

OTL

MWIR | 30-500 mm MOTORIZED ZOOM LENS

Mid-Wave Infrared • 3.7-4.8 μm

F/4 • 640 × 512 detector format

Depth of field: 27 m to infinity



30-500 mm ZOOM

Continuous focal range

3.7-4.8 μm MWIR

Mid-wave infrared band

RS422 / RS485

Serial communication

IP66 FRONT LENS

Front lens seal class

Advanced Imaging for a Safer World

omnitechlink.com

OTL- MWIR 30–500 mm Zoom Lens

Optical, Mechanical and Electrical Data | Technical Datasheet

OPTICAL SPECIFICATIONS

Property	Value	Remarks
Focal length	30–500 mm	
F-number	F/4	Source wording: Detector type line
Detector format	640 × 512 array	
Pixel pitch	15 μm in Chinese line / 10 μm in English line	Conflicting source values; verify
Spectral range	3.7–4.8 μm	
Field of view (FOV)	WFOV: 18.1° × 14.5°; NFOV: 1.1° × 0.88°	Wide / narrow
Depth of field (DOF)	27 m to infinity	
Optical coating	First lens: DLC protective coating; internal lenses: AR coating	
Distortion	WFOV <5%; NFOV <2%	

MECHANICAL SPECIFICATIONS

Property	Value	Remarks
Optical back focal length (BFL)	37.63 mm to phase surface; 13 mm to detector protection glass	
Mechanical back distance	32.63 mm to phase surface	
Weight	<3.1 kg	
Dimensions	160 mm diameter × 209 mm length	

Source review required: the detector pixel pitch conflicts between the Chinese line (15 μm) and English line (10 μm). It is highlighted for confirmation and has not been silently resolved.

Electrical, Environmental & Control Data

OTL- MWIR 30–500 mm Zoom Lens | Editable Specifications

ELECTRICAL & COMMUNICATION

Property	Value	Remarks
Supply voltage	12–30 VDC	Wide-voltage input
Power rating	≤12 W	
Communication interface	RS422 and RS485	
Supported baud rates	9600; 19200 (default); 38400; 57600; 115200; 230400	
Communication protocol	Private protocol (default); Pelco-D; Pelco-P	

FOCUS & OPTICAL PERFORMANCE

Property	Value	Remarks
Single autofocus time	<4 seconds	High-speed mode
Full zooming time	<5 seconds	Maximum motor speed at room temperature
Optical axis wobble	<5 pixels	
NUC (defocus)	Supported	

