

# OPTIKA

M I C R O S C O P E S  
I T A L Y

Advanced biological microscopes for teachers

**B-350**

B-352A / B-353A / B-352PL / B-353PL / B-352Pli

B-353Pli / B-352Ph / B-353Ph

## B-350 Series

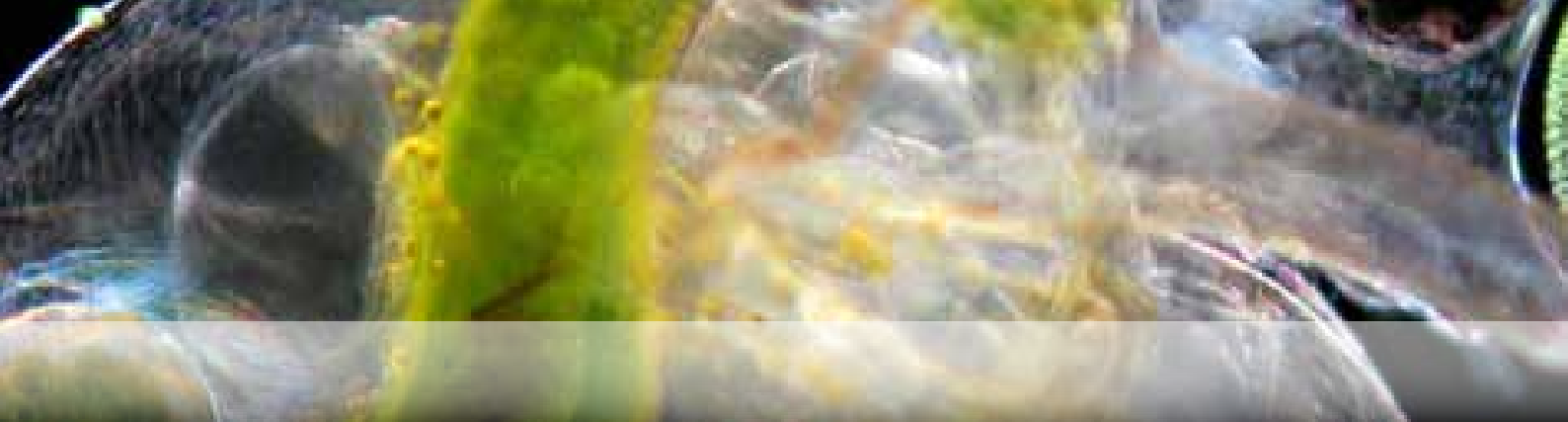
Advanced biological microscopes for teachers



**X-LED™**

B-350

**IOS™**  
objectives



## B-350 Series

The B-350 series presents the right balance between price and quality.

Thanks to its wide range of models, it can be successfully used both in advanced teaching situations and in laboratories.

Professional users will certainly value the technical features of the B-350 series that make its high quality microscopes resistant and reliable. The B-350 series includes 8 models featuring achromatic, planachromatic and infinity corrected plan achromatic objectives.

Let's take a closer look to each model:

B-352A	Binocular microscope, achromatic objectives.
B-353A	Trinocular microscope, achromatic objectives.
B-352PL	Binocular microscope, planachromatic objectives.
B-353PL	Trinocular microscope, planachromatic objectives.
B-352PLi	Binocular microscope, infinity corrected E-planachromatic objectives.
B-353PLi	Trinocular microscope, infinity corrected E-planachromatic objectives.
B-352Ph	Binocular microscope, Ph planachromatic objectives.
B-353Ph	Trinocular microscope, Ph planachromatic objectives.



Standard LED



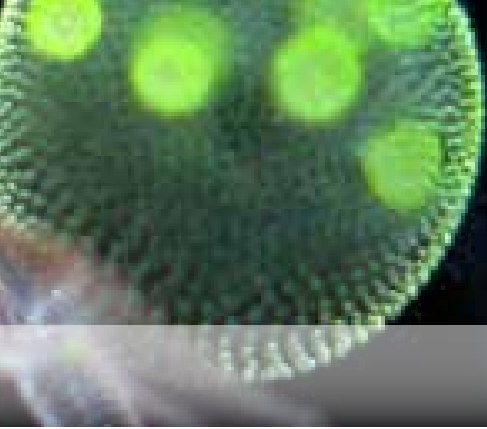
X-LED™



### X-LED™ - The future of illumination

OPTIKA is proud to introduce its own revolutionary LED powered illumination system. Developed by our R&D dept. it consists of a new combination of LED and optical technology. A new high-efficiency single chip LED works in combination with a special optical lens, which allows to double the intensity of the light generated by the LED itself. The result is a quantity of light equivalent to the light generated by a standard 30-35W halogen bulb, but with a colour temperature of 6300K. It means white light instead of the yellow one produced by halogen bulbs.

