industry digital solutions



digital solutions

Get ready to discover the digital world of microscopy with the newest Euromex digital products. The broad Euromex product range of digital cameras and digital microscopes with a built-in camera offers the best suitable solutions for your specific application needs

Euromex digital products incorporate all the latest available technology in this field such as WiFi, HDMI and sCMOS sensors. Our digital solutions package includes the powerful ImageFocus software for image analysis



IDUSTRY

DIGITAL MICROSCOPES

bScope® digital microscopes with built-in 5.0 MP USB-2.0 camera

The versatile and evolutive bScope[®] microscopes are

well-equipped and intensively used in universities, small

to mid-sized industrial laboratories and for all kinds of

DIGITAL SOLUTIONS

The bScope[®] comes with WF 10x/20 mm eyepieces and is available in a binocular configuration with quadruple nosepiece. Complete with plan M-IOS 5x/0.12, 10x/0.25, 20x/0.40, 50x/0.70 IOS objectives. Optionally plan M-IOS S80x/0.80 and S100x/0.85 DIN IOS HIGHLIGHTS

- Binocular model
- 2-position swiveling ergo head
- Integrated 5.0 MP CMOS color USB.2 camera
- 2592 x 1944 pixels
- 7 frames per second (2592 x 1944 pixels)
- 27 frames per second (1280 x 960 pixels)
- 10 Years warranty (2 years on camera)

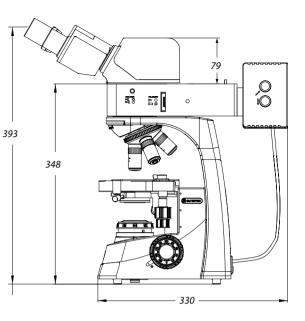


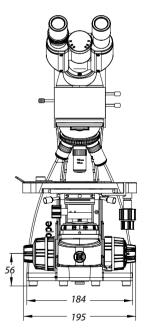
CAMERA

The digital bScope microscopes are equipped with a 5.0 MP 1/2.5 inch CMOS USB-2.0 camera, 24 bits color depth, 7 frames per second (2592 x 1944 pixels) or 27 frames per second (1280 x 960 pixels). Dynamic range is 76 db and signal/noise ratio 41 db. Supplied with ImageFocus Alpha software, USB-2.0 cable and a micrometer 1mm/100 calibration slide

SOFTWARE

The capture and analysis ImageFocus Alpha software allows to save images in .jpg, .tif, .bmp or .dicom formats as well as .avi format videos. Measurements and annotations can be done on live or captured images. Compatible with Windows 7, 8 and 10, both 32 and 64 bits configurations. A Mac OS version is also available. Free updates can be downloaded from our website. For full microscope specifications and accessories see chapter 9: Materials science microscopes





BS.1057-PLMi 515 (h) x 195 (w) x 431 mm (d) | 9.1 kg

objectives are also available



. ZL NeoLED

Warranty

Warranty

MODEL	Binoculair	WF 10x/18 mm eyepieces	PLMi 5x/10x/20x/50x IOS objectives	Transmitted NeoLED™ Köhler illumination	Relfected NeoLED™ Köhler illumination
BS.1057-PLMi	•	•	•	•	•

All models can optionally be supplied with three AA rechargeable batteries

INDUSTRY DIGITAL SOLUTIONS

guality inspections



MZ.5000 digital macrozoom

The digital MacroZoom microscope is built around one 0.7 to 5x zoom objective and enables inspection of objects directly on an 11.6" LCD screen, -5° to 15° inclination. This kind of microscope is well-suited for inspection and quality control departments

The digital MacroZoom is equipped with a built-in full High Definition 1080p camera which can deliver up to 60 images per second and is connected either to the supplied and attached 11.6" screen or an external stand-alone HD screen • MZ.5000



HIGHLIGHTS

- MonoZoom stand-alone digital microscope
- Zoom from 0.7x up to 5x
- 105 mm working distance
- 170 mm working distance with 0.5x lens
- Built-in incident LED ring light
- Built-in 1080p 2 MP HD camera
- HD 11.6 inch screen, -5° to 15°
- Built-in mouse driven on-screen software
- Conveniently build-in capture button
- Removable 32 GB memory stick
- Metal stand
- 3 years warranty

SPECIFICATIONS

CENTRAL ZOOM OBJECTIVE

The Digital MacroZoom MZ.5000 features a single zoom objective with a 0.7 to 5x zoom magnification. Zoom adjustment engravings on 1, 1.5, 2, 3, 4 and 5x. The working distance is 105 mm. Supplied with a 0.5x additional lens with a working distance of 170 mm

STAND

The Central Zoom Objective with attached screen and LED ring light is mounted on a rack and pinion system that sits on a large 320 x 260 mm metal stand. Travel range is 225 mm

ILLUMINATION

A supplied 5,500 K LED ring light with 56 LED's can be mounted under the microscope body. The intensity is adjustable

BUILT-IN CAMERA

Built-in HD 1080p high definition 2 MP CMOS high speed camera, 1920 x 1080 pixels, 60 fps with attached 11.6" screen. The standard field of view is 29.8 to 4.18 and with the 0.5x additional lens from 59 to 8.35. The camera has one HDMI output that can be connected either to the attached screen or to an external HD screen



