

# Achios-X Inverso

BRIGHTFIELD, PHASE CONTRAST, FLUORESCENCE

HOFFMAN & 3D RELIEF CONTACT

## 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



● EAI-4058-PLPHi

## 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

EAI-1053-PLPHi	526 (h) x 244 (w) x 543 mm (d)   14.6 kg
EAI-3053-PL(PH)Fi	526 (h) x 244 (w) x 560 mm (d)   15.5kg
EAI-4058-PLPHi	504 (h) x 244 (w) x 520 mm (d)   16.6 kg
EAI-4058-PL(PH)Fi	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 (EAI-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) (EAI-9517)



● EAI-9554



● EAI-9569



● EAI-9517 MultiWell plate holder



● EAI-9517 and EAI-9535 combined



● EAI-9590 Petri dish insert 90 mm



● EAI-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 EAI-1xxx and EAI-3xxx models

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

### For EAI-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 (EAI-9745)

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

**UV excitation** EX: 330-385 nm BS: 410 nm EM: 420 nm (EAI-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 EAI-83xx	Plan phase PLPHi objectives 10/20/40 IOS EAI-87xx	Plan Semi-Apo Fluarex objectives 10/20/40 IOS EAI-86xx(I)	Plan Semi-Apo Fluarex phase objectives 10/20/40 IOS EAI-89xx(I)	Plan Hoffman objectives 10/20/40x EAI-88xx	3D Relief contrast	Epi-fluorescence equipment for B, G and UV excitation	Köhler illumination
EAI-1053-PLPHi			•	•			o	o		
EAI-3053-PLFi					•		o	o	•	
EAI-3053-PLPHFi						•	o	o	•	
EAI-4058-PLPHi	•	•	•	•			o	o		•
EAI-4058-PLFi	•	•			•		o	o	•	•
EAI-4058-PLPHFi	•	•				•	o	o	•	•

o = Optional



● EAI-1053-PLPHi



● EAI-3053-PL(PH)Fi

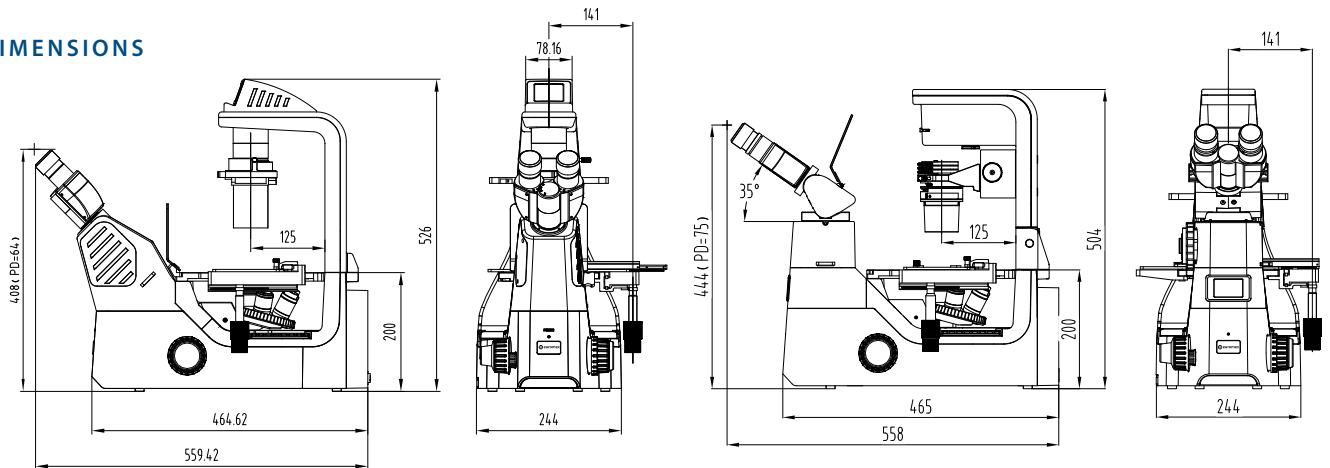


● EAI-4058-PLPHi



● EAI-4053-PL(PH)Fi

**DIMENSIONS**



## ACCESSORIES AND SPARE PARTS

### EYEPIECES (Ø 30 MM TUBE)

- EAI-6010** WF 10x/22 mm eyepiece
- EAI-6015** WF 15x/16 mm eyepiece
- EAI-6020** WF 20x/12 mm eyepiece
- EAI-6099** Pair of eyeshades

