

## XDS Series

Inverted biological microscopes



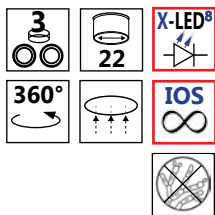
# XDS Series

A complete range of microscopes, designed to meet your laboratory needs.

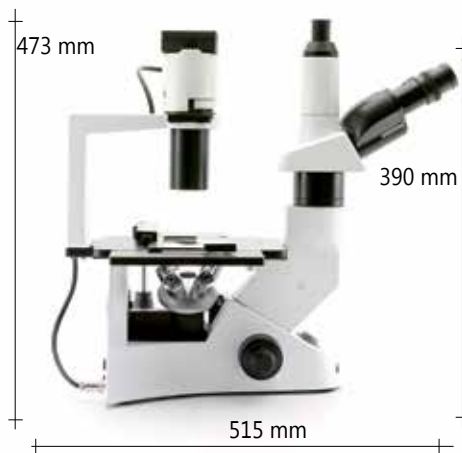
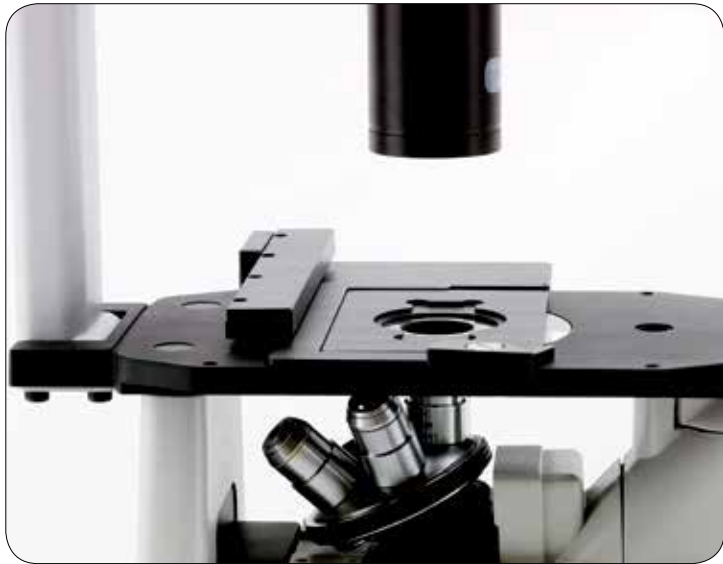
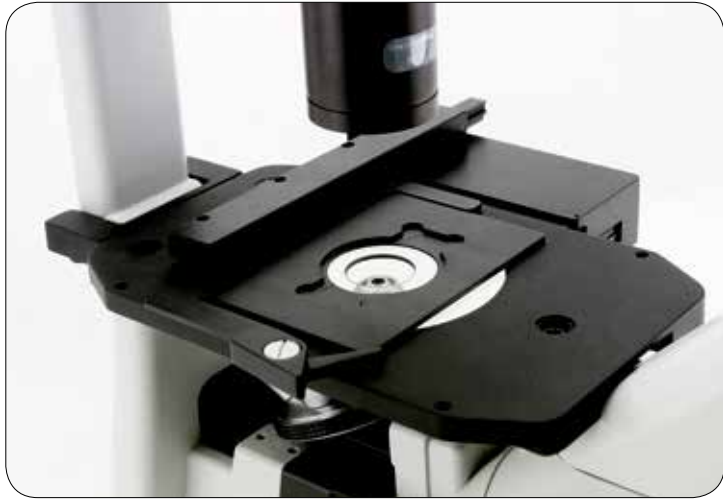
Quality, innovative technology, power, safety and simplicity of use are the common characteristics of these instruments.

- XDS-2** Trinocular Inverted microscope, IOS LWD Objectives, X-LED illumination.
- XDS-2ERGO** Trinocular Inverted microscope with ERGO head, IOS LWD Objectives, X-LED illumination.
- XDS-3** Trinocular Inverted microscope, IOS LWD Objectives, X-LED ill. (with mechanical stage and aluminium box).
- XDS-3LT** Trinocular Inverted microscope, IOS LWD Objectives, X-LED ill. (without mechanical stage and aluminium box).

## XDS-3



# XDS Series



**XDS-2**



**XDS-3**

# XDS-2 Model

All included, in the right place: this is the philosophy underlying this instrument.

XDS-2 is equipped with a full series of objectives, that covers most standard applications.

The translating stage is included in the standard equipment, and so is a set of 4 objectives (4x and 40x for brightfield; 10X and 20X for phase contrast).

## A complete solution for your brightfield observation

### Ergonomy

Every control is easy to reach, every component has been designed with ease of use in mind.

The focusing and specimen translation controls are designed to allow to rest the wrists on the table.

The light intensity adjustment is placed very close to the focusing knobs.

The specimen stage is fitted with a special glass insert, that allows to see the objectives, for immediate identification of the magnification setup.

The head implements an extremely innovative design, that permits adjustment to compensate for operator height.

