

## Oxion fluorescence

### HIGHLIGHTS

- Binocular and trinocular models
- HWF 10x/22 mm eyepieces
- Reversed nosepiece for maximum 5 objectives
- Plan, plan fluarex and plan semi apochromatic fluarex IOS objectives
- Integrated mechanical stage
- Coaxial coarse and fine adjustments
- Height adjustable Abbe N.A. 1.25 condenser with iris diaphragm and filter holder
- 3 W LED transmitted illumination
- Fluorescence attachment for maximum 4 filter blocks and with 100 W mercury vapor incident illumination
- Fluorescence attachment with single filter block and 455 nm (Blue), 560 nm (Green) or 365 nm (UV) incident illumination
- Ergonomic stand and head
- 10 years warranty



OX.3230

### TECHNICAL SPECIFICATIONS

#### EYEPIECE(S)

- HWF 10x/22 mm eyepieces
- All eyepieces can be secured by an Allen screw

#### HEADS

- Binocular and trinocular Siedentopf type heads are with 30° inclined tubes
- Interpupillary distance from 50 to 75 mm.
- Two  $\pm 5$  diopter adjustments
- A unique rotating system allows the ergonomic positioning of both tubes in a high (431 mm) and in a low position (397 mm)

#### NOSEPIECE

- Revolving and reversed nosepiece for maximum 5 objectives
- The fluorescence models with mercury vapor lamp are equipped with an orange UV protection shield

#### OBJECTIVES

- Plan 4x/0.10, 10x/0.25, S40x/0.65 and S100x/1.25 oil immersion IOS objectives
- Plan fluarex 4x/0.10, 10x/0.25, S40x/0.65 and S100x/1.25 oil immersion IOS objectives
- Plan semi apochromatic fluarex 4x/0.10, 10x/0.25, S40x/0.65 and S100x/1.25 oil immersion IOS objectives
- All S40x, S60x and S100x oil immersion objectives are spring loaded
- All optics are anti-fungus treated and anti-reflection coated for maximum light throughput

#### FOCUSING

- Coaxial coarse and fine adjustments, 200 graduations, 1  $\mu\text{m}$  per graduation, 200  $\mu\text{m}$  per rotation, total travel approximately 28 mm
- Supplied with an adjustable rack stop to prevent damage to sample and objectives
- The coarse adjustments are equipped with friction control

#### STAGE

- 150 x 140 mm stage with integrated X-Y mechanical stage
- A ceramic stage is also available on request

### CONDENSER FOR BRIGHTFIELD

- Height adjustable Abbe condenser N.A. 1.25 with iris diaphragm
- Supplied with a white diffusion filter
- Phase contrast rings mounted in slider can be inserted in the condenser for 10x and S40x or 20x and S100x phase contrast objectives
- A dark field stop in slider for the 10x, 20x and S40x objectives can also be inserted with magnification indication

### CONDENSER FOR FLUORESCENCE

- The fluorescence attachment is equipped with an integrated condenser with iris diaphragm and with a field diaphragm

### ILLUMINATION FOR BRIGHTFIELD AND PHASE CONTRAST

- All models are supplied with a 3 W adjustable NeoLED™ illumination with built-in 100-240 V power supply
- Köhler illumination with field diaphragm

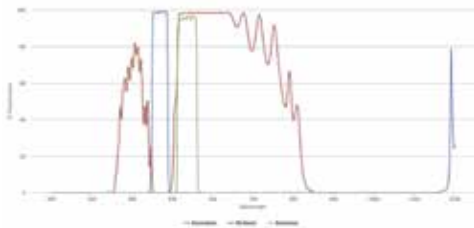
### ILLUMINATION FOR FLUORESCENCE

- Fluorescence attachment with 100 W (HBO) mercury vapor incident epi-illumination and rail for maximum 4 filter blocks
- Two general purpose filter sets are standard supplied with the attachment: AE.3245 (Blue excitation) and AE.3246 (Green excitation)
- Two other general purpose filter sets AE.3246 (UV excitation) and AE.3247 (Ultraviolet excitation) are also available  
*(More specific filter sets are available on request)*

