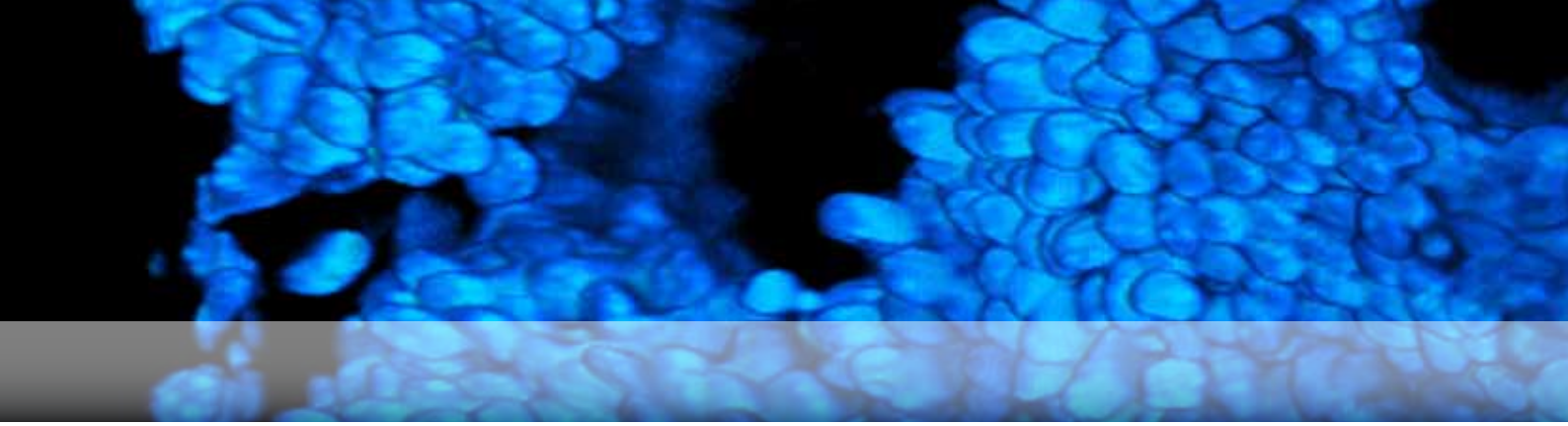
XDS Series

Inverted biological microscopes

XDS



XDS Series - XDS-1R

Easy to use

OPTIKA microscopes dedicates the model XDS-1R to routine microbiology applications, whenever ease of use is the main issue.

Cost-effectiveness

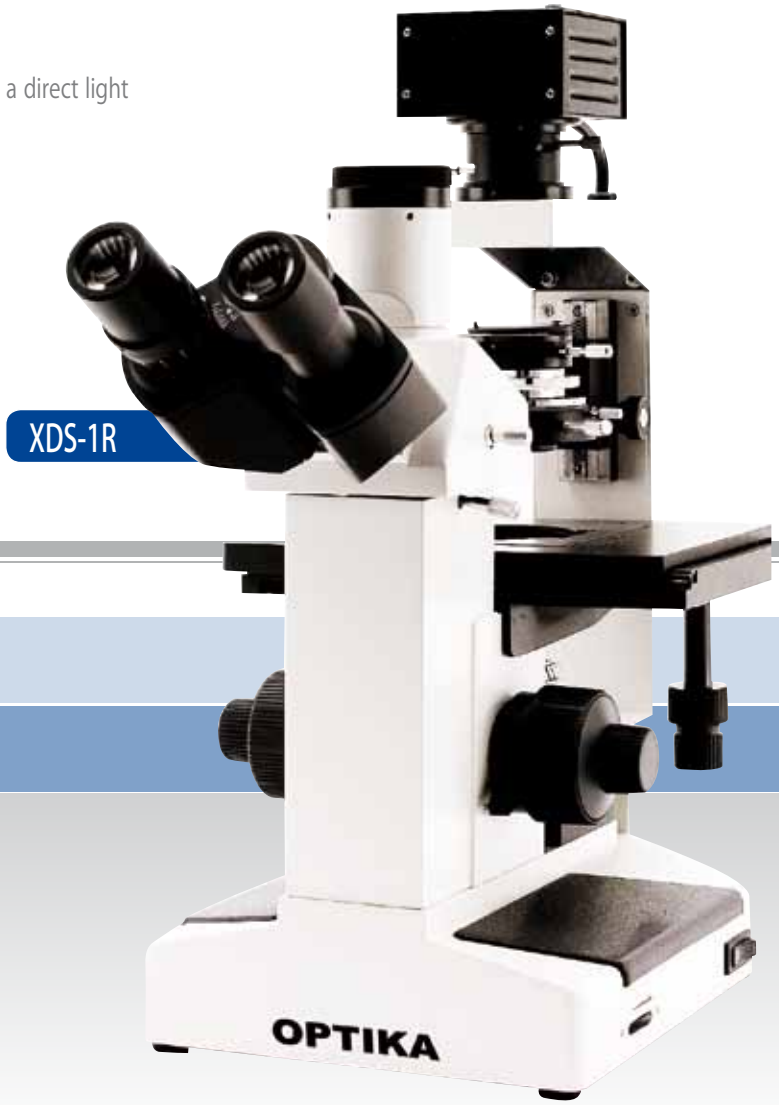
In being one of the most aggressively priced inverted microscopes on the market, XDS-1R offers a standard equipment that includes a full phase contrast set.