The electrical consumption (3.6W only) shows the high efficiency of the system: same light intensity with less than 10% of the consumption of a standard halogen bulb. Last but not least, the lifetime of our LED is 50.000 hours, instead of 1.500 hours ...!



## B-350 Series

### Optical system & objectives

The models of the B-350 series are equipped, depending on the various models, with two different types of optical system: the standard 160mm one and the infinity corrected system (IOS). In both cases the field diameter of the eyepieces is 20mm.

### Microscope stand

Modern and ergonomic, this stand is made of die-cast aluminium. Coarse and fine focusing (graduation: 0.002mm) with coaxial control knobs. Adjustable focusing tension and limit stop.

### Head

Available in binocular or trinocular version.

The heads are equipped with interpupillary distance control (55-75 mm) as well as with dioptic compensation.

All heads are 360° rotatable and 30° inclined.

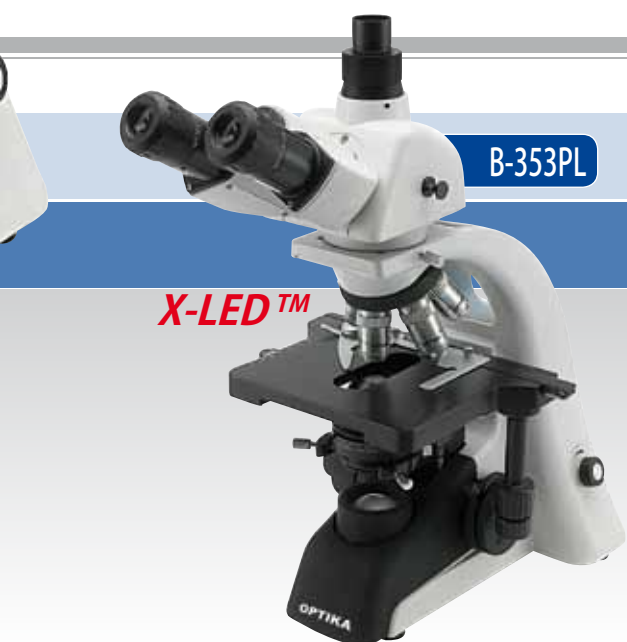
### Illumination

The illuminating system consists of X-LED source. The brightness can be adjusted by a rheostat located on the right side of the microscope base.

