

Oxion Inverso for Life Sciences

HIGHLIGHTS

- ✓ Life Science applications
- ✓ Observation of tissue cultures, living cells
- ✓ Bright Field, Phase contrast and Fluorescence
- ✓ Long working IOS plan achromatic objectives
- ✓ Revolving quintuple nosepiece
- ✓ 5 W LED transmitted illumination
- ✓ 100 W mercury vapor lamp for fluorescence
- ✓ 10 years warranty



Specifications

Eyepieces

Pair DIN EWF Plan 10x/22 mm eyepieces

Head

Trinocular 45° inclined tubes with extended low and high positions for eyepieces
 One diopter adjustment on left eyepiece. Interpupillary distance of 54 to 75 mm
 Trinocular head with 100-0 % and 80-20 % positions

Nosepiece

Revolving quintuple nosepiece on ball-bearings

Objectives for bright field models OX.2003-PL and OX.2053-PL

Infinity color corrected Long Working Distance Plan 10x/0.25, 20x/0.40, 40x/0.60 IOS objectives.
 An optional 60x/0.70 IOS objective is also available

Objectives for phase contrast models OX.2003-PLPH and OX.2053-PLPH

Infinity color corrected Long Working Distance Plan Phase 10x/0.25, 20x/0.40, 40x/0.60 IOS objectives

Objectives for bright field fluorescence microscopy models OX.2253-PLF and OX.2453-PLF

Infinity color corrected Long Working Distance Plan Fluarex 10x/0.30, 20x/0.45, 40x/0.65 IOS objectives.
 An optional Plan Fluarex 60x/0.75 IOS objectives

Objectives for phase contrast fluorescence microscopy models OX.2253-PLPHF and OX.2453-PLPHF

Infinity color corrected Long Working Distance Plan Fluarex 10x/0.30 and Plan Phase Fluarex 20x/0.45 and S40x/0.65 IOS objectives

All objectives corrected for 1.2 mm cover glass thickness.

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

Stage

Stage 250 x 230 mm equipped with a coaxial mechanical 120 x 78 mm X-Y stage, delivered with:

- metallic insert standard with \varnothing 12 mm diameter hole and \varnothing 25 mm diameter hole
- metallic insert with large opening
- metallic insert for \varnothing 35 mm Petri dishes
- 76 x 26 mm slide Teraski holder
- glass insert with small hole

Condenser

N.A. 0.30 condenser with iris diaphragm. Working distance 72 mm

The models for the phase contrast OX.2003-PLPH, OX.2053-PLPH, OX.2253-PLPHF and OX.2453-PLPHF are delivered with a slider with 4x/10x and 20x/40x pre-centered phase rings

Focusing adjustment

Coaxial 25 mm coarse and fine adjustments, 2 µm precision and with friction adjustment

Illumination

Transmitted 5 W LED Intensity adjustable with internal 100-240 V power supply. Fuse holder 3.15A/250V

The fluorescence models are equipped with a reflected 100 W HBO mercury vapor light source with external 100-240 V power supply, fuse holder 3.15A/250V, UV protection shield

Filters for phase contrast models

Interference filter 550 nm Green and Blue filter, 45 mm diameter

Fluorescence filters for fluorescence models

The fluorescence models OX.2253-PLF and OX.2253-PLPHF:

Equipped with 2 filter blocks with standard filters for excitation:

- in the blue spectrum (EX465-495 DM505LP EM515-558)
- in the green spectrum (EX520-600 DM600LP EM605-665)

