324	3.144,00	2.565,50
ROTAVISC hi-vi II Complete	800 320,000,000	5.7496	1	4.662 325	3.144,00	2.565,50

LLG-uniREFRACTO 5 pro



IKA°

- 3 Scales
- **Free Choice from** 45 scales









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

0.1 % Brix/0.0001 RI Resolution: Accuracy: ±0.2 % Brix/±0.0003 RI Operating temperature: 5 ... 40 °C 5 ... 80 °C Measuring temperature sample:

< 95 % Rel. Humidity: Dimensions (W \times D \times H): 120 x 55 x 35

Weight: 180 g Power supply: 2 x AAA/LR03 IP code: **IP 65**

mm	
-3	0%
	0 70

Туре	PK	Cat. No.	Price	Now
			EUR	EUR
LLG-uni <i>REFRACTO</i> 5 pro	1	6.263 632	395,00	276,50

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



Reac	ecor
elivering th	

National Control	Hard Grant
	501
(-1	6%

Brix	Refractive Index at 20 °C	PK	Cat. No.	Price	Now
%				EUR	EUR
0	1.332986 nD	1	6.264 212	71,30	60,18
5	1.340264 nD	1	6.265 876	71,30	60,18
10	1.347824 nD	1	6.257 923	71,30	60,18
15	1.355679 nD	1	6.263 260	71,30	60,18
20	1.363842 nD	1	6.264 889	71,30	60,18
30	1.381149 nD	1	6.258 368	71,30	60,18
40	1.399860 nD	1	7.660 408	71,30	60,18
50	1.420087 nD	1	6.258 369	71,30	60,18
60	1.441928 nD	1	6.265 875	71.30	60.18

Scanning Spectrophotometers Series 72, VIS and UV-Vis



The 72 series spectrophotometers offer measurement modes for single wavelength with basic absorbance and % transmittance; concentration determination (via reference standards or calibration curves with up to 6 standards), full spectrum scanning and kinetics for up to 3 simultaneous wavelength measurements.

The colour touchscreen user interface provides fast and easy set up and navigation of the instrument. The 4" display allows full spectrum scans, quantitation curves and kinetics runs to be viewed easily. The sample chamber lid can also be left open during measurements which is ideal for samples in tall test tubes.

Including two USB ports for data storage and printer connectivity.

- Scanning diode array detector (DAD)
- Colour Touchscreen navigation
- Small footprint and lightweight
- Fast scan speed
- Multiple USB ports for data storage and printer connectivity
- 2 years warranty on the instrument

SpecificationsOptical system:

 Wavelength Range:
 335 to 800 nm

 7200 (VIS):
 335 to 800 nm

 7205 (UV-VIS):
 198 to 800 nm

 Resolution:
 ±2 nm

 Repeatability:
 ±2 nm

 Spectral bandwidth:

7200 (VIS): 7 nm 7205 (UV-VIS): 5 nm

Photometric range: -0.300 to 2500 A

Accuracy: ± 0.01 A at 1.0 A and 546 nm

Stability: ±0.005 A/h bei 0.04 A and 546 nm

Stray Light at 340 nm, %T: < 1 % T acc. ANSI/ASTM E387-72

Single beam

Concentration range: ±2500
Quantitation: ±2500
Kinetics: 15 bis 99999 s
Light source:

7200 (VIS): Tungsten halogen lamp

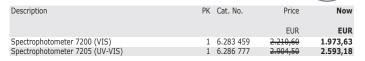
7205 (UV-VIS): Xenon lamp **Outputs:** 2 x USB

 Dimension (W x D x H):
 212 x 422 x 120 mm

 Weight:
 2.8 kg

 Power supply:
 100-240 V, 50/60 Hz

Warranty: 2 Years



LLG-Disposable plastic cells, PS

The shape and narrow wall thickness of the cuvettes enable an excellent heat transfer resulting in constant sample temperatures during photometric measurements.



- Cavity sorted
- Glass clear polystyrene (PS)
- Applicable wavelength range 340 nm to 900 nm
- Very low variation of extinction values
- Excellent optical transmission range
- Path length 10 mm
- Overall dimensions 12.5 mm x 12.5 mm x 45 mm
- Styrofoam racks: 100 cuvettes in a styrofoam box with cover



Description	Capacity	Path length	Operating range	PK	Cat. No.	Price	Now
	ml	mm	nm			EUR	EUR
Macro	4.0	10	340 to 900	100	9.406 011	9,80	6,86
Semi-micro	1.6	10	340 to 900	100	9.406 012	10,50	7,35

Cuvette rack with attached lid, PP





For safe handling and holding up to 12 cuvettes with a 10 mm light path.

-30	0%

Description	PK	Cat. No.	Price	Now
			EUR	EUR
Cuvette rack with attached lid	1	6.267 353	15,20	10,64

Cuvette rack, PP







Grey. 16 numbered positions.

W	idth Lend	h Height	PK Cat. No. Price	Now
m	m m	m mm	EUR	EUR
70) 2	.0 38	1 9.145 020 9,55	7,79

-11%

Microliter pipettes, Transferpette® S, variable, Starter-kits







- **Volume Adjustment Protection**
- **Universal Tip Cone**
- Fully Autoclavable at 121 °C

Low operating forces and a short stroke ensure relaxed pipetting, even during long pipetting series.

- One-hand operation for right- and left-handed users
- Volume-change protection
- Easy Calibration technology: Calibration without tools

Universal tip cone

Completely autoclavable at 121 °C Color code on volume adjustment wheel, shaft and volume-change protection





Starter kit micro: 3 x pipettes (0.1 - 2.5 μl, 0.5 - 10 μl,

 $10 - 100 \mu I$), 3 shelf mounts

Starter kit standard: 3 x pipettes (0.5 - 10 µl, 10 - 100 µl,

100 - 1000 μl), 3 shelf mounts

Starter kit midi: 3 x pipettes (2 - 20 μl, 20 - 200 μl,

100 - 1000 μl), 3 shelf mounts

Starter kit macro: 3 x pipettes (100 - 1000 µl, 500 - $5000~\mu I,~1000$ - $10000~\mu I),~3~shelf~mounts$ Pipette package 1: 5 x pipettes (0.1 - 2.5 μl, 0.5 - 10 µl, 2 - 20 µl, 20 - 200 µl, 100 - 1000 µl), table stand for 6 pipettes



Туре	PK	Cat. No.	Price	Now
			EUR	EUR
Starter kit micro	1	9.280 160	674,00	549,98
Starter kit standard	1	9.280 163	653,00	532,85
Starter kit midi	1	9.280 161	637,00	519,79
Starter kit macro	1	9.280 162	674,00	549,98
Pipette package 1	1	9.280 164	1.100,00	897,60

LLG-Disposable Reagent reservoirs economy, PS





Made from polystyrol. Angled sides and a V-shaped bottom allow maximum recovery of reagents. All reservoirs have internal graduated volume lines and pour-spouts on the corners. 25 ml or 50 ml versions. Available as sterile and non-sterile versions.

