



LAB INSTRUMENTS

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Good quality!

Great value!



Ultra-flat Magnetic Stirrer uniSTIRRER 1



- Ultra-flat
- Rotation direction change (Pulse Mode)
- Timer
- Stirring quantity up to 800 ml

Ultra-flat inductive magnetic stirrer without heating with timer. The modern magnet coil technology consists only of non-moving parts and therefore guarantees a wear-free drive.

For a better mixing of samples it is possible to change the direction of rotation every 30 seconds.

- **Timer** (1 min to 99 min, infinitely)
- 100 % wear- and maintenance-free inductive drive
- LED-display for an exact adjustment of the rotation speed
- Digital regulated rotation speed
- Alteration of the stirring direction
- Protection class IP 65
- Stainless steel surface

Scope of delivery: Magnetic stirrer, power cable, adapters for UK and universal plug.

Specifications

Stirring quantity (H ₂ O):	800 ml
Speed range:	15 to 1500 rpm
Permissible ambient temperature:	5 to 40 °C
Magnetic bar:	max. 25 mm
Display:	LED
Heating plate:	94 mm diam./ Stainless steel
Dimensions (W x D x H):	110 x 155 x 12 mm
Weight:	0.5 kg
Power supply:	100 - 230V, 50/60 Hz
Protection class:	IP 65

Type	PK	Cat. No.
LLG-uniSTIRRER 1	1	6.263 420



4-Position-Magnetic Stirrer uniSTIRRER 1/M4



- Ultra-flat
- Rotation direction change (Pulse Mode)
- Timer
- Stirring quantity per position up to 400 ml

Ultra-flat inductive magnetic stirrer without heating with timer. The modern magnet coil technology consists only of non-moving parts and therefore guarantees a wear-free drive.

For a better mixing of samples it is possible to change the direction of rotation every 30 seconds.

- Max. stirring quantity per stirring position 400 ml
- **Timer** (1 min to 99 min, infinitely)
- 100 % wear- and maintenance-free inductive drive
- LED-display for an exact adjustment of the rotation speed
- Digital regulated rotation speed
- Alteration of the stirring direction
- Protection class IP 65
- Stainless steel surface

Specifications

Stirring positions:	4
Distance between Stirring positions:	95 mm
Max. Stirring quantity (H ₂ O):	4 x 400 ml = 1600 ml
Speed range:	15 to 1200 rpm
Permissible ambient temperature:	5 to 40 °C
Magnetic bar:	max. 25 mm
Display:	LED
Heating plate (W x D):	122 x 385 mm
Dimensions (W x D x H):	126 x 457 x 13.5 mm
Weight:	1.9 kg
Power supply:	100 - 240 V, 50/60 Hz
Protection class:	IP 65

Type	PK	Cat. No.
LLG-uniSTIRRER 1/M4 with EU-plug	1	6.263 425
LLG-uniSTIRRER 1/M4 with UK-plug	1	6.263 426



Compact Magnetic Stirrer

LLG uniSTIRRER 2



- **Compact**
- **Cost-efficient - Perfect for Education**
- **Stirring quantity up to 1000 ml**

Compact and cost-efficient magnetic stirrer without heating for volumes up to 1000 ml. Adjustable speed from 0 to 2000 rpm. Plate diameter 120 mm. Body made of ABS.

Support rod, aluminium (Cat. No. 6.263 435) available as an optional accessory.

Specifications

Stirring quantity (H ₂ O):	1000 ml
Speed range:	0 to 2000 rpm
Permissible ambient temperature:	0 to 50 °C
Permissible relative moisture:	85 %
Material:	ABS case
Dimensions (W x D x H):	150 x 135 x 53 mm
Weight:	0.5 kg
Power supply:	100 - 230 V, 50/60 Hz
Protection class:	IP 21

Type	PK	Cat. No.
LLG-uniSTIRRER 2 with EU-plug	1	6.263 430
LLG-uniSTIRRER 2 with UK-plug	1	6.263 431



Magnetic Stirrer with Heating

LLG uniSTIRRER 3



- **Complete set**
- **HOT-Warning**
- **Stirring quantity up to 3000 ml**

Universal magnetic stirrer with all essential functions and equipment features. A LED display to control all parameters, an integrated temperature control as well as an closed design (IP 42) are integrated features. The included PT1000 sensor ensures an exact temperature control. A stand rod with a sensor holder is supplied with this instrument. The integrated **HOT-sign** warns the user of a hot plate even if the device is switched off.

- LED display to set the exact rotation speed and the temperature
- Digital controlled rotation speed and temperature
- 'HOT' warning sign, even if the device is switched off
- **Delivered as complete set:** magnetic stirrer, sensor PT1000, stand rod and sensor holder
- Integrated temperature control

Scope of delivery: Magnetic stirrer with PT1000 probe, rod and holder

Specifications

Stirring quantity (H ₂ O):	3000 ml
Speed range:	100 to 1500 rpm
Setting accuracy:	±10 rpm
Magnetic bar:	max. 50 mm
Display:	LED
Heating plate:	135 mm diam./Stainless steel
Permissible ambient temperature:	5 to 40 °C
Temperature range:	RT to 280 °C
Setting accuracy:	±1 °C
Control accuracy:	±2 °C
Heat output:	500 W
Safety temperature:	320 °C
Dimensions (W x D x H):	155 x 215 x 100 mm
Weight:	1.5 kg
Power supply:	200 - 240 V, 50/60 Hz
Protection class:	IP 42

Type	PK	Cat. No.
LLG-uniSTIRRER 3 with EU-plug	1	6.263 410
LLG-uniSTIRRER 3 with UK-plug	1	6.263 411



LLG LABWARE **uniSTIRRER 5** Magnetic Stirrer with Heating



- Complete set
- HOT-Warning
- Timer
- Large display

Universal magnetic stirrer with an outstanding price-performance ratio. Safety features include a **"hot" warning display** and a stirring function that continues to run until the plate temperature is below 50 °C, even when the device is switched off. A digital timer enables unattended operation and can be set from 1 min to 99 h 59 min. When the set time has elapsed, the unit stops automatically. An integrated control function offers precise control of the heated fluid temperature via a remote PT1000 temperature probe. The device is equipped with a Ø 135 mm ceramic plate, suitable for the LLG-Universal reaction block systems.

