



**ERA LABXPERT™ LLP**

Science And Precision - It's In Our DNA ! ERA, Your Ultimate Lab Partner

**INSTRUMENTS BROCHURE**



# ERA LABXPERT™

Science And Precision - It's In Our DNA ! ERA, Your Ultimate Lab Partner

## Gel Doc Pro Gel Documentation Imager

### Product Highlights

- **High resolution and high sensitivity cooled CCD camera:**  
16-bit high sensitivity digital camera, detecting very low-abundance DNA/RNA.
- **One click to get the optimum gel image:**  
Automatically capture images and identify the sample type when the sample tray is docked.
- **Stand-alone system, small footprint:**  
Built-in 10.1-inch touchscreen, no external computer needed.
- **Multi-touch screen:**  
Double-tap the touch screen to capture the image, swipe up and down to adjust the contrast.



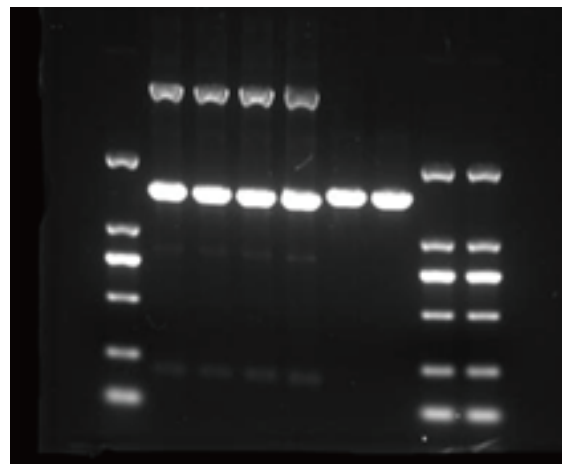
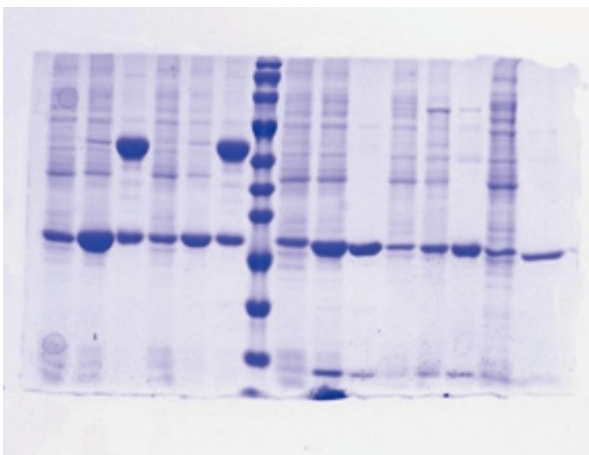
### Product Introduction

Gel Doc Pro gel documentation imager features intelligent operation for an unrivaled ease of use. Just one click, it offers the best sensitivity and speed, and reaches the lowest limits of detection for your DNA, RNA and protein applications. Its elegant design and small footprint allow it to fit into any laboratory environment, no external computer needed.

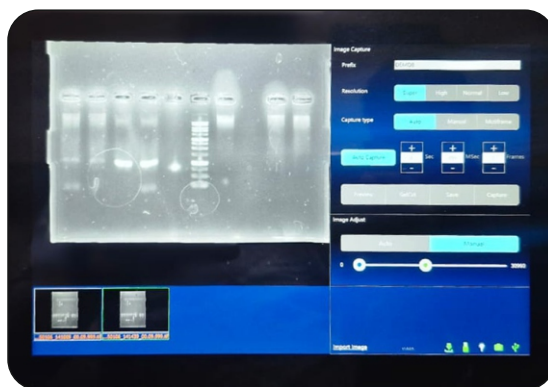
### Product Application

Used for nucleic acid gel imaging and analysis of safe and low toxic dye labeling, gel cutting and recycling;  
Cold-stained/silver-stained protein gel imaging and analysis.

