

## Zoom Lens STPM-Z125 Series



**2024 V1**

For customized projects please Contact us:

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Simtrum's **Z125 Series Zoom Lens** is a 12.5:1 telecentric zoom lens, featuring a magnification range of 0.58x to 7.5x and engineered for exceptional performance with high resolution, minimal distortion, and a large numerical aperture (N). Designed for compactness and ease of assembly, it offers a field of view from 1.47mm to 18.97mm based on a 2/3" CCD, making it ideal for applications in the semiconductor, automation, and communication fields.

The detented zoom allows for precise and repetitive positioning with either 15 or 16 divided points for mechanical positioning, crafted from high-hardness alloy for durability. Coaxial illumination ensures shadow-free, high-contrast images suitable for observing reflective surfaces such as polished samples and deep holes.



## Feature

- Telecentric optical design. Magnification range: 0.58x-7.5xmagnification ratio is 12.5:1
- Field of view: 1.47-18.97mm(based on 2/3"CCD)
- Excellent performance, with high resolution, low distortionand super big N:A
- Compact design,easy assembly and installation

## Application

- Semiconductor
- Automation
- Communication fields

## Specification

Model	STPM-Z125M				STPM-Z125M/C				STPM-Z125D-C				STPM-Z125D				
Type	Detented Zoom Lens				Motorized With Coaxial Illumination				Detented with Coaxial Illumination Zoom Lens				Detented Zoom Lens				
Optical Magnification Range	0.58X~7.5X																
Working Distance	84±2mm																
Optical Magnification	0.58X	0.6X	1X	1.5X	2X	2.5X	3X	3.5X	4X	4.5X	5X	5.5X	6X	6.5X	7X	7.5X	
Depth of View (mm)	2.75	2.67	0.95	0.43	0.27	0.2	0.15	0.12	0.1	0.081	0.073	0.066	0.061	0.056	0.052	0.05	
N.A.	0.025	0.025	0.043	0.063	0.074	0.082	0.09	0.097	0.1	0.11	0.11	0.11	0.11	0.11	0.11	0.11	
F.No.	12.5	12.5	11.85	11.95	13.65	15.3	16.5	18.4	19.9	20.4	22.45	22.7	26.8	29.4	31.7	33.9	
Resolution(um)	13	13	7.8	5.3	4.53	4.09	3.73	3.46	3.36	3.05	3.05	3.05	3.05	3.05	3.05	3.05	
TV Distortion	0.050%	0.050%	0.002%	0.010%	0.020%	0.003%	0.020%	0.020%	0.018%	0.020%	0.010%	0.010%	0.001%	0.010%	0.005%	0.005%	
Field of View(DxHxV) (mm)	Diagonal	18.97	18.33	11	7.33	5.5	4.4	3.67	3.14	2.75	2.44	2.2	2	1.83	1.69	1.57	1.47
	Horizontal	15.17	14.67	8.8	5.87	4.4	3.52	2.93	2.51	2.2	1.96	1.76	1.6	1.47	1.35	1.26	1.17
	vertical	11.38	11	6.6	4.4	3.3	2.64	2.2	1.89	1.65	1.47	1.32	1.2	1.1	1.02	0.94	0.88
Max.Sensor Size	2/3"																
Mount	C-Mount																
Zoom Control	Motorized Zoom								Manual Zoom								

## Product Function



### Coaxial Illumination

- Infinity parallel incident light, with shadow-free and uniform illumination
- High contrast and vivid color image, for better image quality
- Applied for reflective surface observation: waters, polishing samples, deep holes, etc



### Motorized Zoom

- High speed in zoom and focus and high accuracy in repetitive positioning.
- Imported DC servo motor, closed-loop control.
- Stable quality performance even in the strong vibration environment



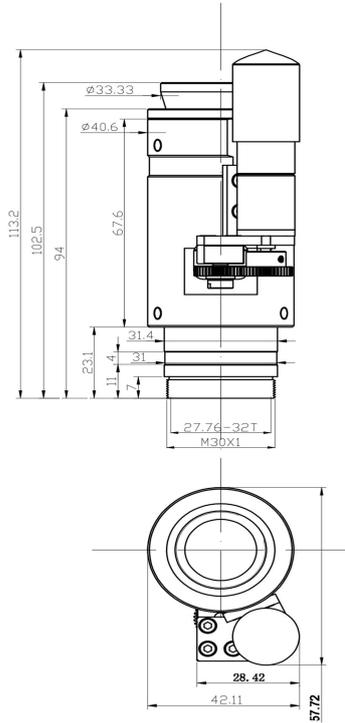
### Detented Zoom Lens

- High accuracy in zoom and repetitive positioning
- 15 divided points or 16 divided points for mechanical positioning
- High hardness alloy material, for a long lifespan; Precision mechanical structure

