

## Inverted Metallurgical Microscope RIM-14



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

- RIM-14 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.



#### **Rackless Mechanical Stage**

240 mm X 250 mm three-layer mechanical stage has strong load-carrying capacity, moving range 50 mm X 50 mm. 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

RIM-14 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.





# Supporting for bright field, dark field, polarizing and differential interference contrast, RIM-14 is applied for different researches.

#### High contrast dark field

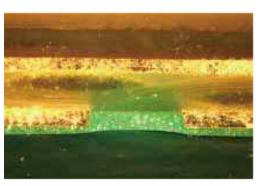
- Taking full advantage of aperture angle, dark field is applied to observe the impurity and flaw in the metallographic microstructure.
- Operating rod on the left of frame, is designed for switch bright and dark field.

#### Simple polarization

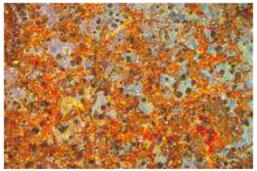
• Without moving the sample, RIM-14 is able to provide the images from different polarizing light by using the 360 degree rotatable analyzer.

## Differential interference contrast system

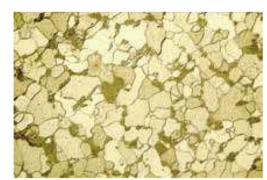
• DIC attachment combined with polarizing kit, is able to present a sense of relief by increasing the image contrast. It is applied to detect tiny height difference on the sample surface, such as metallurgical materials, mineral, wafer etc.



PCD (dark field)



Metallurgical structure (polarizing)



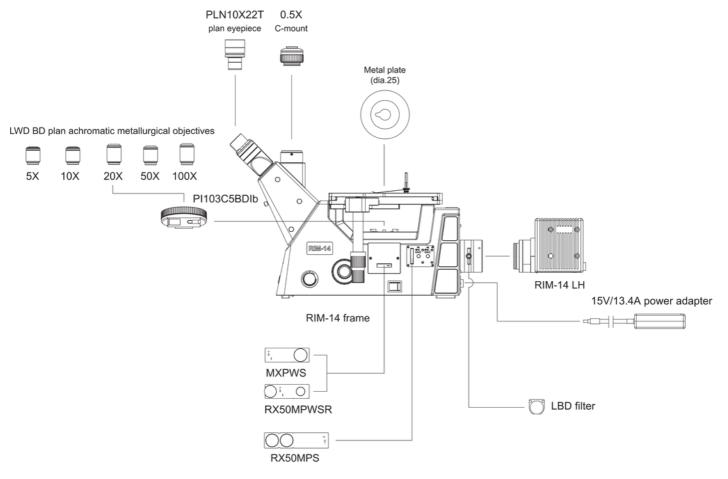
Metallurgical structure (DIC)

#### **Specification**

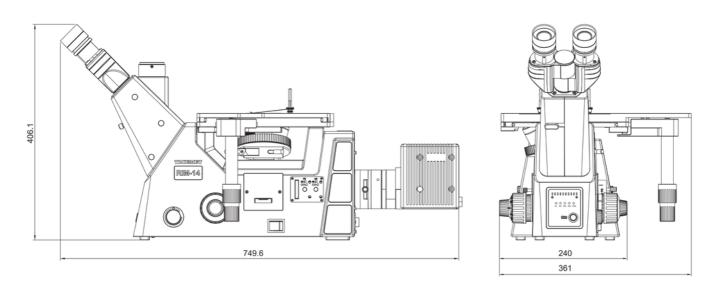
Optical system	Infinity color correct optical system.
Viewing head	45 degree inclined trinocular viewing head, 360 degree rotatable; interpupillary distance 50-75mm, binocular: trinocular=100:0 or 0:100.
Eyepiece	High eye point wide field plan eyepiece PL10X22mm, with adjustable diopter, reticle attachable.
Objective	Long working distance bright & dark field plan achromatic metallurgical objectives 5X, 10X, 20X, 50X, 100X.
Nosepiece	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 (optional).
Others	Polarizer, fixed analyzer, 360 degree rotatable analyzer, DIC attachment, filters, high precision micrometer.



#### **System Diagram**



#### Dimensions: mm



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