

Partner of Bartelt

LABORTOPS







LLG-uniREFRACTO 5 pro

NEW



- Universal Refractometer
- For all **Applications**
- With three **Scales**



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pH Meter FiveEasy™ pH F20



With 3 in 1 Electrode

- Large Display
- Easy to Operate



METTLER

TOLEDO

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

Scope of supply: Meter with CD operating instructions, QuickGuide, declaration of conformity, test certificate and power supply, 3-in-1 pH electrode and 1 each \times 4.01, 7.00 and 9.21 buffer sachets

Specifications

pH: 0.00 ... 14.00 (\pm 0.01 pH) mV: -2000 ... 2000 (\pm 1) Temperature: 0 ... 100 °C (\pm 0.5 °C) Input: BNC, Cinch (NTC 30 k Ω)

Temperature

compensation: ATC and MTC

Power supply: 100-240 V/50-60 Hz/12 V DC

Calibration: 3 points, linear, 4 predefined buffer groups



Туре	PK	Cat. No.	Price	Now
			EUR	EUR
F20-Standard Kit	1	6.280 101	566,00	427,22

pH Combination Electrode, Gel Electrolyte, SenTix® 41



a xylem brand



Basic pH combination electrode, with plastic body, gel reference system. With fixed cable $(1\ m)$.

Temperature range: 0 to 80 °C pH range: 0 to 14 pH Length/diam.: 120 mm/12 mm Diaphragm: Fibre Membrane shape: Cylindical Membrane resistance at 25 °C: 1 $G\Omega$



pH Combination Electrodes, Liquid Electrolyte, SenTix® 81, refillable



a xylem brand



Standard pH combination electrode with glass shaft, non-solid electrolytes. With fixed cable (1 m).

Temperature range: 0 to 100 °C pH range: 0 to 14 pH Length/diam.: 120/12 mm Diaphragm: Platinum Membrane shape: Conical Membrane resistance at 25 °C: $600 \text{ M}\Omega$

					`	
Туре	Temperature sensor	Connector	PK	Cat. No.	Price	Now
					EUR	EUR
SenTix® 81	NTC 30 $k\Omega$	DIN, watertight	1	9.040 886	226,00	201,32

Digital Hand Refractometer LLG-uniREFRACTO 5 pro







- Universal Refractometer
- With three scales
- Ability to select one scale from a library of 45 different 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

Resolution: Accuracy: Operating temperature:

Measuring temperature sample:

Rel. Humidity:

Dimensions (W \times D \times H):

Weight: Power supply: IP code:

0.1 % Brix/0.0001 RI ±0.2 % Brix/±0.0003 RI

5 ... 40 °C 5 ... 80 °C < 95 %

120 x 55 x 35 mm

180 g 2 x AAA/LR03 IP 65

Туре	PK	Cat. No.	Price	Now
			FUD	FUR
			EUR	EUR
LLG-uni <i>REFRACTO</i> 5 pro	1	6.263 632	395,00	296,25

LLG-Universal Indicator Strips "Premium", in vial with snap lid



- pH measuring range: 0 14.0
- 12 mm matching area for quick matches
- Flip-top vial stays closed when dropped, but is easy to open with one-hand
- Vial keeps strips safe from the elements1 pack (vial) of 100 strips



25%

Range	Package contents	PK Cat. No.	Price	Now
pН			EUR	EUR
0 - 14	100 strips per vial with snap lid	100 9.129 808	13,00	9,10

Water Baths PURA™

Flexible in use for all purposes in research and quality control. All PURA™ water baths (except PURA™ 4) have an integrated drain screw. The bright, easy-to-read white LED display is clearly visible, even from a distance. With integrated side recessed grips for easy transport and non-slip rubber feet for safe standing. The complete interior surface of the water baths can be used, as there are no installation elements in the interior.

- Includes platform
- Integrated timer
- Working temperature range from 18 to 99.9 °C (with counter-cooling/bath cover)
- High temperature accuracy of 0.15 °C
- Bright display with membrane keypad
- Splash-proofBuilt-in dry-running protection

Please order bath cover separately

Water Bath PURA™ 4

 $\begin{array}{lll} \mbox{Bath volume:} & 0.8 \dots 4.5 \ \mbox{I} \\ \mbox{Bath opening (W x D x H):} & 120 \times 270 \times 140 \ \mbox{mm} \\ \mbox{Heating capacity:} & 0.5 \ \mbox{kW} \end{array}$

Weight: 0.5 kW

Overall dimensions (W x D x H): 210 x 350 x 220 mm

Туре	PK Cat. No.	Price
		EUR
PURA™ 4	1 4.667 880	703,80

Water Bath PURA™ 10

Bath volume: 1.4 ... 9.5 I Bath opening (W x D x H): 220 x 270 x 140 mm

Heating capacity: 1.2 kW Weight: 7 kg

Overall dimensions (W x D x H): $310 \times 350 \times 220 \text{ mm}$

PK Cat. No.	Price
	EUR
1 4.667 881	805,80

Water Bath PURA™ 14

Bath volume: 2 ... 14 l

Bath opening (W x D x H): $330 \times 270 \times 140 \text{ mm}$ Heating capacity: 1.8 kW

Weight: 8.5 kg

Overall dimensions (W x D x H): $420 \times 350 \times 220 \text{ mm}$

Туре	PK Cat. No.	Price
		EUR
PURA™ 14	1 4.667 882	836,40

4.667 880

Water Bath PURA™ 22

Bath volume: 3.4 \dots 25.5 l Bath opening (W x D x H): 550 x 270 x 180 mm Heating capacity: 2.0 kW

Weight: 11.5 kg

Overall dimensions (W x D x H): 640 x 350 x 260 mm

 Type
 PK
 Cat. No.
 Price

 EUR
 PURA™ 22
 1
 4.667 883
 918,00

Water Bath PURA™ 30

Bath volume: 4.8 ... 36.0 I
Bath opening (W x D x H): 770 x 270 x 180 mm
Heating capacity: 2.0 kW

Heating capacity: 2.0 kW Weight: 14.5 kg

Overall dimensions (W x D x H): $860 \times 350 \times 260 \text{ mm}$

Price	Cat. No.	PK	Туре
EUR			
1.101,60	4.667 884	1	PURA™ 30

Hinged bath cover for Water Baths, PURA™

For model	PK	Cat. No.	Price EUR
PURA™ 4	1	9.857 931	122,40
PURA™ 10	1	9.857 932	153,00
PURA™ 14	1	9.857 933	163,20
PURA™ 22	1	9.857 934	198,90
PURA™ 30	1	9.857 935	239,70

Heating Bath Liquid, BUDDE

In continuous use as a heating medium, heating bath liquid BUDDE can be used up to approx. 170 °C. Higher temperatures below the flash point are possible, but rapid darkening must then be expected.

Application as cooling medium:

Due to its low pour point, heating bath fluid BUDDE is also suitable for use as a cooling fluid. Mixtures with 10 to 30 % water are particularly favourable.



Chemical character: Appearance:

Water solubility:

Solidification temperature

(DIN ISO 3016): Boiling point:

Density (DIN 51757, 23 °C):

Flashpoint (DIN EN ISO 2592): Ignition temperature (DIN 51794):

200 °C approx. 1.13 g/cm³ to 1.17 g/cm³

> 290 °C approx. 390 °C

vellowish liquid

approx. -39 °C

Modified polyglycolether

Clear, colourless or lightly

Heating bath liquid BUDDE can be

mixed with water in any ratio.

-18%

 Container
 PK
 Cat. No.
 Price
 Now

 EUR
 EUR
 EUR
 5 litres
 1 9.906 200
 167,90
 136,27
 136,27

Cooling Boxes Icetime® Plus

CAMPINGAZ.



- Strong, high quality PU insulation,
- Lockable lid, which clicks audibly when closing
- Handle for easy transport

External dimensions (W x D x H): $410 \times 310 \times 460 \text{ mm}$ Weight: 2.6 kg



Туре	Capacity	PK	Cat. No.	Price	Now
	1			EUR	EUR
Icetime® Plus	30	1	6.284 527	33,70	24,36

Cool Packs Freez'Pack®





- Composition: water, carboxymethyl cellulose, acticides and blue dye
- Suitable for food contact (non-toxic coolant)
- Dishwasher safe



Туре	Weight	Dimensions (W x D x H)	PK	Cat. No.	Price	Now
	g	mm			EUR	EUR
Freez'Pack® 2 x M5	200	150 x 80 x 25	10	6.290 795	14,70	10,65
Freez'Pack® M30	1100	255 x 210 x 30	1	6.802 089	6,30	4,41
Freez'Pack® M10	370	182 x 95 x 33	24	6.313 387	60,30	42,21
Freez'Pack® M20	741	200 x 172 x 30	18	6.313 388	60,30	42,21

Cooling Incubator LLG-uniINCU 28 Cool











- Compact
- High Temperature Accuracy
- Cooling Incubator with 28 I Capacity

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

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

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

Specifications

Temperature range: $3 \, ^{\circ}\text{C} \dots 45 \, ^{\circ}\text{C}$ Accuracy/Temperature uniformity: $\pm 0.5 \, ^{\circ}\text{C}$ External dimensions (W x D x H): $420 \, ^{\circ}\text{x} \, 413 \, ^{\circ}\text{x} \, 485 \, \text{mm}$ Internal dimensions (W x D x H): $329 \, ^{\circ}\text{x} \, 219 \, ^{\circ}\text{x} \, 369 \, \text{mm}$ Weight: $13.5 \, \text{kg}$ Power supply: $100 \, \dots \, 240 \, ^{\circ}\text{v} \, 50/60 \, \text{Hz}$



Туре	Plug type	PK	Cat. No.	Price	Now
				EUR	EUR
LLG-uniINCU 28 Cool	EU	1	6.263 575	790,00	553,00
LLG-uniINCU 28 Cool	UK	1	6.263 418	790,00	553,00

Teclu Burners with Needle Valve



DIN 30665. Ignition protection, thermocouple, air regulation, low flame.



Description	Height	Weight	PK	Cat. No.	Price	Now
	mm	g			EUR	EUR
Natural gas	160	370	1	9.018 380	104,00	79,34
Propane	160	370	1	9.018 381	104,00	79,34

Square Quadrupod with glass ceramic plate





Plate attachment can be used as a protective table mat. Quadrupod made of stainless steel, feet removable.



