

# iScope® for dark field

## HIGHLIGHTS

- Trinocular models
- EWF 10x/22 mm and EWF10x/20 mm eyepieces
- Revolving quintuple reversed nosepiece
- E-plan achromatic objectives
- Plan infinity corrected IOS achromatic objectives
- Plan PL S100x objective with built-in iris diaphragm or super contrast plan PLi S100x infinity corrected objective with built-in iris diaphragm
- 140 mm x 160 mm stage or 216 mm x 150 mm rackless stage
- Height adjustable Abbe condenser N.A. 1.25
- Cardioid mirror dark field condenser with 5 W NeoLED™ illumination (suitable for living blood analysis)
- Diascopic intensity adjustable 3 W NeoLED™ Köhler illumination with internal 100-240 V power supply
- iCare sensor for energy saving
- CSS - Cable Storage System
- 10 years warranty



IS.1153-PLi/DFi

## TECHNICAL SPECIFICATIONS

### EYEPIECE(S)

- Extended Wide Field EWF plan 10x eyepieces with 20 mm field of view and adjustable diopter on the left eyepiece for finity corrected systems (Ø 23.2 mm tube)
- Extended Wide Field HWF plan 10x eyepieces with 22 mm field of view and adjustable diopter on both eyepieces for infinity corrected IOS plan and plan phase systems and adjustable diopter on the left tube for EPLi systems (Ø 30 mm tube)

### HEADS

- Trinocular Siedentopf type heads with 30° inclined tubes
- Interpupillary distance from 48 to 76 mm. ± 5 diopter adjustment(s)
- A unique rotating system allows the ergonomic positioning of both tubes in a high (431 mm) and in a low position (397 mm)
- The trinocular head comes with a Ø 23.2 mm photo port

### ERGONOMICAL TILTING HEAD

- Optional ergonomic 5 to 35° tilting head
  - Interpupillary distance 48-75 mm
  - Optional photo attachment with standard Ø 23.2 mm tube (only infinity corrected models)
- (To order an iScope with tilting head use reference IS.1158-xxx)

### NOSEPIECE

- Revolving quintuple reversed nosepiece

### OBJECTIVES

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

E-Plan EPL	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 <sup>(2)</sup>
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 <sup>(3)</sup>

(1) Optional. (2) EPL S100x objective with built-in iris diaphragm. (3) Super contrast plan PLi S100x infinity corrected objective with built-in iris diaphragm



S100x objective with built-in iris diaphragm

## STAGES

- The iScope® can be equipped with three types of stages:
  - 140 x 160 mm stage equipped with integrated 79 x 52 mm X-Y mechanical stage
  - 216 x 150 mm rackless stage equipped with double slide holder and integrated 79 x 52 mm X-Y mechanical stage.
    - The iScope® rackless stage has no protruding parts, enables more smooth movements and is safer
  - 220 x 157 mm ceramic stage with integrated 75 x 50 mm X-Y 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
- The iScope® can be supplied with a heating stage which can be set up to 50° Celsius by a PID temperature controller
- Only available with new purchased microscopes. Higher temperatures can be achieved on special request

## CONDENSER FOR DARK FIELD (STANDARD MOUNTED)

- A state-of-the-art condenser equipped with reflective cardioid mirrors, a high powered 5 W LED and a S100x objective with built-in iris diaphragm enable a real 1000x magnification dark field solution  
(*Cardioid dark field condenser with integrated power supply is only available on models IS.1152-PLi/DF and IS.1153-PLi/DF. By using IS.9150 and 86.521 an existing brightfield microscope can be upgraded to dark field*)

## CONDENSER FOR BRIGHTFIELD

- The standard height adjustable Abbe N.A. 1.25 condenser for brightfield accepts sliders with phase annuli suitable for plan phase 10x/20x or S40x/S100x oil immersion IOS objectives for economical phase contrast
- With magnification indication
- A slider with a simple dark stop for dark field up to 400x magnification is also available

## CONDENSER FOR ZERNIKE PHASE CONTRAST

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

## FOCUSING

- Coaxial coarse and fine adjustments, 200 graduations, 1 µm per graduation, 200 µm per rotation, total travel 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 FOR DARK FIELD (STANDARD MOUNTED)

- High powered 5 W LED for dark field models with integrated power supply
- High powered 5 W LED for dark field models with an external power supply is also optional available for upgrading an existing bright field microscopes to a dark field microscope  
(*Besides the cardioid condenser with integrated LED illumination, one must also purchase a 86.521 (for non IOS iScope microscopes), Plan PL S100x objective with built-in iris diaphragm or a IS.7200-I super contrast plan PLi S100x infinity corrected objective with built-in iris diaphragm*)

## ILLUMINATION FOR BRIGHTFIELD

- 3 W adjustable Köhler NeoLED™ diasopic illumination with internal 100-240 V power supply
- The innovative NeoLED™ design offer 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 option



## ICARE SENSOR

- The unique iCare Sensor is developed to avoid unnecessary loss of energy
- The illumination of the microscope automatically switches off approx. 15 minutes after microscopists step away from their position

## CSS – CABLE STORAGE SYSTEM

- iScope® allows users to easily insert the power cable into the backside of the instrument, which enables easy storage
- The integrated carrying grip at the back of the microscope ensures safe transportation of the microscope



Cardioid dark field condenser  
with 5 W LED and  
intergrated power supply

## PACKAGING

- Supplied with power cord, dust cover, a spare fuse, user manual and 5 ml immersion oil
- All packed in polystyrene boxes

## YOUTUBE

- Check out the product video on YouTube and learn more about this microscope YouTube channel: **Euromex Optics Group B.V.**

