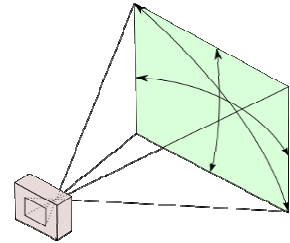


Wide Angle Infrared Camera Lens

Wide-angle lens is a lens whose focal length is substantially shorter than the focal length of a normal lens for wide image size produced by the camera.

Wavelength short EFL design is catered for long IR range (8 μ m to 12 μ m). It is made with angular field of view at 70°. It is well suited for monitoring of large areas under various lighting conditions.



Currently, we have finalized design for Effective Focal Length at 10mm. The design has F number 2. The following (Table-1) is the outline and MTF of the 10mm design.

The outer most lens is coated with Hard Diamond coating and mounted with aluminum mounts. The MTF profile is shown in the following.

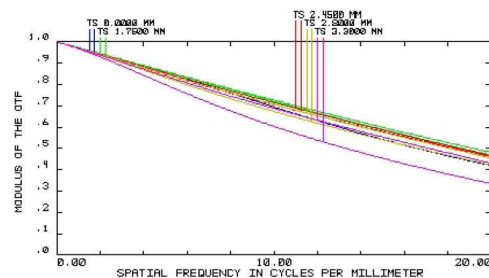


Table-1

MTF Diagram

Applications:

The following picture is to show that lower EFL will capture more objects compared with higher EFL.

As shown in the following picture the EFL 28mm capture more angles compared with the EFL 70mm lens from the same distance.



28mm lens



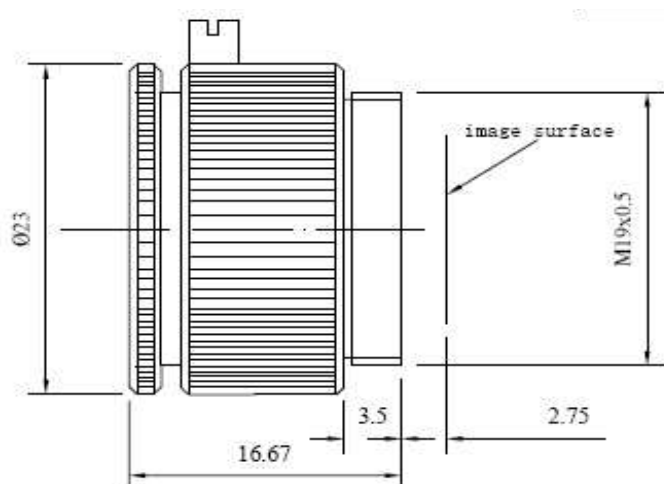
70mm lens

LWIR Lens 8-12μm

Part no.: IR00920160

Opto-Mechanic Property	Specification	Remarks
Focal Length	9mm	
F#	2.0	
Wavelength	8μm—12μm	
Image Diagonal	7mm	
Average Transmission	>94%	
Circular FOV	42.5°	
Back Focus Distance	6.25mm	
Back Working Distance	2.75mm	
Dimensions	Length16.67mm, Φ23mm	
Focus Type	Manual Focus	
Focus Range	1m to infinity	
Mount Type	M19*0.5	
Detector	160*120pixels, 35μm	
Weight	20g	
Environmental		
Operating Temperature	-20°C to +60°C	
Storage Temperature	-40°C to +80°C	
External Coating	AR	Anti-Reflection coating
Humidity	100%RH at 26°C and 74%RH at 35°C for 24 hours	

Drawing

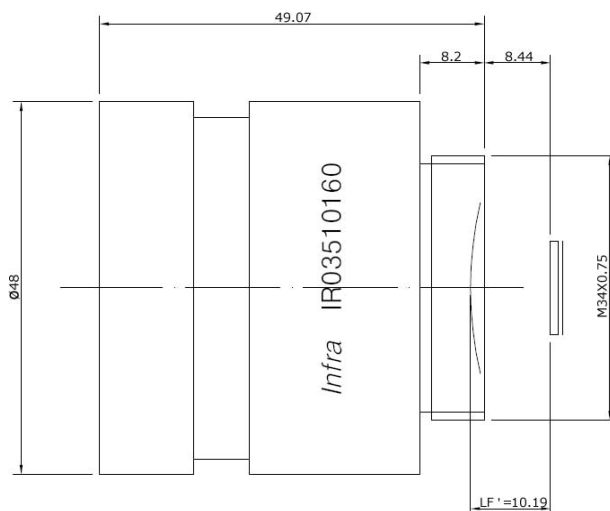


LWIR Lens 8-12μm

Part no.: IR03510160

Opto-Mechanic Property	Specification	Remarks
Focal Length	35mm	
F#	1.0	
Wavelength	8μm—12μm	
Image Diagonal	7mm	
Average Transmission	>85%	
Circular FOV	11.4°	
Back Focus Distance	16.64mm	
Back Working Distance	8.44mm	
Dimensions	Length49.07mm, Φ48mm	
Focus Type	Manual Focus	
Focus Range	1m to infinity	
Mount Type	M34*0.75	
Detector	160*120pixels, 35μm	
Weight	-	
Environmental		
Operating Temperature	-20°C to +60°C	
Storage Temperature	-40°C to +80°C	
External Coating	DLC	Diamond like coating
Humidity	100%RH at 26°C and 74%RH at 35°C for 24 hours	

Drawing



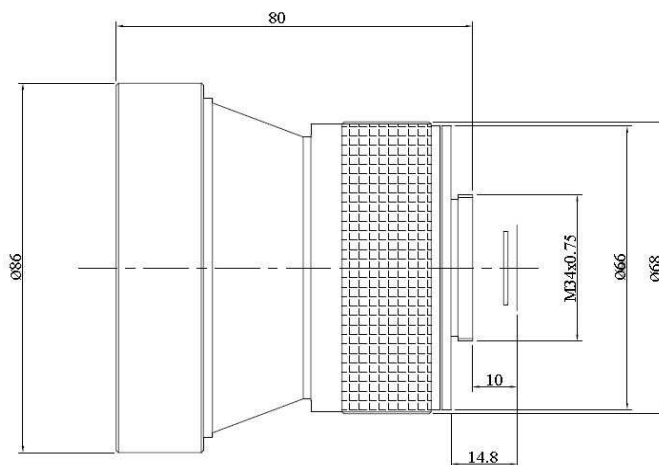
LWIR Lens 8-12μm



Part no.: IR07510160

Opto-Mechanic Property	Specification	Remarks
Focal Length	75mm	
F#	1.0	
Wavelength	7μm—14μm	
Image Diagonal	5mm	
Average Transmission	>85%	
Circular FOV	60.35°	
Back Focus Distance	14.8mm	
Back Working Distance	10mm	
Dimensions	Length 80mm, Ø86mm	
Focus Type	Manual Focus	
Focus Range	1m to infinity	
Mount Type	M34*0.75	
Detector	160*120pixels, 50μm	
Weight	-	
Environmental		
Operating Temperature	-20°C to +60°C	
Storage Temperature	-40°C to +80°C	
External Coating	DLC	Diamond like coating
Humidity	100%RH at 26°C and 74%RH at 35°C for 24 hours	