### Photographing Sample Images



# Gel Doc Pro Image capture and analysis software



## Image Capture

- Auto-exposure function, Just one click, the optimum gel image is captured and automatically saved.
- Shooting mode: automatic shooting, manual shooting, and multi frame shooting.
- Exposure mode: Ultra-high resolution or ultra-high sensitivity.
- Swipe up and down the touchscreen to adjust the contrast.

## Image Analysis

- Automatically identifies lanes and bands. Lanes can be added, deleted and adjusted as needed to achieve accurate lane separation.
- The integral value of optical density and peak pattern of each band are calculated automatically, which is convenient to calculate the molecular weight of each band.
- Calculate the optical density of the designated area, which is suitable for protein quantitative analysis.
- Automatically subtract the background to get accurate and optimized image analysis data.
- The analysis results can be exported in Excel file.

## Specifications

Model	Gel Doc Pro
Shooting area	187mm*125mm
Camera	16-bit scientific grade digital camera
Lens	Fixed focus; f1.4
Pixel binning	3088*2064
Pixels	1*1, 2*2, 3*3 and 4*4 optional, corresponding to different resolution and sensitivity requirements
Tablet computer	10.1-inch touch screen; max resolution: 1920*1200
Sample tray	Power-driven
Light source	302nm UV transmission   470nm blue light transmission   white light transmission
Filter	590nm multilayer coated interference filter
Image acquisition software	Gel Doc Pro Image Capture Software, supports manual exposure, automatic exposure, and multi frame shooting functions.
Data interface	Two external USB ports
Power input	100-240VAC, 50-60Hz
Dimensions (mm)	286 X 355 X 321mm (WxDxH)
Net weight	13KG

# Multifunction Vortex Mixer



- Touch / Run, easy to switch.
- Various fixtures, large handling capacity.
- Brushless motor with strong power.
- Ultra-low body, stable operation.

## Technical Data

Model	VM-ELX-11
Operating Mode	Touch / Run
Control Mode	Digital Display & Button
Display	LCD
Motor	Brushless Motor
Oscillation	4.5mm (Circular Oscillation)
Speed Range	Touch: 0-3000rpm   Run: 100-3000rpm
Timing / Time	1min - 8hrs
Shell Protection Level	IP21
Voltage	20W
Power	DC12V
Dimensions (mm)	150 X 150 X 100 (WxDxH)

## Multifunctional Mixer Adapted Module

ELX01			Centrifuge tube / Test tube
ELX02			Flask / Multi tube
ELX03			21X12mm Blood collection tube
ELX04			12X5ml/15ml Centrifuge tube
ELX05			4X50ml Centrifuge tube   5X5ml/ 15ml Centrifuge tube
ELX06			96X0.2ml Centrifuge tube   96 well plate
ELX07			20X0.5ml Centrifuge tube   30X1.5ml/2.0ml Centrifuge tube
ELX08			Cell culture plate



# Multi Tube Vortex Mixer

- Timing function.
- Large handling capacity.



## Technical Data

Model	MTVM-ELX-10
Motor Type	Brushless Motor
Horizontal Gyration Amplitude	4mm
Speed	1500 - 3000rpm
RPM Increment	10rpm
Timing	1min - 8hrs
Adaptors	(ELX101) Centrifuge tube : 25X50ml   16X15ml (ELX102) Centrifuge tube : 49X15ml   49X10ml (ELX103) Blood tube : 49X2/5ml (ELX104) Centrifuge tube : 81X1.5/2ml
Allowed Ambient Humidity Temp.	5 ~ 40°C 80%RH
Voltage	AC 100 - 220V, 50/60Hz
Power	30W
Dimensions (mm)	355 X 260 X 145 (WxDxH)

# Orbital Shaker

- Brushless motor.
- Suitable for a variety of containers.



## Technical Data

Model	OS-ELX-12	Timing	1min - 23hrs 59min
Type	Orbital	Max Load	2kg
Plate Size	250X250 mm	Allowed Ambient Humidity Temp.	5 ~ 40°C 80%RH
Rotation Angle	Circular	Voltage	AC 100 - 240V
Orbit Diameter	20	Power	30W
Speed	40-200 RPM	Dimensions (mm)	355 X 260 X 100 (WxDxH)

# 3D Shaker



- Timing function.
- Suitable for a variety of containers.
- Adjustable speed.
- 3D mixing.