Adjustable screen

Two other USB ports accept the supplied 32 GB USB memory stick (up to 128 GB) and a supplied wireless mouse that drives the built-in on-screen software. The operator can also take and save images to the SD card by pressing on a capture button at the right side of microscope body

BUILT-IN SOFTWARE

The built-in on-screen software is mouse driven and features functions such as Capture image, Freeze image, Automatic white balance, Automatic exposition, File manager, Grids and camera settings such as exposure time, gain, saturation, contrast, sharpness, HDR. Measurement functions are also available from the software such as line, area, angle. Images are saved in .jpg format and videos are saved in .avi format. With the digital zoom function, objects can be observed with a magnification up to 70 times

PACKAGE CONTENT

Supplied with 32 GB memory stick, mouse, short HDMI cable for attached screen, external 100-240 Vac / 12Vdc / 3 A power supply

445/635 (h) x 320 (w) x 260 mm (d) | 4.6 kg

MZ.5000

MZ series

MZ.4500

visual inspections

A standard heavy

metal base makes the whole system very

stable for adding all

and camera systems

kinds of illumination systems

macrozoom

be used in combination with C-mount types of

With a working distance of 105 mm it is highly suitable for repairs, tooling engineers and

cameras with a HD screens or computer screens.



SPECIFICATIONS

CENTRAL ZOOM OBJECTIVE

The MacroZoom MZ.4500 features a single optical zoom objective with a 0.7x to 4.5x zoom magnification. Zoom adjustments engravings on 1, 1.5, 2, 3 and 4.5x. The working distance is 105 mm

STAND

The MacroZoom is mounted on a 230 mm height pillar (Ø 32 mm) and holder (Ø 39/50 mm) that sits on a metal 320 x 260 x 16/25 mm metal stand

CAMERA SYSTEMS

Any of our digital C-mount cameras (in this chapter) can be used together with the MacroZoom

PACKAGING Supplied with dust cover and packed in styrofoam HIGHLIGHTS

- Stand-alone
- Zoom semi-apochromatic objective
- Zoom up to 0.7x to 4.5x
- C-mount with 0.4x objective
- 105 mm working distance
- Without illumination
- Metal stand
- 3 years warranty



The MZ.4500 in

combination with the VC.3036



MZ.4500 h) 32 (w) 28.5mm (d) | 3.06 kg

The high-end MacroZoom is built around one 0.7 to 5 times optical zoom objective and must

• MZ.4500

MACROZOOMS



CMEX-WiFi 5.0 MP digital WiFi camera with 1/2.5 inch CMOS sensor

The CMEX-WiFi 5 camera is equipped with a 5.0 MP CMOS sensor with 12 bits grayscale conversion and a 24 bits color rendering

The CMEX camera streams H.264 encoded high resolution images simultaneously to several WiFi enabled smartphones, tablets or computers with iOS, Android or Windows operating systems

Power supply through USB charger or computer USB port. Standard C-mount mounting

Adding a WiFi camera to your microscope is ideal for wireless sharing/viewing of microscope images. Ideal for demonstrations where remote viewing is needed

Android app for this camera is supplied on cd-rom and www.euromex.com. IOS app can be downloaded from the App store (free of charge). ImageFocus Alpha software can be used by means of WiFi on PC's and Macs

The camera is powered by the included USB charger or a computers USB port. Standard 0.45x C-mount objective is included

MODEL	Sensor	Sensor size (inches)	Pixels size (µm)	Resolutions	Grayscale conversion	Color rendering	-	•	Sensitivity V/lux-sec	Product number
CMEX-WiFi 5	CMOS	1/2.5″	2.2 x 2.2	1280 x 720	12 bits	24 bits	43	61	1.0	DC. 5000-WiFi

The CMEX-WiFi 5 camera is supplied in a box with USB-2.0 cable, 30.0 and 30.5 mm adapters to use with stereo microscopes, and a 0.45x C-mount objective

CMEX USB-2.0 cameras with fast CMOS sensor

The CMEX-2f, CMEX-5f and CMEX-12f are equippedBwith a fast CMOS sensor. The CMEX cameras arenequipped with USB-2.0 data interface and suppliedcwith ImageFocus Plus softwareb

Besides capturing images and videos, the software allows measurements on still and live images and annotations on captured images. Compatible with Windows 7, 8 and 10, both 32 and 64 bits configurations. A Mac OS version is also available. Free updates can be downloaded from our website

MODELS	Number of pixels (MP)	Sony Sensor	Pixels size (µm)	Resolutions	Max. frames (p/sec)	Grayscale conversion	Color rendering	Dynamic (db)	Sensitivity V/lux- sec (at 550 nm)	Product number
CMEX-2f	2.0	1/2.9" CMOS	2.8 x 2.8	1920 x 1080	30	8 bits	24 bits	72	0.51	DC.2000f
CMEX-5f	5.0	1/2.8" CMOS	2.0 x 2.0	2560 x 1920 1600 x 1200	30 50	8 bits	24 bits	72	2.0	DC.5000f
CMEX-12f	12.0	1/2.3″ CMOS	1.33 x 1.33	4000 x 3000 2592 x 1944	15 30	8 bits	24 bits	60	1.5	DC.12000f

