

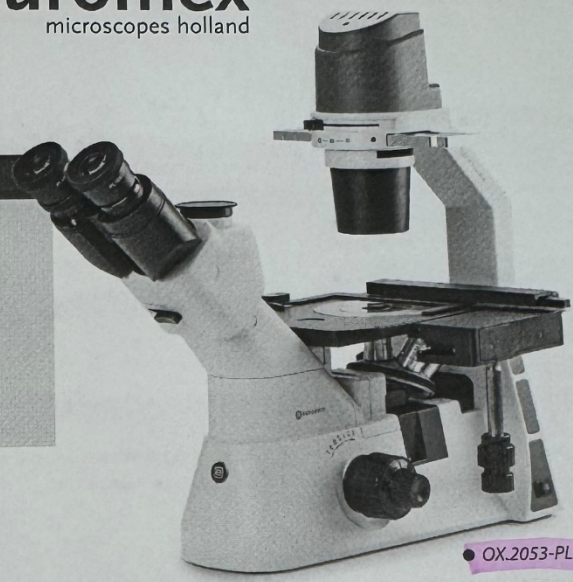
Oxion Inverso
for life science

HIGHLIGHTS

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

LIFE SCIENCE

S1
S2



OX.2053-PLPH

TECHNICAL SPECIFICATIONS

EYEPIECES

Pair of DIN HWF plan 10x/22 mm eyepieces

S9

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 0-100 % positions

S4

S9

NOSEPIECES

Revolving quintuple nosepiece on ball-bearings

S3

S5

OBJECTIVES FOR BRIGHTFIELD

(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

(Photo: OX.9190 Slider with 4x/10x and 20x/40x phase contrast annuli)

S6

S13

OBJECTIVES FOR BRIGHTFIELD AND 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 objective is also available

BRIGHTFIELD OX.2003-PL / OX.2053-PL
488 (h) x 231 (w) x 555 mm (d) | 12.0 kg
PHASE CONTRAST OX.2203-PLPH / OX.2253-PLPH
488 (h) x 231 (w) x 555 mm (d) | 12.0 kg

OBJECTIVES FOR PHASE CONTRAST AND 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 540x/0.65 IOS objectives

All objectives corrected for 1.2 mm thickness

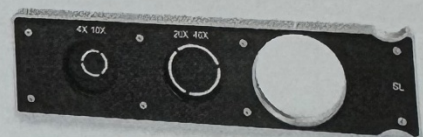
All optics are anti-fungus treated and anti-reflection coated for maximum light throughput

STAGE

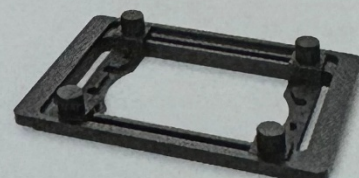
Stage 250 x 230 mm equipped with a coaxial mechanical 120 x 78 mm X-Y stage, delivered with:

- metallic insert for Ø 35 mm cell culture dish dishes
- 76 x 26 mm slide holder
- glass insert with hole
- optional universal cell culture dish holder

(Photo: OX.9599 Universal cell structure dish holder)



OX.9190



OX.9599

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

LED ILLUMINATION FOR FLUORESCENCE

Two LED sources for fluorescence are available for 4 or 9 excitation wavelengths. See our products LE.6400-OX and LE.6900

FILTERS FOR PHASE CONTRAST MODELS

Interference filter 550 nm green and blue filter, 45 mm diameter

STANDARD FLUORESCENCE FILTERS

(for fluorescence models)

The fluorescence models OX.2253-PLF and OX.2253-PLPHF are standard supplied with two filter sets for excitation:

- in the blue spectrum, OX.9745, EX465-495 (BP) DM505 (LP) EM515-555 (BP)
- in the green spectrum, OX.9746, EX540-580 (BP) DM600 (LP) EM605-665 (BP)