Width	Depth	Height	Weight	PK	Cat. No.	Price	Now
mm	mm	mm	g			EUR	EUR
120	120	210	700	1	6.273 251	43,20	32,97
160	160	210	900	1	6.273 252	46,00	35,10
200	200	210	1100	1	6.273 253	50,70	38,68

Aluminium Containers, round



-30	%

Capacity	Top diam.	Bottom diam.	Fill height	PK	Cat. No.	Price	Now
ml	mm	mm	mm			EUR	EUR
28	64	51	13	100	9.106 240	16,20	11,34
110	80	56	34	100	9.106 241	24,50	17,15
110	99	70	25	100	9.106 242	23,90	16,73
125	96	78	24	100	9.106 261	31,60	22,12
280	114	58	50	50	9.106 263	22,60	15,82

Aluminium Containers, square, with lid





Capacity	Dimensions top (D x W)	Dimensions bottom (D x W)	Fill height	PK	Cat. No.	Price	Now
ml	mm	mm	mm			EUR	EUR
250	128 x 103	93 x 67	34	100	6.226 802	53,60	37,52
500	191 x 127	156 x 92	29	60	9.106 266	43,00	30,10

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



- Barrel: PP, Plunger: PP and Polyisoprene rubber
- Smooth flow, tight, high transparency barrel Latex-free, pyrogen-free, DEHP-free, non-toxic
- Defined safety stop to avoid accidental pull-out of plunger
- Suitable for all syringe filters with Luer connection



Capacity	Nozzle	PK	Cat. No.	Price	Now
	type				
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	110,20	77,14
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	110,20	77,14

Molecular Model System Molymod®



The set consists of a variety of atom parts and links designed to make a large number of possible structures relevant to a specific chemistry subject or use, e.g. Biochemistry, Organic or Inorganic. All sets are fully compatible. Atom parts are made of solid clouded plastic spheres. They are available with holes from 1 to 6 in the usual angular orientations.



Туре	Description	PK	Cat. No.	Price	Now
				EUR	EUR
Organic Set, large	111 atoms, 140 links	1	9.883 103	54,40	38,08
Biochemistry Set, large	257 atoms, 160 links	1	9.883 107	102,40	71,68
Organic Set, small	50 atoms, 64 links	1	9.883 108	27,00	18,90
Inorganic/Organic Set, small	51 atoms, 38 links	1	9.883 109	27,20	19,04
Inorganic/Organic Set, large	106 atoms, 86 links	1	9.883 104	54,00	37,80

PARAFILM® M sealing film



Can be stretched up to 200 % and clings around irregular shapes and surfaces. Parafilm® M is resistant to many polar substances such as saline solutions, inorganic acids and alkaline solutions for up to 48 hours. Parafilm® M conforms to general FDA requirements if used below 55 $^{\circ}$ C.

Melting temperature: 60 °C Continued use temperature: -45°C to +50 °C



Width	Length	Pł	K	Cat. No.	Price	Now
mm	m				EUR	EUR
50	75	:	1	9.170 003	37,60	26,32
100	38	:	1	9.170 002	36,20	25,34
100	75	:	1	9.170 005	72,60	50,82

LLG-Labelling Tapes



- Easy to Use!
- No sticky residue



For labelling and colour coding of laboratory vessels and utensils. Strong and durable. Water resistant. Can withstand temperatures ranging from -23 $^{\circ}$ C to +121 $^{\circ}$ C. The tapes are easy to write-on and leave no residue when removed. Rolls of 12.7 m.



Width	Colour	PK	Cat. No.	Price	Now
mm				EUR	EUR
12.7	white	6	4.663 401	10,20	7,14
12.7	yellow	6	4.663 402	10,20	7,14
12.7	green	6	4.663 403	10,20	7,14
12.7	red	6	4.663 404	10,20	7,14
12.7	orange	6	4.663 405	10,20	7,14
12.7	blue	6	4.663 406	10,20	7,14
12.7	pink	6	4.663 407	10,20	7,14
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	36,80	28,64
19.0	white	4	4.663 409	10,00	7,00
19.0	yellow	4	4.663 410	10,00	7,00
19.0	green	4	4.663 411	10,00	7,00
19.0	red	4	4.663 412	10,00	7,00
19.0	orange	4	4.663 413	10,00	7,00
19.0	blue	4	4.663 414	10,00	7,00
19.0	pink	4	4.663 415	10,00	7,00
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	36,20	28,29
25.4	white	3	4.663 417	9,70	6,79
25.4	yellow	3	4.663 418	9,70	6,79
25.4	green	3	4.663 419	9,70	6,79
25.4	red	3	4.663 420	9,70	6,79
25.4	orange	3	4.663 421	9,70	6,79
25.4	blue	3	4.663 422	9,70	6,79
25.4	pink	3	4.663 423	9,70	6,79
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	35,40	27,80

LLG-Surface Protector DescProtect





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

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



Туре	Size	PK	Cat. No.	Price	Now
				EUR	EUR
Sheets	460 mm x 570 mn	50	9.160 270	41,60	29,12
Spool	400 mm x 50 n	1	9.160 271	81,80	57,26

Boiling Stones, Type A

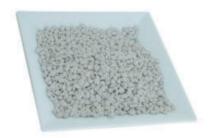


Developed for use in preparatory work. For distillation and reflux in aqueous, neutral and alkaline solvents, even under a vacuum. Effective in even the smallest volumes of liquid and after multiple interruptions. Prevents any bumping. Natural product.



Capacity	PK	Cat. No.	Price	Now
g			EUR	EUR
250	1	9.012 306	15,60	10,92

Boiling Stones, Type B



Specifically for analytical work. Can be used for distillation in a clean, neutral and basic environment. Not suitable for vacuum distillation. Effective in the smallest amounts of liquid, also after multiple distillations.

Prevents "bumping". Ceramic product with relatively high level of purity and abrasion resistance.



Capacity	PK Cat. No.	Price	Now
g		EUR	EUR
200	1 9.012 30	07 13,30	9,31

Adapter for Thermometer, Borosilicate glass 3.3





Manufactured from borosilicate glass 3.3 according to DIN 12257 standard, ideal to use for thermometers with \emptyset 6 - 8 mm. Screw joint provides easy depth adjustment of thermometer. Seal material: NBR

(-3	0%)

Adapter bore diam.	Cone	Neck thread	PK	Cat. No.	Price	Now
mm	NS	GL			EUR	EUR
6 - 8	14/23	14	1	4.008 360	10,40	7,28
6 - 8	29/32	14	1	6.244 589	11,50	8,05

Expansion and Reduction adapters, DURAN® tubing







Made of DURAN® tubing. Reduction and expansion adapters with ground joint. DIN 12257



Cone	Socket	PK Ca	at. No. Price	Now
NS	NS		EUR	EUR
29/32	14/23	1 9.	.011 755 8,35	5,85
14/23	29/32	1 9.	.011 750 14,20	9,94

LLG-Fork Clamps for spherical joints





Made of stainless steel 304. For spherical ground joint connections. With set screw.



Size	PK	Cat. No.	Price	Now
			EUR	EUR
S13	5	6.314 003	46,50	32,55
S19	5	6.314 004	55,00	38,50
S29	5	6.314 005	48,50	33,95
S35	5	6.314 006	72,00	50,40

BUDDE - Joint Grease





For all glass joints. Transparent, vacuum tight, water washable and water soluble. Maintains practically the consistency between -30 $^{\circ}\text{C}$ and +200 $^{\circ}\text{C}$, non-solidifying. Compatible with most elastomers. Tube of 80 g.



Veight	PK Cat. No.	Price	Now
1		EUR	EUR
30	1 9.116 950	25,30	18,77

Condensers, Allihn, Borosilicate glass 3.3





According to DIN 12581 standard. Supplied with glass side arm. The side arms accept tubing with 8/9 mm bore size.



Effective length	Cone	Socket	PK	Cat. No.	Price	Now
mm	NS	NS			EUR	EUR
250	29/32	29/32	1	6.253 331	49,90	34,93
400	29/32	29/32	1	6.243 669	51,30	35,91

Spiral Condensers, Borosilicate glass 3.3



Resistant to heat and almost all chemicals. They meet the highest quality standards according to DIN 12592. Supplied with either glass side arm or polypropylene side arm. Polypropylene side arm has a screw thread connector for easy and safe fitting of the tubing. The side arms accept tubing with 8/9 mm bore size.

8/9 mm b	oore size.				(-	-30%
iption	Effective	NS	PK	Cat. No.	Price	1

Description	Effective length	NS	PK	Cat. No.	Price	Now
	mm				EUR	EUR
with glass side arm	400	29/32	1	4.008 411	54,10	37,87
with PP side arm	250	29/32	1	6.257 820	42,60	29,82

Condensers, ground glass joint, Liebig, Borosilicate glass 3.3



Resistant to heat and almost all chemicals. They meet the highest quality standards according to DIN 12576. Polypropylene side arm has a screw thread connector for easy and safe fitting of the tubing. The side arms accept tubing with 8/9 mm bore size.



Description	Effective length	NS	PK	Cat. No.	Price	Now
	mm				EUR	EUR
with PP side arm	250	29/32	1	9.012 546	28,30	19,81
with PP side arm	400	29/32	1	4.008 405	31,00	21,70
with glass side arm	250	29/32	1	7.970 278	39,00	27,30
with glass side arm	400	29/32	1	6.236 239	45,90	32,13

Round Bottom Flasks with Conical Ground Joint, DURAN®



According to DIN EN ISO 4797, with inscription label.



Capacity	Flask diam.	Socket	PK	Cat. No.	Price	Now
ml	mm	NS			EUR	EUR
10	35	14/23	10	4.667 711	59,30	41,51
50	51	29/32	10	4.667 715	91,20	63,84
100	64	29/32	10	4.667 716	77,80	54,46
250	85	29/32	10	4.667 718	143,10	100,17
500	105	29/32	10	4.667 719	182,80	127,96

Manifolds Microsart®, stainless steel

SASTURIUS



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 feet providing better stability at the workplace

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



Dimensions (W x D x H)	PK	Cat. No.	Price	Now
mm			EUR	EUR
176 x 98 x 120*	1	4.669 474	1.410,00	1.339,50
246 x 118 x 130*	1	4.669 475	2.160,00	2.052,00
474 x 98 x 120*	1	4.669 476	2.640,00	2.508,00
924 x 98 x 120*	1	4.669 477	4.040,00	3.838,00
	(W x D x H) mm 176 x 98 x 120* 246 x 118 x 130* 474 x 98 x 120*	(W x D x H) mm 176 x 98 x 120* 246 x 118 x 130* 1474 x 98 x 120* 1	(W x D x H) mm 176 x 98 x 120* 246 x 118 x 130* 474 x 98 x 120* 1 4.669 475 1 4.669 476	(W x D x H) mm EUR 176 x 98 x 120* 1 4.669 474 1.410,00 246 x 118 x 130* 1 4.669 475 2.160,00 474 x 98 x 120* 1 4.669 476 2.640,00

* Dimensions without funnels and tubing

LLG-Glass microfibre filters, filter circles







Diam.	Pore size	Filtration time	Weight	Thickness	PK	Cat. No.	Price	Now
mm	μm	secs.	g / m²	mm			EUR	EUR
25	1.6	60	52	0.26	100	9.045 860	17,50	12,25
47	1.6	60	52	0.26	100	9.045 861	25,20	17,64
90	1.6	60	52	0.26	100	6.252 072	47,70	33,39
150	1.6	60	52	0.26	100	9.045 862	89,90	62,93
47	1.2	100	52	0.26	100	6.243 711	33,00	23,10
70	1.2	100	52	0.26	100	9.045 866	43,20	30,24
90	1.2	100	52	0.26	100	9.045 867	58,40	40,88
110	1.2	100	52	0.26	100	9.045 868	75,40	52,78
47	0.7	310	75	0.45	100	7.970 106	61,70	43,19

Filtration velocity according to Herzberg

LLG-Qualitative filter paper, folded filters



Medium fast, pore size 5 to 8 μm.



