

Delphi-X Inverso

fluorescence

HIGHLIGHTS

- Life science applications
- Observation of fluorescence in tissues and cells
- Brightfield, phase contrast fluorescence observations
- DIC (differential interference contrast)
- Long working distance IOS plan semi-apochromatic Fluarex achromatic objectives
- Revolving sextuple nosepiece
- 10 W LED or 100 W halogen transmitted illumination
- 100 W HBO mercury vapor fluorescence illumination
- Backwards tilting condenser arm
- Easy placement of large objects
- 10 Years warranty

TECHNICAL SPECIFICATIONS

EYEPIECES

Pair of DIN HWF plan 10x/25 mm or 10x/22 mm eyepieces with diopter adjustment

HEAD

Trinocular 45° inclined tubes. Interpupillary distance of 47 to 78 mm.
Trinocular head with 100-0, 80/20 and 0/100 positions

NOSEPIECE

Revolving sextuple nosepiece on ball-bearings. The nosepiece can be equipped with DIC prisms for the 10x/20x and 40x objectives

OBJECTIVES

- High numerical infinity semi-apochromatic long working distance plan phase Fluarex PLPHFi 10x/0.30, 20x/0.45, S40x/0.60 IOS objectives enable the sub-cellular structures
- An optional 60x/0.80 IOS objective is also available
- The 20x, S40x and optional S60 objectives are equipped with collar adjustment ring for glass thicknesses from 0 to 1.2 mm



• Filter cubes with fluorescence filters

DI.3053-PLPHFi •



PHASE CONTRAST FLUORESCENCE DI.1053-PLPHFi

665 (h) x 276 (w) x 800 mm (d) | 36.0 kg

Fluarex™ objectives are made of low-absorption glass. Fluarex™ is a trademark of Euromex microscopen bv. All optics are anti-fungus treated and anti-reflection coated for maximum light throughput

STAGE

Stage 340 x 230 mm, equipped with a coaxial mechanical 130 x 85 mm X-Y stage. Supplied with:

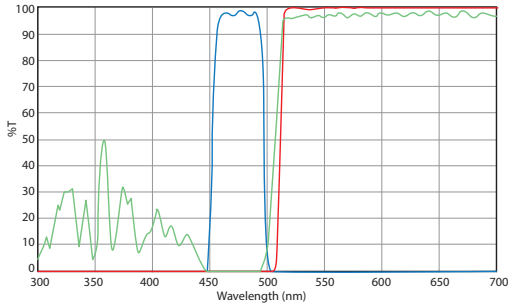
- Metal insert for Ø 38 mm cell culture dish
- Metal insert for Ø 54 mm cell culture dish or 76 x 26 mm slides
- Metal insert for Multiwell plates (127.76 x 85.48 mm)
- Metal insert for Teraski plates (83.3 x 58.0 mm)
- Optional universal cell culture holder

CONDENSER

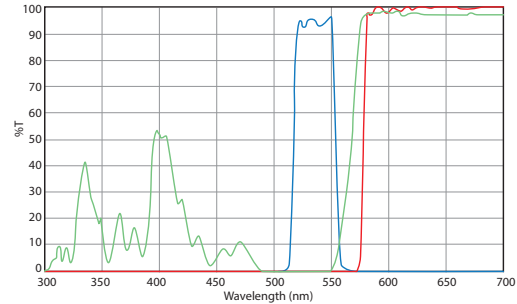
Rotating N.A. 0.55 condenser with iris diaphragm. Working distance 26 mm. Supplied with phase contrast annuli for 10x/20x, 40x and 60x objectives and the DIC prisms for the 10x/20x/40x and 60x objectives. Three filter holders allow the insertion of Ø 38 mm filters in the optical path. The arm with condenser can be tilted backwards for convenient access to the stage. This allows easy placement of large objects like flasks and Petri dishes

FLUORESCENCE ATTACHMENT

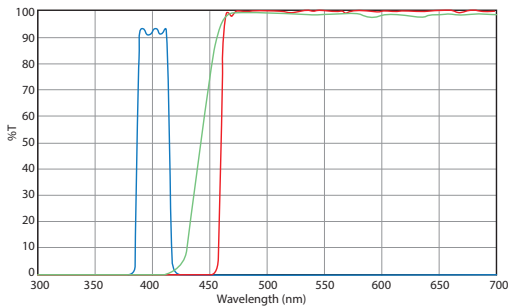
The Delphi-X Inverso for fluorescence microscopy is supplied with a 6-position fluorescence filter set wheel (see picture next page) and comes with two fluorescence filter sets for blue and green excitation (DI.9745 and DI.9746). Other filter sets are optional



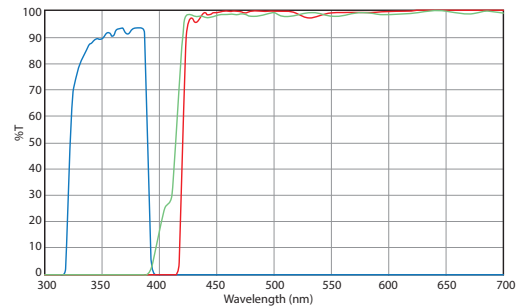
● DI.9745 Blue excitation EX 460-495 DM 505 EM 510 long pass



