



TECHNOLOGY
CREATES FUTURE



CATALOGUE OF LABORATORY INSTRUMENTS

International quality and exceptional service



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ABOUT US

we look forward to giving better services,
to meet the needs of global customers and
to contribute to the rapid development of
related industries.



BIO-DL Corporation is a specialized company
that integrates research and development,
production of laboratory equipment,
consumables and related services.

Our products include laboratory equipment
and related consumables such as liquid
handling, sample extraction preparation and
inspection and analysis.

Excellent product quality and professional
technical services have won the trust and
recognition of the majority of users around the
world.

We wish BIO-DL's products and services
could do better in meeting the needs of domestic
and foreign customers, and to contribute to the
rapid development of related industries.

CONTENTS

Instrument products

BT-100 Constant Temperature Metal Bath	01
Mini Centrifuge	03
Feel Vortex-3 Vortex Mixer	07
Feel Vortex-6 Vortex Mixer	09
MicroDrop ultramicro spectrophotometer	11
Microdrop plus ultramicro-spectrophotometer	15
K3 Plus microplate reader instrument	17
K3 Pro Microplate Reader	19
MyGO Hand-held grinder	21
HF Extract High throughput grinder	23
BIO-DL 32 Nucleic Acid Extractor	27
NAD Automatic nucleic acid extraction platform	31



Accurate temperature control





High stability

Multiple modules offered, easy to replace.
Higher heating and cooling rate.
LCD screen, real-time display current temperature.



BT-100 adopts a microcomputer-controlled thermostatic device to present high temperature control accuracy and good parallelism in sample preparation. It could replace traditional water baths and other similar devices. It is widely used in sample preservation and incubation, reaction, DNA extraction, RNA extraction, electrophoresis denaturation and other experiments. Its applications including medicine, chemical industry, food safety, quality inspection, environment, etc. It is a new type constant temperature metal bath with beautiful appearance and excellent performance.

Technical Parameters

Product Name	Constant temperature metal bath	Heating Rate Room temperature -100 °C	≤15min
Model	BT-100	Time Setting Range	1-999min
Features	Heating	Dimensions (W*D*H)	240*170*145mm
Temperature Control Range	Room temperature -100°C	Replaceable Modules	BT-A module:96*0.2ml
Temperature Control Accuracy	±0.5°C		BT-B module:54*0.5ml
Temperature Setting Range	Room temperature-100°C		BT-C module:28*1.5ml
Temperature Display Accuracy	±0.1°C		BT-D module:28*2.0ml
Temperature Uniformity	≤±0.3°C	   	
		BT-A BT-B BT-C BT-D	

Order Information

Item Number	Product Name	Quality Assurance
54G51011	BT-A Constant temperature metal bath	2 Year
54G51021	BT-B Constant temperature metal bath	2 Year
54G51031	BT-C Constant temperature metal bath	2 Year
54G51041	BT-D Constant temperature metal bath	2 Year
Accessories		
370005	A module(96*0.2ml)	
370004	B module(54*0.5ml)	
370034	C module(28*1.5ml)	
370035	D module (28*2.0ml)	

Mini Centrifuge

Accurate and durable Ultra silent

More precise control of voltage, electric current, speed and centrifugal force, to ensure that its constant speed will not change with voltage or load changes.

Mini-L Centrifuge

Flexible and convenient Real time monitoring

The high-strength host and rotor material can resist most kinds of chemical corrosion, and the rotor is high temperature resistant.



Mini centrifuge adopts international advanced design concept and manufacturing technology, it has smooth and beautiful appearance, compact and stable structure, adhering to the advantages of high versatility, easy operation, and has the characteristics of "stable start" and "stable braking" features; it is very suitable for microtube filtration and rapid centrifugation, blood cell separation, microbial sample processing, PCR experiment centrifugation, preventing liquid from hanging in the centrifuge tube and other phenomena, it would be one of the top choices for processing small centrifuge samples.

Product Features:

- Adopting the advanced high-frequency full-range and wide power supply control scheme, in line with AC100-250V/ 50 / 60Hz input power supply, it could accurately control voltage, current, speed and the RCF, to ensure that its constant speed will not change with voltage or load changes.
- Faster acceleration and deceleration make the time required to complete the experiment shorter and accelerate to the rated speed within 3 seconds.
- The unique snap-on installation design of the rotor allows the rotor to be replaced without any tools, allowing experimenters to change the rotor easily and quickly.
- The high-strength host and rotor material can resist various chemical corrosion.
- Using high-efficiency DC permanent magnet motor, and RSS material to reduce shaking, therefore, the operation is more stable.
- The rotation space is a 360 degrees, without clamping, resistance, or temperature rise. The overall noise is ≤47dB.






Mini Centrifuge



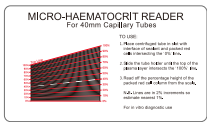

Product Features:

- It adopts the advanced and reliable high-frequency wide-range power supply, in line with the requirement of power supply around the world. The PMW speed control is achieved by the calculation of 16-bit MCU, makes it possible to control voltage, current, speed and effective separation time more accurately to ensure extending the service life of the motor and reducing the electromagnetic noise.
- The revolving speed step adjustment is 500rpm, effective separation time range: 1-99min or 1-59s.
- High acceleration or deceleration rate, helping you to shorten your experiment time.
- The novel composite rotor is compatible with kinds of microcentrifuge tubes, meeting the need of different experiments.
- The cover protection, overspeed and unbalance detection system can monitor the centrifuge process in real time, ensuring the safety of the instrument and operate staff. The process stops with a sound signal prompted and a code displayed on LCD when the run is finished or an error occurs or the unbalance is detected.



Mini-L Centrifuge

		
#1 Angle Type Rotor	#2 Conversion Adapter	#3 Conversion Adapter
Unit Volume: 2/1.5/0.5/0.2ml	Unit Volume: 0.5ml	Unit Volume: 0.2ml
Total Centrifugal Capacity: 2/1.5/0.5/0.2ml×8	Total Centrifugal Capacity: 0.5ml×8	Total Centrifugal Capacity: 0.2ml×8

			
#4 PCR Tube rotor	#5 Capillary Rotor	#6 Capillary Reading Card	#7 Capillary Sealing Wax Plate
Unit Volume: 0.2ml	Unit Volume: 20μl Φ1.5mm×L40mm	Mini-P-2	Mini-P-3
Total Centrifugal Capacity: 0.2ml×8×4	Total Centrifugal Capacity: 20μl×12		

Technical Parameters

Product model	HL-7K	HM-10K	HH-12K
Input Power	AC100-250V/50/60Hz	AC100-250V/50/60Hz	AC100-250V/50/60Hz
Allowed Temperature	5-40℃	5-40℃	5-40℃
Relative Humidity	80%	80%	80%
Input Power [W]	18W	25W	45W
Motor	DC24V/dc permanent magnet motor		
Control Method	PI power	PI power	St16 bits MCU/PWM
Power Fuse	PPTC/ resettable fuses / no need to change		
Rotor Capacity [ml]	Angle type rotor : 2/1.5/0.5/0.2ml×8 PCR rotor : 0.2ml×8×4(PCR tube)	Angle type rotor : 2/1.5/0.5/0.2ml×8 PCR rotor : 0.2ml×8×4(PCR tube)	Compound Angle type rotor: 1.5/2.2×12+ PCR0.2×8×4 Row
Maximum Speed[r/min.]	7,000r/min.±3%	10,000r/min.±3%	12,000r/min.±5%
Maximum Relative centrifugal force [×g]	2,910×g	5,610×g	9,660×g
Dimensions	155×168×118mm	155×168×118mm	194×229×120mm
Weight	1.2Kg	1.2Kg	2Kg
Noise at Maximum Speed (≈)	≤43dB(A)	≤45dB(A)	≤47dB(A)
Fastest Acceleration Time [sec]	≤3s	-	≤12s
Fastest Deceleration Time [sec]	≤3s	-	≤16s
IP grade	IP21	IP21	IP21
Testing Standards	EN 61010-1,EN 61010-2-020,EN 61326-1,EN 61010-3-2/A2		

Note: When the ambient temperature is 23 ℃.