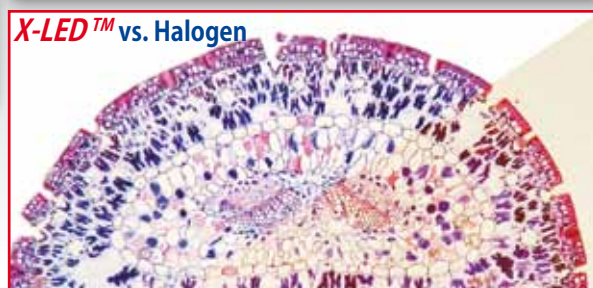
### Condenser

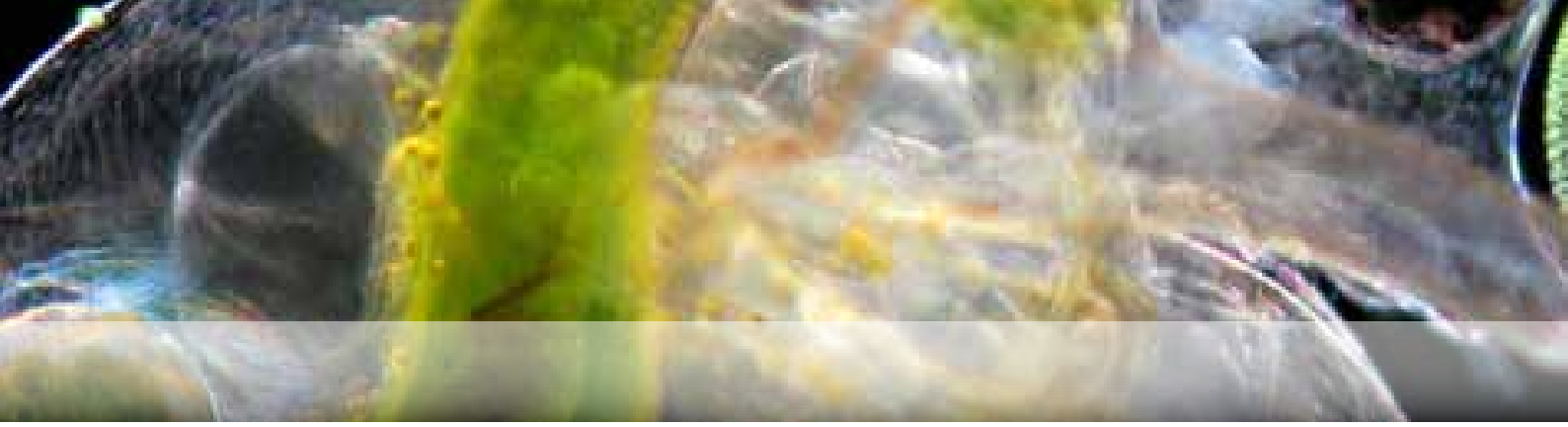
An Abbe type condenser is included in the package. It can be centred through a double-control system and adjusted in height through a rack-and-pinion mechanism (control knobs located on both sides of the microscope stand).

The condenser is also fitted with an iris diaphragm whose aperture can be adjusted by a graduated reference scale.