## Technical Data

Model	3DS-ELX-13	Motor Type	Brushless Motor
Type	3D Oscillating	Timing	1min - 8hrs
Display	LCD	Allowed Ambient Humidity Temp.	5 ~ 40°C 80%RH
Tit Angle	10°	Voltage	DC 12V
Max Load	0.8kg	Power	10W
Speed	10 - 80RPM	Dimensions (mm)	184 X 184 X 130 (WxDxH)

# Oil-free Diaphragm Vacuum Pump



- The suction speed is adjustable.
- Overload, overheat and short circuit protection.
- Illuminated switch.
- High precision vacuum gauge.

## Technical Data

Model	OFVP-ELX-14	Enclosure Ratings	IP21
Type	Negative pressure	Power Supply	30W
Suction Flow Rate	0-15 L/min	Diaphragm	Rubber
Limit Vacuum Degree	0.08 Mpa	Gross/Net Weight	1.58 kg
Noise	<45 db	Dimensions (mm)	200 X 110 X 120 (WxDxH)

## Mini Centrifuge High Speed

- Enclosed high-speed type rotor.
- Stable rotation.
- Temperature protection function.
- Memory program.



### Technical Data

Model	MCHS-ELX-145
Control Mode	Digital Display & Button
Max Relative Centrifugal Force	14104xg
Speed Range	1000-14500rpm $\pm$ 5%
Rotor Capacity	0.2/0.5/1.5/2ml*12 Centrifuge Tube   0.5/1.0ml*12 Micro Blood Tube
Max Speed Acceleration / Reduction	$\leq$ 12sec / $\leq$ 15sec
Noise Under Max Rotation Speed	$\leq$ 47db
Input Power	55W
Shell Protection Level	AC100-240V / DC24V
Allow Surrounding Temperature	5 - 40°C/ 80%RH
Dimensions (mm)	280 X 390 X 220 (WxDxH)

## Centrifuge Low Speed

- Double electronic lock.
- Memory program.
- Temperature protection & overshock protection.



### Technical Data

Model	CLS-ELX-400
Rotor Capacity	6X15/50ml Centrifuge Tube   6X2/5/10ml Blood Tube
Speed	500 - 4000rpm
Max RCF	2146xg
Semidiameter Of Rotor	12cm
Timing Range	30sec - 59min 50sec
Power	80W
Power Supply	AC 110V - 220V, 50/60Hz
Dimensions (mm)	170 X 260 X 110 (WxDxH)

## Mini Dry Bath



- Small volume.
- Multi-point operation.
- LCD display.
- Over temperature protection.

### Technical Data

Model	MDB-ELX-16
Temperature Range	Room temp + 5°C ~ 100°C
Temperature Stability	±0.5°C
Temperature Homogeneity	±0.5°C
Display Accuracy	0.1°C
Heating Time	≤12min (25-100°C)
Temperature Point Can Be Set	9
Time Setting Range	5sec - 23hrs 59min
Power	48W
Voltage	DC 24V
Dimensions (mm)	160 X 115 X 96 (WxDxH)

### Mini Dry Bath Adaptors

Adaptor Options	Numbers And Aperture Of Test Tube
ELX-0.2	40 X 0.2ml PCR Tube
ELX-0.5	24 X 0.5ml PCR Tube
ELX-1.5	15 X 1.5ml Micro Centrifuge Tube
ELX-2.0	15 X 2.0ml Micro Centrifuge Tube



# Low Temp. Dry Bath Shaking Incubator



- Hot cover heat preservation function.
- Multi-point operation.
- Heating & cooling.
- Multi modules optional.