- Latest generation magnetic stirrer/hotplate
- Maintenance-free, brushless DC motor
- **Timer** (1 min to 99 h 59 min)
- Digital control and **backlit display**
- Stirrer and display can be controlled remotely via an RS232 interface
- Hot surface indicator
- White ceramic-coated, stainless steel top plate
- Sturdy metal housing
- Powerful stirring
- Connection for PT1000, integrated control function

Scope of delivery: Magnetic stirrer with PT1000 probe, rod and holder

Specifications

Stirring quantity (H ₂ O):	20 l
Speed range:	100 to 1500 rpm
Accuracy:	±1 rpm
Magnetic bar:	80 mm
Display:	LCD
Heating plate:	diam. 135 mm/stainless steel with ceramic surface
Permissible ambient temperature:	5 to 40 °C
Temperature range:	Ambient to 340 °C
Setting accuracy:	±0.1 °C
Control accuracy:	±0.2 °C
Heat output:	550 W
Safety temperature:	100 to 360 °C
Dimensions (W x D x H):	160 x 285 x 85 mm
Weight:	2.8 kg
Power supply:	200 - 240 V, 50/60 Hz
Protection class:	IP 42

Type	PK	Cat. No.
LLG-uniSTIRRER 5 with EU-plug	1	6.263 440
LLG-uniSTIRRER 5 with UK-plug	1	6.263 441

LLG LABWARE **uniSTIRRER 7** Magnetic Stirrer with Heating



- Complete set
- HOT-Warning
- Large display
- Stirring quantity up to 20 l

Universal magnetic stirrer with an outstanding price-performance ratio. Safety features include a **"hot" warning display** and a stirring function that continues to run until the plate temperature is below 50 °C, even when the device is switched off. An integrated control function offers precise control of the heated fluid temperature via a remote PT1000 temperature probe. The device is equipped with a square ceramic plate (184 x 184 mm).

- Latest generation magnetic stirrer/hotplate
- Maintenance-free, brushless DC motor
- Digital control and **backlit display**
- Stirrer and display can be controlled remotely via an RS232 interface
- Hot surface indicator
- White ceramic-coated, stainless steel top plate
- Sturdy metal housing
- Powerful stirring
- Connection for PT1000, integrated control function
- Mountable rod on the left and on the right side of the stirrer

Scope of delivery: Magnetic stirrer with PT1000 probe, rod and holder

Specifications

Stirring quantity (H ₂ O):	20 l
Speed range:	100 to 1500 rpm
Accuracy:	±1 rpm
Magnetic bar:	80 mm
Display:	LCD
Heating plate:	184 x 184 mm/stainless steel with ceramic surface
Permissible ambient temperature:	5 to 40 °C
Temperature range:	Ambient to 550 °C
Setting accuracy:	±0.1 °C
Control accuracy:	±0.2 °C
Heat output:	1000 W
Safety temperature:	100 to 580 °C
Dimensions (W x D x H):	215 x 360 x 112 mm
Weight:	5.3 kg
Power supply:	200 - 240 V, 50/60 Hz
Protection class:	IP 42

Type	PK	Cat. No.
LLG-uniSTIRRER 7 with EU-plug	1	6.263 450
LLG-uniSTIRRER 7 with UK-plug	1	6.263 451



Digital Overhead Stirrer

LLG uniSTIRRER OH2



- Overload protection
- Display for speed or torque
- Stirring quantity up to 20 l

Cost efficient laboratory stirrer designed for simple stirring tasks for quantities up to 20 l (H₂O). Automatic speed adjustment in the range between 50 and 2200 rpm via microprocessor controlled technology. Safety circuits ensure automatic cut-off in an anti-stall or overload situations. Actual and set speed are constantly detected 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**
- Slim casing
- Quiet operation
- Error code display
- RS232 port

Stand:

Stainless steel stand incl. boss head, dimension (W x D x H): 200 x 310 x 780 mm

Stirrer:

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

Scope of delivery: Overhead stirrer LLG-uniSTIRRER OH2, stand and 4-blade-propeller stirrer.

Specifications

Max. stirring quantity (H ₂ O):	20 l
Speed range:	50 to 2200 rpm
Max. viscosity:	10.000 mPas
Motor rating input/output:	60/50 W
Speed display accuracy:	3 rpm
Max. torque at stirring shaft:	40 Ncm
Display:	LCD
Chuck range:	0.5 to 10 mm
Dimensions (W x D x H):	83 x 186 x 220 mm
Power supply:	110-240 V, 50/60 Hz
Protection class:	IP 21

Type	PK	Cat. No.
LLG-uniSTIRRER OH2 with EU-plug	1	6.263 455
LLG-uniSTIRRER OH2 with UK-plug	1	6.263 456



Digital Roller Mixers

LLG uniROLLER 6 & 10



- Easily detachable rollers
- Digital display
- Pulse mode (stop and go)
- Programmable

Digital tube rollers **with 6 or 10 rolls** for the efficient mixing of biological samples, viscous substances and liquid-solid suspensions. The LLG-uniROLLER 6 and 10 are equipped with very easily detachable rollers enabling the user to adjust the space to hold tubes and bottles of different diameter and to quickly clean and decontaminate the unit in case of sample spillage.

- **Detachable and autoclavable rollers for very easy cleaning** in case of sample spills
- Speed ranging from 10 to 80 rpm and timer from 1 min to 99 min and continuous mode
- **Pulse mode feature for increased mixing efficiency**
- Microprocessor controller for accurate speed under variable load
- Brushless DC motor for quiet operation and maintenance free long life
- **Digital display**
- Save up to 9 user defined programs
- **Can be used in incubators up to 40 °C and humidity up to 80 %**
- Stackable design
- Tilting and rolling movement for ideal mixing

Specifications

Type of movement:	rocking and rolling
Amplitude:	24 mm
Load max.:	2 kg
Ambient temperature:	up to +40 °C
Max. humidity:	up to 80 %
Roller size (l x Ø):	330 x 30 mm
Power supply:	100-240 V, 50/60 Hz
Protection class:	IP 21

Type	Dimensions (W x D x H) mm	Rollers	PK	Cat. No.
LLG-uniROLLER 6 with EU-plug	502 x 301 x 92.5	6	1	6.263 650
LLG-uniROLLER 6 with UK-plug	502 x 301 x 92.5	6	1	6.263 651
LLG-uniROLLER 10 with EU-plug	502 x 448 x 92.5	10	1	6.263 652
LLG-uniROLLER 10 with UK-plug	502 x 448 x 92.5	10	1	6.263 653



Universal Mini Centrifuge **uniCFUGE 2**



- **Universal rotor for simultaneous use of centrifuge tubes and PCR-strips**
- **Two speeds selectable**

Compact and reasonably priced mini centrifuge with **universal rotor** for 6 x 1.5/2.0 ml and 6 x 0.5 ml tubes and 2 times 8 x 0.2 ml PCR-strips.