- DNase-, RNase- and pyrogen-free certified

Description	Capacity	PK	Cat. No.	Price	Now
	ml			EUR	EUR
non-sterile, bulk	25	100	6.282 144	4 5,40	31,78
sterile, single packed	25	100	6.282 145	92,70	64,89
non-sterile, bulk	50	100	6.282 146	58,40	40,88
sterile, single packed	50	100	6.282 147	120,90	84,63

LLG-Labware pipette tips, economy 2.0, PP







The new generation of LLG Labware Pipette tips economy. Available in bulk quantities in bags or in easy-to-open boxes with color coded racks. Racked-tip boxes are delivered in a dispenser, which can be opened from two sides facilitating the use of the product on two work spaces. Compatible with all common pipette brands. You can find the appropriate compatibility list on www.llg-labware.com in the Downloads section.

- Improved optical clarity and pipette fit
- Colored coded rack inserts for easy identification
- Graduated (5 and 10 ml tips without graduation)
- Autoclavable
- DNase and RNase free
- Non sterile



Capacity	Colour	Package contents	PK	Cat. No.	Price	Now
μΙ					EUR	EUR
0.1 10	transparent	1000 tips in bag	1000	4.668 775	14,80	10,36
0.1 10	transparent	10 x 96 tips in rack	960	4.668 776	48,50	33,95
1 200	transparent	10 x 96 tips in rack	960	4.668 778	42,20	29,54
1 200	yellow	1000 tips in bag	1000	4.668 777	11,80	8,26
1 200	yellow	10 x 96 tips in rack	960	4.668 779	42,20	29,54
100 1000	transparent	1000 tips in bag	1000	4.668 780	13,80	9,66
100 1000	transparent	8 x 96 tips in rack	768	4.668 782	36,90	25,83
100 1000	blue	1000 tips in bag	1000	4.679 861	13,80	9,66
100 1000	blue	8 x 96 tips in rack	768	4.668 783	36,90	25,83
100 - 5000*	clear	1 bag of 250	250	9.409 097	20,10	14,85
100 - 5000**	clear	1 bag of 250	250	6.254 364	20,10	14,85
1000 - 10000	clear	1 bag of 100	100	9.409 098	17,00	11,90

^{*}for manual pipettors

Storage system "MultiStore"



White, made of highly impact resistant plastic. Tilt bins made of crystal clear PS.

- For small components and accessories e.g. in industries, hospitals and laboratories
- Dust-free and clean storage of contents
- Multifunctional for individual storage solutions



Description	External dimensions (W x D x H)	Dimensions* (W x D x H)	PK	Cat. No.	Price	Now
	mm	mm			EUR	EUR
4 tilt bins	601 x 171.5 x 206	125.5 x 128 x 133.5	1	9.301 553	50,50	35,35
3 tilt bins	601 x 198 x 238	176 x 149 x 161	1	9.301 554	69,30	48,51
2 tilt bins	601 x 310.5 x 353 of each single tilt bin	265 x 221 x 241	1	9.301 555	145,60	101,92
"Diffierisions (oi eacii siliale tiit bili					

^{**}for electronic pipettors

LLG-Pasteur Pipettes, PE, non-sterile





Graduated.

Capacity	Length	PK	Cat. No.	Price	Now
ml	mm			EUR	EUR
1	150	500	4.672 670	22,00	15,40
3	150	500	4.672 671	18,00	12,60

LLG-Pasteur pipettes, Soda-lime-glass





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

External diameter: 7.1 mm. Please order pipette teats separately.



Length	Acc. to	PK Cat. No. Price	Now
mm		EUR	EUR
150	ISO 7712	1000 9.411 015 4 4,50	31,15
230	ISO 7712	1000 9.411 020 4 7,90	33,53

LLG-Safety pipette bulb, rubber, red





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

Туре	PK	Cat. No.	Price	Now
			EUR	EUR
LLG-Safety pipette bulb, normal	1	6.270 265	9,50	6,65
LLG-Safety pipette bulb, universal	1	6.270 266	9,90	6,93

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

-30%

Nominal capacity	Tolerance	Length	PK	Cat. No.	Price	Now
ml	± ml	mm			EUR	EUR
1	0.007	310	10	6.272 207	39,00	27,30
2	0.010	330	10	6.272 208	39,00	27,30
3	0.010	360	10	6.272 209	40,00	28,00
4	0.015	360	10	6.272 210	41,00	28,70
5	0.015	400	10	6.272 211	42,00	29,40
10	0.020	440	10	6.272 212	46,00	32,20
15	0.030	455	10	6.272 213	63,00	44,10
20	0.030	510	10	6.272 214	65,00	45,50
25	0.030	520	10	6.272 215	67,00	46,90
50	0.050	540	10	6.272 216	90,00	63,00

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

-30%

Nominal capacity	Graduations	Tolerance	Length	PK	Cat. No.	Price	Now
ml	ml	± ml	mm			EUR	EUR
1	0.01	0.007	360	10	6.272 200	33,00	23,10
2	0.02	0.01	360	10	6.272 201	34,00	23,80
5	0.05	0.03	360	10	6.272 202	38,00	26,60
10	0.1	0.05	360	10	6.272 203	40,00	28,00
20	0.1	0.1	450	10	6.272 204	68,00	47,60
25	0.1	0.1	450	10	6.272 205	69,00	48,30
50	0.1	0.2	720	10	6.272 206	228 00	159.60

Pipette teats

DEUTSCH & NEUMANN!



