

Motic®

MORE THAN MICROSCOPY



MOTICAM

MOTICDIGITALIMAGINGSOLUTIONS



Canada
China
Germany
Spain
USA



MOTIC Aim for the FUTURE

Motic was established in 1988 as a hi-tech industrial enterprise specialized in manufacturing conventional compound microscopes. Owned by Speed Fair Co., Ltd, the company has grown into a global brand with sales offices in Canada, Germany, Hong Kong, Spain and the United States.

Our manufacturing base in China consists of four wholly-owned factories with **Motic** Xiamen acting as the production and design headquarters of the company. Xiamen's Research and Development centre has over 100 professional engineers and technicians covering optical, mechanical, industrial, electronic and software design.

Today, **Motic's** dedicated team members of more than 2000 individuals are ready to assist you in finding competitive solutions for complex problems.



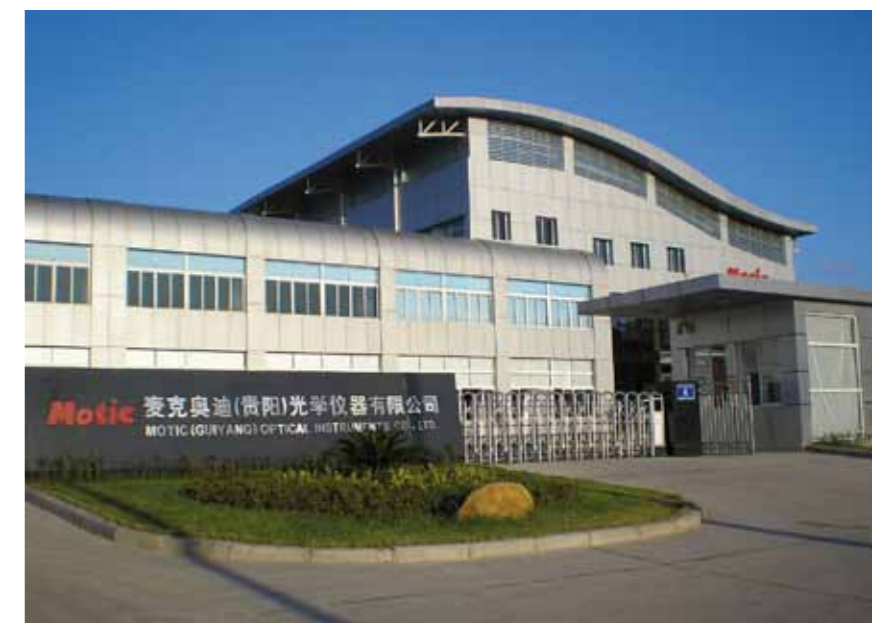
During the late 1990s, the company started to explore and develop affordable digital microscopy solutions consisting of imaging hardware and application software. This has proven to be a worthwhile investment turning **Motic** into one of the leading brand names of digital microscopy products.

The main goal of **Motic** remains the same today as it was when the company was founded. The brand **Motic** stands for

- Excellent price-performance**
- Innovative Technology**
- Superb Quality**
- Excellent customer service**

Motic is a certified **ISO9001**, **ISO14001** and **ISO13485** company.

