

4.0X Lower Lens



4.0X Lower Lens

Stock **#89-903** **1 In Stock**

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1

+

S\$516⁰⁰

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Volume Pricing	
Qty 1+	S\$516.00 each
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Product Downloads

General	
Lower Lens (One Required)	Note:
Modular High Magnification Zoom Lens	Type:
4.0X Lower Lens	Title:
Optical Properties	
4.0X	Magnification:

Regulatory Compliance	
Compliant	RoHS 2015:
View	Certificate of Conformance:
Compliant	Reach 235:

Product Details

- Wide Range of Magnifications Achievable
- Interchangeable Components Provide Maximum Flexibility
- Motorized and Inline Options Available
- [7X and 12.5X High Precision Zoom Lens Kits](#) Also Available

7X and 12.5X High Precision Zoom Lenses are modular lens systems that consist of a camera mount, camera tube, core module, lower function module, and lower lens. Added versatility is achieved by swapping out modules to change magnification, field of view, or the optical pathway. 7X and 12.5X High Precision Zoom Lenses are compatible with M26 x 36 TPI Mitutoyo-style objectives and with camera sensor coverages and mounts ranging from C-Mount to F-Mount and to 35mm DSLR cameras. 50/50 and 90° cubes are available to introduce right angle turns or to support multiple imaging paths. A motor controller for multi-axis zoom and focus functionality is also available and can be connected to USB, Ethernet, or RS-232/422/285 ports.

Zoom Lens Technical Guide

This downloadable PDF includes everything you need to configure and get started with your zoom lens. Inside, you'll find:

- Guidance on selecting components to best meet application needs
- Required components and how they are integrated
- Available accessories, including in-line illumination
- Par-focalization and par-centering guidance
- Optical performance specifications

[Download Zoom Lens Technical Guide](#)

A complete zoom lens requires a camera mount, camera tube, zoom module, lower function module, and lower lens. An item selection guide can be found on the Technical Information tab.



ILLUMINATION

MOUNTING



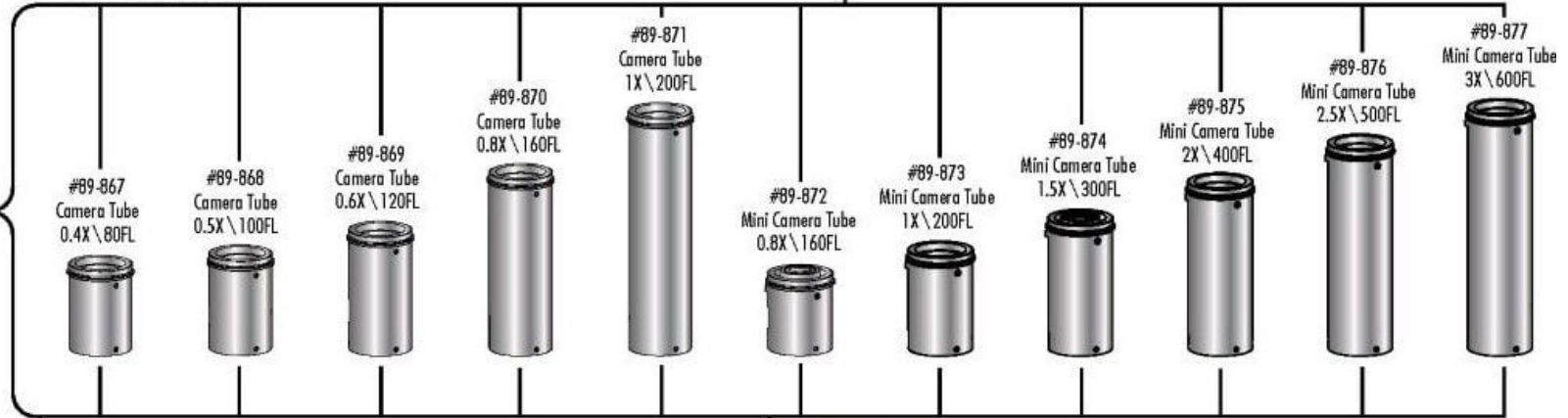
#89-924 Tube Clamp Mount, 76mm Dia.
#89-925 Tube Clamp Mount, 82mm Dia.
#89-926 Tube Clamp Mount, 83mm Dia.
#89-927 Tube Clamp Mount, 84mm Dia.

