OPTO-EDU A13.1093-R Trinocular Metallurgical Microscope Semi Auto Reflect BF / DF DIC Polarizing

Our Product Introduction

Basic Information

- Place of Origin: China
- Brand Name: CNOEC, OPTO-EDU
- Certification: CE, Rohs
- Model Number: A13.1093-R
- Minimum Order Quantity: 1 pc
- Price: FOB $1~1000, Depend on Order Quantity
- Packaging Details: Carton Packing, For Export Transportation
- Delivery Time: 5~20 Days
- Payment Terms: T/T, West Union, Paypal
- Supply Ability: 5000 pcs/ Month

Product Specification

- Observation Method: Bright Field, Dark Field, Polarizing, DIC
- Main Body: ATH Semi-Auto Body + Halogen Illumination.
- Head: Ergo Tilting Trinocular Head, Inclination 0°~35°
- Eyepiece: SW10x/25mm, High Eyepoint, Diopter Adjustable, Dia.30mm
- Nosepiece: Auto Coded Nosepiece, Sextuple, Backward
- Objective: N-MPFN Infinity Plan BF/DF Semi-APO Metallurgical Objective
- Highlight: **opto edu trinocular metallurgical microscope**, **trinocular metallurgical microscope opto edu**, **25mm trinocular metallurgical microscope**

More Images

Our Product Introduction

Product Description

Research Level Metallurgical Microscope Semi-Auto, With Reflect, Transmit/Reflect Light

Manual 6 Holes Nosepiece With NIS45 Infinity Plan Semi-APO BD Objective 5x10x LWD 20x50x100x

4" Working Stage, Size 210x170mm, Move Range 102x102mm, With Round Crystal Holder, Wafer Holder Etc.

Reflect 12V100W Halogen Illuminator, Bright Field, Polarizing, DIC View

Transmit 12V100W Halogen Kohler Illumination, Auto Adjust Brightness, ECO Function

A13.1091, A13.1093 Series Microscope

A13.1091
Metallurgical Microscope, Manual Reflect, Transmit/Reflect

A13.1093
Metallurgical Microscope, Semi-Auto Reflect, Transmit/Reflect

Product Details

Ergo Tilting Trinocular Head
Eye tube can be adjustable from 0 ° to 35 °, Trinocular tube can be connected to SLR camera and digital camera, having a 3-postion beam splitter (0:100, 100:0, 80:20), the splitter bar can be assembled on the either side according to user's requirement.

Nomarski DIC
With newly designed DIC module, the height difference of a specimen which can not be detected with brightfield becomes a relief-like or 3D image. It is ideal for the observation of LCD conducting particles and the surface scratches of hard-disk etc.

Shortcut Buttons
With this shortcut button, the user could switch 2 preseted objectives fast. Also, this shortcut button could be set with other functions by user.

A5M.1091, A5M1092 Series Infinity Plan BF/DF Semi-APO Objectives
By using carefully selected high- transparent glass and advanced coating technology, A5M.1091 objective lens can provide high resolution image and accurately reproduce the natural color of the specimen . For special applications, a variety of objectives is available, including polarizing and long working distance.

Focusing System
In order to make the system suitable for the operating habits of the operators, the knob of focusing and stage can be adjusted to the left-hand side or right-hand side. This design makes the operation comfortable

Remote Control Pad
Objectives could be switched by simply pressing the rotating buttons. Users could also self-define two of the most commonly used objectives.User could swap between these two objectives by pressing the green button.