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

Specifications

Max. RCF:	1200 xg and 2000 xg
Max. speed:	4000 rpm and 6000 rpm
Max. load:	6 x 0.5/1.5/2 ml and 2 x 8-tube PCR strips (0.2 ml)
Dimensions (diam. x H):	140 x 120 mm
Weight:	0.7 kg
Power supply:	100-240 V, 50/60 Hz, 1 A

Type	PK	Cat. No.
LLG-uniCFUGE 2 with universal rotor with EU-plug	1	6.263 510
LLG-uniCFUGE 2 with universal rotor with UK-plug	1	6.263 511



Compact Mini Centrifuge **uniCFUGE 2/5**



- **Rotor for 4 x 5 ml tubes**
- **Two speeds selectable**

Compact and reasonably priced mini centrifuge with **rotor for 4 x 5 ml tubes**.

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

Specifications

Max. RCF:	1200 xg and 2000 xg
Max. speed:	4000 rpm and 6000 rpm
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, 1 A

Type	PK	Cat. No.
LLG-uniCFUGE 2/5 with rotor for 5ml Tubes with EU-plug	1	6.263 515
LLG-uniCFUGE 2/5 with rotor for 5ml Tubes with UK-plug	1	6.263 516



Mini Centrifuge with Timer and Digital Display



uniCFUGE 3



Mini Centrifuge with Timer and Digital Display

uniCFUGE 5



- Variable speed
- Wide range of vessel types
- 2 rotors included
- Adapter for PCR tubes

Compact and reasonably priced mini centrifuge with brushless and non-wearing high-efficiency motor. Stepless speed adjustment from 0 to 6000 rpm. Microprocessor controlled regulation for load-independent accuracy and integrated imbalance control. Integrated timer (0-25 minutes) and high speed constancy for reproducible results. Quick stop when the lid is opened. 2 flow-optimised rotors for 8 x 1.5/2 ml or 16 x 0.2 ml tubes reduce noise level and heat generation. Supplied with suction feet for a stable operation.

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 micro tubes

By using the fitting adapter:

8 x 0.4 ml micro tubes
8 x 0.5 ml micro tubes

Scope of delivery: Centrifuge, rotor for 8 x 1.5/2 ml tubes, rotor for 16 x 0.2 ml tubes, adapter for 8 x 0.2/0.4/0.5 ml tubes

Specifications

Max. RCF:	2000 xg
Max. speed:	variable up to 6000 rpm
Motor:	brushless DC motor
Max. load:	8 x 1.5/2 ml or 16 x 0.2 ml PCR tubes
Dimensions (diam. x H):	160 x 116 mm
Weight:	1.1 kg
Power supply:	100 - 240 V, 50/60 Hz

Type	PK	Cat. No.
LLG-uniCFUGE 3 with EU-plug	1	6.263 520
LLG-uniCFUGE 3 with UK-plug	1	6.263 521



- Large display (3.9")
- Imbalance-detection
- up to 15000 rpm
- Easy switch rpm/rcf

Compact microcentrifuge with excellent price-performance ratio and a performance of up to 15.595 xg. Microprocessor controlled brushless motor for speeds up to **15000 rpm. Operation possible in RPM or RCF mode.** Short-spin mode with selectable RZB and RPM values. Fixed angle rotor with lid, made of aluminium for 12 x 1.5/2 ml tubes with optimised aerodynamics which minimize heat generation and noise during use. **Large LCD (3.9")** readout with intuitive and user-friendly 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 or 12 x 0.4 ml Centrifuge tubes or 12 x 0.5 ml Centrifuge tubes or 12 x 1.5 ml Centrifuge tubes or 12 x 2.0 ml Centrifuge tubes

Scope of delivery:

- Centrifuge with rotor (incl. lid) 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
- User manual

Optional:

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

Specifications

Max. RCF:	15595 xg
Max. speed:	variable from 500 up to 15000 rpm
Motor:	brushless DC motor
Max. load:	12 x 2ml PCR tubes
Dimensions (W x D x H):	262 x 230 x 131 mm
Weight:	4 kg
Power supply:	100 - 240V, 50/60 Hz

Type	PK	Cat. No.
LLG-uniCFUGE 5 with EU-plug	1	6.263 530
LLG-uniCFUGE 5 with UK-plug	1	6.263 531



Microplate Shaker

uniPLATESHAKER 1



Orbital Shaker

uniSHAKER 25



- **Compact**
- **Variable speed**
- **Suitable for different micro plate sizes**

Microplate Shaker designed for accommodating and mixing a single micro plate. Due to its **small footprint** it can be used in working areas with limited space such as fume hoods and bio safety cabinets. It can also be used inside a cold-room.

- Digital Display with Speed and Time settings
- **Variable speed** from 300 to 1800 rpm
- Maintenance free brushless DC motor
- Orbital Diameter of 2 mm for thorough mixing
- Timer setting from 1 to 99 min and continuous mode
- **Universal fit;** comes with interchangeable clamps for different micro plate sizes
- Comes with foam attachment for 20 x 1.5/2 ml microtubes

Specifications

Type of movement:	orbital
Orbital diameter:	2 mm
Speed range:	300 to 1800 rpm
Motor:	Brushless DC motor
Timer:	1 to 99min, continuous
Power consumption:	15 W
Permissible ambient temperature:	4 to 40 °C
Dimensions (W x D x H):	127 x 85 x 86 mm
Weight:	1.4 kg
Power supply:	100-230V, 50/60 Hz

Type	PK	Cat. No.
LLG-uniPLATESHAKER 1 with EU-plug	1	6.263 488
LLG-uniPLATESHAKER 1 with UK-plug	1	6.263 489



- **Loads capacity up to 25 kg**
- **Robust**

Powerful, smooth running orbital shaker for **loads up to 25 kg**. The maintenance free brushless motor and the shaking mechanism with counter weight allow any time smooth and stable operation. Digital display for speed and time. Adjustable speed from 50 to 500 rpm, built-in timer from 1 to 99 minutes or continuous. Two different platforms (610 x 460 mm or 760 x 460 mm) and 7 clamps for vessels from 25 ml to 2000 ml available. Platforms and clamps must be ordered separately.