Drawing



LWIR Lens
(8-12μm)

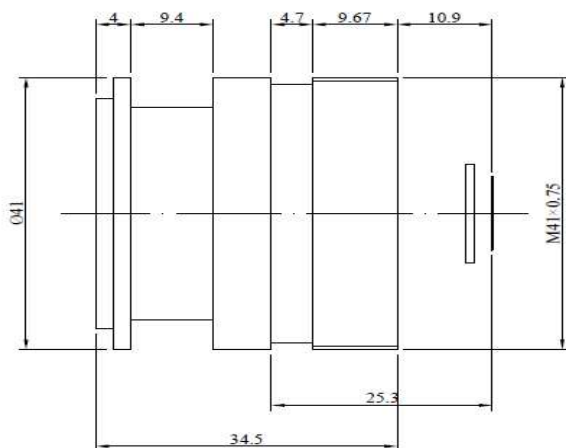
LWIR Lens 8-12μm



Part no.: IR10-0.8-320

Opto-Mechanic Property	Specification	Remarks
Focal Length	10mm	
F#	0.8	
Wavelength	8μm—12μm	
Image Diagonal	10mm	
Average Transmission	>85%	
Circular FOV	50°	
Back Focus Distance	Refer to drawing	
Back Working Distance	9.4mm	
Dimensions	Length34.5mm, Φ41mm	
Focus Type	Manual Focus	
Focus Range	1m to infinity	
Mount Type	M41*0.75	
Detector	320*240pixels, 23.5μm	
Weight	-	
Environmental		
Operating Temperature	-20°C to +60°C	
Storage Temperature	-40°C to +80°C	
External Coating	DLC	Diamond like coating
Humidity	100%RH at 26°C and 74%RH at 35°C for 24 hours	

Drawing



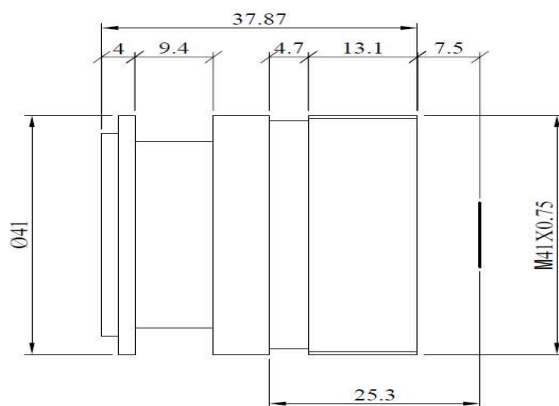
LWIR Lens 8-12μm



Part no.: IR10.5-0.8-320

Opto-Mechanic Property	Specification	Remarks
Focal Length	10.5mm	
F#	0.8	
Wavelength	8μm—12μm	
Image Diagonal	10mm	
Average Transmission	90%@8-12μm	
Circular FOV	50.9°	
Back Focus Distance	Refer to drawing	
Back Working Distance	7.5mm	
Dimensions	Length 37.87mm, Φ41mm	
Focus Type	Manual Focus	
Focus Range	1m to infinity	
Mount Type	M41*0.75	
Detector	320*240pixels, 25μm	
Weight	110g	
Environmental		
Operating Temperature	-20°C to +60°C	
Storage Temperature	-40°C to +80°C	
External Coating	AR	Anti-Reflection coating
Humidity	100%RH at 26°C and 74%RH at 35°C for 24 hours	

Drawing



LWIR Lens
(8-12μm)

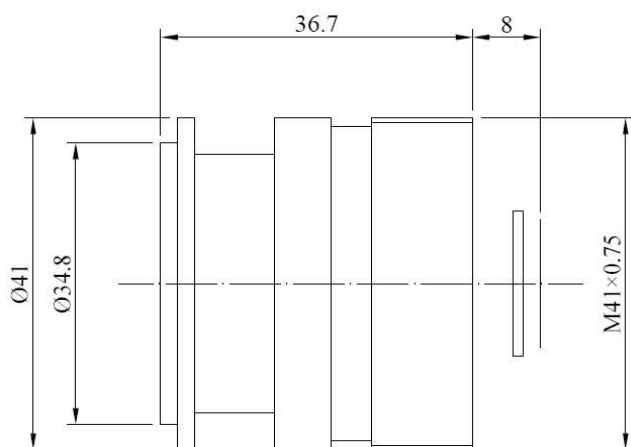
LWIR Lens 8-12μm

NEW

Part no.: IR12-0.85-320

Opto-Mechanic Property	Specification	Remarks
Focal Length	12mm	
F#	0.85	
Wavelength	8μm—12μm	
Image Diagonal	10mm	
Average Transmission	90%@8-12μm	
Circular FOV	45.2°	
Back Focus Distance	Refer to drawing	
Back Working Distance	8mm	
Dimensions	Length36.7mm, Φ41mm	
Focus Type	Manual Focus	
Focus Range	1m to infinity	
Mount Type	M41*0.75	
Detector	320*240pixels, 25μm	
Weight	-	
Environmental		
Operating Temperature	-20°C to +60°C	
Storage Temperature	-40°C to +80°C	
External Coating	AR	Anti-Reflection coating
Humidity	100%RH at 26°C and 74%RH at 35°C for 24 hours	

