

Delphi-X Observer

HIGHLIGHTS

- Microscopes for advanced Life Sciences
- DIN Super Wide field SWF 10x/25 mm eyepieces, Ø 30 mm
- Sextuple reversed nosepiece
- Plan EIS super contrast objectives
- Plan Phase EIS super contrast objectives
- Plan Semi Apochromatic EIS super contrast objectives
- 190 x 152 mm stage with 78 x 32 mm integrated right-handed mechanical stage with scratch-free Gorilla glass
- 3 W LED or 100 W halogen light source, integrated Köhler
- DIC ready
- iCare sensor for energy saving
- CSS - Cable Storage System
- 10 years warranty

TECHNICAL SPECIFICATIONS

EYEPIECE(S)

- DIN Super Wide field SWF 10x/25 mm, Ø 30 mm eyepieces
- DIN Super Wide Field SWF 10x/22 mm, Ø 30 mm eyepieces also available on special request

HEAD

- Siedentopf trinocular with 30° inclined tubes
- Interpupillary distance adjustable between 47 and 78 mm
- 3-Position beamsplitter (0:100/ 100:0/ 80:20)
- Diopter adjustment on both eyepieces
- *Optional: ergonomic tilting head, face-to-face dual head and multihead system with 2, 3, 5 or 10 heads*

MULTIHEAD SYSTEM

- Delphi-X Observer can be extended with a unique multihead system for in total 2, 3, 5 or 10 heads allowing simultaneous observation of specimens
- The central attachment is equipped a trinocular head and with a joystick to move a green or red laser pointer across the entire field of views of all heads
- Configurations with one, two, four or nine additional binocular heads, 30° inclined tubes and infinity corrected IOS objectives
- Trinocular head is supplied with super wide field SWF 10x/25 mm eyepieces.
- Each extra binocular head is supplied with super wide field plan SWF 10x/25 mm eyepieces (except for the model with 9 binocular heads (10 users) that is supplied with EWF 10x/22 mm eyepieces)

Order references:

- DX.1156-xxx/n (NeoLED™ versions). n = total number of heads. xxx = objectives PLi, APLi or PLPHi
- DX.2156-xxx/10 (Delphi-X Observer 10 head version is only available with a 100 W halogen illumination)

FACE-TO-FACE DUAL HEAD SYSTEM

- The Delphi-X Observer can also be equipped with a face-to-face trinocular head for 2 users allowing simultaneous observation
- Supplied with 30° inclined tubes and plan infinity corrected IOS objectives
- The central attachment is equipped with a joystick to move a green and red laser pointer across the entire field of views of the 2 heads.
- The trinocular head is supplied with super wide field SWF 10x/25 mm eyepieces and the second binocular head is supplied with extended wide field EWF 10x/22 mm eyepieces



DX.2153-APli



3-Position beamsplitter
(0:100/ 100:0/ 80:20)



Ergonomic tilting head



Delphi-X Observer (left),
iScope and BioBlue microscope

FACE-TO-FACE DUAL HEAD SYSTEM

Order reference:

- DX.2154-xxx (100 W halogen versions) or
- DX.1154-xxx (NeoLED™ versions) xxx = objectives PLi, APLi or PLPHi

NOSEPIECE

- Revolving sextuple reversed nosepiece on ball-bearings

ENHANCED INFINITY SYSTEM (EIS)

- With 25 mm field of view, unsurpassed 60 mm Enhanced Infinity System (EIS) objectives the Delphi-X Observer offers the absolute best available Life Science microscope on the market.
- Long working sessions will not be a problem due to the ergonomic design, low stage controls for either left or right handed users and an optional ergonomic tilting head to match each user requirement
- All optics are anti-fungus treated and anti-reflection coated for maximum light throughput
- The S40x, S50x, S60x and S100x objectives are spring loaded

OBJECTIVES

(ANATOMO- AND HISTOPATHOLOGY LABORATORIES)

- Infinity corrected Plan Semi-Apochromatic EIS 4x/0.13 WD 16.5 mm, 10x/0.30 WD 8.1 mm, 20x/0.50 WD 2.1 mm, S40x/0.75 WD 0.70 mm, S100x/1.30 (oil immersion) 0.15 mm objectives

OBJECTIVES

(CLINICAL ROUTINE LABORATORIES)