The CMEX cameras are supplied with USB-2.0 cable, 30.0 and 30.5 mm to 23.2 mm conversion adapters for use with stereo microscopes, 1 mm/100 (10 μm/division) calibration slide. The cameras are supplied with a 0.45x C-mount objective

Free software ImageFocus USB-3.0 Windows Apple

USB CAMERAS

CMEX-18 Pro

ADVANCED

CAMERAS FOR

INDUSTRY

FEATURED

Advanced CMEX USB-3.0 cameras with CMOS sensor

The CMEX-3 Pro, -5 Pro, -10 Pro and -18 Pro cameras are equipped with a 3.1, 5.1, 10 or 18 MP CMOS sensor with 12 bits grayscale conversion and a 24 bits color rendering. These cameras are equipped with a USB-3.0 data interface enabling fast frame rate and are supplied with ImageFocus Alpha software Besides capturing images and videos, the software allows measurements on still and live images and annotations on captured images. Compatible with Windows 7, 8 and 10, both 32 and 64 bits configurations. A 2 GB RAM 2.8 GHz computer and 17 inch display is recommended. A Mac OS version is available. Free updates can be downloaded from our website

MODELS	Sensor	Sensor size (inch)	Pixels size (µm)	Exposure time	Resolutions	Max. frames (p/sec)	Signal/ Noise (db)	Dynamic (db)	Sensitivity V/lux-sec	Product number
CMEX-3 Pro	CMOS	1/3″	2.2 x 2.2	1 ms ~ 2000 ms	2048 x 1534 1024 x 770	28 53	39	100	1.9	DC.3000-PRO
CMEX-5 Pro	CMOS	1/2.5″	2.2 x 2.2	1 ms ~ 2000 ms	2560 x 1922 1270 x 960 640 x 480	14 39 100	39	68.	1.76	DC.5000-PRO
CMEX-10 Pro	CMOS	1/2.3″	1.67 x 1.67	1 ms ~ 2000 ms	3584 x 2746 1792 x 1372	8 25	35.5	63.5	0.31	DC. 10000-PRO
CMEX-18 Pro	CMOS	1/2.3″	1.25 x 1.25	1 ms ~ 2000 ms	4912 x 3684 2456 x 1842 1228 x 922	6 18 32	42	65	1.3	DC. 18000-PRO

The CMEX-3 Pro, -5 Pro, -10 Pro and -18 Pro cameras are supplied with USB-3.0 cable, 30.0 and 30.5 mm adapters to use with stereo microscopes, 1 mm/100 (10 μm/division) calibration slide. The CMEX-5 Pro, -10 Pro and -18 Pro are supplied with a 0.5x C-mount objective. The CMEX-3 Pro is supplied with a 0.37x C-mount objective

sCMEX USB-3.0 cameras with scientific grade sCMOS sensor

The sCMEX-3, sCMEX-6 and sCMEX-20 cameras are equipped with a scientific grade back illuminated Sony sCMOS sensor with 16 bits grayscale conversion and an outstanding 36 bits color rendering. Suitable for brightfield, darkfield and fluorescence. The sCMEX cameras are equipped with a USB-3.0 data interface and supplied with ImageFocus Alpha software

USB CAMERAS

Besides capturing images and videos, the software allows measurements on still and live images and annotations on captured images. Compatible with Windows 7, 8 and 10, both 32 and 64 bits configurations. Also compatible with Mac OS. PC requirements: Intel Core2 2.8 GHz or higher or equivalent, 2 GB memory, USB-3.0 port, 17 inch display. Free updates can be downloaded from our website

MODELS	Number of pixels (MP)	Sensor	Sensor size (inches)	Pixels size (μm)	Exposure time	Resolutions	Max. frames (p/sec)	Color rendering	Sensitivity V/lux-sec	Product number
sCMEX-3	3.1	sCMOS	1/2.8″	2.5 x 2.5	0.244~	2048 x 1536	50	36 bits	0.15	DC.3000s
					15000 ms	1920 x 1080	58			
sCMEX- 6	6.3	sCMOS	1/1.8″	2.5 x 2.5	0.244~	3072 x 2048	30	36 bits	0.15	DC.6000s
					15000 ms	1536 x 1024	38			
sCMEX-20	20	sCMOS	1″	2.4 x 2.4	0.264~	5440 x 3648	15	36 bits	0.21	DC.20000s
					15000 ms	2736 x 1824	50		0.21	
						1824 x 1246	60		0.21	

The sCMEX cameras are supplied in a carton box with USB-2.0 cable, 30.0 and 30.5 mm to 23.2 mm conversion adapters for use with stereo microscopes, 1 mm/100 (10 μ m/division) calibration slide. The DC.3000s and DC.6000s are supplied with a 0.5x objective and the DC.20000s is supplied with a 1.0x adapter

• sCMEX

SCIENTIFIC

GRADE CAMERAS

FOR INDUSTRY

FEATURED

(3)

HD AND HD-AUTOFOCUS CAMERAS



High definition HD1080p and 720p CMOS color cameras with HDMI and USB-2.0/3.0 interfaces