Drawing

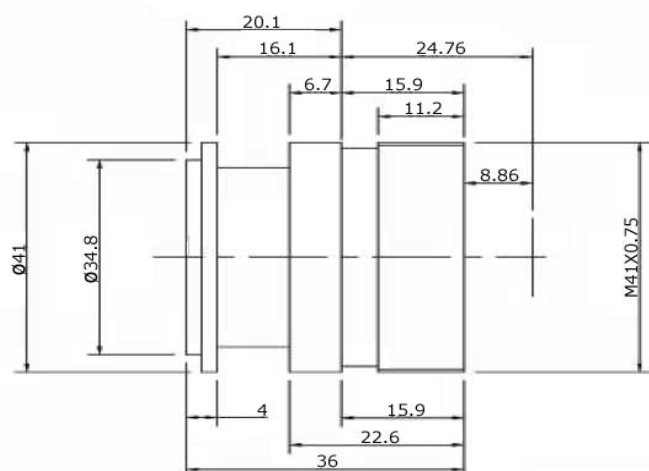


LWIR Lens 8-12μm

Part no.: IR14-0.9-320

Opto-Mechanic Property	Specification	Remarks
Focal Length	14mm	
F#	0.9	
Wavelength	8μm—12μm	
Image Diagonal	14mm	
Average Transmission	90%@8-12μm	
Circular FOV	53.13°	
Back Focus Distance	Refer to drawing	
Back Working Distance	8.86mm	
Dimensions	Length36mm, Ø41mm	
Focus Type	Manual Focus	
Focus Range	1m to infinity	
Mount Type	M41*0.75	
Detector	320*240pixels, 35μm	
Weight	100g	
Environmental		
Operating Temperature	-20°C to +60°C	
Storage Temperature	-40°C to +80°C	
External Coating	AR	Anti-Reflection coating
Humidity	100%RH at 26°C and 74%RH at 35°C for 24 hours	

Drawing



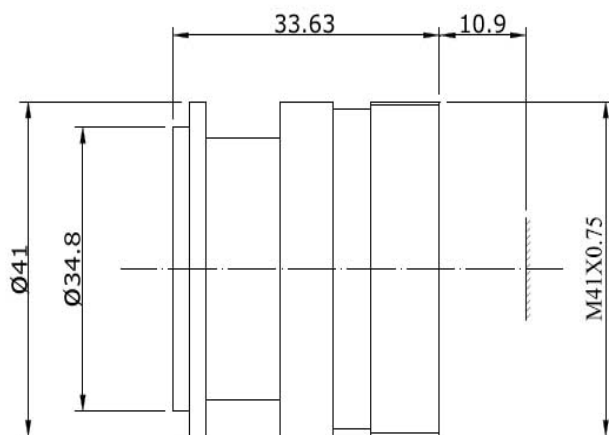
LWIR Lens
(8-12μm)

LWIR Lens 8-12μm

Part no.: IR18-0.9-320

Opto-Mechanic Property	Specification	Remarks
Focal Length	18mm	
F#	0.9	
Wavelength	8μm—12μm	
Image Diagonal	18mm	
Average Transmission	>85%@8-12μm	
Circular FOV	53°	
Back Focus Distance	Refer to drawing	
Back Working Distance	10.9mm	
Dimensions	Length33.63mm, Φ41mm	
Focus Type	Manual Focus	
Focus Range	1m to infinity	
Mount Type	M41*0.75	
Detector	320*240pixels, 45μm	
Weight	-	
Environmental		
Operating Temperature	-20°C to +60°C	
Storage Temperature	-40°C to +80°C	
External Coating	DLC	Diamond like coating
Humidity	100%RH at 26°C and 74%RH at 35°C for 24 hours	

Drawing

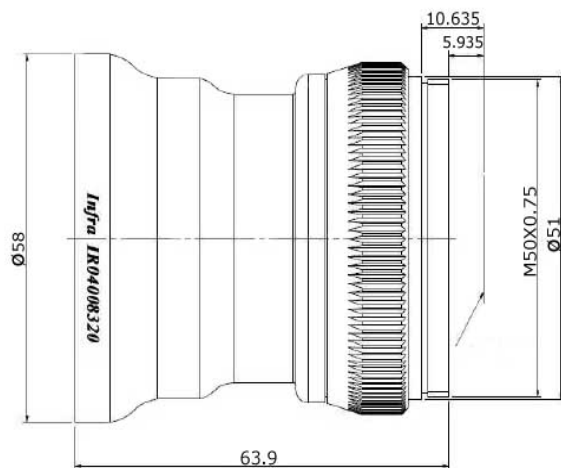


LWIR Lens 8-12μm

Part no.: IR04008320

Opto-Mechanic Property	Specification	Remarks
Focal Length	40mm	
F#	0.8	
Wavelength	8μm—12μm	
Image Diagonal	18mm	
Average Transmission	>85%	
Circular FOV	25.36°	
Back Focal Distance	10.635mm	
Back Working Distance	5.935mm	
Dimensions	Length 63.9mm, Ø58mm	
Focus Type	Manual Focus	
Focus Range	2m to infinity	
Mount Type	M50*0.75	
Detector	320*240pixels, 45μm	
Weight	-	
Environmental		
Operating Temperature	-20°C to +60°C	
Storage Temperature	-40°C to +80°C	
External Coating	DLC	Diamond like coating
Humidity	100%RH at 26°C and 74%RH at 35°C for 24 hours	

Drawing



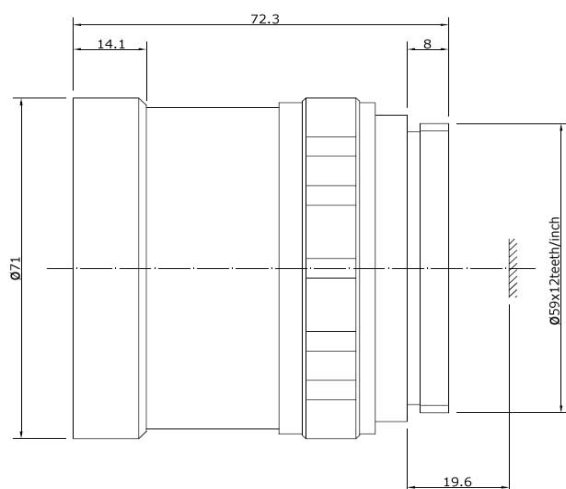
LWIR Lens
(8-12μm)

