

# **iScope**®

# **HIGHLIGHTS**

- EWF 10x/22 mm and EWF 10x/20 mm eyepieces
- · Binocular and trinocular models
- · Multihead and face-to-face dual head systems
- · Optional tilting head
- · Quintuple reversed nosepiece
- · Plan, phase and darkfield illumination
- 187/230 x 140 mm rackless stage
- . 3 W NeoLED™ Köhler illumination
- · iCare sensor for energy saving
- 10 years warranty

# **SPECIFICATIONS**

#### **EYEPIECES**

- Extended plan wide field EWF 10x/20 mm eyepieces with 20 mm field of view and adjustable diopter on the left eyepiece for finity corrected systems (Ø 23.2 mm tube)
- Extended plan wide field EWF 10x/22 mm 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)

#### HEAD

- Binocular and trinocular Siedentopf type heads with 30° inclined tubes.
  Interpupillary distance from 48 to 76 mm.
- The trinocular head of the Plan infinity corrected models (IS.1153-PLi) has an optical path selector (100:0 / 50:50) and  $\pm$  5 diopter adjustments on both Ø 30 mm tubes
- The trinocular head of the E-Plan infinity corrected models (IS.1153-EPLi) has a fixed built-in beamsplitter (50:50) and  $\pm$  5 diopter adjustment on the Ø 30 mm left tube
- The trinocular head of the E-plan finite models (IS.1153-EPL) has a fixed built-in 50:50 beamsplitter and one  $\pm$  5 diopter adjustment on the Ø 23.2 mm left tube
- 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

## **ERGONOMIC TILTING HEAD**

Optional ergonomic 5 to 35° tilting head supplied with EWF 10x/22 mm eyepieces, interpupillary distance 48-75 mm and optional photo attachment with standard Ø 23.2 mm tube (only infinity corrected models)

#### **FACE-TO-FACE HEADS**

- The iScope® can be supplied with two heads in a face-to-face configuration allowing simultaneous observation by two operators
- The 30 mm diameter tubes of the head are equipped with EWF 10x/20 mm eyepieces



- The main binocular head has one diopter adjustment, the second head has two adjustments
- Only available for the model with plan infinity corrected objectives (IS.1154-PLi)
- The face-to-face head is equipped with a 2-color laser pointer

## **MULTIHEAD SYSTEM**

- The iScope® can be extended with a unique multihead system for in total two, three or five heads, allowing simultaneous observation of specimens.
- The central attachment is equipped with a joystick to move a green and red laser pointer across the entire field of view of all heads
- Configurations with one, two or four additional viewing binocular heads, 30° inclined tubes and plan 4x, 10x, S40x, S100x oil immersion infinity corrected IOS objectives
- All heads are equipped with extended wide field plan EWF 10x/22 mm eyepieces

(references: IS.1156-PLi-x, x = total number of heads)



#### **OBJECTIVES**

E-Plan EPL		4x/0.10	10x/0.25	20x/0.40 <sup>(1)</sup>	S40x/0.65		S100x/1.25 oil
E-Plan EPLi IOS		4x/0.10	10x/0.25		S40x/0.65		S100x/1.25 oil
Plan PLi IOS	2x/0.05	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 phase PLPH			10x/0.25	20x/0.40	S40x/0.65		S100x/1.25 oil
Plan phase PLPHi IOS			10x/0.25	20x/0.40	S40x/0.65		S100x/1.25 oil

<sup>(1)</sup> optional

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

#### **NOSEPIECE**

Revolving quintuple reversed nosepiece for max. 5 objectives

#### STAGE

The iScope® can be equipped with three types of stages:

- 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, enables more smooth movements and is safer
- 220 x 157 mm ceramic stage with integrated 75 x 50 mm X-Y mechanical stage. The ceramic coating protects the stage effectively 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 newly purchased microscopes. Higher temperatures can be achieved on special request