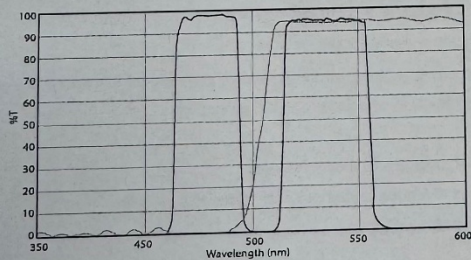
The fluorescence models OX.2453-PLF and OX.2453-PLPHF equipped with a 4 positions filter rail equipped with three standard filter sets for excitation:

- in the blue spectrum, OX.9745, EX465-495 (BP) DM505 (LP) EM515-555 (BP)
- in the green spectrum, OX.9746, EX540-580 (BP) DM600(LP) EM605-665 (BP)
- in the UV spectrum, OX.9747, EX361-389 (BP) D415 (LP) EM435-485 (BP)



● LE.6400-OX/LE.6900

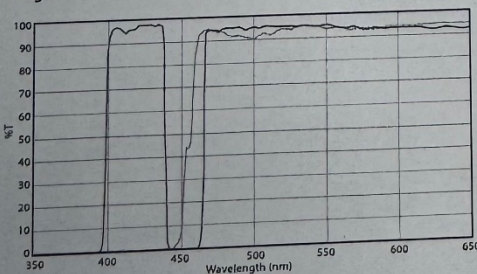
STANDARD GENERAL PURPOSE FLUORESCENCE FILTER SETS



OX.9745 Blue excitation 465-495 nm

FITC EX465-495 (BP) DM505 (LP) EM515-555 (BP)

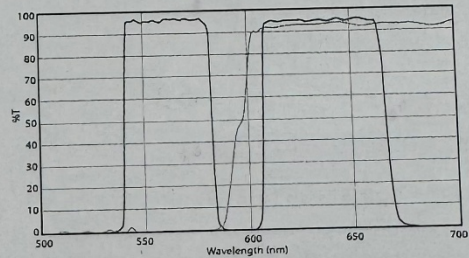
Also suitable for: Acridine Orange + DNA, Alexa Fluor 488™, Atto 488, Azami Green, BODIPY FL/pH7.2, Calcein, Calcium Green™-1, Cy2™, DIO, DyLight 488, EGFP, Emerald GFP, FAM, FITC, Fluo-4, GFP LysoTracker Green/pH 5.2, MitoTracker Green FM/MeOH, mWasabi, Oregon Green™ 488, SYBR® Green I, SYTO 9/DNA,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



OX.9747 UV excitation 361-381 nm

DAPI / Hoechst / Alexa Fluor 350 EX361-389 (BP) D415 (LP) EM435-485 (BP)

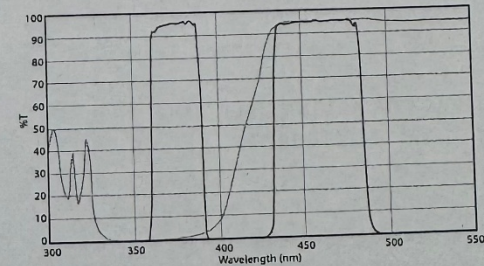
Also suitable for: Alexa Fluor 350™, Biosearch Blue, Coumarin, DAPI, DyLight 350, Hoechst 33258, LysoTracker Blue/MeOH



OX.9746 Green excitation 540-580 nm

Texas Red / mCherry / Alexa Fluor 594 EX540-580 (BP) DM600 (LP) EM605-665 (BP)

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+



OX.9748 Violet excitation 361-389 nm

UV / DAPI Longpass, Calcofluor White EX415-445 (BP) DM455 (LP) EM465-495 (LP)

LIFE SCIENCE

ACCESSORIES AND SPARE PARTS

EYEPIECES

- 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 eyecups

OBJECTIVES FOR BRIGHT FIELD MICROSCOPY FOR INVERTED MODELS (*)