### OBJECTIVES - 60 MM PARFOCAL

#### Plan LWD

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

#### Plan Semi Apochromatic Fluarex LWD

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

#### Plan Semi Apochromatic Fluarex LWD with built-in iris diaphragm

- EAI-8620-I20x/0.45** IOS Fluarex objective\*. WD 7.5-8.8 mm
- EAI-8640-I40x/0.60** IOS Fluarex objective\*. WD 3-4.4 mm
- EAI-8660-I60x/0.70** IOS Fluarex objective\*\*\*. WD 1.8-2.6 mm

#### Plan Phase PLPHi LWD

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

#### Plan Hoffman LWD HFM

- EAI-8810** 10x/0.25 IOS objective\* WD 9.5 mm
- EAI-8820** 20x/0.40 IOS objective\* WD 4.0 mm
- EAI-8840** 40x/0.60 IOS objective\* WD 2.3 mm

#### Plan Semi-Apochromatic Phase Fluarex PLPHi-APO LWD

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

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

- EAI-8920-I20x/0.45** IOS Fluarex objective\*. WD 7.5-8.8 mm
- EAI-8940-I40x/0.60** IOS Fluarex objective\*. WD 3-4.4mm
- EAI-8960-I60x/0.70** IOS Fluarex objective\*\*\*. WD 1.8-2.6mm

\*corrected for 0-2 mm

\*\*corrected for 0.1-1.3 mm

WD = working distance

### PHASE CONTRAST ACCESSORIES

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

### HOFFMAN CONTRAST

#### for EAI-1xxx and EAI-3xxx models

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

#### for EAI-4xxx models

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

### 3D RELIEF CONTRAST

- EAI-9686** 3D relief contrast slider 10/20/40x for condenser
- EAI-9687** 3D relief contrast slider 10/20/40x for head

### CAMERA ACCESSORIES

#### For EAI-1053 and EAI-3153 models

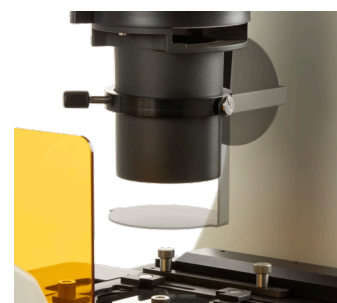
- EAI-9810-3** C-mount photo adapter 1x
- EAI-9850-3** C-mount photo adapter 0.5x

#### For EAI-4058 and EAI-4158 models with Ergo head

- EAI-9810-4** C-mount photo Adapter 1x
- EAI-9870-4** C-mount photo Adapter 0.7x
- EAI-9850-4** C-mount photo Adapter 0.5x

### MISCELLANEOUS

- EAI-9205** UV protection shield
- EAI-9206** Anti-reflection shield for standard condensers of models for fluorescence
- EAI-9569** Universal cell culture dish holder, Ø 35-65 mm. Also holds Multiwell plates
- EAI-9508** Metal insert with hole for culture flasks
- EAI-9517** Metal insert for MultiWell plates (127.76 x 85.48 mm)
- EAI-9535** Petri dish insert 35 mm with 27 x 26 mm slide holder
- EAI-9554** Petri dish insert 54 mm with 27 x 26 mm slide holder
- EAI-9590** Petri dish insert 90 mm with 27 x 26 mm slide holder
- EAI-9570** Stage clip
- EAI-9571** Well clamp
- EAI-9506** Transparant glass insert ø 112 mm, inner hole ø 30 mm
- EAI-9550** Stage extension plate



● EAI-9206



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