B-353PL





## B-350 Series - Models

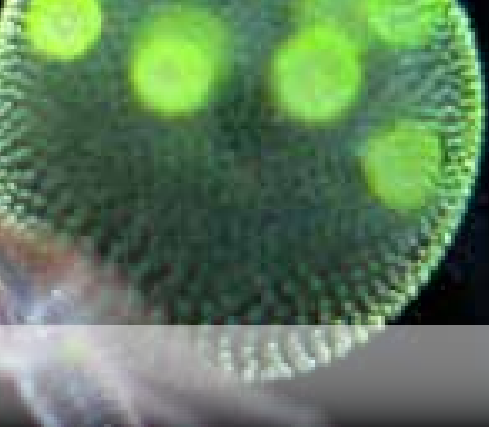


**B-353PL**

Quintuple nosepiece  
4x 10x 40x 100x  
Plan achromatic objectives







## B-350 Series - Models

### B-353PLi

Quintuple nosepiece  
4x 10x 40x 100x  
Plan achromatic IOS objectives

**X-LED™**  
**IOS™**  
objectives

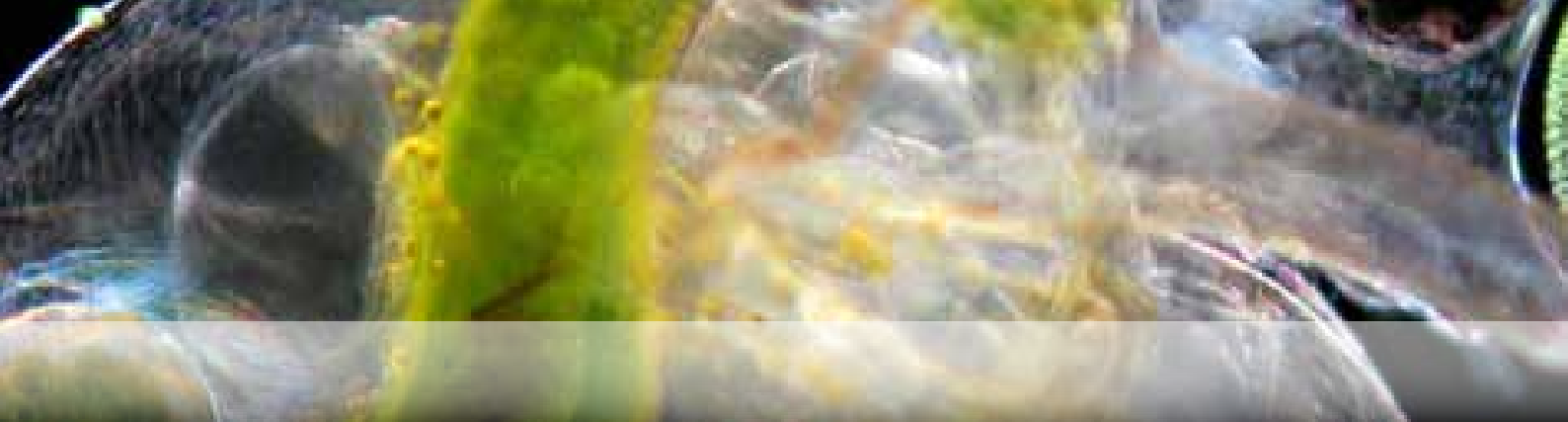


### B-353Ph

Quintuple nosepiece  
4x 10xPh 40xPh 100xPh  
Plan achromatic objectives

**X-LED™**





## B-350 Series - Photo-video applications

The B-350 series is compatible with our Optikam and DIGI cameras. For T-mount (reflex) and C-mount cameras, specific adapters are available.



### CAMERA ADAPTER CHART FOR TRINOCULAR MODELS

VC CAMERAS / OPTIKAM CAMERAS		DIGI	REFLEX APS-C	REFLEX Full frame 35mm
C-MOUNT	WITH LENS			
1/2	1/3		T/2*	T/2*
**M-366	**M-366	Not necessary	M-173	M-365



**B-350**  
Trinocular versions

\*T/2 is not supplied by OPTIKA  
\*\*No lens inside, 1x total magnification



## B-350 Series - Technical specifications

Model	Head	Eyepieces	Objectives	Nosepiece	Stage	Focusing	Condenser	Illuminator
<b>B-352A</b>	Binocular 360°rotating 30° inclined	Wide Field 10X / 20 mm	Achromatic 4x, 10x, 40x, 100x (oil)	Quadruple nosepiece, reversed	Double layer mechanical sliding stage, 160x142mm, moving range 76x52mm	Coaxial coarse and fine system, with limit stop	1.25 N.A. Abbe type, with cen- tering system	<i>X-LED™</i> , with brightness control
<b>B-353A</b>	Trinocular 360°rotating 30° inclined	Wide Field 10X / 20 mm	Achromatic 4x, 10x, 40x, 100x (oil)	Quadruple nosepiece, reversed	Double layer mechanical sliding stage, 160x142mm, moving range 76x52mm	Coaxial coarse and fine system, with limit stop	1.25 N.A. Abbe type, with cen- tering system	<i>X-LED™</i> , with brightness control
<b>B-352PL</b>	Binocular 360°rotating 30° inclined	Wide Field 10X / 20 mm	Plan Achromatic 4x, 10x, 40x, 100x (oil)	Quintuple nosepiece, reversed	Double layer mechanical sliding stage, 160x142mm, moving range 76x52mm	Coaxial coarse and fine system, with limit stop	1.25 N.A., Abbe type, with cen- tering system	<i>X-LED™</i> , with brightness control
<b>B-353PL</b>	Trinocular 360°rotating 30° inclined	Wide Field 10X / 20 mm	Plan Achromatic 4x, 10x, 40x, 100x (oil)	Quintuple nosepiece, reversed	Double layer mechanical sliding stage, 160x142mm, moving range 76x52mm	Coaxial coarse and fine system, with limit stop	1.25 N.A., Abbe type, with cen- tering system	<i>X-LED™</i> , with brightness control
<b>B-352PLi</b>	Binocular 360°rotating 30° inclined	Wide Field 10X / 20 mm	Plan Achromatic IOS 4x, 10x, 40x, 100x (oil)	Quintuple nosepiece, reversed	Double layer mechanical sliding stage, 160x142mm, moving range 76x52mm	Coaxial coarse and fine system, with limit stop	1.25 N.A., Abbe type, with cen- tering system	<i>X-LED™</i> , with brightness control
<b>B-353PLi</b>	Trinocular 360°rotating 30° inclined	Wide Field 10X / 20 mm	Plan Achromatic IOS 4x, 10x, 40x, 100x (oil)	Quintuple nosepiece, reversed	Double layer mechanical sliding stage, 160x142mm, moving range 76x52mm	Coaxial coarse and fine system, with limit stop	1.25 N.A., Abbe type, with cen- tering system	<i>X-LED™</i> , with brightness control
<b>B-352Ph</b>	Binocular 360°rotating 30° inclined	Wide Field 10X / 20 mm	Plan Achromatic 4x, 10xPh, 40xPh, 100xPh (oil)	Quintuple nosepiece, reversed	Double layer mechanical sliding stage, 160x142mm, moving range 76x52mm	Coaxial coarse and fine system, with limit stop	Phase con- denser (10x, 40x, 100x) with darkfield (dry) and brightfield	<i>X-LED™</i> , with brightness control
<b>B-353Ph</b>	Trinocular 360°rotating 30° inclined	Wide Field 10X / 20 mm	Plan Achromatic 4x, 10xPh, 40xPh, 100xPh (oil)	Quintuple nosepiece, reversed	Double layer mechanical sliding stage, 160x142mm, moving range 76x52mm	Coaxial coarse and fine system, with limit stop	Phase con- denser (10x, 40x, 100x) with darkfield (dry) and brightfield	<i>X-LED™</i> , with brightness control

