

Zoom Microscope

Ultra Long Working Distance Zoom Microscope

LWZ/LWZ-M
ULWZ/ULWZ-M

LWZ/LWZ-M

RoHS Catalog Code W2007

Microscope unit with combination of high resolution objective lenses and 12× zoom range. This single unit covers from the overall image check to the magnified observation.



- The light, compact body is suitable for assembly in a small space.
- A single unit can cover everything from confirmation of the whole image to enlarged observation, with a zoom ratio 12× for optical performance.
- Coaxial epi-illumination, which is regularly mounted on the product, enables the observation of bright fields.
- Dark fields can be observed by using optional products, ring light guides and partial emission cassettes. A017
- The lineup also includes motorized type suitable for embedding in equipment or for automatic measurements.
- Manual type is switching the magnification manually and consisting of the zoom lens tube (SZL) and objective lens (ZOL series).
- Motorized type is switching the magnification by controller and consisting of the zoom lens tube (SZLM), the objective lens (ZOL series), the switching controller (GIP-101) and the zoom control cable (ZCA-2).
- C mount 1/2-inch camera is supported.

Specifications

Manual type Part Number	LWZ-15	LWZ-30	LWZ-50
Motorized type Part Number	LWZ-15M	LWZ-30M	LWZ-50M
Optical magnification	1.25 – 15×	2.5 – 30×	4.16 – 50×
N.A.	0.03 – 0.2	0.06 – 0.36	0.1 – 0.45
WD [mm]	46.2	35.2	14
Image size [mm]	φ8 (for 1/2 inch sensor size, C mount)		
Corrected Wavelength range [nm]	400 – 700		
Actual field of view [mm]	6.4 – 0.5	3.2 – 0.3	1.9 – 0.2
Resolution (at Mercury e-line) [μm]	11.18 – 1.68	5.59 – 0.93	3.36 – 0.75
Depth of field (at Mercury e-line) [μm]	±305.6 – ±6.9	±76.4 – ±2.1	±27.5 – ±1.4

ULWZ/ULWZ-M

RoHS Catalog Code W2008

Maximum working distance of 500mm. Suitable for observing the inside of vacuum chambers and ovens in the special environment.



- Light, compact body is suitable for assembly in a small space.
- A single unit can cover everything from confirmation of the whole image to enlarged observation, with an optical performance of zoom ratio 12×.
- The optical magnification and stroke distance can be easily changed by assembling and or replacing the front converter lens (ULWZ-100 is not supported).
- Coaxial epi-illumination, which is regularly mounted on the product, enables the observation of bright field.
- The lineup also includes an motorized type suitable for embedding in equipment or for automatic measurements.
- Manual type is switching the magnification manually and consisting of the zoom lens tube (SZL) and objective lens (UZOL/UFCL series).
- Motorized type is switching the magnification by controller and consisting of the zoom lens tube (SZLM), the objective lens (UZOL/UFCL series), the switching controller (GIP-101) and the zoom control cable (ZCA-2).
- C mount 1/2-inch camera is supported.

Specifications

Manual type Part Number	ULWZ-100	ULWZ-200	ULWZ-300	ULWZ-400	ULWZ-500
Motorized type Part Number	ULWZ-100M	ULWZ-200M	ULWZ-300M	ULWZ-400M	ULWZ-500M
Optical magnification	1.25 – 15×	0.58 – 7×	0.37 – 4.48×	0.28 – 3.41×	0.23 – 2.74×
N.A.	0.03 – 0.2	0.014 – 0.08	0.009 – 0.052	0.007 – 0.039	0.006 – 0.032
WD [mm]	101	206	305	404	502
Image size [mm]	φ8 (for 1/2 inch sensor size, C mount)				
Corrected Wavelength range [nm]	400 – 700				
Actual field of view [mm]	6.4 – 0.5	13.8 – 1.1	21.6 – 1.8	28.6 – 2.3	34.8 – 2.9
Resolution (at Mercury e-line) [μm]	11.2 – 1.7	24.0 – 4.2	37.3 – 6.5	47.9 – 8.6	55.9 – 10.5
Depth of field (at Mercury e-line) [μm]	±305.6 – ±6.9	±1403 – ±43	±3395 – ±102	±5612 – ±181	±7639 – ±269