Classical, but young

A classical model in the OPTIKA inverted microscope range, XDS-1R has undergone small but significant improvements, that greatly enhance the usability.
An improved optical system extends the field of view to 20 mm.
A new illuminator, perpendicular to the specimen stage, implements a direct light path, with no "kinks" or bends, significantly simplifying alignment.

Versatility

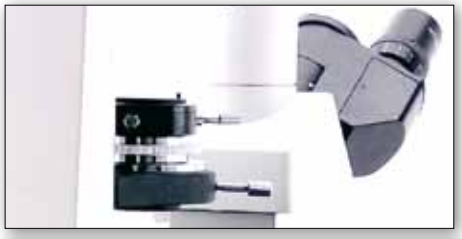
Trinocular head with photo/video port, translating specimen stage, various Petri dish and slide holders are included in the standard accessory equipment: multiple possibilities for a versatile approach to microbiology.

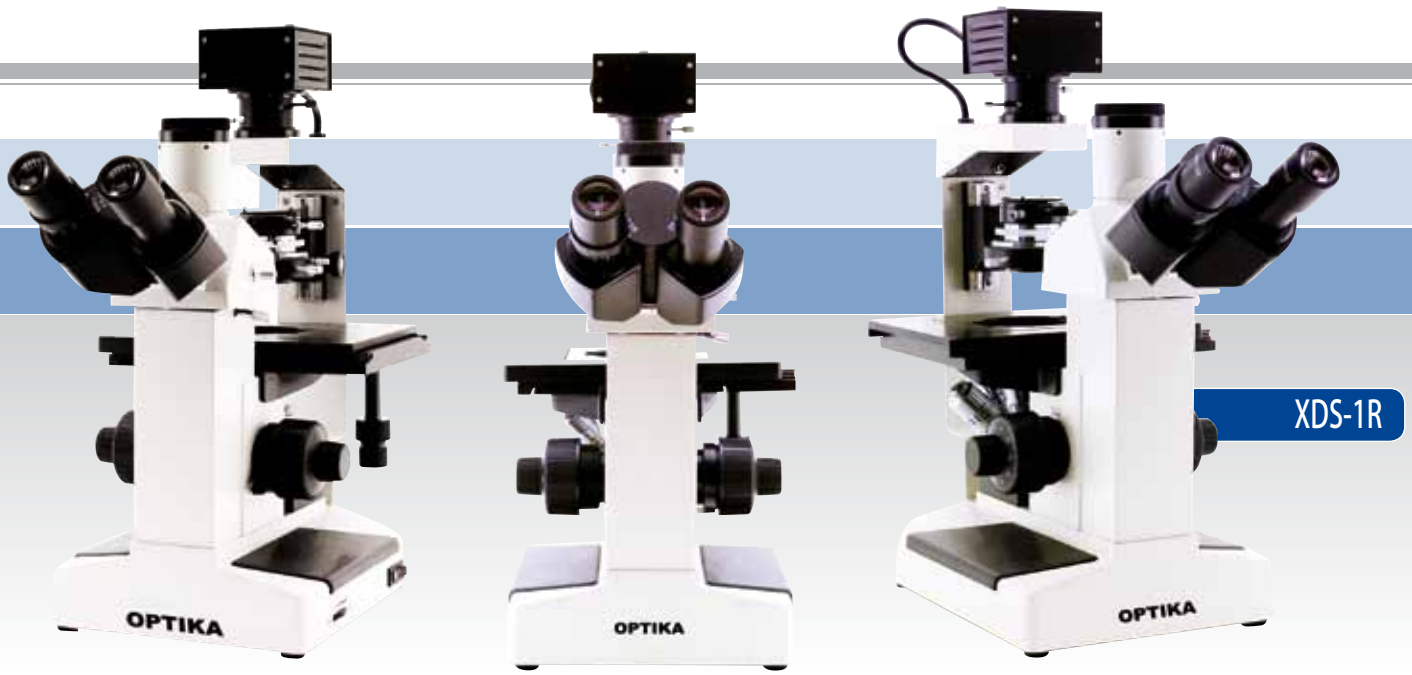


XDS Series - Inverted biological microscope

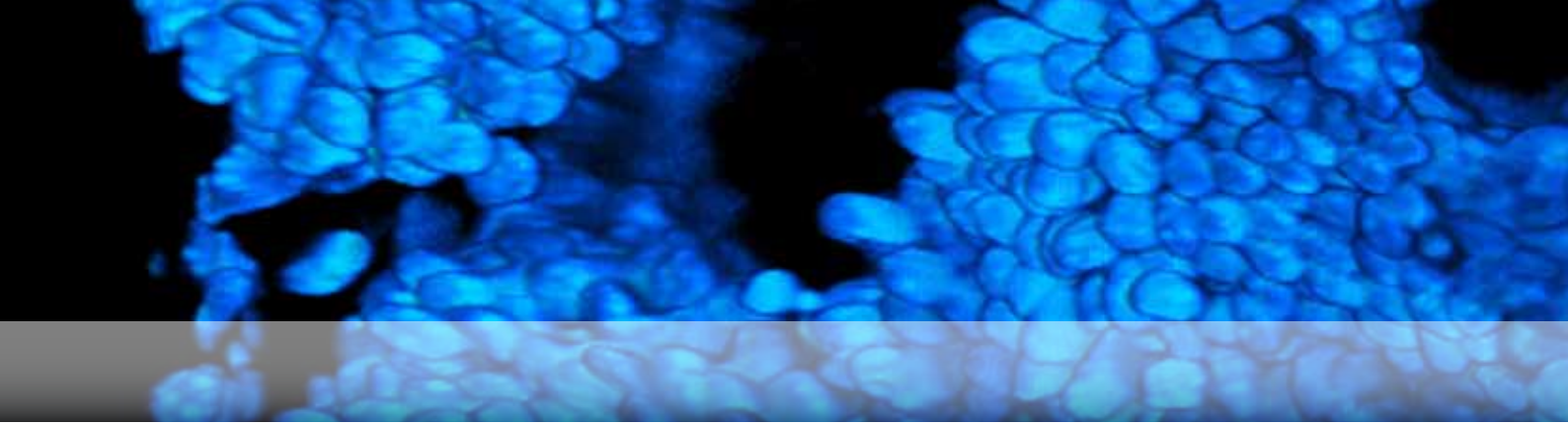
XDS-1R - Technical specifications

Part	Description
Optical system	DIN standard: 160 mm tube length, 45 mm parfocality distance. Field number 20 mm.
Head	Trinocular: 30° inclined, 360° rotating. Interpupillary distance: 55 - 75 mm. Adjustable dioptric compensation.
Eyepieces	Wide field 10x/20mm, high-point.
Nosepiece	4 positions, with bidirectional rotation on ball bearings and click stop.