#### CONDENSERS WITH PHASE CONTRAST SLIDER

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 is comes with plan phase 10x and S40x objectives with matching slider, the second version comes with plan phase 20x and and S100x oil immersion objectives. Available for iScope 160mm and IOS infinity versions

All sets are supplied with centering telescope and green opaque filter

#### 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 darkfield 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 darkfield stop position for darkfield contrast up to 400x magnification. Supplied with alignment telescope and green filter

#### **CONDENSER FOR DARKFIELD**

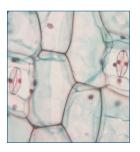
A state-of-the-art condenser equipped with reflective cardioid mirrors, a high powered 5 W LED and a S100x objective with built-in iris diaphragm enable a real 1000x magnification darkfield solution.

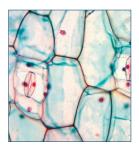
#### **FOCUSING**

Coaxial coarse and fine adjustments, 200 graduations, 1  $\mu$ m per graduation, 200  $\mu$ m 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™ diascopic 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 option





Normal LED

NeoLED™

#### **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
- 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
- $\bullet \ \ \, \text{Phase contrast models are supplied with green filter and alignment telescope}$
- All packed in polystyrene boxes



# ISCOPE® FOR LIFE SCIENCE (FINITY MODELS)

MODELS	Binocular	Trinocular	Phase contrast	EWF 10x20 mm	E-plan 4x/10x/ 40x/100x objectives	Plan phase 10x/20x/ 40x/100x objectives	Mechanical stage	iCare Sensor
IS.1152-EPL	•			•	•		•	•
IS.1153-EPL		•		•	•		•	•
IS.1152-PLPH	•		•	•		•	•	•
IS.1153-PLPH			•	•		•	•	•

#### ISCOPE® FOR LIFE SCIENCE (INFINITY MODELS)

MODELS	Bino	Trino	Phase contrast	EWF 10x22 mm	E-plan IOS 4x/10x/ 40x/100x objectives	Plan IOS 4x/10x/ 40x/100x objectives	Plan phase IOS 10x/20x/ 40x/100x objectives	Mechanical stage	iCare Sensor	Köhler LED
IS.1152-EPLi	•			•	•			•	•	
IS.1153-EPLi		•		•	•			•	•	
IS.1152-PLi				• (1)		•		•	•	•
IS.1153-PLi		•		• (1)		•		•	•	•
IS.1152-PLPHi			•	• (1)			•	•	•	•
IS.1153-PLPHi		•	•	• (1)			•	•	•	•

<sup>(1)</sup> Two tubes with diopter adjustments

#### ISCOPE® FOR LIFE SCIENCE (INFINITY - ERGONOMIC TILTING HEAD)

MODELS	Bino	Photo attachment	Phase contrast	EWF 10x22 mm	E-plan IOS 4x/10x/ 40x/100x objectives	Plan IOS 4x/10x/ 40x/100x objectives	Plan phase IOS 10x/20x/ 40x/100x objectives	Mechanical rackless stage	iCare Sensor	Köhler LED
IS.1158-EPLi	•			•	•			•	•	
IS.1159-EPLi	•	•		•	•			•	•	
IS.1158-PLi				•		•		•		•
IS.1159-PLi	•	•		•		•		•	•	•
IS.1158-PLPHi				•			•	•		•
IS.1159-PLPHi				•						

#### ISCOPE® FOR LIFE SCIENCE (MULTIHEAD SYSTEMS)

MODELS	Total users	Binocular	Trinocular	EWF 10x22 mm	Plan IOS 4x/10x/ 40x/100x objectives	Mechanical rackless stage	iCare sensor	Köhler LED
IS.1156-PLi2	2	1x	•	•	•	•	•	•
IS.1156-PLi3	3	2x	•	•	•	•	•	•
IS.1156-PLi5	5	4x			•		•	
IS.1156-PLi9	9	8x		•	•	•	•	•