## Technical Data

Model	LTDB-ELX-15
Actual temp range	RT AMBIENT TO -15°C ~100°C
Temperature Stability	±0.5°C
Max heating rate	5.5°C /min
Max cooling rate	5°C/min (100°C-Room Temp) 1°C/min (Below Room Temp)
Program memory	P1 - 9
Gradient Run	Yes
Speed	100-1500 rpm (Low Module)
Timing	5sec-24hrs
Power	150W
Voltage	100-240V 50/60HZ
Dimensions (mm)	265 X 190 X 150 (WxDxH)

## Dry Bath Adaptors

Adaptor Options	Adaptor Capacity
ELX - 0.2	96X0.2ml Centrifuge Tube / 96-hole PCR Microplate / PCR Strips 8x0.2ml)
ELX - 0.5	24X0.5ml Micro Centrifuge Tube
ELX - 1.5	24X1.5ml Micro Centrifuge Tube
ELX - 2.0	24X2.0ml Micro Centrifuge Tube
ELX - 15	8X15ml Centrifuge Tube
ELX - 50	4X50ml Centrifuge Tube
ELX - Thermal	Thermal Lid Optional For ELX - 0.5 / 1.5 / 2.0ml

# Micro-spectrophotometer

Micro-spectrophotometer can quickly and accurately detect nucleic acid, protein and cell solution. Because it is easy to use, less sample consumption, no preheating, can quickly cleanup residual samples, no cuvettes or other sample positioning devices required, samples do not need to be diluted and other characteristics. It has become a routine instrument in many laboratories. During the test, users can directly add the sample point to the sample plate. After the test the sample can be directly erased or recovered.

## Technical Features

### User-friendly software, easy to use:

Graphical software operation, more intuitive interface, the results can be directly exported, easy to save, view and output data.

### Micro-volumes measuring:

Only 0.5  $\mu$ L-2  $\mu$ L sample is needed for each test. After the measurement, the samples can be recovered and the precious samples can be studied with confidence.

### Long life light source, do not need to warm up:

Xenon flash, life span is 10<sup>9</sup> (up to 10 years). No preheating, direct use, ready to test in any time, no need for other consumables.

### Convenient and easy to use:

Directly point the sample on to the sample plate without dilution or cuvette. The sample concentration can be measured as 50 times of the conventional uv-visible photometer, and the result can be directly output as the sample concentration.

### High concentration detection:

The maximum concentration of the detectable sample is 15000 ng/ $\mu$ L (Nano-500, dsDNA as an example), and the sample basically does not need to be diluted.

### Fast detection:

No dilution or cuvette needed in the detection process; 5 s can complete the test and display the result.

### ELX- $\mu$ -500 added fluorometer mode, accurate quantitative nucleic acid concentration:

For samples with concentrations lower than 2 ng/ $\mu$ L, fluorometer mode can be selected and the minimum detection limit can be up to 0.5 pg/ $\mu$ L.

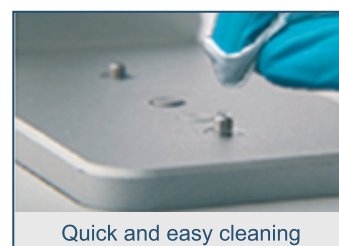
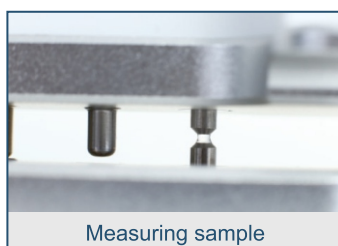
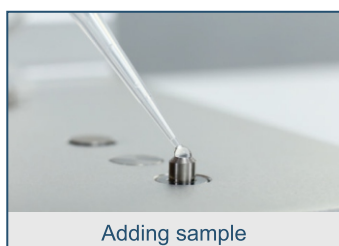
### Single machine operation, convenient and efficient:

ELX- $\mu$ -100/ ELX- $\mu$ -300 / ELX- $\mu$ -500 is full-wavelength micro-spectrophotometer, and ELX- $\mu$ -400 is a fixed wavelength ultra-micro nucleic acid analyzer.