LWIR Lens 8-12μm

Part no.: IR05008320

Opto-Mechanic Property	Specification	Remarks
Focal Length	50mm	
F#	0.8	
Wavelength	8μm—12μm	
Image Diagonal	18mm	
Average Transmission	>90%	
Circular FOV	20.4°	
Back Focus Distance	19.6mm	
Back Working Distance	11.6mm	
Dimensions	Length 72.3mm, Φ71mm	
Focus Type	Manual Focus	
Focus Range	1m to infinity	
Mount Type	M59*12teeth/inch	
Detector	320*240pixels, 45μm	
Weight	-	
Environmental		
Operating Temperature	-20°C to +60°C	
Storage Temperature	-40°C to +80°C	
External Coating	AR	Anti-Reflection coating
Humidity	100%RH at 26°C and 74%RH at 35°C for 24 hours	

Drawing

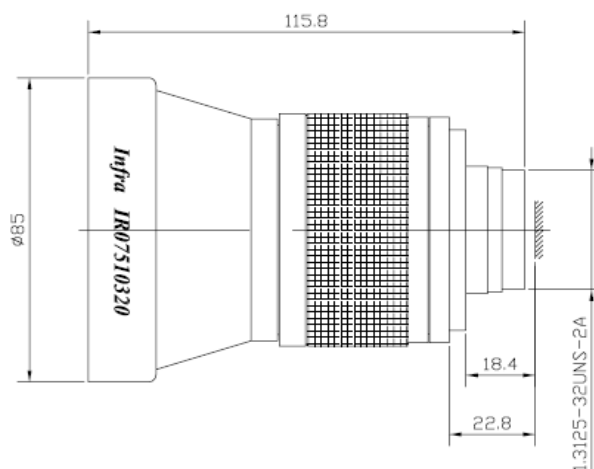


LWIR Lens 8-12μm

Part no.: IR07510320

Opto-Mechanic Property	Specification	Remarks
Focal Length	75mm	
F#	1.0	
Wavelength	8μm—12μm	
Image Diagonal	12mm	
Average Transmission	>85%	
Circular FOV	9.15°	
Back Focus Distance	Refer to Drawing	
Back Working Distance	Refer to Drawing	
Dimensions	Length 115.8mm, Φ85mm	
Focus Type	Manual Focus	
Focus Range	2.5m to infinity	
Mount Type	1.3125-32UNS-2A	
Detector	320*240pixels, 30μm	
Weight	-	
Environmental		
Operating Temperature	-20°C to +60°C	
Storage Temperature	-40°C to +80°C	
External Coating	DLC	Diamond like coating
Humidity	100%RH at 26°C and 74%RH at 35°C for 24 hours	

Drawing



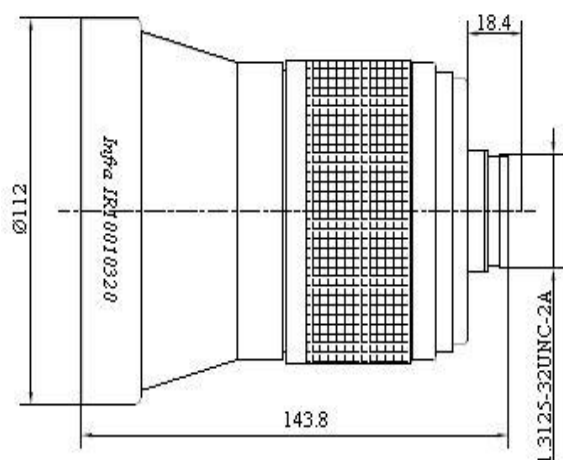
LWIR Lens
(8-12μm)

LWIR Lens 8-12μm

Part no.: IR10010320

Opto-mechanic Property	Specification	Remarks
Focal Length	100mm	
F#	1.0	
Wavelength	8μm—12μm	
Image Diagonal	18mm	
Average Transmission	>85%	
Circular FOV	10.3°	
Back Focus Distance	18.4mm	
Back Working Distance	Refer to drawing	
Dimensions	Length143.8mm, Φ112mm	
Focus Type	Manual Focus	
Focus Range	5m to infinity	
Mount Type	1.325-32UNC-2A	
Detector	320*240pixels, 45μm	
Weight	-	
Environmental		
Operating Temperature	-20°C to +60°C	
Storage Temperature	-40°C to +80°C	
External Coating	DLC	Diamond like coating
Humidity	100%RH at 26°C and 74%RH at 35°C for 24 hours	

Drawing

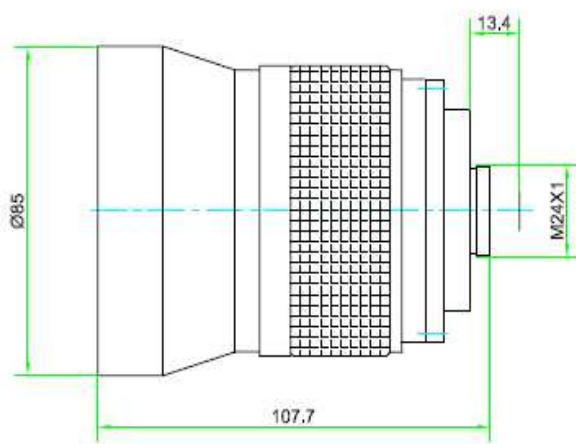


LWIR Lens 8-12μm

Part no.: IR75-1.0-M24

Opto-Mechanic Property	Specification	Remarks
Focal Length	75mm	
F#	1.0	
Wavelength	8μm—14μm	
Image Diagonal	10mm	
Average Transmission	>85%@8-14μm	
Circular FOV	7.63°	
Back Focus Distance	13.4mm	
Back Working Distance	8mm	
Dimensions	Length107.7mm, Ø85mm	
Focus Type	Manual Focus	
Focus Range	-	
Mount Type	M24*1	
Detector	320*240pixels, 25μm	
	640*480pixels, 25μm	
Weight	500g	
Environmental		
Operating Temperature	-20°C to +60°C	
Storage Temperature	-40°C to +80°C	
External Coating	DLC	Diamond like coating
Humidity	100%RH at 26°C and 74%RH at 35°C for 24 hours	

