OLYMPUS

Your Vision, Our Future

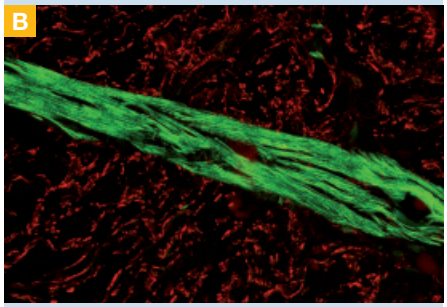
Stereo Microscopes

SZX2

For Life and Materials Science

SZX2 Stereo Microscopes: A Resolution Revolution

A SDF PLAPO 2XPFC
high NA objective



Rat skin; Alexa488 (F-Actin); Cy3 (Elastin); 2XPFC Objective; Zoom 6.3; GFPA, RFP2 Filter sets; SZX2-RFA16; Camera: FView-II

OLYMPUS SZX2
2 MICROSCOPES – 10 INNOVATIONS

Gradual evolution and progression are natural processes in almost all facets of life and therefore it is rare for an instrument to be truly ground-breaking. Moreover, with microscopes being long-established laboratory tools, it is even more exciting that the new SZX2 stereo microscope range features 10 significant improvements on present instruments, as well as many smaller ones! This revolutionary range consisting of the SZX16 for research and the SZX10 for advanced routine purposes covers every aspect of life science and materials uses.

Better: to the power of 10

A new resolution

A The Olympus SZX16 is designed for advanced research and leaves other stereos in its wake with a maximum numerical aperture (NA) of 0.3, producing a superior resolution of 900 line pairs per millimetre.

Power for weak signals

B With its advanced optics and high NA, the SZX16 is the perfect fluorescence microscope for whole organisms to cellular detail imaging. This enables reduced exposure times and higher sensitivity, allowing you to see weak fluorescence signals as never before – in amazing detail with excellent brightness.

Zoom, zoom, zoom

Put simply, the Olympus SZX16 provides the largest zoom ratio of any stereo microscope on the market – 16.4:1. This combined with the high NA optics, produces the best clarity at whatever magnification is chosen, meaning you really can see more.

From the base up

C The Olympus SZX2 range features the unique Olympus LED base system enabling fine control of transmitted illumination for bright and even images. With the ultra-slim 40 mm base, the SZX2 range has the most ergonomic stage height available. Moreover, a novel carousel enables the easy selection and control of brightfield, darkfield and oblique illumination.

Perfect oblique illumination

D Most stereo microscopes use mirrors to create oblique illumination, which can lead to uneven and inconsistent contrast in the field of view. The SZX2 LED illumination system uses a fine shutter system of thin lamellae to produce ultra-precise and completely even oblique illumination. With this unique system, transparent samples can be seen with the same contrast across the entire field of view.

Correctional facility

Observing samples under water in a petri dish usually leads to reduced image sharpness, making precise work at higher magnifications extremely difficult. This phenomenon is due to aberrations caused by the different refractive indices of air, the petri dish cover and the medium. To combat this, Olympus has introduced a correction ring with the SDFPLAPO 2XPFC objective, which enables fine manipulation of the objective lens to compensate for these differences.

3.5x to 230x in one easy motion!

With the largest seamless zoom ratio combined with the most comprehensive range of parfocal objectives (0.5x, 1.0x, 1.6x and 2.0x), the SZX16 can take you from a macro-view to a micro-view.

Ultimate visual comfort

The advanced Olympus Comfort*View* eyepieces on the SZX2 stereo microscopes enable a significantly larger range of eye movement for viewing the 3D image, making both short and long term use much more comfortable. This also makes it easier to form the stereo image, resulting in reduced occurrence of eyestrain.

Ergonomic

E Olympus believes that ergonomy is not an add-on and therefore each microscope is designed with the user in mind. As a result, all controls are easy to use and features like Comfort*View* and the low stage height, greatly reduce sources of stress.

Real-time imaging and high resolution documentation

With the SZX2 range being so versatile, you will want to document or show live digital views of your sample. Attaching the Olympus DP71 cooled digital camera produces a very flexible imaging station. This is designed for high resolution documentation (up to 12.5 mega pixels) as well as real-time imaging for live views in both colour and monochrome.