- OX.8304** Plan LWD 4x/0.13 infinity corrected IOS objective, working distance 11 mm
- OX.8310** Plan LWD 10x/0.25 infinity corrected IOS objective, working distance 7.45 mm
- OX.8320** Plan LWD 20x/0.40 infinity corrected IOS objective, working distance 6.92 mm
- OX.8340** Plan LWD 40x/0.65 infinity corrected IOS objective, working distance 2.74 mm
- OX.8360** Plan LWD 60x/0.70 infinity corrected IOS objective, working distance 1.28 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 18.95 mm
- OX.8610** Plan fluarex LWD 10x/0.30 infinity corrected IOS objective, working distance 7.27 mm
- OX.8620** Plan fluarex LWD 20x/0.45 infinity corrected IOS objective, working distance 6.03 mm
- OX.8640** Plan fluarex LWD 40x/0.65 infinity corrected IOS objective, working distance 1.79 mm
- OX.8660** Plan fluarex LWD 60x/0.75 infinity corrected IOS objective, working distance 1.28 mm

OBJECTIVES FOR PHASE CONTRAST (**) MICROSCOPY FOR INVERTED MODELS (*)

- OX.8404** Plan phase LWD 4x/0.13 infinity corrected IOS objective, working distance 10.75 mm (*)
- OX.8410** Plan phase LWD 10x/0.25 infinity corrected IOS objective, working distance 7.45 mm (*)
- OX.8420** Plan phase LWD 20x/0.40 infinity corrected IOS objective, working distance 6.92 mm (*)
- OX.8440** Plan phase LWD 40x/0.65 infinity corrected IOS objective, working distance 2.74 mm (*)

OBJECTIVES FOR FLUORESCENCE AND PHASE CONTRAST (**) MICROSCOPY FOR INVERTED MODELS (*)

- OX.8720** Plan phase fluarex LWD 20x/0.45 infinity corrected IOS objective. Working distance 6.12 mm (*)
- OX.8740** Plan phase fluarex LWD 40x/0.65 infinity corrected IOS objective. Working distance 1.79 mm (*)

STANDARD GENERAL PURPOSE FLUORESCENCE FILTER SETS:

- OX.9745** Fluorescence filter block for Blue excitation
EX465-495 (BP) DM505 (LP) EM515-558 (BP)
- OX.9746** Fluorescence filter block for Green excitation
EX540-580 (BP) DM600 (LP) EM605-665 (BP)
- OX.9747** Fluorescence filter block for UV excitation
EX361-381 (BP) D415 (LP) EM435-495 (BP)
- OX.9748** Fluorescence filter block for Violet excitation
EX415-445 (BP) DM455 (LP) EM465 (BP)

ALL MODELS

- OX.9149** Telescope for phase contrast alignment
- OX.9190** 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.9512** Insert with 76 x 26 mm slide holder and Ø 54 mm cell culture dish holder
- OX.9535** Metal insert for Ø35 mm cell culture dish holder
- OX.9550** Stage extension plate
- OX.9599** Universal cell culture dish holder
- OX.9985** 5 W NeoLED™ replacement unit

FOR TRANSMITTED ILLUMINATION:

- OX.9700** Blue filter
- OX.9702** Green filter
- OX.9703** IR cut-off filter
- OX.9749** Empty Filter block
- OX.9753** Filter block rail, 3 positions
- OX.9754** Filter block rail, 4 positions

- OX.9810** CS/C mount with 1.0x objective
- OX.9833** C-mount adapter with 0.33x objective for Oxion microscopes and 1/3" cameras
- OX.9850** C-mount adapter with 0.5x objective for Oxion and Oxion Inverso microscopes and 1/2" cameras
- AE.5120-2** Standard 23,2 mm tube for 31 mm diameter photo port for Oxion upright microscopes and all Oxion Inverso microscopes
- AE.5130** Universal SLR camera adapter with 2x projection lens for 23.2 mm tubes. Need T2 adapter and AE.5120
- AE.5025** T2 adapter for Nikon D digital SLR cameras
- AE.5040** T2 adapter for Canon EOS digital SLR cameras
- AE.3199** Glass fuses 3.15 A 250 V packed, per 10 pieces
- PB.5155** Microscope slides 76 x 26 mm, ground edges, 50 pieces

(*) All objectives corrected for 1 mm cover glass thickness. All optical parts are anti-fungus treated