Objectives	Long working distance (LWD) planachromatic: 10x/0.25 (working distance 7.9 mm), phase contrast 10x/0.25 (working distance 7.9 mm), 25x/0.40 (working distance 5 mm), 40x/0.65 (working distance 3 mm).
Specimen stage	Size: 200 x 152 mm. Double layer translator with coaxial controls. X-Y translation: 77 x 37 mm. Interchangeable metallic inserts for specimen slides and various sizes of Petri dishes.
Focusing system	Macro- and micrometric regulation, with coaxial knobs on both sides of the stand. Adjustable tension and depth stop.
Condenser	Long working distance condenser, numerical aperture 0.40. Iris aperture diaphragm, filter and phase ring holder. Adjustable height, centrable.
Illumination system	6V / 20W halogen centrable illuminator, with adjustable intensity, condenser and field diaphragm.





XDS-1R



XDS Series - XDS-2

A complete solution for your brightfield observation

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) .

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 adjustemnt 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 halogen 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.

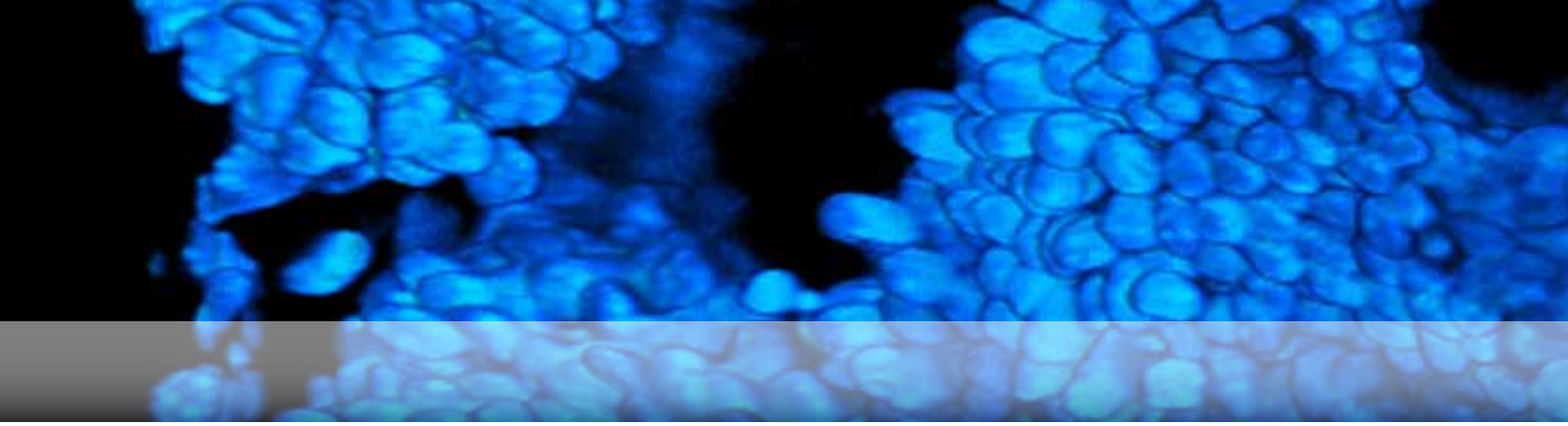
XDS-2

XDS Series - Inverted biological microscope

XDS-2 AND XDS-2ERGO - Technical specifications

Component	Description
Optical system	Infinity corrected system, 45 mm parfocality distance. Field number 22 mm.
Heads	**XDS-2**: Trinocular: 30° inclined, 360° rotating. Interpupillary distance: 48 - 75 mm. Adjustable dioptric compensation. Ergonomic height compensation. **XDS-2ERGO: 0°-30°** ergonomical head with side photo tube.
Eyepieces	Extra-wide field 10x/22mm, high-point.
Nosepiece	5 positions, with bidirectional rotation on ball bearings and click stop.
Objectives	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.
Specimen stage	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.
Focusing system	Macro and micrometric regulation, with coaxial knobs on both sides of the stand. Adjustable tension.
Condenser	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.
Illumination system	**X-LED^{8TM} system**, with adjustable intensity, filter and phase ring holder and aperture diaphragm.

XDS-2ERGO



XDS Series - XDS-3

Top level solution for phase contrast observation

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. Moreover, the open optical path allows the implementation of epi-fluorescence systems.

