

# iScope® fluorescence



## HIGHLIGHTS

- HWF 10x/22 mm eyepieces
- Binocular and trinocular models
- Optional ergonomic tilting head
- Quintuple revolving nosepiece
- E-Plan, plan and plan Fluarex IOS corrected objectives
- 187/230 x 140 mm rackless stage with integrated X-Y stage
- Optional ceramic stage
- Diascopic intensity adjustable 3 W NeoLED™ Köhler illumination
- Epi-fluorescence 100 W HBO mercury vapor
- Blue and Green LED fluorescence
- iCare sensor for energy saving
- CSS - Cable Storage System
- 10 years warranty



IS.3152 PLi-3 ●

## TECHNICAL SPECIFICATIONS

### EYEPIECES

Extended plan EWF 10x/22 mm eyepieces, Ø 30 mm tubes. Eyepieces can be secured to the tubes. The trinocular head of the Plan infinity corrected models (PLi and PLFi) has a light path selector (100:0 / 50:50) and ± 5 diopter adjustments on both tubes.

The trinocular head of the E-Plan infinity corrected models (EPLi) has a fixed built-in light path beamsplitter (50:50) and ± 5 diopter adjustment on the left tube

### HEAD

- Binocular and trinocular Siedentopf type heads with 30° inclined tubes. Interpupillary distance from 48 to 76 mm
- A unique rotating system allows the ergonomical positioning of both tubes in a high (431 mm) and in a low position (397 mm)
- The trinocular head has a 23.2 mm photo tube. This fits all C-mount adapters supplied with Euromex cameras

To order an iScope® with tilting head use reference IS.3158-xxx (Epli/PLi/PLFi)

To order an iScope® with tilting trino head use reference IS.3159-xxx (EPLi/PLi/PLFi)

### OBJECTIVES

The EPLi and PLi objectives are suitable for Blue and Green standard filter sets and other filter sets in the visible spectrum.

The plan Fluarex PLFi™ objectives are suitable for the entire spectrum including Ultra Violet and Violet

E-Plan EPLi IOS	4x/0.10	10x/0.25		S40x/0.65		S100x/1.25 oil
Plan PLi IOS	4x/0.10	10x/0.25	20x/0.40 <sup>(1)</sup>	S40x/0.65	S60x/0.85 <sup>(1)</sup>	S100x/1.25 oil
Plan PLFi IOS	4x/0.15	10x/0.35	20x/0.60 <sup>(1)</sup>	S40x/0.75		S100x/1.30 oil

<sup>(1)</sup> optional

All optics are anti-fungus treated and anti-reflection coated for maximum light throughput

### NOSEPIECE

Revolving quintuple reversed nosepiece on ball bearings

### STAGE

187/230 x 140 mm rackless stage equipped with double slide holder and integrated 79 x 52 mm mechanical stage. The iScope® rackless stage has no protruding parts, enabling more smooth movements and is safer

Optional: 220 x 157 mm ceramic stage with integrated 75 x 50 mm mechanical stage protects with a very tough ceramic surface, against marks and scratches. The surface also ensures stray light not to be reflected from the stage into the objective

### CONDENSER FOR BRIGHTFIELD

The standard height adjustable Abbe N.A. 1.25 condenser for brightfield with magnification indication.

Also accepts sliders with phase annuli suitable for plan phase 10x/20x or S40x/ S100x oil immersion IOS objectives for economical phase contrast. A slider with a simple dark stop for darkfield up to 400x magnification is also available for this condenser

## CONDENSER FOR ZERNIKE PHASE CONTRAST

An optional height adjustable Zernike NA. 1.25 phase contrast disc condenser with darkfield stop position for darkfield contrast observation up to 400x magnification and plan phase 10/20/S40x and S100x oil immersion PLPHi IOS objectives

## FOCUSING

Coaxial coarse and fine adjustments, 200 graduations, 1 µm per graduation, 200 µm per rotation, total travel range is approximately 24 mm. Supplied with an adjustable rack stop to prevent damage to sample and objectives. The coarse adjustments are equipped with friction control