### STANDARD GENERAL PURPOSE FLUORESCENCE FILTER SETS

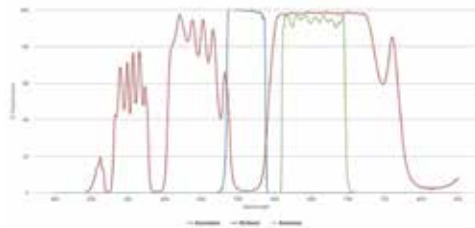
#### AE.3245

Blue EX450-490,  
DM505LP,  
EM510-560



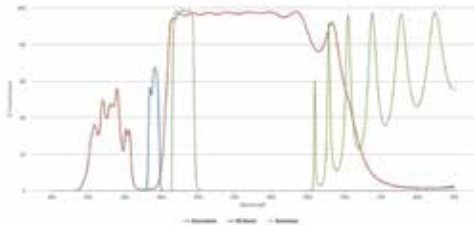
#### AE.3246

Green EX533-588,  
DM595LP,  
EM608-680



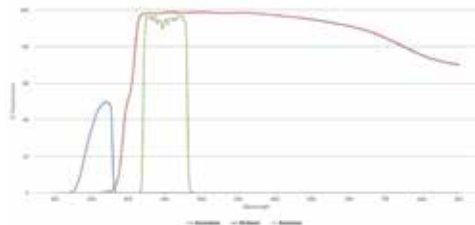
#### AE.3247

Violet EX430-450,  
DM455LP,  
EM465-495



#### AE.3248

UltraViolet EX348-381,  
DM400LP,  
EM420-480



### ILLUMINATION OF FLUOLED ATTACHMENT

- The FluoLed attachment is standard delivered with a 455 nm LED for efficient and fast detection of tuberculosis with Auramine-O fluorochrome
- FluoLED attachments are also available with a 560 nm LED and Green filter set or a 365 nm LED together with an Ultraviolet filter set

### PACKAGING

- Supplied with power cord, dust cover, white filter, user manual and 5 ml immersion oil for models with S100x objective
- All packed in a polystyrene box



OX.3085

## MODELS

	Binocular	Trinocular	Plan 4x/10x/S40x/ S100x objectives	Plan fluarex 4x/10x/S40x/S100x objectives	Plan semi apo fluarex 4x/10x/S40x/ objectives	Plan semi apo fluarex S100x objectives	100 W mercury vapor illumination	455 nm FluoLED illumination
OX.3067		•		•			•	
OX.3070	•				•		•	
OX.3075		•			•		•	
OX.3080	•				•	•	•	
OX.3085		•			•	•	•	
OX.3230	•		•					•
OX.3235		•	•					•
OX.3232	•				•	•		•
OX.3237		•			•	•		•

## ACCESSORIES AND SPARE PARTS

<b>AE.3210</b> HWF10x/22 mm eyepiece	<b>AE.3240</b> Fluorescence attachment with 100 W mercury lamp and 100-240 V power supply
<b>AE.3215</b> HWF15x/13 mm eyepiece	<b>AE.3249</b> Empty filter cube <i>(for models OX.3066/OX.3067/OX.3070/3075/3080/3085)</i>
<b>AE.3223</b> HWF10x/22 mm eyepiece with 10mm/100 micrometer	
<b>AE.3225</b> Pair of eyecups	
<b>AE.3102</b> Plan 2x/0.06 IOS objective	<b>AE.3250.ND6</b> Neutral density set with 6 filters, 25 mm T80%, T50%, T32%, T10%, T1%, T0.1%
<b>AE.3104</b> Plan 4x/0.10 IOS objective. WD 11.9 mm	<b>AE.3250.ND12</b> Neutral density set with 12 filters, 25 mm, T90%, T80%, T63%, T50%, T40%, T32%, T25%, T20%, T16%, T10%, T1%, T0.1%
<b>AE.3106</b> Plan 10x/0.25 IOS objective. WD 12.1 mm	<b>AE.5120</b> Standard 23.2 mm diameter tube for Oxion photo port
<b>AE.3108</b> Plan 20x/0.40 IOS objective. WD1.5 mm	<b>AE.5130</b> Universal SLR camera adapter with 2x projection lens for 23.2 mm tubes. Needs T2 adapter and AE.5120
<b>AE.3110</b> Plan S40x/0.65 IOS objective. WD 0.36 mm	<b>AE.5025</b> T2 adapter for Nikon D digital SLR cameras
<b>AE.3112</b> Plan S60x/0.85 IOS objective. WD 0.30 mm	<b>AE.5040</b> T2 adapter for Canon EOS digital SLR cameras
<b>AE.3114</b> Plan S100x/1.25 oil IOS objective. WD 0.18 mm	<b>AE.5056</b> CS/C mount with 1.0x objective
<b>86.550</b> Plan fluarex 4x /0.12 IOS objective. WD 19.75 mm	<b>AE.5057</b> CS/C mount with 0.5x objective for 1/2" sensor cameras
<b>86.562</b> Plan fluarex 10x/0.25 IOS objective. WD 5 mm	<b>AE.5058</b> CS/C mount with 0.33x objective for 1/3" sensor cameras
<b>86.564</b> Plan fluarex 20x/0.40 IOS objective. WD 8.8 mm	<b>AE.5168-O</b> Heating stage and temperature controller up to 50°C. Only with new microscopes
<b>86.566</b> Plan fluarex S40x/0.65 IOS objective. WD 0.66 mm	<b>SL.5511</b> NeoLED™ replacement unit for Oxion
<b>86.568</b> Plan fluarex S100x/1.25 oil IOS objective. WD 0.36 mm	<b>OX.3010</b> Aluminium transport case with flight case locks
<b>AE.3144</b> Plan semi apochromatic fluarex 4x/0.13 IOS objective. Working distance 18.5 mm	<b>OX.3011</b> Aluminium transport case with classical locks
<b>AE.3146</b> Plan semi apochromatic fluarex 10x/0.30 IOS objective. Working distance 10.6 mm	<b>PB.5155</b> Microscope slides 76 x 26 mm, ground edges, 50 pieces
<b>AE.3148</b> Plan semi apochromatic fluarex 20x/0.50 IOS objective. Working distance 2.33 mm	<b>PB.5165</b> Cover glasses 18 x 18 mm, thickness 0.13-0.17 mm, 100 pieces
<b>AE.3152</b> Plan semi apochromatic fluarex S40x/0.75 IOS objective. Working distance 0.6 mm	<b>PB.5168</b> Cover glasses 22 x 22 mm, thickness 0.13-0.17 mm, 100 pieces
<b>AE.3156</b> Plan semi apochromatic fluarex S100x/1.28 oil immersion IOS objective. Working distance 0.21 mm	<b>PB.5245</b> Lens cleaning paper, 100 sheets per pack
<b>AE.3190</b> Polarizer/Analyzer set	<b>PB.5255</b> Immersion oil, n = 1.482 (25 ml)
<b>AE.3192</b> Polarizer slider for nosepiece	<b>PB.5274</b> Isopropyl alcohol 99% (200 ml)
<b>AE.3194</b> Polarizer for lamp house	<b>PB.5275</b> Cleaning kit: lens cleaning fluid, lint free lens tissue, brush, air blower, cotton swabs
<b>AE.3196</b> Frosted white filter 45 mm, sits on lamp house	
<b>AE.3198</b> Blue filter 45 mm, sits on lamp house	
<b>AE.3199</b> Glass fuses 3.15 A 250 V, 10 pieces	
<b>AE.3200</b> Yellow filter 45 mm, sits on lamp house	
<b>AE.3202</b> Green filter 45 mm, sits on lamp house	

