

Motic

SMZ-140 Series

1:4 Zoom Ratio Stereomicroscope



SMZ-140 STANDARD FEATURES

OPTICAL SYSTEM

- High Resolution Stereo Image
- Zoom Magnification Click Stops
- Standard Observation angle of 45°
SMZ-140 (60) Observation angle of 60°
- Diopter Adjustment on both eye tubes: $\pm 5^{\circ}$
- Adjustable interpupillary distance: 54mm - 76mm
- Zoom Magnification Range: 1X - 4X
- Zoom Ratio: 1 : 4
- Working Distance: 80mm
- Anti-Fungus Properties

EYEPIECES

- Widefield 10X / 20

FOCUSING BLOCK

- Rack and pinion focusing mechanisms
- 48mm focusing range
- 74mm inner head mount
- 12V/15W Halogen incident light

BASE STAND

- Compact foot print stand
- 12V/10W Halogen transmitted light [intensity control]
- Universal power input 110V - 220V



SMZ-140-N2GG
Binocular Stereomicroscope



SMZ-143-N2GG
Trinocular Stereomicroscope



SMZ-140 (60)-N2GG
Binocular 60° Observation
Stereomicroscope

SMZ-140 Series Zoom Stereomicroscope Standard Configuration

	Order Number	SMZ-140-N2GG	SMZ-140-1104	SMZ-143-N2GG	SMZ-143-1104
Binocular Zoom Body	PX40.000.001	●	●		
Trinocular Zoom Body	PX43.000.001			●	●
Head Holder with incident light halogen 12V/15W [**works only with **]	SP12.0006	●		●	
Head holder without incident light	SP12.0003		●		●
Compact incident light stand	SW01.0909		●		●
Compact stand with transmitted light halogen 12V/10W	AT02.1902	●		●	

SMZ-140/143 SCHEMATIC DIAGRAMS

SMZ-140-N2GG Binocular Stereomicroscope	SMZ-143-N2GG Trinocular Stereomicroscope
<p>Unit: mm</p>	<p>Unit: mm</p>
SMZ-140(60)-N2GG Binocular 60° Observation Stereomicroscope	
<p>Unit: mm</p>	

SMZ-140/143 SPECIFICATIONS

	SMZ-140-N2GG	SMZ-143-N2GG	SMZ-140 (60)-N2GG
Optical System		GREENOUGH	
Magnification Range		1.75X - 180X	
Zoom body magnification		1X - 4X	
Zoom ratio		1: 4	
Eyepieces		WF 10X / 20mm	
Interpupillary distance		54mm - 76mm	
Diopter Adjustment		± 5°	
Observation angle		45°	60°
Working Distance		80mm	
Choice of eyepieces		5X/22, 10X/20, 15X/13, 20X/10, 30X/8	
Additional objective available		0.35X WD = 200mm 0.5X WD = 133mm 0.63X WD = 110mm 0.75X WD = 89mm 1.5X WD = 33mm	
Max. Magnification		180X	
Max. field of view		62.9mm	
Max. working distance		200mm	
Top light		12V / 15W Halogen [Reflected]	
Bottom light		12V / 10W Halogen	
Photo and video adapters		2X Photo Adapter 0.4X CCD Adapter [for 1/3" CCD] 0.5X CCD Adapter [for 1/2" CCD]	

FS01 - Pole Mount Arm



- Rack and pinion focusing mechanism
- Focus adjustment: 45mm
- Pole mount diameter: \varnothing 25mm
- Head mount diameter: \varnothing 74mm

FS02 - Pole Mount Arm with Illumination



- Rack and pinion focusing mechanism
- Reflected halogen 12V / 15W illumination
- Focus adjustment: 45mm
- Pole mount diameter: \varnothing 25mm
- Head mount diameter: \varnothing 74mm

FS03 - Ball Bearing Pole Mount Arm



- V-frame, ball bearing focusing mechanism
- Focus adjustment: 50mm
- Pole mount diameter: \varnothing 32mm
- Head mount diameter: \varnothing 74mm

FS04 - Ball Bearing Pole Mount Arm with Illumination



- V-frame, ball bearing focusing mechanism
- Reflected halogen 12V / 10W illumination
- Focus adjustment: 50mm
- Pole mount diameter: \varnothing 32mm
- Head mount diameter: \varnothing 74mm

FI01 - Industrial Arm



- V-frame, ball bearing focusing mechanism
- Illuminator port
- Focus Adjustment: 50mm
- Head mount diameter: \varnothing 74mm
- Nipple diameter: \varnothing 15,8mm
- Adjustment range: $\pm 90^\circ$