Rotor Parameters

Product Name	Model	Rotor	Volume (ml×tube)	Max. Speed (r/min)	Maximum Relative Centrifugal Force(×g)
Mini Centrifuge HL-7K	Mini-A-1	#1 Angle Type Rotor	2/1.5/0.5/0.2ml×8	7000	2910
	Mini-A-2	#2PCR Row Tube	0.2ml×8×4	7000	1643
Mini Centrifuge HL-10K	Mini-A-1	#1 Angle Type Rotor	2/1.5/0.5/0.2ml×8	10000	5610
	Mini-A-2	#2PCR Row Tube	0.2ml×8×4	10000	3354
Mini-L Centrifuge HH-12K	HH-12K-A-1	#3 Compound Angle Rotor	1.5/2.2×12+ PCR0.2×8×4	12000	9500

Ordering Information

Item Number	Product Name	Note
5500100B	Mini Centrifuge HL-7K	
5500101B	Mini Centrifuge HM-10K	
Accessories		
5500100B-1	Angle Type Rotor 2/1.5ml×8	Default
5500100B-2	Row Tube Rotor 0.2ml×8×4	Default
5500100B-3	Conversion Adapter 0.5ml×8	Default
5500100B-4	Conversion Adapter 0.2ml×8	Default

Item Number	Product Name	Note
5500102B	Mini-L Centrifuge HH-12K	
Accessories		
5500102B-1	Compound Angle Rotor 1.5/2ml×12+PCR0.2ml×8×4	Default
5500102B-2	PCR Tube Rotor 0.2ml×12×4	Default
5500102B-3	Angled Rotor 5ml×4/cone bottom tube with lid	Optional
5500102B-4	Capillary hematocrit rotor 1.5mm in diameter×40mm in length capillary × 12	Optional
5500102B-5	Angle type rotor 5ml × 4 / vertical screw tube	Optional
5500102B-6	Conversion adapter 0.5ml × 12pcs / standard HH-12K-A-1	Optional
5500102B-7	Conversion adapter 0.2ml × 12pcs / standard HH-12K-A-1	Optional
5500102B-8	Conversion adapter 1.8 / 1.1ml × 4 / standard HH-12K-A-5	Optional
5500102B-9	Hematocrit rotor reading card / standard HH-12K-A-4 / 1	Optional
5500102B-10	Capillary sealing plate / standard HH-12K-A-4 / 1	Optional
5500102B-11	40mm capillary/ 100 pieces/pack (Red & blue label available)	Optional

Feel Votex-3 Vortex Mixer

Small size and large amplitude

The vortex mixer is manufactured with the design concept of pressing circular eccentric rotation and oscillation to generate vortex. It has the advantages of simple, smooth and artistic appearance, compact and firm structure with low gravity center and easy operation. The constant rotation speed ensures that it can quickly mix samples.



Simple operation



DC permanent magnet motor



Quiet and comfortable



Low gravity center, no displacement



Zinc alloy one-piece molding base, low gravity center, stable operation without displacement during use.

The oscillating gasket is made of wear-resistant silicone material, which has a longer service life.

Battery pack can be externally installed to meet the needs of temporary use outside the laboratory.



The body is equipped with a power breathing light, then the user can check the status of the instrument at any time.

The maximum diameter of the oscillating container is 45mm, which can be used for multi-standard test tubes, centrifuge tubes, EP tubes, etc., and sample mixing can be convenient and rapid.

Technical Parameters

Product model	Feel Votex-3
Input power	DC12V-1A
Output power[W]	10W
Drive method	DC12V permanent magnet reach/direct drive
Operation method	Press type inching operation
Maximum load	0.6Kg
Speed range [r/min.]	4000rpm±3%
Oscillation	circumference
Circle diameter [mm]	4.5
Weight[Kg]	0.9
Dimensions (L*W*H) [mm]	95×95×80mm
Noise at maximum speed	≤40dB(A)
Allowable ambient temperature /relative humidity	5-40°C/80%
IP Grade	Ip21
Standard	EN 61010-1,EN 61010-2-020,EN 61326-1,EN 61010-3-2/A2

Order information

Item number	Product name	Product model
5A00100B	Feel Votex-3 Vortex Mixer	Feel Votex-3

Feel Votex-6 Vortex Mixer

Intelligent control, sensitive and efficient

The intelligent analysis and processing platform can sensitively respond to the requirements of various modes. And the product is applied fast processing chipset and electronic sensing technology, which can easily realize intelligent control of speed, time and operation mode.



Light Sensor



Two Operating Modes
Step & Continuous



Highlight Display



Perfect Design



Driveability

Permanent magnet DC motors are not prone to heat, and the design of over-heat protection ensures that the product can still work for a long time under high-speed mixing. The carbon brush design is simple and compact, reducing operational resistance, more powerful, and reducing noise.

Efficiency

Mix any liquid or powder required in the shortest time.



Functional

Easy to switch operation modes between 'step' and 'continuous'. The time setting function includes counting up and down.

Stability

The perfect optimized design of the machine structure makes it have enough counterweight and balanced operation, which provides a stable working platform for various oscillation mixing.

This product adopts advanced design and manufacturing technology, has a simple and beautiful appearance and a firm structure. Its versatility, simple operation and other advantages ensure that it can mix liquid, liquid solid, powder and other substances quickly.

Technical Parameters

Input Power	AC100-250V/50/60Hz	Drive Method	DC24V permanent magnet drive/direct drive
Output Power	20W	Control Method	PWM stepless frequency conversion speed regulation
Weight	3.5kg	Operation Mode	Step/Continuous
Noise at maximum speed	≤45dB(A)	Power Fuse	PPTC/recovery fuse/no need to be replaced
Fastest acceleration time	≤3s	Maximum Load	1.0Kg
Fastest deceleration time	≤3s	Speed Range	0-3000r/min.
Protection Level	Ip21	Oscillation	circumference
Circumference Diameter	4.5mm	Time Function / Display	Digital timing 1s-999min. Countdown, step count up/ high brightness LCD
Speed Function/Display	LCD	Testing Standards	EN 61010-1,EN 61010-2-020, EN 61326-1,EN 61010-3-2/A2
Allowed Temperature	5-40°C/80%		
Relative Humidity			

Order Information

Product Number	Model	Configuration Information	Note
5A00101B	Feel Votex-6 Vortex Mixer	Host	
5A00101B-1	Feel Votex-6-1 Adapter	Used to place test tubes and small containers with a diameter not exceeding 50mm. It uses a trough structure to prevent the container from slipping outside during work.	Default
5A00101B-2	Feel Votex-6-2 Adapter	Used to place flask containers with a diameter not exceeding 85mm, or to mix multiple test tubes together.	Default
5A00101B-3	Feel Votex-6-3 Adapter	Oscillation diameter of 10 mm and a number of 14 holes tubes	Default



Easy operation



Double measuring mode



Full spectrum wave



long quality assurance

Product features:

- Full spectrum wave 185~910 nm
- Innovative double measuring modes:
Pedestal mode and Cuvette mode
- Wifi wireless connection

2-year
warranty



MicroDrop is a full spectrum ultramicro spectrophotometer (185~910nm). The innovative double measuring mode of pedestal and cuvette is suitable for sample measurement in a wider concentration range. It is easy to operate. It doesn't require expensive consumables, and is widely used in the measurement of DNA, RNA, Protein and so on. It is also suitable for absorbance measuring in general substance analysis.

Applications

• UV measuring

Measurement of Absorption Value of Samples under conventional Ultraviolet Wave

• Nucleic acid measuring

Measurement of the concentration of different types of nucleic acids such as dsDNA, ssDNA and RNA, so as measuring the absorbance at 260 and 280 nm

• Probe measuring

Measurement of the absorbance of fluorescent labeled probes.

• Protein measuring

The absorbance of purified protein at 280nm is measured to quantify the concentration of the protein by the analysis of BCA, Bradford, Lowry or Pierce 660nm gills method.



• measurement of Bacterial Solution/Suspension Cell Concentration

Measurement of OD600 value of bacterial fluid and monitoring of suspension cells

• Dynamic measuring

Determination of isokinetic experiments on enzyme activity and curve

• Full-wave scanning

185-910nm full-wave scanning, showing absorption curve

• User-defined measurement

It can define and set the parameters of measurement, such as the maximum absorption peak, and the formula, etc.

More sensitive, more modes, more applies and faster



Sensitivity

The 2048 linear CCD measurement unit of the latest generation has more sensitivity and accuracy.



Repeatability

Stepper motor combines the unique DPTL technology to achieve the optical path accuracy of 0.001 mm and achieve the repeatability of absorbance measurement.



Stability

Both the long life xenon lamp and the lifting measurement pedestal with the structure of sliding bearing ensure the stability of measurement and the life of instrument.



Intelligent Auto-measurement

When you close the upper arm after sampling, you don't have to click the icon to complete the measurement. This automatic program could save your valuable time.