Dia	m. Filtration time		Cat. No.	Price	Now
mn	secs.			EUR	EUR
90	50	100	6.286 319	23,80	16,66
110	50	100	6.286 320	25,10	17,57
125	50	100	9.045 825	25,90	18,13
150	50	100	9.045 826	26,60	18,62
185	50	100	9.045 827	29,50	20,65
240	50	100	6.242 632	41.30	28.91

Biosart® 100 monitors



SARTURIUS

Ready-for-connection filtration unit in combination with a Sartorius extraction unit. Biosart® 100 monitors are specially designed for microbiological testing of pharmaceuticals, cosmetics, water and other liquids. The ready-to-use units are pre-sterilized and contain a membrane and a cardboard disc.

Туре	Diam.	Pore size	Colour Filter / Grid	PK	Cat. No.	Price
	mm	μm				EUR
K	47	0.45	white / black	48	9.049 300	146,88
K	47	0.45	green / dark green	48	9.049 302	146,88
K	47	0.45	grey / white	48	9.049 315	146,88
ACK	47	0.20	white / black	48	9.049 311	227,46
ACK	47	0.45	white / black	48	9.049 312	227,46
ACK	47	0.45	green / dark green	48	9.049 313	227,46
ACK	47	0.45	grey / white	48	9.049 304	227,46
K	47	0.80	grey / white	48	6.254 672	146,88
K	47	0.45	white / black	48	6.280 663	146,88
ACK=	individually	sterile pac	ked. K= sterile.			

Funnel Stands LaboPlast®, PP





White, unbreakable, chemically resistant. For 2 or 4 funnels. Robust, heavy base provides good stability. Variable height adjustment up to 450 mm. Thanks to a magnet system no clamping screws are necessary. The height of the funnel holder can be adjusted easily and flexibly with one hand.

With 2 or 4 aperture reduction inserts for small funnels. Suitable for funnels with diam. 40 to 180 mm.



bürkle

To hold funnels	Width	Depth	Height	PK Ca	at. No.	Price	Now
piece	mm	mm	mm			EUR	EUR
2	140	300	480	1 9.0	069 922	69,60	57,77
4	150	550	500	1 9.0	069 924	118,80	83,16

Cleanroom Papers ASPURE



- 72 g/m²
- Cellulose, water-soluble resin polymer
- Suitable for cleanroom class ISO 5
- Surface resistance: $<10^{11}\Omega$
- Packed dustfree in cleanroom

-2	9%

Size	Colour	Cleanroom Class	PK	Cat. No.	Price	Now
					EUR	EUR
A4	blue	ISO 5	2500	4.659 102	119,00	84,28
A4	white	ISO 5	2500	4.659 103	119,00	84,28
A3	blue	ISO 5	1250	4.659 104	119,00	84,28

Adhesive Mats Sticky Mat



Each Sticky Mat consists of a stack of tear-off adhesive polyethylene sheets, effectively capturing dirt and dust from foot-traffic and equipment wheels before they enter controlled environments. A clear release sheet protects the top sheet of the sticky mat until it is ready to use. The corner tabs are consecutively numbered to show the number of remaining sheets, thereby helping you to keep track of the number of sheets remaining and preventing multiple sheets being removed at once.

Ergomat White Sticky Mats are produced in an 46 x 114 cm sheet, sold in pads of 30 sheets, with 10 pads per box (300 sheets total.)



Description	Colour	PK	Cat. No.	Price	Now
				EUR	EUR
Frame for Cleanroom mats Sticky Mat	grey	1	6.272 245	72,00	55,81
1 mat of 30 sheets	white	10	6.272 241	95,00	73,64
1 mat of 30 sheets	blue	10	6.272 242	95,00	73,64
Set of 10 mats of 30 sheets + 1 frame	white	1	6.272 243	150,00	116,28
Set of 10 mats of 30 sheets + 1 frame	blue	1	6.272 244	150,00	116,28

Cleanroom Marker, edding 8011





For permanent marking of special cleanroom and laminated papers in dust-free environments. Smudge-proof and waterproof.

- Ready to use
- Stroke width: Approx. 0.6 mm
- Nib: Bullet nib



Colour	PK	Cat. No.	Price	Now
			EUR	EUR
black	10	6.284 876	29,40	20,58
blue	10	6.286 142	29,40	20,58

Cleanroom Wipes Sontara® MicroPure, polyester/cellulose



Engineered for cleanroom use. No binders or chemical treatments are used to manufacture them. The high cleanliness and purity are ensured by a low extractable level and ion content, as well as extremely low particle generation by the material itself. The fabric styles offer high particle and liquid absorbency due to their cellulose content.

-30%

Туре	Dimensions	Cleanroom Class	PK	Cat. No.	Price	Now
	mm				EUR	EUR
MP 100	305 x 305	ISO 5 + 6	150	9.390 185	33,60	23,52
MP 100	224 x 224	ISO 5 + 6	300	9.390 186	33,40	23,38
AP	305 x 305	ISO 6 - 9	150	9.390 187	34,80	24,36
AP	224 x 224	ISO 6 - 9	300	9.390 188	29,60	20,72

Eyewash Emergency Station, Wall-Mounting







A dust-proof wall mounted station containing one bottle 200 ml sterile phosphate buffer solution and one bottle 500 ml sterile sodium chloride solution complete with instructions and a mirror. Especially suitable for workplaces where on the spot rinsing is required, smaller workplaces. Bottles according to DIN EN 15154-4.

Dimensions eye wash station (W x D x H): 227 x 110 x 265 mm

Durability: Flush time:

3 years about 7 minutes



uvex

Description	PK	Cat. No.	Price	Now
			EUR	EUR
Eyewash emergency station, wall-mounting	1	9.733 787	55,20	44,65

Ear Defender uvex K1



- Easy length adjustment
- Padded headband for optimal comfort
- Wearer comfort is ensured through soft surfaceDesigned to be lightweight with a small capsule

Sound protection (SNR):	28 dB(A)	(-3	30%
Туре	PK Cat. No.	Price	Now
		EUR	EUR
uvex K1	1 6.270 939	50.00	35.63

LLG-Autoclavable Bags, PP, with Biohazard Printing



Autoclavable bags imprinted with biohazard labelling. Made of polypropylene. Strong side seams for securely holding items. Front write-on panel, with sterilisation indicator. Thickness: 50 μ m.



Width	Length	Capacity	PK	Cat. No.	Price	Now
mm	mm	L			EUR	EUR
500	600	20	200	6.285 813	109,00	76,30
630	890	40	200	6.285 814	204,00	142,80
910	1150	80	100	6.285 815	189,00	132,30

LLG-Autoclavable Bags, PP







Constructed from very strong PP film with a broad seam at the bottom. For the disposal of contaminated labware. When autoclaving, the neck of the bag must be left open. Film thickness: 50 $\mu m.$



Width	Length	Capacity	Package	PK	Cat. No.	Price	Now
			contents				
mm	mm	L				EUR	EUR
200	300	1.5	Dispenser box of 100 bags	100	9.404 099	9,00	6,30
300	500	6.0	Box of 500 bags	500	9.404 220	320,40	224,28
400	780	22.0	Box of 250 bags	250	9.404 221	183,10	128,17
500	780	25.0	Box of 250 bags	250	9.404 222	209,00	146,30
600	800	32.0	Box of 250 bags	250	9.404 223	235,20	164,64
600	780	32.0	Box of 100 bags	100	9.404 103	42,20	29,54
700	1100	72.0	Box of 250 bags	250	9.404 224	213,10	149,17
700	1100	72.0	Box of 75 bags	75	9.404 105	49,80	34,86

Culture Plates 3M™ Petrifilm™



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



Description	PK	Cat. No.	Price	Now
			EUR	EUR
Total bacteria count aerobe bacteria	100	6.237 738	168,20	117,74
Total bacteria count aerobe bacteria	1000	6.236 670	1.463,80	1.024,66
Total bacteria count coliforms	50	6.269 820	87,70	61,39
Bacteria count <i>E.coli</i>	50	6.269 819	129,00	90,30
Bacteria count <i>E.coli</i> and coliforms	50	6.257 512	127,60	89,32
Bacteria count Enterobacteriacae	50	6.251 171	86,90	60,83
Bacteria count S. aureus	50	6.257 510	127,60	89,32
Rapid test Yeast and Fungi	50	6.282 104	204,20	142,94
Bacteria count Yeast and Fungi	100	7.657 837	171,10	119,77

LLG-Inoculation Loops, sterile



Uniform surface wetting and complete transfer of the liquid. The inoculation loops are available as more rigid versions (PS) or flexible versions (HIPS). Smooth edges ensure gentle agar treatment. Package contents: 50 bags of 20 pieces.

- With ethylene oxide sterilized
- Colour coded
- Hexagonal handle for easy handling



Capacity	Length	Material	Colour	PK	Cat. No.	Price	Now
μΙ	mm					EUR	EUR
1	173	PS	transparent	1000	6.290 917	48,00	33,60
10	173	PS	green	1000	6.290 918	48,00	33,60
1	173	HIPS	yellow	1000	6.290 919	48,00	33,60
10	173	HIPS	white	1000	6.290 920	48,00	33,60

Colony Counter eCount™



Multi-function electronic counter with a Sharpie® pen for marking Petri dishes to prevent missing or double-counting colonies. Light, ergonomic body is balanced for easy manipulation. For easy counting of bacteria and mould fungus colonies. Counting control via membrane keys.

- Incl. thumb button which allows you to use the eCount as a digital tally counter
- Count up, then count down verification
- Display the total and keep in the memory up to 32 separate counts
- Disable the counter so you can write totals and notes
- Verify each count with either a bleep or LED Flash
- 5 years warranty (excludes battery)



Туре	PK Cat. No.	Price	Now
		EUR	EUR
Colony counter eCount™ incl. Sharpie® pen black, fine-point and stand	1 9.521 783	342,60	239,82

Baffled Flasks DURAN®





With GL 45 thread

- Baffled flasks cause a turbulent flow, increase the gas exchange surface and produce a higher oxygen transfer
- Automated one-step production enables a reproducible and comparable result
- Complete with membrane screw cap (gas exchange)

-26%

Capacity	Bottom diam.	Neck diam.	Height	PK	Cat. No.	Price	Now
ml	mm	mm	mm			EUR	EUR
250	85	30	145	1	9.141 260	19,20	14,17
500	105	30	149	1	9.141 261	21,50	15,87
1000	136	30	221	1	9.141 263	27,40	20,21

DNA Markers for Gel Electrophoresis

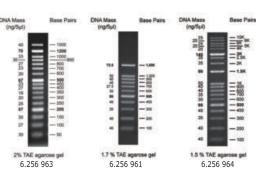
The ready-to-use DNA markers run precisely and produce a sharp, well defined ladder. They are available in six molecular weight ranges. The markers contain high intensity reference bands and may be used to perform size comparisons with DNA molecules ranging from the smallest of PCR fragments to large, linearized cosmid vectors.