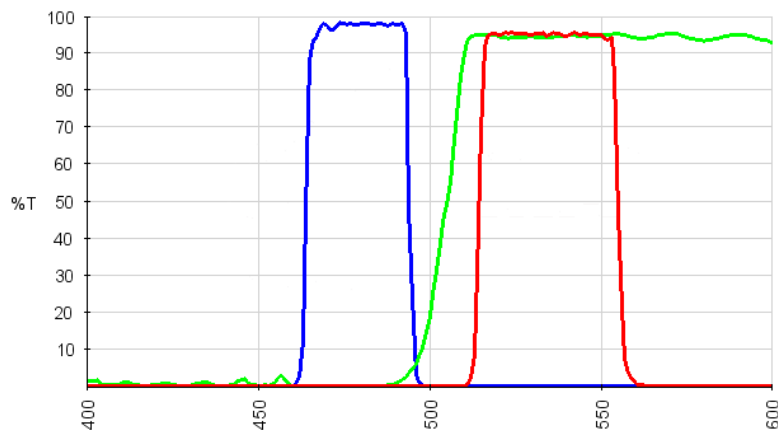
The fluorescence models OX.2453-PLF and OX.2453-PLPHF:

Equipped with a 4 positions filter rail equipped with 3 standard filter blocks for excitation:

- in the blue spectrum (EX465-495 DM505LP EM515-558)
- in the green spectrum (EX520-600 DM600LP EM605-665)
- in the UV spectrum (EX361-381 D415LP EM435-495)



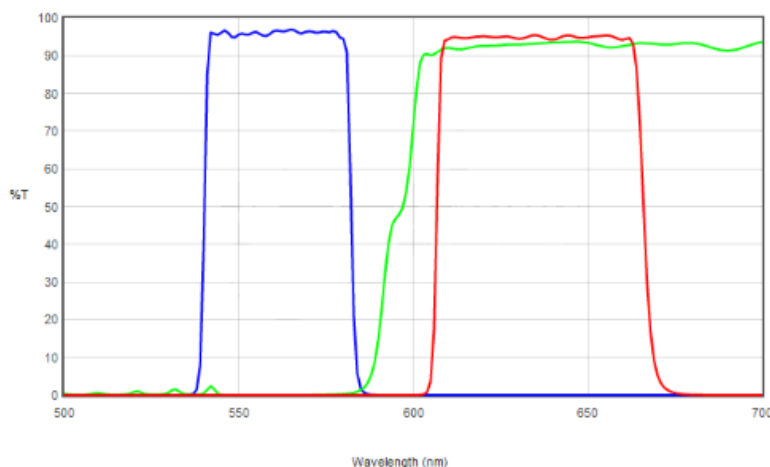
Standard general-purpose fluorescence filter sets:
Blue excitation 465-495 nm

 EGFP FITC Cy2 Alexa Fluor 488
 OX.9745 - EX465-495BP DM505LP EM515-558BP


Also suitable for:

Acridine Orange + DNA, Alexa Fluor 488™, Atto 488, Azami Green, BODIPY FL/pH7.2, Calcein, Calcium Green™-1, Cy2™, DiO, DyLight 488, EGFP, Emerald GFP, FAM, FITC, Fluo-4, GFP LysoTracker Green/pH 5.2, MitoTracker Green FM/MeOH, mWasabi, Oregon Green™ 488, SYBR® Green I, SYTO 9/DNA, ZsGreen

Green excitation 520-600 nm

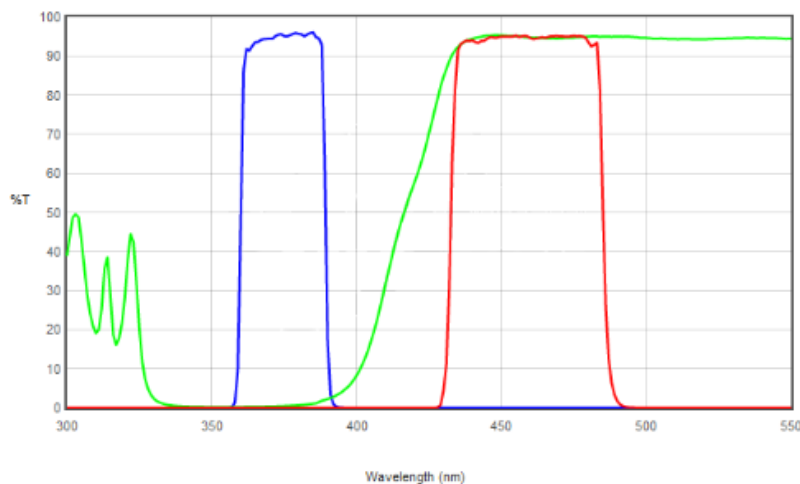
 Texas Red / mCherry / Alexa Fluor 594
 OX.9746 – EX520-600BP DM600LP EM605-665BP