- Infinity corrected Plan Achromatic EIS 4x/0.10 WD 30 mm, 10x/0.25 WD 10.2 mm, 20x/0.40 WD 12.0 mm, S40x/0.65 WD 0.7 mm, S100x/1.25 (oil immersion) WD 0.2 mm objectives
- Optional: 2x/0.06 WD 7.5 mm, S50x/0.95 (oil immersion) WD 0.19 mm and S60x/0.80 WD 0.30 mm

WD = working distance

OBJECTIVES

(PHASE CONTRAST)

- Infinity corrected Plan Phase EIS 10x/0.25 WD 10.2 mm, 20x/0.40 WD 12 mm, S40x/0.65 WD 0.7 mm, S100x/1.25 (oil immersion). WD 0.2 mm objectives

OBJECTIVES

Plan PLi IOS	2x/0.06 ⁽¹⁾	4x/0.10	10x/0.25	20x/0.40	S40x/0.65	S50x/0.95 oil ⁽¹⁾	S60x/0.80 ⁽¹⁾	S100x/1.25 oil	S100x/1.25 oil iris ⁽¹⁾
Plan Phase PLPHi IOS			10x/0.26	20x/0.41	S40x/0.66			S100x/1.25 oil	
Plan Semi-Apochromatic PLi-Apo IOS		4x/0.13	10x/0.30	20x/0.50	S40x/0.75			S100x/1.30 oil	

(1) Optional

STAGE

- 190 x 152 mm stage with 78 x 32 mm integrated right-handed mechanical stage
- Left-handed mechanical stage available on request (Order references: Add -L to product number)
- Standard supplied with robust and scratch-resistant Gorilla glass
- Optional Sapphire glass available on request

FOCUSING

- Coaxial coarse and fine adjustment, 100 graduations, 1 µm precision, 100 µm per rotation, total travel approximately 35 mm
- Supplied with an adjustable rack stop to prevent damage to sample and objectives
- The coarse adjustments are equipped with friction control

CONDENSER FOR BRIGHTFIELD

- In height adjustable N.A. 0.90/1.25 Abbe swing-out condenser

CONDENSER FOR PHASE CONTRAST

- In height adjustable N.A. 1.25 Zernike phase contrast condenser with phase annuli for 10/20/40x and S100x-oil objectives



Revolving sextuple reversed nosepiece on ball-bearings



For slider with 1λ retardation plate for observation of monosodium crystal deposition (gout) and for DIC slot (DIC ready)



Stage with optional scratch-free Sapphire glass

DIASCOPIIC ILLUMINATION

- Two illuminations are available for the Delphi-X Observer microscope:
 - Diascopic intensity adjustable 3 W NeoLED™ illumination with internal 100-240 V power supply
 - Diascopic intensity adjustable 100 W 24 V halogen illumination with internal 100-240 V power supply
- The diascopic 100 W 24 V halogen illumination comes with 2 push-in/push-out neutral density filters for smooth attenuation of the light intensity for all kind of samples
- The diascopic NeoLED™ illumination comes with 1 neutral density filter



Filter selection button

NEOLED

- The innovative NeoLED™ design is a combination of a custom LED and a specially designed thin lens with a short focal length in order to obtain three main benefits:
 - More oblique light from the LED lightsource can be captured, which increases the light output significantly
 - Less energy is required to achieve this level of light intensity
 - The larger aperture of NeoLED™ allows the optical systems of the microscope to produce images at higher resolutions, very close to the theoretical diffraction limit of the optics



iCare sensor
for energy saving

ICARE SENSOR

- The unique iCare Sensor is developed to avoid unnecessary loss of energy
- The illumination of the microscope automatically switches off shortly after microscopists step away from their position

PACKAGING

- Supplied with power cord, dust cover, a spare fuse, user manual and 5 ml immersion oil. All packed in a polystyrene box
- LED versions are supplied with white and yellow filter and halogen models with blue filter

MODELS WITH TRINOCULAR HEAD

	Trinocular	SWF 10x/25 mm eyepieces	Sextuple noisepiece	Plan 4/10/20/S40/S100 oil EIS objectives	Plan Semi-Apochromatic 4/10/20/S40/S100 oil EIS objectives	Plan Phase 10/20/S40/S100 oil EIS objectives	3 W NeoLED Köhler	100 W 24 V Halogen Köhler
DX.1153-PLi	•	•	•	•			•	
DX.1153-PLFi	•	•	•		•		•	
DX.1153-PLPHi	•	•	•			•	•	
DX.2153-PLi	•	•	•	•				•
DX.2153-PLFi	•	•	•		•			•
DX.2153-PLPHi	•	•	•			•		•