- Up to 19 bands
- Isolated from restrictive plasmids
- 6 months stable at room temperature

THE

8P002

- 12 months shelf life at 4 °C
- 24 months storable at -20 °C
- Vials of 500 µl





Cleaver

Туре	Size	Bands	Reference bands	PK	Cat. No.	Price	Now
						EUR	EUR
CSL-MDNA-50BP	50 bp - 1500 bp	17	200 bp, 500 bp	1	6.256 963	60,70	42,49
CSL-MDNA-100BP	100 bp - 1500 bp	11	500 bp, 1500 bp	1	6.256 961	33,00	23,10
CSL-MDNA-100BPH	100 bp - 3000 bp	12	500 bp, 1500 bp	1	6.256 960	33,00	23,10
CSL-MDNA-BR	100 bp - 10 Kb (Broad Range)	19	500 bp, 1.5 Kb, 3 Kb	1	6.256 964	60,70	42,49
CSL-MDNA-1KBPLUS	100 bp - 10 Kb	13	1 Kb, 3 Kb	1	4.669 511	33,00	23,10

Blotting Paper



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

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

-20	9%
(-	

Description	Width	Length	Thickness	Weight	PK	Cat. No.	Price	Now
	mm	mm	mm	g / m²			EUR	EUR
medium absorbency	570	460	0.35	192	100	4.006 154	227,60	160,96
medium absorbency	600	580	0.35	192	100	4.006 155	235,20	166,33
medium absorbency	600	580	0.90	320	50	4.006 156	227,60	160,96
high absorbency	600	580	1.50	570	25	4.006 157	170.00	120,22

Agarose for Gel Electrophoresis

Specifications

CAS: 9012-36-6

Appearance: White to off-white powder

EEO: < 0.13 %

Gelling Point: $36 \,^{\circ}\text{C} \pm 1.5 \,^{\circ}\text{C} \, (1.5 \,^{\circ}\text{G} \, \text{gel})$ Melting Point: $88 \,^{\circ}\text{C} \pm 1.5 \,^{\circ}\text{C} \, (1.5 \,^{\circ}\text{G} \, \text{gel})$ Solubility: Clear, colourless solution at 1 g

in 100 ml water

Moisture: < 10 %

Gel Strength: \geq 1200 g/cm² (1 % gel)

Sulphate: < 0.20 %

DNase, RNase, Protease, Endonuclease: None Detected

Lindonacicas	c.				
Туре	Capacity	PK	Cat. No.	Price	Now
	g			EUR	EUR
CSL-AG100	100	1	9.584 695	57,50	40,25
CSL-AG500	500	1	9.584 696	266,60	186,62

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



Water, nuclease-free



Nuclease-free water is prepared in a proprietary process, which yields DNase, RNase, and nuclease-free, deionized water without the use of chemical additives, such as diethylpyrocarbonate (DEPC). Nuclease-free water is provided in nuclease-free containers.



UV Lamp BVL-6.LC



- Filtered UV hand lamp with two wavelengths for different applications
- Shaft length switchable
- Electronic ballast (ECG), flicker-free, low-maintenance

Note: please order lamp holder separately.



Filter size	Wave- length	Power	PK	Cat. No.	Price	Now
mm	nm	W			EUR	EUR
145 x 48	365 / 254	1 x 6	1	9.971 918	484,00	427,86

Lamp Holder for UV Lamps



Now	Price	Cat. No.	PK	e For Type	Туре
EUR	EUR				
129,06	146,00	9.971 921	1	L-6 BVL-6	SVL-6

Handle for UV Lamps



	(-12%)

Туре	For Type	Mounting	PK	Cat. No.	Price	Now
					EUR	EUR
SMU	BVL-6	clip	1	9.971 938	64,00	56,58
SMA	BVL-6	handle	1	6.230 416	74,00	65,42

Plasmid Purification-Kits I-Blue Mini/Midi







For rapid and efficient extraction of plasmid DNA from bacterial cells.

- Fast extraction time
- High yield
- Prevention of handling errors during cell lysis and neutralisation by I-Blue colour indicator

Specifications

Method: Sample size:

Binding capacity: Fragment size: Typical yield: Operation Time:

I-Blue Mini Plasmid Kit // I-Blue Midi Plasmid Kit

Spin column // Anion-Exchange 1 - 7 ml // 50 - 100 ml high-copy plasmid /100 - 150 ml low-copy plasmid

 $50~\mu g$ // $500~\mu g$ 1 - 15 kb // 1 - 20 kb up to 50 μ g // 200 - 500 μ g <15 min. // <80 min.

30%

Туре	Description	For	PK	Cat. No.	Price	Now
					EUR	EUR
I-Blue MINI	Spin column	100 preps	1	4.661 766	132,50	92,75
I-Blue MINI	Spin column	300 preps	1	4.661 769	353,00	247,10
I-Blue MIDI	Gravity flow	25 preps	1	4.661 764		200,14

Rocking Shaker 35 EZ







- Large platform
- Long service life
- 5 year warranty

The Rocker 35 EZ is the next generation large capacity rocker from Labnet. This upgraded Rocker 35 is designed for durability in laboratories requiring a larger platform area and precise control over rocking parameters. It is backed by a 5 year warranty. Both speed and time are easily selectable and the analog control has been upgraded to display discreet values. The tilt is now easily adjustable with knob on side. This system can easily handle up to 5 kg of load so a double platform can be fully loaded without any variation to speed. This unit comes in both single and dual platform models and includes a ribbed non-slip rubber mat to keep containers in place.

Specifications

Type of movement: rockina

Rocking angle: adjustable, ±20°

Max. Load (incl. attachment): 5 kg

Timer: 10 to 120 min or continuous

Speed range: 10 to 120 rpm

6 W

Power: Dimensions (W x D x H) single/ 360 x 360 x 170 mm/

double platform:

360 x 360 x 260 mm Weight single/double platform: 6.5 kg/7.8 kg Power supply: 230 V, 50/60 Hz



Description	Plug type	PK	Cat. No.	Price	Now
				EUR	EUR
Single platform	EU/UK	1	6.283 296	765,10	732,84
Double platform	EU/UK	1	6.283 298	845,30	809,01

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 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
- Wells are labelled with alphanumeric code for easy identification
- Sterilized by gamma irradiation
- Pyrogen free



Working volume	Culture surface	No. of wells	PK	Cat. No.	Price	Now
ml	cm ²				EUR	EUR
17.00	10.00	6	100	6.267 166	125,10	87,57
6.80	4.20	12	100	6.267 167	134,10	93,87
3.50	2.00	24	100	6.267 168	172,80	120,96
1.55	0.85	48	100	6.267 169	132,30	92,61
0.39	0.38	96	100	6.267 170	112,50	78,75
0.32	0.38	96	100	6.267 171	185,40	129,78

Cell Scrapers, sterile





Available in two different lengths with adjustable blade for optimal application flexibility. Pyrogen-free. Sterile.



Width	Length	Height	For bottles	PK	Cat. No.	Price	Now
mm	cm	mm	cm ²			EUR	EUR
15.5	23	7.5	25 - 80	50	6.222 130	194,00	135,80
17.5	32	16.0	75 - 175	250	9.390 356	1.157,50	810,25

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 ring mark for easy volume identification
- Single packed in easy-to-open plastic/paper packaging



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	44,78
2	1/50	green	0,6	500	9.380 441	67,20	53,73
5	1/10	blue	3	200	7.930 401	33,20	25,08
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	35,82
25	2/10	red	8	150	7.930 403	53,30	40,30
50	5/10	purple	10	100	9.380 443	62,60	44,78

Pipette Stand, vertical, PP





The pipette carousel can be rotated 360° and can hold up to 94 pipettes. The pipettes are placed vertically in the stand. The base plate has a raised edge which catches dripping liquids.



Туре	PK	Cat. No.	Price	Now
			EUR	EUR
Pipette stand, vertical	1	9.273 895	48,90	34,23

LLG-Electrical Pipette Plus







- Ergonomic and Precise
- Exact Pipetting with Glass and Plastic Pipettes
- Suitable for Left and Right Hand Users

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
- Suitable for left and right handers
- Exchangeable filters protect the device mechanism from contamination
- LED display with speed display: High, Low or Gravity mode (for free liquid flow without drive operation)
- 5 different coloured autoclavable nose pieces and labelling area enables customisation of the pipette
- Extremely quiet and powerful drive
- Low-Battery LED indicator

Scope of supply: 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 μ m

Capacity: 1 to 100 ml, glass and plastic pipettes

Pipette attachment: Polypropylene, autoclavable

Dimensions: 15 x 152 x 41 mm Weight: approx. 200 q

Power supply: rechargeable Li-Ion battery, 8 h continuous

operation

Warranty: 1 year



Description	PK	Cat. No.	Price	Now
			EUR	EUR
LLG-Electrical pipette Plus	1	9.281 041	240,00	168,00

Single Channel Pipette Tacta

Tacta is a premium mechanical pipette available in volume range from 0.1 to $10~000~\mu l$.

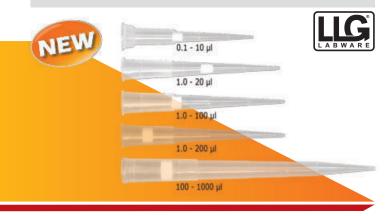
- Ergonomic design for comfortable pipetting
- Optiload feature for easy and light tip loading with perfect tip sealing
- Optiject soft tip ejection feature detaches the tip in a smooth, controlled manner
- Optilock's dual-function volume locking prevents accidental volume changes
- Easy-to-read, four-digit volume display helps to set exact volumes
- Color-coding of volumes to ease the selection of corresponding pipette tips
- Safe-Cone Filters available for models above 10 μ l with convenient built-in filter ejection mechanism
- Fully autoclavable without disassembling
- Simple to clean and maintain with only three parts to disassemble
- Materials have high chemical and UV-resistance to ensure a long life span for the pipette



SARTURIUS

Capacity	Increments	Accuracy	Precision	PK	Cat. No.	Price	Now
		max. vol.	max. vol.				
μl	μΙ	(± R %)	(≤ CV %)			EUR	EUR
0.5 - 10	0.01	1.00	0.60	1	6.282 658	294,00	219,91
10 - 100	0.10	0.80	0.15	1	6.282 657	294,00	219,91
20 - 200	0.20	0.60	0.15	1	7.645 492	294,00	219,91
100 - 1000	1.00	0.70	0.20	1	6.282 656	294,00	219,91
1000 - 10000	20.0	0.60	0.20	1	7 645 568	204.00	230 00

LLG-Filter Tips 2.0, PP



The new generation of LLG Labware filter tips with low liquid retention. Available in easy-to-open boxes with colour coded racks. Compatible with all common pipette brands.