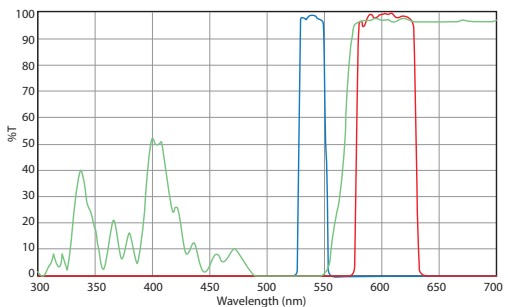
● DI.9746 Green excitation EX 510-550 DM 570 EM 575 long pass



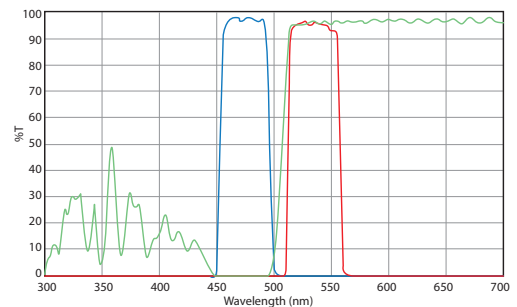
● DI.9747 Violet excitation EX 400-410 DM 455 EM 460 Long pass



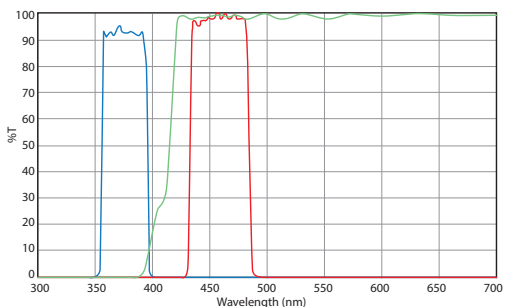
● DI.9748 Ultra violet excitation EX 330-385 DM 410 EM 420 Long pass



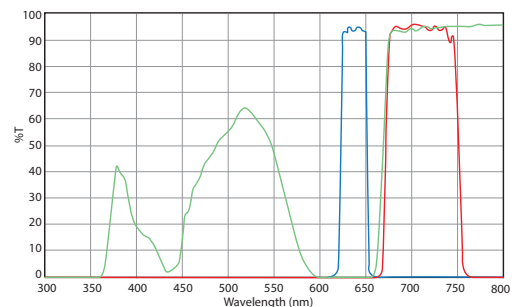
● DI.9750.TRITC Green excitation EX 528-553 DM 565 EM 578-633 band pass



● DI.9750.FITC Blue excitation EX 460-495 DM 505 EM 510-550 band pass



● DI.9750.DAPI UV excitation EX 360-390 DM 415 EM 435-485 band pass



● DI.9750.R Red excitation EX 620-650 DM 660 EM 670-750 band pass

LENS CHANGER

A lens changer with a 1.5x lens allow intermediary magnifications of 1.5 times the standard objective magnifications. Switching from 20x to 30x or 40 to 60 and from 60x to 90x magnification can be done without the need to re-focus on the sample

FOCUSING ADJUSTMENT

Coaxial 10 mm coarse and fine adjustments, 1 µm precision and with friction adjustment

ILLUMINATION

Fluorescence illumination with a 100 W mercury vapor lamp with external 100-240 V power supply. Transmitted 10 W LED or 100 W halogen illumination and internal power supply. Fuse holder 3.15 A / 250 V

PACKAGE CONTENT

Supplied with metal insert for Ø 38 mm cell culture dish and a metal insert for Ø 54 mm cell culture dish with 76 x 26 mm slides, metal insert for Multiwell plates, metal insert for Teraski plates, blue and green interference Ø 45 mm filters, power cord, dust cover, green filter and alignment telescope and user manual

● 6-Position fluorescence filter set wheel and 1.5 lens changer



MODELS	10x/20x/40x PLPHFi objectives	100 W Halogen illumination	10 W LED illumination	100 W HBO fluorescence illumination
DI.3053-PLPHFi	•		•	•
DI.3053-PLPHFi/HAL	•	•		•

ACCESSORIES AND SPARE PARTS

EYEPIECES

- DI.6010** Super wide field SWF 10x/25 mm eyepiece
- DI.6010-C** Super wide field SWF 10x/25 mm eyepiece with crosshairs
- DI.6010-M** Super wide field SWF 10x/25 mm eyepiece with micrometer
- DI.6010-CM** Super wide field SWF 10x/25 mm eyepiece with micrometer and crosshairs
- DI.6010-SG** Super wide field SWF 10x/25 mm eyepiece with 20 x 20 square grid reticle
- DI.6012** Wide field WF 12.5x/17.5 mm eyepiece
- DI.6015** Wide field WF 15x/16 mm eyepiece
- DI.6020** Wide field WF 20x/12 mm eyepiece
- DI.6099-L** Eyecups for eyepiece