### Efficiency

Plan-achromatic infinity corrected optics, bright 8W LED illuminator, phase contrast set, holders for specimen slides, flasks, Petri dishes, trinocular head for photo/video applications. These are the features of XDS-2, a powerful, complete and innovative instrument, designed to set a reference standard for advanced routine microbiology.

### User comfort

XDS-2 is comfortable for the operator. The 22 mm extra-wide field is pleasant to use, and minimizes operator stress.

The special eyepieces are designed for eyeglass wearers.

### XDS-2

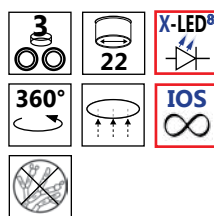


# XDS-2 and XDS-2ERGO Models - Technical specifications

Part	Description
<b>Optical system</b>	Infinity corrected system, 45 mm parfocality distance. Field number 22 mm.
<b>Head</b>	XDS-2: Trinocular: 30° inclined, 360° rotating. Interpupillary distance: 48 - 75 mm. Adjustable dioptic compensation. Ergonomic height compensation. XDS-2ERGO: 0°-30° ergonomical head with side photo tube.
<b>Eyepieces</b>	Extra-wide field 10x/22mm, high-point.
<b>Nosepiece</b>	5 positions, with bidirectional rotation on ball bearings and click stop.
<b>Objectives</b>	Long working distance (LWD) infinity corrected (IOS) planachromatic: 4x/0.10 (working distance 18 mm), phase contrast 10x/0.25 (working distance 10 mm), phase contrast 20x/0.40 (working distance 5.1 mm), 40x/0.60 (working distance 2.6 mm), corrected for 1.2 mm coverglass.
<b>Specimen stage</b>	Size: 250 x 230 mm. Translator with lowered ergonomic coaxial controls. X-Y translation: 119 x 70 mm. Interchangeable metallic inserts for specimen slides, Petri dishes and flasks.
<b>Focusing system</b>	Macro and micrometric regulation, with coaxial knobs on both sides of the stand. Adjustable tension.
<b>Condenser</b>	Long working distance condenser, numerical aperture 0.30, working distance 72 mm. The condenser can be removed in order to increase the working distance to 150 mm.
<b>Illumination system</b>	X-LED <sup>®</sup> system, with adjustable intensity, filter and phase ring holder and aperture diaphragm.



## XDS-2ERGO



# XDS-3 Model

XDS-3 looks at the challenge of the future with confidence, offering first-class completeness, optical quality, mechanical versatility, that open the instrument to all the enhancements and accessories that will be developed throughout the years. OPTIKA has chosen XDS-3 as its inverted microscopy development platform for all illumination and manipulation accessories.

## Top level solution for phase contrast observation

### Completeness

The multiple access to the optical path ideally complements the infinity-corrected optics, and offers ample freedom for the development of special accessories. The bright 8W LED illuminator, coupled to a full phase ring set, to a photo port, and to the diverse holders for slides, Petri dishes and flasks, qualify XDS-3 as a powerful and complete instrument, that finds its optimal application in high-end routine, and as a complement to the most powerful research microscopes.

### Efficiency

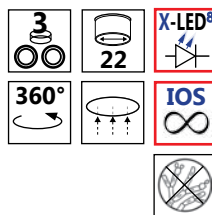
Effectiveness does not mean complexity. A particularly simple and ingenious optical design allows stable alignments and smooth and accurate movements throughout years of use. Effectiveness does not mean cost. The optimally targeted design choices, both for mechanics and for optical components, have allowed OPTIKA to reach the performance of XDS-3 without sacrificing the accessibility that characterizes OPTIKA instruments. An additional reason to challenge the future.

### Versatility

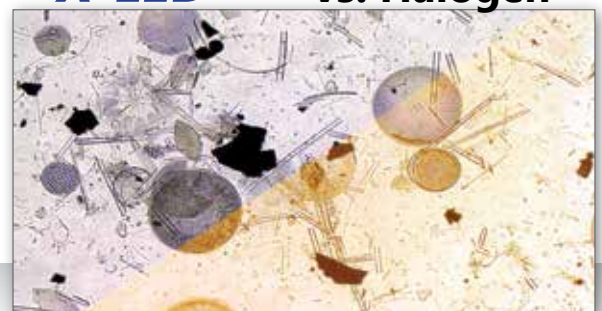
It still surprises us how, with few well-located controls, a microscope can become so versatile. The controls are located in accessible and comfortable positions, and offer all degrees of freedom necessary for an immediate and pleasant use.

The glass stage surface allows an optimal visual access to the objective turret. The straight neck leaves ample room for sample positioning and for the most advanced probes.