Application Systems

Optics & Optical Coatings

Opto-Mechanics

Bases

Manual Stages

Actuators & Adjusters

Motorized Stages

Light Sources & Laser Safety

Index

Microscope Unit

Alignment

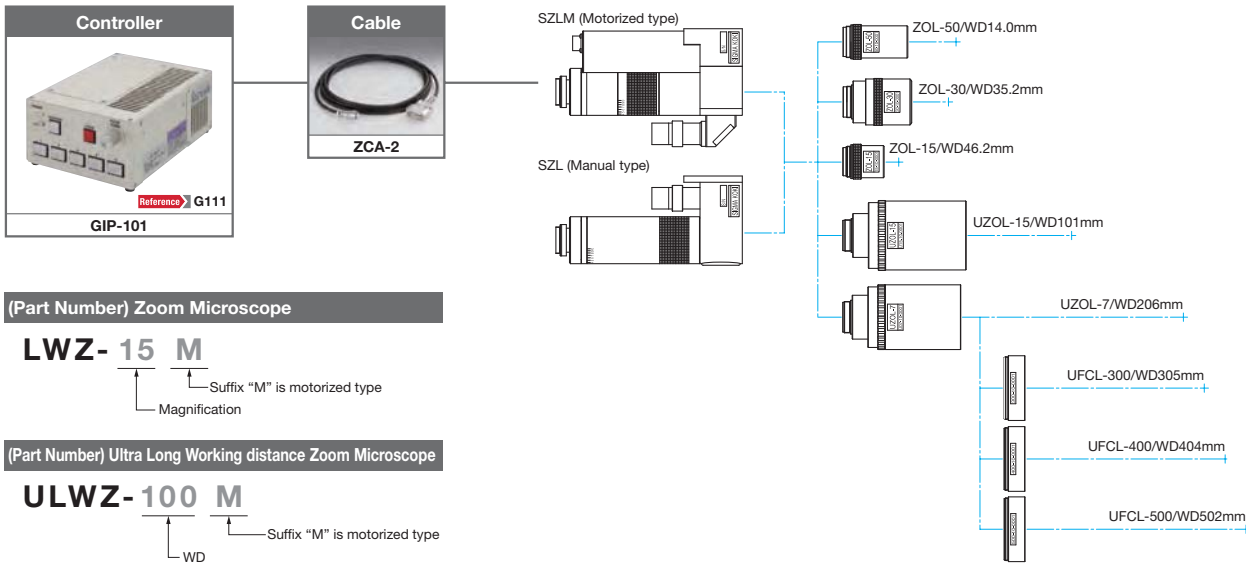
Interferometers

Inspection/Observation

Bio-photonics

Laser Processing

System Diagram



(Part Number) Zoom Microscope

LWZ- 15 M
 ↑ Suffix "M" is motorized type
 ↑ Magnification

(Part Number) Ultra Long Working distance Zoom Microscope

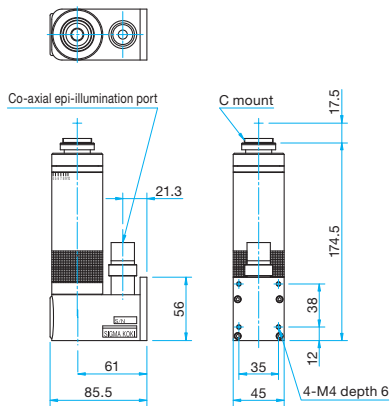
ULWZ- 100 M
 ↑ WD
 ↑ Suffix "M" is motorized type

Outline Drawing

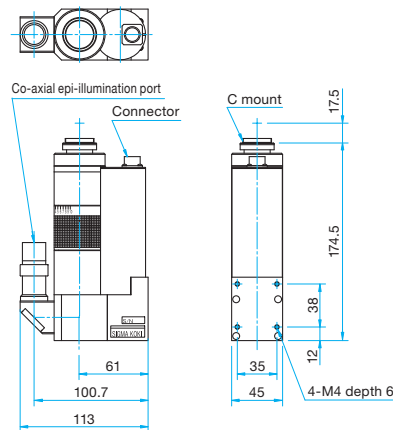
(in mm)

Zoom Lens Tube

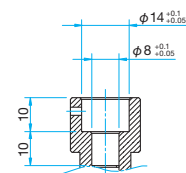
SZL (Manual)



SZLM (Motorized)

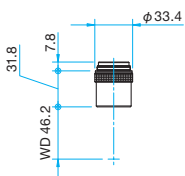


[Detail of co-axial epi-illumination port]

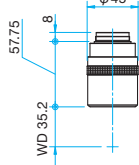


Long working distance objective lenses

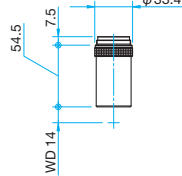
ZOL-15



ZOL-30



ZOL-50

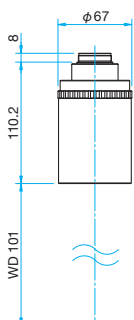


Long working distance objective lenses

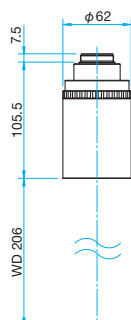
Part Number	ZOL-15	ZOL-30	ZOL-50
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Ultra Long working distance objective lenses

UZOL-15

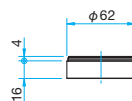


UZOL-7



Front convertor lenses

UFCL-300/400/500



Ultra Long working distance objective lenses

Part Number	UZOL-15	UZOL-7
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Front convertor lenses

Part Number	UFCL-300	UFCL-400	UFCL-500
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