

**Motic®**

MORE THAN MICROSCOPY



Stereomicroscopes for the Best

# SM7 Series

COMFORTABLE PRODUCTIVITY IN YOUR LAB

# SM7 Series

## Encounter True-Color Visualization in 3D

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As an established manufacturer of light microscopes and digital documentation tools, Motic's engineering is focused on the full satisfaction of users from biology, medicine and industrial QC. In any case, a 3-dimensional, upright image for inspection purposes or preparation work is needed. Our stereo microscopes are a serious option, especially if price/performance is taken into consideration. The SM7 Series is our new highlight in terms of colour reproduction, resolution and spatial information.



# The First Motic Stereo Plan-Apochromat: Enjoy and Be Surprised.

## Power in any Aspect

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The SM7 features an optical performance with true colour reproduction, high resolution and low distortion. A stand with Incident/Transmitted LED light supplies variable illumination.

## Stand Design

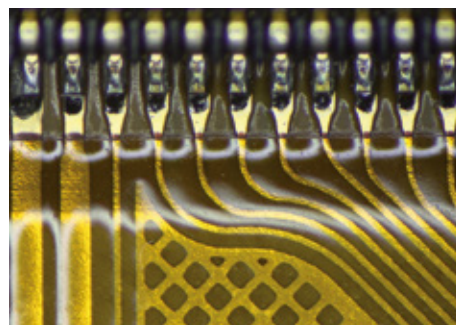
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Ultra-flat stand bases for a relaxed positioning of hands and forearms facilitate lengthy preparation work. Pick your *C. Elegans* nematodes from the petri dish, mount your gearwheel into the clockwork. The advanced ergonomic design maximizes efficient usage and minimizes fatigue.

## Flexibility for Individual Demands

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A variety of objectives and eyepieces allow tailoring a personal SM7. Upgrade your workplace with ergonomic stands and powerful optics, whether Apochromatic colour fidelity is in focus or improved resolution power.



# SM7 Series

## Motic SM7: High-Precision Galilean Optics

### Galilean Optical System

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The Galilean Optics of the SM7 show a 7:1 Zoom system, resulting in a standard magnification range of 8X-56X. A 10-Position Click-Stop helps to set precise magnifications in case repeatable measurements are required. The standard optical setup can be varied by exchanging objectives and/or eyepieces.

### Superior Optics

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For the best possible image results, a 1X Plan-Apochromatic objective with a Working Distance of 81mm is available. True-colour reproduction combined with improved Field Flatness and minimized image defects: both the world of living beings and technical samples are covered by our SM7 stereomicroscope.

### Resolution Power for Tiny Details

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Besides minimized chromatic and spherical aberrations, it is the resolution of the 1X Apochromatic objective which makes the SM7 especially interesting for technical applications. 36% more resolution power, an increase worth mentioning.



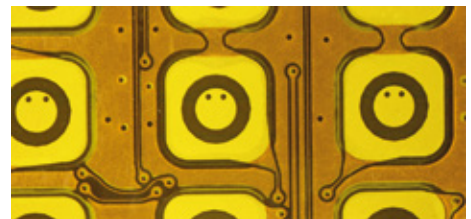
# Powerful visualization for both eyes and camera

## Eyepieces

The High eyepoint eyepieces 10X/22 suit spectacle wearers and offer a diopter adjustment range within +5/-8 dpt. Easy use of reticles is Motic's top model standard.

## Observation Tubes

Our Trinocular head is supplied with a 100:0/20:80 2-position beam split, providing sufficient light to the camera port even under lowlight conditions. C-Mount cameras are adapted to the respective camera sensors. Besides the standard Binocular tube, a 60° inclination tube is available to meet special OEM demands.