# ISCOPE® FOR LIFE SCIENCE (FACE-TO-FACE DUAL HEAD SYSTEM)

MODELS	Total users	Binocular EWF 10x/20 mm	Trinocular EWF 10x/20 mm	E-Plan IOS 4x/10x/ 40x/100x objectives	Plan IOS 4x/10x/ 40x/100x objectives	Mechanical rackless stage	iCare sensor	Köhler LED
IS.1154-PLi	2	2x			•	•	•	•
IS.1154-EPLi	2	2x		•		•	•	
IS.1154-PLi/T	2	1x	1x		•	•	•	•
IS.1154-EPLi/T	2	1x	1x	•		•	•	

# ISCOPE® FOR LIFE SCIENCE (DARKFIELD CONTRAST APPLICATION)

MODELS	Trino	Darkfield	EWF 10x20 mm	EWF 10x22 mm	E-plan 4x/10x/ 40x/100x objectives*	Plan IOS 4x/10x/ 40x/100x objectives*	Mechanical rackless stage	iCare sensor	Köhler LED
IS.1153-PLi/DF				•		•	•	•	
IS.1153-PLi/DFi				•		•	•	•	
IS.1153-EPL/DF					•			•	

<sup>\*</sup> Models for darkfield observation IS.1152-PLi/DF and IS.1153-PLi/DF are supplied with a state-of-the-art condenser equipped with reflective cardioid mirrors and a high powered 5 W LED. Together with a S100x objective with built-in iris diaphragm real 1000x magnification darkfield solution can be achieved. All other specifications are identical to models IS.1152-PLi and IS.1153-PLi. By adding the IS.9150 (darkfield cardioid mirror condenser with external 100-240 V power supply) and the 86.521 (S100x objective with built-in iris diaphragm) or the IS.7200-I (super contrast S100x infinity corrected IOS objective), an existing iScope brightfield microscope can be upgraded to darkfield as well







# ACCESSORIES AND SPARE PARTS

			MM)

IS.6010	EWF 10x/20 mm eyepiece (Ø23.2 mm tube)	IS.7202	Plan PLi 2x/0.05 IOS objective, WD 18.3 mm. Best to be used
IS.6010-P	EWF 10x/20 mm eyepiece with pointer (Ø23.2 mm tube)		together with swing-out condenser
IS.6010-C	EWF 10x/20 mm eyepiece with crosshair (Ø23.2 mm tube)	IS.7204	Plan PLi 4x/0.10 IOS objective. WD 15.4 mm
IS.6010-CM	EWF 10x/20 mm eyepiece with 10/100 micrometer and cross	IS.7210	Plan PLi 10x/0.25 IOS objective. WD 10 mm
	(Ø23.2 mm tube)	IS.7220	Plan PLi 20x/0.40 IOS objective. WD 5.1 mm
IS.6015	WF 15x/16 mm eyepiece (Ø23.2 mm tube)	IS.7240	Plan PLi S40x/0.65 IOS objective. WD 0.54 mm
IS.6020	WF 20x/12 mm eyepiece (Ø23.2 mm tube)	IS.7260	Plan PLi S60x/0.85 IOS objective. WD 0.14 mm
IS.6099	Pair of eyecups, Ø 23.2 mm tube	IS.7200	Plan PLi S100x/1.25 oil IOS objective. WD 0.13 mm
		IS.7200-I	Plan Super Contrast PLi S100x/1.25 oil IOS objective with built-in
EVEDIE	TEC (20 MM)		

