

**OPTO-EDU**

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A12.0910

Research Scientific Laboratory Microscope, Semi-APO, Upgrade BF+DF+PL+PH+FL+DIC



A12.0910, A13.0910, A16.0910 Series



A12.0910
Research Scientific Laboratory Microscope,
Semi-APO, Upgrade BF+DF+PL+PH+FL+DIC



A13.0910
Upright Metallurgical Microscope,
Semi-APO, BF+DF+PL+DIC



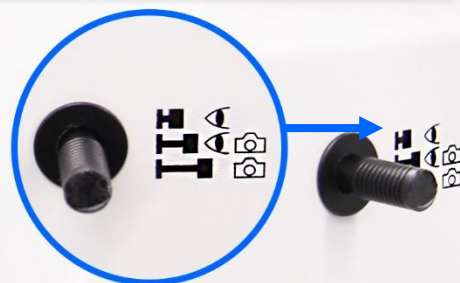
A16.0910
Research Fluorescence Microscope,
Semi-APO, Upgrade BF+DF+PL+PH+FL+DIC



Extra WF PL10x/25mm

Invert Image Infinity Gemel Trinocular Head, High Eyepoint Plan PL10x/25mm, Diopter Adjustable

Light Splitting Ratio Switch
E100:P0 / E20:P80 / E0:P100



Plan Fluor
4x/0.13
 ∞ /0.17

Plan Fluor
10x/0.30
 ∞ /0.17

Plan Fluor
20x/0.50
 ∞ /0.17

Plan Fluor
40x/0.75
 ∞ /0.17

Plan Fluor
100x/1.28 OIL
 ∞ /0.17

BF 6 Holes Nosepiece

For Bright Field, With Socket For DIC Slide & Polarizing Analyzer Slide



Plan Fluor
100x/1.28 OIL
 ∞ /0.17

Plan Fluor
40x/0.75
 ∞ /0.17

Plan Fluor
20x/0.50
 ∞ /0.17

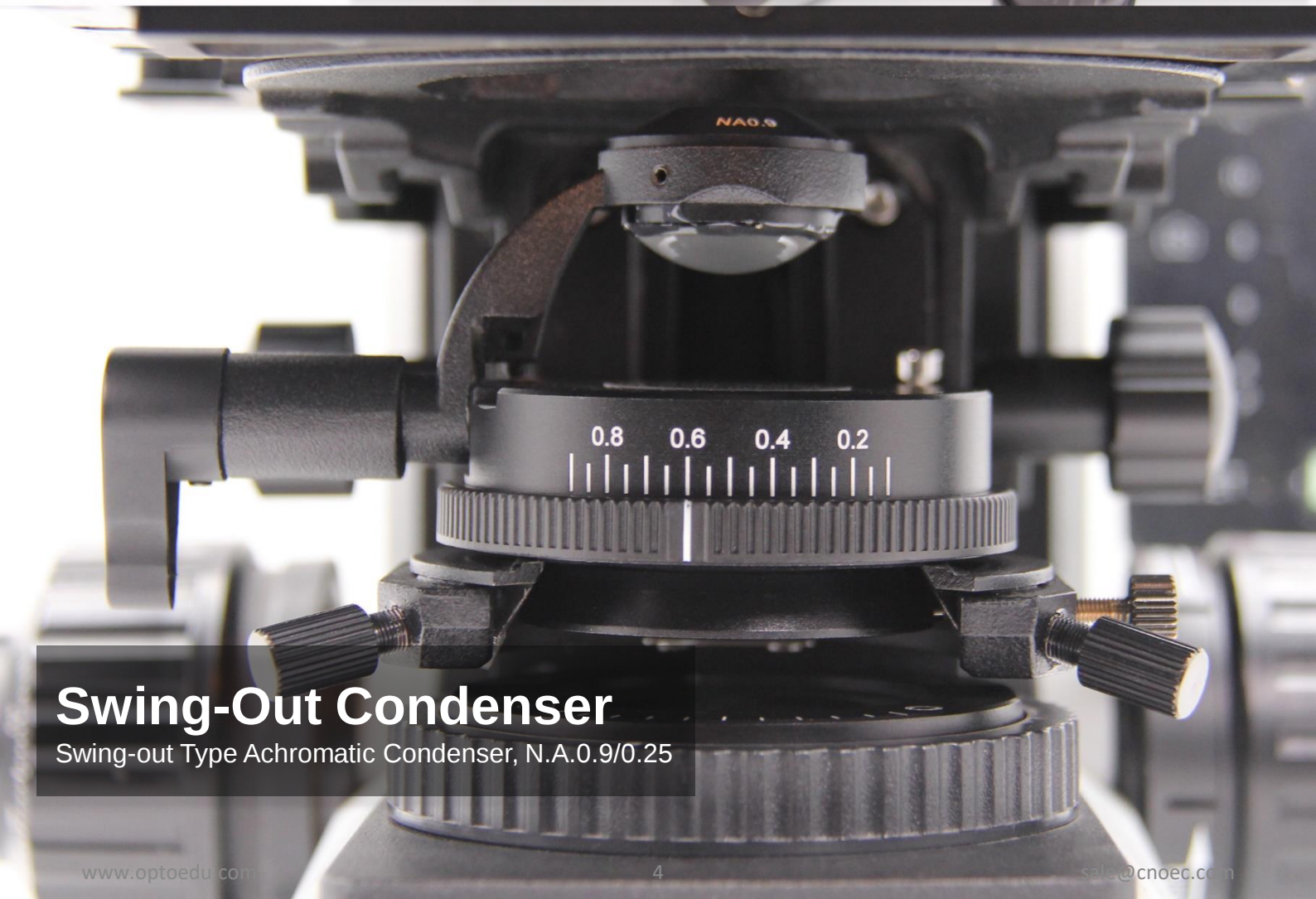
Semi-APO Objective

Infinity Plan Semi-APO Fluorescent Objective
4x, 10x, 20x, 40x, 100x



Knob Switchable L/R Working Stage

Designed with dual direction linear transmission mechanism, size 187x166mm, moving handle can be installed on either side of left or right side, torque tension adjustable, damping type double slide holder moving range 80x55mm, surface treated with special technology, anticorrosive and anti-friction, arc design around the platform reduces stress concentration and prevents collision