# SM7 Series

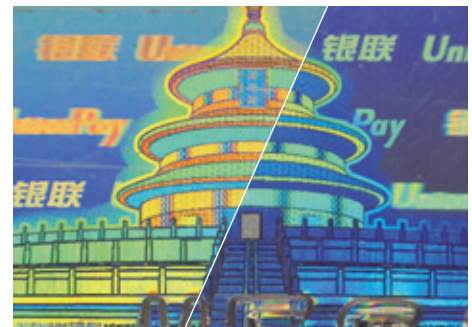
## Illumination is the Second Key for the Safe of Information

### Illumination

For years LEDs are replacing Halogen light sources in business and private life. A low energy consumption, a long lifetime and, especially for living samples, a low heat production are the main arguments.

### Transmitted / Incident Light Stands

The SM7 Stand for transparent and opaque specimen incorporates 3W LEDs for both types of illumination, with separate controls for mixed samples. An optional 4-segment ring illuminator is meant for the standard stand. Herewith surface topographies can be visualized by activating different illumination angles. The SM7 features significantly flat stand bases for ergonomic positioning of hands and forearms. Long preparation work can be done without early fatigue. For ESD sensible work, Motic's ESD and surge protection system complies with both UL and CL standards and regulations. An essential feature for electronic and electric quality control environments.



# Moticam S-Line

## Scientific-Grade Microscope Cameras

The new Moticam S-line marks a further step in Motic's digital microscopy. By utilizing the latest sCMOS sensors coupled with our own PCB design and on-board image management, each Moticam S series promises professional digital results at an affordable price. This Moticam S-line is designed and manufactured completely in-house under strict German quality guidelines. Whether for Clinical, Research or Industrial, this new generation of Moticams has got the answer for every demand. At Motic, we believe in making High-level Digital Microscopy affordable for everyone. You surely will enjoy this camera line.

### Key features



Super-Fast  
Frame Rates

USB3.1



USB 3.1  
Data Transfer



True color  
reproduction



sCMOS  
Sensor



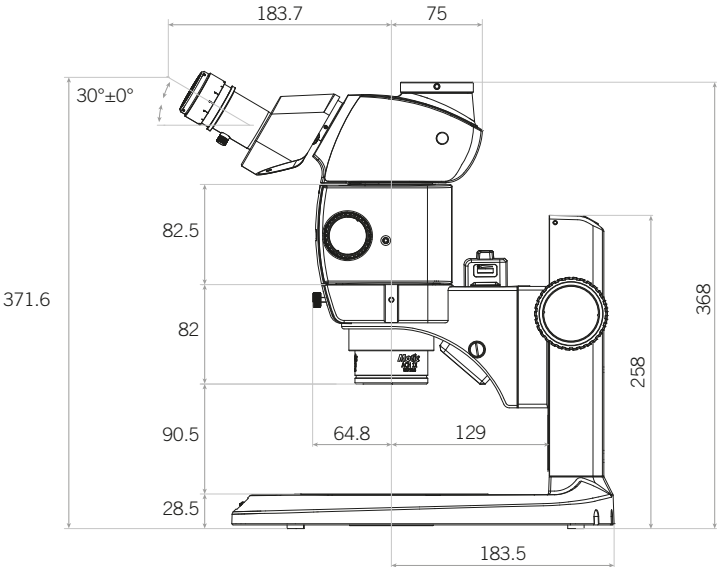
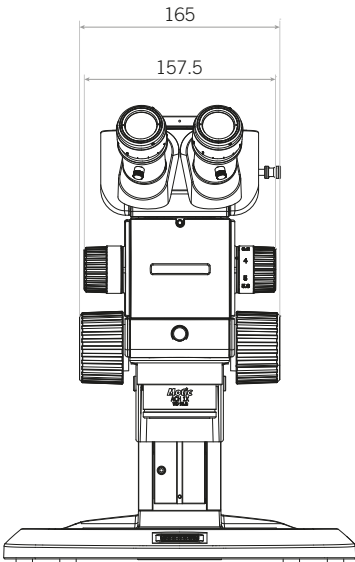
Up to 20MP  
Resolution



