

**Motic**<sup>®</sup>

MORE THAN MICROSCOPY



# SMZ160 SERIES

BASIC STEREO MICROSCOPE



# SMZ160 SERIES

Motic newly introduced SMZ-160 stereo zoom microscope comes with 1:6.4 zoom range (0.75x-4.5x), all metal body with classic illumination. The SMZ-160 is ideal for educational purposes in high schools and universities, but also works fine in industrial quality control.

1:6.4 continuous zoom provides crisp and high resolution stereo images and ball bearing focusing system provides accurate and stepless focusing even at high magnifications.

The metal body ensures years of use without comprising quality. The LED illuminated stand state of the art 3W LED illumination with colour temperature close to natural light (5000K-6000K). Plus, a wide range of illumination options can be combined with the SMZ160 optics, such as ring light solution which is recommended for a shadow-free image.



SMZ160B  
R2LED Stand



SMZ160T  
R2LED Stand



SMZ160B  
Plain Stand



SMZ160T  
Plain Stand



Auxiliary Objectives |



C-Mount Adapters |



## ■ Auxiliary Objectives

Motic offers a wide range of auxiliary objectives with different magnifications, 0.3X, 0.5X, 0.75X, 1.5X and 2.0X. You can select from them according to the needs of total magnification or working distance.

## ■ C-Mount Adapters

A new focus-adjustable adapter is introduced for the parfocality between eyepiece and camera. Motic provides three different magnifications of C-Mount adapters (0.35X, 0.5X and 1X) and a complete range of digital cameras. The magnification of C-mount adapter desired will vary depending on the size of the camera sensor.

VI-LED Coaxial Illuminator |



LED Ring Light |



Darkfield Insert |



X/Y Mechanical Stage |



Gliding Stage |



Polarizing Set |



## VI-LED Coaxial Illuminator

Used for specimen which incident illumination and ring light do not apply for, especially for highly-reflective specimen. It provides coaxial and evenly illuminated fields of view on left and right tubes, plenty of brightness which meets lighting needs for 1.6X~5X magnification.

## LED Ring Light

High brightness ring light, which can be fixed below the objective or auxiliary objective.

## Darkfield Insert

Darkfield insert is mounted on top of the light exit of any transmitted light stand which enhances contrast in specimens and makes it easier to observe special specimens like fiber and jewelry by Darkfield. The iris diaphragm allows varying the illumination aperture according to the numerical aperture of the objective in use.

## X/Y-Stage

X/Y-stage is mounted onto the base plate of a plain or transmitted light stand. It will move smoothly on the X-axis and Y-axis by turning the coaxial adjustment knobs.

## Gliding Stage

This stage is mounted onto the base plate of a plain or transmitted light stand. It allows a smooth multidirectional movement and 360° plane moving of the sample, ideal for micro specimen.

## Polarizing Set

To analyze the birefringence of transparent materials, a polarizing set-up is required. The respective polarizer/analyzer combination for the SMZ-160 is fixed on top of the light exit of the transmitted light stand.

## SMZ160 SERIES SPECIFICATIONS

Model	SMZ160B	SMZ160T
Optical System	Greenough	
Inclination	45°	
Zoom magnification	0.75X-4.5X	
Zoom ratio	6:1	
Eyepieces (standard)	WF10X/20mm with diopter adjustment	
Interpupillary distance	55mm-75mm	
Working distance (standard)	100	
Photo port adapter	0.35x/0.5x/1.0x optional	
Auxiliary objectives (optional)	0.3X [WD =287mm]	
	0.5X [WD =165mm]	
	0.7X [WD =120mm]	
	1.5X [WD =47mm]	
	2.0X [WD = 30mm]	
Max working distance	287mm	
Illumination	R2LED illuminated stand with 3W incident and transmitted illuminations	

## SMZ160 OPTICAL DATAS

Eyepiece	Magnification (X)	Standard Objectives		Auxiliary Objectives									
				0.3X		0.5X		0.7X		1.5X		2X	
		WD 100mm		WD 287mm		WD 165mm		WD 120mm		WD 47mm		WD 30mm	
		Mag. (X)	F.N. (mm)	Mag. (X)	F.N. (mm)	Mag. (X)	F.N. (mm)	Mag. (X)	F.N. (mm)	Mag. (X)	F.N. (mm)	Mag. (X)	F.N. (mm)
10X/20	0.75	7.5	26.67	2.25	88.89	3.75	53.33	5.625	38.10	11.25	17.78	15	13.33
	1	10	20	3	66.67	5	40.00	7.5	28.57	15	13.33	20	10.00
	2	20	10	6	33.33	10	20.00	15	14.29	30	6.67	40	5.00
	3	30	6.67	9	22.22	15	13.33	22.5	9.52	45	4.44	60	3.33
	4	40	5	12	16.67	20	10.00	30	7.14	60	3.33	80	2.50
	4.5	45	4.44	13.5	14.81	22.5	8.89	33.75	6.35	67.5	2.96	90	2.22
15X/16	0.75	11.25	21.33	3.375	71.11	5.625	42.67	8.4375	28.44	16.875	14.22	22.5	10.67
	1	15	16	4.5	53.33	7.5	32	11.25	21.33	22.5	10.67	30	8
	2	30	8	9	26.67	15	16	22.5	10.67	45	5.33	60	4
	3	45	5.33	13.5	17.78	22.5	10.67	33.75	7.11	67.5	3.56	90	2.67
	4	60	4	18	13.33	30	8	45	5.33	90	2.67	120	2
	4.5	67.5	3.56	20.25	11.85	33.75	7.11	50.625	4.74	101.25	2.37	135	1.78
20X/10	0.75	15	13.33	5.25	38.10	7.5	26.67	11.25	17.78	22.5	8.89	30	6.67
	1	20	10.00	7	28.57	10	20.00	15	13.33	30	6.67	40	5.00
	2	40	5.00	14	14.29	20	10.00	30	6.67	60	3.33	80	2.50
	3	60	3.33	21	9.52	30	6.67	45	4.44	90	2.22	120	1.67
	4	80	2.50	28	7.14	40	5.00	60	3.33	120	1.67	160	1.25
	4.5	90	2.22	31.5	6.35	45	4.44	67.5	2.96	135	1.48	180	1.11





# SMZ160 SERIES

Basic Zoom Stereo Microscope

# Motic®

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Official Distributor:

NO.1300901305821

Updated: 25.02.2022