The Euromex UHD-4K, HD-Ultra, HD-Lite, HD-Mini and HD-Autofocus cameras offer the perfect solution to modern microscopy where real-time images are needed. These HD image quality cameras can be used with biological, metallurgical or stereo microscopes

The cameras are equipped with high sensitive sensors for low and intense light conditions and are also suitable for coaxial illumination and machine vision applications. The real-time images generated with this camera provide excellent color rendering with frame speeds up to 60 fps

STAND-ALONE MODE

To use these cameras you do not need a computer or have any computer knowledge. Most camera settings are done automatically and therefore these cameras are very user- friendly. This results in faster, more flexible and compact working conditions. Simply connect the camera to a high definition dedicated 11.6" HD screen, TV-HD or HD-beamer with a HDMI input and the system is ready to go. The UHD-4K camera can also be connected to a GbE ethernet and DHCP enabled network router and has also a WiFi interface. The mouse driven built-in software of the camera enables captured images and recorded videos* to be saved on the integrated SD memory card

HIGH DEFINITION

CAMERAS

FOR INDUSTRY

With the UHD-4K, HD-Ultra, HD-Lite and HD-Autofocus cameras, the captured images or recorded video's* can be very easily reviewed or replayed on the HD screen. The UHD-4K and HD-Ultra even offer a full range of measuring functions on live and captured images. The HD-Autofocus offers measuring functions on live image only * video function only available with UHD-4K (.mp4), HD-Ultra (.avi) and HD-Lite (.avi)cameras

COMPUTER CONTROLLED MODE

Users who want more camera controls and more functions can also connect the camera to a computer and benefit from the extensive functions of the Euromex ImageFocus software. It runs

HIGHLIGHTS

- UHD 2160p, HD 1080p or 720p high definition color cameras
- Real-time images directly on TV, monitor or beamer
- Stand-alone or computer controlled mode
- Built-in mouse-driven software and SD memory card
- C-mount interface
- HDMI, USB-2.0/3.0, GbE and WiFi interface(s)
- Autofocus model available
- Compatible with ImageFocus software

on Windows 7, 8 and 10, both 32 and 64 bits. Euromex supplies free software updates on www.euromex.com. Besides extended camera settings, the software can save images in JPG, TIFF or BMP formats and record videos in .avi format on the hard disk of the computer. The software offers different measurement functions on live and captured images and also full control over the camera parameters. Specific functions for fluorescence - such as histogram adjustments and combining captured fluorescence images - are also available with the ImageFocus software

PACKAGE CONTENT

MODELS	UHD-4K	HD-Ultra	HD-Lite	HD-Mini	HD-Autofocus	HD-Pro
Software	ImageFocus Alpha	ImageFocus Plus	ImageFocus Plus			ImageFocus Alpha
Software languages	15 ⁽²⁾	6 ⁽¹⁾	6 (1)	English	15 (2)	15 ⁽²⁾
Compatible	Win 7, 8 and 10 Mac OS	Win 7, 8 and 10 Mac OS	Win 7, 8 and 10 Mac OS			Win 7, 8 and 10 Mac OS
C-mount with objective	0.5x	0.37x	0.45x	0.37x	0.5x	0.37x
Interface(s)	•	•	•	Only HDMI	•	•
30 and 30.5 mm adapters	•	•	•	•	•	•
SD card	16 GB	8 GB	4 GB	16 GB	16 GB	16 GB
Cailbration slide 10mm/100	•	•	•	•	•	•
External power supply	12V 1A	12V 2A	12V 2A	12V 1A	12V 1A	12V 1A
Dimensions (w x d x h)	78 x 65 x 98	80 x 70 x 90	80 x 70 x 90	50 x 50 x 60	81 x 65 x 78	81 x 65 x 78
Weight (grams)	555	440	280	150	500	500
Product number	VC.3040	VC.3036	VC.3031	VC.3020	VC.3034	VC.3038
With 11.6" HD screen	VC.3040-HDS	VC.3036-HDS	VC.3031-HDS	VC.3020-HDS	VC.3034-HDS	VC.3038-HDS

⁽¹⁾ One language can be selected during initial installation of the ImageFocus Plus software: English, German, French, Dutch, Spanish and Russian ⁽²⁾ English, Catalan, French, German, Indonesian, Italian, Japanese, Korean, Polish, Russian, Simplified Chinese, Spanish, Thai, Traditional Chinese, Turkish



