

AxioObserver Z1

AxioObserver Z1 is a stable inverted fluorescence microscope system for multimodal imaging of living and fixed samples. It is equipped with a motorized stage and a complete incubation portfolio with heating inserts, heatable mounting frames, temperature and CO2 controllers to fully cater to time lapse live cell imaging. Using Colibri, a narrow-band LED light source, cross-stimulation among channels is reduced while contrast and signal to noise ratio of images are elevated. LEDs also do not produce a lot of unwanted UV and IR leakage thus bleaching is minimised and sample viability is enhanced. This system also uses long-distance high magnification objective lenses allowing users to image deeper into their specimens.

Features:

Incubation	Live cell imaging chamber with CO2 and temperature control
Imaging Modes	Epifluorescence and DIC illumination
Stage	Motorized XY stage suitable for experiments with fixed multiple positions
Scan Resolution	1344 x 1024 pixels
Fluorescence Detector	Hamamatsu Digital CCD Camera ORCA-R2 <ul style="list-style-type: none"> - 12 bit / 16 bit digitizer - High resolution 1344 x 1024 pixels - 10 μs – 4200 s exposure times - Binning 2x2, 4x4, 8x8
Transmitted Light Detector	

Objective lenses:

Magnification	Immersion	Type	Numerical Aperture	Additional Features	Working Distance (mm)
10X	Air	EC Plan-NEOFLUAR	0.30	-	5.2
10X	Air	EC Plan-NEOFLUAR	0.30	Ph1	5.2
20X	Air	Plan-NEOFLUAR	0.40	LD; Korr	8.4-7.4
40X	Air	Plan-NEOFLUAR	0.60	LD; Korr	3.3-2.5
63X	Oil	Plan-APOCHROMAT	1.40	DIC	0.19

Ph: Phase contrast (optically dense portion of thin specimen appear darker against lighter grey background)

LD: Long working distance

Korr: Built with a collar which adjusts for cover glass thickness

DIC: Differential/Nomarski Interference contrast

Software:

ZenLite