Your Motic Team

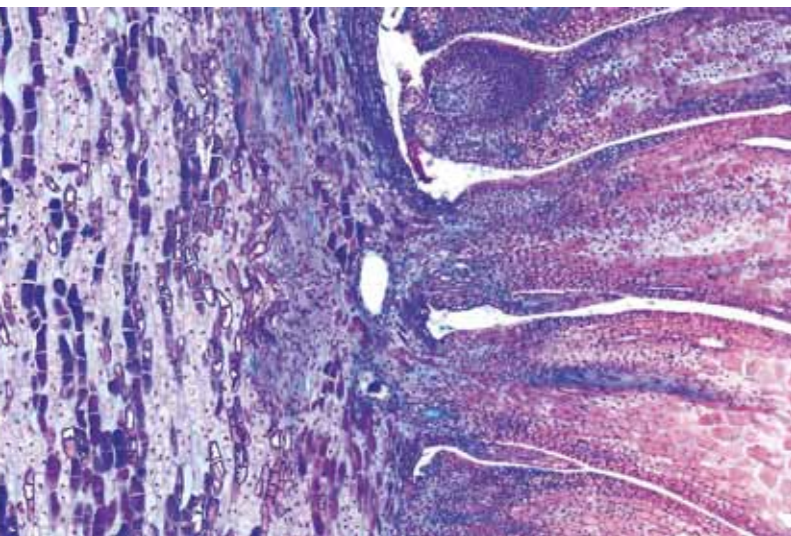


Introduction

Motic has made it its mission to be the market leader providing Digital Microscopy solutions that are Functional, Powerful and of course Affordable. In order to make this possible, we have invested heavily in our own facilities providing Research & Development, PCB Design, Image Sensor manipulation and of course Application Software programming. Housing these vital resources under one roof allows us to react to ever changing market needs and expectations at a moment's notice.

In today's industries, the computer has become an integral component in day-to-day operations. From Schools to Universities and from Small Labs to Teaching Hospitals, vital data has been digitized. This now holds true for the simple Optical Microscope. Within this booklet, you will find easy to install solutions that can turn almost any existing microscope into a Digital Microscope. Once connected to your computer, the possibilities are endless and the potential of the microscope can be unlocked. Capture, annotate, share and quantify data making light work out of previously tedious tasks.

Our continuing active links to our end-users has allowed us to customize our solutions to ensure that each and every product is designed with you in mind. At Motic, we are always ready to accept market challenges and exceed expectations.



The Brand name **Motic** assures that you are purchasing a quality instrument that has been thoroughly inspected and adjusted by our trained staff of technicians, and backed by the company's dedication to your complete satisfaction. Our **2 year Limited Warranty** (for digital products) is backed by a complete parts inventory that assures availability beyond the 2 years warranty period. **Motic** is aware that the selection of a camera, be it a simple or a sophisticated model, requires careful consideration of several factors beyond the price.

So, after determining that **Motic** offers some of the most competitive pricing in the market, keep in mind our commitment to quality and service. It is an investment that will start paying off immediately with the selection of the **Motic** brand.

Motic warrants all cameras to be free from defects in material and workmanship under normal use and service for 2 years from date of purchase. It does not cover damage resulting from abuse or misuse, repairs or alterations performed by others than authorized repair technicians of **Motic** or damage occurring in transit. Any modification, even only parts of the instrument or Serial No, will automatically cancel this warranty.



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CMOS cameras from Affordable to High-Resolution

MOTICAM 352

A great entry into digital microscopy, the Moticam 352 provides live streaming images at resolutions of up to 800x600 pixels. Eyepiece adapters as well as our application software are included in the package