VC.3036-HDS on stereo microscope

INDUSTRY DIGITAL SOLUTIONS

ALL HD-CAMERAS

MODELS	UHD-4K	HD-Ultra	HD-Lite	HD-Mini	HD-Autofocus	HD-Pro HDMI
Sensor	Sony 4K	Sony	Aptina	Aptina	Sony	Sony
Format	1/1.8″, HDTV 2160p	1/2.8″, HDTV 1080p	1/2.5″, HDTV 1080p	1/3", HDTV 720p	1/1.9″, HDTV 1080p	1/2.8″, HDTV 1080p
Pixels	3840 x 2160 (*) Pixels HDMI 60 fps USB 30 fps		2592 x 1944 (1) 1920 x 1080 (2) HDMI 15 fps, USB 15fps	1280 x 720 ⁽¹⁾ 1280 x 720 ⁽²⁾ HDMI 30 fps	1920 x 1080 ⁽¹⁾ HDMI 60 fps	1920 x 1080 ^{(†} 1920 x 1080 ^{(†} HDMI 60 fps, USB 26 fps
Pixel size	2.0 x 2.0 (μm)	2.8 x 2.8 (µm)	2.2 x 2.2 (μm)	3.75 x 3.75 (μm)	3.75 x 3.75 (μm)	2.9 x 2.9 (μm)
Video recording	2160p	1080p	1080p		1080p	1080p
Video output	HDMI, USB-3.0 ⁽⁵⁾ , GbE ethernet, WiFi ⁽⁵⁾	HDMI, USB-2.0	HDMI, USB-2.0	HDMI	HDMI, USB-C (3)	HDMI, USB-2.0
Scan mode	Progressive	Progressive	Progressive	Progressive	Progressive	Progressive
Exposure Automatic/ manual		Automatic/ manual	Automatic/ manual	Automatic/ manual	Automatic/ manual	Automatic/ manual
White balance	ite balance Automatic/ manual/ROI		Automatic/ manual	Automatic/ manual	Automatic/ manual	Automatic/ manual/ROI
Sensitivity lux-sec	505 mV	510 mV	1 V	6.5 V	1.12 V (1/30s)	1.3 V (1/30s)
Color rendering (bits)	36	36	24	24	24	24
Signal/Noise (db)	44	55	40.5	44	50	38
Dynamic (db)		69	60	85	65	66
Storage	16 GB SD card (max. 32 GB)	8 GB SD card (max. 32 GB)	4 GB SD card (max. 32 GB)	16 GB SD card (max. 32 GB)	16 GB SD card (max. 32 GB)	16 GB SD card (max. 32 GB)
Camera buttons	on/off	on/off	on/off		on/off	on/off
Mounting	C-mount	C-mount	C-mount	C-mount	C-mount	C-mount
External power supply	100-240 Vac to 12Vdc/1A	100-240 Vac to 12Vdc/2A	100-240 Vac to 12Vdc/2A	100-240 Vac to 12Vdc/1A	100-240 Vac to 12Vdc/2A	100-240 Vac to 12Vdc/2A
Relative humidity	10-60 %	45-85 %	45-85 %	30-80 %	45-85%	30~80%
Temperature Operation Storage	-10 – 50° C -20 to 60° C	0 – 60° C -20 to 70° C	0 – 60° C -20 to 70° C	-10 – 40° C -20 to 60° C	–10-40° C -20°C to 60° C	-10~ 50° C -20°C to 60° C
Product number	VC.3040 VC.3040-HDS ⁽⁴⁾	VC.3036 VC.3036-HDS (4)	VC.3031 VC.3031-HDS (4)	VC.3020 VC.3020-HDS (4)	VC.3034 VC.3034-HDS (4)	VC.3038 VC.3038-HDS ⁽

⁽¹⁾ capture mode ⁽²⁾ live view ⁽³⁾ USB-2.0 compatible ⁽⁴⁾ model with attached high definition screen ⁽⁵⁾ available from November 2019

BUILT-IN SOFTWARE FEATURES (HDMI MODE)

MODELS	UHD-4K	HD-Ultra	HD-Lite	HD-Mini	HD-Autofocus	HD-Pro HDM
Image capturing (JPEG)	3840 x 2160	3261 x 1840	2592 x 1944	1280x720	1920 x 1080	1920 x 1080
Video recording	3840 x 2160 MP4	1920 x 1080 AVI	1920 x 1080 AVI		1920 x 1080 ASF	1920 x 1080 ASF
Browse saved images	•	•	•		•	•
Browse saved video's	•	•	•		no	•
SD card storage	16 GB	8 GB	4 GB	16 GB	16 GB	16 GB
Mouse driven	•	•	•	•	•	•
Auto exposure	•	•	•	•	•	•
Exposure time	0.04 ~ 1000 ms	0.001s ~ 10 s	0.001s ~ 10 s	0.2 ~ 2000 ms	0.06 ~ 918 ms	0.036 ~ 8000 ms
Gain	•	•	•	•	•	•
RGB & white balance	•	•	•	•	•	•
Gamma	•	•	•	•	•	•
Sharpness	•	•	•	•	•	•
Noise reduction	3D algorithm	3D algorithm	3D algorithm	Standard	Standard	Standard
Saturation & contrast	•	•	•	•	•	•
Horiz. & vert. flip	•	•	•	•	•	•
Grids	cross/multi	cross/multi	multi	m ulti	multi	User defined
Autofocus					•	
Compare function	•	•	•		•	•
Measurement functions	captured & live images	captured & live images			live image only	captured & live images
Calibration table	•	•			•	•
Line & free curve	•	•			•	•
Polygon & rectangle	•	•			•	•
Angle	•	•			•	•
Circle 3 points	•	•			•	•
Circle radius	•	•			•	•
Export function	CSV	CSV, Txt			CSV	CSV
Languages	5 (2)	8 (1)	8 (1)		5 (2)	5 (2)
	VC.3040	VC.3036	VC.3031	VC.3020	VC.3034	VC.3038