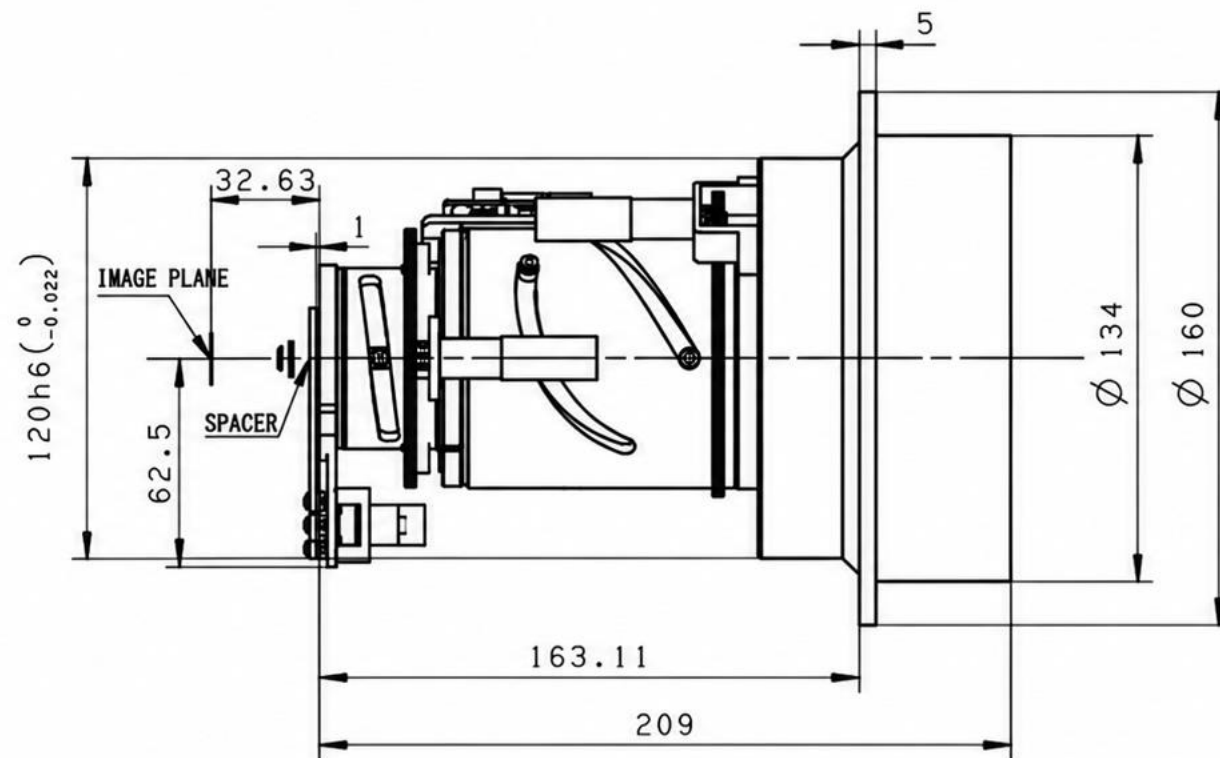
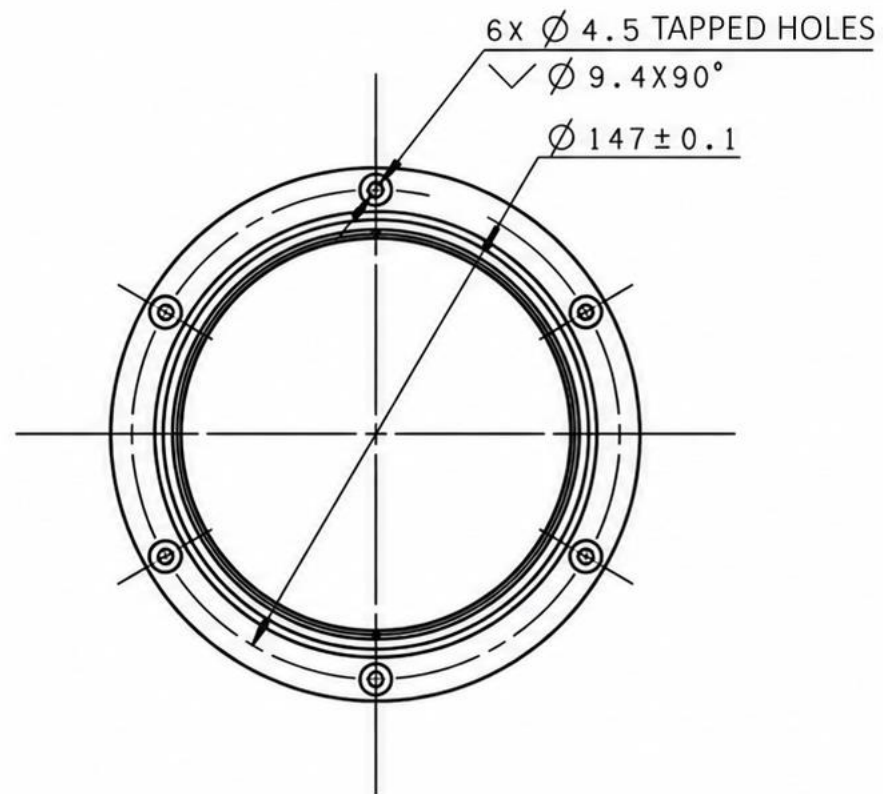
ENVIRONMENTAL SPECIFICATIONS

Property	Value	Remarks
Operating temperature	–32°C to +55°C	
Storage temperature	–32°C to +55°C	
Front lens sealing	IP66	Front lens

