

Achios-X Inverso

BRIGHTFIELD, PHASE CONTRAST, FLUORESCENCE
HOFFMAN & 3D RELIEF CONTRAST

HIGHLIGHTS

- Extra Wide field WF 10x/22 mm, Ø 30 mm
- Head with 45° inclined tubes
- Head with ergo tilting 5° - 35° tubes and backwards tilting illumination column
- Revolving quintuple nosepiece
- IOS 60 mm Plan, Plan Phase or Plan Semi-Apochromatic objectives
- Hoffman contrast and 3D relief contrast
- Low positioned stage adjustment knobs
- 3 W NeoLED
- LCD screen for Smart Light Control
- Blue, green and UV LED fluorescence

TECHNICAL SPECIFICATIONS

EYEPIECES

SWF 10x/22 mm wide field eyepieces with adjustable diopter. Ø 30 mm tubes

HEAD

Binocular head with 45° inclined tubes or binocular ergo head with 5-35° tilting tubes. Interpupillary distance of 48 to 75 mm. Optional side photo port with 100-0/0-100 beamsplitter

NOSEPIECE

Revolving quintuple nosepiece on ball-bearings

OBJECTIVES - 60 MM PARFOCAL, M25 THREAD

Objectives with 1.2 mm coverslip correction

Plan IOS	4x/0.10	10x/0.25	20x/0.40	S40x/0.60
Plan Semi Apo Fluarex IOS	4x/0.13	10x/0.30	20x/0.45	S40x/0.60
Plan Phase IOS		10x/0.30	20x/0.45	S40x/0.60
Plan Semi Apo Phase Fluarex IOS	4x/0.13	10x/0.30	20x/0.45	S40x/0.60
Plan PLi Hoffman IOS		10x/0.25	20x/0.40	S40x/0.60

Objectives with adjustable coverslip correction

Plan Semi Apo Fluarex IOS	20x/0.45	S40x/0.60	S60x/0.70
Plan Semi Apo Fluarex Phase IOS	20x/0.45	S40x/0.60	S60x/0.70

Fluarex™ objectives are made of low-absorption glass. Fluarex™ is a trademark of Euromex microscopen bv. All optics are anti-fungus treated and anti-reflection coated for maximum light throughput



● AI.4058-PLPHi

AI.1053-PLPHi
AI.3053-PL(PH)Fi
AI.4058-PLPHi
AI.4058-PL(PH)Fi

526 (h) x 244 (w) x 543 mm (d) | 14.6 kg
526 (h) x 244 (w) x 560 mm (d) | 15.5 kg
504 (h) x 244 (w) x 520 mm (d) | 16.6 kg
504 (h) x 244 (w) x 558 mm (d) | 17.5 kg

STAGE

- 170 x 250 mm stage with 129 x 83 mm mechanical X-Y stage
- Supplied with metal insert for Ø 65 glass plate and universal cell culture dish holder (AI.9569)
- Optional metal inserts, Ø 35, Ø 54 and Ø 90 mm cell culture dish holder with 27x26 mm slide holder
- Optional metal insert for Multiwell plates (127.76 x 85.48 mm) (AI.9517)
- The optional AE.9550 stage extension plate adds 70 mm to the table width



● AI.9554



● AI.9569



● AI.9517 MultiWell plate holder



● AI.9517 and AI.9535 combined



● AI.9590 Petri dish insert 90 mm



● AI.9535 Petri dish insert 35 mm

CONDENSERS

- WD*: 75 mm, without condenser: 187 mm
- The condenser can be removed to increase WD*, allowing multilayered culture flasks
- With slot for phase contrast/embossed contrast/Hoffman contrast sliders

For AI.1xxx and AI.3xxx models

- Condenser N.A. 0.30 with iris diaphragm and slot for sliders

For AI.4xxx models

- Height adjustable Kohler condenser N.A. 0.30 with iris diaphragm and 3 filter holders and shutter function
- Mounted on a backwards tilting illumination column allowing easy access to samples and placement multilayered culture flasks, without removing the condenser

*WD = Working distance

CONDENSER FOR HOFFMAN CONTRAST

- All models can be equipped with a Hoffman condenser and slider with Hoffman slits for 10/20/40x objectives. Needs Hoffman objectives

SLIDER FOR 3D RELIEF CONTRAST

- All models can be equipped with a 3D relief contrast slider. Works for standard condenser and Plan or Plan Semi-Apo IOS 10/20/40x objectives

FOCUS ADJUSTMENT

- Coaxial 37.5 mm coarse and fine adjustments with 200 graduations
- Precision 1 µm, 0.2 mm per rotation
- Fine focus knobs are left/right interchangeable

ILLUMINATION

- Transmitted 3W NeoLED™ illumination with adjustable intensity
- Internal power supply 100-240 V (CE). Fuse 500 mA 250 Vac