A13.1091, A13.1093 Metallurgical Microscope, BF/DF, DIC, PL, APO		A13.1091		A13.1093		Cata.No.
		-R	-TR	-R	-TR	
Optical System	NIS45 Infinite Optical System	●	●	●	●	
Observation Method	Bright Field	●	●	●	●	
	Dark Field	●	●	●	●	
	Polarizing	●	●	●	●	
	DIC	●	●	●	●	
Main Body	BH **Manual** Body + **Halogen** Illumination.	●	●			A54.1090-BH
	BL **Manual** Body + **LED** Illumination.	○	○			A54.1090-BL
	ATH **Semi-Auto** Body + **Halogen** Illumination. Auto Nosepiece + Auto Condenser + Auto Brightness Adjust			●	●	A54.1090-ATH
	ATL **Semi-Auto** Body + **LED** Illumination. Auto Nosepiece + Auto Condenser + Auto Brightness Adjust			○	○	A54.1090-ATL
Head	Seidentopf Binocular Head, Inclined 30°, Interpupillary Distance 47-78mm	○	○	○	○	A53.1090-B
	Seidentopf Trinocular Head, Inclined 30°, Interpupillary Distance 47-78mm, 3 Level Ligth Split Switch E100:P0/E20:P80/E0:P100	○	○	○	○	A53.1090-T
	Ergo Tilting Trinocular Head, Inclination 0°~35°, Interpupillary Distance 47-78mm, 3 Level Ligth Split Switch E100:P0/E20:P80/E0:P100	●	●	●	●	A53.1090-TT
Eyepiece	SW10x/25mm, High Eyepoint, Diopter Adjustable, Dia.30mm	●●	●●	●●	●●	A51.1090-1025
	SW10x/22mm, High Eyepoint, Diopter Adjustable, Dia.30mm	○	○	○	○	A51.1090-1022
	EW12.5x/16mm, High Eyepoint	○	○	○	○	A51.1090-12516
	WF15x/16mm, High Eyepoint, Diopter Adjustable, Dia.30mm	○	○	○	○	A51.1090-1516
	WF20x/12mm, High Eyepoint, Diopter Adjustable, Dia.30mm	○	○	○	○	A51.1090-2012
	Manual Nosepiece, Sextuple, Backward	●	●			A54.1091-6M
	Coded Nosepiece, Sextuple, Backward, For Auto Brightness Adjust	○	○			A54.1091-6C