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

-30%

Capacity	Colour	Material	PK	Cat. No.	Price	Now
ml					EUR	EUR
2	red	NR/Latex	100	4.661 160	86,00	60,20
2	transparent/white	VMQ	10	9.072 682	34,00	23,80

Measuring cylinders, PP, tall form, class B, blue graduated







Tall form, highly transparent, with blue graduations, hexagonal base, calibrated to contain (IN). Tolerances class B according to DIN 12681/ISO 6706. Exposure to temperatures above 60 °C may effect accuracy. Cleaning up to max. 60 °C is recommended to preserve marks and inscriptions.



Capacity	Tolerance	Height	PK	Cat. No.	Price	Now
ml	± ml	mm			EUR	EUR
25	0.500	160	1	9.274 081	5,60	3,92
50	1.000	195	1	9.274 082	6,00	4,20
100	1.000	240	1	9.274 083	7,20	5,04
250	2.000	320	1	9.274 084	11,80	8,26
500	5.000	380	1	9.274 085	14,40	10,08
1000	10.000	465	1	9.274 086	26,70	18,69

Mixing cylinders, borosilicate glass 3.3, tall form, class A, blue graduated





All BLAUBRAND® cylinders are supplied with batch number and one batch certificate per packing unit.

- DIN EN ISO 4788
- DE-M marking
- PP stoppers and hexagonal foot
- Graduations and inscriptions in highly contrasting blue enamel
- Calibrated to contain (IN)

	201
(-3)	0%
	/

Capacity	Grad.	Height	Neck	PK	Cat. No.	Price	Now
ml	ml	mm	NS			EUR	EUR
10	0.2	160	10/19	2	4.680 315	41,60	29,12
25	0.5	190	14/23	2	4.680 316	43,80	30,66
50	1	220	19/26	2	4.680 317	49,90	34,93
100	1	285	24/29	2	4.680 318	54,80	38,36
250	2	350	29/32	2	4.680 319	79,90	55,93
500*	5	395	34/35	2	4.680 320	112,10	78,47
1000*	10	500	45/40	2	4.680 321	197,10	137,97
* Fitted wi	th PE octa	gonal stoppers.					

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





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

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



Nominal capacity	Tolerance	Joint size (NS)	PK	Cat. No.	Price	Now
ml	± ml				EUR	EUR
1	0.025	7/16	2	4.680 322	35,20	24,64
2	0.025	7/16	2	4.680 323	35,20	24,64
5	0.025	7/16	2	4.680 324	35,20	24,64
10	0.04	10/19*	2	4.680 325	36,00	25,20
20	0.04	10/19	2	4.680 326	37,90	26,53
25	0.04	10/19	2	4.680 327	37,90	26,53
30	0.06	12/21	2	4.680 328	39,40	27,58

* Wide neck version

Volumetric flasks VITLAB® UV-protect, PMP, Class A with NS stoppers, PP







UV-absorbing, highly transparent. For storing light-sensitive substances. With printed lot number and batch certificate.

- DIN EN ISO 1042
- DE-M marked
- With PP-NS stopper
- Graduation and lettering in
- high-contrast white
- Adjusted to IN



Capacity	Tolerance	Height	NS	PK	Cat. No.	Price	Now
ml	± ml	mm				EUR	EUR
10	0.04	90	10/19	1	9.276 970	19,90	13,93
25	0.04	115	10/19	1	9.276 971	20,80	14,56
50	0.06	150	12/21	1	9.276 972	22,90	16,03
100	0.10	180	14/23	1	9.276 973	24,80	17,36
250	0.15	235	19/26	1	9.276 974	29,80	20,86
500	0.25	270	19/26	1	9.276 975	35,30	24,71
1000	0.40	310	24/29	1	9.276 976	56,20	39,34

LLG-Disposable syringes, 3-parts, PP, non-sterile, bulk



- Barrel: PP, Plunger: PP and Polyisoprene rubber
- Latex-free, pyrogen-free, DEHP-free, non-toxic Suitable for all syringe filters with Luer connection
- Non-sterile, bulk packed in box of 500
- Luer-Lock according to DIN EN 1707
- Luer-Slip according to DIN EN 20594-1



Capacity	Nozzle type	PK	Cat. No.	Price	Now
ml				EUR	EUR
2	Luer-Slip	500	6.267 267	43,20	30,24
5	Luer-Slip	500	6.267 268	47,50	33,25
10	Luer-Slip	500	6.267 269	73,30	51,31
20	Luer-Slip	500	6.267 270	98,00	68,60
2	Luer-Lock	500	6.286 616	43,20	30,24
5	Luer-Lock	500	6.286 617	47,50	33,25
10	Luer-Lock	500	6.286 618	73,30	51,31
20	Luer-Lock	500	6.286 619	98,00	68,60

LLG-2in1 KITs with crimp neck vials ND11 (wide opening)



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, 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.	Price	Now
				EUR	EUR
clear	Crimp Cap, silver, hole, Natural Rubber red-orange / TEF transparent	100	6.257 139	17,40	12,18
clear	Crimp Cap, silver, hole, Natural Rubber / Butyl red-orange / TEF transparent	100	9.003 564	18,50	12,95
amber, labelling field	Crimp Cap, silver, hole, Naturual Rubber red-orange / TEF transparent	100	9.003 566	20,80	14,56

NMR Pasteur pipettes, Soda-lime glass







Extra long tip, optimal for NMR applications. With constriction, without cotton wool.

Length	PK	Cat. No.	Price
mm			EUR
300	1000	4.672 077	989,93
350	1000	4.672 078	1.650,52

NMR tubes, diameter 3 and 5 mm, borosilicate glass 3.3





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.	Int. diam.	Length	Wall thickness	PK	Cat. No.	Price
mm	mm	mm	mm			EUR
2.95 ± 0.03	2.36 ± 0.03	178	0.29	50	6.281 792	122,07
2.95 ± 0.03	2.36 ± 0.03	203	0.29	50	6.281 793	134,83
4.95 ± 0.05	4.19 ± 0.05	178	0.38	100	9.400 310	112,09
4.95 ± 0.05	4.19 ± 0.05	203	0.38	100	9.400 311	119,86

Closing caps for 3 and 5 mm NMR tubes







-1	5%

For	Colour	PK	Cat. No.	Price	Now
				EUR	EUR
3 mm tubes	red	50	6.282 148	3,75	3,18
3 mm tubes	green	50	6.282 149	3,75	3,18
5 mm tubes	red	100	9.400 312	6,10	5,18
5 mm tubes	yellow	100	9.400 314	6,10	5,18