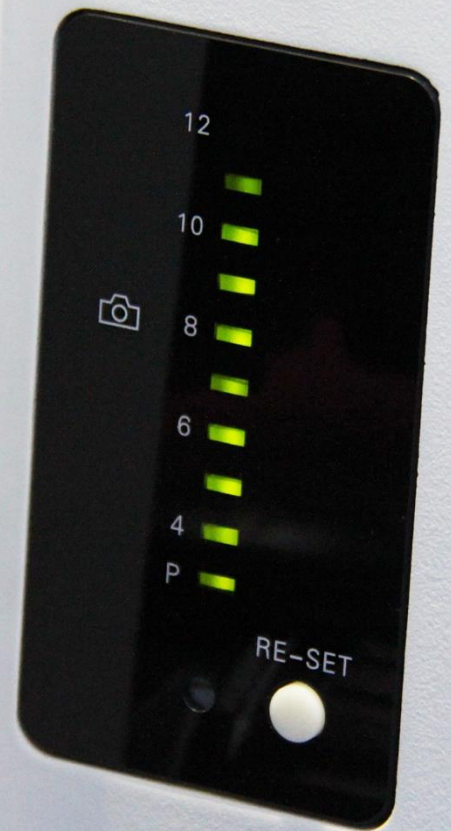
Swing-Out Condenser

Swing-out Type Achromatic Condenser, N.A.0.9/0.25



Digital Dimming Illumination

12V100W Halogen Illumination with Iris Diaphragm, With Light Indicator, Digital Dimming System Have Brightness Set & Reset Function



Transmit Filters

Built-In Transmit Filters LBD/ND6/ND25



Coaxial Focusing

Ergonomic Low-Position Coaxial Coarse & Fine Adjustment With Coarse Adjustment Stop And Tightness Adjustment.

Modular Frame Improve System Compatibility

A12.0910 modularization design, separated cross arm and main body, improves the system compatibility of biological and fluorescence frame.

Multifunctional Reflection Fluorescent Illumination

In A16.0910 reflection fluorescent illumination, maximum 6 fluorescence filters can be assembled at the same time. Filters are placed in a rotary table for convenient switch. High precision and stable rotary table and high-performance imported filter ensures a drift-free image.

☆ There is a light shutter in front of the reflected illuminator. It is used to shut the fluorescent light to prevent fluorescence quenching of the slice.

☆ The light barrier can protect users from the harm of UV light.

☆ The use of ND attenuation filter, or aperture and field diaphragm rod can efficiently reduce the intensity of exciting light to protect the slide.

☆ After replacing the lamp, the centering objective helps users in adjusting the filament center to make sure a sufficient and uniform fluorescent illumination.

Power Control System for Mercury Lamp

New digital power control system with operating time and current value, clearly shows the working state of the mercury lamp.

Two Power Supply Systems Provide Multiple Choices of High Quality Illumination

New developed 100W EHV DC mercury lamp house with improved thermal cycle greatly reduces the surface temperature of the lamp house and avoids the scald risk during operation. The filament center is easily adjustable. 75W xenon lamp for option.