⁽¹⁾ English, simplified Chinese, traditional Chinese, German, Italian, French, Japanese, Korean ⁽²⁾ English, Simplified Chinese, Traditional Chinese, Korean and Thai



INDUSTRY 10



DC.20000i and DC.6000i

Cooled color camera with CCD or CMOS sensor

The Euromex 6 and 20 Megapixel Peltier cooled cameras are equipped with Peltier cooling elements that allow the camera to be used for fluorescence and other low light applications. These advanced and premium models are supplied with a USB-3.0 interface

All cameras are supplied with ImageFocus Alpha software. The software has specific functions for fluorescence like combining capture fluorescence images. Furthermore it allows capturing of images and videos, doing measurements and annotations, generating reports, live image stitching etc. Compatible with Windows 7, 8 and 10, both 32 and 64 bits configurations. A Mac OS version is also supplied (with a few differences in features)

MODELS USB-3 Pixel size (un Sensitivity pixels (MP) (p/sec) @ 1/30 sec DC.6000i 6 1" CCD 4.54 x 4.54 2748 x 2200 7.5 880 mV 2748 x 1092 14 DC.20000i 20 1" CMOS 2.4 x 2.4 5440 x 3648 5 462 mV 4096 x 2160 10 2736 x 1824 15 1824 x 1216 30

about field of view

Field of view (FOV) is the visible area when looking through the microscope eyepiece (eyepiece FOV) or camera (camera FOV) and is usually expressed as a diameter

CALCULATING FOV OF AN EYEPIECE

The FOV through an eyepiece is equal to:

Field Number FOV= **Object Magnification**

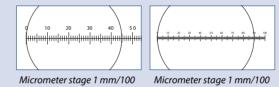
Field number (FN) is usually engraved on the eyepiece as a figure next to the magnification and expressed in mm, e.g. WF 10x/18. A 10x/18 eyepiece with a 40x objective will have a FOV = 18 mm / 40 = 0.45 mm or 450 nm

900 nm FOV with 10x/18

3.6 mm

4.8 mm

450 nm FOV with 10x/18 evepiece and S40x objective evepiece and S20x objective



FIELD OF VIEW WITH CAMERA

Most commercially available microscope digital cameras use 1/3, 1/2- or 2/3-inch rectangular sensors. A few will use a 1 inch camera sensor

As a consequence, a rectangular camera sensor cannot capture the circular FOV that exits from a eyepiece, microscope third tube or photo port



4.8 mm

6 mm

6.4 mm

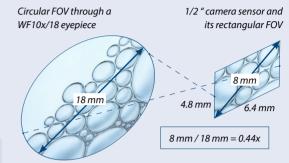
8 mm

8.8 mm

1/2 "



EYEPIECE VERSUS CAMERA FOV



TECHNICAL

FACTS

Furthermore, the circular eyepiece FOV is much larger than the camera FOV and thus the microscope FOV must be "reduced" with a so-called "relay" lens or "photo-adapter" to fit the camera FOV. However - in order to avoid vignetting (dark shadows in the corners of an image), the circular microscope FOV must just be projected outside the image sensor area. Subsequently the camera FOV will always be smaller than the microscope FOV by 50 to 60%

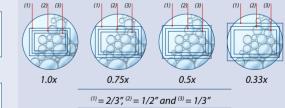


Figure: different camera sensor sizes (2/3, 1/2, 1/3 inch) with different "demagnifying" lenses (C-mount photo-adapters) 0.33x, 0.50x, 0,75x and 1.0x

IN ORDER TO OBTAIN THE DESIRED FIELD **OF VIEW WITHOUT VIGNETTING USE:**

- a 0.33 x photo adapter for cameras with a 1/3" sensor
- a 0.50 x photo adapter for cameras with a 1/2" sensor
- a 0.75 photo adapters for cameras with a 2/3" sensor
- a 1.0x or 1.2x photo adapters for cameras with a 1"

or larger camera sensor 36 mm



ProPad tablet with microscope camera and keyboard-docking station

The ProPad Full HD (1280x800) display reveals bright colors and crisp images. The ProPad consists of a high quality microscope camera system and a fully detachable tablet running the latest ImageFocus version. You can take it anywhere

Together with the included attachable keyboard, you can use it as a microscope imaging system, tablet and laptop. The keyboard connects to the tablet using magnets to provide a latchless docking solution that lets you smoothly remove and re-attach the keyboard to the ProPad

SOFTWARE

ProPad-2, ProPad-5 and ProPad-12 are supplied with ImageFocus Plus. ProPad-WiFi is supplied with ImageFocus Alpha. The WiFi camera can also be operated through IOS and Android apps



ProPad

HIGHLIGHTS

- 10.1" Tablet with microscope camera
- 1280 x 800 pixels HD touch screen
- Windows 10 Home
- ImageFocus Plus software for PC
- ImageFocus Alpha for WiFi enabled PC and Android devices
- Tablet can be fully detached from camera
- Including keyboard
- The snap-on keyboard uses a magnetic docking system