Also suitable for:

Alexa Fluor 568™, Alexa Fluor 594™, CAL Fluor® Red 610, Cy3.5™, DyLight 594, FusionRed, Killer Red, mCherry, MitoTracker Red/MeOH, mKate2, mRFP1, ReAsH-CCPGCC, Rhodamine Red™-X, ROX, Sulforhodamine 101, Texas Red®, Texas Red®-X, X-rhod-1/Ca2+

UV excitation 361-389 nm

DAPI / Hoechst / Alexa Fluor 350
OX.9747 – EX361-381BP D415LP EM435-495BP

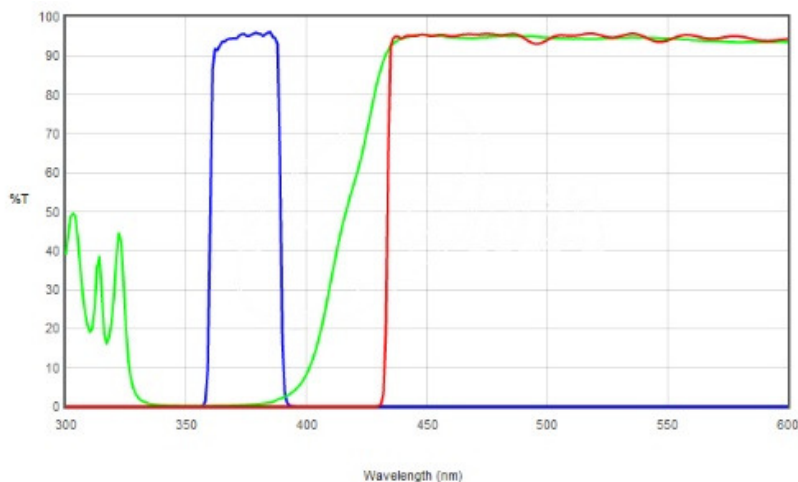


Also suitable for:

Alexa Fluor 350™, Biosearch Blue, Coumarin, DAPI, DyLight 350, Hoechst 33258, LysoTracker Blue/MeOH

Violet excitation 361-389 nm

UV / DAPI Longpass
OX.9748 – EX 361-389BP DM 415LP EM 435LP



Also suitable for Calcofluor White

The fluorescence microscopes can be equipped with more specific, optimized and application related fluorescence filters sets, see accessories section and/or separate fluorescence filter catalog

Configurations

Models	LWD Plan 10/20/40x objectives	LWD Plan Phase 10/20/40x objectives	LWD Plan Fluarex 10/20/40x objectives	LWD Plan Fluarex 10x and Plan Phase Fluarex 20/40x objectives	2 position filter block	4 position filter block	Mechanical stage
OX.2003-PL	•						
OX.2053-PL	•						•
OX.2003-PLPH		•					
OX.2053-PLPH		•					•
OX.2253-PLF			•		•		•
OX.2453-PLF			•			•	•
OX.2253-PLPHF				•	•		•
OX.2453-PLPHF				•		•	•

Fluarex objectives are made of low-absorption glass for fluorescence applications
Fluarex is a trademark of Euromex microscopen bv
LWD = long working distance

Accessories & Spare parts

- OX.6010 HWF 10x/22 mm eyepiece
- OX.6015 HWF 15x/16 mm eyepiece
- OX.6110 HWF 10x/22 mm eyepiece with micrometer reticule
- OX.6099 Pair of eyeshades