Drawing



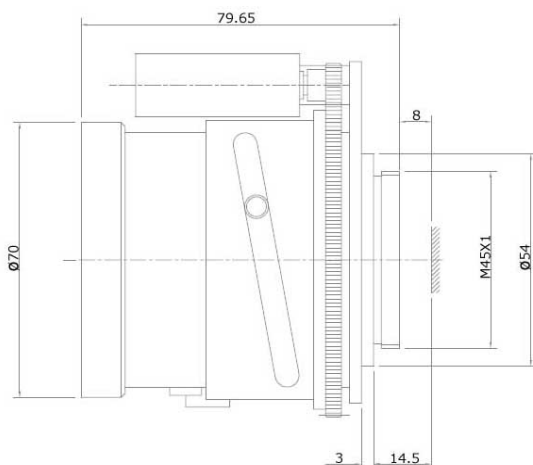
LWIR Lens
(8-12μm)

LWIR Lens 8-12μm

Part no.: IR50-1.0-MOT

Opto-Mechanic Property	Specification	Remarks
Focal Length	50mm	
F#	1.0	
Wavelength	8μm—14μm	
Image Diagonal	14mm	
Average Transmission	>85%@8-14um	
Circular FOV	15.94°	
Back Focus Distance	14.5mm	
Back Working Distance	8mm	
Dimensions	Length79.65mm, Ø70mm	
Focus Type	Motorized Focus	
Focus Range	-	
Mount Type	M45*1	
Detector	320*240pixels, 35μm	
Weight	500g	
Motor Voltage	6V DC	
Environmental		
Operating Temperature	-20°C to +60°C	
Storage Temperature	-40°C to +80°C	
External Coating	DLC	Diamond like coating
Humidity	100%RH at 26°C and 74%RH at 35°C for 24 hours	

Drawing



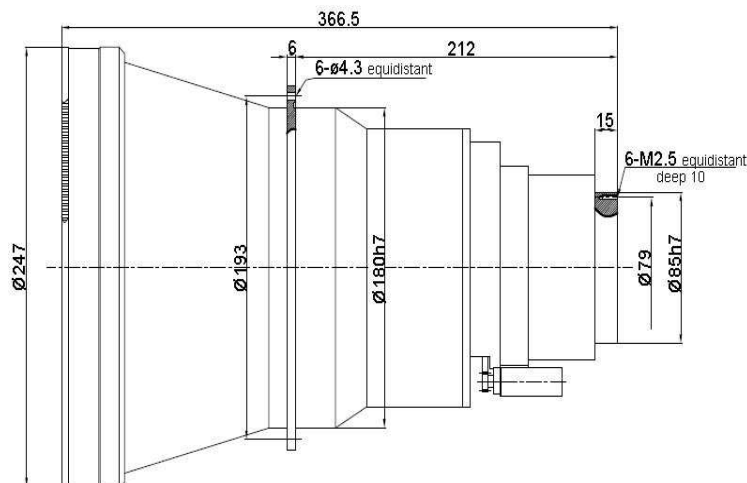
LWIR Lens 8-12μm



Part no.: IR250-1.1-320-MOT

Opto-Mechanic Property	Specification	Remarks
Focal Length	250mm	
F#	1.1	
Wavelength	7μm—14μm	
Image Diagonal	10.2mm	
Average Transmission	>85%	
Circular FOV	2.3°	
Back Focus Distance		
Back Working Distance	22.8mm	
Dimensions	Length 366.5mm, Ø247mm	
Focus Type	Motorized Focus	
Focus Range	-	
Mount Type	-	
Detector	320*256pixels, 25μm	
Weight	-	
Motor Voltage	12V DC	
Environmental		
Operating Temperature	-20°C to +60°C	
Storage Temperature	-40°C to +80°C	
External Coating	DLC	Diamond like coating
Humidity	100%RH at 26°C and 74%RH at 35°C for 24 hours	

Drawing



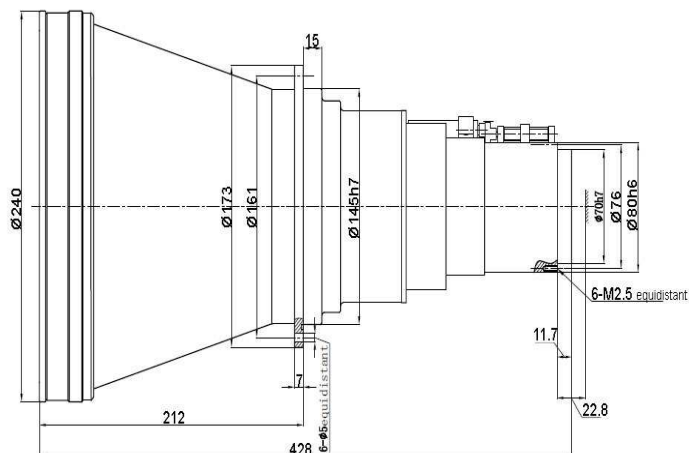
LWIR Lens 8-12μm



Part no.: IR400-1.8-320-MOT

Opto-Mechanic Property	Specification	Remarks
Focal Length	400mm	
F#	1.8	
Wavelength	7μm—14μm	
Image Diagonal	10.2mm	
Average Transmission	>85%	
Circular FOV	1.46°	
Back Focus Distance	22.8mm	
Back Working Distance	11.1mm	
Dimensions	Length428mm, Ø240mm	
Focus Type	Motorized Focus	
Focus Range	-	
Mount Type	-	
Detector	320*256pixels, 25μm	
Weight	-	
Motor Voltage	12V DC	
Environmental		
Operating Temperature	-20°C to +60°C	
Storage Temperature	-40°C to +80°C	
External Coating	DLC	Diamond like coating
Humidity	100%RH at 26°C and 74%RH at 35°C for 24 hours	