MODELS WITH ERGONOMIC TRINOCULAR TILTING HEAD

	Trinocular	SWF 10x/25 mm eyepieces	Sextuple noisepiece	Plan 4/10/20/S40/S100 oil EIS objectives	Plan Semi-Apochromatic 4/10/20/S40/S100 oil EIS objectives	Plan Phase 10/20/S40/S100 oil EIS objectives	3 W NeoLED Köhler	100 W 24 V Halogen Köhler
DX.1158-PLi	•	•	•	•			•	
DX.1158-PLFi	•	•	•		•		•	
DX.1158-PLPHi	•	•	•			•	•	
DX.2158-PLi	•	•	•	•				•
DX.2158-PLFi	•	•	•		•			•
DX.2158-PLPHi	•	•	•			•		•

FACE-TO-FACE DUAL HEAD SYSTEMS

	Total users	Trinocular SWF 10x/25 mm eyepieces	Binocular EWF 10x/22 mm eyepiece	Sextuple noisepiece	Plan 4/10/20/S40/S100 oil EIS objectives	Plan Semi-Apochromatic 4/10/20/S40/S100 oil EIS objectives	Plan Phase 10/20/S40/S100 oil EIS objectives	3 W NeoLED Köhler	100 W 24 V Halogen Köhler
DX.1154-PLi	2	1x	1	•	•			•	
DX.1154-PLFi	2	1x	1	•		•		•	
DX.1154-PLPHi	2	1x	1	•			•	•	
DX.2154-PLi	2	1x	1	•	•				•
DX.2154-PLFi	2	1x	1	•		•			•
DX.2154-PLPHi	2	1x	1	•			•		•

MULTIHEAD SYSTEMS

	Total users	Trinocular SWF 10x/25 mm eyepieces	Binocular SWF 10x/25 mm eyepieces ⁽¹⁾	Sextuple noisepiece	Plan 4/10/20/S40/S100 oil EIS objectives	Plan Semi-Apochromatic 4/10/20/S40/S100 oil EIS objectives	Plan Phase 10/20/S40/S100 oil EIS objectives	3 W NeoLED Köhler	10 W NeoLED Köhler	100 W 24 V Halogen Köhler	iCare sensor
DX.1156-PLi/2	2	1x	1	•	•			•			•
DX.1156-PLFi/2	2	1x	1	•		•		•			•
DX.1156-PLPHi/2	2	1x	1	•			•	•			•
DX.2156-PLi/2	2	1x	1	•	•					•	•
DX.2156-PLFi/2	2	1x	1	•		•				•	•
DX.2156-PLPHi/2	2	1x	1	•			•			•	•
DX.1156-PLi/3	3	1x	2	•	•			•			•
DX.1156-PLFi/3	3	1x	2	•		•		•			•
DX.1156-PLPHi/3	3	1x	2	•			•	•			•
DX.2156-PLi/3	3	1x	2	•	•					•	•
DX.2156-PLFi/3	3	1x	2	•		•				•	•
DX.2156-PLPHi/3	3	1x	2	•			•			•	•
DX.1156-PLi/5	5	1x	4	•	•			•			•
DX.1156-PLFi/5	5	1x	4	•		•		•			•
DX.1156-PLPHi/5	5	1x	4	•			•	•			•
DX.2156-PLi/5	5	1x	4	•	•					•	•
DX.2156-PLFi/5	5	1x	4	•		•				•	•
DX.2156-PLPHi/5	5	1x	4	•			•			•	•
DX.1156-PLi/10	10	1x	9	•	•				•		
DX.1156-PLFi/10	10	1x	9	•		•			•		
DX.1156-PLPHi/10	10	1x	9	•			•		•		
DX.2156-PLi/10	10	1x	9	•	•					•	•
DX.2156-PLFi/10	10	1x	9	•		•				•	•
DX.2156-PLPHi/10	10	1x	9	•			•			•	•

(1) Except for the model with 9 binocular heads (10 users) that is supplied with EWF 10x/22 mm eyepieces