## ILLUMINATION

3 W adjustable Köhler NeoLED™ diascope illumination with internal 100-240 V power supply

The innovative NeoLED™ design offers larger apertures, allowing the optical system of the iScope® microscope to produce images at higher resolutions, very close to the theoretical diffraction limit of the optics. Other benefits of the NeoLED™ is the low energy consumption, no heating and a long operating lifetime

The Köhler illumination on models with IOS plan and plan phase infinity corrected system provides high contrast and a maximum achievable resolving power of the optics. Also available for other models as an option

## ILLUMINATION FOR FLUORESCENCE

The 6-position rotating and 3-position slider fluorescence attachments are supplied with:

- a 100 W HBO mercury vapor light source for broad powerful light spectrum. Including an 100-240 V external power supply with indication of the life span of the HBO bulb
- Standard fluorescence filters sets for
  - blue excitation (EX460- 490 (BP) DM520 EM500 (LP),
  - green excitation (EX510-550 (BP) DM580 EM570 (LP)
 and a UV protection shield

The iScope® fluorescence microscopes equipped with a 100 W mercury vapor light source can be supplied with more specific, optimized and application related fluorescence filters sets (see next pages).

Two single position LED fluorescence attachments:

- Blue: EX 460-495 DM 505 EM 510-560 LP filter set and a 3 W 465-475 nm LED for blue excitation
- Green: EX 510-550 DM570 EM 590 LP filter set and a 3 W 520-530 nm LED light source for green excitation

Both LED versions are supplied with a 100-240 Vac/7.5 Vdc external power supply

## ICARE SENSOR

The unique iCare Sensor is developed to avoid unnecessary loss of energy. The illumination of the microscope automatically switches off shortly after microscopists step away from their position

## CSS-CABLE STORAGE SYSTEM

iScope® allows users to easily insert the power cable into the back of the instrument, which enables easy storage

## CARRYING GRIP

The integrated carrying grip at the back of the microscope ensures safe transportation of the microscope

## PACKAGE CONTENT

Supplied with power cord, dust cover, a spare fuse, user manual and 5 ml immersion oil for models with S100x objective. Models with 100 W mercury vapor light source have a UV protection shield. All packed in polystyrene boxes



● 6 blocks fluorescence attachment

### 3-POSITIONS SLIDER ATTACHMENT

• With 100 W mercury vapor light source

The 3-positions slider fluorescence attachments are supplied with standard 100 W HBO mercury vapor light source for broad powerful light spectrum.

Supplied with standard fluorescence filters sets for blue and green excitation and a UV protection shield

MODELS	Bino	Trino	WF 10x/22 mm	Diopter adjustable on left tube	Diopter adjustable on both tubes	E-plan EPLi 4x/10x/540x and S100x objectives	Plan PLi 4x/10x/540x and S100x objectives	Plan PLFi 4x/10x/540x and S100x objectives	100 W HBO light source	Filter sets (blue&green)	NeoLED illumination
IS.3152-EPLi/3	•		•	•		•			•	•	•
IS.3153-EPLi/3		•	•	•		•			•	•	•
IS.3152-PLi/3	•		•		•		•		•	•	•
IS.3153-PLi/3		•	•		•		•		•	•	•
IS.3152-PLFi/3	•		•		•			•	•	•	•
IS.3153-PLFi/3		•	•		•			•	•	•	•

### 6-POSITIONS ROTATING ATTACHMENT

• With 100 W mercury vapor light source

The 6-positions rotating fluorescence attachments are supplied with a standard 100 W HBO mercury vapor light source for broad powerful light spectrum.

Supplied with standard fluorescence filters sets for excitation in the blue and green light spectrum and a UV protection shield

MODELS	Bino	Trino	WF 10x/22 mm	Diopter adjustable on left tube	Diopter adjustable on both tubes	E-plan EPLi 4x/10x/540x and S100x objectives	Plan PLi 4x/10x/540x and S100x objectives	Plan PLFi 4x/10x/540 and S100x objectives	100 W HBO light source	Filter sets (blue&green)	NeoLED illumination
IS.3152-EPLi/6	•		•	•		•			•	•	•
IS.3153-EPLi/6		•	•	•		•			•	•	•
IS.3152-PLi/6	•		•		•		•		•	•	•
IS.3153-PLi/6		•	•		•		•		•	•	•
IS.3152-PLFi/6	•		•		•			•	•	•	•
IS.3153-PLFi/6		•	•		•			•	•	•	•