EYEPIEC	CES (30 MM)		iris diaphragm. WD 0.13 mm
IS.6210	EWF 10x/22 mm eyepiece (Ø 30mm tube)		
IS.6210-C	EWF 10x/22 mm eyepiece with crosshair (Ø30 mm tube)	IS.8910	Plan PLPHi 10x/0.25 phase contrast IOS infinity corrected
IS.6210-P	EWF 10x/22 mm eyepiece with pointer (Ø30 mm tube)		objective. WD 10.2 mm
IS.6210-CN	EWF 10x/22 mm eyepiece with 10/100 micrometer and cross hair	IS.8920	Plan PLPHi 20x/0.40 phase contrast IOS infinity corrected
	(Ø30 mm tube)		objective. WD 5.1 mm
IS.6212	WF 12.5x/17 mm eyepiece (Ø30 mm tube)	IS.8940	Plan PLPHi S40x/0.65 phase contrast IOS infinity corrected
IS.6212-W	WF 12.5x/17 mm eyepiece with Walton Beckett reticle		objective. WD 0.5 mm
	(Ø30 mm tube)	IS.8900	Plan PLPHi S100x/1.25 oil phase contrast IOS infinity corrected
IS.6215	WF 15x/16 mm eyepiece (Ø30 mm tube)		objective. WD 0.13 mm
IS.6220	WF 20x/12 mm eyepiece (Ø30 mm tube)		
IS.6299	Pair of eyecups infinity models (Ø30 mm tube)	CONDE	NSERS

IS.9163

#### **OBJECTIVES**

OBJEC	IIVES
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 oil 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 oil 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 oil IOS objective . WD 0.13 mm

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

	phase contrast sliders
IS.9105	Swing-out 0.9/1.25 N.A. condenser
IS.9150	Cardiod darkfield condenser with integrated 5 W LED light
	source and external 100-240 V mains adapter
86.521	Plan PL S100x/1.25 oil immersion objective with built-in iris
	diaphragm. WD 0.33 mm

corrected objectives

PHASE	CONTRAST ATTACHMENTS
IS.9124	Zernike phase contrast set including rotating disc with PLPH
	10/20/40/100, brightfield and darkfield position
IS.9127	Zernike phase contrast set including rotating disc with PLPH
	10/20/40/100, brightfield and darkfield position
IS.9148	Alignment telescope for phase contrast diameter 30mm tube
IS.9149	Alignment telescope for phase contrast diameter 23.2mm tube
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

Phase contrast slider set with 20x and S100x PLPHi IOS infinity corrected objectives and annuli for 20x/S100x PLPHi IOS infinity



#### **POLARIZATION ATTACHMENTS**

IS.9600 Polarization filter 45 mm for lamphouse
 IS.9601 Polarization set: simple rotating polarizer for lamphouse and fix polarizer mounted under head
 IS.9626 Polarization filter for mounting under the head

# **FILTERS**

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

# **CAMERA ACCESSORIES**

IS.9800	Single photo tube attachment with one 23.2 mm tube for
	IS.5700 ergonomic tilting head of iScope® infinity systems
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

#### **MISCELLANEOUS**

IS.9170	Slider with darkfield stop
IS.9194	Slider with phase contrast annuli for S40x phase contrast
	objective
IS.9503	Large ceramic stage. Only with new microscopes, add /C suffix
	after iScope® model part number
IS.9880	Köhler attachment
IS.4300	Aluminum transport case for iScope
AE.3684	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
IS.9993	NeoLED replacement unit for iScope

#### **DISPOSABLES**

PB.5155

PB.5157-W	Microscope slides 76 x 26 mm, ground edges and frosted side
	white color, 50 pieces per pack
PB.5157-B	Microscope slides 76 x 26 mm, ground edges and frosted side
	blue color, 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
PB.5276	Microscope maintenance and servicing kit, 16pcs: cleaning
	brush, 6 pcs screwdriver set, air blower, 3 pcs Allen key, 1.5, 2, 2.5
	mm, lens cleaning fluid 20 ml, cleaning cloth 140 x 140 mm, 100 $$

of oil, packed in a nice toolbox

Microscope slides 76 x 26 mm, ground edges, 50 pieces per pack

pcs Lens tissue sheets, Tube of maintenance grease, 10 ml bottle

WD = working distance

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