30%

Syringeless filters SEPARA



SEPARA integrates in a single unit Auto-Sampler vial, filtration membrane, flask and cap/Septa. Low sample loss. The slotted septum cap ensures easy and clean sample transfer, PP vials with Ø 12 x 33 mm, filter volume 0.48 ml, dead volume <30 μ l, maximum operating temperature 50 °C

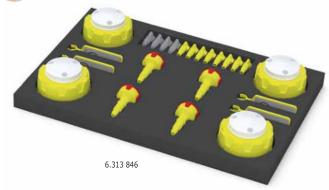


Membrane	Pore size	Colour	PK	Cat. No.	Price	Now
	μm				EUR	EUR
Nylon	0.22	light blue	100	6.287 339	127,40	122,64
PTFE	0.22	pink	100	6.287 340	127,40	122,64
Regen. Cellulose	0.22	grey	100	6.287 341	127,40	122,64
PVDF	0.22	yellow	100	6.287 342	127,40	122,64
PES	0.22	light green	100	6.287 343	127,40	122,64
Nylon	0.45	blue	100	6.287 344	127,40	122,64
PTFE	0.45	red	100	6.287 345	127,40	122,64
Regen. Cellulose	0.45	black	100	6.287 346	127,40	122,64
PVDF	0.45	orange	100	6.287 347	127,40	122,64
PES	0.45	green	100	6.287 348	127,40	122,64

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







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 $\frac{1}{4}$ " 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
- 8 x Air valve with service life indicator
- 4 x Fittings yellow for tubing O.D. 3.2 mm
- 4 x Blind fittings



Туре	Thread	PK	Cat. No.	Price	Now
				EUR	EUR
Starter Box 1	GL 45	1	6.313 845	235,80	212,53
Starter Box 2	GL 45	1	6.313 846	264,30	238,31

Exhaust filters for SafetyWasteCaps







The S.C.A.T. active carbon is optimised to adsorb organic solvents, and offers an active filtering surface of 1200 m²/g. Supply pack with change indicator + splash guard

-2%

Filter size	Life time	Neck thread	PK Cat. No.	Price	Now
		GL		EUR	EUR
S	3 months	14	4 6.316 369	212,00	207,74
M	6 months	14	2 4.669 383	152,20	148,16

Laboratory bottles, DURAN®, with retrace code, with screw cap





With blue PP screw cap and pouring ring.



Capacity	Diam.	Height with cap	Neck thread	PK	Cat. No.	Price	Now
ml	mm	mm	GL			EUR	EUR
25 *	36	74	25	10	4.679 006	70,00	52,36
50	46	91	32	10	4.679 003	74,60	55,76
100	56	105	45	10	4.679 004	63,90	47,74
250	70	143	45	10	4.679 005	71,60	53,58
500	86	181	45	10	4.679 007	89,00	66,50
1000	101	230	45	10	4.679 010	126,20	94,38
2000	136	265	45	10	4.679 008	296,90	222,09

^{*}With specially shaped glass edge for improved pouring out (so that an additional plastic pouring ring is not required).

Hand brushes, PP





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



Bristle length	Overall length	Width	Height	Colour	PK	Cat. No.	Price	Now
mm	mm	mm	mm				EUR	EUR
50	330	35	110	green	1	4.666 176	9,05	6,34
50	330	35	110	blue	1	4.666 177	9,05	6,34
50	330	35	110	red	1	4.666 178	9,05	6,34
50	330	35	110	white	1	4.666 179	9,05	6,34
50	330	35	110	yellow	1	4.666 180	9,05	6,34

Dustpans, PP







- Ergonomically designedFood-safe
- For colour coding
- Autoclavable

-30)%

Length	Colour	PK	Cat. No.	Price	Now
mm				EUR	EUR
330	green	1	4.666 171	10,70	7,49
330	blue	1	4.666 172	10,70	7,49
330	red	1	4.666 173	10,70	7,49
330	white	1	4.666 174	10,70	7,49
330	yellow	1	4.666 175	10,70	7,49

Draining Racks, PE-coated wire



Wall or bench mounting. With drip channel and plastic covered feet.

30%

With	Internal dimensions (L x W x H)	PK Cat. No.	Price	Now
	mm		EUR	EUR
60 bars and 5 arches	420 x 160 x 610	1 9.003 30)5 84,40	59,08
24 bars and 20 arches	420 x 160 x 610	1 9.003 32	20 103,00	72,10

Wipes Multiclean®, 3-ply





Handy cleaning cloths, resistant and with high wet strength they are ideal for light and coarse dirt work.

2 rolls with 500 tears.

30%

Width	Length	Weight	PK	Cat. No.	Price	Now
mm	mm	g / m²			EUR	EUR
220	380	60	2	7.618 013	53,53	37,52
360	380	54	2	7.618 212	71,44	50,06

Roll holders



With waste bag holder for rolls up to 42 cm width.

Description	PK	Cat. No.	Price	Now
			EUR	EUR
Floor stand	1	6.266 990	76,30	58,89
Wall bracket*	1	6 266 991	61.50	43.05

* Material for wall mounting included in delivery

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







Laboratory and hygienic tissues in dispenser box

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

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



Description	PK	Cat. No.	Price	Now
			EUR	EUR
Carton of 30 boxes with 150 wipes	30	9.413 220	47,80	33,46
Wall Mount for Laboratory and hygienic tissues	1	9.405 371	15,40	10,78

Overgoggles uvex super f OTG CR 9169







- Autoclavable
- Anti-fog Effect
- Allergy and Pollutant Free



- Professional protection of products and humans
- First autoclavable protective overgoggles with anti-fog effect
- Sterile eye protection in every situation
- Autoclavable at least 10 times, 121 °C, 20 minutes
- Innovative design for maximum functionality and wearer comfort
- Overgoggles with unrestricted lateral vision
- Also suitable for use over prescription spectacles
- Non-allergenic material which is free of harmful substances
- Ultra-modern lens technology
- Extremely flexible soft ear pieces
- EN 166
- UV 400
- Weight 37 g



