

FLUORESCENCE MICROSCOPE WITH INFINITE SEMI-PLAN ACHROMATIC OBJECTIVE

REF: IC2100FS-LED1



The optimal partner for routine tasks

- Full planarity optics on
- Koehler illumination for crisp and contrasted images
- Rounded edge, rackless stage to prevent scratches

Description

The IC2100 series is available in various configurations suitable for Life and Biomedical Sciences, high schools, universities but also for routine medical applications. Besides the brightfield contrast method, configurations for phase contrast, darkfield, basic polarization and several epi-illumination sources for fluorescence applications can be used. IC2100 series models with multi-heads are also available for teaching purposes.

Routine in universities, labs & industries partner for routine tasks

- Wide range to fulfil specific lab requirements
- Valuable solutions for life and material sciences
- Compliant with several observation methods

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Eyepiece

Extended plan wide field EW 10x eyepieces with 20 mm field of view and adjustable diopter on the left eyepiece

Viewing head

Trinocular siedentopf type heads with 30° inclined tubes, Interpupillary distance from 48 to 75 mm.

Nosepiece

Revolving quadruple reversed nosepiece for max. 4 objectives on ball bearing (quintuple nosepieces for 5 objectives are optional)

Stage

The 140x140mm double layer stage enables a convenient movement of the X/Y (75x50mm) stage without prominent gear rack interference; while a new specimen holder design gives a soft but solid grip to the glass slides.

The new mechanical improvements greatly enhance user safety in educational environments of schools and universities. An optional 2-slide holder is also available when large throughputs of samples are required.

Focusing

Coaxial coarse and fine adjustments, 200 graduations, 2µm per graduation, 200µm per rotation, total travel range is approximately 20mm. Supplied with an adjustable rack stop to prevent damage to sample and objectives. The coarse adjustments are equipped with friction control

Condenser for brightfield

The sliding-in centerable Abbe N.A. 1.25 condenser for brightfield with magnification indication.

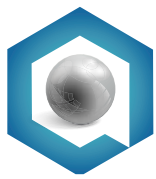


Illumination

LED illumination with internal 100-240V power supply, brightness adjustable, low energy consumption, no heating and a long operating lifetime

Kohler attachment

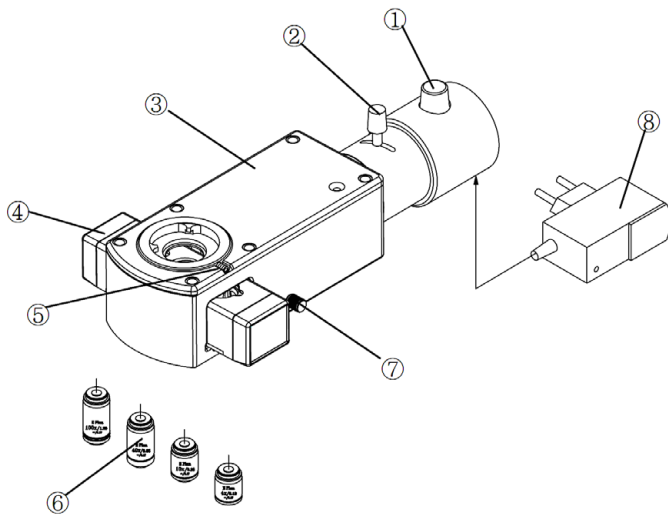
The köhler attachment on model is option, with IOS plan and plan phase infinity corrected system provides high contrast and a maximum achievable resolving power of the optics. Also available for other models as option



