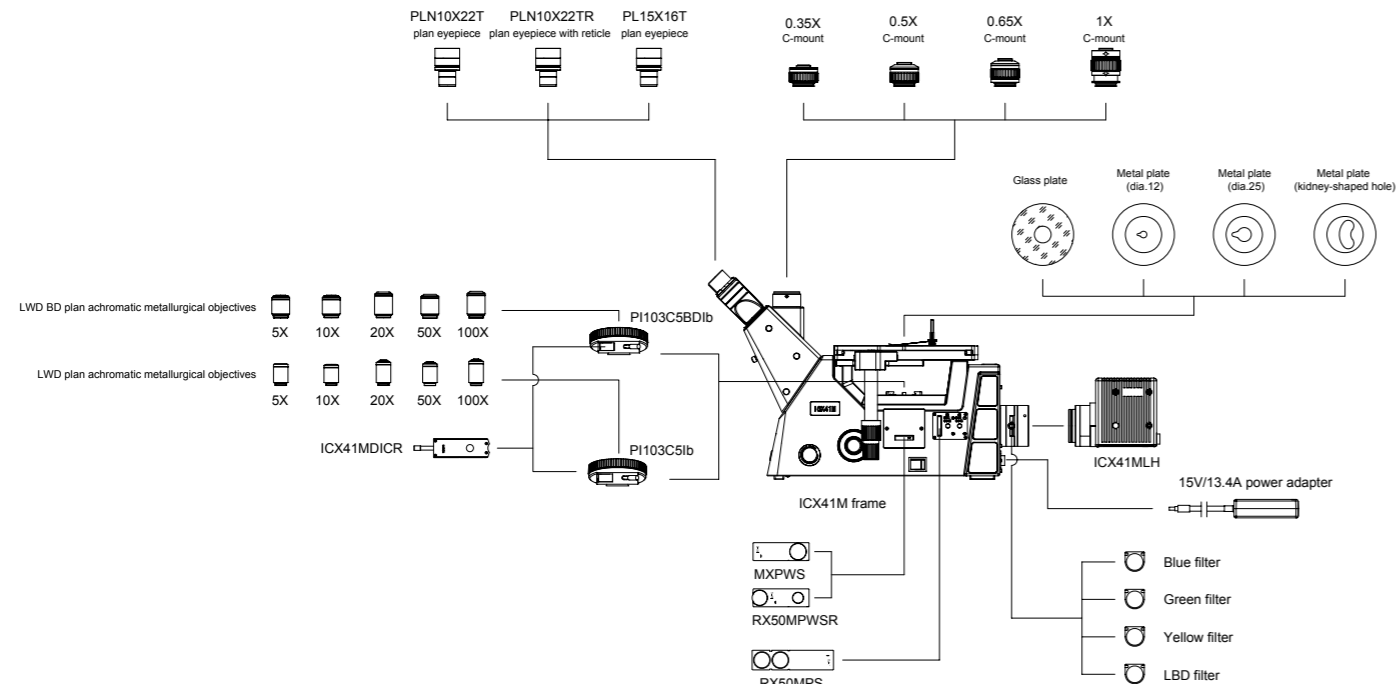
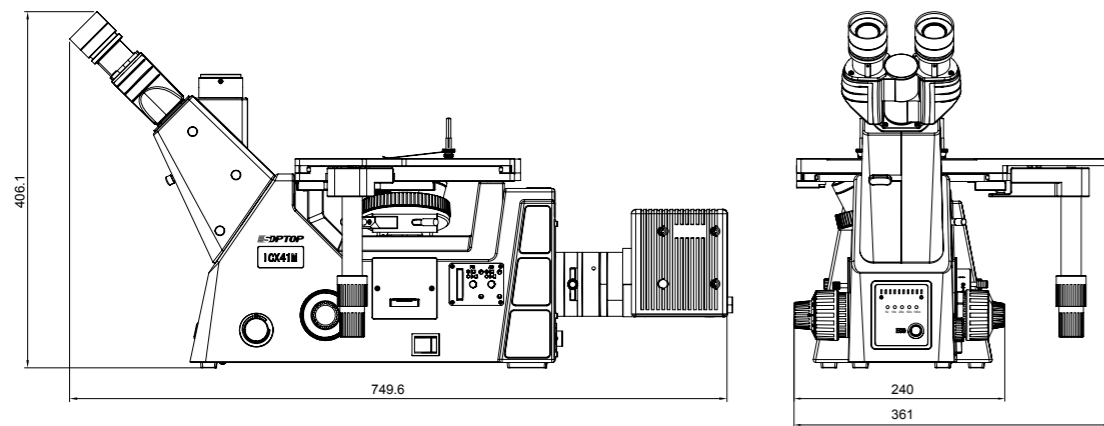