Specifications

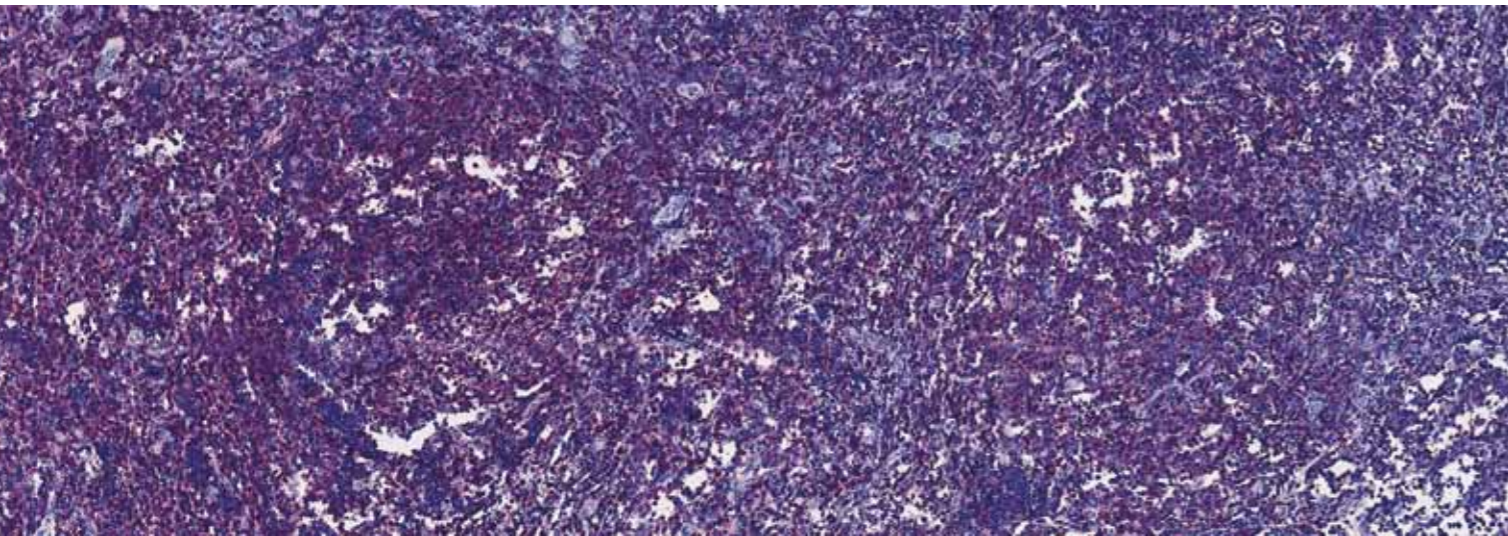
- 1/4" CMOS sensor (optical calculation)
- 800x600 pixel live resolution
- USB2.0 Plug & Play
- Windows XP, Vista or 7 and Macintosh OSX compatible
- Focusable Lens
- 28mm, 30mm, 34mm and 35mm Eyepiece adapters
- Macro Viewing Tube, great for looking at insects, minerals, etc.
- Calibration Slide with 4 dots as well as a Scale Cross for accurate measurements
- Motic Images Plus Application Software

MOTICAM 1000

For those end-users working with Interactive White Boards or just plain projectors, the Moticam 1000 excels with live resolutions of up to 1.3MP.

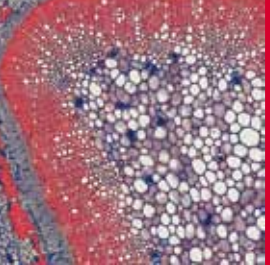
Specifications

- 1/3" CMOS sensor (optical calculation)
- 1280x1024 pixels live resolution
- USB2.0 Plug & Play
- Windows XP, Vista or 7 and Macintosh OSX compatible
- Focusable Lens
- 28mm, 30mm, 34mm and 35mm Eyepiece adapters
- Macro Viewing Tube, great for looking at insects, minerals, etc.
- Calibration Slide with 4 dots as well as a Scale Cross for accurate measurements
- Motic Images Plus Application Software



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CMOS cameras from Affordable to High-Resolution

MOTICAM 2000

With an additional precision B&S adapter lens for mounting the camera into the eyetube, the Moticom 2000 is sure to fit almost any microscope. 1600 x 1200 pixels

2.0MP live resolution **1/3" CMOS SENSOR** optical calculation

MOTICAM 2300

At 3.0 megapixel live resolution, this camera is an affordable entry solution to Documentation. 2048 x 1536 pixels

3.0MP live resolution **1/2" CMOS SENSOR** optical calculation

MOTICAM 2500

With a large 5 megapixel imaging sensor, the Moticom 2500 delivers publication-sized images in a small and compact package 2592 x 1944 pixels

5.0MP live resolution **1/2,5" CMOS SENSOR** optical calculation

General specifications

- USB 2.0 Plug & Play
- Windows XP, Vista or 7 and Macintosh OSX compatible
- Focusable Lens
- Precision Glass Eyetube Adapter (B&S Adapter)
- 28mm, 30mm, 34mm and 35mm Eyepiece adapters
- Macro Viewing Tube, great for looking at insects, minerals, etc.
- Calibration Slide with 4 dots as well as a Scale Cross for accurate measurements
- Motic Images Plus Application Software



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MOTICAM 480

With its built-in CCD sensor and multiple analog and digital outputs, the Moticam 480 can be used directly with a projector and/or connected to a computer.