- **Stable and robust metal housing**
- **Maximum load capacity 25 kg**
- Shaking orbit 25 mm
- Different platforms and clamps available

Specifications

Type of movement:	orbital
Orbit:	25 mm
Speed range:	50 to 500 rpm
Max. Load:	25 kg
Motor:	Brushless DC motor
Timer:	0-99 minutes, continuous
Power consumption:	250 VA
Permissible ambient temperature:	4 to 75 °C
Dimensions (W x D x H):	600 x 550 x 150 mm
Weight:	48 kg
Power supply:	230 V, 50 Hz

Type	PK	Cat. No.
LLG-uniSHAKER 25 with EU-plug	1	6.263 590
LLG-uniSHAKER 25 with UK-plug	1	6.263 599
Universal attachment, 610 x 460 mm	1	6.263 591
Universal attachment, 760 x 460 mm	1	6.263 592
Clamp, 25 ml	1	6.263 699
Clamp, 50 ml	1	6.263 700
Clamp, 100 ml	1	6.263 593
Clamp, 250 ml	1	6.263 594
Clamp, 500 ml	1	6.263 595
Clamp, 1000 ml	1	6.263 596
Clamp, 2000 ml	1	6.263 597
Rubber mat, adhesive, transparent blue, 150 x 150 x 3 mm	2	6.263 598



Tumbling Shaker

uniSHAKER 2



Mini-Incubator

uniINCUB 20



- Small
- Compact
- Fits into incubators
- Dimpled mat

Multi-functional shaker with dimpled mat, perfect for foam-free mixing of blood and other biological samples in centrifuge tubes. Suitable for a variety of tubes and dishes.

Specifications

Type of movement:	tumbling
Tumbling angle:	20°
Speed:	Fixed, 20 rpm
Max. Load:	1.6 kg
Ambient Temperature:	4 to 45 °C
Platform Dimensions (W x D):	202.5 x 152.5 mm
Dimensions (W x D x H):	202.5 x 152.5 x 202.5 mm
Weight:	2 kg
Power supply:	230 V, 50 Hz, 0.2 A

Type	PK	Cat. No.
LLG-uniSHAKER 2 with EU-plug	1	6.263 640
LLG-uniSHAKER 2 with UK-plug	1	6.263 641



- Small
- Portable
- Digital
- Internal plug

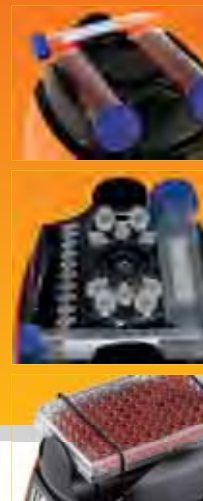
Portable digital incubator ideal for haematology and microbiology applications, such as the cultivation of contact plates for microbiological hygiene analysis. Due to its small footprint and economical price, it is also the perfect incubator for educational institutions and small laboratories. The LLG-uniINCUB 20 incubator features a large internal chamber with a capacity of 20 liter, capable of storing flasks and bottles up to 2 liter.

In addition, the incubator includes two adjustable/removable shelves for increased capacity, as well as an electrical socket. The digital temperature control eliminates the need for external thermometers and repetitive "fine tuning" of an analog control knob. Optimum temperature distribution throughout the cabinet interior by fan circulation. The LLG-mini tumbling shaker uniSHAKER 2 can be positioned inside the incubator (please order separately).

Specifications

Temperature range:	Ambient +5 °C to 60 °C
Accuracy:	±0.5 °C
Temperature uniformity:	±1.5 °C
Capacity:	20 l
External dimensions (W x D x H):	335 x 370 x 475 mm
Internal dimensions (W x D x H):	260 x 235 x 325 mm
Weight:	6.5 kg
Power supply:	100-240 V, 50/60 Hz

Type	PK	Cat. No.
LLG-uniINCUB 20 with EU-plug	1	6.263 570
LLG-uniINCUB 20 with UK-plug	1	6.263 571



Test Tube Shaker



uniTEXER 1



- **Cost-efficient**
- **Compact**
- **Adjustable speed control**

Compact and **cost-efficient** test tube shaker with brushless motor drive and touch function for short-term operation.

Adjustable speed control up to 4500 rpm for excellent mixing results in a very short time. Especially for small volumes.

Specifications

Type of movement:	orbital
Orbit:	4.5 mm
Speed range:	0 to 4500 rpm
Permissible ambient temperature:	5 to 40 °C
Permissible relative moisture:	<80 %
Dimensions (W x D x H):	100 x 100 x 70 mm
Weight:	0.55 kg
Power supply:	100 - 240 V, 50/60 Hz
Protection class:	IP 43

Type	PK	Cat. No.
LLG-uniTEXER 1 with EU-plug	1	6.263 490
LLG-uniTEXER 1 with UK-plug	1	6.263 491
Silicone cap for LLG-uniTEXER 1	1	6.263 492

Vortexer with universal attachment



uniTEXER



- **One head - multiples uses**
- **Touch and permanent mixing modes**
- **Three speeds**

One head - multiple uses

Vortexer with single carrier head, accommodating the most popular consumables and tubes:
for 1 x assay plate, 2 x 50 ml conical tubes, 2 x 15 ml conical tubes, 2 x 5 ml conical tubes, 4 x 1.5/2 ml microcentrifuge tubes, 6 x 0.5 ml and 24 x 0.2 ml microcentrifuge tubes.

- Touch function for short-term operation
- Carrier head is very easy to clean
- Precise speed control via a variable rotary switch
- Elastomeric feet ensure excellent stability on the bench and quiet operation
- Modern design
- Robust, ABS housing

Specifications

Type of movement:	orbital/vortex
Orbital diameter:	3.7 mm
Speed:	1000, 2000 und 3000 rpm
Dimensions (W x D x H):	173 x 198 x 198 mm
Weight:	3.8 kg
Power supply:	220 V, 50/60 Hz
Protection class:	IP 20

Type	PK	Cat. No.
LLG-uniTEXER	1	6.261 826



Disc Rotator uniLOOPMIX 2



Overhead Mixer uniROTATOR 2



- Cost-efficient
- Easy to clean
- Very flexible clamp fixation system

Analogue Disc rotator for gentle and effective sample mixing. Suitable for all biological samples. With easily interchangeable clamps that allow a **quick cleaning** of the rotator.

For a maximum of 48 x 1.5 ml, 16 x 5 or 15 ml, 8 x 50 ml tubes. Also for parallel use of different sizes; can be equipped individually.

- Variable speed 0 - 80 rpm
- Compact design
- Housing easy to clean
- Non-slip, adjustable screw feet

Scope of delivery: Disc rotator incl. 12 clamps each for 2 ml, 15 ml and 50 ml tubes

Specifications

Type of movement:	rotating
Variable speed:	0 - 80 rpm
Rotation angle of disc:	360°
Permissible shaking weight (incl. attachment):	2 kg
rel. Moisture:	up to max 80 %
Working temp .:	+5 - 40 °C
Motor rating input/output:	20 W
Dimensions (W x D x H):	220 x 300 x 310 mm
Power supply:	100-240 V, 50/60 Hz
Protection class:	IP 21

Type	PK	Cat. No.
LLG-uniLOOPMIX 2 with EU-plug	1	6.263 665
LLG-uniLOOPMIX 2 with UK-plug	1	6.263 666
Clamp for 2 ml centrifuge tube	12	6.263 662
Clamp for 15 ml centrifuge tube	12	6.263 663
Clamp for 50 ml centrifuge tube	12	6.263 664



- Cost-efficient
- Easy to clean
- Very flexible clamp fixation system

Analogue overhead mixer with vertical rotary motion for gentle but effective mixing. Ideal for biological samples. Suitable for cutting and mixing processes of powdered and liquid samples in tubes up to 50 ml. With easily interchangeable clamps that allow a quick cleaning of the mixer.