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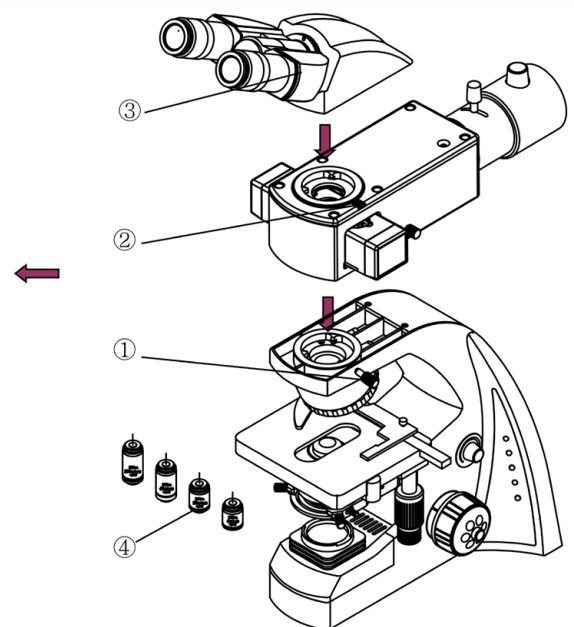
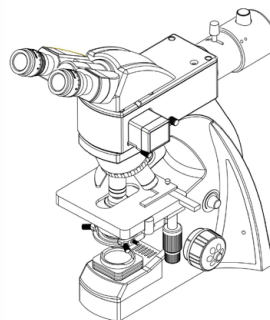
FL-LED fluorescent attachment



1. Brightness adjustment knob
2. Condenser focusing knob
3. Main body of fluorescent attachment
4. Filter subassembly
5. Fastening bolt
6. Fluorescent objective
7. Light barrier control lever
8. Power adapter

LED Fluorescent Microscope

1. Body
2. FL-LED fluorescent attachment
3. Eyepiece
4. Objectives

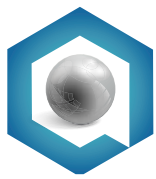


**FLUORESCENCE MICROSCOPE WITH INFINITE
SEMI-PLAN ACHROMATIC OBJECTIVE**

REF: IC2100FS-LED1

Technical specifications

Parameters	Description	
Optical System	Infinite Optical System	
Viewing head	Seidentopf Trinocular Viewing Head Inclined at 30°, interpupillary 48-78mm, 360° Rotation	
Nosepiece	Backward Quadruple Nosepiece	
Eyepiece	WF10x/18mm (Additional accessory EW10x/20 extra wide field eyepiece) with diopter adjustment	
Objectives	Infinite semi-plan achromatic objective:	• 4x/0.10 • 10x/0.25 • 40x/0.65, spring loaded • 100x/1.25, spring loaded, oil
Stage	Double Layer Mechanical Stage 140X140mm, Moving Range 75X50mm	
Focusing	Coaxial Coarse and Fine Adjustment, Fine Division 0.002mm, Coarse Stroke 37.7mm per Rotation, Fine Stroke 0.2mm per Rotation, Moving Range 20mm	
Condenser	NA 1.25 Sliding-in Centerable Condenser	
Illumination	LED illumination for long life, brightness adjustable	
Supplied with	Dust cover, spare fuse	
Power	100V/60Hz	



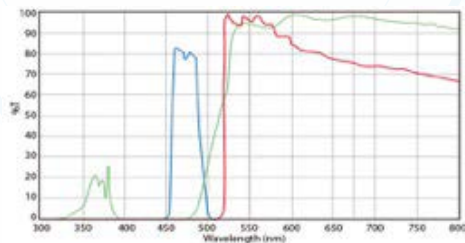
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Fluorescence Application

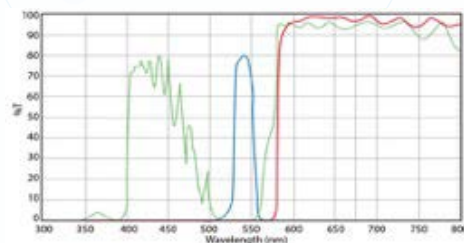
For biological and medical applications fluorescence microscopes are used to observe certain parts of living cells and tissues with help of fluorophores. One or more fluorophores are added to the parts of the specimen to be observed. When the fluorophores are exposed to so-called excitation light, the excitation energy is absorbed by the fluorophore that start emitting so-called emission light that can be observed by the microscope. One can distinguish tumor cells from other cells, follow biological processes or prove the presence or absence of antibodies, etc.