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

ACCESSORIES AND SPARE PARTS

- PB.5165** Cover glasses 18 x 18 mm, thickness 0.13 - 0.17 mm, 100 pieces
- PB.5168** Cover glasses 22 x 22 mm, thickness 0.13 - 0.17 mm, 100 pieces
- PB.5245** Lens cleaning paper, 100 sheets per pack
- PB.5255** Immersion oil, n = 1.515 (25 ml)
- PB.5274** Isopropyl alcohol 99% (200 ml)
- PB.5275** Cleaning kit: lens cleaning fluid, lint free lens tissue, brush, air blower, cotton swabs

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OPTIMIZED FLUORESCENCE FILTERS SETS:

OX.9750.39001

Filter set EX435 (BP20) DM455 (LP) EM480 (BP30) AmCyan, Atto 425, Cerulean, CFP, ECFP fluorophore. Needs empty filter block (OX.9749)

OX.9750.39002

Filter set EX480 (BP30) DM505(LP) EM535 (BP40) 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, Fluor-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.9749)

OX.9750.39003

Filter set EX495 (BP20) DM515 (LP) EM540 (BP30) Alexa Fluor 514™, Citrine, EYFP/pH 7, F/IAsh-CCPFCC, mCitrine, Oregon Green™ 514, Rhodamine 123, Topaz. Needs empty filter block (OX.9749)

OX.9750.39004

Filter set EX540 (BP25) DM565 (LP) EM605 (BP55) Alexa Fluor 546™, Alexa Fluor 555™, Atto 550, CAL Fluor® Red 590, Cy3™, Dil, DsRed, DyLight 549, MitoTracker Orange/MeOH, Resorufin, Rhod-2, TagRFP, TAMRA tdTomato, Tetramethylrhodamine isothiocyanate, TRITC. Needs empty filter block (OX.9749)

OX.9750.39005

Filter set EX540 (BP25) DM565 (LP) EM 620 (BP60) TRITC-red-shifted, Ethidium homodimer-1/DNA, Propidium Iodide. Needs empty filter block (OX.9749)

OX.9750.39007

Filter set EX620 (BP50) DM655 (LP) EM 690 (BP50) 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.9749)

OX.9750.39008

Filter set EX420 (BP40) DM455 (LP) EM 535 (BP40) Lucifer Yellow/Tetracycline/AlexaFluor 430. Needs empty filter block (OX.9749)

OX.9750.39009

Filter set EX480 (BP30) DM505 (LP) EM 620 (BP60) 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.9749)

On request, the microscope can also be equipped with more specific, optimized and application related fluorescence filters sets

OPTIMIZED PREMIUM FLUORESCENCE FILTERS SETS:

OX.9750.0401

Premium filter set EX440 (BP21), DM455 (LP), EM480 (BP30) for CFP, Cerulean, CyPet, SpectrumAqua. Needs empty filter block (OX.9749)

OX.9750.0403

Premium filter set EX380 (BP50), DM410 (LP), EM450 (BP60) for BFP, BFP2, DAPI, Alexa Fluor 350, Hoechst 33342 & 33258, BFP. Needs empty filter block (OX.9749)

OX.9750.0404

Premium filter set EX470 (BP40), DM500 (LP), EM535 (BP50) for Alexa Fluor 488, CoralHue Azami Green, Cy2, eGFP, FITC, GFP (sapphire), Emerald. Needs empty filter block (OX.9749)

OX.9750.0407

Premium filter set EX635 (BP30), DM660 (LP), EM710 (BP80) Cy5, Alexa Fluor 647. Also compatible with TO-PRO-3, TOTO-3, Kodak, X-Sight 650. Needs empty filter block (OX.9749)

OX.9750.0412

Premium filter set EX500 (BP25), DM252 (LP), EM545 (BP35) Acridine Orange (+DNA), Rhodamine Green, CL NERF, (hi pH), YFP. Also compatible with Alexa Fluor 532. Needs empty filter block (OX.9749)

OX.9750.0414

Premium filter set EX560 (BP55), DM505 (LP), EM645 (BP75) Texas Red, Texas Red-X, CryptoLight CF-6. Also compatible with Cy3.5, HcRed, mRaspberry, MitoTracker Red. Needs empty filter block (OX.9749)

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