Colour	Lens	Coating	PK	Cat. No.	Price	Now
					EUR	EUR
white / light blue	clear, UV 400, 2C-1,2	uvex supravision clean	1	6.268 419	37,10	25,97

Cleanroom Wipes ASPURE, polyester



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

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

-30%

Dimensions	Cleanroom Class	Package contents	PK	Cat. No.	Price	Now
mm					EUR	EUR
229 x 229	ISO 5	1 x 150 pieces	150	4.659 070	31.60	22,12

Adhesive Mats ASPURE, MDPE



Removes dust and dirt from shoe soles, in medium adhesive strength at a 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)	Thickness	PK	Cat. No.	Price	Now
	mm	μm			EUR	EUR
blue	450×900	35	10	4.659 087	132,90	93,03
blue	600×900	35	10	4.659 088	148,60	104,02
blue	600×1200	35	10	4.659 089	155,10	121,83
white	450 × 900	35	10	4.659 092	132,90	93,03
white	600×900	35	10	4.659 090	148,60	104,02
white	600 × 1200	35	10	4.659 091	155,10	121,83

Cleanroom-Swabs, PP





Cleanroom class: ISO 5. Cleanroom Swabs with polypropylene shaft and rounded head made of almost particle-free polyurethane or polyester. Packed dustfree in a cleanroom.



Length	Head size	Material Head	Package	PK	Cat. No.	Price	Now
mm	mm					EUR	EUR
125	12.7 x 25	PU-foam	double packed	100	4.659 074	25,10	17,57
125	12.7 x 25	Polyester	double packed	100	4.659 075	20,90	14,63
162	6.8 x 16.8	PU-foam	double packed	100	4.659 076	15,10	10,57
162	6.8 x 16.8	Polyester	double packed	100	4.659 077	15,10	10,57
70	4.0 x 12.0	Polyester	1 x 100 pcs.	100	4.659 078	8,90	6,23
70	3.5 x 11.0	PU-foam	1 x 100 pcs.	100	4.659 079	8,80	6,16
70	3.5 x 11.0	Polyester	1 x 100 pcs.	100	4.678 156	11,10	7,77

Tabletop autoclaves LabStar 25





- Fits on every Laboratory Bench
- Safety Lock at over 80 °C



Small laboratory table-top autoclave with round chamber for sterilization tasks of various kinds. A hinged lid with electromotive locking mechanism in combination with the robust lip seal ensures easy and safe closing of the sterilization chamber. A temperature lock in the liquid program prevents opening at temperatures higher than 80 $^{\circ}\text{C}$ and therefore unwanted boiling delay. For an exact control the autoclave has an electronic absolute pressure sensor and a flexible temperature sensor PT100 Kl. A.

- Loading capacity: 10 media bottles or 6 Erlenmeyer flasks (500 ml)
- Safe and simple locking device
- Completely made of stainless steel

For operation the basic unit plus one of the equipment versions is required.

Equipment versions

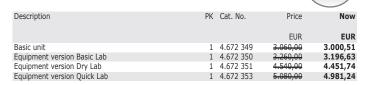
Basic Lab: With heating elements. For the sterilization of simple materials or liquids without dry removal.

Dry Lab: With heating elements, membrane-vacuum pump. For the sterilization of non-infectious waste bags and materials which require intensive subsequent drying.

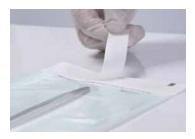
Quick Lab: With heating elements, water-cooling system, internal heat exchanger, membrane-vacuum pump. For the sterilization of non-infectious waste bags, large quantities of liquids and materials which require intensive subsequent drying.

Specifications

Weight basic unit: 45 kg
Power supply: 240 V, 50 Hz, 16 A



Self-Seal Sterilization Pouches



Self-seal sterilization pouches are pre-folded and assure accurate and fast closing without the requirement of a heat sealing device.

Triple band seal for higher package integrity



Dimensions	PK	Cat. No.	Price	Now
mm			EUR	EUR
75 x 200	200	6.272 280	9,60	6,72
90 x 230	200	6.272 281	12,00	8,40
90 x 270	200	6.272 282	13,60	9,52
130 x 290	200	6.272 283	22,30	15,61
190 x 340	200	6.272 284	34,70	24,29
300 x 430	200	6.272 285	66,90	46,83

Sterilisation rolls



Heat sealable sterilisation rolls with and without side gusset.



Description	Width	Length	PK	Cat. No.	Price	Now
	mm	m			EUR	EUR
flat	50	200	1	6.272 250	15,30	10,71
flat	75	200	1	6.272 251	23,00	16,10
flat	100	200	1	6.272 252	29,30	20,51
flat	150	200	1	6.272 253	43,90	30,73
flat	200	200	1	6.272 254	58,50	40,95
flat	250	200	1	6.272 255	73,10	51,17
flat	300	200	1	6.272 256	87,70	61,39
flat	350	200	1	6.272 257	102,30	71,61
flat	400	200	1	6.272 258	106,30	74,41
flat	500	200	1	6.272 259	138,90	97,23
gusseted	75	100	1	6.272 260	23,00	16,10
gusseted	100	100	1	6.272 261	26,90	18,83
gusseted	150	100	1	6.272 262	40,30	28,21
gusseted	200	100	1	6.272 263	53,80	37,66
gusseted	250	100	1	6.272 264	67,20	47,04
gusseted	300	100	1	6.272 265	80,70	56,49
gusseted	350	100	1	6.272 266	94,10	65,87
gusseted	400	100	1	6.272 267	111,10	77,77

Indicator tape for steam sterilisation



Crepe paper, adhesive. With indicator. Colour changes according to DIN EN ISO 11140-1. Rolls of 50 m.



colour change	Width	PK Cat. No.	Price	Now
	mm		EUR	EUR
green / black	19	1 9.140 784	12,60	8,82
white / black	25	1 9.140 789	10,80	7,56

-2%

Vacuum measuring instrument **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. The illuminated displays of both vacuum gauges enable comfortable reading.