MODELS



DX.2156-PLi/10

MODELS



ACCESSORIES AND SPARE PARTS

- DX.6010** SWF 10x/25 mm eyepiece, Ø 30 mm tube
- DX.6010-22** EWF 10x/22 mm eyepiece, Ø 30 mm tube
- DX.6012** SWF 12x/17 mm eyepiece, Ø 30 mm tube
- DX.6015** SWF 15x/16 mm eyepiece, Ø 30 mm tube
- DX.6020** SWF 20x/12 mm eyepiece, Ø 30 mm tube
- DX.6010-C** SWF 10x/25 mm eyepiece with micrometer, Ø 30 mm tube
- DX.6099** Pair of eyecups for eyepieces
- DX.6099-L** Pair of eyecups for eyepieces (large)
- DX.7202** Plan achromatic PLi 2x/0.06 infinity corrected objective. Working distance 7.5 mm
- DX.7204** Plan achromatic PLi 4x/0.10 infinity corrected objective. Working distance 30 mm
- DX.7210** Plan achromatic PLi 10x/0.25 infinity corrected objective. Working distance 10.2 mm
- DX.7220** Plan achromatic PLi 20x/0.40 infinity corrected objective. Working distance 12 mm
- DX.7240** Plan achromatic PLi S40x/0.65 infinity corrected objective. Working distance 0.7 mm
- DX.7250** Plan achromatic PLi S50x/0.95 oil immersion infinity corrected objective. Working distance 0.19 mm
- DX.7260** Plan achromatic PLi S60x/0.80 infinity corrected objective. Working distance 0.3 mm
- DX.7200** Plan achromatic PLi S100x/1.25 oil immersion infinity corrected objective. Working distance 0.2 mm
- DX.7200-I** Plan achromatic PLi S100x/1.25 oil immersion infinity corrected objective with built-in iris diaphragm. Working distance 0.2 mm
- DX.7304** Plan Semi-apochromatic PLi-Apo 4x/0.13 infinity corrected objective. Working distance 16.5 mm
- DX.7310** Plan Semi-apochromatic PLi-Apo 10x/0.30 infinity corrected objective. Working distance 8.1 mm
- DX.7320** Plan Semi-apochromatic PLi-Apo 20x/0.50 infinity corrected objective. Working distance 2.1 mm
- DX.7340** Plan Semi-apochromatic PLi-Apo S40x/0.75 infinity corrected objective. Working distance 0.7 mm
- DX.7300** Plan Semi-apochromatic PLi-Apo S100x/1.3 infinity corrected objective. Working distance 0.15 mm
- DX.7710** Plan Phase PLPHi 10x/0.25 infinity corrected objective Working distance 10.2 mm
- DX.7720** Plan Phase PLPHi 20x/0.40 infinity corrected objective Working distance 12 mm
- DX.7740** Plan Phase PLPHi S40x/0.65 spring mounted infinity corrected objective. Working distance 0.7 mm
- DX.7700** Plan Phase PLPHi S100x/1.25 spring mounted oil immersion infinity corrected objective. Working distance 0.2 mm
- DX.9105** Abbe condenser 0.9/1.25 with swing-out front lens
- DX.9126** Zernike phase contrast set with Plan Phase PLPHi 10/20/S40/S100x objectives, phase contrast condenser and telescope
- DX.9140** Zernike Phase contrast Abbe condenser with 4 phase annuli
- DX.9148** Telescope for phase contrast alignment, Ø 30 mm
- DX.9660** Simple polarization kit, consisting of polarizer in slider and analyzer on lamp house
- DX.9662** Simple polarisation kit with 1λ retardation plate for identification of gout crystals (monosodium urate)
- DX.9700** Blue filter, Ø 45 mm, fits on lamphouse
- DX.9702** Green filter, Ø 45 mm, fits on lamphouse
- DX.9704** Yellow filter, Ø 45 mm, fits on lamphouse
- DX.9930** NeoLED™ replacement unit
- SL.3680** 100 W 24 V halogen bulb
- AE.5130** Universal Ø 23.2 mm tube adapter with built-in 2x lens for SLR photo camera with APS-C sensor. Needs T2 adapter
- AE.5025** T2 ring for Nikon D SLR digital camera
- AE.5040** T2 ring for Canon EOS SLR digital camera
- PB.5155** Microscope slides 76 x 26 mm, ground edges, 50 pieces
- 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 = 1.482 (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