### 1-POSITION SLIDER ATTACHMENT

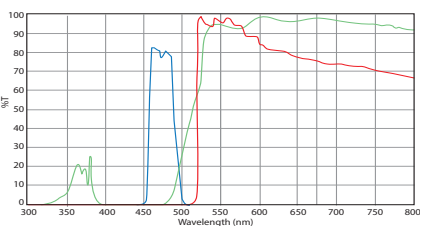
Blue: single position slider fluorescence attachment with a 3 W NeoLED™ light source for blue excitation (/LB)

Green: single position slider fluorescence attachment with a 3 W NeoLED™ light source green excitation (/LG)

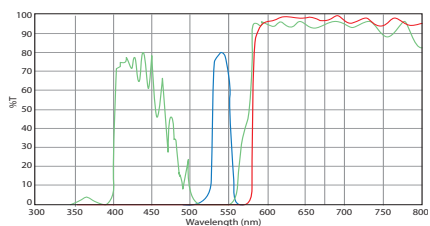
MODELS	Bino	Trino	WF 10x/22 mm	Diopter adjustable on left tube	Diopter adjustable on both tubes	E-plan EPLi 4x/10x/540x and S100x objectives	Plan PLi 4x/10x/540x and 100x objectives	Plan PLFi 4x/10x/540x and S100x objectives	Blue excitation 460-495 nm	Green excitation 520-530 nm	NeoLED illumination
IS.3152-EPLi/LB	•		•	•		•			•		•
IS.3153-EPLi/LB		•	•	•		•			•		•
IS.3152-PLi/LB	•		•		•		•		•		•
IS.3153-PLi/LB		•	•		•		•		•		•
IS.3152-PLFi/LB	•		•		•			•	•		•
IS.3153-PLFi/LB		•	•		•			•	•		•
IS.3152-EPLi/LG	•		•	•		•				•	•
IS.3153-EPLi/LG		•	•	•		•				•	•
IS.3152-PLi/LG	•		•		•		•			•	•
IS.3153-PLi/LG		•	•		•		•			•	•
IS.3152-PLFi/LG	•		•		•			•	•		•
IS.3153-PLFi/LG		•	•		•			•	•		•

### STANDARD GENERAL PURPOSE FLUORESCENCE FILTER SETS

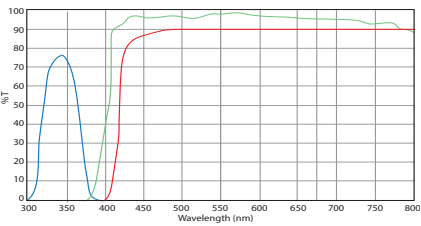
**IS.9745 -**  
**Blue excitation filter set**  
 EX: 460-490 nm bandpass  
 DM: 520 nm  
 EM: 500 nm longpass



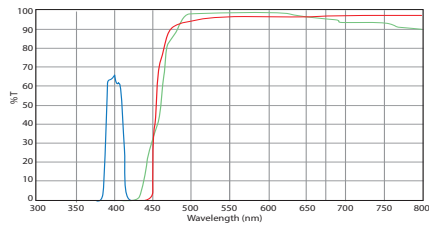
**IS.9746 -**  
**Green excitation filter set**  
 EX: 510-550 nm bandpass  
 DM: 580 nm  
 EM: 570 nm longpass