The excellent optics and mechanical components make the iScope a state-of-the art microscope that is suitable for fluorescence applications in Life Science and Biotechnical fields



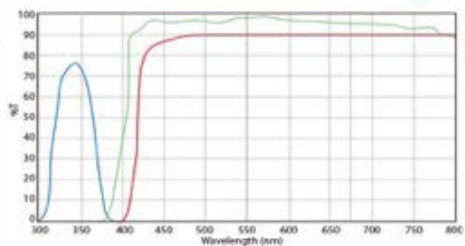
Blue excitation filter set

EX: 460-490nm bandpass, DM:520nm, EM:500nm longpass



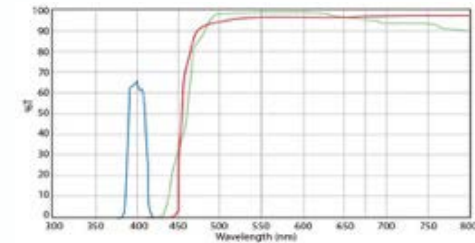
Green excitation filter set

EX: 510-550nm bandpass, DM:580nm, EM:570nm longpass



UV excitation filter set

EX: 330-385nm bandpass, DM:420nm, EM:400nm longpass



Violet excitation filter set

EX: 400-410nm bandpass, DM:455nm, EM:455nm longpass

LED fluorescence attachments FL-LED (1-position slider attachment)

- LED Epi-fluorescent illumination device
- 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 (optional)
- Both LED versions are supplied with a 100-240 V/7.5V external power supply



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Epi-fluorescent attachment XY-2 (3-positions slider attachment)

The 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 & green excitation, and a UV protection shield.

The fluorescence microscopes equipped with a 100 W mercury vapor light source can be supplied with more specific, optimized and application related fluorescence filters sets.

Features & specifications of XY-2

- Epi-fluorescent illumination device
- 100W HBO ultra hi-voltage spherical mercury lamp
- Barrier to resist the ultraviolet light
- Power supplier, AC input 220V/110V (interchangeable), digital display and timer
- Fluorescent PLAN IOS infinity objective
- 4x, 10x, 20x, 40x(S), 100x (S, Oil) (optional)
- Fluorescent free oil
- Exciting light filter system 1
- B (Blue) excitation cube, excitation: BP460~490, dichroic mirror: DM500, barrier filter: BA520
- G (Green) excitation cube, excitation: BP510~550, dichroic mirror: DM570, barrier filter: BA590
- I Exciting light filter system 2 (optional)
- Ultraviolet excitation cube, excitation: BP330~385, dichroic mirror: DM400, barrier filter: BA420
- Violet excitation cube, excitation: BP400~410, dichroic mirror: DM455, barrier filter: BA455



Option Accessories List

Order No.	Descriptions
M11221001	Digital Viewing Head Inclined at 30°, 3M pixels, Support Wifi
M11221002	Digital Viewing Head Inclined at 30°, 5M pixels, Support Wifi
M11221003	Digital Viewing Head Inclined at 30° with DP1 display, 5M pixels, 8" LCD monitor
M11221004	Digital Viewing Head Inclined at 30° with DP2 display (high resolution 2048x1536), 5MP color camera, 9.7" LCD with touch screen, support WIFI, blue tooth, 2 x USB 2.0 ports, support USB keyboard/mouse, TF card, mini HDMI output, Android 5.1 operation system, RAM 2GB DDR3 storage, ROM 8GB, 32GB extension storage, CUP: RK3288 Quad-core 1.8Hz, Built-in camera software, support take photos, video, and measurement.
M11221005	Ergonomic 5 to 35° tilting binocular head, interpupillary distance 48-75 mm
M11221006	Photo attachment with standard Ø 23.2 mm tube for digital camera use
M11221007	EWF10x/20 mm eyepiece
M11221008	EWF10x/22 mm eyepiece
M11221009	WF15x/16 mm eyepiece
M11221010	WF20x/12 mm eyepiece
M11221011	Reticle for eyepiece (crossline)
M11221012	Micrometer for eyepiece, 10mm/100 divisions
M11221013	Pair of eyecups
M11221014	Backward Quintuple Nosepiece