Clearly superior

With these 10 key improvements on top of an already exceptional product pedigree, the Olympus SZX2 range of stereo microscopes enables you to see and capture much more than ever before – whatever you are looking for.

SZX16: The research stereo microscope hosts a range of top-end functions such as full fluorescence capability and high-end documentation.

SZX10: The advanced routine stereo microscope gives you the flexibility to carry out every-day tasks as well as research techniques with clearer and more comfortable accuracy.

C LED base

for transmitted illumination

D Transmitted light turret

for four contrast inserts

E Ergo tilting head

for fatigue-free observation

SZX2 System Specifications

Specifications

Maximum values	SZX16	SZX10
Magnification (using 10x eyepieces)	230x	126x
Resolution	900 LP/mm	600 LP/mm
Numerical aperture	0.3	0.2
Field of view	104.8 mm	69.8 mm
Working distance	141 mm	171 mm

Details

Zoom bodies	SZX16	SZX10
	SZX2-ZB16	SZX2-ZB10
	Zoom ratio: 16.4	Zoom ratio: 10
	Zoom range: 0.7-11.5	Zoom range: 0.63-6.3
	14 click stops for magnification indication	11 click stops for magnification indication
	Integrated aperture stop	Integrated aperture stop

Focus units	SZX16/SZX10		
	SZX2-FOFH	SZX2-FOF	SZX2-FO
	Built-in gas spring counter balance	Built-in counter balance	
	Coarse/fine focus	Coarse/fine focus	Coarse focus
	80 mm movement range, stroke per rotation 36.8 mm (coarse), 0.77 mm (fine)		80 mm movement range, stroke per rotation 21 mm
	Load: 10 to 25 kg	Load: 5 to 20 kg	Max. load: 10 kg

Observation Tubes	SZX2-TR30	SZX2-TR30PT	SZX2-TTR	SZX2-TTRPT
	Trinocular observation tube	Trinocular observation tube	Tilting trinocular tilting tube	Tilting trinocular tilting tube
	Tube inclination: 30°	Tube inclination: 30°	Tube inclination: 5° to 45°	Tube inclination: 5° to 45°
	2 position lightpath selection:	2 position lightpath selection:	2 position lightpath selection:	2 position lightpath selection:
	100% observation	100% observation	100% observation	100% observation
	50/50% observation/camera	0/100% observation/camera	50/50% observation/camera	0/100% observation/camera
Eyepieces	Comfort*View* WHSZ series	Comfort*View* WHSZ series	Comfort*View* WHSZ series	Comfort*View* WHSZ series

Objectives	SZX16	SZX10
	SDFPLFL0.3x, WD 141 mm	DFPL0.5x-4, WD 171 mm
	SDFPLAPO0.5xPF, WD 70.5 mm	DFPL0.75x-4, WD 116 mm
	SDFPLAPO0.8x, WD 81 mm	DFPLAPO1x-4, WD 81 mm
	SDFPLAPO1xPF, WD 60 mm	SZX-ACH1x, WD 90 mm
	SDFPLAPO1.6xPF, WD 30 mm	DFPLAPO1.25x, WD 60 mm
	SDFPLAPO2xPFC, WD 20 mm	SZX-ACH1.25x, WD 68 mm
		DFPL1.5x-4, WD 45.5 mm
		DFPL2x-4, WD 35.5 mm

LED Base	SZX16/SZX10
	White LED Illumination with average lifetime of 12.800 hours
	4 position illumination casette turret
	Suitable for brightfield, darkfield and oblique illumination
	Stepless light intensitty adjustment
	Height of only 40 mm

Fluorescence Illuminators	SZX16	SZX10
	SZX2-RFA16	SZX-RFA
	Near vertical fluorescence illuminator	Coaxial fluorescence illuminator
	5 position fluorescence filter turret	4 position filter slider
	Accepts excitation balancers	

WD: working distance

Art. code: E0430616 • Printed in Germany 04/2006

Specifications are subject to change without any obligation on the part of the manufacturer.

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