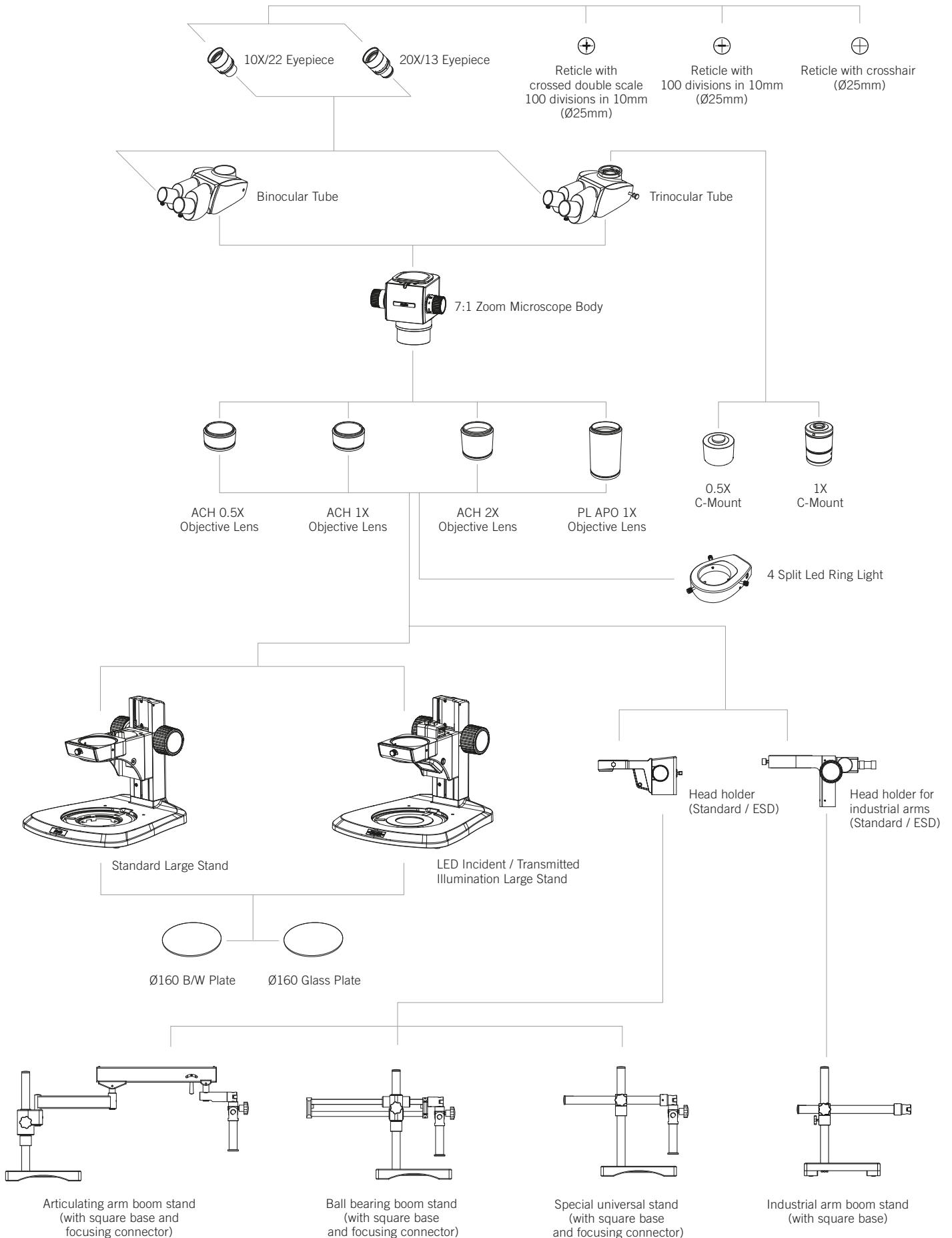
Rolling and Global  
shutter models



# SM7 Series Dimensions



# SM7 Series System Overview



# SM7 Series Technical Specifications



● <b>Sku</b>	1100201800061	1100201800021	1100201800071	1100201800031
● <b>Name</b>	<b>SM7-P A1X</b>	<b>SM7TR-P A1X</b>	<b>SM7-P APO1X</b>	<b>SM7TR-P APO1X</b>
<b>Optical system</b>	Galilean infinity optical design. Common Main Objective (CMO)			
● <b>Observation tube</b>	Binocular head	Trinocular head	Binocular head	Trinocular head
<b>Inclination</b>	30° inclined			
<b>Trinocular light split</b>	-	100:0/20:80	-	100:0/20:80
<b>Interpupillary distance</b>	55-75mm			
<b>Diopter adjustment</b>	On both eyepieces, +5/-8 diopter			
<b>Eyepieces</b>	Widefield WF10X/22mm with diopter adjustment			
<b>Objectives system</b>	Zoom, ratio 7:1			
● <b>Objectives classification</b>	Plan Achromat		Plan Apochromat	
<b>Objectives</b>	0.8X~5.6X (10-step)			
● <b>Working distance</b>	90mm		81mm	
<b>Stand type</b>	Fixed-arm stand			
<b>Head holder</b>	For Ø76mm head			
<b>Focus mechanism</b>	Coarse focusing system with tension adjustment			
<b>Focusing stroke</b>	120mm			
● <b>Incident illumination</b>	-			
● <b>Transmitted illumination</b>	-			
● <b>Transformer</b>	-			
● <b>Power supply</b>	-			
<b>Accessories included</b>	Dust cover, Black/White plate Ø160mm			
<b>Dimensions LxWxH</b>	367x290x372mm			
<b>Base</b>	310x290mm			
<b>Column/Arm</b>	254mm			
<b>Net weight</b>	6.9 Kg	7 Kg	7 Kg	7.1 Kg
<b>CONTRAST TECHNIQUES</b>				
<b>Brightfield</b>	Brightfield			



1100201800081	1100201800041	1100201800091	1100201800051	<b>Sku</b>	●
<b>SM7-TLED A1X</b>	<b>SM7TR-TLED A1X</b>	<b>SM7-TLED APO1X</b>	<b>SM7TR-TLED APO1X</b>	<b>Name</b>	●