- Compact design with integrated sensors for useful setup in laboratory and process
- Chemically resistant, heavy duty vacuum sensors, highly reliable at harsh laboratory conditions even in case of very aggressive chemicals
- High repeatability and long-term accuracy under all typical conditions reliable and repeatable results
- Display with menu driven handling, easy to use e.g. for unit settings
- 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

Chamber volume: 25 I 3.8 bar absolute Permissible operating pressure: Permissible operating temperature: 140 °C 2.5 kW Heat output: 300 x 360 mm Chamber dimensions ($\emptyset \times D$): Outer dimensions (W x D x H): 450 x 640 x 525 mm Weight basic unit: 45 kg 240 V, 50 Hz, 16 A Power supply:

Туре	Plug type	PK	Cat. No.	Price
				EUR
VACUU-VIEW	EU, UK, CH	1	6.268 865	765,00
VACUU-VIEW extended	EU, UK, CH	1	6.268 864	872,10

Mini-Diaphragm vacuum pumps LABOPORT® N96, chemically-resistant

The Pump combines a high flow rate with a very compact design. Suitable for filtration, SPE, and liquid aspiration using a vacuum. Due to the manual rotational speed control, the pump is quiet, very energy efficient, and can be optimally adjusted in accordance with the application.

- Easy-to-clean surface
- Very small footprint
- Adjustable in flowrate due to manual rotational speed control
- PTFE-coated diaphragm for use with aggressive/corrosive gases and vapors



Specifications

Ultimate vacuum (abs.): <130 mbar Operating pressure: 2.5 bar ID 6 mm Connectors for tube: Permissible ambient temperature: 5 ... 40 °C Pump head: **PPS**

Diaphragm: PTFE coated Valves: FKM

Dimensions (W \times D \times H): 75 x 156 x 11

.9 mm	
Price Now	

Type	Flow	Ultimate	PK	Cat. No.	Price	Now
	rate	vacuum				
	L / min.	mbar (abs).			EUR	EUR
N96	7	130	1	4.672 374	395,00	322,32

Diaphragm vacuum pumps LABOPORT® N820G/N840G, chemically-resistant

The compact pumps feature a control knob for manual adjustments of the flow rate, making them well suited to a wide variety of applications, e.g. rotary evaporation, distillation, gel drying, degassing as well as the use with vacuum ovens and vacuum concentrators. Due to the manual rotational speed control, the pumps are guiet, very energy efficient, and can be optimally adjusted in accordance with the application.

- Easy-to-clean surface
- Adjustable in flow rate due to manual rotational speed control
- Combination of PTFE pump head and PTFE-coated diaphragm makes the pump ideal for extremely aggressive/corrosive gases and vapors
- High level of compatibility with vapor and condensation
- Integrated gas ballast valve

Dimensions N840G (W x D x H):

- 3-color status display: In operation/Stand-by/Error
- ATEX-compliant in accordance with II 2/-G IIB+H2 T3 internal atmosphere only
- 100 % oil-free transfer to ensure uncontaminated transfer, evacuation and compression
- Optional: Easily expandable with separators and/or condensers

Specifications

Ultimate vacuum (abs.): 6 mbar Operating pressure: 0.1 bar Connectors for tube: ID9/10 mm 5 ... 40 °C Permissible ambient temperature: TFM™ PTFE Pump head: Diaphragm:

PTFE-beschichtet **FFPM** Valves: Dimensions N820G (W x D x H): 163 x 259 x 220 mm -18%

Now	Price	Cat. No.	PK	Ultimate	Flow	Type
				vacuum	rate	
EUR	EUR			mbar (abs).	L / min.	
1.370,88	1.680,00	4.672 375	1	6	20	N820G
1.509.60	1.850.00	4.672 376	1	6	34	N840G

177 x 289 x 240 mm

N820G

Platform shaker Mini-100 Orbital-Genie®

Benchtop orbital shaker with non-slip, rubber-coated platform and spill-proof edges for gentle shaking.

- Variable shaking speed up to 100 rpm
- Also suitable for use in cold rooms and incubators (not for CO₂ incubators)
- Further platform optionally available

Scope of delivery:

Shaker incl. platform



Specifications

Type of movement: Orbit: Speed range: Max. Load:

Working temperature: Platform dimensions (W x D): Overall dimensions (W x D x H):

Net weight:

orbital 19 mm 20 ... 100 rpm 3 kg 0 ... 38 °C 290 x 290 mm 350 x 350 x 85 mm 3.5 kg

Туре	Plug type	PK	Cat. No.	Price	Now
				EUR	EUR
Mini-100 Orbital-Genie	EU	1	4.667 502	948,50	773,91
Mini-100 Orbital-Genie	UK	1	4.667 503	948,50	773,91
Mini-100 Orbital-Genie	CH	1	4.667 504	948,50	773,91

Platform for Mini-100 Orbital-Genie®



Non-slip tray that extends the capacity of Mini-100 Orbital-Genie® shakers. 2 platforms can be stacked.



Туре	Height	PK	Cat. No.	Price	Now
	mm			EUR	EUR
Platform for Mini-100 Orbital-Genie®	114	1	4.667 548	150,70	143,38

LLG-Magnetic stirring bars, cylindrical, PTFE, eco pack







Diam.	Length	PK	Cat. No. F	rice Now
mm	mm			EUR EUR
3	12	10	9.198 766 ±	9,38
6	15	10	9.198 919	1,70 10,29
6	20	10	9.198 920 ±	7,70 12,39
6	25	10	9.198 925 ±	3 ,40 12,88
8	25	10	9.198 767	3,50 12,95
6	30	10	9.198 930	14,28
6	35	10	9.198 935	2,50 15,75
8	40	10	9.198 940	3 ,40 16,38
8	45	10	9.198 945	17,43
8	50	10	9.198 950 2.	18,06
9	60	10	9.198 960	3 ,10 19,67
9	70	10	9.198 970 3!	30 24,71
9	80	10	9.198 980 44),10 28,07

Packaging size: 10 pieces

Magnetic stirrer IKA Plate (RCT digital)



With glass surface. The control can be optimized by regular firmware updates. The integrated timer and counter function supports the control of kinetics and sensitive reactions.