Completeness

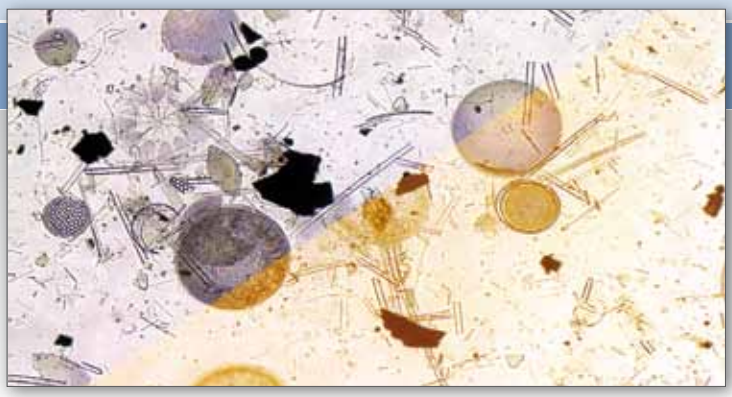
The multiple access to the optical path ideally complements the infinity-corrected optics, and offers ample freedom for the development of special accessories.The bright 8W LED illuminator, coupled to a full phase ring set, to a photo port, and to the diverse holders for slides,
Petri dishes and flasks, 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.



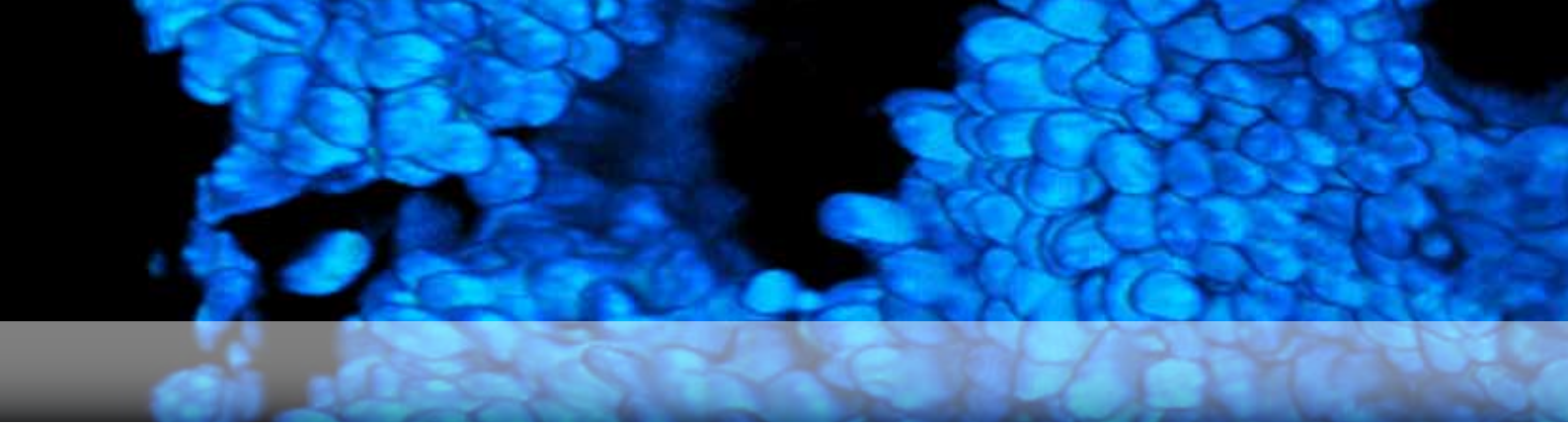
X-LED 8 TM vs. Halogen

XDS Series - Inverted biological microscope

XDS-3 - Technical specifications

Part	Description
Optical system	Infinity corrected system, 45 mm parfocality distance. Field of view 22 mm.
Heads	Trinocular: 45° inclined. Interpupillary distance: 55 - 75 mm. Adjustable dioptric compensation.
Eyepieces	Extra-wide field 10x/22mm, high-point.
Nosepiece	5 positions, with bidirectional rotation on ball bearings and click stop.
Objectives	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.
Specimen stage	Size: 250 x 230 mm. Translator with lowered ergonomic coaxial controls. X-Y translation: 114 x 81 mm. Interchangeable metallic inserts for specimen slides, Petri dishes and flasks.
Focusing system	Macro- and micrometric regulation, with coaxial knobs on both sides of the stand. Adjustable tension..
Condenser	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.
Illumination system	**X-LED^{8TM} system**, with adjustable intensity, filter and phase ring holder and aperture diaphragm.