Full spectrum wave

The wave range is 185-910 nm. It can measure more kinds of samples and wider range of near infrared wave. It can meet the diverse measurement requirements.



Quick and convenient

Applying the powerful optical path automatic adjustment technology. Even for the high concentration samples, you need no dilute operation to measure accurately. It takes only a few seconds to complete measurement, and the instrument is ready for another measurement just after it is wiped.



Considerate design

Connecting to a computer to achieve local control; WiFi connection function to save your time and space.

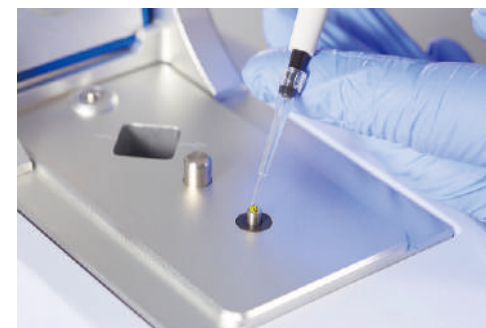


Accessories selection

Alternative accessories: BIO-DL single-channel micro-pipette (0.1-2.5μl), tips, delicate paper for cleaning, cuvette, USB equipment, calibration reagent, etc.

Pedestal mode:

A liquid column is formed between two optical fibers and the optical path can be adjusted automatically.



Pedestal mode
(Minimum 0.5 μl of samples)

Cuvette mode:

This measuring mode is with a magnetic stirring function, and you can also set the heating function and the stirring rate to do your dynamic measurement. Users can define different optical paths of 1, 2, 5 and 10mm as they want.



cuvette mode
(Heating temperature 37 °C, speed 150-850 rpm)

Pedestal mode

Wave range	185-910nm
Maximum sample size	0.5μl
Wave accuracy	1nm
Resolving power	<1.8nm (FWHM at 253.7nm)
Optical path	1mm (can be auto-adjusted to 0.05mm)
Lower limit of measurement	2ng/μL (dsDNA)
Upper limit of measurement	15,000ng/μL (dsDNA)
Absorption accuracy	0.002Abs (1mm optical path length)
Accuracy of absorbance	3%(0.65 Abs at 350nm)
Absorption range	0.02 - 300 (equivalent to 10mm optical path)
Measuring speed	<5s

Cuvette mode

Beam column	8.5mm above the bottom
Temp. control accuracy	37±0.5 °C
Stirring speed	Mixing speed: 150-850 rpm
Optical path	(1, 2, 5, 10mm alternative)
Absorption range	0.002-1.5
Lower limit of measurement	0.4ng/ml (dsDNA)
Upper limit of measurement	750ng/ml (dsDNA)
Power Supply	AC110V-220V50HZ/60HZ power
Ruler	adapter~220*135*180mm
weight	2.1kg

Ordering information

Item.No	Item	Model
58601001	Ultra-Micro Spectrophotometer	Micro Drop
Accessories		
58601021	Quartz cuvette	Optional
58601031	Delicate paper	Optional
82211011	Standard substance (nucleic acid)	Optional
82211021	Standard substance (protein)	Optional

Microdrop plus ultramicro-spectrophotometer

Microdrop plus is a ultramicro-spectrophotometer which can measure the optical absorption of a micro volume of samples rapidly and accurately, and is easy to use due to its big touch screen and visual interface. It is commonly used to measure the concentration of DNA/RNA/protein and other bio-molecular samples, the sample loading requirement of each measurement is low and the measuring concentration range is wide.



Big touch screen



Double measuring modes



Fast for result



sample saving

Features:

- 7-inch big touch screen, visual interface. Double measuring modes: pedestal mode & cuvette mode.
- Small and exquisite, convenient for space-limited labs.
- Wide range of measuring concentration: 2-15,000 ng/μL (dsDNA).
- Sample saving: only 0.5-2 μL of sample is required for each measurement.
- An adjustable High-speed of measuring: ~5s for one measurement.
- Flexibility: multiple measuring functions (ssDNA/dsDNA/RNA/oligo DNA/protein/probe/...)

Pedestal mode

Wave range	185-910nm
Loading sample volume	0.5μl - 2μl
Wave accuracy	1nm
Resolution	<1.8nm (FWHM at Hg253.7nm)
Optical path length	1mm (can be auto-adjusted to 0.05mm)
Concentration measuring range	2 - 15,000 ng/μL (dsDNA)
Precision of absorption	0.002Abs (1mm optical path length)
Accuracy of absorption	3% (0.65 Abs at 350nm)
Absorption range	0.02 - 300 (equivalents to 10mm optical path)
Measuring speed	<5s (DNA measuring function)

Cuvette mode

Beam position	8.5mm above the bottom
Temp. control accuracy	37 ± 0.5 °C
Stirring speed	150-850 rpm
Optical path	1, 2, 5, 10mm alternative
Absorption range	0.002-1.5
Concentration measuring range	0.4 - 750 ng/μL (dsDNA)

Common parameter:

Power supply	AC 110V – 220V 50/60 Hz
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Ordering information

Item.No	Product name	Describe
58L01001	Microdrop plus	Ultramicro- spectrophotometer

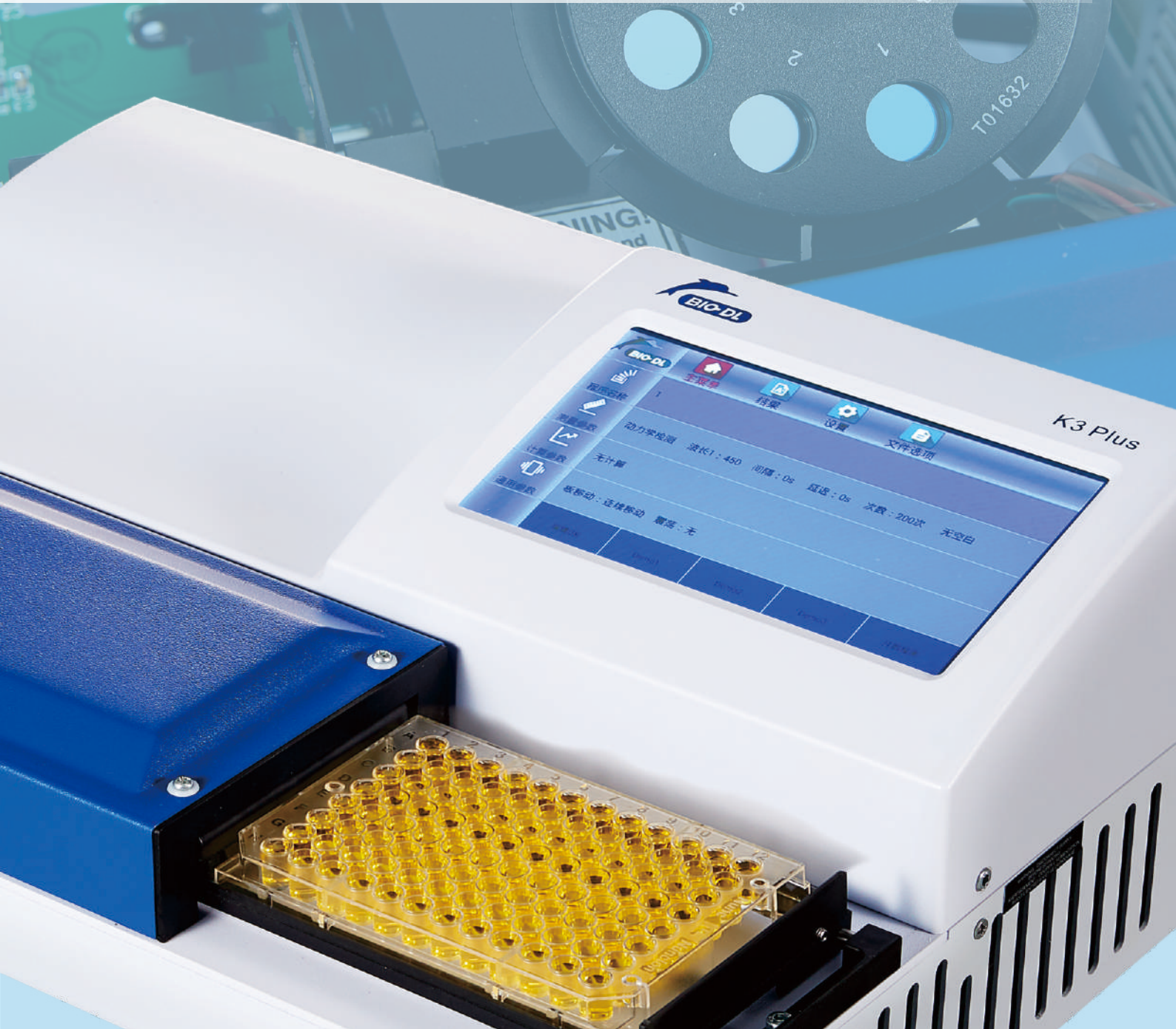
Optional accessories

Item.No	Product name
58601021	Quartz cuvette
58601031	Delicate paper
82211011	Standard substance (nucleic acid)
82211021	Standard substance (protein)

K3 Plus Microplate reader

Classical design

8-Channel Vertical Optical Path Design, Providing Standard Photometric Measurement
The measurement range of wave length is 400-750nm, which is suitable for various scientific research.
Dual measurement mode (continuous and stepping), measuring 96 orifice plate only takes 8 seconds, which is fast and repeatable.
A variety of program measurement modes can be selected, including single wave, double wave, dual-time method, dynamic and multi-wave mode.
Larger colorful LCD touch screen, English and Chinese interface, easy to use
Three-speed adjustable linear oscillation function, to meet more experiment needs.