ICX41M System Diagram



ICX41M Dimensions: mm



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 No additional notice for changes on the specification or appearance

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SDPTOP

Sunny Instruments

ICX41M

Inverted Metallurgical Microscope



An ideal inverted metallurgical microscope, is multi-functional and easy to operate.



- ICX41M with new designed infinity optical system, can be applied for industry research as forging, smelting, heat treatment, and inspection of raw material.

- Low position operating knobs 360 degree rotatable viewing head, according with ergonomical design, reduce the fatigue from long-time use.

- With environmental and economic ECO infrared sensing system, the microscope is preset to be shutdown when there is no operator within limited time.

- With built-in sensor in nosepiece, the objective magnification on using is visible from the front plate.

Every humanized detail, fulfills your work with high quality and easy operation.



Comfortable and simple operation

- The height of eye-point is able to be raised 34mm by adjusting the 360 degree rotatable viewing head, release the user from changeless sitting posture.
- Low position operating knobs, reduce the fatigue from long-time use.



Stable frame with outstanding design

- Metal casting frame with corrosion and wear resistance technology, ensures a solid and durable microscope.
- Rectangular groove on the back for easy carrying; Built-in magnet for hexagonal wrench keeping, small designs are the most practical.
- Fixed plate for stage locking, avoids the inertia movement during transporting.



Rackless mechanical stage

240mmX250mm three-layer mechanical stage has strong load-carrying capacity, moving range 50mmX50mm. X,Y line rail is adopted for easy and comfortable operation.

Front magnification display

With backward nosepiece, the objectives of inverted microscope are invisible. As a convenience to the user, the objective magnification on using is to be showed on the front plate by built-in sensor.

Intelligent ECO system

ICX41M with ECO infrared sensing system, is preset to be shutdown when there is no operator within limited time. It is effective to save energy and extend the service life.



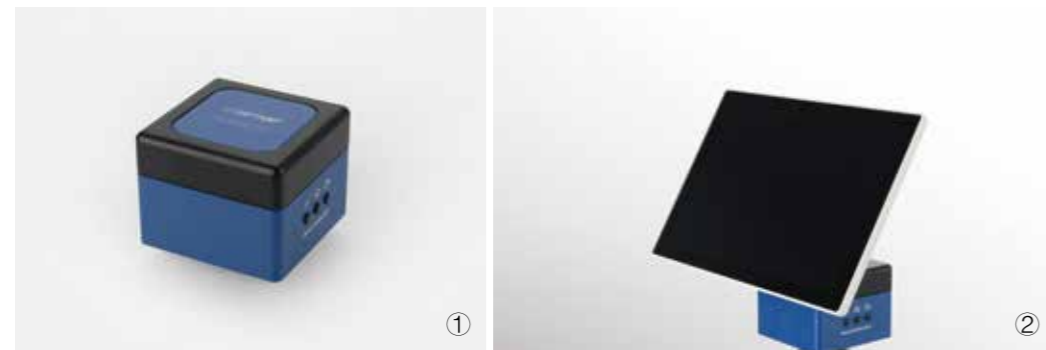
ICX41M with a variety of accessories, meets diversified requirements of industry inspection.

Long working distance plan bright & dark field achromatic metallurgical objective

- High performance objectives support for multipurpose observations, such as bright field, dark field, polarizing and DIC observation.
- High transmittance lens and advanced coating technology, restore the color of samples.
- High magnification objectives with semi apochromatic design, improve image contrast and sharpness.

