

# Delphi-X Inverso

## HIGHLIGHTS

- Life science applications
- Observation of tissue cultures, living cells
- Brightfield, phase contrast
- DIC (differential interference contrast)
- Long working distance IOS plan semi apochromatic objectives
- Revolving sextuple nosepiece
- 5 W LED or 100 W halogen transmitted 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 (optional)

### 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

- Phase contrast brightfield and differential interference contrast condenser



DI.1053-PLPHi ●

### PHASE CONTRAST DI.1053-PLPHi

686.5 (h) x 276 (w) x 800 mm (d) | 31 kg

### 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 4x/0.13 and 60x/0.70 IOS objective is also available
- The 20x, 40x and optional 60 objectives are equipped with collar adjustment ring for glass thicknesses from 0 to 1.2 mm

*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 Terasaki plates (83.3 x 58.0 mm)
- Optional universal cell culture holder

## CONDENSER

Rotating N.A. 0.55 condenser with 6 positions, iris diaphragm and filter holders. Working distance is 26 mm. Supplied with phase contrast annuli for 10x/20x, 40x and 60x objectives, brightfield position and slots for optional DIC prisms. 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

## MAGNIFICATION CHANGER

A magnification changer with a 1.5x lens allows intermediary magnifications of 1.5 times the standard objective magnifications. For example switching from 20x to 30x or from 60x to 90x magnification can be done without the need to change objectives

## FLUORESCENCE FILTER SET WHEEL

The Delphi-X Inverso is supplied with a 6-position fluorescence filter set wheel. See photo below. (More information on fluorescence in the Delphi-X Inverso fluorescence datasheet)



## FOCUSING ADJUSTMENT

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

## ILLUMINATION

Transmitted 5 W LED or 100 W halogen Intensity adjustable with internal 100-240 V power supply. 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 38 mm filters, power cord, dust cover, green filter and alignment telescope and user manual



● *DI.1053-PLPHFi with camera*

## 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
- 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
- Alarm buzzer and external alarm connector
- Self calibration routines enable high temperature accuracy

### 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

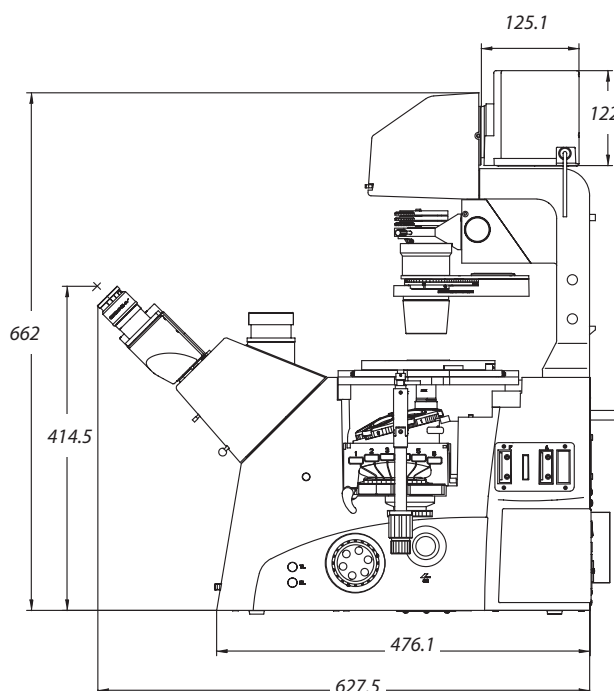
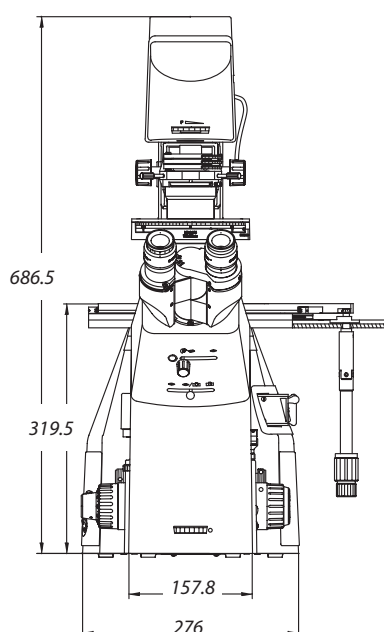
- Single channel Temperature controller with LCD display temperature control push buttons.
- Small and robust while maintaining reliability
- Straight forward in usage
- Temperature range: from ambient to 60°C
- Set point Resolution: 0.1°C
- One-Point Temperature Calibration and Adjustment