Product features

- Touch-Display
- Flexibility and Reliability
- Reliable optical system
- Extended Memory Testing
- Chinese and English Software

2-year warranty



K3Plus Microplate reader is specially designed to measure the absorbance value through the microporous plate. It adopts the concept of 8-channel vertical measurement of optical density. It can be configured with up to 8 optical filters at the same time, the wave range is 400-750 nm. The instrument has stable performance, 7-inch color LCD touch screen, visual interface, easy to use. It has better flexibility in various scientific research applications.

Technical parameter

Ruler	140mm (H) × 420mm (W) × 320mm (D)	Linear range	0-3A @ 450nm, the linear correlation coefficient is not less than 0.995
Weight	11kg		
Power supply	220V, 50 Hz	Accuracy	0-0.3A, ±0.007Abs 0.3-2.0A, standard value +1%
power	Most 170VA		
Microplate	96 orifice plate/48 orifice plate	Precision	0.0-1.5A, CV<0.5%; 1.5-2.0 A, CV<1.0%
light source	Quartz halogen lamp (8V/50W)	Measuring time	8s/96 orifice plate (continuous mode) 20s/96 orifice plate (step mode)
Wave range	400-750nm	oscillation	Linear oscillation, three-speed optional
Optical filters	Up to eight standard filters can be configured at the same time: Standard configuration: 405/450/492/630nm.	Display	7-inch color LCD touch screen
Half-band width	3-9nm	Manipulation	Touch screen operation or PC connection operation
Reading range	0-4.0A	Program	More than 500 procedures
Absorption Resolution	0.001A	Signal interface	USB Computer Connection, USB Printer

K3 Pro Microplate Reader

K3 Pro is a Microplate Reader with reliable and flexible functions which can measure the absorbance value of the samples in microplate. It can be configured with up to 8 optical filters at the same time, and the detection range of wave length is 340-850nm. Furthermore, it is also configured with a heating incubator and an oscillator to meet the needs of variable experiments. A 10-inch color touch screen is chosen to be one of major operate methods, and the software is visible pictorial, therefore the K3 Pro is very easy to use.



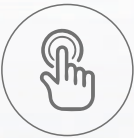
WiFi connection available



Built-in heating incubator up to 55°C



Reliable, accurate, precise



Larger touch screen, easier to use



Wider reading range: 0-6 Abs



Wider detection range of wave length:330-900nm



Features:

- Detection range of wave length: 330-900nm.
- Dual detection mode(continuous and stepping), it takes only 8s for one test of 96 orifice plate.
- A variety of program detection modes available, including single wave, double wave, dual-time method, dynamic and multi-wave mode.
- 10-inch large touch screen, simple interface, easy to use.
- An adjustable heating incubator(RT +4°C-55°C) and an adjustable oscillator(with 3 optional speeds) are configured as standard.
- Wild reading range: 0-6 Abs. Flexible for more applications.
- Connect to PC by wire or WiFi, or operate by stand-alone software.

Technical Parameters

Item NO.	51711011
Light source	Quartz halogen lamp
Wave length range	330-900nm
Microplate mode	96-384 orifice plate
Optical filters	8 hole sites optical filter wheel with 405nm&450nm&620nm filters for standard configuration
Half-band width	3-9nm
Reading range	0-6Abs
Linear range	0-4Abs @405nm. (0-3Abs ±2% in rapid measure mode; 0-4Abs ±2% in common measure mode)
Accuracy	±1% (0-3Abs) @405nm; ±2% (3-4Abs) @405nm
Precision	Cv≤ 0. 2% (0-3Abs); CV≤ 1. 0% (3-4Abs) @405nm
Measuring speed	for 96 orifice plate: 8s in rapid measure mode and 12s in common measure mode; for 384 orifice plate: 16s in rapid measure mode and 24s in common measure mode
Heating incubator	RT + 4℃ - 55℃ (configured for standard)
Oscillator	3 speed levels optional linear oscillator (configured for standard)
Display & operate	10-inch HD color touch screen
Language	Chinese & English
Data export	USB
Printer	USB/WiFi
Internal storage program capacity	1000 programs
PC software	configured for standard

MyGO Hand-held grinder

Simple design, one hand to operate

A small tissue grinder equipped with a rechargeable battery with a motor-driven grinding head can grind tissue samples in a 1.5ml centrifuge tube, achieve the effect of grinding and mixing, and effectively reduce the loss of samples during operation.



Portable and compact



Long battery life



Wide range of applications



Functions

- Suitable for grinding samples of various plant tissues, including roots, stems, leaves, flowers, and seeds.
- Suitable for grinding samples of various animal tissues including brain, heart, lung, stomach, liver, thymus, kidney, intestine, lymph node, musculoskeletal, etc.
- Suitable for the grinding of samples such as fungi and bacteria.
- Suitable for grinding of food and drug composition analysis and measurement.



It can be used with common DNA and RNA extraction kits in the market. As small and light as a pipette, it can effectively reduce sample loss, so that the sample lysate can more fully grind a small amount of protein and tissue particles in a 1.5ml centrifuge tube to achieve the effect of grinding and mixing. Standard plastic grinding parts, stainless steel grinding parts can also be purchased separately, the product comes standard with two 3.7V rechargeable batteries, each battery can work continuously for more than 10 hours

Technical parameter

Product name	MyGO Hand-held grinder
Model	MyGO
DC battery powered	3.7v Lithium battery
No-load speed	8000RPM
Battery life	10 hours
Size	150mm*25mm
Weight	0.16KG
Standard accessories	Grinder: 1 piece
	Rechargeable battery: 2 pieces
	Charging stand: 1 piece
	Disposable plastic grinding pestle: 10 pcs

Order Information

Product Number	Model	Note
390007	Rechargeable Battery	Default
390014	Charging stand	Default
390010	Disposable plastic grinding pestle	Default
390022	Stainless steel grinding pestle	Optional

HF Extract High-throughput grinder

Stable technology, high versatility

With two grinding platforms, to provide multi-specification grinding pipe or adapter for different volume samples, suitable for dry, wet and freeze grinding.



More efficient grinding

Through the horizontal arc high-speed radial oscillation, the grinding balls in the grinding container collide with the sample, and the final sample size is less than 5 μ m



Easier to operate

Grinding time, vibration frequency can be freely adjusted, advanced LED5 inch touch screen can set and store a variety of grinding procedures

18-month warranty

Safe to use

Integrated motor switch to ensure safe operation, with a safety chain device, unique EasyClamp system fastening grinding tank, upper cover transparent window allows the operation be observed easily.

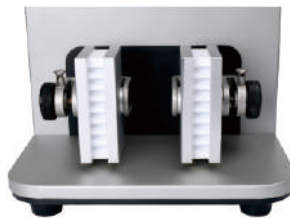
Wide Range

With two grinding platforms for different tubes, grinding tanks or adapters, it is suitable for dry, wet and freeze grinding methods

The HF grinder is designed for full modern laboratory applications, it can grind different animal, plant tissue or other small solid samples by dry, wet or freeze methods quickly. The max throughput is up to 192 and the sample volume covers 0.2mL to 50mL.

A variety of grinding accessoires, multiple functions

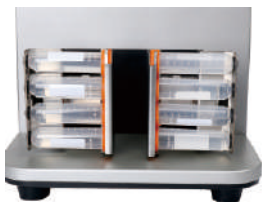
The fixtures of HF Extract are not only designed to hold two standard deep orifice plates, it is also suitable for anything of the same size, including deep orifice plates with fewer or more sample holes, brackets with multiple independent centrifugal tubes and other possible components.