## Applications

260 nm: dsDNA, ssDNA, RNA	595 nm: Bradford
280 nm: A280, BSA, IgG, Lysozyme	600 nm: Bacterial liquid concentration
562 nm: BCA	650 nm: Lowry

## Operation Process



## Specifications

Model No.:	ELX- $\mu$ -100	ELX- $\mu$ -300	ELX- $\mu$ -400	ELX- $\mu$ -500
Wavelength range	200~800 nm	200~800 nm	260 nm, 280 nm	200~800 nm
Minimum sample size	0.5~2.0 $\mu$ L	0.5~2.0 $\mu$ L	1.0~2.0 $\mu$ L	0.5~2.0 $\mu$ L
Path length	0.2 mm 1.0 mm	0.2 mm 1.0 mm	0.5 mm	0.05 / 0.2 mm 1.0 mm
Light source	Xenon flash lamp	Xenon flash lamp	UV LED	Xenon flash lamp
Detector type	2048-linear CCD array	2048-linear CCD array	UV-silicon photocell	2048-linear CCD array
Wavelength accuracy	1 nm	1 nm	----	1 nm
Spectral resolution	$\leq$ 3 nm	$\leq$ 3 nm	$\leq$ 8 nm	$\leq$ 3 nm
Absorbance precision	0.003 Abs	0.003 Abs	0.005 Abs	0.003 Abs
Absorbance accuracy	1 % (7.332 Abs at 260 nm)	1 % (7.332 Abs at 260 nm)	2 % (7.332 Abs at 260 nm)	1 % (7.332 Abs at 260 nm)
Absorbance range	0.04~90 A	0.04~90 A	0.2~50 A	0.04~300 A
Nucleic acid detection range	2~4500 ng/ $\mu$ L (dsDNA)	2~4500 ng/ $\mu$ L (dsDNA)	10~2500 ng/ $\mu$ L (dsDNA)	2~15000 ng/ $\mu$ L (dsDNA)
Measurement time	< 5 s	< 5 s	< 6 s	< 6 s
Dimension (WxDxH) mm	200x250x166	210x268x181	208x280x186	208x320x186
Weight	2.6 kg	2.8 kg	2.0 kg	3.6 kg
Sample pedestal material	Aluminum alloy and quartz fiber	Aluminum alloy and quartz fiber	Aluminum alloy and quartz fiber	Aluminum alloy and quartz fiber
Operating voltage	DC 24 V 2 A	DC 24 V 2 A	DC 24 V 2 A	DC 24 V 2 A
Operating power	20 W	25 W	25 W	25 W
Standby power	5 W	5 W	5 W	5 W
Software compatibility	Win 7, Win XP, Win 8	Android system	Android system	Android system

### Cuvette mode (OD600 measurement)

Light source	----	LED	LED	LED
Wavelength range	----	600 $\pm$ 8 nm	600 $\pm$ 8 nm	600 $\pm$ 8 nm
Absorbance range	----	0~4 A	0~4 A	0~4 A

### Fluorometer mode

Sensitivity	----	----	----	dsDNA: 0.5 pg/ $\mu$ L
Linear dynamic range	----	----	----	R <sup>2</sup> $\geq$ 0.995
Repeatability	----	----	----	$\leq$ 1.5 %



ELX- $\mu$ -100



ELX- $\mu$ -300

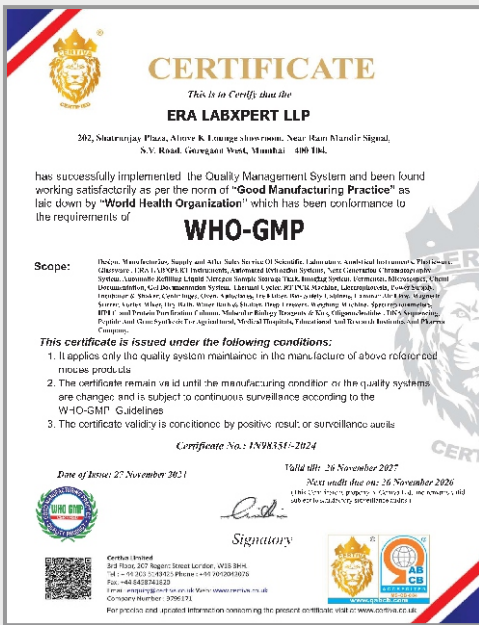


ELX- $\mu$ -400



ELX- $\mu$ -500

# Certificates



## Corporate Office

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