Specifications

- 1/3" CCD sensor (optical calculation)
- Hardware white balance
- Multiple output Digital: 640x480 pixels, Analog: Up to 550TV lines
- USB2.0; S-Video; RCA Cables included
- Windows XP, Vista or 7 and Macintosh OSX compatible
- Focusable Lens
- 28mm, 30mm, 34mm and 35mm Eyepiece adapters
- Macro Viewing Tube, great for looking at insects, minerals, etc
- Calibration Slide with 4 dots as well as a Scale Cross for accurate measurements
- Motic Images Plus Application System



MOTICAM 353 & MOTICAM 483

These Gooseneck mounted documentation solutions are ideal for showing macro objects or procedures such as simple chemical experiments or dissections.

The Moticam 353 contains the imaging technology of the Moticam 352 (page 6) while the Moticam 483 contains the multiple output solution of the Moticam 480. Eyepiece adapters, carrying/storage box as well as software and a calibration slide are also provided.



Motic's concept for our successful **Moticam** range has always been to provide the user with as many tools and accessories as possible so that almost any microscope can be turned into a digital microscope simply by using the parts provided with the camera. This **"From Box to Pics"** approach has earned the **Moticam** range praise from users around the world for its ease of use and simple approach.

Within your **Moticam** package you will find the following accessories provided **Free of Charge**:

1. Focusable Lens

This focusable lens allows you to transform the Moticam into a Macro Camera that can be used off the microscope. The focusable lens is used to connect the camera to the Macro Tube or to the Eyepiece Adapters.

2. Eyepiece Adapters

Four different eyepiece adapters are provided (28mm, 30mm, 34mm and 35mm) to connect the Moticam directly onto the eyepiece of most microscopes. You can now turn even your old Monocular Microscope into a Digital Microscope. The eyepiece adapters need to be connected to the Focusable Lens.

3. Eytube Adapter (B&S)

A special eyetube adapter is included in the Moticam 2000, 2300 and 2500. This adapter fits directly into a microscope's (Biological & Stereo) eyetube therefore eliminating the lenses in the eyepiece and focusable lens allowing for a more crisp and clear image. The eyetube adapter also allows the Moticam to be connected to those Microscopes that have larger or unconventional eyepieces

4. Calibration Slide

The Motic Calibration Slide allows you to calibrate your system (Motic Imaging Device + Computer) so that your measurements made with the application software are accurate. The calibration slide contains calibration circles as well as a micrometer crosshair

5. Macro Tube

This device was designed by teachers to give the Moticam a stable support to stand on for observing macro specimens such as insects and minerals.



Get the best image before you capture it. Motic's proprietary **MI Devices interface** allows each user to control various aspects of the live image quality from Resolution to Colour. Use this interface to do live diagnostics, presentations or lectures with calibrated Scale Bars and Grids as well as a live Histogram available. This interface is used for most of **Motic's software solutions**.



Tab 1

Select your active camera and adjust the Exposure, White Balance, Resolution and much more

Tab 2

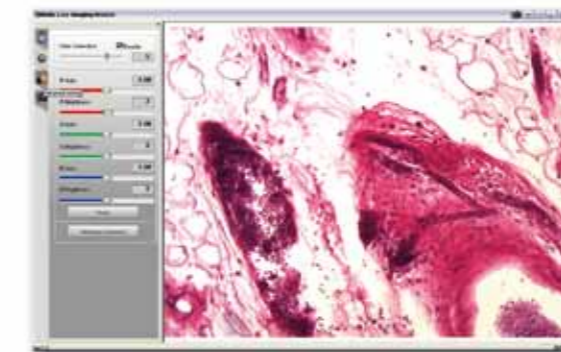
Manually adjust the RGB Gain and Brightness and view a Live Histogram

Tab 3

Share your camera with colleagues but save your own colour settings; Display live Scalebars, Grids and a Scale Cross that are accurate thanks to live image calibration

Tab 4

Capture still, time-lapse and video images



Motic Images Plus

Motic's powerful **Multilanguage software** provides a complete platform for digital microscopy. Frequently updated with new ideas from the end users, this standard application software is **included in all our Moticam packages** and will solve most of the requests you may have to such a system.

From image comparison to creating a report – from measuring to counting – **Motic Images Plus** will offer a solution. Adjust your image in Real-Time through the Capture Window and save the best results as single captures, time-laps captures or even video recordings.

Motic Images Advanced 3.2

This software has all the tools of the Motic Images Plus plus much more. With its built-in **Multi-Focus and Assembly programs, Advanced 3.2** is a software package of great value; perform manual segmentation or view a 3D representation of pixel values or turn time-lapse images into movies.