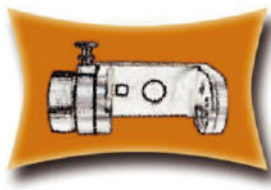
The adapter used to place the microporous tube prevents cross-contamination of the sample and realizes high-throughput screening; The grinder can place liquid nitrogen for freezing.



Grinding tanks of various materials with a maximum volume of 50 ml; Suitable for ecological soil, ore, plants, dental materials and other samples.



Particularly suitable for the measurement of pesticide residue samples in 50mL centrifugal tubes: centrifugal tube adapters, each batch can be made up to 8 samples; Comply with international standards of QuECHER.



The clamping device inside the handle is provided with a removable positioning block, which greatly improves the service life of the grinding fittings and the clamping device, and the gasket can be disassembled and replaced conveniently, reducing the maintenance cost of the instrument.



Frozen Grinding Kits

Insulation box, grinding tank fixture, goggles. Pre-frozen samples by liquid nitrogen and grinding tanks can be ground for thermal sensitive samples such as plastics and rubber.

Little Bead Distributor

Suitable for grinding ball distribution of 96-hole sample plates, with 3 mm and 5 mm two sizes available Choose.



A variety of materials microporous tubes and low temperature accessories

Ordinary plastic, PC, PTFE and stainless steel microporous tubes, can be paired with stainless steel materials, zirconia or tungsten carbide and other materials of the ball, suitable for small samples of low temperature grinding or a small amount of hard, brittle samples of standardized grinding.

Microporous tube Fixers for cell breakage:

- In response to the requirements of high-throughput screening analysis, HF Extract can efficiently and safely break multiple samples such as spores, microorganisms, cereals, seeds, plant blades, animal and plant tissues, soil and other types at once.
- Samples and extracts, small metal balls, or ceramic balls are placed in a microporous tube, and after 2 minutes of grinding, more than 95% of the cells are broken. Microporous tubes and grinding balls can be used once, especially for PCR, PAGE, Probe and other strict requirements, to eliminate cross-contamination between samples analysis methods.
- The HF Series offers 5, 10, 24 hole adapters for 1.5 and 2.0 ml microporous tubes, as well as a 6-hole adapter for 5 ml centrifugal tubes and 96-hole adapters for 1.2 ml deep orifice plates.

Technical parameters

Sample-in size	< 10mm
Sample-out size	< 5µm(Depending on the properties of sample)
Vibration speed	180-1 800rpm
Time range	00:01 - 99: 59 (min/s)
Sample volume	0.2-20ml
Rated Power	200W
Rated voltage	220V, 50Hz
Instrument size	366*502*335mm
Packaging size	460*380*660mm
Instrument weight	34KG



		Recommended ball used						
container volume	max sample-in size	2mm	3mm	12mm	15mm	20mm	25mm	30mm
2.00ml	1mm	3-4	2-3					
25.00ml	6mm	When the volume of the container is large, we recommend that you choose a grinding ball with a slightly larger diameter		2-3	2-3	1	1	1
50.00ml	8mm			2-3	2-3	1	1	1
50.00ml	9mm			2-3	2-3	1	1	1
80.00ml	9mm			2-3	2-3	2-3	1	1
100.00ml	10mm			2-3	2-3	2-3	1	1
160.00ml	12mm	Optimal grinding results with spiral mixing samples						

Order information

Item No.	Item
57C1102A	HF Extract High-throughput grinder

HF Extract Grinding tank

Item No.	Material	Volume	Item No.	Material	Volume
8721123A	Rigid steel	25ml	8721135A	Tungsten Carbid	25ml
8721124A	Stainless Steel	5ml	8721130A	Agate	10ml
8721125A	Stainless Steel	10ml	8721131A	Zirconium oxide	10ml
8721126A	Stainless Steel	25ml	8721132A	Zirconium oxide	25ml
8721127A	Stainless Steel	35ml	8721133A	Zirconium oxide	35ml
8721128A	Stainless Steel	50ml	8721134A	Teflon (poly tetrafluoride)	25ml
8721129A	Tungsten Carbide	10ml			

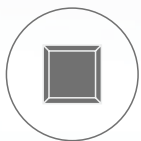
Accessories

Item No.	Material	Note
8721136A	Grinding tank cover tightening handle for grinding tanks of all materials	
8721137A	Seals for 25 ml stainless steel grinding tanks	
8721138A	Seals for 35 ml stainless steel grinding tanks	
8721139A	Seals for 50 ml stainless steel grinding tanks	
8721140A	Suitable for 25 ml zirconia grinding tank	
8721141A	Suitable for 35 ml zirconia grinding tank	
8721142A	Cryogenic tool set for liquid nitrogen cooling grinding tank (Suitable for the fragmentation of cells and fibrous tissue)	
8721143A	Adapter: PTFE made, receiving 5 reaction bottles, reaction bottle specifications of 15 ml and 2.0 ml, plastic made	Suitable for the fragmentation of cells and fibrous tissue
8721144A	Adapter: PTFE made, receiving 10 reaction bottles, reaction bottle specifications of 1.5 ml and 20 ml, plastic made	
8721145A	Adapter: PTFE made, receiving 6 reaction bottles, reaction bottle specification of 5 ml, plastic made	
8721146A	Adapter: PTFE made, receiving 6 reaction bottles, reaction bottle specifications for PC material, 5 ml	
8721147A	Adapter: PTFE made, receiving 24 reaction bottles, reaction bottle specifications of 15 ml and 20 ml, plastic made	
8721148A	Adapter, receiving 96 reaction bottles, reaction bottle specifications for 0.2-1.2 ml eight tubes, plastic made	
8721149A	Adapter, receive 96 reaction bottles, reaction bottle specifications for 0.2-1.2 ml, one sample plate, plastic made	
8721150A	Adapter: Stainless steel made, receiving 4 reaction bottles, reaction bottle specification of 50 ml, stainless steel made	
8721151A	Adapter: PTFE made, receiving 12 reaction bottles, Reaction bottle specification of 5.0 ml, PC	
8721157A	Adapter: PTFE made, receiving 12 reaction bottles, Reaction bottle specification of 5.0 ml, plastic	
8721152A	Adapter: Stainless made, receiving 4 reaction bottles, reaction bottle specification of 500 ml, plastic	
8721153A	96 Hole Sample Plate Bead Distributor, 0.3 mm	
8721154A	96 Hole Sample Plate Bead Distributor, 0.5 mm	
8721155A	Centrifugal Tube 2ml. 100 pieces/bag Plastic made	
8721158A	Centrifugal Tube 5ml. 100 pieces/bag Plastic made	
8721159A	Centrifugal 5ml, made of stainless steel for hard grinding	
8721160A	Centrifugal 5ml, made of polycarbonate for hard grinding	
8721161A	Centrifugal Tube 50ml. 20 pieces/bag Plastic made	

BIO-DL 32 Nucleic Acid Extractor

Double guide rail design makes the structure more stable

Friendly man-machine interaction, dual interface debugging program.
High throughput, high yield, UV disinfection and temperature control.



10-inch touch screen



Dual interface



UV disinfection



2-year warranty



The magnetic bead method is used to enrich and purify the nucleic acids of different biological samples. The machine runs automatically, has a stable structure and high purification efficiency. The ultraviolet disinfection lamp and multi-selected temperature control design can guarantee the experimental results in all directions, which is perfect for disease control, blood transfusion safety, food environmental monitoring and other research fields.

Product features

- **Fully automatic and high efficiency**

This machine can automatically extract nucleic acid from up to 32 samples within 1 hour and the yield is high.

- **Friendly human-computer interaction**

High-definition 10-inch LCD touch screen, built-in user and engineer dual interface, convenient for users to customize parameters.