OBJECTIVES

- DI.8710** Infinity semi-apochromatic long working distance plan phase Fluarex PLPHFi 10x/0.30, IOS objective PLPHi 10x/0.30 objective. WD 10.2 mm
- DI.8720** Infinity semi-apochromatic long working distance plan phase Fluarex PLPHFi 20x/0.45 objective. WD 7.5 to 8.8 mm
- DI.8740** Infinity semi-apochromatic long working distance plan phase Fluarex PLPHFi S40x/0.60 IOS objective. WD 3 to 4.4 mm
- DI.8760** Infinity semi-apochromatic long working distance plan phase Fluarex PLPHFi S60X/0.70 IOS objective. WD 1.8-2.6 mm

WD = working distance

DIFFERENTIAL INTERFERENCE CONTRAST

- DI.9690** Rotating DIC and BF disc condenser without DIC prisms for life science Delphi-X Inverso models. Needs one or more DIC-prisms (DI.9660-xx),
- DI.9690-10** DIC prism for rotating disc condenser (DI.9690)
- DI.9690-20** DIC prism for rotating disc condenser (DI.9690)
- DI.9690-40** DIC prism for rotating disc condenser (DI.9690)
- DI.9690-60** DIC prism for rotating disc condenser (DI.9690)
- DI.9693-10** DIC insert with small prism to be used with 10x objective DI.8710
- DI.9693-20** DIC insert with small prism to be used with 20x objective DI.8720
- DI.9693-40** DIC insert with small prism to be used with 40x objective DI.8740
- DI.9693-60** DIC insert with small prism to be used with 60x objective DI.8760

STANDARD GENERAL PURPOSE FLUORESCENCE FILTER SETS

Long pass type:

- DI.9745** Fluorescence filter block for blue excitation with excitation at 460 to 495 nm, dichroic mirror at 505 nm and emission long pass filter from 510 nm
- DI.9746** Fluorescence filter block for green excitation with excitation at 510 to 550 nm, dichroic mirror at 570 nm and emission long pass filter from 575 nm
- DI.9747** Fluorescence filter block for violet excitation with excitation at 400 to 410 nm, dichroic mirror at 455 nm and emission long pass filter from 460 nm
- DI.9748** Fluorescence filter block for ultra violet excitation with excitation at 330 to 385 nm, dichroic mirror at 410 nm and emission long pass filter from 420 nm

Band-pass type

DI.9750.TRITC

Fluorescence filter block for blue excitation with excitation at 528 to 553 nm, dichroic mirror at 565 nm and emission band pass filter at 578 to 633 nm. Suitable for TRITC

DI.9750.FITC

Fluorescence filter block for green excitation with excitation at 460 to 495 nm, dichroic mirror at 505 nm and emission band pass filter at 510 to 550 nm. Suitable for FITC

DI.9750.DAPI

Fluorescence filter block for ultraviolet excitation with excitation at 360 to 390 nm, dichroic mirror at 415 nm and emission band pass filter at 435 to 485 nm. Suitable for DAPI

DI.9750.RED

Fluorescence filter block for red excitation with excitation at 620 to 650 nm, dichroic mirror at 660 nm and emission band pass filter at 670 to 750 nm

CAMERA ACCESSORIES

- DI.9810** C-mount with 1x magnification for C-mount camera
- DI.9835** C-mount with high resolution relay 0.35x objective for 1/3 inch C-mount camera
- DI.9850** C-mount with high resolution relay 0.50x objective for 1/2 inch C-mount camera
- DI.9863** C-mount with high resolution relay 0.63x objective for 2/3 inch C-mount camera
- AE.5130** Universal SLR adapter with built-in 2x lens for standard 23.2 mm tube. Needs T2 adapter
- AE.5025** T2 adapter for Nikon D SLR digital camera
- AE.5040** T2 adapter for Canon EOS SLR digital camera

MISCELLANEOUS

- DI.9961** 100 Watt 12 V halogen bulb
- DI.9997** 10 Watt LED replacement
- DI.9997-R** 10 Watt LED replacement for reflected illumination
- AE.5214** 500 mA 250 V fuses for LED models, 10pcs
- AE.5216** 5 A 250 V fuses for halogen models, 10pcs
- SL.1385** 100 W HBO mercury vapor lamp for fluorescence

DISPOSABLES

- PB.5155** Microscope slides 76 x 26 mm, ground edges, 50 pieces per pack
- PB.5157-W** Microscope slides 76 x 26 mm, ground edges and frosted side white color, 50 pieces per pack
- PB.5157-B** Microscope slides 76 x 26 mm, ground edges and frosted side blue color, 50 pieces per pack
- PB.5165** Cover glasses 18 x 18 mm, 0.13-0.17 mm, 100 pieces
- PB.5168** Cover glasses 22 x 22 mm, 0.13-0.17 mm, 100 pieces
- PB.5245** Lens cleaning paper, 100 sheets per pack
- PB.5255** Immersion oil, 25 ml. Refraction index $n = 1.482$
- PB.5274** Isopropyl alcohol 99%, 200 ml
- PB.5275** Cleaning kit: lens fluid, lint free lens tissue/paper, brush, air blower, cotton swabs