Motic Multi-Focus

Have you ever tried to capture a thick specimen at high magnification? The **Multi-Focus Pro** allows you to get around the difficulty by **combining images taken at different focal depths into a single focused image**. This software even compensates for any image shifting when capturing from a Stereo Microscope.

Motic Assembly

While the Multi Focus assembles images in a Z-axis, the **Assembly allows you to stitch together a single large image from several images**. Use the software's pre-programmed heuristics to determine ideal stitching locations and the computer will determine the best overlap areas.

Motic Trace

The latest **Motic software development enables you to connect and live preview up to 4 different Moticam streams**.

Supervise your students easily from your teacher station.

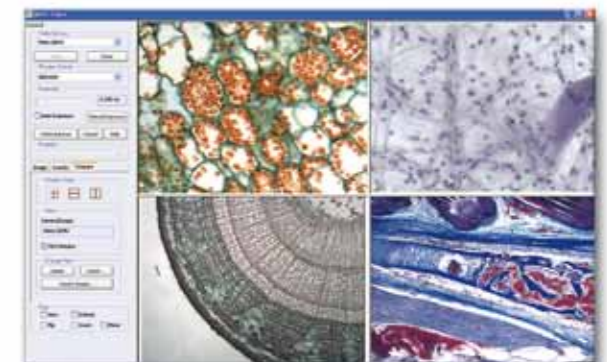
Apart from this great feature, **Motic Trace** also allows you to get started in forensics teaching with the included live image overlay feature.

Motic Net

MoticNet is a great way to start a larger room of networked digital microscopes.

See all of your students' microscope images on your screen on a live basis from where you can adjust their image quality remotely.

Switch to the "screen view" and your mouse becomes their mouse and you can control any computer on the network. This is a great way to monitor your students and assure a one-to-one teaching environment while still allowing the student or a group of students the room to experiment and work individually. Whether you are connecting 4, 40 or 140 students into a virtual classroom, **MoticNet can make it happen.**



CCD Specialized Imaging Cameras

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MOTICAM PRO

Motic's new range of CCD cameras are designed to be used as a valuable tool in the Digital Microscopy market and as a further step of our commitment to quality and a solution to the customer's needs.

Within the simple yet efficient solid metal housing, sits technology designed in our own Canadian development labs. Using Sony's ICX range of sensors exclusively, the cameras are assembled and tested to the highest standards under Clean Room conditions in our own factories.

Having invested time and resources into the development of the Moticam Pro range, Motic is now able to offer cameras ranging from High Resolution Color to High Sensitivity Cooled Monochrome Systems.

Hardware

- Sony ICX CCD imaging sensor
- Motic control, processing & imaging boards
- Built-in 4 frame buffer*
- Built-in FPGA processor*
- TTL trigger port*
- Schott BG-40 filter
- CS/C mount (c-ring provided)
- USB2.0 data mini port (usb cable provided)
- Universal power supply (for cooled cameras only)
- Peltier cooling device (for cooled cameras only)
- Cooling up to 10 degrees below ambient with temperature readout

* Unlockable with sdk integration

Software

- Motic images plus application software
- Motic images advanced application software for windows computer only*
- Twain drivers
- Motic SDK
- Motic direct show drivers
- Motic MI devices live imaging module with live calibration grid, scale cross and scale bars