M11221015	E-plan IOS infinity corrected objective 4x
M11221016	E-plan IOS infinity corrected objective 10x
M11221017	E-plan IOS infinity corrected objective 40x
M11221018	E-plan IOS infinity corrected objective 100x
M11221019	Plan IOS infinity corrected objective 2x
M11221020	Plan IOS infinity corrected objective 4x
M11221021	Plan IOS infinity corrected objective 10x
M11221022	Plan IOS infinity corrected objective 20x
M11221023	Plan IOS infinity corrected objective 40x
M11221024	Plan IOS infinity corrected objective 60x
M11221025	Plan IOS infinity corrected objective 100x
M11221026	Phase Plan IOS infinity corrected objective 10x
M11221027	Phase Plan IOS infinity corrected objective 20x
M11221028	Phase Plan IOS infinity corrected objective 40x
M11221029	Phase Plan IOS infinity corrected objective 100x
M11221030	Fluorescent Plan IOS infinity corrected objective 4x
M11221031	Fluorescent Plan IOS infinity corrected objective 10x

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Option Accessories List

Order No.	Descriptions
M11221032	Fluorescent Plan IOS infinity corrected objective 20x
M11221033	Fluorescent Plan IOS infinity corrected objective 40x
M11221034	Fluorescent Plan IOS infinity corrected objective 100x
M11221035	185x142mm double layers stage equipped with double slide holder and integrated 75x55mm X-Y mechanical stage.
M11221036	230x150mm ceramic stage with integrated 75x50mm 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
M11221037	S-LED Illumination replacement unit for IC2100
M11221038	Kohler Attachment
M11221039	Swing-out condenser N.A.0.9/0.25 (needed to work with 2x objective)
M11221040	Dark Field Condenser NA0.7-0.9 (Dry)
M11221041	Dark Field Condenser NA1.25-1.36 (Oil)
M11221042	Infinity plan objective 100x for oil dark field condenser
M11221043	Infinity plan objective 100x with iris diaphragm for oil dark field condenser
M11221044	Sliding phase contrast kit PHC series: - PHC sliding phase condenser - phase sliding plate for 10x & 40x - Phase Plan IOS infinity corrected objective 10x, 40x - Centering telescope - Green filter
M11221045	Phase sliding plate 20x, 100x
M11221046	Zernike Turret Phase Contrast Kit PHB Series: - PHB series turret phase condenser - Phase Plan IOS infinity corrected objective 10x, 20x, 40x, 100x - Centering telescope, - Green filter
M11221047	Simple Polarization Set: Polarizer & Analyzer
M11221048	Temperature Control System: 5W LED Illumination, Temperature Controlling Range: Room Temperature to 50°C

M11221049	LED Epi-fluorescent Attachment FL-LED - LED Epi-fluorescent illumination device - Blue Cube: Excitation: BP460~490, Dichroic Mirror DM: 505, Barrier Filter: BA515 - Green Cube: Excitation: BP510~550, Dichroic Mirror DM: 570, Barrier Filter: BA590 (optional)
M11221050	Epi-fluorescent attachment XY-2 - Epi-fluorescent illumination device - Exciting light filter system 1 B (Blue) excitation cube, excitation: BP460~490, dichroic mirror: DM500, barrier filter: BA520 G (Green) excitation cube, excitation: BP510~550, dichroic mirror, DM570, barrier filter: BA590 - 100W HBO ultra hi-voltage spherical mercury lamp - Barrier to resist the ultraviolet light - Power supplier, AC input 220V/110V (interchangeable), digital display and timer - Infinity fluorescent objective 4x, 10x, 40x(S), 100x (S, Oil) (optional) - Fluorescent free oil - Exciting light filter system 2 (optional) Ultraviolet excitation cube, excitation: BP330~385, dichroic mirror: DM400, barrier filter: BA420 Violet excitation cube, excitation: BP400~410, dichroic mirror, DM455, barrier filter: BA455
M11221051	Blue filter, 45mm diameter.
M11221052	Green filter, 45mm diameter.
M11221053	Yellow filter, 45mm diameter.
M11221054	Frosted glass filter, 45mm diameter.
M11221055	1X C mount
M11221056	0.5X C mount
M11221057	Universal SLR-adapter with built-in 2x lens for standard 23.2mm tube (work with T2 adapter)
M11221058	T2 ring for Nikon D SLR-digital camera
M11221059	T2 ring for canon EOS SLR-digital camera
M11221060	Micrometric stage slide, 26x76mm, the scale 1mm/100div. for biological
OT001	Lens cleaning paper, 100 sheets per pack
***	Digital Camera (Please refer to digital cameras sheet)



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