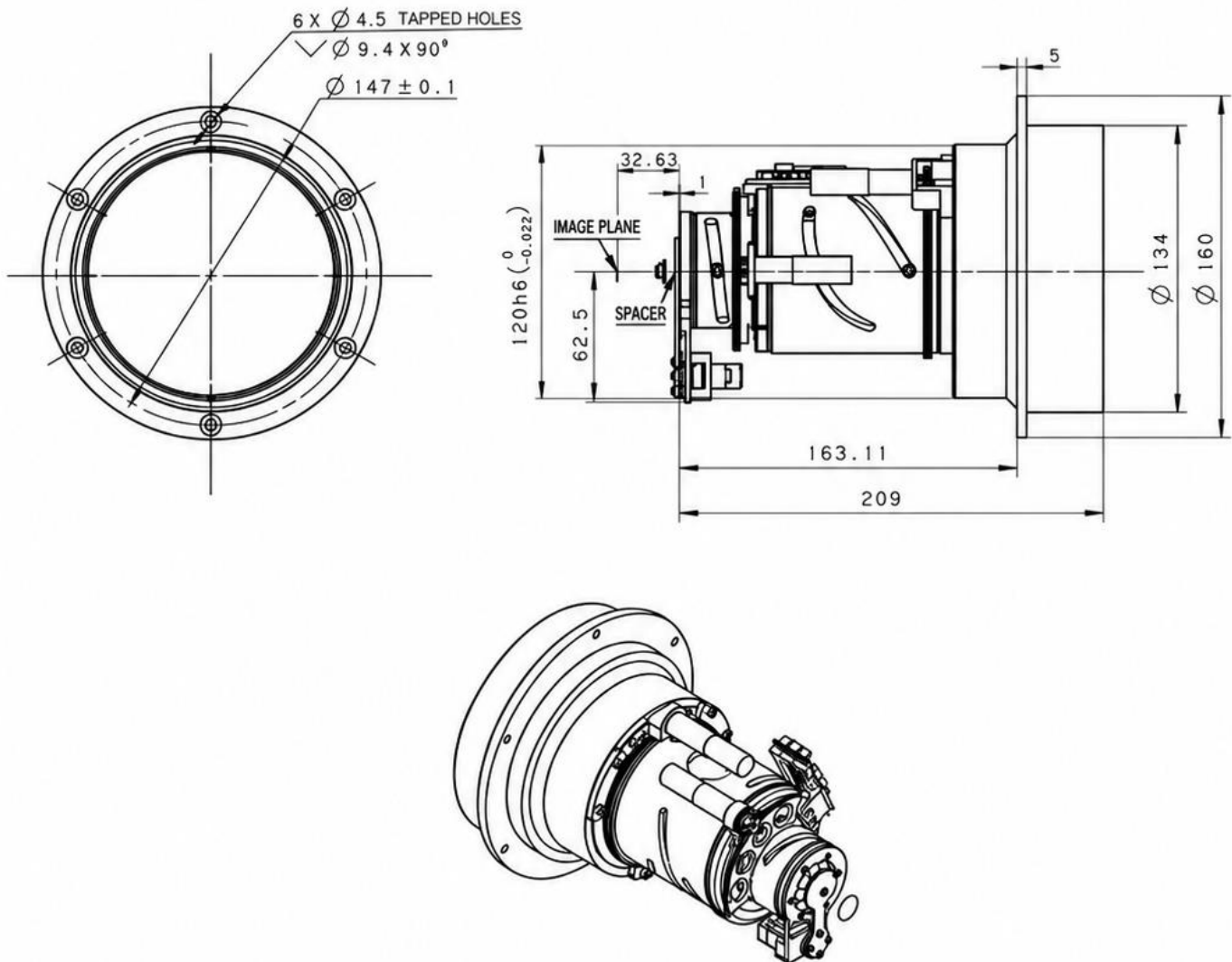
FUNCTIONS

Function	Source-supported description	
Transparent communication	RS422/RS485 passthrough communication with thermal camera	
Focus controls	Autofocus and external-trigger focusing supported	
Calibration coefficients	Online modification of lens zoom and focus temperature-calibration coefficients supported	
Calibration software	Lens calibration software provided	

All data above is transcribed from the supplied three-page PDF. No additional values are inferred beyond standard unit formatting.



OTL



Optical, Mechanical and Electrical Data:

Focal length: 30–500 mm

Focal length: 30-500mm

Detector: F/# = 4; 640 × 512 array, 15 µm

Detector type: F/#=4;640*512@10um

Wavelength: 3.7–4.8 µm

Spectral Range: 3.7um-4.8um

Lens field of view: Wide FOV: 18.1° × 14.5° ; Narrow FOV: 1.1° × 0.88°

FOV: 18.1° × 14.5° ~1.1° × 0.88°

Depth of field: 27 m to infinity

DOF: 27m~∞

Optical coating: DLC protective coating on the first lens; high-transmission anti-reflection coating on internal lenses.

Coating: First lens DLC, other lenses AR

Source discrepancy: Chinese text states 15 µm;
English text states 10 µm — confirm with supplier.

Original Source Reference — Page 2

Original source page retained for comparison

Distortion: WFOV <5%, NFOV <2%

Optical Back Focal Length (BFL): 37.63 mm (to the image plane), 13 mm (to the detector protection glass)

Mechanical Back Distance: 32.63 mm (to the image plane)

Weight: <3.1 kg

Dimensions: 160 mm (D) × 209 mm (L)

Supply Voltage: 12–30 VDC, wide-voltage input

Power Rating: ≤12 W

Communication Mode: Compatible with RS422 and RS485 communication, support baud rate: 9600, 19200 (default), 38400, 57600, 115200, 230400

Communication Protocol: Support private protocol (default), Pelco-D protocol, Pelco-P protocol

Single Autofocus Time: <4 seconds (high-speed mode)

Full Zooming Time: <5 seconds at maximum motor speed at room temperature

Optical Axis Wobble: <5 pixels

NUC (defocus): Supported

Environmental:

Operating Temperature: -32°C to +55°C

Storage Temperature: -32°C to +55°C

Front Lens Seal Class: IP66

Functions:

Support RS422/RS485 transparent communication with thermal camera

Support autofocus and external trigger focus

Supports online modification of lens zoom and focus temperature calibration coefficients

Lens calibration software provided



Contact Us: info@omnitechlink.com

www.omnitechlink.com

Headquarter: Via Real Collegio n. 2210024 Moncalieri (TO) Italy Tel: +3901119117660

Fax: +390110432483

MENA Branch: Business Center 1, M Floor, The Meydan Hotel, And Al Sheba, Dubai, U.A.E Tel: +971507127998