FI02 - Fast Release Industrial Arm



- Fast release and locking mechanism
- Rack and pinion focus mechanism
- Focus adjustment: 50mm
- Head mount diameter: \varnothing 74mm
- Nipple diameter: \varnothing 15,8mm
- Adjustment range: $\pm 120^\circ$

2112 Large Working Area Incident Illumination Stand



- Width of surface: 330mm
- Length of surface: 280mm
- Height of pole: 291mm
- Mounting Diameter: \varnothing 32mm

Manual Movement Stand



- Width of surface: 450mm
- Length of surface: 350mm
- X movement: 400mm
- Y movement: 210mm
- Lockable Movements

1105 Universal Stand



- Diameter of base: 200mm
- Height of pole: 350mm
- Horizontal movement: 260mm
- Mounting Diameter: \varnothing 25mm

1105S Special Universal Stand



- Width of base: 250mm
- Length of base: 250mm
- Height of pole: 350mm
- Horizontal movement: 410mm
- Mounting Diameter: \varnothing 25mm

1107 Articulating Arm Boom Stand



- Width of base: 300mm
- Length of base: 300mm
- Height of pole: 600mm
- Optical Centre Max: 780mm
- Mounting Diameter: \varnothing 25mm

1108 Ball Bearing Boom Stand



- Width of base: 300mm
- Length of base: 300mm
- Height of pole: 600mm
- Optical Centre Max: 638mm
- Mounting Diameter: \varnothing 25mm

1109 Articulating Arm Boom Stand



- Table Clamp Type
- Height of pole: 600mm
- Optical Centre Max: 780mm
- Mounting Diameter: \varnothing 25mm

1110 Ball Bearing Boom Stand



- Table Clamp Type
- Height of pole: 600mm
- Optical Centre Max: 638mm
- Mounting Diameter: \varnothing 25mm

2105I Industrial Arm Boom Stand



- Width of base: 250mm
- Length of base: 250mm
- Height of pole: 330mm
- Horizontal movement: 400mm
- Nipple Mount Diameter: \varnothing 15.8mm

1104S Incident Illumination



- Length of base: 280mm
- Width of base: 220mm
- Height of pole: 245mm
- Mounting Diameter: \varnothing 25mm

FBGG Stand



- Large working area
- Mounting Diameter: \varnothing 32mm
- 12V / 10W halogen transmitted light [intensity control]
- Universal power input 110V - 220V

Fixed Mount Stand



- V-frame, ball bearing focusing mechanism
- Precentred optical center
- Length of base: 280mm
- Width of base: 330mm
- Head mount diameter: \varnothing 74mm
- Focus adjustment: 137mm

SMZ-140/143 AUXILIARY ILLUMINATION

K2401 FLUORESCENT RING ILLUMINATOR

- Colour Temperature: 6400K
- Even white light
- 12W power consumption
- 3 screw ring mount



MLC-150 COLD LIGHT SOURCE

- Colour Temperature Indication
- Colour Temperature Range: 2500K - 3200K
 - Above 5600K with blue filter
- Remote or local intensity control
- 21V / 150W switching power
- Filter holder
- 220(H) x 193(W) x 112(D) mm

LIGHT GUIDE OPTIONS

FLEXIBLE RING LIGHT GUIDE

- SP990074
- Length: 1,000mm
- Distal End Diameter: \varnothing 61mm



1-ARM GOOSENECK LIGHT GUIDE

- SP990075
- Length: 500mm
- Distal End Diameter: \varnothing 13mm



BIFURCATED GOOSENECK LIGHT GUIDE

- SP990076
- Length: 500mm [each arm]
- Distal End Diameter: \varnothing 9mm



Some illumination and stands may not be available in your area. Please check with your local sales.