- Alteration of the stirring direction possible
- Heating plate made of aluminium alloy for optimum heat transmission
- Clearly arranged LCD display
- Housing made of glass for optimum cleaning and chemical resistance
- Temperature control directly in the medium with PT 1000 temperature
- Adjustable safety circuit up to 360 °C
- IKA SmartTemp® function prevents users from burn injuries
- USB-/RS232 interface
- 10 years warranty

Scope of supply: Magnetic stirrer incl. temperature sensor PT1000

Specifications

Max. stirring quantity (H_2O) : 20 I 50 W/9 W Motor rating input/output: 50 to 1500 rpm Speed range: Max. stirring bar length: 80 mm 600 W Heating power: Heating rate (1 | H₂O): 7 K/min Temperature range: ambient +10 to 310 °C Heat control accuracy at 100 °C: ±5 K 50 to 360 °C Safety circuit: PT1000, ETS-D5, ETS-D6 Connection for ext. temp. sensor: Control accuracy with sensor PT1000, ETS-D5/ETS-D6: $\pm 0.5 \text{ K/} \pm 0.2 \text{ K}$ Aluminium alloy

Set-up plate Material: Set-up plate Dimensions: IP class acc. to DIN EN 60529: Overall dimensions (W \times D \times H): Weight:

Power supply:

220-230/115/100 V, 50/60 Hz

diam. 135 mm

160 x 270 x 85 mm

TP 42

2.4 kg

Туре	PK	Cat. No.	Price	Now
			EUR	EUR
TKA Plate (PCT digital)	1	6 286 602	766.70	736 03

LLG-Magnetic Stirring Bar Retrievers,





PTFE-encapsulated stirring bar retriever with strong permanent magnet (Alnico 5), universal chemical resistance. Lower end diameter 10 mm.



Diam.	Length	PK	Cat. No.	Price	Now
mm	mm			EUR	EUR
8	150	1	9.197 717	13,00	9,10
8	250	1	9.197 725	16,00	11,20
8	300	1	4.008 501	18,30	12,81
8	350	1	9.197 735	18,40	12,88

pH meter LAB 845



Complete Set

SI Analytics



Due to the intuitive operation and robust aluminum housing the pH-Meter LAB 845 is perfect for training and routine purposes.

- Made in Germany
- USB Interface
- Data logger (storage of up to 4000 entries: Date, time, main measured value, secondary measured value, measured temperature) with adjustable interval
- Nummerical password protection
- Selectable user language (German, English, French and Spanish)
- Configurable turn-off time
- Sturdy aluminium housing
- Graphic LCD display, backlit

0-14 pH, BL25pH and BL29pH with gel electrolyte, BL19pH with liquid electrolyte KCl 3 mol/l.

BlueLine BL19pH: refillable, with PT1000 temperature sensor BlueLine BL25pH: non-refillable, without temperature sensor BlueLine BL29pH: non-refillable, with PT1000 temperature sensor

Scope of supply: pH meter, stand, mains adapter, electrode as indicated, 6 DIN buffers (2 x pH 4.01, 2 x pH 6.87, 2 x pH 9.18)

Specifications Measuring range // Resolution // Accuracy

oH: $0 - 14 // 0.01 // \pm 0.01 (\pm 2 \text{ at calibration point})$

mV: -1999 ... 1999 mV // 1 mV // ±0.3 mV

ISE: 0 ... 30000 ppm

compensation: automatic with PT1000 or

fix temperature



Description	PK	Cat. No.	Price	Now
			EUR	EUR
Lab 845 set with BlueLine electrode BL19pH	1	6.281 380	546,00	519,79
Lab 845 set with BlueLine electrode BL25pH	1	6.281 620	483,00	459,82
Lab 845 set with BlueLine electrode BL29pH	1	6.281 621	515,00	490,28

LLG-pH Meter 5



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 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: $0 \dots 14$ pH resolution: 0.01 pH accuracy: $\pm 0.02 + 2d$

Ambient conditions: 0 ... 50 °C, max. 85 % r.H.

Temperature range electrode: $0 \dots 60 \, ^{\circ}\text{C}$ Dimensions (W x D x H): $68 \times 177 \times 45 \, \text{mm}$

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)

-30%

Туре	PK	Cat. No.	Price	Now
			EUR	EUR
LLG-pH Meter 5	1	6.263 691	239,00	167,30

LLG-pH-Buffer solutions with colour coding in twin-neck dispensing bottles

The ready-to-use buffer solutions offer excellent quality, precision and advantages in use. The calibration vessel, integrated into the twin-neck dispensing bottles, allows the particularly economical dispensing of solution and prevents contamination.



- Accuracy ±0.01, tested and certified at 25 °C
- Temperature dependence data table printed on the label
- Traceable to NIST
- Shelf-life: 24 months (pH 7 and 10) or 36 months (pH 4) from date of production
- Colour-coded



30%

pH- value	Colour	Capacity	PK	Cat. No.	Price	Now
at 25 °C		ml			EUR	EUR
4.00	Red	250	1	9.040 868	10,00	7,00
7.00	Yellow	250	1	9.040 869	10,00	7,00
10.00	Blue	250	1	9.040 871	10,00	7,00

Data Logger EBI 20-T1/EBI 20-TE1











For Transport and Storage Monitoring

Applications:

- Transport
- Storage monitoring
- Refrigeration areas and cold rooms

Features:

- Waterproof
- Visual alarm
- Max/min values on display
- Stores 40000 readings, can be read off at any time
- Replaceable battery

Scope of supply:

EBI 20-T1: Temperature Logger

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

EBI 20-TE1: Temperature Logger with external probe **EBI 20-TE1-Set:** Temperature Logger with external sensor,

evaluation software, Interface

Specifications

Measuring range temperature: -30 to +70 °C

Accuracy temperature: ± 0.5 °C (-20 to +40 °C); ± 0.8 °C for

remaining measuring range

Resolution temperature: 0.1 °C

Memory: 40000 samples
Measuring period: 1 minute to 24 hours

Measuring mode: immediate loop measurement,

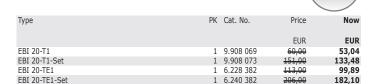
measurement from starting point, start immediately until memory full, start/stop measuring, start when button pressed

Power supply: 3 V lithium (CR 2450), can be replaced by user

IP code: IP 67

Housing: ABS

Dimensions (L x W x H): $69 \times 48 \times 22 \text{ mm}$



LLG-General purpose thermometers economy



Solid stem, with loop, capillary yellow enameled, graduation resistant against acids and alkalis. Red filling or environmentally friendly blue filling. Length: 300 mm. Diameter: 6 mm.