SPECIFICATIONS

Processor	Quad Core 1.92 GHz with HD graphics processor
Screen	10.1 inch, 1280 x 800 (WGXA) touchscreen, 16:10, LED backlight
Memory	2 GB DDR RAM, 2 MB cache
Storage	32 GB Flash HDD, micro SD/SDHC up to 64 GB
Webcam	2 MP, 1600 x 1200 pixels front and rear cameras
Connectivity	Micro USB 2.0, WiFi 802.11 b/g/n and Bluetooth 4.0
Audio	Stereo with 3.5 mm audio jack, internal microphone and speaker
Battery	Lithium
Housing	246.9 x 174.2 x 9.4 mm (tablet), 246.9 x 174.2 x 8.2 mm (keyboard)
Weight	588 grams (tablet), 551 grams (keyboard)
System	Windows 10 Home
Supplied with	Keyboard-docking station

Specifications can be changed by Euromex microscopen by without prior notice

MODELS	Camera (MP)	Sensor size	Resolution	Pixels size (µm)	ADC	Color rendering	Dynamic (db)	Sensitivity V/lux-sec	Inte	rface	Product number
ProPad-2	2.1	1/2.9″	1920 x 1080	2.8 x 2.8	12 bits	24 bits		0.51		Ŷ 2.0	PP.2000f
ProPad-5	5.1	1/2.8″	2592 x 1920	2.0 x 2.0	12 bits	24 bits	72 db	2.0		Ŷ 2.0	PP.5000f
ProPad-12	12.0	1/2.3″	4072 x 3176	1.33 x 1.33	8 bits	24 bits	60 db			V 2.0	PP.12000f
ProPad-WiFi	5.0	1/2.5″	1280 x 720	2.2 x 2.2	12 bits	24 bits	61 db	1.0	ti ć	R	PP.5000-WiFi

All ProPad models are supplied with a C-mount objective that fits the standard 23.2 mm trinocular tubes. The PP.2000f, PP.5000f and PP.12000f are supplied with ImageFocus Plus software. The PP.5000-WiFi is supplied with ImageFocus Alpha. Only suitable for straight photo tubes



SOFTWARF

The software is compatible with all cameras mentioned in table below. Besides live imaging the software captures images in .jpeg, .tif, .bmp or .dicom formats or video recording in .avi format

IMAGE FC	OCUS 4
DC.130)0c

IMAGE FOCUS PLUS						
DC.2000f	VC.3036					
DC.5000f	VC.3031					
DC.12000f						

IMAGE FOCUS ALPHA				
DC.3000-Pro	DC.5000-WiFi			
DC.5000-Pro	DC.3000s			
DC.10000-Pro	DC.6000s			
DC.18000-Pro	DC.20000s			
VC.3038				

IMAGE STITCHING

Image stitching is the process of combining multiple images with overlapping fields of view to produce one image

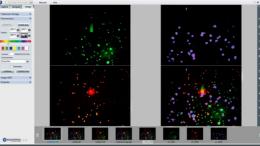
EXTENDED DEPTH OF FOCUS

"The extended depth of focus" function in the ImageFocus Alpha software or "stacking software, allows to combine a number of digital images of a object, focused at different focus planes, into one final image with much greater depth of field (see illustration below)





FREE UPDATES AVAILABLE ON EUROMEX.COM

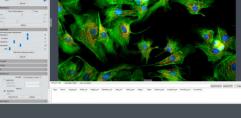


ImageFocus 4 40 software ImageFocus

ImageFocus 4 has a wide range of functions:

- Measurements can be done on still and live image
- Images can be saved in .jpg, .tif, .bmp or .dicom formats as well as .avi format videos
- The brightness, contrast and saturation of captured images can be adjusted
- Camera parameters for exposure time, white balance and color control are easily accessible
- The software also has specific functions for fluorescence such as combining captured fluorescence images
- Compatible with Windows 7, 8 and 10, both 32 and 64 bits configuration. A Mac OS Light version is also available for capturing images*
- PC requirements: Intel Core2 2.8 GHz or higher or
- equivalent, 2GB memory or more, 17" screen
- * Mac version not available for VC Series

One language can be selected during initial installation of the ImageFocus 4 software: English, German, French, Dutch, Spanish and Russian



ImageFocus Plus software ImageFocus

ImageFocus Plus has a wide range of functions:

- Measurements can be done on still and live image
- Images can be saved in .jpg, .tif, .bmp or .dicom formats as well as .avi and mpeg-4 format videos
- The brightness, contrast and saturation of captured images can be adjusted
- Camera parameters for exposure time, white balance and color control are easily accessible
- The software also has specific functions for fluorescence such as combining captured fluorescence images
- Compatible with Windows 7, 8 and 10, both 32 and 64 bits configuration. A Mac OS version is also available
- PC requirements: Intel Core2 2.8 GHz or higher or equivalent, 2GB memory or more, 17" screen

ImageFocus Plus software features English, German, French, Dutch, Spanish and Russian



ImageFocus Alpha software

ImageFocus Alpha has a wide range of functions:

- Measuring, segmentation & counting, stichting of images, extended depth of focus, etc
- Images can be saved in .jpg, .tif, .bmp or .dicom formats as well as .avi format videos
- The brightness, contrast and saturation of captured images can be adjusted
- Camera parameters for exposure time, white balance and color control are easily accessible
- The software also has specific functions for fluorescence such as combining captured fluorescence images
- Compatible with Windows 7, 8 and 10, both 32 and 64 bits configuration. A Mac OS version is also supplied (with a few differences in features)
- PC requirements: Intel Core2 2.8 GHz or higher or equivalent, 2GB memory or more, 17" screen

One language can be selected during initial installation of the ImageFocus Alpha software English, Catalan, French, German, Indonesian, Italian, Japanese, Korean, Polish, Russian, Simplified Chinese, Spanish, Thai, Traditional Chinese, Turkish



a euromex







adapter guide microscope and camera

Most Euromex cameras are supplied with (a) standard plug & play adapter(s), which means that it can be connected to any Euromex microscope, except for the Oxion and Oxion Inverso series.