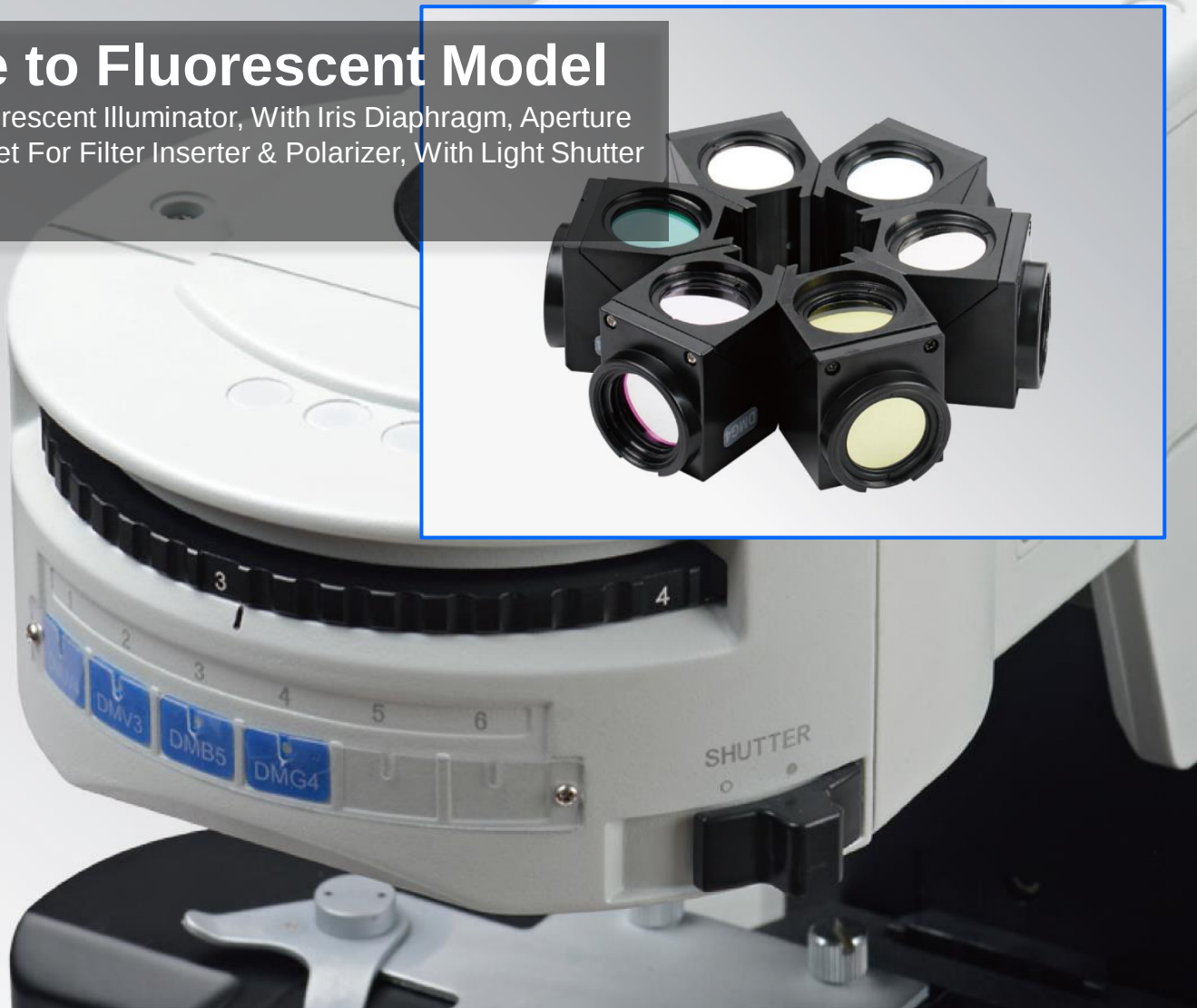
A12.0910 Biological Microscope



A16.0910 Fluorescent Microscope

Upgrade to Fluorescent Model

6 Holes Disc Fluorescent Illuminator, With Iris Diaphragm, Aperture Diaphragm, Socket For Filter Inserter & Polarizer, With Light Shutter and Light Barrier



Work With A59.4972

8K 5G WIFI+HDMI+USB+WAN 12.0M, C-Mount, Digital Camera

Output	USB,HDMI,5G WIFI, WAN
Sensor	12.0M, 1/2.3" Sony CMOS,
Resolution	8K (4000x3000) To HDMI Monitor
Record	Snapshot .JPG, Record MP4 1920x1080@60FPS
Spectral	380-650 For Fluorescent View