Galilean infinity optical design. Common Main Objective (CMO)				<b>Optical system</b>	
Binocular head	Trinocular head	Binocular head	Trinocular head	<b>Observation tube</b>	●
30° inclined				<b>Inclination</b>	
-	100:0/20:80	-	100:0/20:80	<b>Trinocular light split</b>	
55-75mm				<b>Interpupillary distance</b>	
On both eyepieces, +5/-8 diopter				<b>Diopter adjustment</b>	
Widefield WF10X/22mm with diopter adjustment				<b>Eyepieces</b>	
Zoom, ratio 7:1				<b>Objectives system</b>	●
Plan Achromat		Plan Apochromat		<b>Objectives classification</b>	
0.8X~5.6X (10-step)				<b>Objectives</b>	
90mm		81mm		<b>Working distance</b>	●
Fixed-arm stand with incident & transmitted illumination				<b>Stand type</b>	
For Ø76mm head				<b>Head holder</b>	
Coarse focusing system with tension adjustment				<b>Focus mechanism</b>	
120mm				<b>Focusing stroke</b>	
LED 3W with intensity control				<b>Incident illumination</b>	●
LED 3W with reflector and intensity control				<b>Transmitted illumination</b>	●
External				<b>Transformer</b>	●
110-240V (CE)				<b>Power supply</b>	●
Dust cover, Glass plate Ø160mm				<b>Accessories included</b>	
367x290x372mm				<b>Dimensions LxWxH</b>	
310x290mm				<b>Base</b>	
254mm				<b>Column/Arm</b>	
7.3 Kg	7.4 Kg	7.4 Kg	7.5 Kg	<b>Net weight</b>	
				<b>CONTRAST TECHNIQUES</b>	
Brightfield				<b>Brightfield</b>	

# Motic®

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Design Change: The manufacturer reserves the right to make changes in instrument design in accordance with scientific and mechanical progress, without notice and without obligation.

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