# B-350 Series - Accessories

M-301	Eyepiece high-point WF10x/20mm
M-302	Eyepiece high-point WF16x/12mm
M-303	Eyepiece micrometer high-point WF10x/20mm
M-005	Micrometric slide 26x76 mm. Range: 1mm, div.: 0,01mm
M-310	Objective achromatic 4x/0.10
M-311	Objective achromatic 10x/0.25
M-312	Objective achromatic 20x/0.40
M-313	Objective achromatic 40x/0.65
M-314	Objective achromatic 60x/0.80
M-315	Objective achromatic 100x/1.25 (oil)
M-320	Objective planachromatic 4x/0.10
M-321	Objective planachromatic 10x/0.25
M-322	Objective planachromatic 20x/0.40
M-323	Objective planachromatic 40x/0.65
M-324	Objective planachromatic 60x/0.80
M-325	Objective planachromatic 100x/1.25 (oil)
M-330	Objective IOS planachromatic 4x/0.10
M-331	Objective IOS planachromatic 10x/0.25
M-332	Objective IOS planachromatic 20x/0.40
M-333	Objective IOS planachromatic 40x/0.65
M-334	Objective IOS planachromatic 100x/1.25 (oil)
M-340	Objective planachromatic for phase contrast 10x/0.10
M-341	Objective planachromatic for phase contrast 40x/0.65
M-342	Objective planachromatic for phase contrast 100x/1.25(oil)
M-350	Objective IOS planachromatic for phase contrast 10x/0.25
M-351	Objective IOS planachromatic for phase contrast 20x/0.40
M-352	Objective IOS planachromatic for phase contrast 40x/0.65
M-353	Objective IOS planachromatic for phase contrast 100x/1.25 (oil)

M-360	Complete phase contrast set with PLAN obj. 10x, 40x, 100x, with darkfield condenser for dry objectives
M-361	Complete phase contrast set with IOS E-PLAN obj. 10x, 20x, 40x, 100x
M-362	Polarizing set (filters only)
M-363	Rotating table for polarizing set
M-364	Darkfield condenser for dry objectives
M-173	Photo tube adapter for APS-C sensor
M-365	Photo tube adapter for full frame sensor
M-366	CCD camera adapter
M-031	Dust cover type 3
M-974	Blue filter, 32mm diameter
M-976	Green filter, 32mm diameter
M-978	Yellow filter, 32mm diameter
M-988	Frosted glass filter, 32mm diameter
M-069	Solar battery pack
M-666	Heating stage, with digital temperature controller



## 15103 - Lens cleaner, 50ml

It cleans glass quickly and effectively, without leaving residue or odor. Ideal for precision lens or prism cleaning.



## M-069 - Solar battery pack

Included battery: rechargeable – Lithium-Poly. Capacity: 2500 mAh. Output voltage: 5,5Vdc. Dimensions: 110x70x15 mm. Autonomy: 2,5h at max intensity. Charging modes: with solar panel (12h) - with included power supply (6h).

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