Specification

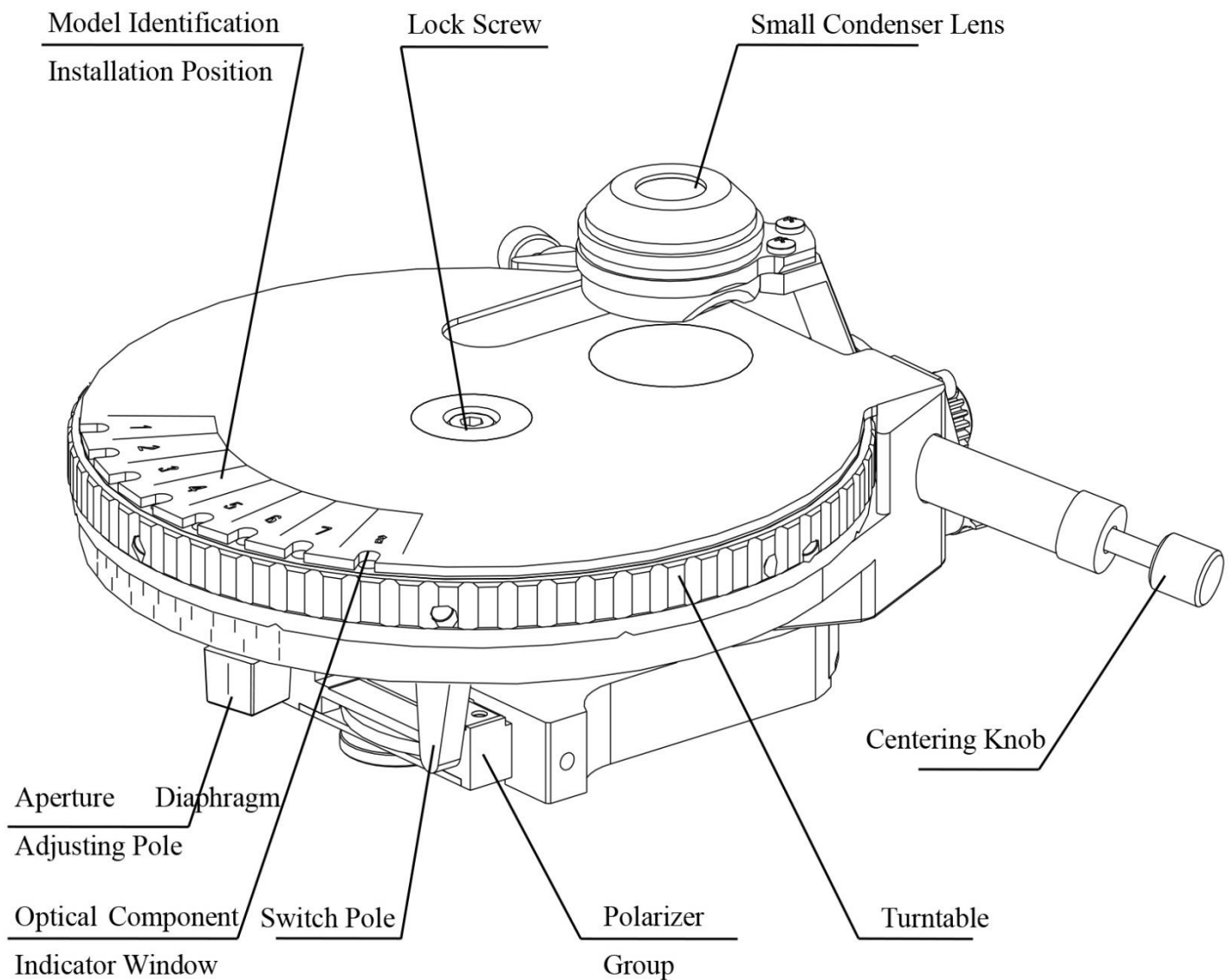
Item	A12.0910 Research Level Biological Microscope A16.0910 Research Level Fluorescent Microscope	A12.0910	A16.0910	Cata. No.
Optical System	Infinity Optical System, BF Bright Field	●	●	
	Semi-APO, Semi Apochromatic	●	●	
	APO, Apochromatic	○	○	
	DF, Dark Field	○	○	
	PL, Polarizing	○	○	
	PH, Phase Contrast	○	○	
	DIC, Different Interference Contrast	○	○	
	FL, Fluorescent	○	●	
Head	30° Inclined Erect Image Infinity Gemel Trinocular Head, Interpupillary Distance 50~76mm, Light Splitting Ratio Switch E100:P0/E0:P100,	○	○	A53.0913-T30E
	30° Inclined, Invert Image Infinity Gemel Trinocular Head, Interpupillary Distance 50~76mm; Light Splitting Ratio Switch R:T=100:0 or 20:80 or 0:100	●	●	A53.0913-T30
	5-35° Tiltable, Inverted Image, Infinity Gemel Trinocular Head, Interpupillary Distance 50~76mm; Light Splitting Ratio 50:50 or 100:0 or 0:100	○	○	A53.0913-T535
Adapter	0.5x C-Mount, For 1/2"CCD, Focus Adjustable	○	○	A55.0930-05
	0.35x C-Mount, For 1/2"CCD, Focus Adjustable	○	○	A55.0930-35
	0.65x C-Mount, For 1/2"CCD, Focus Adjustable	○	○	A55.0930-65
	1.0x C-Mount, For 1"CCD, Focus Adjustable	○	○	A55.0930-10
Eyepiece	High Eyepoint Plan PL10x/25mm, Diopter Adjustable	●●	●●	A51.0904-1025T
	High Eyepoint Plan PL10x/26.5mm, Diopter Adjustable	○	○	A51.0904-10265T
	High Eyepoint Plan PL10x/25mm, Diopter Adjustable, With Reticle	○	○	A51.0905-1025T
	High Eyepoint Plan PL10x/26.5mm, Diopter Adjustable, With Reticle	○	○	A51.0905-10265T
Nosepiece	BF 5 Holes, With Socket For DIC Slide & Polaring Analyzer Slide	○	○	A54.0930-R5
	BF 6 Holes, With Socket For DIC Slide & Polaring Analyzer Slide	●	●	A54.0930-R6
	BF 7 Holes, With Socket For DIC Slide & Polaring Analyzer Slide	○	○	A54.0930-R7
Objective	Infinity Plan Semi-APO Fluorescent Objective			
	Semi-APO Fluorescent 4x/0.13, W.D.=16.43mm	●	●	A5F.0950-4
	Semi-APO Fluorescent 10x/0.3, W.D.=8.13mm	●	●	A5F.0950-10
	Semi-APO Fluorescent 20x/0.5, W.D.=2.03mm	●	●	A5F.0950-20
	Semi-APO Fluorescent 40x/0.75, W.D.=0.74mm	●	●	A5F.095040
	Semi-APO Fluorescent 100x/1.3, W.D.=0.18mm	●	●	A5F.0950-100
	Infinty Plan APO Flourscent Objective			
	APO Fluorescent 2x/0.08, WD=6.2mm	○	○	A5F.0951-2
	APO Fluorescent 4x/0.13, WD=16.6mm	○	○	A5F.0951-4
	APO Fluorescent 10x/0.40, WD=3.2mm	○	○	A5F.0951-10
	APO Fluorescent 20x/0.75, WD=0.6mm	○	○	A5F.0951-20
	APO Fluorescent 40x/0.95, WD=0.15mm	○	○	A5F.0951-40
	APO Fluorescent 60x/0.90, WD=0.26mm	○	○	A5F.0951-60
	APO Fluorescent 100x/1.35, WD=0.13mm	○	○	A5F.0951-100
	Centering Objective For Fluorescent	○	●	A5F.0930-1
Working Stage	Double Layer Mechanical Stage, 187*166mm, Moving Range 80*55mm, Precision 0.1mm, Double Direction Transmission, Left/Right Position Handle For Option, Tension of Torque Adjustable.	●	●	A54.0950-BF
Focusing	Low-Position Coaxial Coarse & Fine Adjustment, Coarse Adjustment Distance: 25mm; Fine Precision: 0.001Mm. With Coarse Adjustment Stop And Tightness Adjustment.	●	●	
Main Body	Transmitted Biological Main Body, Digital Dimming System With Light Indicator, Brightness Set & Reset Function, With ECO Function	●		
	Reflected & Transmitted Fluorescent Main Body, Digital Dimming System With Light Indicator, Brightness Set & Reset Function, With ECO Function		●	