* Available through free download

Minimum computer specifications

- Intel 1GHZ
- 1GB RAM
- USB2.0
- Windows XP (SP3)
- Macintosh OSX

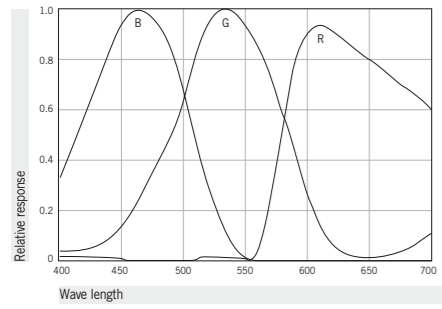
MoticamPro	Sony Sensor	Sensor Size	Pixel Size	Resolution	Features
252A	ICX252AQ	1/1.8"	3,45 x 3,45	2080 x 1542	Color
252B	ICX252AQ				Color with Peltier cooling
282A	ICX282AQ	2/3"	3,40 x 3,40	2580 x 1944	Color
282B	ICX282AQ				Color with Peltier cooling
205A	ICX205AK	1/2"	4,65 x 4,65	1360 x 1024	Color
205B	ICX205AK				Color with Peltier cooling
205C	ICX205AL				Monochrome
205D	ICX205AL				Monochrome with Peltier cooling
285A	ICX285AQ	2/3"	6,45 x 6,45	1360 x 1024	Color
285B	ICX285AQ				Color with Peltier cooling
285C	ICX285AL				Monochrome
285D	ICX285AL				Monochrome with Peltier cooling



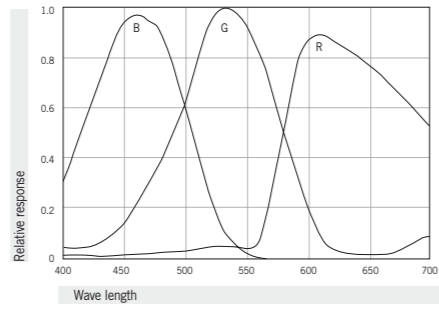
CCD Specialized Imaging Cameras

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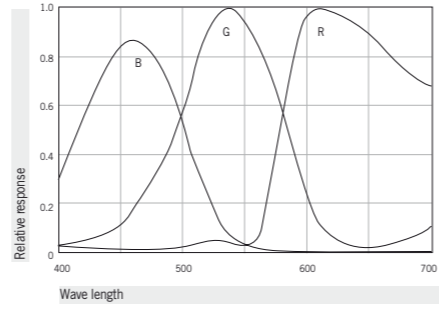
Moticam Pro 252A&B



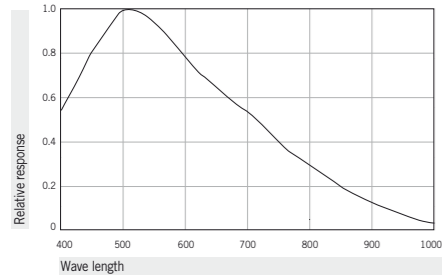
Moticam Pro 282A&B



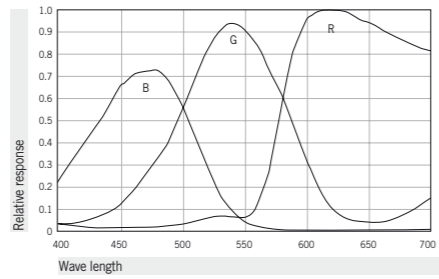
Moticam Pro 205A&B



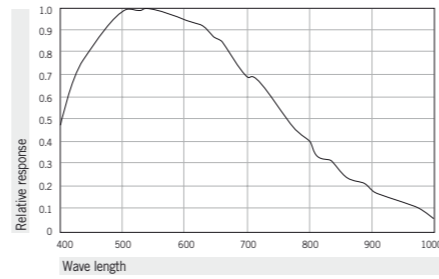
Moticam Pro 205C&D



Moticam Pro 285A&B



Moticam Pro 285C&D





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www.motic.com

Motic Instruments (CANADA)

130 - 4611 Viking Way, Richmond, BC V6V 2K9 Canada
Tel: 1-877-977 4717 Fax: 1-604-303 9043

Motic Deutschland GmbH (GERMANY)

Christian-Kremp-Strasse 11, D-35578 Wetzlar, Germany
Tel: 49-6441-210 010 Fax: 49-6441-210 0122

Motic Incorporation Ltd. (HONG KONG)

Rm 2907-8, Windsor House, 311 Gloucester Road,
Causeway Bay, Hong Kong
Tel: 852-2837 0888 Fax: 852-2882 2792

Motic Spain, S.L. (SPAIN)

Polígono Industrial Les Corts, Camí del Mig, 112
08349 Cabrera de Mar, Barcelona, Spain
Tel: 34-93-756 6286 Fax: 34-93-756 6287

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Design Change :

The manufacturer reserves the right to make changes in instrument design in accordance with scientific and mechanical progress, without notice and without obligation.



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