Drawing

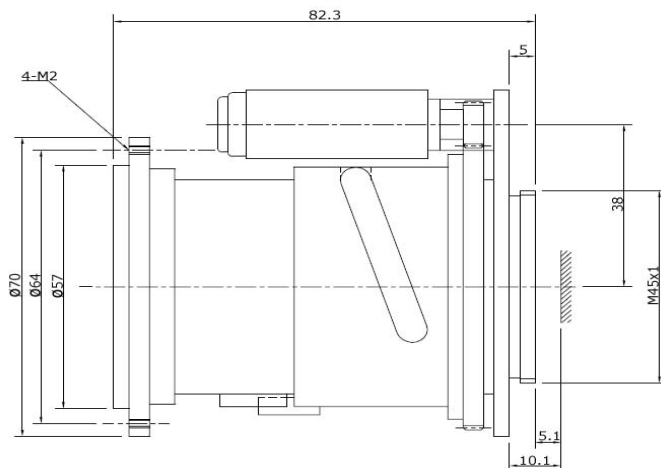


LWIR Lens 8-12μm

Part no.: IR35-1.0-320B-MOT

Opto-Mechanical Property	Specification	Remarks
Focal Length	35mm	
F#	1.0	
Wavelength	8μm—12μm	
Image Diagonal	12mm	
Average Transmission	>85%@8-12um	
Circular FOV	19.46°	
Back Focus Distance	10.1mm	
Back Working Distance	5.1mm	
Dimensions	Length82.3mm, Φ70mm	
Focus Type	Motorized Focus	
Focus Range	-	
Mount Type	M45*1	
Detector	320*240pixels, 30μm	
Weight	-	
Motor Voltage	12V DC	
Environmental		
Operating Temperature	-20°C to +60°C	
Storage Temperature	-40°C to +80°C	
External Coating	DLC	Diamond like coating
Humidity	100%RH at 26°C and 74%RH at 35°C for 24 hours	

Drawing

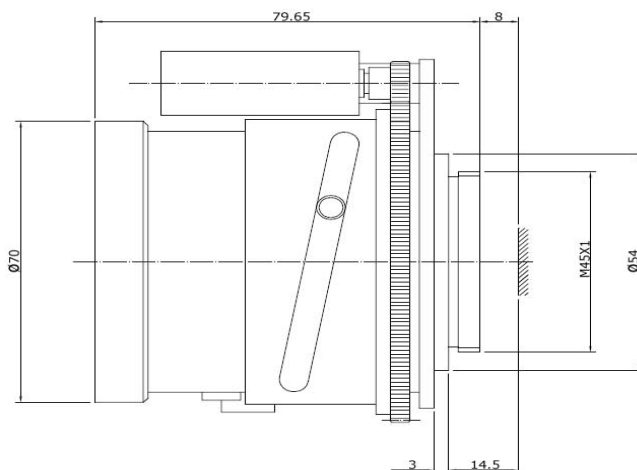


LWIR Lens 8-12μm

Part no.: IR50-1.0-320B-MOT

Opto-Mechanic Property	Specification	Remarks
Focal Length	50mm	
F#	1.0	
Wavelength	8μm—12μm	
Image Diagonal	12mm	
Average Transmission	>85%@8-12μm	
Circular FOV	13.69°	
Back Focus Distance	14.5mm	
Back Working Distance	8mm	
Dimensions	Length 79.65mm, Φ70mm	
Focus Type	Motorized Focus	
Focus Range	-	
Mount Type	M45*1	
Detector	320*240pixels, 30μm	
Weight	-	
Motor Voltage	12V DC	
Environmental		
Operating Temperature	-20°C to +60°C	
Storage Temperature	-40°C to +80°C	
External Coating	DLC	Diamond like coating
Humidity	100%RH at 26°C and 74%RH at 35°C for 24 hours	

Drawing

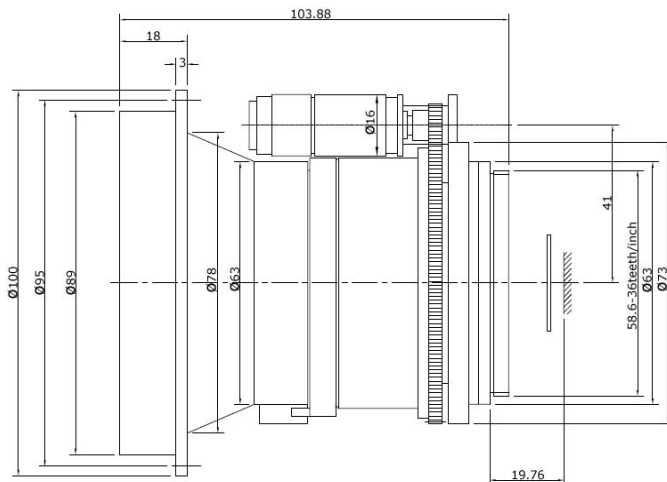


LWIR Lens 8-12μm

Part no.: IR75-1.0-320B-MOT

Opto-Mechanic Property	Specification	Remarks
Focal Length	75mm	
F#	1.0	
Wavelength	8μm—12μm	
Image Diagonal	12mm	
Average Transmission	>85%@8-12μm	
Circular FOV	9.15°	
Back Focus Distance	19.76mm	
Back Working Distance	Refer to drawing	
Dimensions	Length103.88mm, Φ100mm	
Focus Type	Motorized Focus	
Focus Range	-	
Mount Type	58.6-36teeth/inch	
Detector	320*240pixels, 30μm	
Weight	-	
Motor Voltage	12V DC	
Environmental		
Operating Temperature	-20°C to +60°C	
Storage Temperature	-40°C to +80°C	
External Coating	DLC	Diamond like coating
Humidity	100%RH at 26°C and 74%RH at 35°C for 24 hours	

Drawing



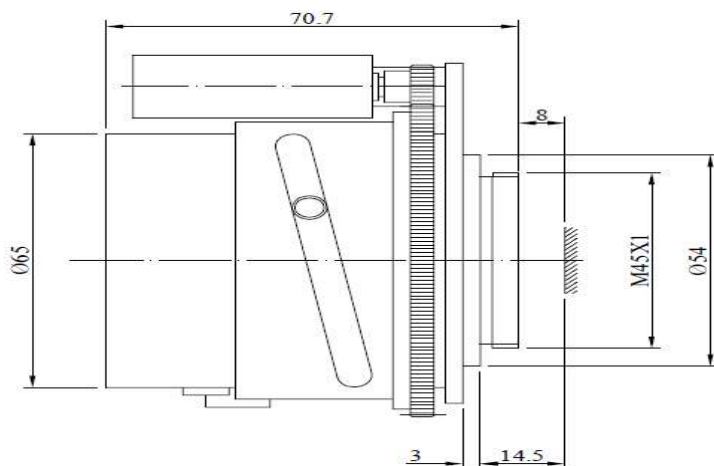
LWIR Lens 8-12μm

NEW

Part no.: IR50-1.0-320C-MOT

Opto-Mechanic Property	Specification	Remarks
Focal Length	50mm	
F#	1.0	
Wavelength	8μm—12μm	
Image Diagonal	15.2mm	
Average Transmission	>85%@8-12μm	
Circular FOV	17.29°	
Back Focus Distance	14.5mm	
Back Working Distance	8mm	
Dimensions	Length 70.7mm, Φ65mm	
Focus Type	Motorized Focus	
Focus Range	-	
Mount Type	M45*1	
Detector	320*240pixels, 38μm	
Weight	-	
Motor Voltage	12V DC	
Environmental		
Operating Temperature	-20°C to +60°C	
Storage Temperature	-40°C to +80°C	
External Coating	DLC	Diamond like coating
Humidity	100%RH at 26°C and 74%RH at 35°C for 24 hours	