Specification

Item	A12.0910 Research Level Biological Microscope A16.0910 Research Level Fluorescent Microscope	A12.0910	A16.0910	Cata. No.
Transmit Light	12V100W Halogen Lamp House, Pre-Centered	●	●	A56.0915-LH
	12V100W Halogen Bulb (Philps 7724)	●	●	A56.0923-12100
	Swing-out Type Achromatic Condenser, N.A.0.9/0.25	●	●	A56.0934-R
	Built-In Transmit Filters LBD/ND6/ND25	●	●	
	Transmit Light Upgraded To 3W LED Light	A12.0910-LED	A16.0910-LED	
Reflect Epi Fluorescent Light	Full Set, 6 Holes Reflect Epi-Fluorescent Illumination, With Iris Diaphragm, With Aperture Diaphragm, With Filter Slot, With Polarizing Analyzer Slot, With Protect Barrier, With Fluorescent Shutter			
	--100W Mercury Light Box, Center Adjustable		●	A5F.0906
	--Digital Power Supply 90~240V			
	--HBO 100W Mercury Bulb OSRAM			
	--Attenuation Filter ND50			
	--Fluorescent Filter B,G,UV			
	--Fluorescent Filter V			A5F.0906-V
Power	Built-In 100-240V Wide Voltage Transformer	●	●	
Other	Allen Key M4	●	●	
Universal Condenser For Dark Field, Polarizing, Phase Contrast, DIC View				
Universal Condenser	Universal Condenser, Disc With 8 Holes For Function DF, PL, PH, DIC			
	--3 Small Holes For Phase Contrast Rings A5C.0960, PH Objectives A5C.0961			
	--3 Big Holes Only For DIC Rings A5M.0960	○	○	A56.0960
	--2 Big Holes Center Adjustable, For Dark Field Ring A5D.0960 or DIC Ring A5M.0960			
	--Polarizier Lens Included In Socket Under Universal Condenser			
	--Need to Select N.A.0.9 Condenser Lens As Standard			
	N.A.0.9 Condenser Lens, Standard Selection, For Objective 10x20x40x60x100x	○	○	A56.0960-09
	Screw On Universal Condenser Disc			
	N.A.0.2 Condenser Lens, Optional Selection, For Objective 4x	○	○	A56.0960-02
	Screw On Universal Condenser Disc			
	N.A.1.4 Condenser Lens, Optional Selection, For Objective 20x40x60x100x	○	○	A56.0960-14
Dark Field	Screw On Universal Condenser Disc			
	Dark Field Ring, Dry Type N.A.0.9, For Objective 10x,20x	○	○	A5D.0960-D
DIC	Dark Field Ring, Immersion Oil Type N.A.1.4, For Objective 40x,60x	○	○	A5D.0960-I
	Transmission DIC Slide, Insert To DIC Socket On Nosepiece	○	○	A5M.0960
	Transmission DIC Ring 10x	○	○	A5M.0960-10
	Transmission DIC Ring 20x	○	○	A5M.0960-20
Phase Contrast APO Objective	Transmission DIC Ring 40x/60x	○	○	A5M.0960-4060
	Infinity Plan Apochromatic Positive Phase Contrast Objective	○	○	
	APO PH 4x/0.16, WD=12.8mm	○	○	A5C.0950-4
	APO PH 10x/0.40, WD=2.5mm	○	○	A5C.0950-10
	APO PH 20x/0.75, WD=0.6mm	○	○	A5C.0950-20
	APO PH 40x/0.95, WD=0.15m	○	○	A5C.0950-40
	APO PH 60x/0.90, WD=0.26mm	○	○	A5C.0950-60
Polarizing	APO PH 100x/1.35, WD=0.13mm	○	○	A5C.0950-100
	Polarizier Lens Included In Plug-in Socket Under Universal Condenser	○	○	
	Analyzer Slide, Insert To Analyzer Socket On Nosepiece	○	○	A5P.0960
Upgrade Series Model				
Metallurgical	Upgrade to A13.0910 DIC Metallurgical Microscope, APO			A13.0910
Remark: '●' Means Standard Outfit, '○' Means Optional				

Universal Condenser For DF,PL,PH,DIC

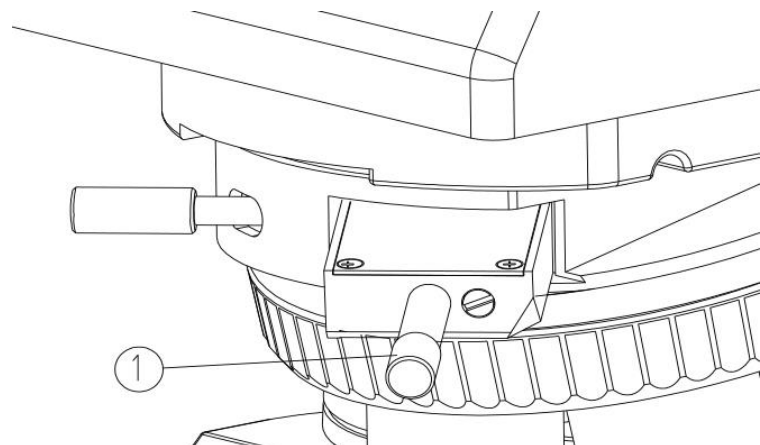
For Dark Field, Polarizing, Phase Contrast, DIC View, Universal Condenser (Optional) is Necessary