## MODELS

	IS.1153-EPL/DF	IS.1153-PLi/DF	IS.1153-PLi/DFi
Trinocular	•	•	•
EWF 10x 20 mm eyepieces	•		
EWF 10x 22mm eyepieces		•	•
Revolving quintuple reversed nosepiece	•	•	•
EPL4/10/S40x objectives	•		
PLi 4/10/S40x objectives		•	•
EPL S100x objective (with iris diaphragm)	•	•	
PLi S100x IOS objective (with iris diaphragm) <b>super contrast</b>			•
Stage (140 x 160 mm)	•		
Rackless stage (216 x 150 mm)		•	•
5 W LED Cardioid darkfield condenser	•	•	•
Abbe N.A. 1.25 brightfield condenser	•	•	•
3 W NeoLED™ illumination	•	•	•
Köhler diaphragm		•	•
iCare sensor	•	•	•
Cable Storage System	•	•	•



IS.1153-EPL/DF



IS.1153-PLi/DF & DFi

## ACCESSORIES AND SPARE PARTS

### ONLY FOR NON INFINITY MODELS (Ø 23.2 MM TUBE):

<b>IS.6010</b>	EWF10x/20 mm eyepiece
<b>IS.6010-P</b>	EWF10x/20 mm micrometer eyepiece with pointer
<b>IS.6010-C</b>	EWF10x/20 mm eyepiece with crosshair
<b>IS.6010-CM</b>	EWF 10x/20 mm eyepiece with 10/100 micrometer and cross hair
<b>IS.6015</b>	WF15x/16 mm eyepiece
<b>IS.6020</b>	WF20x/12 mm eyepiece
<b>IS.6099</b>	Pair of eyecups (finity models)
<b>IS.7104</b>	E-plan EPL 4x/0.10 objective
<b>IS.7110</b>	E-plan EPL 10x/0.25 objective
<b>IS.7120</b>	E-plan EPL 20x/0.40 objective
<b>IS.7140</b>	E-plan EPL S40x/0.65 objective
<b>IS.7160</b>	E-plan EPL S60x/0.85 objective
<b>IS.7100</b>	E-plan EPL S100x/1,25 objective
<b>86.521</b>	Plan PL S100x/1.25 oil immersion objective (with iris diaphragm)

### ONLY FOR INFINITY CORRECTED MODELS (Ø 30 MM TUBE):

<b>IS.5700</b>	Ergonomic tilting head 5-35° (for iScope IOS series)
<b>IS.6210</b>	EWF 10x/22 mm eyepiece
<b>IS.6210-C</b>	EWF10x/22 mm eyepiece with crosshair
<b>IS.6210-P</b>	EWF10x/22 mm eyepiece with pointer
<b>IS.6210-CM</b>	EWF 10x/22 mm eyepiece with 10/100 micrometer and cross hair
<b>IS.6212</b>	WF12.5x/17 mm eyepiece
<b>IS.6212-W</b>	WF12.5x/17 mm eyepiece with Walton Beckett reticle
<b>IS.6215</b>	WF15x/16 mm eyepiece
<b>IS.6220</b>	WF20x/12 mm eyepiece
<b>IS.6215</b>	WF15x/16 mm eyepiece
<b>IS.6220</b>	WF20x/12 mm eyepiece
<b>IS.6299</b>	Pair of eyecups (infinity models)
<b>IS.7204</b>	Plan PLi 4x/0.10 IOS objective
<b>IS.7210</b>	Plan PLi 10x/0.25 IOS objective
<b>IS.7220</b>	Plan PLi 20x/0.40 IOS objective
<b>IS.7240</b>	Plan PLi S40x/0.65 IOS objective
<b>IS.7260</b>	Plan PLi S60x/0.85 IOS objective
<b>IS.7200</b>	Plan PLi S100x/1.25 IOS objective
<b>IS.7200-I</b>	Plan PLi S100x/1.25 IOS super contrast objective (with iris diaphragm)

### FOR ALL MODELS:

<b>IS.9105</b>	Swing-out 0,9/1,25 condenser 99,00
<b>IS.9150</b>	Cardiod dark field condenser with integrated 5 W LED light source and external 100-240 V mains adapter
<b>IS.4300</b>	Aluminium carry case

*Stages only available with new microscopes:*

<b>IS.9503</b>	Large ceramic stage <i>(Add /C suffix after model part number)</i>
<b>AE.5168-I</b>	Heating stage with controller <i>(Add /I suffix after model part number)</i>
<b>IS.9600</b>	Polarization filter for lamp house (45 mm)
<b>IS.9626</b>	Polarization filter for mouting under the iScope head
<b>IS.9880</b>	Köhler attachment
<b>SL.5500</b>	NeoLED™ replacement unit
<b>AE.5130</b>	Universal SLR adapter with built-in 2x lens <i>(For standard Ø 23.2 mm trinocular tube. Needs T2 adapter)</i>
<b>AE.5025</b>	T2 ring for Nikon D SLR digital camera
<b>AE.5040</b>	T2 ring for Canon EOS SLR digital camera

<b>PB.5155</b>	Microscope slides 76 x 26 mm, ground edges, 50 pieces
<b>PB.5165</b>	Cover glasses 18 x 18 mm, 0.13-0.17 mm, 100 pieces
<b>PB.5168</b>	Cover glasses 22 x 22 mm, 0.13-0.17 mm, 100 pieces
<b>PB.5245</b>	Lens cleaning paper, 100 sheets per pack
<b>PB.5255</b>	Immersion oil, n = 1.482 (25 ml)
<b>PB.5274</b>	Isopropyl alcohol 99% (200 ml)
<b>PB.5275</b>	Cleaning kit: lens cleaning fluid, lint free lens tissue, brush, air blower, cotton swabs

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