AUXILIARY EYEPIECES



WF5X / 22mm
SG02T0605

WF15X / 13mm
SG02T0313

WF20X / 10mm
SG02T0409

WF30X / 8mm
SG02T0702

MICROMETER EYEPIECES



WF10X
360° : 10
SG060334



WF10X
14mm : 0.2mm
SG060302



WF10X
14mm : 0.1mm
SG060303



WF20X
10mm : 0.1mm
SG060312

AUXILIARY OBJECTIVES



- 0.35X Objective WD 200mm SG01T014203
- 0.5X Objective WD 133mm SG01T01201A
- 0.63X Objective WD 110mm AX4007023
- 0.75X Objective WD 89mm SG01T02201A
- 1.5X Objective WD 33mm SG01T1201A

CAMERA ADAPTERS



2X Photo Adapter
35mm SLR Camera
SP100002



0.4X CCD Adapter
1/3" CCD Camera
SP100008



0.5X CCD Adapter
1/2" CCD Adapter
SW0113N6

POLARISING EQUIPMENT

- Base stand mountable 1-piece set
- 360° independently rotary polariser [top]
- 360° independently rotary analyser [bottom]



SP080013K

POLARISING SET

- Zoom body screw mount polariser
- Base stand mountable 360° rotary analyser



AX6602633

DARKFIELD ATTACHMENT

- Conical glossy central stop for diffracted light observation
- Iris diaphragm for controlling the shape of light
- Base stand mountable



SP090001

GLIDING STAGE

- Base stand mountable
- Manual manipulation
- 360° rotary for various observations

SW010308 - FBGG Stand
SW0103245 - N2GG Stand



SW010308

MECHANICAL STAGE

- Base stand mountable
- Max. X distance: 75mm
- Max. Y distance: 50mm
- Dimension in mm:
222.8(W) x 170(L) x 29.5(H)



SW010338K

JEWELLERY CLIP

- Easily attachable for jewellery or mineral observation
- Movable upon attachment



SW019983

SMZ-140/143 OPTICAL DATA

Eyepiece	Mag. (X)	Standard Objectives		Auxiliary Objectives									
				0.35X		0.5X		0.63X		0.75X		1.5X	
		WD 80mm		WD 200mm		WD 133mm		WD 110mm		WD 89mm		WD 33mm	
		Mag.	FD (mm)	Mag.	FD (mm)	Mag.	FD (mm)	Mag.	FD (mm)	Mag.	FD (mm)	Mag.	FD (mm)
5X/22	1	5.0	22.0	1.8	62.9	2.5	44.0	3.2	34.9	3.8	29.3	7.5	14.7
	2	10.0	11.0	3.5	31.4	5.0	22.0	6.3	17.5	7.5	14.7	15.0	7.3
	3	15.0	7.3	5.3	21.0	7.5	14.7	9.5	11.6	11.3	9.8	22.5	4.9
	4	20.0	5.5	7.0	15.7	10.0	11.0	12.6	8.7	15.0	7.3	30.0	3.7
10X/20	1	10.0	20.0	3.5	57.1	5.0	40.0	6.3	31.7	7.5	26.7	15.0	13.3
	2	20.0	12.0	7.0	28.6	10.0	20.0	12.6	15.9	15.0	13.3	30.0	6.7
	3	30.0	6.7	10.5	19.0	15.0	13.3	18.9	10.6	22.5	8.9	45.0	4.4
	4	40.0	5.0	14.0	14.3	20.0	10.0	25.2	7.9	30.0	6.7	60.0	3.3
15X/13	1	15.0	13.0	5.3	37.1	7.5	26.0	9.5	20.6	11.3	17.3	22.5	8.7
	2	30.0	6.5	10.5	18.6	15.0	13.0	18.9	10.3	22.5	8.7	45.0	4.3
	3	45.0	4.3	15.8	12.4	22.5	8.7	28.4	6.9	33.8	5.8	67.5	2.9
	4	60.0	3.3	21.0	9.3	30.0	6.5	37.8	5.2	45.0	4.3	90.0	2.2
20X/10	1	20.0	10.0	7.0	28.6	10.0	20.0	12.6	15.9	15.0	13.3	30.0	6.7
	2	40.0	5.0	14.0	14.3	20.0	10.0	25.2	7.9	30.0	6.7	60.0	3.3
	3	60.0	3.3	21.0	9.5	30.0	6.7	37.8	5.3	45.0	4.4	90.0	2.2
	4	80.0	2.5	28.0	7.1	40.0	5.0	50.4	4.0	60.0	3.3	120.0	1.7
30X/8	1	30.0	8.0	10.5	22.9	15.0	16.0	18.9	12.7	22.5	10.7	45.0	5.3
	2	60.0	4.0	21.0	11.4	30.0	8.0	37.8	6.3	45.0	5.3	90.0	2.7
	3	90.0	2.7	31.5	7.6	45.0	5.3	56.7	4.2	67.5	3.6	135.0	1.8
	4	120.0	2.0	42.0	5.7	60.0	4.0	75.6	3.2	90.0	2.7	180.0	1.3