- Improved optical clarity and pipette fit
- Coloured coded rack inserts for easy identification
- Graduated
- Sterile
- DNase and RNase free
- Clear



Capacity	Package contents	PK	Cat. No.	Price	Now
μΙ				EUR	EUR
0.1 10	10 x 96	960	4.668 784	80,70	56,49
0.1 10*	10 x 96	960	4.668 785	80,70	56,49
1 20	10 x 96	960	4.668 786	80,70	56,49
1 100	10 x 96	960	4.668 787	80,70	56,49
1 200	10 x 96	960	4.668 788	80,70	56,49
100 1000	8 x 96	768	4.668 789	80,70	56,49
* Tip XL					

Reagent Reservoir Coolers



Ice-free, non-toxic way to extend working period for temperature sensitive reagents. Suitable for 50, 55 or $100\ mm$ reservoirs.

- Reagents are kept at less than 5 °C for approximately 3 hours
- Ice-free solution eliminates the risk of contamination from ice baths
- Non-toxic blend of water and bacteriostatic agent chills and freezes quickly
- Leak-free due to sonic welded polypropylene
- Not intended for autoclave, do not use with liquid nitrogen
- Stackable

Capacity	Colour	PK Cat. No.	Price	Now
ml			EUR	EUR
55	1 x purple + 1 x blue	2 6.292 152	60,30	42,21
100	1 v nurnle + 1 v hlue	2 6 292 155	60.30	42 21

ka	ble	autociave,	do not use v	74161	ii iiquiu	maogen	-30%
/	Colour		Р	K (Cat. No.	Price	Now

Bottle-top Dispensers Calibrex™ solutae 530











Completely Autoclavable

Prevents Crystallisation

Calibrex solutae 530 dispensers have a PFA coated plunger preventing plunger and barrel from seizing together. This enables trouble free distribution of salt solutions, weak and strong acids, as well as bases.

- 45 mm base thread
- Integrated calibration system
- Choice of adjustment button with each unit
- Autoclavable at 121 °C fully assembled
- Two-year warranty

Scope of delivery: Delivery jet and stopper, feed tube, 3 alternative adapters (25, 28, 32 mm for 1 and 2.5 ml versions; 28, 32, 40 mm for 5 and 10 ml version; 32, 38, 40 mm from 25 ml onwards), QC certificate and operating instructions



Volume	Graduations	Accuracy max. vol.	Precision max. vol.	PK	Cat. No.	Price	Now
ml	ml	(± R%)	(≤ CV%)			EUR	EUR
0,1 - 1	0.02	0.6	0.17	1	6.281 543	297,50	219,91
0.25 - 2.	0.05	0.6	0.17	1	6.281 544	297,50	219,91
0.5 - 5	0.1	0.6	0.1	1	6.281 545	297,50	219,91
1 - 10	0.2	0.6	0.1	1	6.281 546	297,50	219,91
2.5 - 25	0.5	0.6	0.1	1	9.411 565	377,00	282,00
5 - 50	1.0	0.6	0.1	1	9.411 566	4 15,00	310,42
10 - 100	1.0	0.6	0.1	1	6.258 446	477,00	356,80

Syringe Pumps Legato®





The syringe pumps of the Legato® series are very smooth-running and offer the most accurate flow rates for dosing and withdrawal of liquids. The intuitive, chemically resistant touch screen allows the user to quickly create and recall configurations.

- Single and dual syringe infuse, infuse withdraw & continuous models Holds syringe sizes from 0.5 μl to 60 ml (Model dependent)
- Flow rates down to the picoliter/min (Model dependent)
- Programmable interface without the need for a PC (Model dependent)
- USB/RS-232/TTL Interfaces for external control
- Rugged construction with cold rolled steel chassis

Legato® 100 Single Syringe Infusion Pump: This pump is ideal for applications where a single syringe is used.

Legato® 101 Dual Syringe Nanoliter Pump: This infusion only pump is ideal for applications where dual syringes are required with small volumes under 10 ml.



Туре	For syringes	Flow rate	PK Cat. No.	Price	Now
				EUR	EUR
Legato® 100	1 (0,5 µl - 60 ml)	1,26 pl/min* - 88,28 ml/min	1 6.267 706	1.818,60	1.614,05
Legato® 101	2 (0,5 µl - 10 ml)	1,28 pl/min* - 25,99 ml/min	1 6.267 707	2.187,40	1.750,46
*using a 0.5 µ	ul syringe				

LLG-Glass-Syringes, **Borosilicate glass**







With brown graduations. Sterilisable up to 134 °C. Material Cone: Metal, Nozzle type: Luer-Lock.

-30)%(

Capacity	PK	Cat. No.	Price	Now
ml			EUR	EUR
1	5	6.314 007	34,25	23,98
2	5	6.314 008	34,25	23,98
5	5	6.314 009	36,75	25,73
10	5	6.314 010	44,75	31,33
20	5	6.314 011	66,50	46,55
50	5	6.314 012	145,00	101,50

Carbon Dioxide Safety Monitor AX60

Gas warning device for precise measurement of the amount of CO_2 in the air. 3 alarm settings factory set: Time-weighted average (TWA) alarm (5000 ppm; 0.5 % CO_2), Low alarm (15.000 ppm; 1.5 % CO_2) and High alarm (30.000 ppm; 3 % CO_2)

- No calibration required (unless local regulations state otherwise)
- Very long life sensor that can last up to 15 years
- Up to 4 x CO2 sensors and 8 x CO2 alarms can be used per Central Display Unit
- Supplied with a relay on each alarm which can be used to trigger ventilation, extraction or a building management system
- Easy installation and maintenance can be conducted by the user
- Additional (quick connect) CO₂ sensors and alarms available if more than one entrance to the laboratory or more than one risk area
- Assists in compliance with Exposure Limit regulations such as EH40

Scope of delivery: wall-mounted central display unit, CO_2 sensor and CO_2 alarm which can provide an early warning of a CO_2 leak.



Range: 0.1 to 5 % CO₂

Accuracy: ±5 % of alarm setpoint

Alarm intensity: 88 dbA

Monitor Display: 16 digit 2 line LCD in ppm

TWA Alarm: 5.000 ppm (0.5 %) over 8 hours

CO₂ Alarms: 15.000 ppm (1.5 %) and 30.000 ppm (3 %)

Operating Temperature: -5 to 50 °C

Central Unit Dimensions: 175 x 110 x 75 mm

Sensor & Alarm

Dimensions: $72 \times 170 \times 45 \text{ mm}$

IP Rating: IP55 (IP54 Central Display Unit)
Warranty: 5 years for electronics and sensor









For your Safety



Description	PK Cat. No.	Price	Now
		EUR	EUR
AX60 CO ₂ Safety Monitor	1 6.284 262	482,50	459,34
Additional CO ₂ Sensor (Max 4 per Central Display Unit)	1 6.284 263	236,30	205,86
Additional CO ₂ Alarm (Max 8 per Central Display Unit)	1 6.284 264	105,00	86,86
Optional Sensor Protector Kit: Protector bar, splashquard and fixing kit	1 6.284 265	40,00	38,08

LLG-Safety Wash Bottles, 500 ml, LDPE





30%

Manufactured from LDPE and with the safety label printed on the wash bottle in accordance with regulation (EC) No. 1272/2008 (GHS).

- Colour coded cap and bottle for easy and quick recognition of the bottle content
- Dispensing tube designed to optimize backflow and turbulence-free operation
- Permanent printing on the body of safety symbols in acc. with GHS, as well as of chemical formula, CAS number, hazard pictogram, signal word, hazard statements and NFPA code
- Chemical name and Warning texts in German, English, French and Spanish

Colour	Print	PK	Cat. No.	Price	Now
				EUR	EUR
red	acetone	5	6.314 013	31,50	22,05
blue	distilled water	5	6.314 014	31,50	22,05
green	ethanol	5	6.314 015	31,50	22,05
yellow	isopropanol	5	6.314 016	31,50	22,05
orange	methanol	5	6.314 017	31,50	22,05

Jerrycans, HDPE, with UN approval





All purpose containers suitable for the S.C.A.T. Safety System. GL 45.

-6	%

Capacity	Dimensions (W x D x H)	PK	Cat. No.	Price	Now
L	mm			EUR	EUR
2.5	115 x 150 x 210	1	4.005 599	11,80	10,61
5.0	150 x 195 x 250	1	4.005 600	15,80	14,91
10.0	190 x 230 x 305	1	4.005 601	18,30	16,80

Air Valve for SafetyCaps

Air valve for SafetyCaps, with integrated air filter.

The valve opens when the HPLC pump extracts solvents, and enables air flow into the bottle - this prevents vacuum or under pressure inside the bottle. As soon as the pump stops, the membrane immediately seals properly and blocks solvent vapours. Since the filter membrane absorbs contaminants from the surrounding air in order to protect your solvents, it is necessary to replace the valve every 6 months for constant performance.



Description	Flow rate amount	PK	Cat. No.	Price	Now
	ml/min			EUR	EUR
Air valve for SafetyCaps (refill pack of 10)	150	10	4.005 886	203,80	200,72

Tubing, PEEK



For use in LC, LCMS and automation technology. The polyetheretherketone (PEEK) tubing are a flexible alternative to stainless steel tubing in high pressure applications. The tubing are colour coded to industry standards for easy identification of the inner diameter. They are inert to most commonly used solvents. Exceptions are very caustic reagents, strong acids and bases.

- Smooth inner surface
- Good chemical resistance
- Bio-inert and biocompatible
- Operating temperature up to max. 100 °C
- Pressure stable up to 480 bar (7000 psi, 48000 kPa)

Int. diam.	Ext. diam.	Length	Colour	PK	Cat. No.	Price
mm	mm	m				EUR
0.13	1.6	1.5	red	1	4.662 782	18,66
0.18	1.6	1.5	yellow	1	4.662 783	18,66
0.25	1.6	1.5	blue	1	4.662 784	13,46

Accessories for PEEK Tubing



Screw Caps GL 45 with general purpose coupling, BQ45GL Series





The bottle caps with quick disconnect coupling or FitQuik® tubing connection integrated in a cap for all common laboratory bottles with GL 45 thread, blue. The BQ45GL series has a hydrophobic packaging vent, a polyethylene gasket and hose barb with 1/1" (6.35 mm) ID for mounting a dip tube.