Objectives for bright field microscopy for inverted models ()*

- OX.8304 Plan LWD 4x/0.10 infinity corrected IOS objective, working distance 22 mm
- OX.8310 Plan LWD 10x/0.25 infinity corrected IOS objective, working distance 7.94 mm
- OX.8320 Plan LWD 20x/0.40 infinity corrected IOS objective, working distance 7.66 mm
- OX.8340 Plan LWD 40x/0.60 infinity corrected IOS objective, working distance 3.71 mm
- OX.8360 Plan LWD 60x/0.70 infinity corrected IOS objective, working distance 2.5 mm

Objectives for bright field and fluorescence microscopy for inverted models ()*

- OX.8604 Plan Fluarex LWD 4x/0.13 infinity corrected IOS objective, working distance 18.5 mm
- OX.8610 Plan Fluarex LWD 10x/0.30 infinity corrected IOS objective, working distance 7.1 mm
- OX.8620 Plan Fluarex LWD 20x/0.45 infinity corrected IOS objective, working distance 5.91 mm
- OX.8640 Plan Fluarex LWD 40x/0.65 infinity corrected IOS objective, working distance 1.61 mm
- OX.8660 Plan Fluarex LWD 60x/0.75 infinity corrected IOS objective, working distance 1.04 mm

*Objectives for phase contrast (**) microscopy for inverted models (*)*

- OX.8504 Plan Phase LWD 4x/0.10 infinity corrected IOS objective
- OX.8510 Plan Phase LWD 10x/0.25 infinity corrected IOS objective, working distance 7.94 mm (*)
- OX.8520 Plan Phase LWD 20x/0.40 infinity corrected IOS objective, working distance 7.66 mm (*)
- OX.8540 Plan Phase LWD 40x/0.60 infinity corrected IOS objective, working distance 3.71 mm (*)

(**) Phase contrast objectives requires slider with phase contrast annuli OX.9163

(*) All objectives corrected for 1.2 mm cover glass thickness. All optical parts are anti-fungus treated

Accessories & Spare parts (continued)

*Objectives for fluorescence phase contrast (**) microscopy for inverted models (*)*

- OX.8720 Plan Phase Fluarex LWD 20x/0.45 infinity corrected IOS objective, working distance 5.91 mm (*)
- OX.8740 Plan Phase Fluarex LWD 40x/0.65 infinity corrected IOS objective, working distance 1.1 mm (*)

*(**) Phase contrast objectives requires slider with phase contrast annuli OX.9163*

() All objectives corrected for 1.2 mm cover glass thickness. All optical parts are anti-fungus treated*

- OX.9149 Telescope for phase contrast alignment
- OX.9163 Slider with 4x/10x and 20x/40x phase contrast annuli

- OX.9500 Mechanical coaxial X-Y 120 x 78 mm stage
- OX.9506 Transparent glass insert with hole
- OX.9508 Metal insert with \varnothing 12 mm hole
- OX.9509 Metal insert with \varnothing 25 mm hole
- OX.9535 Metal insert for Petri dish 35 mm diameter
- OX.9550 Stage extension plate

- OX.9700 Blue filter for transmitted illumination
- OX.9702 Green filter for transmitted illumination
- OX.9703 IR cut-off filter for transmitted illumination

- OX.9745 Filter block with filter set for Blue excitation EX465-495BP DM505LP EM515-558BP for Acridine Orange + DNA, Alexa Fluor 488™, Atto 488, Azami Green, BODIPY FL/pH7.2, Calcein, Calcium Green™-1, Cy2™, DiO, DyLight 488, EGFP, Emerald GFP, FAM, FITC, Fluo-4, GFP LysoTracker Green/pH 5.2, MitoTracker Green FM/MeOH, mWasabi, Oregon Green™ 488, SYBR® Green I, SYTO 9/DNA, ZsGreen