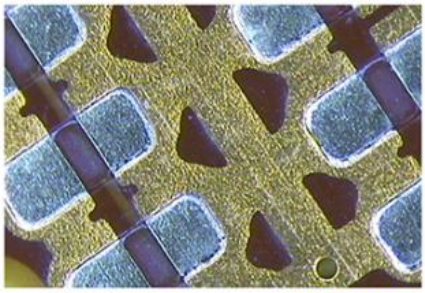
Nosepiece	**Auto Coded** Nosepiece, Sextuple, Backward, Motorized Switch Objectives, Controled By: 1. Shortcut Button On Right Side Of Base, Can Switch 2 Preseted Objectives Quickly 2. Remote Control Pad In Front Of Base, Press Each Button To Switch Objectives And Adjust The Light Intensity Automatically. 2 Buttons Can Be Self-Defined For Most Commonly Used Objecives, Press Green Button Can Swap Between Them			●	●	A54.1091-6A
	With Slot For Polarizing Compensator Slider Or DIC Slider	●	●	●	●	
	Protect Cover For Nosepiece Holes	●	●	●	●	A54.1091-C
NIS45 N-MPFN Infinity Plan **BF/DF Semi-APO** Metallurgical Objective	BD 5x/0.15, W.D.20mm, No Cover Glass	●	●	●	●	A5M.1091-5
	BD 10x/0.3, W.D.11mm, No Cover Glass	●	●	●	●	A5M.1091-10
	BD 20x/0.45, W.D.3mm, No Cover Glass	○	○	○	○	A5M.1091-20A
	BD LWD 20x/0.4, W.D.12mm, No Cover Glass	●	●	●	●	A5M.1091-20
	BD LWD 50x/0.5, W.D.10.6mm, No Cover Glass	●	●	●	●	A5M.1091-50
	BD LWD 100x/0.8, W.D.3.5mm, No Cover Glass	●	●	●	●	A5M.1091-100
NIS45 **BF/DF APO**	BD 50x/0.8, W.D.1mm, No Cover Glass	○	○	○	○	A5M.1092-50
	BD 100x/0.9, W.D.1mm, No Cover Glass	○	○	○	○	A5M.1092-100
Working Stage For Metallurgical Microscope	4" Working Stage, Size 210x170mm, Move Range 4"x4" (102x102mm), **Right** Handle Optional, Hard Oxide Surface, Y Can Be Locked	●	●	●	●	A54.1093-L
	4" Working Stage, Size 210x170mm, Move Range 4"x4" (102x102mm), **Left** Handle Optional, Hard Oxide Surface, Y Can Be Locked	○	○	○	○	A54.1093-R
	Round Crystal Holder, For 2",3",4" Diameter Crystal	●	●	●	●	A54.1093-H1
	Wafer Holder	●	●	●	●	A54.1093-H2
	Glass Substrate, Size 145(X)x152(Y)mm	●	●	●	●	A54.1093-H3
	Metal Stage Plate, Size 145(X)x152(Y)mm	●	●	●	●	A54.1093-H4
Condenser	LWD Condenser, N.A.0.65, W.D.10.2mm, Center Adjustable, Dual Condenser Lifting Handle	●	●	●	●	A5M.1095
Focusing	Coaxial Coarse & Fine Focusing, Fine Division 0.001mm, Focusing Range 35mm, Coarse Stroke 37.7mm, Fine Stroke 0.1mm,Can Exchange Hand Wheel Between Left/Righ,	●	●	●	●	
	Max Sample Space 76mm	●		●		
	Max Sample Space 56mm		●		●	
Reflect Light Source	**Reflect** Epi Metallurgical Illuminator, Turret Disc With 6 Positions For Filter Block, Kohler Illumination	●	●	●	●	A5M.1090
	12V100W Halogen Lamp Housing	●	●	●	●	A5M.1090-100W
	BF/DF View Block	●	●	●	●	A5M.1090-BD
	BF1 View Block	●	●	●	●	A5M.1090-B1
	BF2 View Block	●	●	●	●	A5M.1090-B2
Filter For **Reflect** Light Source	Filter Blue	●	●	●	●	A56.1093-B
	Fibler Green	●	●	●	●	A56.1093-G
	Filter Yellow	●	●	●	●	A56.1093-Y
	Filter Forested	●	●	●	●	A56.1093-F
Polarizing	Polarizer For Reflect Light Source	●	●	●	●	A5P.1090-RP
	Analyzer For Reflect Light Source	●	●	●	●	A5P.1090-RA
DIC	Blank Slider	●	●	●	●	A5P.1090-E
	Nomarski DIC Slider For Reflect Light Source	●	●	●	●	A5M.1090-DIC
Transmit Light Source	**Transmit** Kohler Illumination, Brightness Adjustable, 12V100W Halogen, External Lamp House		●		●	A56.1090-12V100W
	Transmit Kohler Illumination, Brightness Adjustable, 3W S-LED, Built-in Main Body		○		○	A56.1090-3WLED
	ECO Function Support Auto Power Off After 30 Mins From Operator Leave To Save Energy		●		●	A56.1090-ECO
	Auto Brightness Adjust, Brightness For Each Objective Can Be Memorized And Restored When Objective Is Selected A13.1091 Upgradeable To Auto Brightness Adjust, Must Upgrade To A54.1091-6C Coded Nosepiece At Same Time		○		●	A56.1090-AB
Filter For **Transmit** Light Source	Filter Holder On Base, Can Hold 3 Filters		●		●	A56.1092-H
	Filter LBD		●		●	A56.1092-LBD
	Filter Green		●		●	A56.1092-G
	Filter Yellow		●		●	A56.1092-Y
	Filter ND6		●		●	A56.1092-ND6
	Filter ND25		●		●	A56.1092-ND25
Adapter	Eyepiece Adapter Dia.23.2mm	○	○	○	○	A55.1090-E
	C-Mount 1.0x	○	○	○	○	A55.1090-1.0x
	C-Mount 0.5x	○	○	○	○	A55.1090-0.5x
Software	NOMIS Basic Image Processiing Software	○	○	○	○	A30.1090
	Working Stage Holder Bracket	●	●	●	●	A54.1096
	Adapter To Adjust Eye Position	○	○	○	○	A54.1096-A1
	Adapter To Lower The Stage Position 1"	○	○	○	○	A54.1096-A2
	Immersion Oil	○	○	○	○	A50.1090-01
	Allen Wrench	●	●	●	●	A50.1090-02