- For all bottles with thread GL 45
- Factory-installed quick couplings
- Tight closure even without seal
- One hand operation

Specifications		2200
Nominal size:	1/4"	-23%
Operating temperature:	0 49 °C	

Туре	PK	Cat. No.	Price	Now
			EUR	EUR
Coupling plug PMC12 Series	1	4.662 843	25,80	19,75

General Purpose Couplings with valve, PMC12 Series, PP





PMC12 coupling beige, for more demanding applications, such as microbiological analysis equipment, cleaner concentrates, electroplating fluids, sterilisation equipment and water pollutant analysis. Both coupling parts are fitted with a valve. When disconnecting the coupling, both sides close tightly. Main components and stop valve made of PP. Unlocking button, springs and pins made of stainless steel 316. Material O-rings: EPDM

- Unlocking button for one-handed operation
- Integrated connections for short installation lengths and fast installation
- With stop valve
- Sterilisable with gamma rays

Specifications

Nominal size valve: 1/8"

Operating pressure: 8.3 bar, 120 psi

Operating temperature: 0 ... 71 °C



Туре	Connection diam. inside	Overall length	PK	Cat. No.	Price	Now
		mm			EUR	EUR
Coupling PMCD17 tubing nozzle	70112, 1/16", 1,6 mm	n 36.1	1	4.662 905	11,80	9,04
Coupling PMCD17 tubing nozzle	70212, 1/8", 3,2 mm	42.4	1	4.662 907	11,60	8,12
Coupling PMCD17 tubing nozzle	70412, 1/4", 6,4 mm	47.5	1	4.662 910	12,00	8,40

Halogen Moisture Analyser DBS 60-3



Modern moisture analyser with 10 memories and graphic display

- Halogen quartz glass heater 400 W
- Backlit LCD display, digit height 15 mm: Previous drying time, current temperature, unit for displaying the results, current moisture content in %, drying mode/Status display drying
- Observation window over the sample, useful during initial adjustment
- Internal memory for automatic sequence of 10 drying programs and 100 drying processes carried out
- The last value measured remains on the display until it is replaced by a new measurement
- Sample description for up to 99 samples, 2 digits, freely programmable, and is printed in the measuring protocol
- Date and time display as standard
- 10 sample plates included

Specifications

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



Now	Price	Cat. No.	Pk	Туре
EUR	EUR			
993,14	1.270,00	9.901 441	1	DBS 60-3

LLG-Sample Dishes, Aluminium





High quality aluminium sample dishes, for moisture determination.



Description	Diam.	Height	PK Cat. No.	Price	Now
	mm	mm		EUR	EUR
Sample dishes	100	7	80 6.265 408	33,80	23,66

Precision Balance PNS/PNJ



With robust tuning fork weighing system for fast display of the weight value, accurate dosing and high mechanical load capacity.

- PNJ models with internal calibration function and guaranteed high accuracy, thus location-independent and ideal for mobile applications which require verification
- PNS models with external calibration function
- Capacity display: A bar lights up to show how much of the weighing range is still available
- Accurate counting: The automatic reference optimization gradually improves the average value of the part weight
- Compact dimensions, advantageous when space is limited
- Stainless steel weighing plate
- Models 600-3 and 600-3M have a large removable glass draft shield and a weighing chamber measuring (W \times D \times H) 172 \times 171 \times 160 mm.
- Large LCD display, digit height 16.5 mm
- Permissible ambient temperature range: 5 to 40 °C



Туре	Capacity	Readability	Reproduci- bility	Linearity	PK	Cat. No.	Price	Now
	g	g	g	± g			EUR	EUR
PNS 600-3	620	0.001	0.001	0.004	1	6.281 583	620,00	484,84
PNS 3000-2	3200	0.01	0.01	0.02	1	6.284 227	580,00	453,56
PNS 12000-1	12000	0.1	0.1	0.2	1	6.284 228	570,00	445,74
PNJ 600-3M*	620	0.001	0.001	0.004	1	6.270 591	730,00	570,86
PNJ 3000-2M*	3200	0.01	0.01	0.02	1	7.643 634	705,00	551,30
PNJ 12000-1M*	12000	0.1	0.1	0.2	1	7.644 987	705,00	551,30
*calibratable								

Weighing Boat Parchment Paper, Kjeldahl 609, nitrogen-free

Made of nitrogen-free parchment paper. Can be dropped into the Kjeldahl flask and be dissolved together with the sample.



Now	Price	Cat. No.	PK	Height	Length	Width
EUR	EUR			mm	mm	mm
84,18	101,70	9.069 011	100	10	55	10

Ultrasonic Baths, SONOREX SUPER



These devices work at 35 kHz and have transducers for maximum cleaning power. SweepTec® for permanent sound field oscillation ensures even and gentle cleaning. Available with heating with adjustable temperature range from 20 to 80 °C. Power information: High ultrasonic peak power and nominal ultrasonic power 230 V, 50/60 Hz. All models are spill-proof with stainless steel tanks (RK 102 H hard-chromium plated) and outer cases, drip proof (IP 32).

Type RK 510 H and above supplied with outlet **Type H** with heating adjustable from 30 to 80 °C

Туре	Capacity of the bath	Internal dimensions (W x D x H)	PK	Cat. No.	Price	Now
	litres	mm			EUR	EUR
RK 100	3.0	240 x 140 x 100	1	9.877 100	576,00	430,85
RK 100 H	3.0	240 x 140 x 100	1	9.877 101	700,00	523,60
RK 510 H	9.7	300 x 240 x 150	1	9.877 511	1.287,00	962,68

Accessories for SONOREX, stainless steel



Optimal ultrasonic wave transmission. Items to be cleaned should not be placed on the bottom of the tank.

Lids for covering bath tanks, as outlined below.

Туре	For bath type	PK	Cat. No.	Price	Now
	,,			EUR	EUR
Suspension basket	RK 100/100 H	1	9.877 633	55,00	41,14
Lid	RK 100 H	1	9.877 603	35,00	26,18

Ultrasonic Sieve-Bath SONOREX SUPER RK 106



BANDELIN

25%

25%

Ultrasonic bath for cleaning of 1 test sieve with 200 mm diameter.

Please order sieve holder SH 7 (9.877 784) separately.

Now	Price	Cat. No.	PK	Plug type	Capacity of the bath	уре
EUR	EUR				litres	
661,98	885,00	9.877 106	1	EU	5.6	K 106
661,98	885,00	9.877 105	1	UK	5.6	K 106
661,98	885,00	9.877 107	1	CH	5.6	K 106

Soundproof Box LS 40







Noise reduction of up to 30 dB-AU

To reduce the noise level when sonicating samples with an ultrasonic homogeniser. The lower part of the interior and the removable bottom tray are made of stainless steel and are therefore chemically resistant and easy to clean.

- Noise reduction of up to 30 dB-AU
- LED interior lighting
- Acrylic glass window
- With effective ventilation system
- With opening (40 x 70 mm) for cooling tubing, sample circulation or the SONOPULS temperature sensor on the back
- Removable bottom tray
- Easy retrofitting for use with sonotrodes or cup booster possible

The stand HG 40 is required to attach the ultrasonic converter. Please order separately.



Now	Price	Cat. No.	PK	For	Туре
EUR	EUR				
1.384,00	1.730,00	4.672 127	1	HD 2000.2 / HD 3000 / HD 4000	LS 40

Support frame for Soundproof Box LS 40



The stand is used for the correct and variable positioning of the ultrasonic transducers.



Туре	For	PK Cat. No.	Price	Now
			EUR	EUR
HG 40	HD 2000 / HD 2000.2 / HD 3000 / HD 4000	1 4.672 126	768.00	614.40

Sample Bags Whirl-Pak®, PE, sterile

Nasco WHIRL-PAK.

Nasco

Whirl-Pak® bags are sterile polyethylene laboratory sample bags used to transport samples for biological testing and other applications. Without write-on label. With integrated wire closing system.

Temperature range: -210 to 82 °C.

-17%

Nominal capacity	Dimensions (D x W)	Thickness	PK	Cat. No.	Price	Now
ml	mm	mm			EUR	EUR
118	75 x 185	0,057	500	9.404 234	68,50	57,12

Sample Bags Whirl-Pak® Stand-Up, PE, sterile, free standing





Easy sample handling due to the specially gusseted bottom which flattens out when the sample is placed inside, allowing the bag to stand up on its own. It works just like a bottle or beaker, however it cost less, is shatterproof and uses a fraction of the storage space. The integrated wire closing system ensures the tightness of the sample bag. With write-on label for clean and easy identification. 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	0,064	500	9.404 231	96,60	80,24
532	115 x 230	0,076	500	9.404 232	147,00	119,68
2041	190 x 380	0,102	250	6.260 543	196,40	160,48

Sample Bags Whirl-Pak® Speci-Sponge®, PE with sponge, dry, cellulose





For environmental surface sampling of work areas and equipment. The natural cellulose dry sponge is free of bactericides and has been tested to be non-inhibitory.

Nominal capacity	Dimensions (D x W)	Thickness	PK	Cat. No.	Price	Now
ml	mm	mm			EUR	EUR
532	115 x 230	0.064	100	7.970 873	132,30	107,44

Sample Bags/Homogenising Bags Whirl-Pak®, PE, sterile

Nasco



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

- With and without labelling strips

-21%

Nominal capacity	Dimensions (D x W)	Thickness	Label	PK	Cat. No.	Price	Now
ml	mm	mm				EUR	EUR
384	130 x 190	0,076	-	500	6.052 018	110,30	89,76
710	150 x 230	0,102	-	500	9.404 233	168,00	136,00
1627	190 x 300	0,102	+	500	7.059 855	252,00	198,56

Filter Bags Whirl-Pak®, PE, sterile





All the bags use the same filter material. These special bags contain a third layer of finely perforated polyethylene, which filters out the solids in the sample when used in a homogeniser blender. This allows for easy pipetting of the sample. The hole diameter in the filter layer measures 0.33 mm and there are 285 holes per square cm. The filter is sealed into the perimeter of the bag on the sides and bottom, allowing the sample to be placed in the bag on either side. The liquid will transfer through the filter, but the solids stay on one side. With write-on label. Temperature range: -210 to 82 °C.



Nominal capacity	Dimensions (D x W)	Thickness	PK	Cat. No.	Price	Now
ml	mm	mm			EUR	EUR
710	150 x 230	0,102	250	7.970 783	238,40	194,48
1627	190 x 300	0,102	250	6.263 368	282,50	231,20

Disposable Scoops SteriPlast® Bio, **Green PE**









They are ideal for the sampling of powder, granules and pastes. The LaboPlast® Bio/SteriPlast® Bio products are entirely made of renewable resources. Not only with regard to quality but also with regard to its characteristics for high-quality sampling, it is perfectly comparable with conventional polyethylene.

- Individually packed in organic PE foil, gamma-sterilized
- Production, assembling and packaging acc. to Cleanroom class 7 (10000)
- According to EU food and FDA guidelines



Capacity	Length	Sterile	PK	Cat. No.	Price	Now
ml	mm				EUR	EUR
25	141	+	10	6.265 049	17,20	15,20
50	160	+	10	6.265 050	17,80	15,69
100	205	+	10	6.265 051	18,40	16,22
150	216	+	10	6.265 052	18,80	16,62

Disposable Spoons SteriPlast® Bio, **Green PE**









The spoons are ideal for sampling powders, granules and pastes. The LaboPlast® Bio/SteriPlast® Bio products are entirely made of renewable resources. Not only with regard to quality but also with regard to its characteristics for high-quality sampling, it is perfectly comparable with conventional polyethylene.