- Compact design
- Housing easy to clean
- Non-slip, adjustable screw feet

Scope of delivery: Overhead mixer incl. 12 clamps each for 2 ml, 15 ml and 50 ml tubes

Specifications

Type of movement:	overhead
Variable speed:	0 - 80 rpm
Rotation angle:	360°
Permissible shaking weight (incl. attachment):	2 kg
Motor rating input:	20 W
Dimensions (W x D x H):	530 x 150 x 190 mm
Power supply:	100-240 V, 50/60 Hz
Protection class:	IP 21

Type	PK	Cat. No.
LLG-uniROTATOR 2 with EU-plug	1	6.263 660
LLG-uniROTATOR 2 with UK-plug	1	6.263 661
Clamp for 2 ml centrifuge tube	12	6.263 662
Clamp for 15 ml centrifuge tube	12	6.263 663
Clamp for 50 ml centrifuge tube	12	6.263 664



pH Tester



pH Pen



Mini-Ultrasonic Cleaner



uniSONIC 1



- For measurements in narrow vessels
- Cost-efficient
- 3-point calibration

Cost efficient pH tester ideal for testing small amounts of liquid and in narrow vessels.

3-point calibration, ATC from 0 °C and 50 °C.
Supplied with storage vessel, no dry-out of the electrode.

Specifications

Measuring range:	0.00 to 14.00 pH
Accuracy:	±0.1 pH
Dimensions with electrode (L x W x H):	210 x 36 x 20 mm
Dimensions electrode (diam. x L):	12 x 110 mm
Weight:	72 g
Battery:	2 x 3 V CR2032 button cell
Protection class:	IP 65
Warranty:	2 years



- Small
- Cost-efficient
- For goggles and small laboratory instruments

For convenient cleaning of goggles or smaller laboratory instruments. Eco-friendly, only needs warm water. By ultrasonic sound millions of small air bubbles are generated. Combined with a very high pressure these achieve a fast, efficient and effortless cleaning.

- Ready to use, no assembly required
- Automatic 3-minute-operation can be stopped anytime
- Removable lid
- Stainless steel tank

Specifications

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

Type	PK	Cat. No.
LLG-pH Pen	1	6.263 690

Type	PK	Cat. No.
LLG-uniSONIC 1	1	6.263 560



Thermo Shaker



uniTHERMIX 1 & 2



- **Wide range of blocks available**
- **With or without cooling function**
- **Cost-efficient**

Thermo Shaker 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 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.

- 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: with shaking and heating function,

Temperature range: RT +5 °C to approx. +100 °C

LLG-uniTHERMIX 2: with shaking, cooling and heating function,

Temperature range: 15 °C below RT to approx. +100 °C

Blocks must be ordered separately.

Specifications

Temperature range	RT +5 °C to approx. +100 °C
LLG-uniTHERMIX 1:	15 °C below RT to approx. +100 °C
LLG-uniTHERMIX 2:	± 0.5 °C (at 20 to 45 °C)
Temperature control:	Max. ± 0.5 °C (at 20 to 45 °C)
Uniformity:	5.5 °C/min
Max. heating rate:	5 °C/min (100 °C to RT)
Max. cooling rate	0.5 °C/min (below RT)
(LLG-uniTHERMIX 2 only):	300 to 1500 rpm
Speed range:	3 mm
Orbit:	LCD
Display:	6 stages, 9 programs
Programs:	1 to 99 min or continuous
Timer:	1 exchangeable block*
Capacity:	200 x 235 x 120 mm
Dimensions (WxDxH):	7.3 kg
Weight:	200 W
Electrical heating/cooling power:	220-240 V, 50Hz/60 Hz
Power supply:	

Type	PK	Cat. No.
LLG-uniTHERMIX 1 with EU-plug	1	6.263 470
LLG-uniTHERMIX 1 with UK-plug	1	6.263 471
LLG-uniTHERMIX 2 with EU-plug	1	6.263 472
LLG-uniTHERMIX 2 with UK-plug	1	6.263 473

*Exchangeable blocks are not included in delivery.

Heating blocks for Thermo shaker LLG-uniTHERMIX 1 and 2

For	PK	Cat. No.
96 well PCR plates non-skirted, 0.2 ml tubes*	1	6.263 474
96/384 micro plate*	1	6.263 480
24 tubes, 0.5 ml*	1	6.263 475
24 tubes, 1.5 ml*	1	6.263 476
24 tubes, 2.0 ml*	1	6.263 477
8 tubes, 5 ml	1	6.263 481
8 tubes, 15 ml, max. 800 rpm	1	6.263 478
4 tubes, 50 ml, max. 600 rpm	1	6.263 479

*with lid



Portable Piston Pump



uniVACUUPUMP 1



uniVACUUSYS

Aspirator



- For vacuum and pressure applications
- Portable
- Can also be used as a compressor

Portable piston pump developed for **vacuum and pressure applications** in the laboratory, in particular in the field of Life Science. Typical applications for this low-cost vacuum pump are the single funnel filtration of aqueous and buffered solutions, SPE, as well as any applications where no harmful gases are conveyed. The uniVACUUPUMP 1 operates oil-free and can also be used as a compressor to a pressure up to 3.3 bar. This allows you, for example, pressure filtration, if vacuum filtration is not sufficient. Not recommended for pumping organic, acidic, or basic vapours.

Advantages:

- Dry-running technology for physical applications
- Can be used as a vacuum pump and compressor
- Cost-effective alternative for water pumps
- Sound suppressor for quiet operation
- Compact, light weight and portable

Scope of delivery: Pump, incl. 2 hose clamps, EU + UK plug power cord.