FLUORESCENCE

For models with fluorescence LED light source

LED epi-fluorescence attachment with 365, 485 and 525 nm LED

Supplied with standard long pass filters cubes:

Blue excitation EX: 460-495 nm BS: 505 nm EM: 510 nm LP (AI.9745)

Green excitation EX: 510-550 nm BS: 570 nm EM: 575 nm LP (AI.9746)

UV excitation EX: 330-385 nm BS: 410 nm EM: 420 nm (AI.9748)

Rotating fluorescence filter wheel

Fluorescence models are supplied with 3 cubes with fluorescence filters for Blue, Green and UV excitation

SMART LIGHT CONTROL

This intelligent function:

- memorizes the light intensity level for each objective
- increases comfort
- saves valuable time during routine magnification shifts
- includes a sleep function

NEOLED



The innovative NeoLED™ design is a combination of a custom LED and a specially designed thin lens with a short focal length

Four main benefits:

- More oblique light from the NeoLED™ light source, which increases the light output significantly
- Less energy is required to achieve this level of light intensity
- The larger aperture of NeoLED™ allows the optical system of the microscope to produce images at higher resolutions, very close to the theoretical diffraction limit of the optics
- Super long life span, up to 50.000 hrs nominal, L70 norm

PACKAGE CONTENT

- Supplied with Ø 65 glass plate and universal cell culture dish holder
- Power cord, dust cover and user manual
- Phase contrast models are supplied with green filter and alignment telescope
- Fluorescence models are supplied with an anti-reflection shield to be mounted on the condenser and an orange protection shield

MODELS	Ergo head	Backwards tilting arm	Plan PLi objective 4x IOS AI.83xx	Plan phase PLPHi objectives 10/20/40 IOS AI.87xx	Plan Semi-Apo Fluarex objectives 10/20/40 IOS AI.86xx(I)	Plan Semi-Apo Fluarex phase objectives 10/20/40 IOS AI.89xx(I)	Plan Hoffman objectives 10/20/40x AI.88xx	3D Relief contrast	Epi-fluorescence equipment for B, G and UV excitation	Köhler illumination
AI.1053-PLPHi			•	•			o	o		
AI.3053-PLFi					•		o	o	•	
AI.3053-PLPHFi						•	o	o	•	
AI.4058-PLPHi	•	•	•	•			o	o		•
AI.4058-PLFi	•	•			•		o	o	•	•
AI.4058-PLPHFi	•	•				•	o	o	•	•

o = Optional



● AI.1053-PLPHi



● AI.3053-PL(PH)Fi

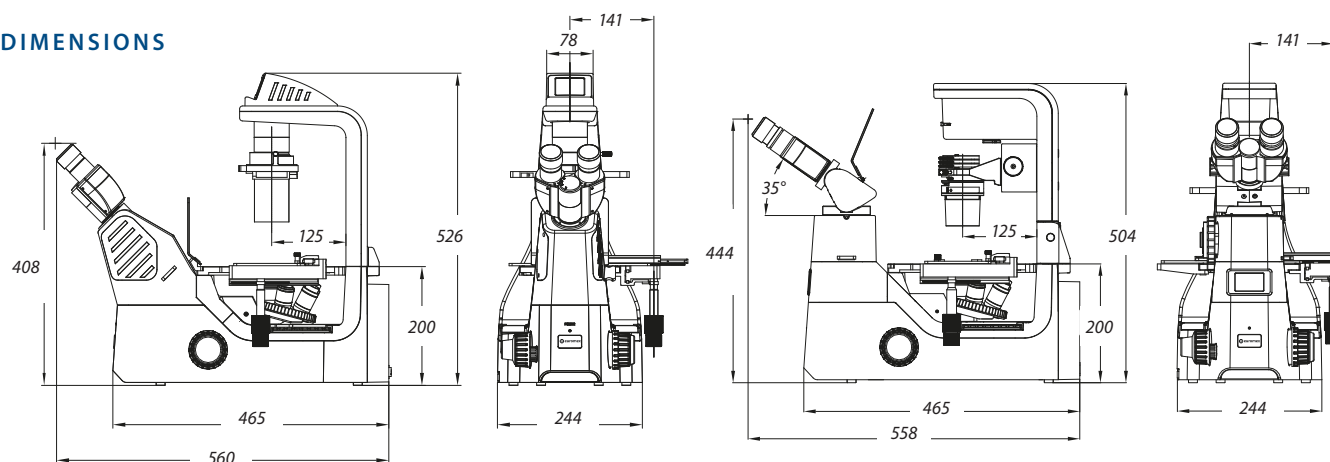


● AI.4058-PLPHi



● AI.4053-PL(PH)Fi

DIMENSIONS



ACCESSORIES AND SPARE PARTS

EYEPIECES (Ø 30 MM TUBE)