BF,DF,PH,PL,APO,DIC

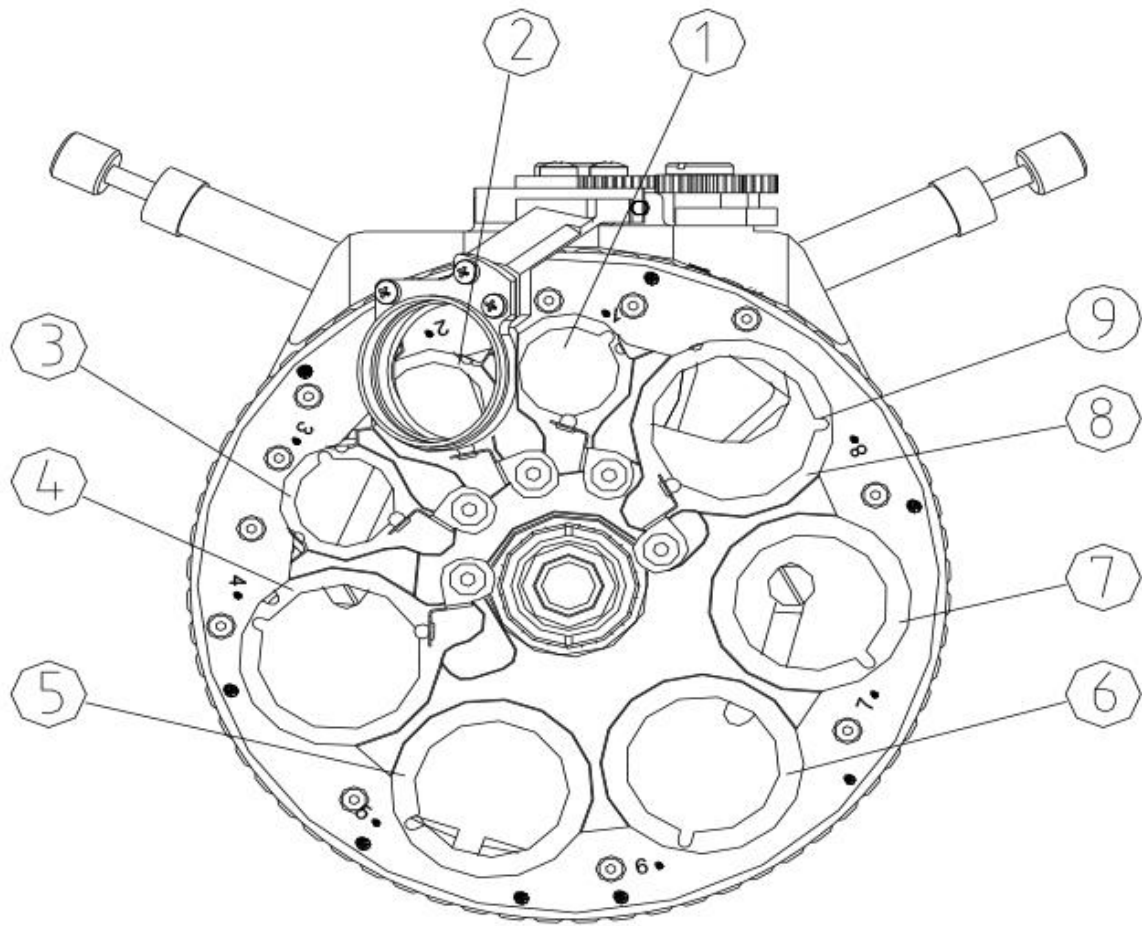


Semi-APO



DIC

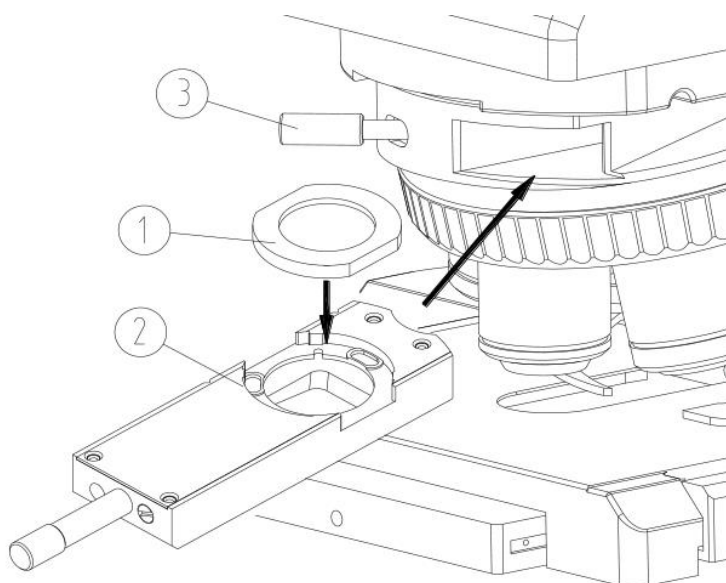
Universal Condenser For DF,PL,PH,DIC



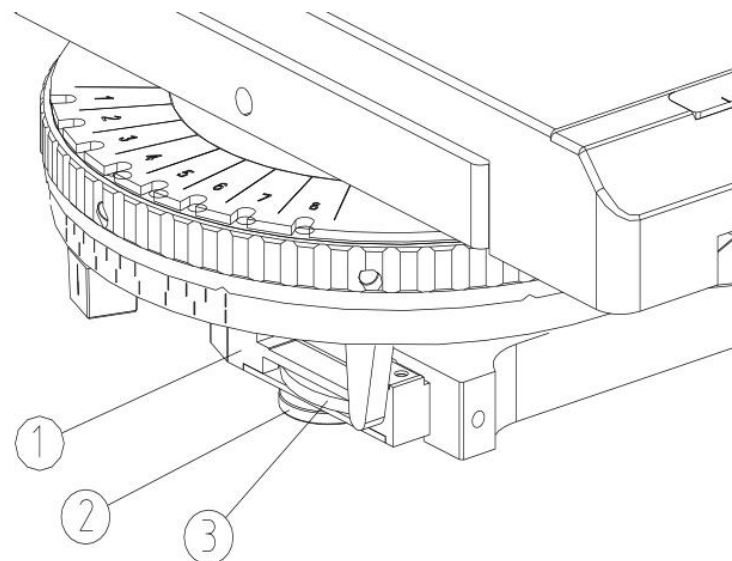
①②③ Phase Contrast Aperture Ring
or DIC Ring

⑤⑥⑦ DIC Ring

④⑧ Dark Field Ring or Phase