- OX.9746 Filter block with filter set for Green excitation EX520-600BP DM600LP EM605-665BP for Alexa Fluor 568™, Alexa Fluor 594™, CAL Fluor® Red 610, Cy3.5™, DyLight 594, FusionRed, Killer Red, mCherry, MitoTracker Red/MeOH, mKate2, mRFP1, ReAsH-CCPGCC, Rhodamine Red™-X, ROX, Sulforhodamine 101, Texas Red®, Texas Red®-X, X-rhod-1/Ca2+

- OX.9747 Filter block with filter set for UV excitation EX361-381BP D415LP EM435-495BP for Alexa Fluor 350™, Biosearch Blue, Coumarin, DAPI, DyLight 350, Hoechst 33258, LysoTracker Blue/MeOH

- OX.9748 Filter block with filter set for Violet/UV longpass excitation EX 361-389BP DM 415LP EM 435LP for UV / DAPI Longpass, Calcofluor White

Accessories & Spare parts (continued)

- OX.9750.39001 Filter set EX 435BP20 DM455 EM 480BP30 for AmCyan, Atto 425, Cerulean, CFP, ECFP fluorophore
Needs empty filter block (OX.9751)
- OX.9750.39002 Filter set EX 480BP30 DM505 EM 535BP40 for Acridine Orange + DNA, Alexa Fluor 488™, Atto 488, Azami Green, BODIPY FL/pH7.2, Calcein, Calcium Green™-1, Cy2™, DiO, DyLight 488, EGFP, Emerald GFP, FAM, FITC, Fluo-4, GFP, LysoTracker Green/pH 5.2, MitoTracker Green, FM/MeOH, mWasabi, Oregon Green™ 488, SYBR® Green I, SYTO 9/DNA, ZsGreen fluorophore
Needs empty filter block (OX.9751)
- OX.9750.39003 Filter set EX495BP20 DM515 EM 540BP30 for Alexa Fluor 514™, Citrine, EYFP/pH 7, F/IAsh-CCPFCC, mCitrine, Oregon Green™ 514 Rhodamine 123, Topaz
Needs empty filter block (OX.9751)
- OX.9750.39004 Filter set EX540BP25 DM565 EM 605BP55 for Alexa Fluor 546™, Alexa Fluor 555™, Atto 550, CAL Fluor® Red 590, Cy3™, DiI, DsRed, DyLight 549, MitoTracker Orange/MeOH, Resorufin, Rhod-2, TagRFP, TAMRA tdTomato, Tetramethylrhodamine isothiocyanate, TRITC
Needs empty filter block (OX.9751)
- OX.9750.39005 Filter set EX540BP25 DM565 EM 620BP60 for TRITC-red-shifted, Ethidium homidimer-1/DNA, Propidium Iodide
Needs empty filter block (OX.9751)
- OX.9750.39007 Filter set EX620BP50 DM655 EM 690P50 for Alexa Fluor 647™, Allophycocyanin (APC), Atto 647N, Cy5™, DiD, Draq5, DyLight 649 MitoTracker Deep Red 633/MeOH, Nile Blue, Quasar® 670, SYTO® 60, TO-PRO™-3
Needs empty filter block (OX.9751)
- OX.9750.39008 Filter set EX420BP40 DM455 EM 535BP40 for Lucifer Yellow/Tetracycline/AlexaFluor 430
Needs empty filter block (OX.9751)
- OX.9750.39009 Filter set EX480BP30 DM505 EM 620BP60 for Acridine Orange + RNA, Di-8-ANEPPS non-ratiometric, DiA, Ethidium Bromide, FM™ 1-43, LysoTracker Yellow HCK-123, Pulsar™ 650
Needs empty filter block (OX.9751)

On request, the microscope can also be equipped with more specific, optimized and application related fluorescence filters sets, see accessories section and/or separate fluorescence filter catalog

Accessories & Spare parts (continued)

- OX.9751 Empty Filter cube
- OX.9752 Filter block rail, 2 positions
- OX.9754 Filter block rail, 4 positions