Drawing



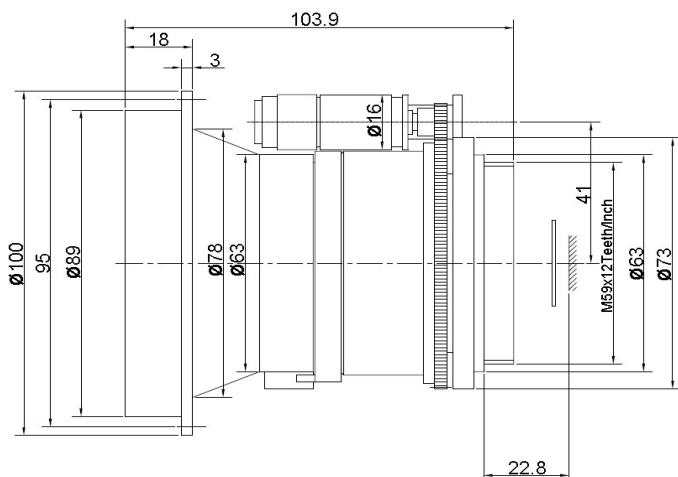
LWIR Lens 8-12μm



Part no.: IR75-1.0-320C-MOT

Opto-Mechanic Property	Specification	Remarks
Focal Length	75mm	
F#	1.0	
Wavelength	8μm—12μm	
Image Diagonal	15.2mm	
Average Transmission	>85%@8-12μm	
Circular FOV	11.57°	
Back Focus Distance	22.8mm	
Back Working Distance	Refer to drawing	
Dimensions	Length103.9mm, Φ100mm	
Focus Type	Motorized Focus	
Focus Range	-	
Mount Type	M59-12Teeth/Inch	
Detector	320*240pixels, 38μm	
Weight	-	
Motor Voltage	12V DC	
Environmental		
Operating Temperature	-20°C to +60°C	
Storage Temperature	-40°C to +80°C	
External Coating	DLC	Diamond like coating
Humidity	100%RH at 26°C and 74%RH at 35°C for 24 hours	

Drawing



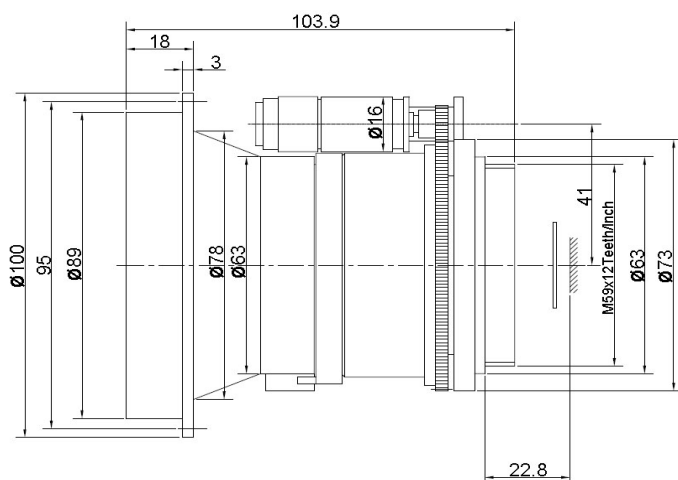
LWIR Lens 8-12μm



Part no.: IR100-1.0-320C-MOT

Opto-Mechanic Property	Specification	Remarks
Focal Length	100mm	
F#	1.0	
Wavelength	8μm—12μm	
Image Diagonal	15.2mm	
Average Transmission	>85%@8-12μm	
Circular FOV	8.69°	
Back Focus Distance	22.8mm	
Back Working Distance	Refer to drawing	
Dimensions	Length134.3mm, Φ112mm	
Focus Type	Motorized Focus	
Focus Range	-	
Mount Type	M59-12Teeth/Inch	
Detector	320*240pixels, 38μm	
Weight	-	
Motor Voltage	12V DC	
Environmental		
Operating Temperature	-20°C to +60°C	
Storage Temperature	-40°C to +80°C	
External Coating	DLC	Diamond like coating
Humidity	100%RH at 26°C and 74%RH at 35°C for 24 hours	

Drawing



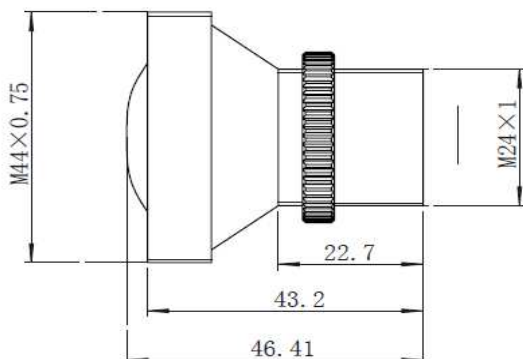
LWIR Lens 8-12μm



Part no.: IR4-1.0-320N

Opto-Mechanic Property	Specification	Remarks
Focal Length	4mm	
F#	1.0	
Wavelength	8μm—14μm	
Image Diagonal	10mm	
Average Transmission	>85%@8-14μm	
Circular FOV	—°	
Back Focus Distance	Refer to drawing	
Back Working Distance	7.5mm	
Dimensions	Length46.41mm, Φ44mm	
Focus Type	Manual Focus	
Focus Range	1m to infinity	
Mount Type	M24*1	
Detector	320*240pixels, 25μm	
Weight	-	
Environmental		
Operating Temperature	-20°C to +60°C	
Storage Temperature	-40°C to +80°C	
External Coating	DLC	Diamond like coating
Humidity	100%RH at 26°C and 74%RH at 35°C for 24 hours	