- Individually packed in organic PE foil, gamma-sterilized
- Production and packaging

Capa

10

- acc. to Cleanroom class 7 (10000)
- According to EU food and FDA guideline

city	Length	Sterile	PK	Cat. No.	Price	Now
	mm				EUR	EUR
	127	+	100	6.265 053	39,70	35,09
	170	+	100	6.265 054	42,30	37,35

Disposable Spatulas SteriPlast® Bio, **Green PE**







Due to their long, ergonomic and solid handles and pointed blades they can be easily pierced into paper and plastic bags. The spatulas are ideal for sampling of powder, granules and pastes.

The LaboPlast® Bio/SteriPlast® Bio products are entirely made of renewable resources. Not only with regard to quality but also with regard to its characteristics for high-quality sampling, it is perfectly comparable with conventional polyethylene.

- Individually packed in organic PE foil, gamma-sterilized
- Production, assembling and packaging acc. to Cleanroom class 7 (10000)
- According to EU food and FDA guidelines

-1	2%
	- 7

Length	Imm. depth	Sterile	PK	Cat. No.	Price	Now
mm	mm				EUR	EUR
263	150	+	10	6.265 061	15,50	13,70

Core Sampler Quick Picker, **Stainless Steel V4A or PP**







Suitable for removing bulk materials from sacks or large bags and depositing them directly into sample bottles. Simple to use and clean. Crevice-free to prevent sample residues causing cross-contamination which could affect subsequent sample results. Complete with cleaning brush and two 250 ml sample bottles.

				-1	2%
1 11	*	A4 1 1 1	DI/ C I N	D :	

Capacity	Length	Imm. depth	Material	PK	Cat. No.	Price	Now
ml	cm	mm				EUR	EUR
75	50	300	V4A	1	9.303 850	210,40	185,99

Vortex Mixers ZX4/WIZARD/TX4 with IR sensor



With patented IR Sensor

Fatigue-free Working

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

- For IR sensor and continuous operation
- Electronic speed control
- Adjustable shaking speeds up to 3000 $\rm min^{\text{-}1}$
- Very good chemical resistance
- Broad range of accessories available

ZX4: Analog vortex mixer

WIZARD: Compact, analog vortex mixer

TX4: Digital vortex mixer with timer and LCD display

Scope of delivery: Vortex mixer with mixing head

Specifications

Type of movement: orbital
Orbital diameter: 4.5 mm
Speed range: 0 ... 3000 min⁻¹
Input power 15 W

IP code: IP 42

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

Warranty: 3 years

PK Cat. No. Type Net weight Plug type Price Now EUR EUR 7.971 461 147,55 WIZARD EU 4.666 536 182.62 1 4.666 537 222,21

Dry Baths AccuBlock™





The device is available in single, dual, and four block configurations and provide a broad temperature range up to 150 °C, which makes them useful for a variety of applications in molecular biology, histology, clinical, environmental, and industrial laboratories.

- Single, dual and four block capacity
- Dual display
- USB connectivity enables traceability of data
- Molded block chamber

Please order blocks separately.

Specifications

Weight

Temperature range: Ambient +5 to +150 °C
Temperature uniformity: ± 0.2 °C
Temperature resolution: ± 0.1 °C
Temperature accuracy: ± 0.3 °C
Temperature control: Microprocessor

Timer: 1 ... 99 h 59 min or continuous

Block material: Aluminium

Dimensions (W x D x H)
Single/Dual Block: 210 x 290 x 120 mm
4 Block: 210 x 390 x 120 mm

Single/Dual Block: 3.2 kg 4 Block: 4.4 kg

Power supply: 230 V, 50/60 Hz

Type PK Cat. No. Price Now

EUR EUR
Single Block 1 6.272 368 348,20 243,74
Dual Block 1 6.272 369 444,20 310,94
Four Block 1 6.272 370 584,40 421,48

Blocks for AccuBlock™





30%

For	PK	Cat. No.	Price	Now
			EUR	EUR
24 x 1.5 ml tubes	1	6.224 191	103,00	72,10
20 x 2.0 ml tubes	1	6.233 664	103,00	72,10
20 x 12 mm tubes	1	6.241 353	89,00	62,52
12 x 15 ml centrifuge tubes	1	9.945 764	103,00	72,10

-10%

Thermo Shaker LLG-uniTHERMIX 1 Pro and 2 Pro



The LLG-uniTHERMIX pro is ideal for shaking and temperature control of a variety of tubes or plates (depending on the block used). With its high temperature uniformity, fast heating rate and excellent mixing results the LLG-uniTHERMIX pro is perfect for the incubation of samples of any kind, in particular for Life Science applications, e.g. Enzyme reactions, transformations, denaturation of DNA and RNA. The heating blocks are magnetically attached to the LLG-uniTHERMIX pro and do not have to be screwed down.

- Precise temperature control system
- Temperatures up to 100 °C
- Temperature accuracy of ±0.5 °C (20 to 45 °C)
- Efficient mixing up to 1500 rpm (depending on the heating block)
- Up to 9 storable programs
- Many block options available (see below)
- Automatic block recognition

LLG-uniTHERMIX 1 pro: with shaking and heating function, Temperature range: RT + 5 °C to approx. + 100 °C

LLG-uniTHERMIX 2 pro: with shaking, cooling and heating function, Temperature range: 15 °C below RT to approx. +100 °C

Blocks must be ordered separately.

Specifications

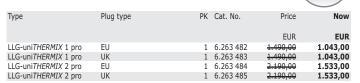
Temperature range LLG-uniTHERMIX 1 pro: RT + 5 °C ... approx. 100 °C LLG-uniTHERMIX 2 pro: 15 °C below RT ... approx. 100 °C Temperature control: ±0.5 °C (at 20 ... 45 °C) Uniformity: ±0.5 °C (at 20 ... 45 °C) 5.5 °C/min Max. heating rate: 5 °C/min (100 °C ... RT) Max. cooling rate (LLG-uniTHERMIX 2 pro only): 0.5 °C/min (below RT) Electrical heating/cooling power: 200 W Speed range: 300 ... 1500 min⁻¹

Orbit: 3 mm

Display: LCD Programs: 6 stages, 9 programs Timer: 1 ... 99 hours or continuous 1 exchangeable block* Capacity: Dimensions (W x D x H): 200 x 235 x 120 mm

Weight:

220 ... 240 V, 50/60 Hz Power supply:



7.3 kg

Microplate Thermoshaker PHMP-4

grant



The PHMP is a variable speed, variable temperature microplate shaker incubator with excellent temperature uniformity across the microplate. The patented heated lid and base which completely cover the plate produce a controlled micro-environment. This is combined with powerful orbital shaking to produce the maximum yield from your incubations.

- Stability ±0.1 °C, uniformity ±0.25 °C, rapid heat-up
- For standard 96 or 384-well plates (max. 14mm height)
- Variable speed: 250 rpm to 1200 rpm
- 2mm shaking orbit for effective mixing
- Temperature setting range: +25 to 60 °C
- Temperature control range: RT +5 to 60 °C
- Timed operation: 1 min to 96 hours



Type	Min. operating temperature	Max. operating temperature	PK	Cat. No.	Price	Now
	RT + °C	°C			EUR	EUR
PHMP-4	5	60	1	6.227 761	1.535,00	1.290,14

Heating Blocks for Thermo shaker LLG-uniTHERMIX 1 and 2 Pro







For	PK	Cat. No.	Price	Now
			EUR	EUR
24 tubes, 0.5 ml	1	6.263 486	329,00	230,30
24 tubes, 1.5 ml	1	6.263 487	329,00	230,30
24 tubes, 2 ml	1	6.263 494	329,00	230,30
8 tubes, 5 ml	1	6.263 495	329,00	230,30
8 tubes, 15 ml	1	6.263 496	329,00	230,30
4 tubes, 50 ml	1	6.263 497	329,00	230,30
96 well PCR plates, 0.2 ml tubes	1	6.263 498	329,00	230,30
96/384 microplate	1	6.263 499	329,00	230,30

30%

Rotary Vane Pumps RZ-Serie

Vacuubrand rotary vane pumps encompass one and two stage pumps with throughputs from 2 to 9 m³/h. Typical rotary vane pump applications include, use as a backing pump for turbomolecular pumps but also serve in diverse chemical laboratory applications.



Features and important characteristics: high water vapour tolerance, vacuum tight pumping mechanism when switched off, high performance gas ballast mechanisms. These increase the overall performance potential of these pumps, the service life of mechanical parts, increase oil-change intervals and reduce maintenance overheads.



Accessories for Vacuum Rotary Vane Pumps RZ

Description	PK	Cat. No.	Price
			EUR
Oil mist filter for RZ 2.5 / RZ 6	1	9.882 889	291,72
Exhaust filter FO for RZ 9	1	6.206 298	342,72

-5%

Туре	Dimensions (W x D x H)	Flow rate (50/60Hz)	Ultimate vacuum (abs.)	Weight	Connector	PK	Cat. No.	Price	Now
	mm	L / min.	mbar	kg				EUR	EUR
RZ 2.5	316 x 125 x 190	38.33 / 46.67	0.002	11.4	CEE	1	9.880 123	1.925,00	1.832,60
RZ 6	370 x 142 x 207	95 / 133.33	0.002	16.4	CEE	1	9.880 124	2.460,00	2.341,92
RZ 9	460 x 152 x 232	148.33 / 170	0.002	24.2	CEE	1	9.880 125	3.210,00	3.055,92
Country-spec	cific power cord versions available	on request.							

Vacuum Tubing, rubber

DEUTSCH & NEUMANN



Red. Rubber (NR). Durometer 45 Shore A. Pack unit in meter.

Int.	Wall	PK	Cat. No.	Price	Now
diam.	thickness				
mm	mm			EUR	EUR
6	5	10	9.205 812	49,80	34,86
7	5	10	9.205 813	56,10	39,27
8	5	10	9 205 814	58.10	40.67

OTAL® Disposable Pumps with PE conveying pipes



Space-saving container pump for single use. The medium to be filled only comes into contact with the conveying pipe. The conveying pipe is made of one piece and can easily be shortened to the respective container height with the supplied cutter for good residual emptying. The disposable conveying pipe can be replaced quickly and easily after use.



Scope of supply: Pump ball, universal plug made of soft PVC for container openings of 30 - 70 mm \emptyset , cutter and 10 disposable conveying pipes

Conveying Pipes, PE

For OTAL® disposable pump, Ø 12 mm.



Туре	PK	Cat. No.	Price	Now
			EUR	EUR
Conveying pipes	1	4.670 770	28,90	25,43

-12%

Туре	Diam.	Immersion depth	Flow rate	PK	Cat. No.	Price	Now
	mm	mm	L / min.			EUR	EUR
Foot pump	12	90	14	1	4.670 768	83,30	73,30
Hand pump	12	90	14	1	4.670 769	67,50	59,40

2-in-1 Mini-Centrifuge and Magnetic Stirrer MagFuge®









Unique - Centrifuge and Stirrer in Combination Universal plug

The MagFuge® combines a High-Speed Centrifuge and a Magnetic Stirrer in one unit.