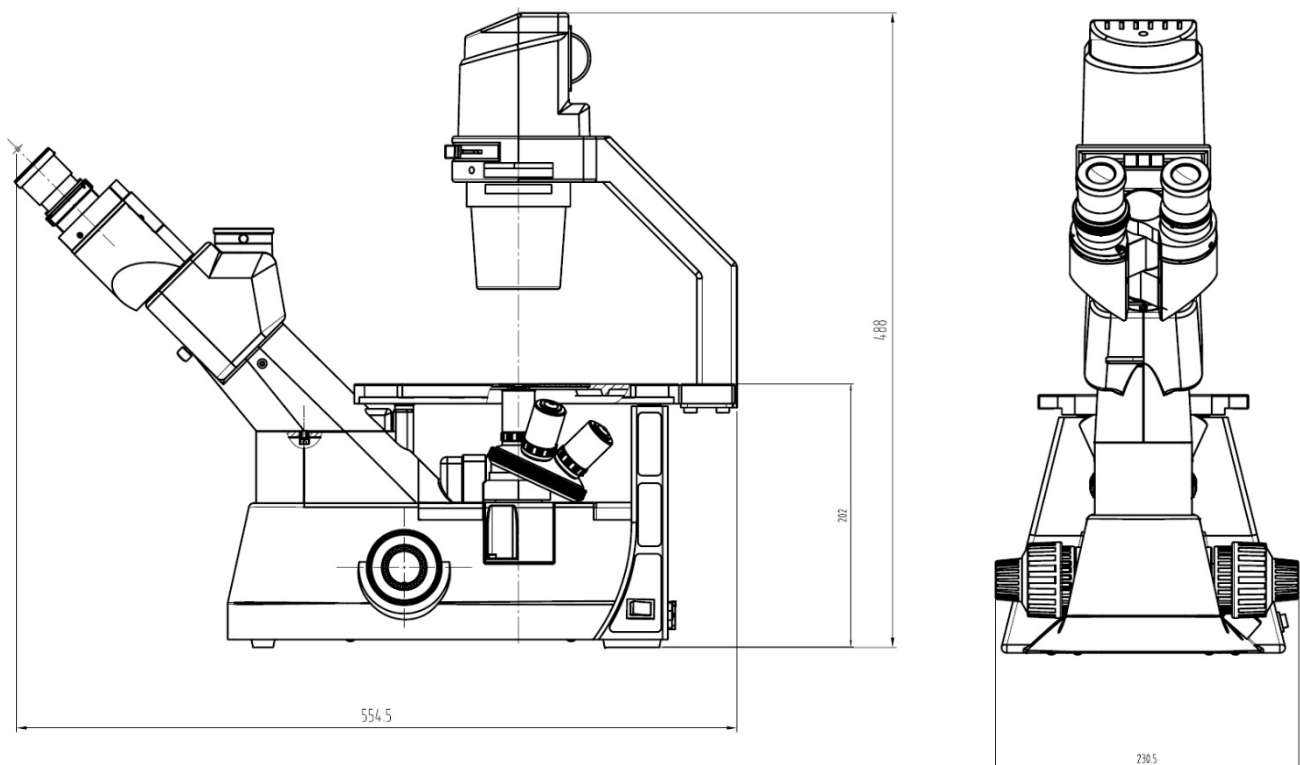
- OX.9805 Photo adapter with 0.5x magnification relay lens for 1/2 inch C/CS mount camera
- OX.9867 Photo adapter with 0.67x magnification relay lens for 2/3 inch C/CS mount camera
- OX.9827 Photo adapter for SLR camera without T2 adapter
- OX.9832 3.2x lens for OX.5527

- AE.5025 T2 adapter for Nikon SLR camera for OX.5527
- AE.5040 T2 adapter for Canon EOS SLR camera for OX.5527

- AE.3199 Glass fuses 3.15 A 250 V packed per 10 pieces

Dimensions

Oxion Inverso for bright field and phase contrast models
(OX.2003-PL / OX.2053-PL / OX.2203-PLPH / OX.2253-PLPH)



Approx. weight: 9 kg

Datasheet v.5271001