Specifications

Pump speed 50/60 Hz at atmospheric pressure:	9.2 l/min
Final pressure:	292 mbar
Overpressure, max.:	3.3 bar
Suction/pressure connection:	hose nozzle DN 6 for hose inner diameter 6 mm
Ambient temperature:	+ 10 to + 40 °C
Max. Operating gas temperature:	+ 60 °C
Noise DIN EN ISO 2151:	dB (A) ≤ 45
Voltage/frequency:	230 V/50 Hz
Motor power:	25 W
Dimensions (W/D/H):	194 x 114 x 191 mm
Weight:	2.0 kg
Protection class:	IP 20

Type	PK	Cat. No.
LLG-uniVACUUPUMP 1	1	6.263 580



- Complete system
- With integrated vacuum pump
- Liquid level sensor
- Automatic vacuum regulation

Vacuum Aspiration System **with integrated vacuum pump and vacuum controller** ideal for aspirating liquids in Life Science applications, e.g. the removal of media from cell cultures, aspiration of supernatants after centrifugation, or the removal of wash solutions from Immuno assay plates. The set vacuum is automatically re-adjusted in case of deviations.

- Integrated vacuum pump with vacuum control
- Easy to use
- Self-closing connectors for quick installation and prevention of liquid or aerosol escape.
- **Liquid level sensor**, prevents liquid overflow
- Autoclavable waste collection bottle and nozzle

Scope of delivery: Vacuum Aspiration System with integrated vacuum pump, 4 liter waste collection bottle, single channel needle and 8-channel needle aspirator handle, tubing and quick-connectors

Specifications

Vacuum range:	0 to 600 mbar (adjustable)
Aspiration rate:	1 to 15 ml/s
Noise emission:	<50 dB(A)
Dimensions (W x D x H):	180 x 320 x 530 mm
Weight:	3.4 kg
Power supply:	100-240 V, 50/60 Hz

Type	PK	Cat. No.
LLG-uniVACUUSYS with EU-plug	1	6.263 585
LLG-uniVACUUSYS with UK-plug	1	6.263 586
Single channel needle	1	6.263 587
8-channel needle	1	6.263 588



Digital hand-held refractometer

LLG uniREFRACTO 1 & 2



Photometer

LLG PrimeLab 1.0



- 2-scale Brix/RI
- 2 measuring ranges

Compact digital **2-scale** hand refractometers for measuring the sugar content and refractive index of liquids. Easy switch from **Brix to RI scale**.

Calibrate simply with distilled water. Easy to clean under running water due to waterproof housing (IP 65). Automatic temperature correction and sample plate made of stainless steel, on both models.

Two models with different measuring ranges are available:
LLG-uniREFRACTO 1 from 0-54 % Brix and 1.33-1.42 RI
LLG-uniREFRACTO 2 from 0-95 % Brix and 1.33-1.54 RI

Specifications

Resolution:	0.1 % Brix/0.0001 RI
Accuracy:	±0.2 % Brix/±0.0003 RI
Operating temperature:	5 to 40 °C
Measuring temperature:	5 to 60 °C
Rel. Humidity:	<95 %
Protection class:	IP 65

Type	PK	Cat. No.
LLG-uniREFRACTO 1	1	6.263 630
LLG-uniREFRACTO 2	1	6.263 631



- More than 100 test methods
- 400 wavelengths covered
- For legionella and turbidimetric tests
- Portable

First and only photometer using just one LED and one (JENCOLOR) sensor, simultaneously covering 400 wavelengths in one go. The JENCOLOR sensor allows self-calibration of the unit in seconds. More than 100 test methods are available to be individually selected when device is purchased. User can choose to either use tablet, liquid or powder reagents. Users can create and export test reports per „account“ via software and/or App, where it also can store individual water treatment chemicals to create dosage recommendations. Using the PrimeLab adapter for Turbidity (NTU), PTSA and Fluorescein, even those parameters can be tested by the PrimeLab whereas user normally needs to purchase a second device. Further info under www.primelab.org.

PrimeLab 1.0 Multitest Photometer BASIC-KIT 3-in-1 (Chlorine/pH/Chlorine dioxide): Pre-activated parameters:
 ID11 - Chlorine (free/combined/total) using DPD tablets
 ID16 - Chlorine dioxide using DPD tablets
 ID38 - pH using Phenol Red tablets
 Reagent tablets to do 50 tests.

PrimeLab 1.0 Multitest Photometer ALL-IN-KIT (all current and future parameters activated):
 Same content as basic, plus: filter-kit containing 20 ml luer-lock-syringe, filter-adaptor as well as 50 filter papers each of GF/C and 0.45 µm, 100 ml dilution tube. All available parameters are activated on the device and will be automatically added and activated while performing an update through PC-software or App.

Specifications

Optic:	JENCOLOR Multispectral sensor, covering 380-780 nm
Power:	4 x AAA batteries/5.0 V DC-adaptor
Auto-off:	Set by user (0 - 99 min)
Calibration:	Auto-calibration function due to JENCOLOR sensor
Memory:	On device: 20 accounts/100 test results. Unlimited via software and App
Languages:	English, Spanish, French, German. App: English, Spanish, French, German, Italian, Russian, Chinese
Environment:	30-90% RH (non-condensing), ca. 5 °C-45 °C
Certification:	CE

Type	PK	Cat. No.
BASIC-KIT 3-in-1	1	6.268 024
ALL-IN-KIT	1	6.268 025



Spectrophotometer



uniSPEC 2



- For simple routine analysis
- Cost-efficient

Cost-efficient basic UV/VIS-spectrophotometer suitable for pharmaceutical, biochemical and clinical lab applications as well as routine measurements such as kinetics, wavelength scans, quantitative analysis, multi-wavelength and DNA/Protein analysis. It is possible to store and save 200 calibration curves. Both lamps can be individually turned on/off to extend the durability. A pre-adjusted lamp design allows a fast and easy lamp replacement.

Scope of delivery: Photometer, manual, 4 glass cells and 2 quartz cells.

Specifications

Optical system:	Single beam, Grating 1200 lines/mm, Silicium photodiode detector
Wavelength range:	190 to 1100 nm
Bandwidth:	2 nm
Wavelength accuracy:	±0.5 nm
Wavelength repeatability:	0.3 nm
Wavelength setting:	automatic
Photometric accuracy:	±0.5 % T
Photometric repeatability:	0.3 % T
Photometric range:	-0.3-3 A, 0-200 % T, 0-9999 C
Stability:	±0.002 A/h at 500 nm
Stray light:	≤0.1 % T
Data output:	USB port
Printer port	parallel port
Display:	128 x 64 Dots LCD
Standard cell holder:	4-position 10 mm cell changer
Lamps:	D2 lamp and W lamp
Dimension (W x D x H):	460 x 360 x 225 mm
Weight:	18 kg
Power supply:	220V/50 Hz or 110V/60 Hz

Type	PK	Cat. No.
LLG-uniSPEC 2 with EU-plug	1	6.263 610
LLG-uniSPEC 2 with UK-plug	1	6.263 611

Spectrophotometer



uniSPEC 4



- For complex analysis

Reasonably priced UV/VIS-spectrophotometer suitable for advanced pharmaceutical, biochemical and clinical lab applications as well as quality control and routine measurements such as kinetics, wavelength scans, quantitative analysis, multi-wavelength and DNA/Protein analysis. The software can be updated through the internet (for stand-alone instruments). It is possible to store and save 200 calibration curves. A Real-time clock to help state date and time of results. Both lamps can be individually turned on/off to extend the durability. A pre-adjusted lamp design allows a fast and easy lamp replacement.