**IS.9747 -**  
**UV excitation filter set**  
 EX: 330-385 nm bandpass  
 DM: 420 nm  
 EM: 400 nm longpass



**IS.9748 -**  
**Violet excitation filter set**  
 EX 400-410 nm bandpass  
 DM 455 nm  
 EM 455 nm longpass



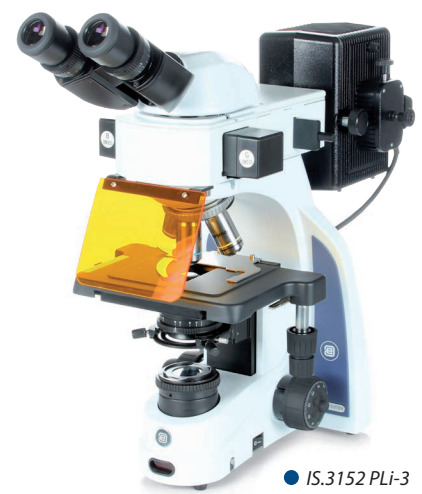
### MODELS



● IS.3153 PLI/LB



● IS.3158 PLFi-6



● IS.3152 PLi-3

## ACCESSORIES AND SPARE PARTS

### OPTIMIZED FLUORESCENCE FILTERS SETS

*(Only for models with 100 W mercury vapor illumination)*

- For fluorescence filter sets for the 6-positions attachment, add /6 to the reference below
- For fluorescence filter sets for the 3-positions attachment, add /3 to the reference below

**IS.9750.39001**

Filter set EX435 (BP20) DM455 (LP) EM480 (BP30) AmCyan, Atto 425, Cerulean, CFP, ECFP fluorophore. Needs empty filter block

**IS.9750.39002**

Filter set EX480 (BP30) DM505(LP) EM535 (BP40) Acridine Orange + DNA, Alexa Fluor 488™, Atto 488, Azami Green, BODIPY FL/pH7.2, Calcein, Calcium Green™-1, Cy2™, DiO, DyLight 488, EGFP, Emerald GFP, FAM, FITC, Fluo-4, GFP,

LysoTracker Green/pH 5.2, MitoTracker Green, FM/MeOH, mWasabi, Oregon Green™ 488, SYBR® Green I, SYTO 9/DNA, ZsGreen fluorophore. Needs empty filter block

**IS.9750.39003**

Filter set EX495 (BP20) DM515 (LP) EM540 (BP30) Alexa Fluor 514™, Citrine, EYFP/pH 7, F/IAsh-CCPFCC, mCitrine, Oregon Green™ 514, Rhodamine 123, Topaz. Needs empty filter block

**IS.9750.39004**

Filter set EX540 (BP25) DM565 (LP) EM605 (BP55) Alexa Fluor 546™, Alexa Fluor 555™, Atto 550, CAL Fluor® Red 590, Cy3™, Dil, DsRed, DyLight 549, MitoTracker Orange/MeOH, Resorufin, Rhod-2, TagRFP, TAMRA, tdTomato, Tetramethylrhodamine isothiocyanate, TRITC. Needs empty filter block

**IS.9750.39005**

Filter set EX540 (BP25) DM565 (LP) EM 620 (BP60) TRITC-red-shifted, Ethidium homodimer-1/DNA, Propidium Iodide. Needs empty filter block

**IS.9750.39007**

Filter set EX620 (BP50) DM655 (LP) EM 690 (BP50) Alexa Fluor 647™, Allophycocyanin (APC), Atto 647N, Cy5™, DiD, Draq5, DayLight 649, MitoTracker Deep Red 633/MeOH, Nile Blue, Quasar® 670, SYTO® 60, TO-PRO™-3. Needs empty filter block

**IS.9750.39008**

Filter set EX420 (BP40) DM455 (LP) EM 535 (BP40) Lucifer Yellow/Tetracycline/AlexaFluor 430. Needs empty filter block

**IS.9750.39009**

Filter set EX480 (BP30) DM505 (LP) EM 620 (BP60) for Acridine Orange + RNA, Di-8-ANEPPS non-ratiometric, DiA, Ethidium , Bromide, FM™ 1-43, LysoTracker Yellow HCK-123, Pulsar™ 650. Needs empty filter block

**OPTIMIZED PREMIUM FLUORESCENCE FILTERS SETS**

*(Only for models with 100 W mercury vapor illuminations)*

**IS.9750.0401**

Premium filter set EX440 (BP21), DM455 (LP), EM480 (BP30) CFP, Cerulean, CyPet, SpectrumAqua. Needs empty filter block

**IS.9750.0403**

Premium filter set EX380 (BP50), DM410 (LP), EM450 (BP60) BFP, BFP2, DAPI, Alexa Fluor 350, Hoechst 33342 & 33258, BFP. Needs empty filter block

**IS.9750.0404**

Premium filter set EX470 (BP40), DM500 (LP), EM535 (BP50) Alexa Fluor 488, CoralHue Azami Green, Cy2, eGFP, FITC, GFP (sapphire), Emerald. Needs empty filter block