Also available: “LT” version without hard case and moving stage



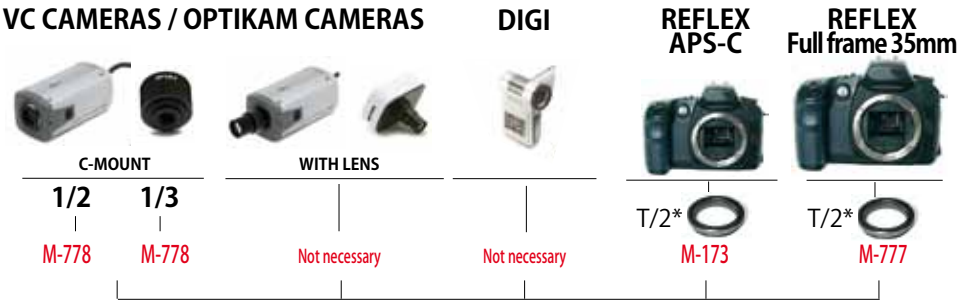
XDS Series - Photo - video applications

CAMERA ADAPTER CHART FOR TRINOCULAR MODELS

XDS-1R

*T/2 is not supplied by OPTIKA

CAMERA ADAPTER CHART FOR TRINOCULAR MODELS

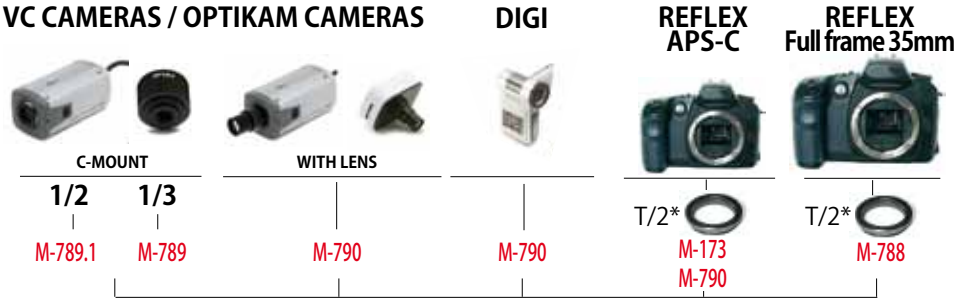


XDS-2

*T/2 is not supplied by OPTIKA

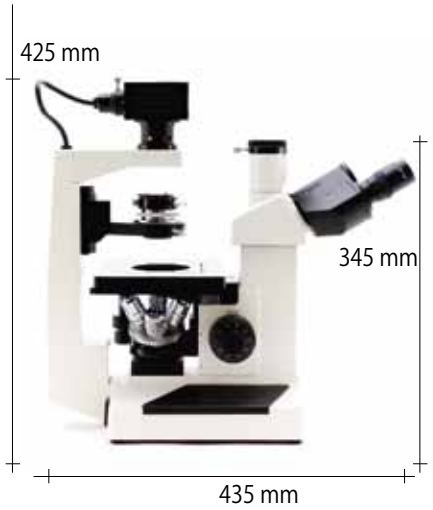
XDS Series - Photo - video applications

CAMERA ADAPTER CHART FOR TRINOCULAR MODELS



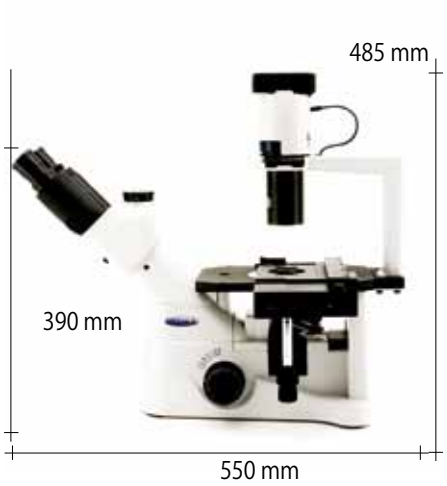
XDS-3

*T/2 is not supplied by OPTIKA



XDS-1R

XDS-2



XDS-3

XDS Series - Accessories

Accessories for XDS-1R

M-001	Eyepiece H5x
M-006	Eyepiece EWF10x/20mm
M-003	Eyepiece WF16x/12mm
M-078	Eyepiece micrometer EWF10x/20mm
M-005	Micrometric slide, 26x76 mm, range 1 mm, div. 0,01 mm
M-711	Objective LWD planachromatic 10x /0,25 (working distance 7.9 mm)
M-712	Objective LWD planachromatic 25x/0,40 (working distance 5 mm)
M-713	Objective LWD planachromatic 40x/0,65 (working distance 3 mm)
M-740	Objective LWD planachromatic for phase contrast 10x/0,25 (working distance 7.9 mm)
M-741	Objective LWD planachromatic for phase contrast 25x/0,40 (working distance 5 mm)
M-742	Objective LWD planachromatic for phase contrast 40x/0,65 (working distance 3 mm)
M-080	Phase contrast set (objective + phase ring) 25x
M-081	Phase contrast set (objective + phase ring) 40x
M-750	Phase ring 10x (spare)
M-751	Phase ring 25x (spare)
M-752	Phase ring 40x (spare)
M-064	Photo tube adapter for SLR cameras full frame
M-065	CCD camera adapter
M-068	Tube adapter for digital cameras DIGI series
M-014	Halogen bulb 6V/20W
M-035	Dust cover type 6
M-173	APS-C reflex camera adapter

Accessories for XDS-2

M-755	Binocular head
M-755.1	Trinocular attachment for ergonomical binocular head for XDS-2