Contrast Aperture Ring or DIC Ring



Analyzer Slide



Polarizer Lens

Universal Condenser For DF,PL,PH,DIC

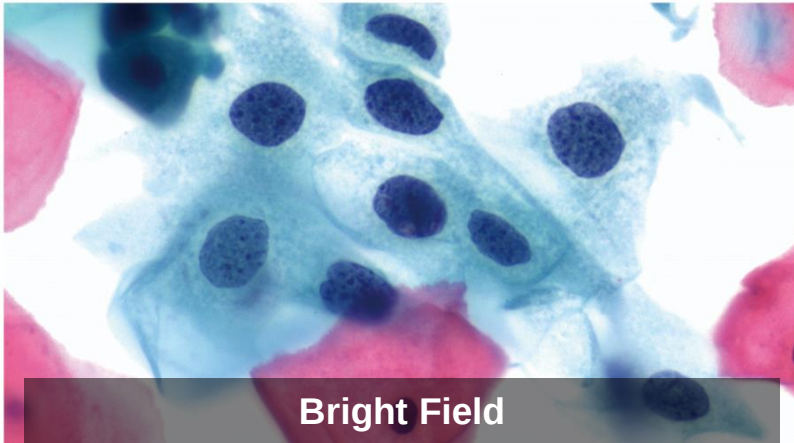


A56.0960 Universal Condenser

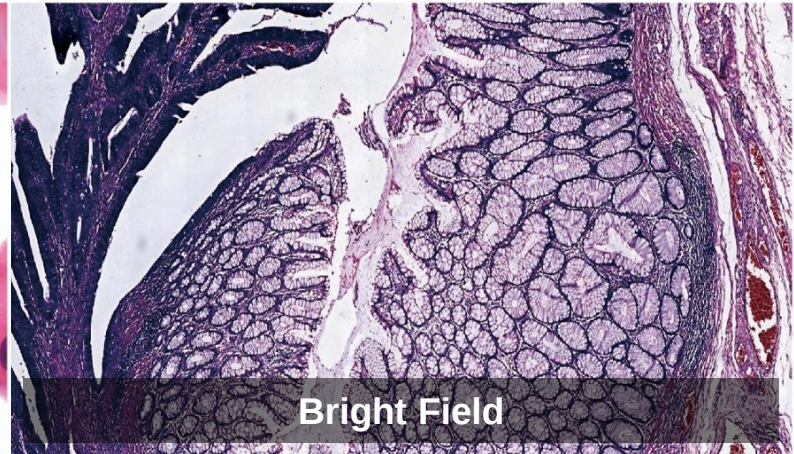
Porous Site For Dark Field, Polarizing,
Phase Contrast, DIC View