These microscopes need an additional adapter. See next page. Do you want to connect one of our cameras to another microscope brand, see adapter references below:

MODELS	1/3 inch camera	1/2 inch camera	2/3 inch camera	1 inch camera
Leica ⁽¹⁾	AE.9835-L (0.35x)	AE.9855-L (0.55x)	AE.9870-L (0.70x)	AE.9810-L (1x) AE.9812-L (1.2x)
Olympus ⁽²⁾	AE.9835-O (0.35x)	AE.9850-O (0.50x)	AE.9863-O (0.63x) AE.9880-O (0.80x)	AE.9810-O (1x) AE.9812-O (1.2x)
Zeiss (3)	AE.9835-Z (0.35x)	AE.9850-Z (0.50x)	AE.9865-Z (0.65x)	AE.9810-Z (1x) AE.9812-Z (1.2x)
Zeiss ZA (4)		AE.9850-ZA (0.50x)	AE.9863-ZA (0.63x) AE.9880-ZA (0.80x)	AE.9810-ZA (1x) AE.9812-ZA (1.2x)
Nikon (5)	AE.9835-N (0.35x)	AE.9855-N (0.55x)	AE.9870-N (0.70x) AE.9880-N (0.80x)	AE.9810-N (1x) AE.9812-N (1.2x)

⁽¹⁾Leica DM, 35 mm to 25.4 mm C-mount, stainless steel

- ⁽²⁾ Olympus CX, CX2, BX, BX2, IX, MX, GX, SZX, STM, 35 mm to 25.4 mm C-mount, anodized aluminum
- ⁽³⁾ Zeiss PrimoStar, PrimoStar Vert, 30 mm to 25.4 mm C-mount, anodized aluminum
- ⁽⁴⁾ Zeiss 60N-C, 60N-T2 photo ports of Axio examiner, Axio Imager, Axio Lab,
- Axio Observer, Axio Scope, Axio Zoom, Stemy 508 and SteREO Discovery
- ⁽⁵⁾ Nikon E100, E200, 50i, 55i, 80i, 90i, Ni series, Ti Series, SMZ800, SMZ1000, SMZ15000, 38 mm to 25.4 mm C-mount, stainless steel



STANDARD PLUG & PLAY

C-mount adapters for standard Ø 23.2 mm tube

- DC.1359 C-mount adapter with 1x lens, fixed focal length and short barrel, for standard 23.2 mm tube and 1 inch camera
- DC.1327 C-mount adapter with 0.75x objective for 2/3" camera
- DC.1324 C-mount adapter with 0.45x objective for 1/2" camera
- DC.1353 C-mount adapter with 0.37x objective, fixed focal length and short barrel*. For 1/3" camera
- DC.1355 C-mount adapter with 0.50x objective, fixed focal length and short barrel*. For 1/2" camera
- DC.1357 C-mount adapter with 0.75x objective, fixed focal length and short barrel*. For 2/3" camera
- DC.1330 30 mm to 23.2 mm conversion adapters
- DC.1335 30.5 mm to 23.2 mm conversion adapters

* for increased light efficiency

DIGITAL SLR ADAPTERS

Digital singe lens reflex camera with a APS-C sensor can be mounted on a standard 23.2 mm trinocular tube Choose the universal DC.5130 adapter with built-in 2x objective, together with a brand-specific T-2 adapter

- AE.5130 Universal SLR camera adapter for 23.2 mm tube with built-in 2x magnification lens. Needs T2 adapter
- AE.5120-2 Standard 23.2 mm diameter tube for Oxion photo port (x)
- T2 adapter for Nikon D digital SLR cameras AE.5025
- AE.5040 T2 adapter for Canon EOS digital SLR cameras
- Other T2 adapters on request





AE.5120-2

DC.1330/DC.1335

DC.1324

• AE.5130

PHOTO PORT ADAPTERS

Suitable for Euromex microscopes with a photo port such as Oxion, NexiusZoom and StereoBlue

- **OX.9810** C-mount adapter with 1x magnification for 1" cameras
- OX.9833 C-mount adapter with 0.33x objective for Oxion microscopes and 1/3" cameras
- OX.9850 C-mount adapter with 0.5x objective for Oxion and Oxion Inverso microscopes and 1/2" cameras
- NZ.9833 C-mount adapter with 0.33x objective for NexiusZoom microscopes and 1/3" cameras
- NZ.9850 C-mount adapter with 0.5x objective for NexiusZoom microscopes and 1/2" cameras
- SB.9850 C-mount adapter with 0.5x objective for StereoBlue microscopes and 1/2" cameras