Scope of delivery: Photometer, manual, 4 glass cells and 2 quartz cells.

Specifications

Optical System:	Single beam, Grating 1200 lines/mm, Silicium photodiode-detector
Wavelength Range:	190 to 1100 nm
Bandwidth:	1.8 nm
Wavelength Accuracy:	±0.3 nm
Wavelength Repeatability:	0.2 nm
Wavelength Setting:	automatic
Photometric Accuracy:	±0.3 % T
Photometric Repeatability:	0.2 % T
Photometric Range:	-0.3-3 A, 0-200 % T, 0-9999 C
Stability:	±0.002 A/h at 500 nm
Baseline Flatness:	±0.001 A/h
Stray Light:	≤0.05 % T at 220 nm, 360 nm
Data Output:	USB port
Printer Port:	parallel port
Display:	320 x 240 Dots LCD
Standard Cell Holder:	4-position 10 mm cell changer
Lamps:	D2 lamp and W lamp
Dimension (W x D x H):	625 x 430 x 206 mm
Weight:	28 kg
Power supply:	220V/50 Hz or 110V/60 Hz

Type	PK	Cat. No.
LLG-uniSPEC 4 with EU-plug	1	6.263 620
LLG-uniSPEC 4 with UK-plug	1	6.263 621



LLG LABWARE uniOVEN 42 & 110

LLG LABWARE uniOVEN 150



- **Timer**
- **With forced convection**

Microprocessor controlled universal drying oven with **forced convection** including two shelves.

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

Scope of delivery: LLG-uniOVEN incl. 2 shelves

Specifications

Internal volume:	42 l or 110 l
Temperature range:	RT +7 up to 250 °C
Ambient temperature:	+5 up to +40 °C
Temperature accuracy:	±1 °C (at 70 °C)
Temperature uniformity:	±2 °C (at 70 °C)
Ambient humidity:	80%, non-condensing
Power supply:	230 V, 50/60 Hz

Type	Weight	External dimensions (W x D x H) mm	Internal dimensions (W x D x H) mm	Power Cons. W	PK	Cat. No.
LLG-uniOVEN 42, EU	39	705 x 505 x 540	420 x 280 x 360	850	1	6.263 670
LLG-uniOVEN 42, UK	38	705 x 505 x 540	420 x 280 x 360	850	1	6.263 673
LLG-uniOVEN 110, EU	66	790 x 665 x 680	500 x 445 x 500	1550	1	6.263 675
LLG-uniOVEN 110, UK	66	790 x 665 x 680	500 x 445 x 500	1550	1	6.263 678



- **Programmable**
- **Lockable door handle**
- **Password protected controller**

Microprocessor controlled universal drying oven with forced convection including two shelves.

- Quick and intuitive operation
- Microprocessor control with integrated auto-diagnostic system
- 2 PT 100 sensors for precise temperature control
- 5 different programs with 5 steps **can be programmed** by the user
- Controller can be **protected by password**
- **Lockable door handle**
- LED display
- Interior made of stainless steel (AISI-304)
- Fan speed adjustable
- Hot indicator for temperatures above 50 °C
- Adjustable over temperature protection

Scope of delivery: LLG-uniOVEN 150 incl. 2 shelves

Specifications

Internal volume:	150 l
Ambient temperature:	RT +10 °C up to 300 °C
Working temperature:	+5 °C up to +35 °C
Temperature accuracy:	±0.5 °C (at 70 °C)
Temperature uniformity:	±2 °C (at 70 °C)
Ambient humidity:	80 %, non-condensing
Power supply:	230 V, 50/60 Hz

Type	Weight	External dimensions (W x D x H) mm	Internal dimensions (W x D x H) mm	Power Cons. W	PK	Cat. No.
LLG-uniOVEN 150, EU	85	700 x 665 x 1010	495 x 440 x 705	3000	1	6.263 680
LLG-uniOVEN 150, UK	85	700 x 665 x 1010	495 x 440 x 705	3000	1	6.263 682

Accessories for the LLG-uniOVEN 42/110/150

Description	PK	Cat. No.
Shelf for LLG-uniOVEN 42	1	6.263 671
Shelf carrier for LLG-uniOVEN 42	2	6.263 672
Shelf for LLG-uniOVEN 110	1	6.263 676
Shelf carrier for LLG-uniOVEN 110	2	6.263 677
Shelf for incl. 2 shelf holders LLG-uniOVEN 150	1	6.263 681



Manual Serial Dispenser



uniDISPENS



- 120 dosing programs
- Compatible with common dispenser tips
- Ergonomical

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

Adapter for 25 ml tips in delivery included.

Bottletop Dispenser



uniTOPDISPENS



- Piston made of glass
- Cost-efficient

Reasonably priced bottle-top dispenser with **glass piston** available in 2 volumes: 10 ml and 50 ml. Precise, reliable and robust. The high quality of the material used and the precision of the grinding ensures the perfect seal of the complete dispensing system. 3 years warranty.

- Precise and reliable volume setting
- Visible dosing procedure
- Valve block made of PP gives optimised protection of the glass made dosing cylinder
- Precise grinding of the glass piston into the glass cylinder forms a perfect seal
- Ergonomic finger guard
- Delivered with 2 PP-adapters GL 40 and 45
- With glass piston and clear glass cylinder

Type	PK	Cat. No.
LLG-uniDISPENS	1	9.284 238

Volume	Graduations	Accuracy max. vol. ($\leq \pm R\%$)	Precision max. vol. ($\leq CV\%$)	PK	Cat. No.
ml	ml				
2 - 10	0.2	0.6	0.2	1	9.283 806
10 - 50	1.0	0.6	0.2	1	9.283 808



Bottle top Dispenser

uniTOPDISPENS 2



Bottle top Dispenser

uniTOPDISPENS 2 Duo



- **Piston made of PTFE**
- **With re-circulation valve**
- **High chemical resistance**
- **Adjustable dispensing angle**

Bottle top dispenser with a springless PTFE valve and **PTFE piston** with a chemically resistant ETP O-ring for the dispensing of both organic reagents as well as bases. No need to buy different dispensers for different applications! The improved design of the uniTOPDISPENS 2 bottle top dispenser including a **re-circulation valve** allows a smooth, precise and reliable bubble free dispensing without any loss of reagent. The specially designed bottle adaptor which permits a 360° rotation of the unit, the easy volume setting as well as the flexible delivery nozzle underline the user friendliness of this bottletop dispenser. Available in six volume ranges.