● AE.8010 Controller



● Heating stage with AE.8015 controller



## MODELS

LWD Plan phase 10x/20x/540x objectives

100 W Halogen illumination

5 W LED illumination

DI.1053-PLPHFi

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DI.2053-PLPHFi

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## ACCESSORIES AND SPARE PARTS

### EYEPIECES

- DI.6010** Super wide field SWF 10x/25 mm focusable eyepiece for Delphi-X Inverso, 30 mm diameter tube
- DI.6210** Super wide field SWF 10x/22 mm focusable eyepiece for Delphi-X Inverso, 30 mm diameter tube
- DI.6012** Wide field WF 12.5x/17.5 mm eyepiece for Ø 30 mm tube for Delphi-X Inverso
- DI.6015** Wide field WF 15x/16 mm eyepiece for Ø 30 mm tube for Delphi-X Inverso
- DI.6020** Wide field WF 20x/12 mm eyepiece for Ø 30 mm tube for Delphi-X Inverso
- DI.6099-L** Eyeshade for eyepieces

### OBJECTIVES

- DI.8704** Infinity Plan Semi-Apochromatic Phase contrast Fluarex PLPHFi-Apo 4x/0.13 objective, working distance 16,8 mm. Cover glass correction 1.2 mm
- DI.8710** Infinity Plan Semi-Apochromatic Phase contrast Fluarex PLPHFi-Apo 10x/0.30 objective. Working distance 10.2 mm. Cover glass correction 1.2 mm
- DI.8720** Infinity Plan Semi-Apochromatic Phase contrast Fluarex PLPHFi-Apo 20x/0.45 objective with collar ring for adjustment of working distance between 7.5 to 8.8 mm. Cover glass correction 1.2 mm
- DI.8740** Infinity Plan Semi-Apochromatic Phase contrast Fluarex PLPHFi-Apo 40x/0.60 objective with collar ring for adjustment of working distance between 3 to 4.4 mm. Cover glass correction 1.2 mm

### DIFFERENTIAL INTERFERENCE CONTRAST

- DI.9690-00** DIC prism with polarizer for condenser for Life Science Delphi Inverso models. To be used with Plan Semi-Apo 20/40x objectives
- DI.9690-10** DIC prism with polarizer for condenser for Life Science Delphi Inverso models. To be used with Plan Semi-Apo 10x objectives
- DI.9693-10** DIC prism for nosepiece to be used with Semi-Apo 10x objective of Life Science Delphi Inverso models
- DI.9693-20** DIC prism for nosepiece to be used with Semi-Apo 20x objective of Life Science Delphi Inverso models
- DI.9693-40** DIC prism for nosepiece to be used with Semi-Apo 40x objective of Life Science Delphi Inverso models
- DI.9698** DIC analyzer for nosepiece for Life science Delphi-X Observer DIC

### CAMERA ACCESSORIES

- DI.9810** C-mount with 1x magnification for C-mount camera
- DI.9840** C-mount with high resolution 0.40x objective for 1/3 inch C-mount camera
- DI.9850** C-mount with high resolution 0.50x objective for 1/2 inch C-mount camera

### MISCELLANEOUS

- DI.9191** Phase contrast annuli for 4x PLPHFi objective DI.8404
- DI.9961** 100 Watt 12 V halogen bulb
- DI.9997** 5 Watt LED replacement
- 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.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