CAMERA MOUNTS

CAMERA

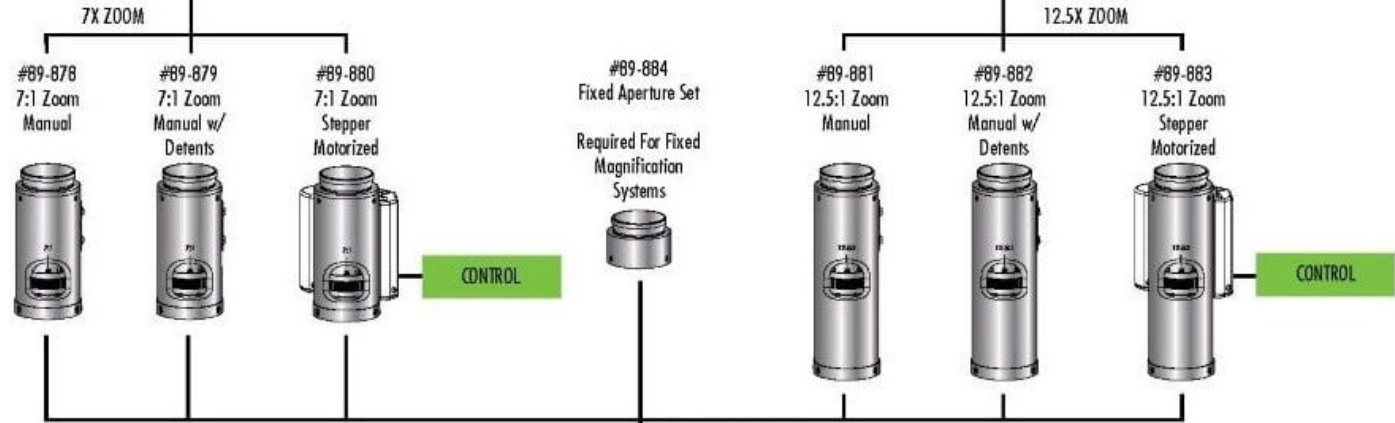


CAMERA TUBES



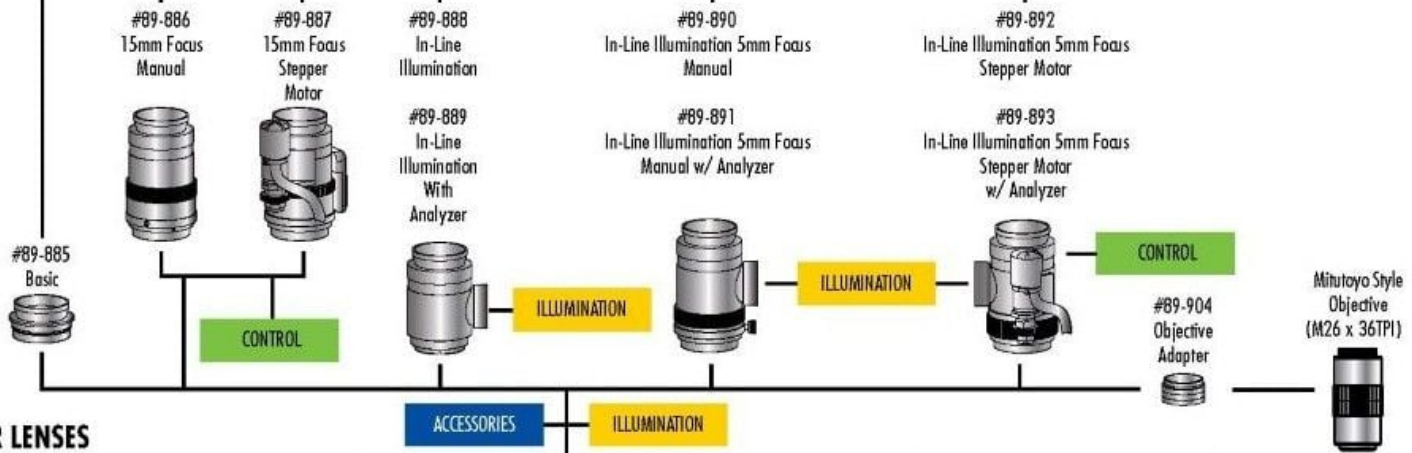
ZOOM MODULES

ACCESSORIES



LOWER FUNCTION MODULES

ACCESSORIES



LOWER LENSES

ACCESSORIES

ILLUMINATION





Technical Information

Specifications													
Lower Lens:		0.4X Lower Lens				1.0X Lower Lens				4.0X Lower Lens			
Working Distance:		490mm				190mm				32mm			
Zoom Modules:		7X Zoom		12.5X Zoom		7X Zoom		12.5X Zoom		7X Zoom		12.5X Zoom	
Max Coax. FOV Dia.:		Not Recommended		Not Recommended		Not Recommended		20mm		9.4mm		9.9mm	
Range:		Low Mag	High Mag	Low Mag	High Mag	Low Mag	High Mag	Low Mag	High Mag	Low Mag	High Mag	Low Mag	High Mag
0.4X Camera Tube	NA	0.0047	0.016	0.0036	0.019	0.012	0.039	0.009	0.048	0.047	0.16	0.036	0.19
	Res (lp/mm)	14	47	11	58	35	116	27	144	142	435	108	576
	PMAG	0.067X	0.46X	0.045X	0.55X	0.17X	1.2X	0.11X	1.4X	0.67X	4.6X	0.45X	5.5X
	DOF (mm)	25	2.4	44	1.5	4.1	0.38	7	0.25	0.25	0.024	0.44	0.015
	Hor. FOV 1/3" (mm)	71	10	107	8.7	29	4.1	43	3.5	7.1	1	11	0.87