-30%

Measuring range	Graduations	Immersion depth	Charge	PK	Cat. No.	Price	Now
°C	°C		colour			EUR	EUR
-10 50	1	Total	Red	1	9.237 010	8,10	5,67
-10 100	1	Total	Red	1	9.237 011	8,90	6,23
-10 150	1	Total	Red	1	9.237 012	9,70	6,79
-10 200	1	Total	Red	1	9.237 013	9,70	6,79
-10 250	1	Total	Red	1	9.237 014	15,40	10,78
-10 110	1	76 mm	Blue	1	9.237 015	9,40	6,58
-10 110	0.5	76 mm	Blue	1	9.237 016	10,20	7,14
-10 150	1	76 mm	Blue	1	9.237 017	10,20	7,14
-10 250	1	76 mm	Blue	1	9.237 018	14,30	10,01
-10 360	2	76 mm	Blue	1	9.237 019	15,60	10,92

Thermometers, ground glass joint



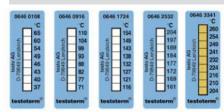


With NS 14.5/23 cone. Enclosedscale type, Translucent glass scale. Upper section approx. 11 mm diameter, lower section 7.5 mm diameter. Richter-top finish seal without button.

-30%

Measuring range	Graduations	Corpus	Immersion depth	Charge	PK	Cat. No.	Price	Now
°C	°C	mm	mm	colour			EUR	EUR
-10 15	0.5	350	52	Red	1	9.236 022	58,70	41,09
-10 25	1	300	52	Blue	1	9.236 023	64,10	44,87
-10 360	1	350	52	Green	1	9.236 024	75,20	52,64
-10 150	1	250	77	Red	1	9.236 025	51,80	36,26
-10 150	0.5	350	77	Red	1	9.236 026	58,70	41,09
-10 250	1	300	77	Blue	1	9.236 027	64,10	44,87
-10 360	1	350	77	Green	1	9.236 028	75,20	52,64
(Built-in length = Immersion depth + 23 mm for ground joint)								

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 50×18 mm.

(-1	7%

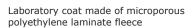
Measuring	PK	Cat. No.	Price	Now
range				
°C			EUR	EUR
37 65	10	9.246 002	25,00	20,85
71 110	10	9.246 003	25,00	20,85
116 154	10	9.246 004	25,00	20,85
161 204	10	9.246 005	25,00	20,85
204 260	10	9.246 006	25,00	22,47

12%

Laboratory coat AlphaTec® 2000, model 209







- Protection against spray liquids and
- fine dust with low hazard
- CATEGORY III (Type PB (6) -B, EN 14126)
- High wearing comfort
- Permeable to water vapour ("breathable")
- Low lint
- Front zip
- 1 breast pocket
- 1 side pocket
- Felled seams

Chemical Protection Glove Ultranitril 381, Nitrile

EN ISO 374-1 Type A EN ISO 374-5 EN 388 3111A

JKLOPT









Chemical protective glove made of nitrile with glued cotton liner for long term comfort. Anatomic shape. Z-pattern-profile for safe grip of wet things. More dexterity due to the glued cotton knit lining, which offers excellent comfort and thermal insulation. Excellent resistance against oils, greases and many solvents. 1 pair per pack.

Length: 355 mm Green

Thickness: 0.85 mm Colour: CE: Cat. III



Size	PK	Cat. No.	Price	Now
			EUR	EUR
S (7)	1	9.005 206	15,00	10,50
M (8)	1	9.005 207	15,00	10,50
L (9)	1	9.005 208	15,00	10,50
XL (10)	1	9.005 209	15,00	10,50
XXL (11)	1	9.005 199	15,00	10,50

Material: polyethylene laminate fleece Colour: 30% 63 g/m² Weight:

PK C	Cat. No.	Price	Now
		EUR	EUR
60 4	.661 356	400,80	280,56
60 4	.661 357	400,80	280,56
60 4	.661 358	400,80	280,56
60 4	.661 359	400,80	280,56
	60 4 60 4	PK Cat. No. 60 4.661 356 60 4.661 357 60 4.661 358 60 4.661 359	EUR 60 4.661 356 400,80 60 4.661 357 400,80 60 4.661 358 400,80

Disposable face mask activaMask®



- Bacterial Filtration efficiency > 98 %
- **Integrated Nose Clip**
- Three Layers of Protection, Latex free
- Type II R

Disposable face mask with earloops.

- Three layers of protection, polypropylene
- Integrated nose clip
- Bacterial filtration efficiency >98 %
- Latex free, glass fibre free EN 14683 Type II R
- Made in Germany



Colour	Width	Length	PK Cat. No.	Price	Now
	mm	mm		EUR	EUR
Blue/white	95	175	50 6.316 787	24,90	17,43



OFFICE

1131 Budapest Reitter Ferenc v. 132. Tel: +36 (1) 445 5051 office@lobakft.hu

SEAT 1114 Budapest Mészöly u. 4. al 1.



LABORTOPS

Air purifier ap360

granto



Protects Against Infections

- Ozone Free
- Low Noise Level

The Air purifier ap360 protects from airborne infection by removing aerosols and also cleans the air from dust, pollen and many other allergens. Suitable for personal protection in laboratories, medical settings and production rooms.

- Efficient 360° air recycling of a 90 m³ room four times in an hour, eliminating 99.95 % of known viruses (including coronaviruses)
- With a medical grade, high capacity HEPA13 filter (acc. to EN 14644)
- 2 powerful UVC lamps for destroying bacteria and viruses by damaging their RNA and DNA, which avoids replication
- Ozone free
- Low noise level
- With lockable castors for safe and easy handling

Specifications

Filters: Pre-filter H13 (EN 1822)
UV radiation source: 2 UV lamps, 55 W bactericidal,

TU PL-L 55W UV-C
UV irradiance: 156 uW/cm²/s at 1 m (Philips)

Radiation type: UV ($\lambda = 253.7 \text{ nm}$)

 UV lamp service life
 9000 h

 Air flow:
 360 m³/h

 D90 dose:
 280 J/m²

Timer: 1 min ... 24 h, continuous

Noise level: max. 66 db

Dimensions (W x D x H): $350 \times 350 \times 1050 \text{ mm}$

Weight: 13.4 kg

Power supply: 120/230 V, 50/60 Hz



Туре	PK	Cat. No.	Price
			EUR
ap360	1	4.679 869	3.000,00