- Springless PTFE valve, PTFE piston with chemically resistant ETP O-ring enables **high chemical compatibility**
- Glass cylinder from borosilicate glass 3.3
- Re-circulation valve enables easy priming and bubble free dispensing
- Smooth, reproducible and effortless dispensing
- 360° rotation possible due to specially designed bottle adapter
- Flexible and adjustable delivery nozzle provides **dispensing angle flexibility** to the user
- Specially designed volume adjustment knob for quick and easy volume setting
- **The telescopic extractable intake tube can be easily adjusted to varying bottle heights**
- Nozzle cap reduces contact with air and prevents drying and dripping if the tip cover is attached
- Five bottle adaptors included (28 mm, 32 mm, 37 mm, 40 mm and 45 mm). Standard thread: 30 mm.
- Fully autoclavable at 121 °C, 15 psi for 10 to 15 min
- Individually calibrated in accordance with ISO 8655 standards and each unit is supplied with an individual calibration certificate

Volume	Graduations	Accuracy max. vol. (≤ ± R%)	Precision max. vol. (≤ CV%)	PK	Cat. No.
ml	ml				
0.25 - 2.5	0.05	0.6	0.2	1	6.282 275
0.5 - 5	0.1	0.6	0.2	1	6.282 276
1 - 10	0.2	0.6	0.2	1	6.282 277
2.5 - 30	0.5	0.6	0.2	1	6.282 278
5 - 60	1.0	0.6	0.2	1	6.282 279
10 - 100	2.0	0.6	0.2	1	6.282 280



- **2 liquids mixed with one single dispenser!**
- **Piston made of PTFE with re-circulation valve**
- **High chemical resistance**
- **Adjustable dispensing angle**

Bottle top dispenser enabling bottle refill and instrument rinsing without dismantling the unit. This feature helps to save time and to optimize laboratory workflow. The combination of a spring-less PTFE valve and **PTFE piston** with chemically resistant ETP O-ring enables a smooth, precise and reliable dispensing of both organic reagents as well as bases, thus, eliminating the need to buy different dispensers for different applications.

Moreover, the LLG-uniTOPDISPENS 2 DUO enables 4 modes of dispensing in just one Dispenser: Dilution, Rinsing, Dual Liquid Handling and Re-circulation in a single unit.

All these features underline the user-friendliness and versatility of this next generation bottletop dispenser! Available in six volume ranges.

- Refilling and rinsing without the need to dismount
- 4 modes of dispensing: Dilution, Rinsing, Dual Liquid Handling and Re-circulation in a single unit
- Springless PTFE valve and piston, with chemically resistant ETP O-ring, enable **high chemical compatibility**
- Glass cylinder from borosilicate glass 3.3
- Smooth, reproducible and effortless dispensing
- 360° rotation possible due to specially designed bottle adapter
- Flexible and adjustable delivery nozzle provides dispensing angle flexibility to the user
- Specially designed volume adjustment knob for quick and easy volume setting
- **The telescopic extractable intake tube can be easily adjusted to varying bottle heights**
- Nozzle cap reduces contact with air and prevents drying and dripping if the tip cover is attached
- Five bottle adaptors included (28 mm, 32 mm, 37 mm, 40 mm and 45 mm); thread: 30 mm
- Fully autoclavable at 121 °C, 15 psi for 10 to 15 min
- Individually calibrated in accordance with ISO 8655 standards and each unit is supplied with an individual calibration certificate

Volume	Graduations	Accuracy max. vol. (≤ ± R%)	Precision max. vol. (≤ CV%)	PK	Cat. No.
ml	ml				
0.25 - 2.5	0.05	0.6	0.2	1	6.282 281
0.5 - 5	0.1	0.6	0.2	1	6.282 282
1 - 10	0.2	0.6	0.2	1	6.282 283
2.5 - 30	0.5	0.6	0.2	1	6.282 284
5 - 60	1.0	0.6	0.2	1	6.282 285
10 - 100	2.0	0.6	0.2	1	6.282 286



Single Channel Microliter Pipette



proMLP



- **Made in France**
- **Tip ejector button adjustable for right and left-handed users***
- **Built-in volume locking**
- **Fatigue-free pipetting - effortless**

Single channel microliter pipettes combining high accuracy and reliability with ergonomic and extremely low force pipetting relieving stress from your hand and thumb. This high precision instrument has been built to maintain accuracy for many years making it the ideal choice for all scientific work requiring exact and reproducible pipetting. The LLG-proMLP pipettes are equipped with an adjustable eject button allowing right and left handed users to set the button* according to their preferences. The built in volume locking mechanism and competitive pricing complete these high quality precision pipettes. Available volume ranges from 0.2 μ l to 10 ml.

- High quality **Made in France**
- High accuracy, reliability and reproducibility
- Extremely light weight while the robustness still remains
- Perfect ergonomics for highest comfort
- Colour-coded push-button for quick operation
- Extremely low pipetting forces
- **Built-in volume locking** for error-free results
- **Tip ejector button*, adjustable for right- and left-handed users**
- Completely autoclavable at 121 °C
- Including individual calibration certificate (according to EN ISO 8655)

*not available for 5 ml and 10 ml pipettes

Capacity	Increments	Accuracy max. vol. ($\leq \pm R\%$)	Precision max. vol. ($\leq CV\%$)	Colour code	PK	Cat. No.
μ l	μ l					
0,2-2	0.002	1.65	0.75	dark orange	1	6.270 420
0,5-10	0.02	1.10	0.44	red	1	6.270 421
2-20	0.02	1.00	0.33	light yellow	1	6.270 422
10-100	0.2	0.80	0.17	light orange	1	6.270 423
20-200	0.2	0.80	0.17	dark yellow	1	6.270 424
100-1000	2	0.80	0.17	dark blue	1	6.270 425
500-5000	2	0.66	0.18	purple	1	6.270 426
100-10000	20	0.60	0.18	light blue	1	6.270 427

LLG-Labware – certified quality helps you to work more economically

More and more specialists work with LLG-Labware, the private brand of the LLG. They have realised, that the LLG-Labware range meets high quality standards and makes their work more efficient.

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- Professional product range
- Fair market prices
- Maximum delivery readiness

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Good quality!*