Other Accessories	Power Cord	●	●	●	●	A50.1090-03
	Short Eye Cover, For Eyepiece	○	○	○	○	A50.1090-04
	Long Eye Cover, For Eyepiece	○	○	○	○	A50.1090-05
	Eyepiece Micrometer, Cross	○	○	○	○	A50.1090-06
	Adapter Ring To Install Eyepiece Micrometer	○	○	○	○	A50.1090-07
	USB Cable	○	○	○	○	A50.1090-08

Note:"●"In Table Is Standard Outfits,"○" Is Optional Accessories "-" Is Unavailable

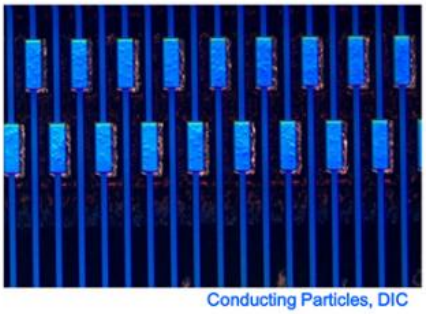
Various Observation Methods

With excellent optical system, A13.1091 series microscope provides high resolution and chromatic aberration corrected images both in the eyepieces and on the monitor.
A13.1091 series has been designed with modularity to meet vairous industrial and materials science applications. It gives users flexibility to build a system for specific needs.



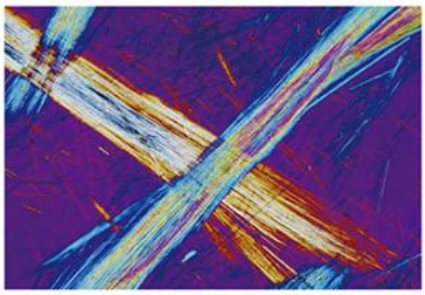
Wafer, Darkfield

Darkfield enables the observation of scattered or diffracted light from the specimen. Anything that is not flat reflects this light while anything that is flat appears dark so imperfections clearly stand out. The user can identify the existence of even a minute scratch or flaw down to the 8nm level-smaller than the resolving power limit of an optical microscope. Darkfield is ideal for detecting minute scratches or flaws on a specimen and examining mirror surface specimens, including wafers.



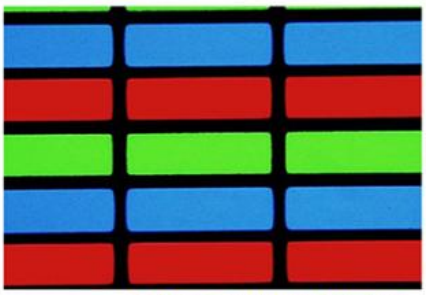
Conducting Particles, DIC

DIC is a microscopic observation technique in which the height difference of a specimen not detectable with brightfield becomes a relief-like or three- dimensional image with improved contrast. This technique utilizes polarized light and can be customized with a choice of three specially designed prisms. It is ideal for examining specimens with very minute height differences, including metallurgical structures, minerals, magnetic heads, hard-disk media, and polished wafer surfaces.