Model	Magnification	Numerical Aperture	Working Distance	Cover-glass Thickness	Parfocal Distance	Conjugate Distance
LWD BD plan achromatic metallurgical objectives	5X	0.15	9.0	0	45	∞
	10X	0.3	9.0			
	20X	0.45	3.4			
	50X	0.55	7.5			
	100X	0.8	2.1			

Model	Magnification	Numerical Aperture	Working Distance	Cover-glass Thickness	Parfocal Distance	Conjugate Distance
LWD plan achromatic metallurgical objectives	5X	0.15	10.8	0	45	∞
	10X	0.3	12.2			
	20X	0.45	4.0			
	50X	0.55	7.9			
	100X	0.8	2.1			

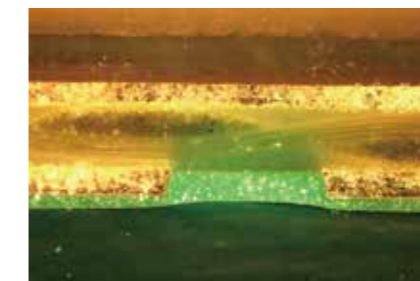


- ① High definition digital camera
- ② High definition digital monitor
- ③ LWD BD plan metallurgical objectives
- ④ High eye-point wide field plan eyepieces
- ⑤ DIC attachment
- ⑥ Stage plates

Supporting for bright field, dark field, polarizing and differential interference contrast, ICX41M is applied for different researches.

High contrast dark field

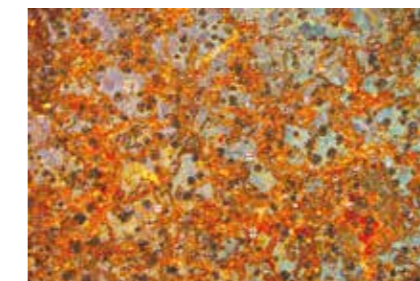
- Taking full advantage of aperture angle, dark field is applied to observe the impurity and flaw in the metallographic microstructure.
- Operating rod on the left of frame, is designed for switch bright and dark field.



PCD (dark field)

Simple polarization

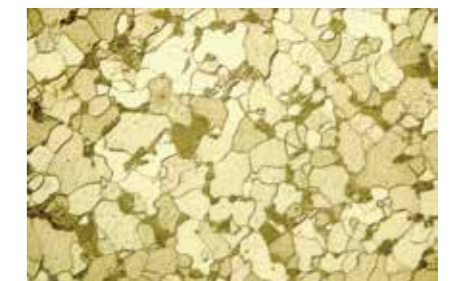
- Without moving the sample, ICX41M is able to provide the images from different polarizing light by using the 360 degree rotatable analyzer.



Metallurgical structure (polarizing)

Differential interference contrast system

- DIC attachment combined with polarizing kit, is able to present a sense of relief by increasing the image contrast. It is applied to detect tiny height difference on the sample surface, such as metallurgical materials, mineral, wafer, etc.



Metallurgical structure (DIC)

Specification

Optical system	Infinity color correct optical system
Viewing head	45 degree inclined trinocular viewing head, 360 degree rotatable; interpupillary distance 50–75mm, binocular:trinocular=100:0 or 0:100
Eyepiece	High eye point wide field plan eyepiece PL10X22mm, with adjustable diopter, reticle attachable
	High eye point wide field plan eyepiece PL15X16mm, with adjustable diopter
Objective	Long working distance plan achromatic metallurgical objectives 5X, 10X, 20X, 50X, 100X
	Long working distance bright & dark field plan achromatic metallurgical objectives 5X, 10X, 20X, 50X, 100X
Nosepiece	Inward quintuple bright field nosepiece (DIC slot), with built-in magnification sensor
	Inward quintuple bright & dark field nosepiece (DIC slot), with built-in magnification sensor
Frame	Reflected frame low-position coaxial focusing system, coarse range 9mm (up 6.5mm, down 2.5mm), fine precision 0.002mm; with upper limit and tension adjustment; with switch for bright and dark field; with variable field diaphragm and aperture diaphragm, both center adjustable; with slots for filters and polarizing kit; with light intensity indicator; with infrared induction; with magnification display
Illumination	External power adapter, input 100V–240V, output 15V13.4A, light intensity adjustable
Stage	Three layers rackless stage, size: 240mm (W) X 250mm (L), moving range: 50X 50mm; low-position handle knob
Camera adapter	0.35X, 0.5X, 0.65X, 1X focusing C-mount
Others	Polarizer, fixed analyzer, 360 degree rotatable analyzer, DIC attachment, filters, high precision micrometer