	Hor. FOV 1/2" (mm)	95	14	143	12	38	5.5	57	4.6	10	1.4	14	1.2
	Hor. FOV 2/3" (mm)	131	19	196	16	52	7.6	79	6.4	13	1.9	20	1.6
1.0X Camera Tube	NA	0.0047	0.016	0.0036	0.019	0.012	0.039	0.009	0.048	0.047	0.16	0.036	0.19
	Res (lp/mm)	14	47	11	58	35	116	27	144	142	465	108	576
	PMAG	0.17X	1.2X	0.11X	1.4X	0.42X	2.9X	0.28X	3.5X	1.7X	12X	1.1X	14X
	DOF (mm)	25	2.4	44	1.5	4.1	0.38	7	0.25	0.25	0.024	0.44	0.015
	Hor. FOV 1/3" (mm)	29	4.1	43	3.5	11	1.7	17	1.4	2.9	0.41	4.3	0.35
	Hor. FOV 1/2" (mm)	38	5.5	57	4.6	15	2.2	23	1.9	3.8	0.55	5.7	0.46
	Hor. FOV 2/3" (mm)	52	7.6	79	6.4	21	3.0	31	2.6	5.2	0.76	7.9	0.64
3.0X Mini Camera Tube	NA	0.0047	0.016	0.0036	0.019	0.012	0.039	0.009	0.048	0.047	0.16	0.036	0.19
	Res (lp/mm)	14	47	11	58	35	116	27	144	142	465	108	576
	PMAG	0.50X	3.5X	0.34X	4.1X	1.3X	8.7X	0.84X	10X	5.0X	35X	3.4X	41X
	DOF (mm)	25	2.4	44	1.5	4.1	0.38	7	0.25	0.25	0.024	0.44	0.015
	Hor. FOV 1" (mm)	25	3.7	38	3.1	10	1.5	15	1.2	2.5	0.37	3.8	0.31
	Hor. FOV 4/3" (mm)	36	5.2	54	4.3	14	2.1	21	1.7	3.6	0.52	5.4	0.43
	Hor. FOV 35mm (mm)	71	10	107	8.7	29	4.1	43	3.5	7.1	1	11	0.87