

# LIFE SCIENCE MICROSCOPES

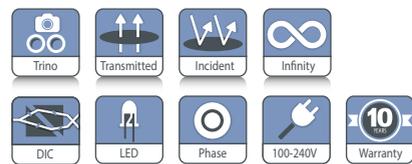
## Delphi-X inverso

### Delphi-X Inverso

Delphi-X Inverso™ is an inverted microscope for the professional with demanding applications of living cell cultures and stained samples. It is available in two configurations:

- for phase contrast plus DIC (differential interference contrast) equipment
  - for fluorescence application
- Super contrast semi-apochromatic objectives with collar adjustment ring assure perfect observation of cells or tissues in 1.2 mm thick Petri dishes or flasks

• DI.1053-PLPHi



**PHASE CONTRAST DI.1053-PLPHI**  
686.5 (h) x 276 (w) x 800 mm (d) | 31 kg

## HIGHLIGHTS

- Life science applications
- Observation of tissue cultures, living cells
- Brightfield, phase contrast
- DIC (differential interference contrast)
- Long working distance IOS plan achromatic objectives
- Revolving quintuple nosepiece
- 10 W LED or 100 W halogen reflected illumination
- 10 W LED or 100 W halogen transmitted illumination
- Backwards tilting condenser arm
- Easy placement of large objects
- 10 Years warranty

## 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/40x and 60x objectives

### OBJECTIVES

High numerical infinity semi-apochromatic long working distance plan phase Fluorex PLPHFi 10x/0.30, 20x/0.45, S40x/0.60 IOS objectives enable the sub-cellular structures. An optional 4x/0.13 and 60x/0.70 IOS objectives are also available. The 20x, 40x and optional 60 objectives are equipped with collar adjustment ring for glass thicknesses from 0 to 1.2 mm

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



- Phase contrast and differential interference contrast condenser

### STAGE

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

- Metal insert for O 38 mm cell culture dish
- Metal insert for O 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 is 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

## 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

## FLUORESCENCE FILTER SET WHEEL

The Delphi-X Inverso is supplied with a 6-position fluorescence filter set wheel. See photo below



## FOCUSING ADJUSTMENT

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

## ILLUMINATION

Incident 10 W LED or 100 W halogen Intensity adjustable with internal 100-240 V power supply. Transmitted 10 W LED or 100 W halogen illumination. Fuse holder 5 A / 250 V. Delphi-X Inverso can be extended with fluorescence equipment

## 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

## ICSI SET

(Intracytoplasmic sperm injection)

- Perfect for inexperienced users in need of training practice as well as for professionals
- Complete manual system
- Large movement range
- Easy micropipette repositioning
- Adjustable micropipette holder angle between 20° and 40°
- Micropipette holder fixing knob reduces vibration and provides easy handling of the sperm
- Easy installation and service
- 3D Hydraulic manipulation joysticks for smooth movement
- Pneumatic Air Injector for ICSI and holding
- No service required for injector
- Identical sensitive injectors on both sides and interchangeable
- Top quality for affordable price
- Medical device CE mark
- Movement range: X/Y/Z: 20 mm each, 1 mm for one complete turn of the handle
- Optional heating stage with controller

Set includes two 3D hydraulic joysticks, two pipette setup mechanisms, one connection bar with moving handle, two air injectors with tubing and pen type micromanipulation, pipette holder, two metal plates for injectors, one set of Allen wrenches, one ruler for mechanic home position adjustment. Unit is packed in a solid carry case

## HEATING STAGES AE.8010 AND AE.8015

Heating glass stage for Euromex microscope stage with 110 mm circular hole. The glass plate fits the circular opening of the X-Y stage and enables a flat glass object-plate with constant temperature. The stage has an aluminum frame for superior resistance and flatness. Glass thickness 0.5 mm. Plate diameter 110 mm

### Controller AE.8010

- 2-Channel Temperature Controller with touchscreen interface
- One controller can control up to two devices
- External temperature sensor (included) and self calibration routines allow easy calibration of the heating devices

- On-board data logging allows for recording temperature as a function of time and logging calibration events and alarms
- The password protected controller is equipped with routines to re-calibrate the sensors against certified thermometers
- Temperature range: from ambient to 60°C
- Temperature accuracy on specimen:  $\pm 0.3^\circ\text{C}$
- 4.3" touch screen interface
- External temperature sensor
- On-board data logging to USB drive
- Alarm buzzer and external alarm connector
- One controller can control up to two devices
- Self calibration routines enable high temperature accuracy



- Single channel Temperature controller with LCD display temperature control push buttons.
- Small and robust while maintaining reliability
- Straight forward in usage
- Temperature range: from ambient to 60°C
- Set point Resolution: 0.1°C
- One-Point Temperature Calibration and Adjustment



• Filters in sliders



### Controller AE.8015

This is the economic and compact single-channel Temperature Controller version of the AE.8010. This model combines performance and simplicity at a economic price

MODELS	LWD Plan phase 10x/20x/540x objectives	100 W Halogen incident illumination	10 W LED incident illumination
DI.1053-PLPHFi	•		•
DI.2053-PLPHFi	•	•	

# 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.8704** Infinity semi-apochromatic long working distance plan Fluarex PLFi 4x/0.13, IOS objective. WD 16.8 mm
- 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



## 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) for life science Delphi-X Inverso models
- DI.9690-20** DIC prism for rotating disc condenser (DI.9690) for life science Delphi-X Inverso models
- DI.9690-40** DIC prism for rotating disc condenser (DI.9690) for life science Delphi-X Inverso models
- DI.9690-60** DIC prism for rotating disc condenser (DI.9690) for life science Delphi-X Inverso models
- 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 10x objective DI.8740
- DI.9693-60** DIC insert with small prism to be used with 10x objective DI.8760

## MICROMANIPULATOR ATTACHMENT

- AE.8000** Micromanipulator for intracytoplasmic sperm injection (ICSI) suitable with the Oxion Inverso inverted microscope
- AE.8010** Heating stage with transparent glass plate for AE.8000 Micromanipulator, including digital temperature controller
- AE.8015** Heating stage with transparent glass plate for AE.8000 Micromanipulator, including basic 1-channel digital temperature controller

## 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

## 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

WD = working distance

