

PMS-Z80M-C

8X Motorized Zoom Lens with Coaxial Illumination

8:1 motorized zoom lens with coaxial illumination and a telecentric optical design: 0.6× to 5.0× at an 84 ± 2 mm working distance, for sensors up to 2/3 inch. C-mount.

0.6× – 5.0×

Optical magnification

8:1

Zoom ratio

84 ± 2 mm

Working distance

2/3 inch

Max. sensor size



Overview

Zoom lenses with a telecentric optical design and an 8:1 magnification ratio: 0.6× to 5.0× at an 84 ± 2 mm working distance, covering a 2.20 to 18.33 mm field of view on a 2/3-inch sensor.

Features

- Motorized zoom: high-speed zoom and focus with high repeat-positioning accuracy
- Imported DC servo motor with closed-loop control
- Stable quality even with strong vibration
- Coaxial illumination: infinity-parallel incident light for shadow-free, uniform illumination
- High-contrast images with vivid color
- For reflective surfaces such as wafers, polished samples and deep holes
- Telecentric optical design; magnification 0.6× to 5.0×, magnification ratio 8:1
- Field of view 2.20 to 18.33 mm on a 2/3-inch sensor
- High resolution, low distortion and a large N.A.
- Compact design, easy to assemble and install

Specifications

General	
Optical magnification	0.6× – 5.0×
Zoom ratio	8:1
Working distance	84 ± 2 mm
Max. sensor size	2/3 inch
Mount	C-mount
Zoom	Motorized
Illumination	Coaxial

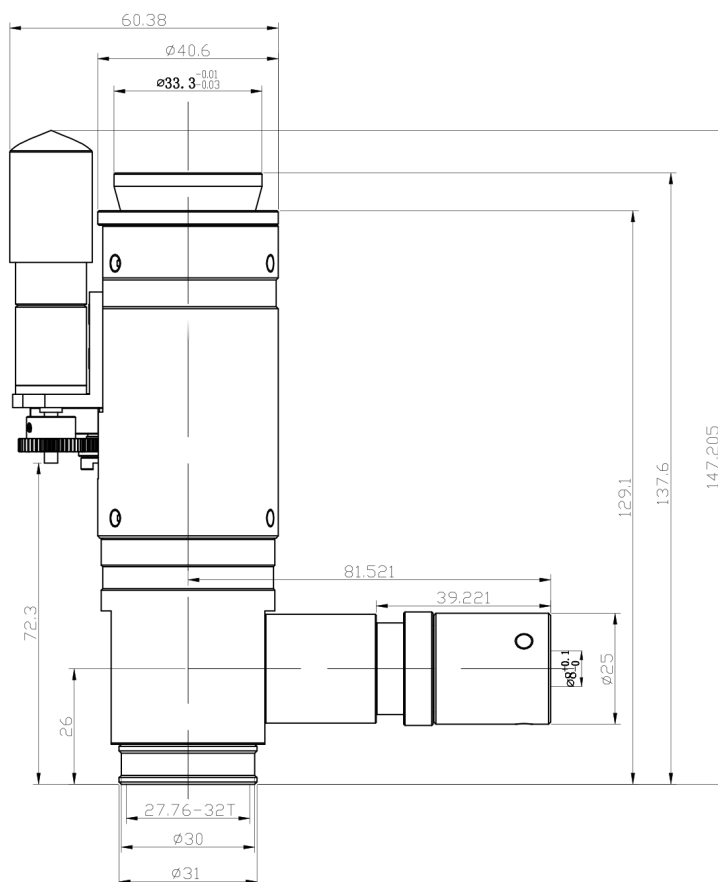
Optical performance

Magnification	Depth of field (mm)	N.A.	F-number	Resolution (μm)	TV distortion
0.6×	2.67	0.025	12.5	13	0.050%
1.0×	0.95	0.043	11.85	7.8	0.002%
1.5×	0.43	0.063	11.95	5.3	0.010%
2.0×	0.27	0.074	13.65	4.53	0.020%
2.5×	0.2	0.082	15.3	4.09	0.003%
3.0×	0.15	0.09	16.5	3.73	0.020%
3.5×	0.12	0.097	18.4	3.46	0.020%
4.0×	0.1	0.1	19.9	3.36	0.018%
4.5×	0.081	0.11	20.4	3.05	0.020%
5.0×	0.073	0.11	22.45	3.05	0.010%

Field of view (mm), diagonal × horizontal × vertical

Magnification	2/3" sensor
0.6×	18.33 × 14.67 × 11.00
1.0×	11.00 × 8.80 × 6.60
1.5×	7.33 × 5.87 × 4.40
2.0×	5.50 × 4.40 × 3.30
2.5×	4.40 × 3.52 × 2.64
3.0×	3.67 × 2.93 × 2.20
3.5×	3.14 × 2.51 × 1.89
4.0×	2.75 × 2.20 × 1.65
4.5×	2.44 × 1.96 × 1.47
5.0×	2.20 × 1.76 × 1.32

Dimension drawing



PMS-Z80M-C dimension drawing (mm).

Motorized control

An integrated motorized control system is available for these zoom lenses, controlling one or two channels over RS232 or USB; the underlying source code is supplied.

Request a quotation

Tell us about your camera and the parts you inspect, and we will put together the PMS-Z80M-C with the adapter tubes, lens attachments and illumination it needs.

info@precisometer.com · www.precisometer.com/cameras/zoom-lenses/8x/motorized-coaxial-illumination