MagFuge® Centrifuge:

- Maximum speed and flexibility
- Comfortable and easy to use
- Safety stop when lid is open, rotor is jammed, or the unit is out of balance
- Ideal for most protocols requiring fast spins, and appropriate for PCR, microfilter cell separation

MagFuge® Magnetic stirrer:

- Powerful magnetic coupling ensures consistent accurate alignment of the stir bar
- With Silicone mat for stirrer lid to prevent spills and to keep vessels stable
- With low voltage, double insulated Power adapter to keep the unit cool and ensuring sample integrity

15 ... 9.800 x g

500 ... 12.500 rpm

185 x 235 x 120 mm

50 ... 2.500 rpm

1 min ... 60 min

3 I

130 mm

1.85 kg

12 V

12 x 1.5/2.0 ml or 6 x 5 ml

30 s ... 60 min in 5 s increments

30 s ... 60 min in 5 s increments

30 s ... 15 min in 15 s increments

Scope of supply: Mini-Centrifuge, 1.5/2.0 ml and 5 ml Tube Rotors, Stirrer Rotor, 12 x 0.2 ml and 12 x 0.5 ml Tube adapters, 2 Silicone mats, 2 cylindrical Stirring Bars, Power adapter with cord set for EU, UK, US, AUS and JPN

Specifications MagFuge® Centrifuge

Max. RCF: Max. speed: Max. tube capacity:

Timer:

Dimensions (W x D x H):

MagFuge® Magnetic stirrer

Max. speed:

Max. stirrer capacity:

Timer: Stirrer Mode:

Oscillating Stirrer Mode:

Dimensions stirring plate (diam.):

Dimensions stirring bar (L x diam.): 40 x 12 mm Weight:

Power supply:

Warranty: 5 years PK Cat. No. Colour Price Now **EUR** 836,29 Grey/purple 4.664 776 1 4.664 777 Grey/blue 836,29

Mini Centrifuge LLG-uniCFUGE 5 with timer and digital display









Fixed angle rotor with lid, made of aluminium for 12 x 1.5/2 ml tubes with optimised aerodynamics which minimize heat and noise during operation. Operation in RPM or RCF mode possible by simple switching. Short-Spin mode with selectable RZB and RPM values.

Large LCD (3.9") display with intuitive interface. Integrated imbalance-detection with automatic shutdown.

Wide suction feet provide a stable base. The centrifuge can be controlled via computer by using the included software that can store up to 99 user-defined programmes. Operational record output to Excel.

The following types of vessel can be used:

12 x 0.2 ml PCR tubes

12 x 0.4 ml centrifuge tubes

12 x 0.5 ml centrifuge tubes 12 x 1.5 ml centrifuge tubes

12 x 2.0 ml centrifuge tubes

Scope of supply: Centrifuge with rotor for 12 x 1.5/2 ml tubes, power supply with USB cable, 12 Adapters for 0.4/0.5 ml tubes, 12 Adapters for 0.2 ml tubes, Allen wrench with T handle, Software CD

- Rotor for 16 x 0.2 ml tubes or 2 x 8 PCR-stripes (Cat. No. 6.263 535)

Specifications

Max. RCF: 15.595 x g

variable from 500 ... 15.000 min⁻¹ Max. speed:

Motor: brushless DC motor Max. load: 12 x 2 ml PCR tubes Timer: 0 ... 999 min 262 x 230 x 131 mm

Dimensions (W \times D \times H):

Weiaht: 4 kg

Power supply: 100 ... 240 V, 50/60 Hz -9%

Туре	Plug type	PK	Cat. No.	Price	Now
				EUR	EUR
LLG-uniCFUGE 5	EU	1	6.263 530	639,00	583,25
LLG-uniCFUGE 5	UK	1	6.263 531	639,00	583,25

Rotor for Mini centrifuge LLG-uniCFUGE 5



Description	PK	Cat. No.	Price	Now
			EUR	EUR
Rotor for 16 x 0,2ml tubes or 2 x 8 PCR-stripes	1	6.263 535	125,00	87,50

30%

Overhead Stirrer LLG-uniSTIRRER OH2, digital



Cost-effective laboratory stirrer designed for simple stirring tasks for quantities up to 20 I (H_2O). Automatic speed adjustment in the range between 50 and 2200 min⁻¹ via microprocessor-controlled technology. Safety circuits ensure automatic cut-off in an anti-stall or overload situation. Actual and set speed are constantly monitored ensuring no undesired speed variations, even if the sample viscosity changes.

- Brushless, maintenance-free motor
- Digital speed display
- Display for speed or torque changeable
- Infinitely adjustable speed
- Overload protection - Non-slippery mat
- Slim casing
- Quiet operation
- Error code display
- RS232 port

Stand:

Stainless steel stand incl. boss head, dimension (W \times D \times H): 200 x 310 x 780 mm, non-slippery mat

Stirrer:

4-blade propeller stirrer, stainless steel, shaft length 400 mm, stirrer diameter 50 mm

Scope of supply: Overhead stirrer LLG-uniSTIRRER OH2, stand, non-slippery mat and 4-blade-propeller stirrer

Specifications

Max. stirring quantity (H₂O):

50 ... 2.200 rpm Speed range: 10.000 mPas Max. viscosity: Motor rating input/output: 60/50 W Speed display accuracy: ±3 rpm 40 Ncm Max. torque at stirring shaft: LCD Display: Chuck range: 0.5 ... 10 mm

Dimensions (W \times D \times H): 83 x 186 x 220 mm Power supply: 110 ... 240 V, 50/60 Hz

IP code: **TP 21**

PK Cat. No. Туре Plug type Price Now EUR **EUR** LLG-uniSTIRRER OH2 LLG-uniSTIRRER OH2 6.263 455 542,50 UK 1 6.263 456 542,50

Stirrer with stirrer bearings, **DURAN®** tubing





Made of DURAN $^{\!\scriptscriptstyle \otimes}$ tubing. For round bottom flasks 250 to 2000 ml. Stirrer shaft, with PTFE stirrer blade and fixing screw. Seals vacuum stirring apparatus gas-tight to 10-3 mbar up to a permanent load of 800 rpm.



Туре	PK Cat. No.	Price	Now
		EUR	EUR
Stirrer with stirrer bearing, complete	1 9.198 050	194.20	158.44

Flexible Clutch



Required for stirring tasks using glass stirring rods. The flexible coupling compensates for any structural variances.

Clamping range: 6 to 10 mm Torque max. 10 Ncm



Туре	PK	Cat. No.	Price	Now
			EUR	EUR
FK 1	1	9.197 060	72,00	58,75

30%

IK A

Magnetic Stirrer myPlate





- **High Chemical Resistance**
- Removable Frames to design with your own Pictures





IKA Customized

Thanks to the interchangeable frame the image template provided can be exchanged easily through a personal image.

Specifications

Stirring volume (H₂O): 1.5 l Speed range: 0 ... 2000 rpm 5 ... 40 °C Permissible ambient temperature: Permissible relative humidity: 80 % Glass Material: Dimensions Top plate (Ø): 135 mm Dimensions (W x D x H): 150 x 160 x 30 mm Weight: 500 g 100 ... 240 V Supply requirements:

PK Cat. No. Price Now Type EUR **EUR** 1 4.665 612 myPlate 284,65

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. The IKA SmartTemp® function protects users intelligently and predictably.

- 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
- Temperature control directly in the medium with PT 1000 temperature sensor
- Adjustable safety circuit up to 360 °C
- IKA SmartTemp® function prevents users from burn injuries
- USB-/RS232 interface
- 10 years warranty



Specifications

Max. stirring quantity (H₂O): 20 I Motor rating input/output: 50 W/9 W Speed range: Max. stirring bar length: 80 mm Heating power: 600 W Heating rate (1 | H₂O): 7 K/min ambient +10 to 310 °C Temperature range: ±5 K

Heat control accuracy at 100 °C: Safety circuit:

Connection for ext. temp. sensor: Control accuracy with sensor PT1000,

ETS-D5/ETS-D6: Set-up plate Material: Set-up plate Dimensions:

Protection class acc. to DIN EN 60529: Overall dimensions (W \times D \times H):

Weight:

Type

RCT digital

Power supply:

50 to 1500 rpm

50 to 360 °C PT1000, ETS-D5, ETS-D6

±0.5 K/±0.2 K Aluminium alloy diam. 135 mm IP 42

160 x 270 x 85 mm

2.4 kg

1 6.286 692

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

PK Cat. No. Price Now FUR **EUR**

-5%

833.00

Magnetic Stirrers MICROSTIRRER

-5%

Small, lightweight magnetic stirrers for volumes up to 5 L. Ideal for titration, BOD determination, microbiological and biochemical applications.

- Set-up-plate remains cold even in continuous use

Protection class acc. to DIN EN 60529:

- Stirring speed up to 1100 rpm
- Pale set-up-plate
- Accurate speed control even at low speeds
- Splash-proof housing



IP 54

Specifications

Volume (H₂O): Power rating: 0.6 W Speed (max.): 1100 min⁻¹ Number of stirring positions: Display: Analog

Dimensions (W x D x H):

Weight: Power supply:

Warranty:

120 x 136 x 50 mm 0.5 kg 100 ... 240 V, 50/60 Hz -10% 3 years

Туре	Material stirring surface	PK	Cat. No.	Price	Now
				EUR	EUR
MICDOCTIDDED	Enouge control stool	1	4 653 263	01.00	01 07



OFFICE

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SEAT 1114 Budapest Mészöly u. 4. al 1.



LABORTOPS

Benchtop Shaking Incubator 222DS



The Benchtop Shaking Incubator is a combination of a shaker and a temperature chamber, designed for shaking and heat treatment of sensitive samples. It replaces two devices, reduces time and space needed. It is very suitable for biochemistry, microbiology and medicine laboratories in which thermal and shaking treatment of samples is a daily used routine.

- High temperature working range
- Can be used in cold rooms too
- Digital readout of all parameters read temporary or pre-set RPM, temperature, time, acceleration
- Parameter changes while the device is running (except timer)
- Last parameter $\bar{\text{values}}$ reside in the memory even if the device was switched off

Precisely adjusted and maintained temperature regulation within 0.5 °C of absolute deviation from the set temperature

- HOLD and STEP time function with 1 minute resolution
- Easy interchangeable platforms
- Lid sensor

Universal attachment and non-slip mat please order separately.



- Can be used in cold rooms
- Max. Deviation of 0.5 °C from the set temperature
- Easy interchangeable platforms



Specifications

Ambient +5 °C ... 70 °C Temperature range:

±0.5 °C Precision: Speed range:

20 ... 300 rpm

Timer: 1 min - 99 hours or continuous

Platform size: 300 x 300 mm

Supply requirements: 230 V, 50 Hz



Туре	PK	Cat. No.	Price	Now
			EUR	EUR
222DS	1	6.259 079	3.084,90	2.159,43

Accessories

Description	PK	Cat. No.	Price	Now
			EUR	EUR
Universal platform 30 x 30 cm	1	6.259 080	251,80	200,10
Non-slip mat 15 x 15 cm	2	6.259 082	51.80	38,69