

# iScope® for darkfield

iScope®

## HIGHLIGHTS

- Ideal for live blood analysis
- 5W LED Darkfield cardioid condenser
- S100x oil objective with built-in iris
- Trinocular models
- EWF 10x/22 mm and EWF10x/20 mm eyepieces
- Optional tilting head
- Quintuple reversed nosepiece
- EPL and PLi plan objectives
- 156 x 138 mm stage or 187/230 x 140 mm rackless stage
- iCare sensor for energy saving
- CSS - Cable Storage System
- 10 years warranty

## TECHNICAL SPECIFICATIONS

### EYEPIECES

- The iScope® IS.1153-EPL/DF with a finite optical system is supplied with 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)
- The iScope® IS.1153-PLi/DF and IS.1153-PLi/DFi with a infinite optical system are supplied with 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 one adjustable diopter on the left tube for EPLi systems (Ø 30 mm tube)

### HEAD

- Trinocular Siedentopf type heads with 30° inclined tubes
- Interpupillary distance from 48 to 76 mm
- The trinocular head for model IS.1153-EPL/DF has a fixed built-in 50:50 beamsplitter and one ± 5 diopter adjustment on the Ø 23.2 mm left tube
- The trinocular head for models IS.1153-PLi/DF and IS.1153-PLi/DFi has an optical path selector (100:0 / 50:50) and ± 5 diopter adjustments on both Ø 30 mm tubes
- 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 heads come with a Ø 23.2 mm photo port for cameras

### OBJECTIVES

E-Plan EPL	4x/0.10	10x/0.25	20x/0.40(1)	S40x/0.65	S100x/1.25 oil <sup>(2)</sup>
Plan PLi IOS	4x/0.10	10x/0.25	20x/0.40(1)	S40x/0.65	S60x/0.85 <sup>(1)</sup> S100x/1.25 oil <sup>(3)</sup>

<sup>(1)</sup> Optional.

<sup>(2)</sup> S100x oil objective with built-in iris diaphragm.

<sup>(3)</sup> Super contrast plan PLi S100x oil infinity corrected objective with built-in iris diaphragm

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



● IS.1153-PLi/DFi

### IS.1153-PLi/DFi

407 (h) x 210 (w) x 255 (d) | 9.0 kg

### ERGONOMIC TILTING HEAD (FOR IOS MODELS ONLY)

- Optional ergonomic 5 to 35° tilting head supplied with EWF 10x/22 mm eyepiece
- Interpupillary distance 48-75 mm
- Optional photo attachment for tiltinghead with standard Ø 23.2 mm tube

(To order an iScope® with tilting head use reference IS.1158-PLi/DF or IS.1158-PLi/DFi. To order an iScope® with tilting head and photo attachment use reference IS.1159-PLi/DF or IS.1159-PLi/DFi)

### NOSEPIECE

- Revolving quintuple reversed nosepiece for max. five objectives



● S100x oil objective with built-in iris diaphragm

## STAGES

The iScope® can be equipped with two types of stages (designed for 2 slides):

- 156 x 138 mm stage equipped with integrated 79 x 52 mm X-Y mechanical stage
- 187/230 x 140 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 and therefore it is safer in use. Furthermore it enables more smooth movement

## CONDENSER FOR DARKFIELD (STANDARD)

A state-of-the-art condenser equipped with reflective cardioid mirrors, with an integrated high powered 5 W LED light source. Together with a S100x objective with built-in iris diaphragm this forms a 1000x magnification darkfield solution. The power supply of the 5 W LED light source is built in the microscope. The darkfield condenser can easily be exchanged for a brightfield condenser which is also included

## CONDENSER FOR BRIGHTFIELD (INCLUDED)

- 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

## PHASE CONTRAST CONDENSER WITH SLIDER (OPTIONAL)

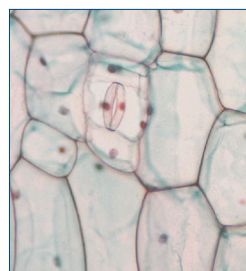
There is a choice of two optional NA. 1.25 phase contrast condenser sets with phase contrast sliders and plan phase contrast objectives. The first version one comes with plan phase 10x and S40x objectives with matching slider, the second version comes with plan phase 20x and S100x oil immersion objectives. Available for iScope® 160 mm and IOS infinity versions.

*All sets are supplied with a centering telescope and a green opaque filter  
(Photo: IS.9162 - Phase contrast set)*

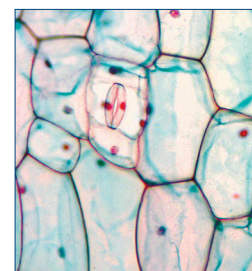
## FOCUSING

- 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

To upgrade an existing iScope® to darkfield a cardioid condenser with integrated high powered 5 W LED illumination and external power supply (IS.9150) is available. One also has to purchase a 86.521, Plan PL S100x objective with built-in iris diaphragm or a IS.7200-I super contrast plan PLi S100x infinity corrected objective