### XDS-3



### X-LED 8™ vs. Halogen



# XDS-3 Model - Technical specifications

Part	Description
<b>Optical system</b>	Infinity corrected system, 45 mm parfocality distance. Field of view 22 mm.
<b>Head</b>	Trinocular: 45° inclined. Interpupillary distance: 55 - 75 mm. Adjustable dioptic compensation.
<b>Eyepieces</b>	Extra-wide field 10x/22mm, high-point.
<b>Nosepiece</b>	5 positions, with bidirectional rotation on ball bearings and click stop.
<b>Objectives</b>	Long working distance (LWD) infinity corrected (IOS) planachromatic: phase contrast 10x/0.25 (working distance 7.94 mm), phase contrast 20x/0.40 (working distance 7.66 mm), phase contrast 40x/0.60 (working distance 3.71 mm), corrected for 1.2 mm coverglass.
<b>Specimen stage</b>	XDS-3 Fixed stage: 250 x 230 mm. Translator with lowered ergonomic coaxial controls. X-Y translation: 120x80 mm. XDS-3LT Fixed stage: 250 x 230 mm. Interchangeable metallic inserts for specimen slides, Petri dishes and flasks.
<b>Focusing system</b>	Macro- and micrometric regulation, with coaxial knobs on both sides of the stand. Adjustable tension.
<b>Condenser</b>	Long working distance condenser, numerical aperture 0.30, working distance 72 mm. The condenser can be removed in order to increase the working distance to 150 mm.
<b>Illumination system</b>	X-LED <sup>8</sup> system, with adjustable intensity, filter and phase ring holder and aperture diaphragm.



Also available: "LT" version without hard case and moving stage

# XDS Series - Accessories

## Accessories for XDS-2 / XDS-2ERGO

M-755	Ergonomical binocular head.
M-755.1	Trinocular attachment for Ergonomical binocular head (M-755).
M-017	Eyepiece EWF10x/22mm.
M-021	Eyepiece micrometer EWF10x/22mm.
M-005	26x76 mm micrometric slide. Range 1 mm, div. 0,01 mm.
M-770	Objective IOS LWD PLAN Achromatic 4x/0,10 (w.d. 18mm).
M-771	Objective IOS LWD PLAN Achromatic for phase contrast 10x/0,25 (w.d. 10mm).
M-772	Objective IOS LWD PLAN Achromatic for phase contrast 20x/0,40 (w.d. 5,1mm).
M-773	Objective IOS LWD PLAN Achromatic 40x/0,60 (w.d. 2,6mm).
M-774	Objective IOS LWD PLAN Achromatic for phase contrast 40x/0,60 (to use with M-776).
M-776	Phase ring 40x (to use with M-774).
M-778	C-mount adapter for 1/3", 1/2" and 2/3" sensor.
M-036	Dust cover type 7.
M-795	Fluorescence attachment, HBO100W, B and G filtersets (only for XDS-2).
M-173	Photo adapter for APS-C and Full Frame Reflex cameras.
M-114	C-Mount adapter for 1/2" sensor.
M-116	C-Mount adapter for 2/3" sensor.

## Accessories for XDS-3/XDS-3LT

M-780	Eyepiece EWF10x/22mm.
M-781	Eyepiece micrometer EWF10x/22mm.
M-005	26x76 mm micrometric slide. Range 1 mm, div. 0,01 mm.
M-782	Objective IOS LWD PLAN Achromatic 4x/0,10 (w.d. 22mm).
M-782.1	Objective IOS LWD PLAN Achromatic for phase contrast 4x/0.13 (w.d. 16.9mm)
M-783N	Objective IOS LWD PLAN Achromatic for phase contrast 10x/0,25 (w.d. 7,94mm).
M-784N	Objective IOS LWD PLAN Achromatic for phase contrast 20x/0,40 (w.d. 7,66mm).
M-785	Objective IOS LWD PLAN Achromatic for phase contrast 40x/0,60 (w.d. 3,71mm).
M-786	Objective IOS LWD PLAN Achromatic 60x/0,70 (w.d. 2,50mm).
M-787	Cut-off filter (infrared).
M-788	Photo adapter for REFLEX camera with FULL FRAME sensor.
M-789	Focusable C-Mount adapter for 1/3" sensor.
M-789.1	Focusable C-Mount adapter for 1/2" sensor.
M-789.2	Focusable C-Mount adapter for 2/3" sensor.
M-699	Universal adapter for M-114, M-116, M-173 and eyepiece cameras.
M-036	Dust cover type 7.
M-792	Mechanical stage for XDS-3 series, with side extensions.
M-173	Photo adapter for APS-C and Full Frame Reflex cameras.
M-114	C-Mount adapter for 1/2" sensor.
M-116	C-Mount adapter for 2/3" sensor.



### How to connect the cameras to our microscopes.

Please refer to the Adapter reference list on Digital section.

## 15104 - 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: 2600 mAh.  
Output voltage: 5,5Vdc.  
Dimensions: 120x73x10 mm.  
Autonomy: over 6 hours at medium intensity (X-LED<sup>3</sup>).  
Charging modes: with solar panel (12h), with external USB power supply (not included) or from PC USB port (5h).



## Headquarters and Manufacturing Facilities

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