- **More stable structure**

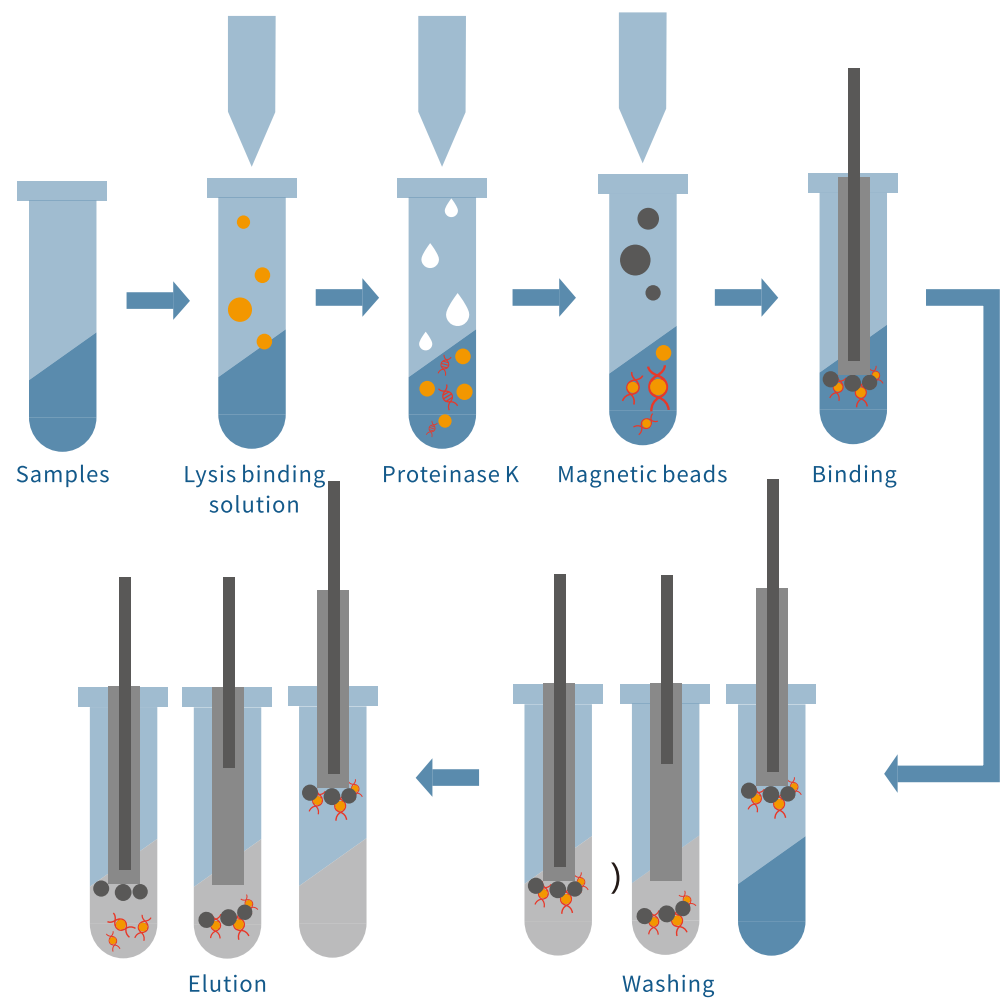
The accuracy and speed of mechanical movement is controlled well by the synergistic effect of the lead screw and the synchronous belt.

- **More functional**

The UV lamp inside ensures no pollution in the operation space. The high quality temperature control module achieves fast and accurate temperature control, and the heating mode can be switched between single and double plate.

Double guide rail design, more stable structure, 8 heating bars, independent temperature control





Working principle diagram

Working principle

- In the lysis buffer, the cells are disrupted and the nucleic acid is released into the buffer.
- Add magnetic beads to the buffer and mix thoroughly to bind the nucleic acid to the magnetic beads.
- Wash the surface of the magnetic beads to remove unwanted impurities including protein, nucleic acid shards or salt to the solution.
- Transfer the magnetic beads to the elution buffer and mix well. The nucleic acid falls off the surface of the magnetic beads and dissolves into the elution buffer
- Remove the magnetic beads from the buffer and recover the nucleic acid solution



Applications

Widely used in genomics, disease control, food safety, forensic identification, blood transfusion safety, animal husbandry and molecular research. Stably extract good quality nucleic acid from kinds of samples including nasopharyngeal swab, saliva, blood, serum, feces, animal or plant tissues, bacteria, fungi, viruses, plasmids, etc.

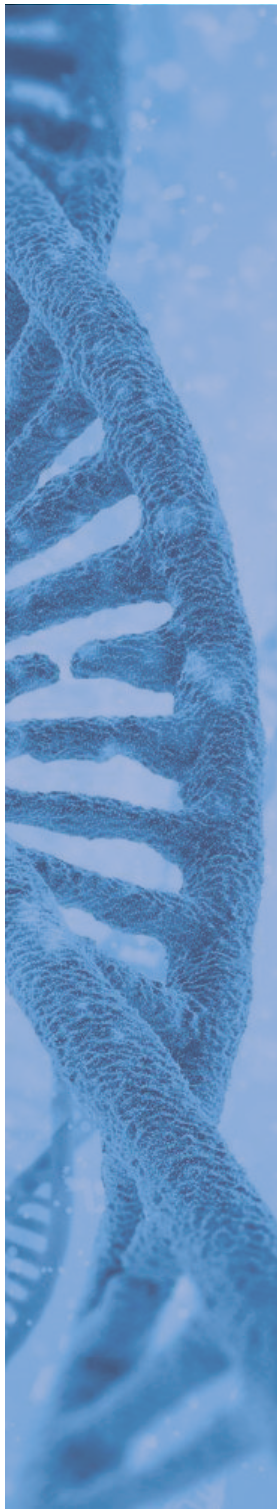
Technical parameter

Processing volume	20μL ~ 1000μL
Maximum sample throughput	2*96 deep well plate with 1-32 samples
Magnetic bead recovery rate	≥95%
Heating temperature	Room temperature - 100℃, Single-well system temperature precision: ±1℃, temperature difference between each wells: ±1℃
Operating environment temperature	5℃~40℃
Operating humidity	≤80%
Shake and mix	Fast, medium and slow speed can be adjusted to meet different needs, stepless speed adjustment, level can be set ex-warehouse.
Applicable reagent types	Magnetic Method
Operation interface	10inch LCD touch screen
Difference between extraction wells	Cv≤3%
Sterilization method	UV
Set interface	Switchable interface for user and engineer
Instrument interface	USB
Dimensions	430mm*420mm*385mm
Gross weight	26 kg
Input voltage	100-240V、50/60HZ

Order information

Item number	Product name	Model	Warranty period
59F21011	BIO-DL 32 Nucleic Acid Extractor	BIO-DL 32	2-year

For detailed of the nucleic acid kit, please check page 56.



HAMILTON LIQUID HANDLING MODULE BIO-DL NUCLEIC ACID EXTRACTION MODULE

Automatically complete sample transfer, reagent distribution, nucleic acid extraction and PCR set up. Reliable liquid handling technique, high quality nucleic acid extraction module. Pollution free, safer for operators, stable for results



Fully automatic, no manual interferes needed

Full process automatic from sample tubes to PCR plate

High safety for operate staffs & lab space & samples

High precision of liquid handling

High yield of nucleic acid extraction

Features

Automatic liquid transfer

- Automatically and accurately transfer 1-96 samples from original tubes to deep well plates
- Automatically and accurately transfer and distribute reagents from reservoirs to deep well plates
- 4 independent channels to realize flexible pipetting, gripping and transporting plates. Each channel is able to be commanded alone.
- The channels are equipped with multiple pipetting functions including mixing, multi-dispensing, pipetting, diluting, etc.
- The channels are compatible with all specifications of single CO-RE tips within 1-1000 μ L like 10 μ L, 50 μ L, 300 μ L and 1000 μ L tips.



wide customizable panel for up to 16 standard plates to be designed



CO-RE gripper for plates transferring

Flexible liquid handling module

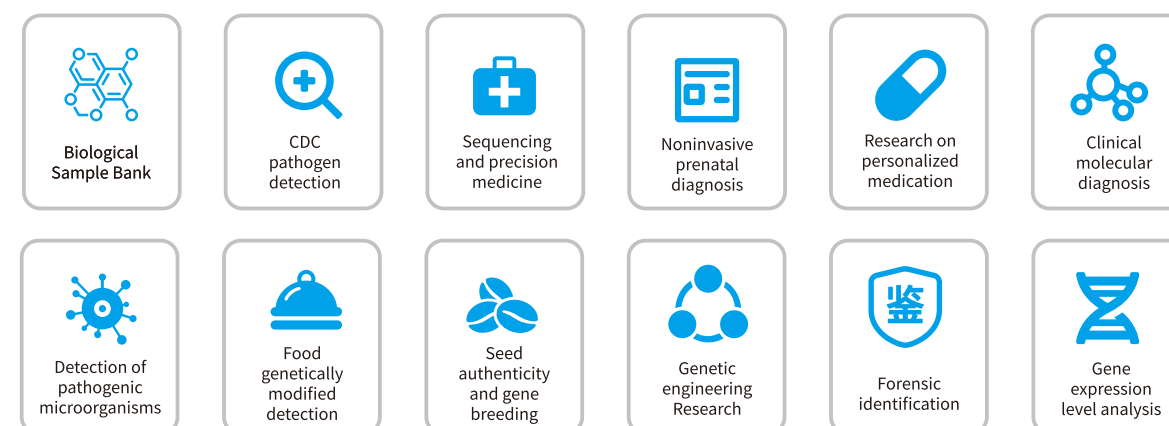
- The panel has a wide space that can place up to 16 standard plates, users can easily design the deck layout which includes the Tips, deep-well plates, sample carriers, reagent reservoirs, etc.
- The flexible CO-RE grippers are able to grip plates with different size, the gripping position and the gripping force can be set.
- A full procedure of nucleic acid extraction of 96 samples can be done within 1 hour and the yield of extraction is high.
- High compatibility for most brands of nucleic acid extraction kits