**IS.9750.0407**

Premium filter set EX635 (BP30), DM660 (LP), EM710 (BP80) Cy5, Alexa Fluor 647. Also compatible with TO-PRO-3, TOTO-3, Kodak, X-Sight 650. Needs empty filter block

**IS.9750.0412**

Premium filter set EX500 (BP25), DM252 (LP), EM545 (BP35) Acridine Oragne (+DNA), Rhodamine Green, CL NERF, (hi pH), YFP. Also compatible with Alexa Fluor 532. Needs empty filter block

**IS.9750.0414**

Premium filter set EX560 (BP55), DM505 (LP), EM645 (BP75) Texas Red, Texas Red-X, CryptoLight CF-6. Also compatible with Cy3.5, HcRed, mRaspberry, MitoTracker Red. Needs empty filter block

**IS.9749-6** Empty filter cube for 6-position fluorescence attachment

**IS.9749-3** Empty filter cube for 3-position fluorescence attachment

**IS.9749-1** Empty filter cube for 1-position fluorescence attachment

**IS.9753** Filter rail, 3-position

**ALL MODELS**

**IS.9102** Standard Abbe condenser 1.25 NA condenser with slot for darkfield and phase contrast sliders

**IS.9105** Swing-out 0.9/1.25 NA condenser

**IS.6210** EWF 10x/22 mm eyepiece (Ø 30mm tube)

**IS.6210-C** EWF 10x/22 mm eyepiece with cross hair (Ø30 mm tube)

**IS.6210-P** EWF 10x/22 mm eyepiece with pointer (Ø30 mm tube)

**IS.6210-CM** EWF 10x/22 mm eyepiece with 10/100 micrometer and cross hair (Ø30 mm tube)

**IS.6212** WF 12.5x/17 mm eyepiece (Ø30 mm tube)

**IS.6215** WF 15x/16 mm eyepiece (Ø30 mm tube)

**IS.6220** WF 20x/12 mm eyepiece (Ø30 mm tube)

**IS.6299** Pair of eyecups infinity models

**IS.7104** E-plan EPL 4x/0.10 objective. WD 15.2 mm

**IS.7110** E-plan EPL 10x/0.25 objective. WD 5.5 mm

**IS.7120** E-plan EPL 20x/0.40 objective. WD 3.5 mm

**IS.7140** E-plan EPL S40x/0.65 objective. WD 0.45 mm

**IS.7160** E-plan EPL S60x/0.85 objective. WD 0.19 mm

**IS.7100** E-plan EPL S100x/1.25 objective. WD 0.13 mm

**IS.7710** Plan PLPH 10x/0.25 phase contrast objective. WD 12.2 mm

**IS.7720** Plan PLPH 20x/0.40 phase contrast objective. WD 5 mm

**IS.7740** Plan PLPH S40x/0.65 phase contrast objective. WD 0.37 mm

**IS.7700** Plan PLPH S100x/1.25 phase contrast objective. WD 0.13 mm

**IS.8804** E-plan EPLi 4x/0.10 IOS objective. WD 15.4 mm

**IS.8810** E-plan EPLi 10x/0.25 IOS objective. WD 5.8 mm

**IS.8840** E-plan EPLi S40x/0.65 IOS objective. WD 0.43 mm

**IS.8800** E-plan EPLi S100x/1.25 IOS objective. WD 0.13 mm

**IS.7202** Plan PLi 2x IOS objective, WD 18.3 mm. Best to be used together with swing-out condenser

**IS.7204** Plan PLi 4x/0.10 IOS objective. WD 15.4 mm

**IS.7210** Plan PLi 10x/0.25 IOS objective. WD 10 mm

**IS.7220** Plan PLi 20x/0.40 IOS objective. WD 5.1 mm

**IS.7240** Plan PLi S40x/0.65 IOS objective. WD 0.54 mm

**IS.7250** Plan PLi S50x/0.90 IOS objective. WD 0.12 mm

**IS.7260** Plan PLi S60x/0.85 IOS objective. WD 0.14 mm

**IS.7200** Plan PLi S100x/1.25 IOS objective. WD 0.13 mm

**IS.7200-I** Plan Super Contrast PLi S100x/1.25 IOS objective with built-in iris diaphragm. WD 0.13 mm

**IS.7404** Plan Fluarex PLFi 4x/0.15 IOS objective. WD 21.6 mm

**IS.7410** Plan Fluarex PLFi 10x/0.35 IOS objective. WD 2.9 mm

- IS.7420** Plan Fluarex PLFi 20x/0.60 IOS objective. WD 1.5 mm