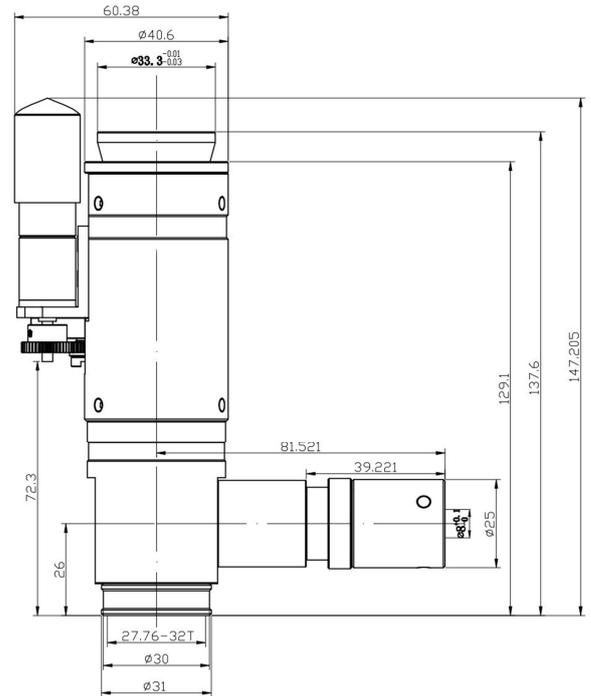


### Motorized Controller

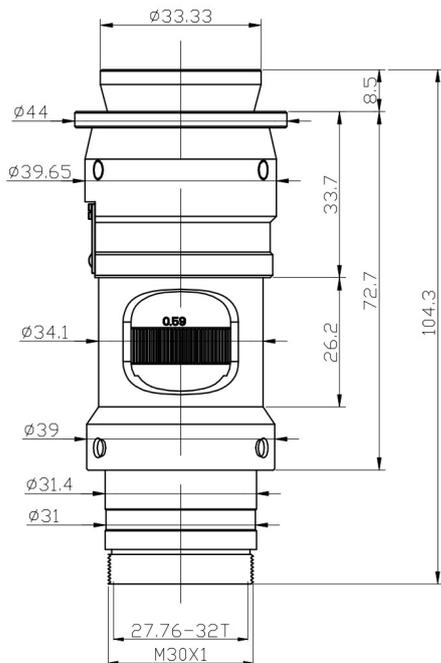
- The integrated motorized control systems are available for all the Simtrum's zoom lenses
- Motorized controlling system can control single or dual channels via RS232 or USB
- Underlying sourcing code will be provided



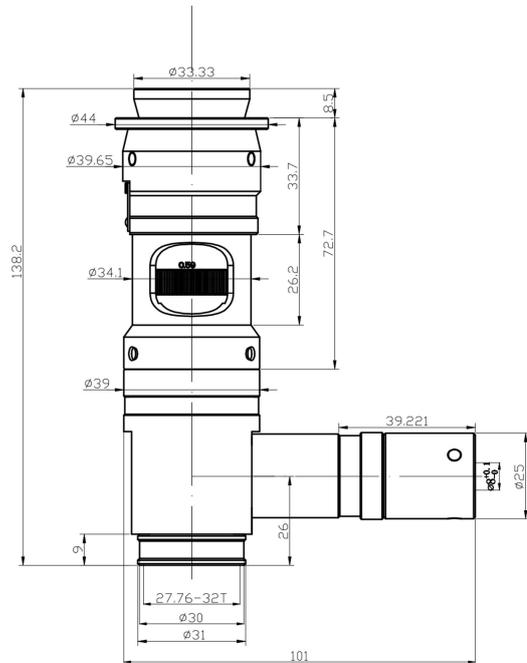
STPM-Z125M



STPM-Z125M-C



STPM-Z125D



STPM-Z125D-C