Total solution supplied is suitable for nucleic acid extraction

- BIO-DL provides the equipment and consumables for nucleic acid extraction. Equipment as single or multi-channel pipettes, mixer, ultra-micro spectrophotometer, etc. Consumables as magnetic tip comb(24-,96-well) ,deep well plate and tips are supplied conveniently as well.
- An Automated Solution for Every Application including but not limited to the nucleic acid Extraction of Virus, Whole blood, fungus and Bacteria.

Applications



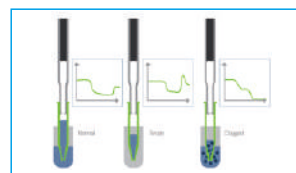
HAMILTON PIPETTING MODULE

Five key technologies ensure the safety of the whole process

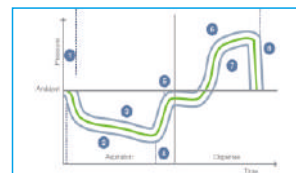
- **CO-RE O-ring sealing:** Ensuring the tips fit firmly, good air tightness, and is able to avoid danger of potential leakage or tips dropping.
- **TADM(Total Aspiration & Dispense Monitoring):** When any error (leakage, plugging or other abnormal conditions) occurs, the TADM system will repair and alarm automatically, then it will generate tracking files to record the operation process of samples.
- **MAD(Monitored Air Displacement):** By monitoring the pressure change during the pipetting process, the platform is able to recognize the abnormal situation in the pipetting process in real time. And it greatly reduces the uncertainty in the process of automated sample handling, makes our platform more reliable, more stable and less human-needed.
- **ADC(Anti-Droplet Control):** When transferring volatile liquids such as ethanol, the air pressure inside the channels may change by time and cause leaking. To avoid the risk of cross contamination by droplets falling, the ADC will adjust the air pressure in time if the MAD does recognized the change.
- **2 modes of Liquid Level Detection:** cLLD (Capacitance) for Conductive/Polar Liquids and pLLD (Pressure) for Non-Conductive/ Non-Polar Solvents, and the dual cLLD & pLLD for liquids with Bubbles, Foam or Non- Homogeneous Liquids.



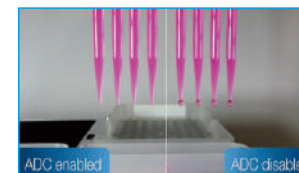
CO-RE



TADM



TADM



ADC

Safe for operator

- Sealed design with automatic lock. If the front door is opened during the running, a pause will be triggered automatically. By doing so, the platform may keep operator from injury.
- Manual intervention is unneeded, the platform can transfer and distribute samples and reagents automatically as well as nucleic acid extraction and PCR set up, which reduces the risk infection.

Safe for samples

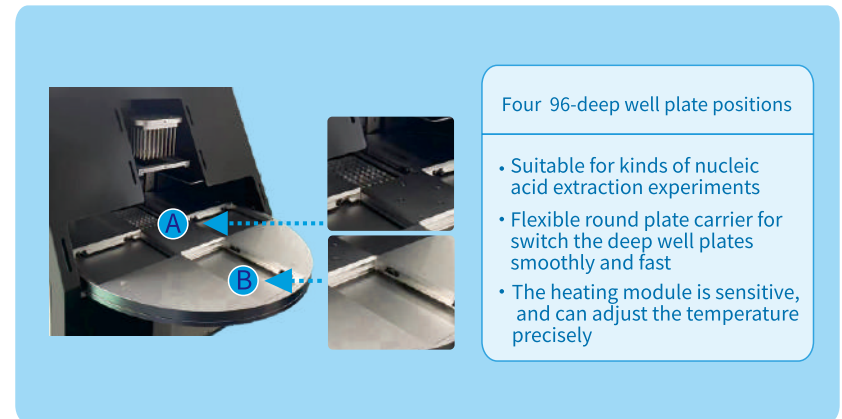
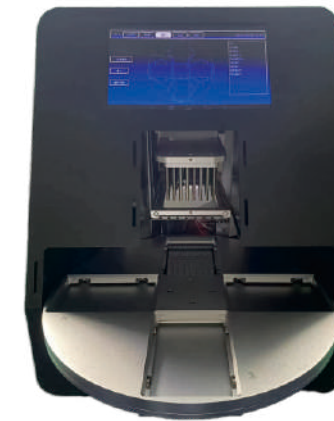
- Sealed design with automatic lock. If the front door is opened during the running, a pause will be triggered automatically. By doing so, the platform may keep operator from injury.
- Manual intervention is unneeded, the platform can transfer and distribute samples and reagents automatically as well as nucleic acid extraction and PCR set up, which reduces the risk infection.

Safe for data

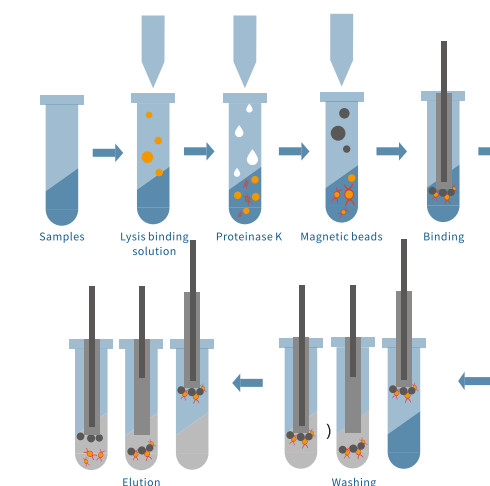
- Automatically capture the major data in real time for lab manager to validate the experimental process, and make sure the results are repeatable.
- Real-time generates sample data and creates trace file, and decide what to do next according to the pre-set standard procedure during the running.



BIO-DL EXTRACTION MODULE



High recognized nucleic acid extraction technology



- Flexible parameter setting: binding time and mixing speed are adjustable.
- Adopt the principle of magnetic bead transferring instead of reagents transferring, makes the extraction process more efficient and less risky of contamination.
- Equipped with high precision heating module, it can control temperature precisely and accurately, up to 99 °C.
- Alternative 96-magnetic rods module for regular extraction and 24-magnetic rods for large volume extraction.
- Double anti-pollution methods: effective UV lamp and air filtration module.

Alternative 24/96 magnetic rods module

24-magnetic rods module



- The maximum handling volume is 5 mL
- Extract and purify up to 24 samples per run
- Suitable for tumor test and prenatal screening.

24-magnetic rods module



- The maximum handling volume was 1ml
- Extract and purify up to 96 samples per run
- Suitable for nucleic acid extraction from virus, bacteria, whole blood and other liquid samples.

Parameters

Technical principle	Magnetic rods directly transfer beads
Max sample throughput	24*5mL or 96*1mL
Magnetic module	24/96-channels
Magnetic sleeve loading and unloading	Fully Automatic
Temperature control	Room temperature +5°C-99°C
Pipetting volume	1-1000μL
Pipetting channel	4 independent channels
Bar code scanning	Optional bar code scanning function
UV lamp	Default equipped
Pipetting accuracy	CV≤5%@1μL
	CV≤1.5%@10μL
	CV≤1%@100μL
	CV≤1%@1000μL
Liquid level detection	2 modes of liquid level detection: cLLD & pLLD
Anti-droplet control	Default equipped
Pressure detection during aspiration and dispensing	Total Aspiration & Dispense Monitoring function
Air filtration system	Default equipped
Dimensions	163.5cm*70.9cm*83.1cm(length*width*height)
Power	100-240VAC, 50-60Hz

Software

- Developed by Bio-DL together with Hamilton, easy to operate, safe to transfer liquid and able to trace the data.
- With a few simple clicks will the operation complete;
- High flexibility: all parameters are adjustable to meet variable needs of different experiments.