## STANDARD FLUORESCENCE FILTERS SETS

### AE.3245

Cube with standard fluorescence filter set for blue excitation EX465-495, DM505LP, EM515-558. Compatible with EGFP FITC Cy2 Alexa Fluor 488. 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

### AE.3246

Cube with standard fluorescence filter set for green excitation EX520-600, DM600LP, EM605-665. Compatible with Texas Red / mCherry / Alexa Fluor 594. 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+

## OPTIMIZED FLUORESCENCE FILTERS SETS

### AE.3250.39001

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

### AE.3250.39002

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, Fluo-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

### AE.3250.39003

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

### AE.3250.39004

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

### AE.3247

Cube with standard fluorescence filter set for violet excitation EX361-381 D415LP EM435-495. Compatible with DAPI / Hoechst / Alexa Fluor 350. Also suitable for Alexa Fluor 350™, Biosearch Blue, Coumarin, DAPI, DyLight 350, Hoechst 33258, LysoTracker Blue/MeOH

### AE.3248

Cube with standard fluorescence filter set for ultraviolet excitation EX 361-389BP, DM 415LP, EM 435LP. Compatible with UV fluorophores and DAPI longpass

### AE.3249

Empty filter cube for fluorescence attachment of OX.3067/3070/3075/3080/3085 models

### AE.3250.39005

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

### AE.3250.39007

Filter set EX620 (BP50) DM655 (LP) EM 690 (BP50) Alexa Fluor 647™, Allophycocyanin (APC), Atto 647N, Cy5™, DiD, Draq5, DayLight 649, MitoTracker Deep Red 633/MeOH, Nile Blue, Quasar® 670, SYTO® 60, TO-PRO™-3. Needs empty filter block

### AE.3250.39008

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

### AE.3250.39009

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.

## OPTIMIZED PREMIUM FLUORESCENCE FILTERS SETS

### **AE.3250.0401**

Cube with optimized fluorescence filter set EX440/21, DM455LP, EM480/30 for CFP, Cerulean, et SpectrumAqua

### **AE.3250.0403**

Cube with optimized fluorescence filter set EX380/50, DM410LP, EM450/60 for DAPI, Alexa Fluor 350, Hoechst 33342 & 33258, BFP

### **AE.3250.0404**

Cube with optimized fluorescence filter set EX470/40, DM500LP, EM535/50 for Cy2, eGFP, FITC, Emerald. Also compatible with Alexa Fluor 488

### **AE.3250.0407**

Cube with optimized fluorescence filter set EX635/30, DM660LP, EM710/80 for Cy5, Alexa 647. Also compatible with TO-PRO-3, TOTO-3, Kodak X-Sight 650

### **AE.3250.0412**

Cube with optimized fluorescence filter set EX500/25, DM252LP, EM545/35 for Acridine Orange (+DNA), Rhodamine Green, CL NERF (hi pH), YFP. Also compatible with Alexa Fluor 532

### **AE.3250.0414**

Cube with optimized fluorescence filter set EX560/55, DM505LP, EM645/75 for Texas Red, Texas Red-X, CryptoLight CF-6. Also compatible with Cy3.5, HcRed, mRaspberry, MitoTracker Red. Needs empty filter block

*On request, the microscope can also be equipped with more specific, optimized and application related fluorescence filters sets, see accessories section and/or separate fluorescence filter catalog*