Asbestos, Polarized Light

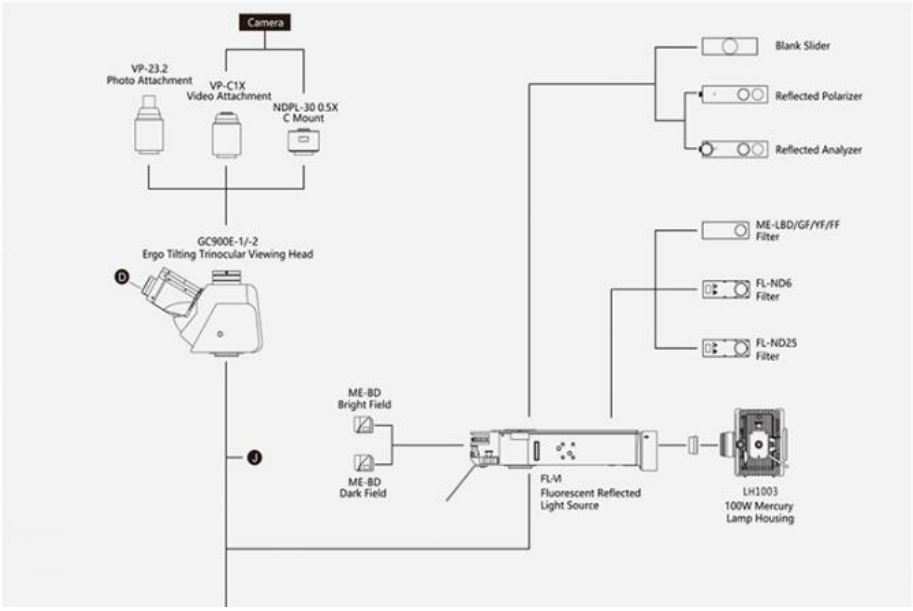
Polarizing Light generated by a set of filters (analyzer and polarizer). The characteristics of the sample directly affect the intensity of the light reflected through the system. It is suitable for metallurgical structures (i.e., growth pattern of graphite on nodular casting iron), minerals, LCDs and, semiconductor materials.