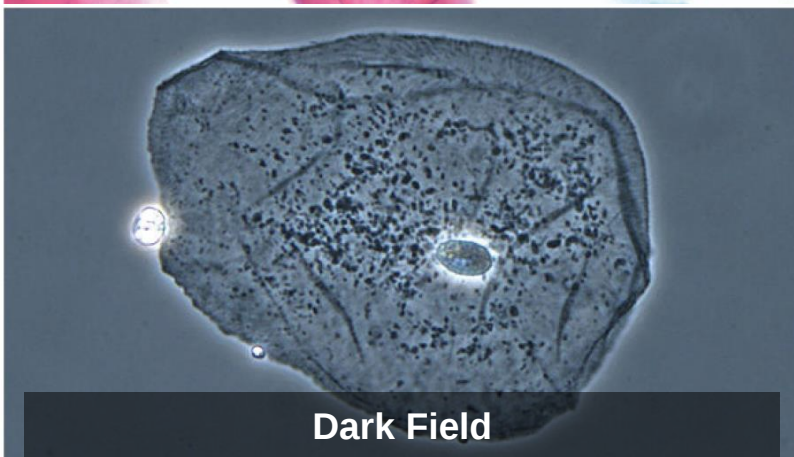
DIC Rings 10x, 20x, 40x/60x



Bright Field



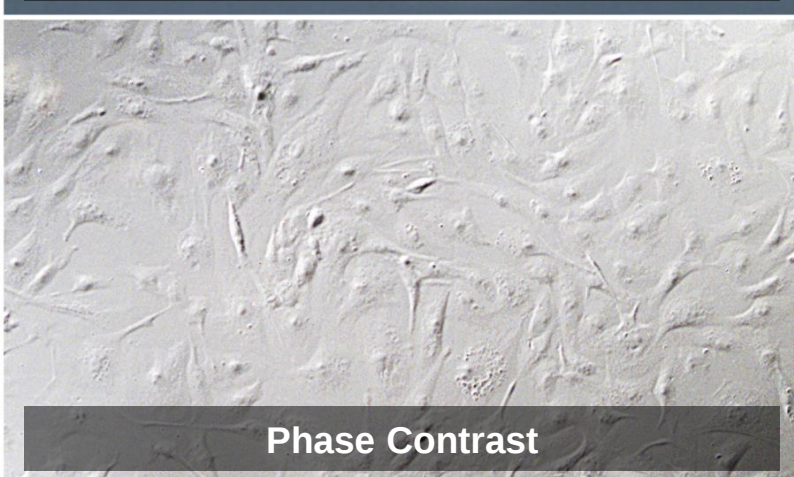
Bright Field



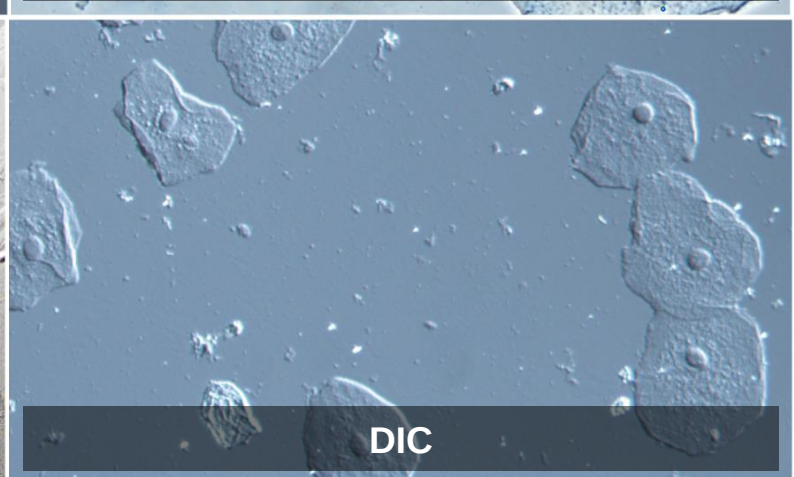
Dark Field



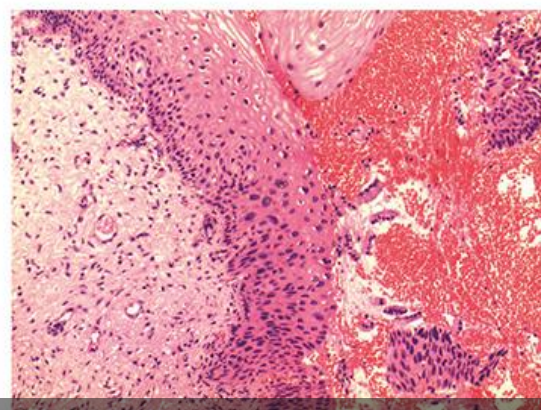
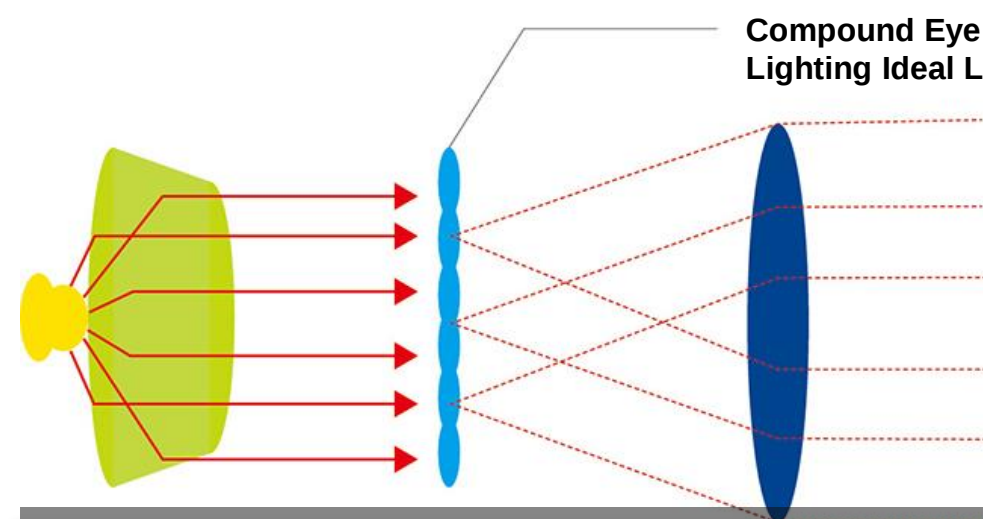
Polarizing



Phase Contrast



DIC



Compound Eye Illumination System

A12.0910 adopts the compound eye illumination system to improve the contrast rate and effectively improve the illumination uniformity of the specimen surface. Even at the edge of the field of view, uniform and bright background brightness can be achieved under any magnification.



LED Illumination

Optional LED Light Source For Transmitt Illumination,
Reduce Lamp House Size and Heating



Accessories



MICROSCOPE IS OUR FOCUS

The Key To Micro World

Opto-Edu is one of the most professional supplier for microscope & educational instruments from China. We have been focusing in this field for more than 25 years, has a professional sales team who can assist our customer to find the BEST SELECTED microscope with competitive price and 3 YEARS Warranty.

25+ Year professional experience we know Microscopes the best!

150+ Microscope & accessory manufacturers supply all models from China

200+ Hot sale microscopes & Newest Models Updated Every Month

750+ Customer from all over the world & keep rising every day

1500+ Microscope products create your one-stop purchase platform

3000+ Educational Instruments For School, College And University Teaching

The Most Professional Microscope Manufacturer in China!



MICRO
WORLD

The Key To

OPTO-EDU



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