AI.6010	WF 10x/22 mm eyepiece
AI.6015	WF 15x/16 mm eyepiece
AI.6020	WF 20x/12 mm eyepiece
AI.6099	Pair of eyeshades

OBJECTIVES - 60 MM PARFOCAL

Plan LWD

AI.8304	4x/0.10 OS objective*, WD 30 mm
AI.8310	10x/0.25 IOS objective*. WD 10.2 mm
AI.8320	20x/0.40 IOS objective*. WD 12.0 mm
AI.8340	40x/0.60 IOS objective*. WD 2.2 mm

Plan Semi Apochromatic Fluarex LWD

AI.8604	4x/0.13 IOS Fluarex objective*. WD 17 mm
AI.8610	10x/0.30 IOS Fluarex objective*. WD 7.4 mm
AI.8620	20x/0.45 IOS Fluarex objective*. WD 8 mm
AI.8640	40x/0.60 IOS Fluarex objective*. WD 3.6 mm

Plan Semi Apochromatic Fluarex LWD with built-in iris diaphragm

AI.8620-I	20x/0.45 IOS Fluarex objective*. WD 7.5-8.8 mm
AI.8640-I	40x/0.60 IOS Fluarex objective*. WD 3-4.4 mm
AI.8660-I	60x/0.70 IOS Fluarex objective**. WD 1.8-2.6 mm

Plan Phase PLPHi LWD

AI.8710	10x/0.25 IOS objective*. WD 10.2 mm
AI.8720	20x/0.40 IOS objective*. WD 12.0 mm
AI.8740	40x/0.60 IOS objective*. WD 2.2 mm

Plan Hoffman LWD HFM

AI.8810	10x/0.25 IOS objective* WD 9.5 mm
AI.8820	20x/0.40 IOS objective* WD 4.0 mm
AI.8840	40x/0.60 IOS objective* WD 2.3 mm

Plan Semi-Apochromatic Phase Fluarex PLPHi-APO LWD

AI.8904	4x/0.13 IOS Fluarex objective*. WD 17 mm
AI.8910	10x/0.30 IOS Fluarex objective*. WD 7.4 mm
AI.8920	20x/0.45 IOS Fluarex objective*. WD 8 mm
AI.8940	40x/0.60 IOS Fluarex objective*. WD 3.6 mm

Plan Semi-Apochromatic Phase Fluarex PLPHi-APO LWD with built-in iris diaphragm

AI.8920-I	20x/0.45 IOS Fluarex objective*. WD 7.5-8.8 mm
AI.8940-I	40x/0.60 IOS Fluarex objective*. WD 3-4.4 mm
AI.8960-I	60x/0.70 IOS Fluarex objective**. WD 1.8-2.6 mm

*corrected for 0-2 mm

**corrected for 0.1-1.3 mm

WD = working distance

PHASE CONTRAST ACCESSORIES

AI.9148	Telescope for phase/Hoffman contrast alignment, Ø 30 mm
AI.9196	Phase contrast slider 10/20/40x
AI.9190	Slider 4x/60x phase annuli
AI.9187	Green filter for phase contrast

HOFFMAN CONTRAST

for AI.1xxx and AI.3xxx models

AI.9148	Telescope for phase/Hoffman contrast alignment, Ø 30 mm
AI.9680	Hoffman condenser
AI.9683	Slider with Hoffman slits 10/20/40x

for AI.4xxx models

AI.9148	Telescope for phase/Hoffman contrast alignment, Ø 30 mm
AI.9685	Hoffman condenser
AI.9688	Slider with Hoffman slits 10/20/40x

3D RELIEF CONTRAST

AI.9686	3D relief contrast slider 10/20/40x for condenser
AI.9687	3D relief contrast slider 10/20/40x for head

CAMERA ACCESSORIES

For AI.1053 and AI.3153 models

AI.9810-3	C-mount photo adapter 1x
AI.9850-3	C-mount photo adapter 0.5x

For AI.4058 and AI.4158 models with Ergo head

AI.9810-4	C-mount photo Adapter 1x
AI.9870-4	C-mount photo Adapter 0.7x
AI.9850-4	C-mount photo Adapter 0.5x

MISCELLANEOUS

AI.9205	UV protection shield
AI.9206	Anti-reflection shield for standard condensers of models for fluorescence
AI.9569	Universal cell culture dish holder, Ø 35-65 mm. Also holds Multiwell plates
AI.9508	Metal insert with hole for culture flasks
AI.9517	Metal insert for MultiWell plates (127.76 x 85.48 mm)
AI.9535	Petri dish insert 35 mm with 76 x 26 mm slide holder
AI.9554	Petri dish insert 54 mm with 76 x 26 mm slide holder
AI.9590	Petri dish insert 90 mm with 76 x 26 mm slide holder
AI.9506	Transparant glass insert ø 112 mm, inner hole ø 30 mm
AI.9550	The optional AE.9550 stage extension plate adds 70 mm to the table width



● AI.9206



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