● Normal LED



● NeoLED™



● IS.9162

## ILLUMINATION FOR DARKFIELD

High powered 5 w led, built-in the cardioid mirror condensor

## ILLUMINATION FOR BRIGHTFIELD

Standardly supplied with:

- 3 W adjustable 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
- 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 optionally available for other models

## 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



● Cardioid darkfield condenser with 5 W LED and integrated power supply

## 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 height adjustable Abbe N.A. 1.25 condenser for brightfield, power cord, dust cover, a spare fuse, user manual and 5 ml immersion oil
- Packed in a polystyrene box

MODELS	EWf eyepieces	E-plan 4/10/540x objectives	Plan 4/10/540x IOS objectives	Plan S100x iris objective	Plan S100x iris Super Contrast objective	Stage (156 x 138 mm)	Rackless stage (187/230 x 140 mm)	Köhler diaphragm
IS.1153-EPL/DF	10x/20 mm	•		•		•		
IS.1153-PLi/DF	10x/22 mm		•	•			•	•
IS.1153-PLi/DFi	10x/22 mm		•		•		•	•



IS.1153-EPL/DF ●

● IS.1153-PLi/DF & DFi

## ACCESSORIES AND SPARE PARTS

### ONLY FOR IS.1153-EPL/DF:

<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 crosshairs
<b>IS.6010-CM</b>	EWf 10x/20 mm eyepiece with 10/100 micrometer and crosshairs
<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)
<b>IS.9124</b>	Zernike phase contrast set PLPH 10/20/40/100 bright field and darkfield position
<b>IS.9149</b>	Telescope for phase contrast D23,2mm tube
<b>IS.9160</b>	Phase contrast slider set with 10x and S40x PLPH objectives and annuli for 10/S40x PLPH objectives. Also suitable for optional 20x PLPH objective
<b>IS.9161</b>	Phase contrast slider set with 20x and S100x PLPH objectives and annuli for 20x/S100x PLPH objectives
<b>IS.7710</b>	Plan PLPH 10x/0.25 phase contrast objective
<b>IS.7720</b>	Plan PLPH 20x/0.40 phase contrast objective
<b>IS.7740</b>	Plan PLPH S40x/0.65 phase contrast objective
<b>IS.7700</b>	Plan PLPH S100x/1.25 phase contrast objective
<b>IS.9194</b>	Slider with phase contrast annuli for S40 phase contrast objective
<b>IS.9880</b>	Köhler attachment

### ONLY FOR IS.1153-PLi/DF AND IS.1153-PLi/DFi:

<b>IS.5700</b>	Ergonomic tilting head 5-35°
<b>IS.9800</b>	Single photo tube attachment with one 23,2 mm tube for IS.5700 ergonomic tilting head of iScope® infinity systems
<b>IS.6210</b>	EWf 10x/22 mm eyepiece
<b>IS.6210-C</b>	EWf10x/22 mm eyepiece with crosshairs
<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 crosshairs
<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.7202</b>	Plan PLi 2x IOS objective, working distance 18,3 mm. Best to be used together with swing-out condenser
<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)
<b>86.521</b>	Plan PL S100x/1.25 oil immersion objective (with iris diaphragm)
<b>IS.9127</b>	Zernike phase contrast set PLPHi 10/20/40/100 IOS bright field and darkfield position
<b>IS.9162</b>	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
<b>IS.9163</b>	Phase contrast slider set with 20x and S100x PLPHi IOS infinity corrected objectives and annuli for 20x/S100x PLPHi IOS infinity corrected objectives
<b>IS.9148</b>	Telescope for phase contrast D30mm tube
<b>IS.8910</b>	Plan PLPHi 10x/0.25 phase contrast IOS objective
<b>IS.8920</b>	Plan PLPHi 20x/0.40 phase contrast IOS objective
<b>IS.8940</b>	Plan PLPHi S40x/0.65 phase contrast IOS objective
<b>IS.8900</b>	Plan PLPHi S100x/1.25 phase contrast IOS objective
<b>IS.9194</b>	Slider with phase contrast annuli for S40 phase contrast objective

**FOR ALL MODELS:**

<b>IS.9105</b>	Swing-out 0.9/1.25 condenser
<b>IS.9150</b>	Cardioid darkfield condenser with integrated 5 W LED light source and external 100-240 V mains adapter
<b>IS.4300</b>	Aluminium carrying case
<b>IS.9600</b>	Polarization filter for lamp house (45 mm)
<b>IS.9626</b>	Polarization filter for mounting under the iScope® head
<b>IS.9700</b>	Blue filter 45 mm for lamp house
<b>IS.9702</b>	Green filter 45 mm for lamp house
<b>IS.9704</b>	Yellow filter 45 mm for lamp house
<b>IS.9710</b>	White opaque filter 45 mm for lamp house
<b>IS.9880</b>	Köhler attachment
<b>SL.5500</b>	NeoLED™ replacement unit
<b>AE.3684</b>	Glass fuses 500 mA 250 V, 10 pieces
<b>AE.5130</b>	Universal SLR adapter with built-in 2x lens (For standard Ø 23.2 mm trinocular tube. Needs T2 adapter)
<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 = 1.515 (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