Easy-to-use: Wizard software, clear flow, easy to use;
Versatile: Various functions including but not limited to transfer plate, transfer sample or reagent, and mixing;
Flexibility: The pipetting parameters can be set flexibly and variably.
Wide Application range: It can be used for nucleic acid extraction or as a liquid transfer platform to meet various application needs;
Intelligence: With the dual liquid level detection, the platform can monitor the entire process of liquid transfer;



Index of Instrument Product Number

Item	Item.No	Remark	
Feel Vortex-3 Vortex Mixer			
Feel Vortex-3 Vortex Mixer	5A00100B		
Feel Vortex-6 Vortex Mixer			
Feel Vortex-6 Vortex Mixer	5A00101B		
Feel Vortex-6-1 Adapter	5A00101B-1		
Feel Vortex-6-2 Adapter	5A00101B-2		
Feel Vortex-6-3 Adapter	5A00101B-3		
MyGO Hand-held grinder			
MyGO Hand-held grinder	57E21041		
Accessories			
Rechargeable Battery	390007		
Charging stand	390014		
Disposable plastic grinding pestle	390010		
Stainless steel grinding pestle	390022		
BIO-DL 32 Nucleic Acid Extractor			
BIO-DL 32 Nucleic Acid Extractor	59F21011	BIO-DL 32	
Automatic nucleic acid extraction platform	59141091	NAD	
Accessories			
Item	Item.No	Volume	Packing
Conductive CO-RE tips	5C0038	50μl	96pcs/rack,
	5C0039	300μl	24racks/case
	5C0040	1000μl	
	5C0117	50μl	Blister packing,
	5C0118	300μl	5*96/rack,
	5C0119	1000μl	4racks/case

Index Of Grinding Ball Product Number

Item	Item.No	Range	Weight
HF Extract Grinding ball			
Grinding Ball (Zirconia made)	872111AA	0.5mm ø, (500g)	0.50
	872112AA	1mm ø, (500g)	0.50
	872113AA	2 mm ø, (500g)	0.50
	872114AA	3 mm ø, (500g)	0.50
	872115AA	5 mm ø, (500g)	0.50
	872116AA	7mm ø, (500g)	0.50
	872117AA	10mm ø, (500g)	0.50
	872118AA	15 mm ø, (1pc)	0.50
	872119AA	20 mm ø, (1pc)	0.50
	872111BA	25 mm ø, (1pc)	0.01
	872112BA	30 mm ø, (1pc)	0.02
	872113BA	40 mm ø, (1pc)	0.03
	872114CA	10 mm ø, (1pc)	0.50
	872115CA	20 mm ø, (1pc)	0.50
	872116CA	30 mm ø, (1pc)	0.02
	872117CA	40 mm ø, (1pc)	0.03

Index of Instrument Product Number

Item	Item.No
MicroDrop ultramicro spectrophotometer	
Ultramicro spectrophotometer	58601001
Accessories	
Quartz cuvette	58601021
Delicate paper	58601031
Standard substance (nucleic acid)	82211011
Standard substance (protein)	82211021
K3 Plus microplate reader	
K3 Plus microplate reader	51B11001
HF Extract high throughput grinder	
HF Extract high throughput grinder	57C1102A
BT-100 Constant Temperature Metal Bath	
BT-A Constant temperature metal bath	54G51011
BT-B Constant temperature metal bath	54G51021
BT-C Constant temperature metal bath	54G51031
BT-D Constant temperature metal bath	54G51041
Accessories	
A module(96*0.2ml)	370005
B module(54*0.5ml)	370004
C module(28*1.5ml)	370034
D module (28*2.0ml)	370035
Mini Centrifuge	
Mini Centrifuge HL-7K	5500100B
Mini Centrifuge HM-10K	5500101B
Accessories	
Angle Type Rotor 2/1.5ml×8	5500100B-1
Row Tube Rotor 0.2ml×8×4	5500100B-2
Conversion Adapter 0.5ml×8	5500100B-3
Conversion Adapter 0.2ml×8	5500100B-4
Mini-L Centrifuge	
Mini-L Centrifuge HH-12K	5500102B
Accessories	
Compound Angle Rotor 1.5/2ml×12+PCR0.2ml×8×4	5500102B-1
PCR Tube Rotor 0.2ml×12×4	5500102B-2
Angled Rotor 5ml×4/cone bottom tube with lid	5500102B-3
Capillary hematocrit rotor 1.5mm in diameter×40mm in length capillary × 12	5500102B-4
Angle type rotor 5ml × 4 / vertical screw tube	5500102B-5
Conversion adapter 0.5ml × 12pcs / standard HH-12K-A-1	5500102B-6
Conversion adapter 0.2ml × 12pcs / standard HH-12K-A-1	5500102B-7
Conversion adapter 1.8 / 1.1ml × 4 / standard HH-12K-A-5	5500102B-8
Hematocrit rotor reading card / standard HH-12K-A-4 / 1	5500102B-9
Capillary sealing plate / standard HH-12K-A-4 / 1	5500102B-10
40mm capillary/ 100 pieces/pack (Red & blue label available)	5500102B-11

Index Of Grinding Ball Product Number

Item	Item.No	Range	Weight
HF Extract Grinding ball			
Grinding ball (stainless steel made)	8721162A	1mm ø ,(500g)	0.50
	8721163A	2mm ø ,(500g)	0.50
	8721164A	3 mm ø ,(500g)	0.50
	8721165A	5 mm ø ,(500g)	0.50
	8721166A	7 mm ø ,(500g)	0.50
	8721167A	10 mm ø ,(500g)	0.50
	8721168A	12 mm ø ,(500g)	0.50
	8721169A	15 mm ø ,(500g)	0.50
	8721170A	20 mm ø ,(1pc)	0.04
	8721171A	25 mm ø ,(1pc)	0.07
	8721172A	30 mm ø ,(1pc)	0.10
	8721173A	1mm ø ,(500g)	0.50
Grinding ball (hard steel made)	8721174A	2mm ø ,(500g)	0.50
	8721175A	3 mm ø ,(500g)	0.50
	8721176A	5 mm ø ,(500g)	0.50
	8721177A	7 mm ø ,(500g)	0.50
	8721178A	10 mm ø ,(500g)	0.50
	8721179A	12 mm ø ,(500g)	0.50
	8721180A	15 mm ø ,(500g)	0.50
	8721181A	20 mm ø ,(1pc)	0.04
	8721182A	25 mm ø ,(1pc)	0.07
	8721183A	30 mm ø ,(1pc)	0.10
	8721184A	5 mm ø ,(1pc)	0.01
	8721185A	7 mm ø ,(1pc)	0.01
Grinding ball (hard steel made))	8721186A	12 mm ø ,(1pc)	0.01
	8721187A	10 mm ø ,(1pc)	0.01
	8721188A	15 mm ø ,(1pc)	0.03
	8721189A	20 mm ø ,(1pc)	0.04
	8721190A	25 mm ø ,(1pc)	0.06
	8721191A	30 mm ø ,(1pc)	0.08
	8721192A	40 mm ø ,(1pc)	0.10
	8721193A	5 mm ø ,(500g)	0.50
	8721194A	10 mm ø ,(500g)	0.50
	8721195A	15mm ø ,(1pc)	0.01
	8721196A	20mm ø ,(1pc)	0.01
	8721197A	25mm ø ,(1pc)	0.03
Grinding Ball (Agate made)	8721198A	30mm ø ,(1pc)	0.05
	8721199A	40mm ø ,(1pc)	0.07
	872114BA	1mm ø ,(500g)	0.50
	872115BA	2 mm ø ,(500g)	0.50
	872116BA	3 mm ø ,(500g)	0.50
	872117BA	5 mm ø ,(500g)	0.50
	872118BA	7mm ø ,(500g)	0.50
	872119BA	10mm ø ,(500g)	0.50
	872111CA	15 mm ø ,(500g)	0.50
	872112CA	15 mm ø ,(1pc)	0.03
	872113CA	20 mm ø ,(1pc)	0.05

Relying on the sincere and excellent service, Our Company gains a good reputation in the international market. Now we establish business relationship with clients from more than 100 countries and areas. Our main market is located in the America, Europe, Middle East Asia and Africa and South East Asia.

Our global service centers build a complete product service network, to provide customers with efficient and convenient after-sales technical support.

Contact us for support and services

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