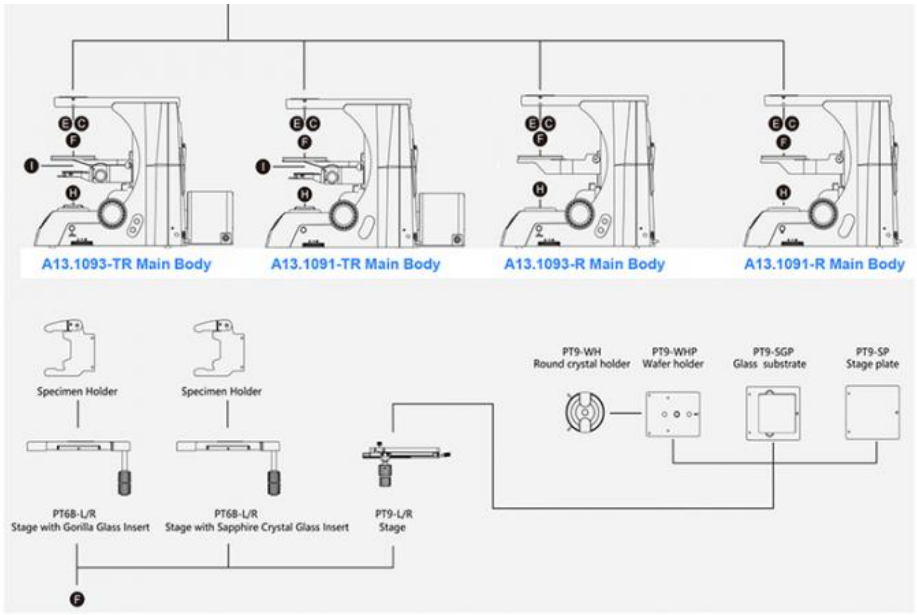


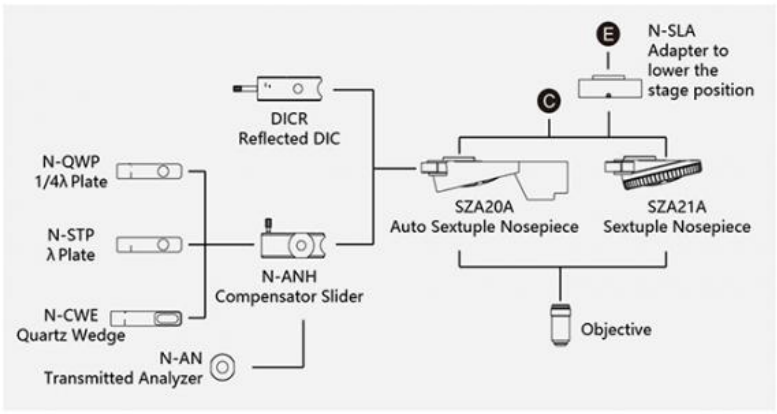
LCD, Transmitted Light Observation

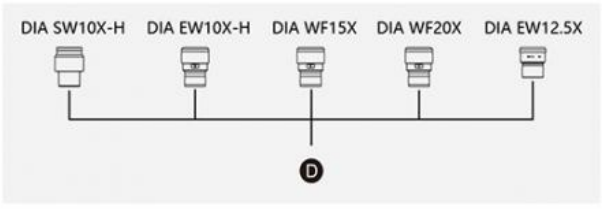
Bright Field Transmit & Reflect View. For transparent specimen such as LCDs, plastics, and glass materials, true transmitted light observation is available by using a variety of condensers. Examining specimen in transmitted brightfield and polarized light can be accomplished all in one convenient system.

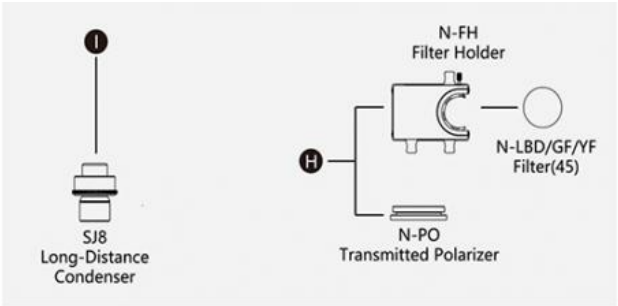
System Diagram & Size(mm)

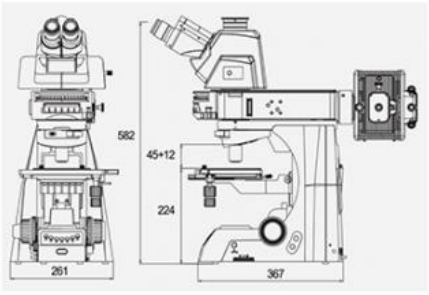



A13.1093-TR Main Body
A13.1091-TR Main Body
A13.1093-R Main Body
A13.1091-R Main Body
Specimen Holder
Specimen Holder
PT9-WH
Round crystal holder
PT9-WHP
Wafer holder
PT9-SGP
Glass substrate
PT9-SP
Stage plate
PT6B-L/R
Stage with Gorilla Glass Insert
PT6B-L/R
Stage with Sapphire Crystal Glass Insert
PT9-L/R
Stage


N-SLA
Adapter to
lower the
stage position
DICR
Reflected DIC
N-QWP
1/4λ Plate
N-STP
λ Plate
N-CWE
Quartz Wedge
N-AN
Transmitted Analyzer
N-ANH
Compensator Slider
SZA20A
Auto Sextuple Nosepiece
SZA21A
Sextuple Nosepiece
Objective


DIA SW10X-H
DIA EW10X-H
DIA WF15X
DIA WF20X
DIA EW12.5X


N-FH
Filter Holder
N-LBD/GF/YF
Filter(45)
SJ8
Long-Distance
Condenser
N-PO
Transmitted Polarizer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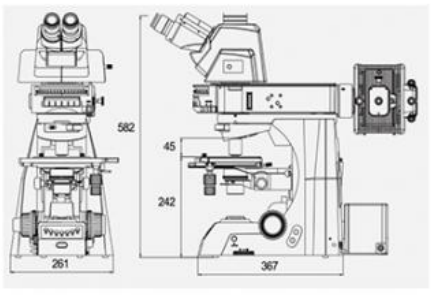
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