M-017	Eyepiece EWF10x/22mm
M-021	Eyepiece micrometer EWF10x/22mm
M-005	Micrometric slide, 26x76 mm, range 1 mm, div. 0,01 mm
M-770	Objective LWD IOS planachromatic 4x/0.10 (working distance 18 mm)
M-771	Objective LWD IOS planachromatic for phase contrast 10x/0.25 (working distance 10 mm)
M-772	Objective LWD IOS planachromatic for phase contrast 20x/0.40 (working distance 5.1 mm)
M-773	Objective LWD IOS planachromatic 40x/0.60 (working distance 2.6 mm)
M-774	Objective LWD IOS planachromatic for phase contrast 40x
M-776	Phase ring 40x
M-777	Photo tube adapter for SLR cameras full frame
M-778	CCD camera adapter
M-779	Halogen bulb 6V/30W
M-036	Dust cover type 7
M-795	Fluorescence attachment HBO100W
M-173	APS-C reflex camera adapter

Accessories for XDS-3/XDS-3LT

M-780	Eyepiece EWF10x/22mm
M-781	Eyepiece micrometric EWF10x/22mm
M-005	Micrometric slide, 26x76 mm, range 1 mm, div. 0,01 mm
M-782	Objective LWD IOS planachromatic 4x/0.10 (working distance 22 mm)
M-783	Objective LWD IOS planachromatic for phase contrast 10x/0.25 (working distance 7.94 mm)
M-784	Objective LWD IOS planachromatic for phase contrast 20x/0.40 (working distance 7.66 mm)
M-785	Objective LWD IOS planachromatic for phase contrast 40x/0.60 (working distance 3.71 mm)
M-786	Objective LWD IOS planachromatic 60x/0.7 (working distance 2.50 mm)
M-787	Cut-off filter (infrared)
M-788	Photo tube adapter for SLR cameras full frame
M-789	CCD camera adapter for 1/3" sensor
M-789.1	CCD camera adapter for 1/2" sensor
M-790	Tube adapter for digital cameras DIGI series
M-621	Halogen bulb 6V/30W
M-036	Dust cover type 7
M-792	Mechanical stage for XDS-3
M-173	APS-C reflex camera adapter

15103 - Lens cleaner, 50ml

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

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