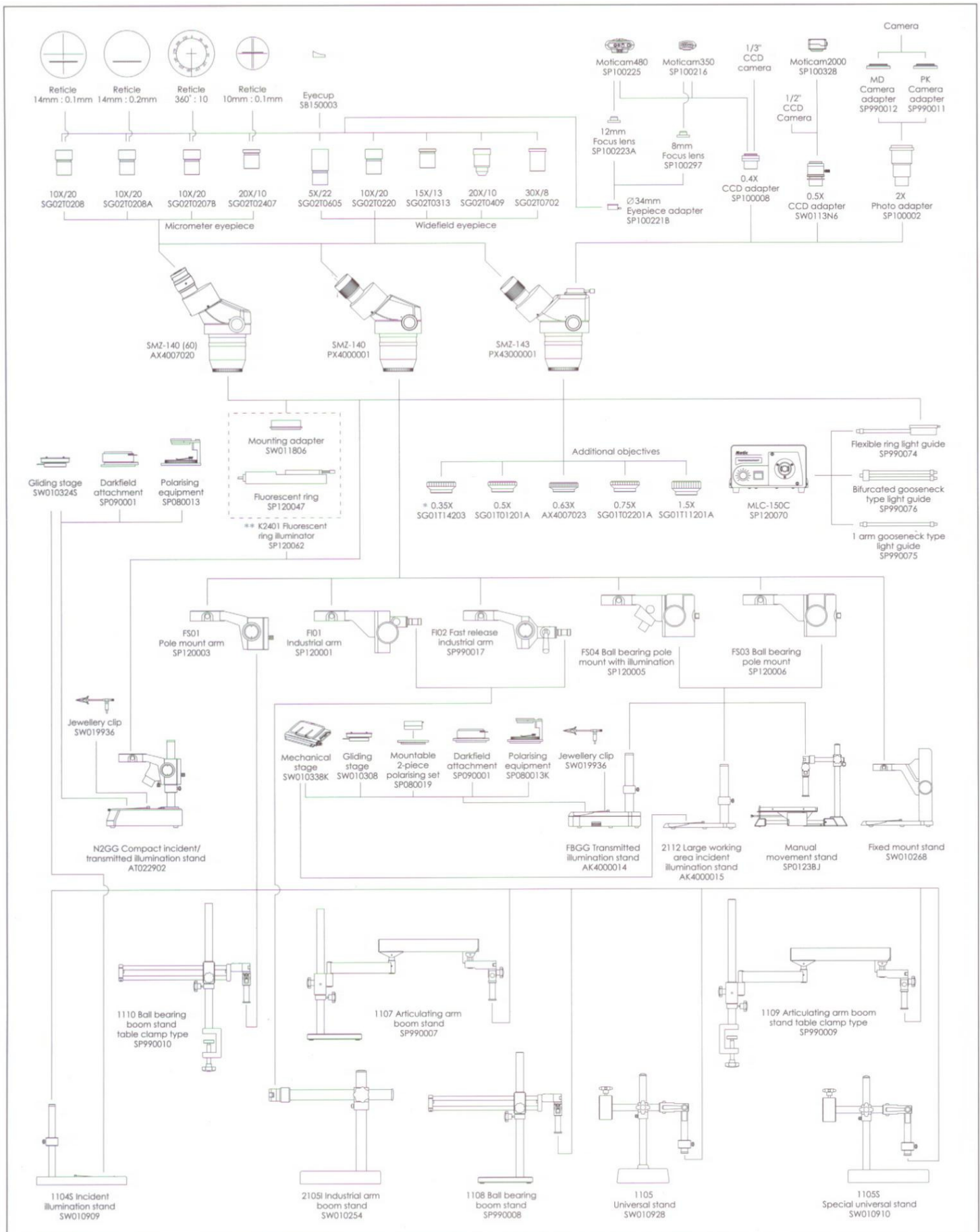
Note: "WD" represents Working Distance, "Mag." represents Magnification, "FD" represents Field Diameter.



□ SMZ-140/143 Digital Option

Available in two digital options for either simultaneous three visual outputs [DMW-143] or two megapixel USB 2.0 output [DM-143-B]. Please refer to our DMW-143 and DM-143-B brochures for further information.

SMZ-140/143 SYSTEM DIAGRAM



* Usage of 0.35X auxiliary objective requires a pole exceeding 250mm in height.
 ** When selecting the fluorescent ring illuminator, please note the country plug and voltage required.