- IS.7440** Plan Fluarex PLFi S40x/0.75 IOS objective. WD 0.6 mm
- IS.7400** Plan Fluarex PLFi S100x/1.30 IOS objective. WD 0.13 mm
- IS.8910** Plan PLPHi 10x/0.25 phase contrast IOS infinity corrected objective. WD 10.2 mm
- IS.8920** Plan PLPHi 20x/0.40 phase contrast IOS infinity corrected objective. WD 5.1 mm
- IS.8940** Plan PLPHi S40x/0.65 phase contrast IOS infinity corrected objective. WD 0.5 mm
- IS.8900** Plan PLPHi S100x/1.25 phase contrast IOS infinity corrected objective. WD 0.13 mm
- IS.9124** Zernike phase contrast set PLPH 10/20/40/100 bright field and darkfield position
- IS.9127** Zernike phase contrast set PLPHi 10/20/40/100 IOS brightfield and darkfield position
- IS.9148** Telescope for phase contrast diameter 30 mm tube
- IS.9149** Telescope for phase contrast diameter 23.2 mm tube
- IS.9102** Standard Abbe condenser 1.25 NA with slot for darkfield and phase contrast sliders
- IS.9105** Swing-out 0.9/1.25 condenser
- IS.9160** Phase contrast slider set with 10x and S40x PLPH objectives and annuli for 10/S40x PLPH objectives. Also suitable for optional 20x PLPH objective
- IS.9161** Phase contrast slider set with 20x and S100x PLPH objectives and annuli for 20x/S100x PLPH objectives
- IS.9162** Phase contrast slider set with 10x and S40x PLPHi IOS infinity corrected objectives and annuli for 10x/S40x PLPHi IOS infinity corrected objectives. Also suitable for optional 20x PLPHi infinity corrected objective
- IS.9163** Phase contrast slider set with 20x and S100x PLPHi IOS infinity corrected objectives and annuli for 20x/S100x PLPHi IOS infinity corrected objectives
- IS.9170** Slider with darkfield stop
- IS.9194** Slider with phase contrast annuli for S40 phase contrast objective
- IS.9503** Large ceramic stage. Only with new microscopes, add /C suffix after iScope® model part number
- IS.9600** Polarization filter 45 mm for lamphouse
- IS.9601** Polarization set: simple rotating polarizer for lamphouse and fix polarizer mounted under head
- IS.9700** Blue filter 45 mm for lamphouse
- IS.9702** Green filter 45 mm for lamphouse
- IS.9704** Yellow filter 45 mm for lamphouse
- IS.9706** White opaque filter 45 mm for lamphouse
- IS.9800** Single photo tube attachment with one 23.2 mm tube for IS.5700 ergonomic tilting head of iScope® infinity systems
- IS.9880** Köhler attachment
- AE.3484** Glass fuses 500 mA 250 V, 10 pieces
- AE.5168-I** Heating stage series with controller, only with new microscopes
- SL.5500** NeoLED™ replacement unit
- AE.5130** Universal SLR adapter with built-in 2x lens for standard 23.2 mm tube. Needs T2 adapter
- AE.5025** T2 ring for Nikon D SLR digital camera
- AE.5040** T2 ring for Canon EOS SLR digital camera
- PB.5155** Microscope slides 76 x 26 mm, ground edges, 50 pieces per pack
- PB.5165** Cover glasses 18 x 18 mm, 0.13-0.17 mm, 100 pieces
- PB.5168** Cover glasses 22 x 22 mm, 0.13-0.17 mm, 100 pieces
- PB.5245** Lens cleaning paper, 100 sheets per pack
- PB.5255** Immersion oil, 25 ml. Refraction index n = 1.482
- PB.5274** Iso propyl alcohol 99%, 200 ml
- PB.5275** Cleaning kit: lens fluid, lint free lens tissue/paper, brush, air blower, cotton swabs

*WD = working distance*