Drawing

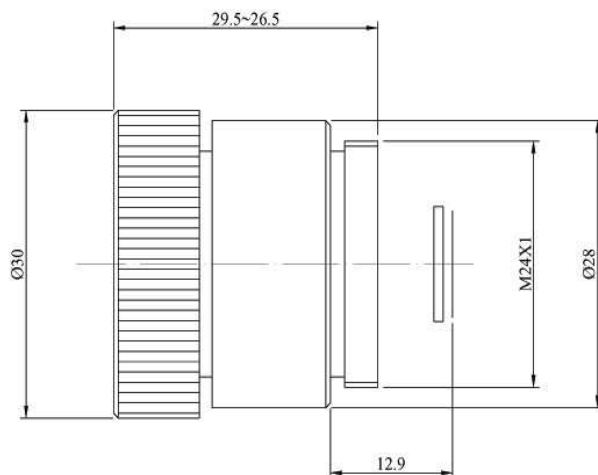


LWIR Lens 8-12μm

Part no.: IR5-1.0-320N

Opto-Mechanic Property	Specification	Remarks
Focal Length	5mm	
F#	1.0	
Wavelength	8μm—14μm	
Image Diagonal	10mm	
Average Transmission	>85%@8-14μm	
Circular FOV	90°	
Back Focus Distance	12.9mm	
Back Working Distance	Refer to drawing	
Dimensions	Length 29.5~26.5mm, Φ30mm	
Focus Type	Manual Focus	
Focus Range	1m to infinity	
Mount Type	M24*1	
Detector	320*240pixels, 25μm	
Weight	50g	
Environmental		
Operating Temperature	-20°C to +60°C	
Storage Temperature	-40°C to +80°C	
External Coating	DLC	Diamond like coating
Humidity	100%RH at 26°C and 74%RH at 35°C for 24 hours	

Drawing



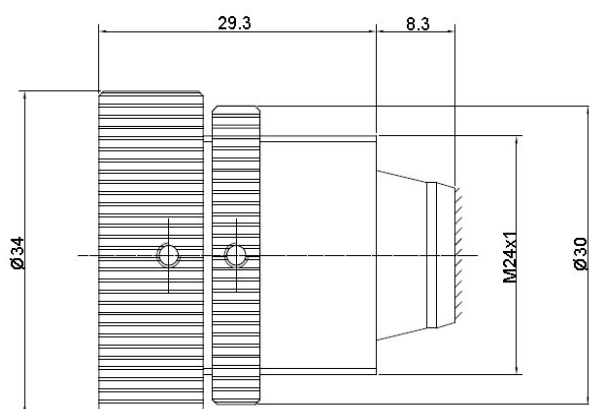
LWIR Lens 8-12μm



Part no.: IR6-1.0-320N

Opto-Mechanic Property	Specification	Remarks
Focal Length	6mm	
F#	1.0	
Wavelength	8μm—14μm	
Image Diagonal	10mm	
Average Transmission	>85%@8-14μm	
Circular FOV	90°	
Back Focus Distance	Refer to drawing	
Back Working Distance	8.3mm	
Dimensions	Length 29.3mm, Ø34mm	
Focus Type	Manual Focus	
Focus Range	1m to infinity	
Mount Type	M24*1	
Detector	320*240pixels, 25μm	
Weight	-	
Environmental		
Operating Temperature	-20°C to +60°C	
Storage Temperature	-40°C to +80°C	
External Coating	DLC	Diamond like coating
Humidity	100%RH at 26°C and 74%RH at 35°C for 24 hours	

Drawing



LWIR Lens 8-12μm



Part no.: IR14-1.0-320N

Opto-Mechanic Property	Specification	Remarks
Focal Length	14mm	
F#	1.0	
Wavelength	8μm—14μm	
Image Diagonal	10mm	
Average Transmission	>85%@8-14μm	
Circular FOV	39.3°	
Back Focus Distance	Refer to drawing	
Back Working Distance	-	
Dimensions	Length mm, Φmm	
Focus Type	Manual Focus	
Focus Range	1m to infinity	
Mount Type	M24*1	
Detector	320*240pixels, 25μm	
Weight	-	
Environmental		
Operating Temperature	-20°C to +60°C	
Storage Temperature	-40°C to +80°C	
External Coating	DLC	Diamond like coating
Humidity	100%RH at 26°C and 74%RH at 35°C for 24 hours	

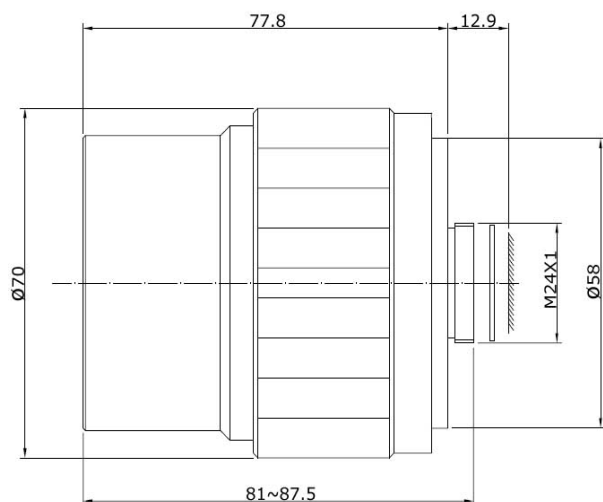
Drawing

LWIR Lens 8-12μm

Part no.: IR50-1.0-320N

Opto-Mechanic Property	Specification	Remarks
Focal Length	50mm	
F#	1.0	
Wavelength	8μm—14μm	
Image Diagonal	10mm	
Average Transmission	>85%@8-14μm	
Circular FOV	11.42°	
Back Focus Distance	12.9mm	
Back Working Distance	Refer to drawing	
Dimensions	Length 81~87.5mm, Φ70mm	
Focus Type	Manual Focus	
Focus Range	-	
Mount Type	M24*1	
Detector	320*240pixels, 25μm	
Weight	-	
Environmental		
Operating Temperature	-20°C to +60°C	
Storage Temperature	-40°C to +80°C	
External Coating	DLC	Diamond like coating
Humidity	100%RH at 26°C and 74%RH at 35°C for 24 hours	

Drawing

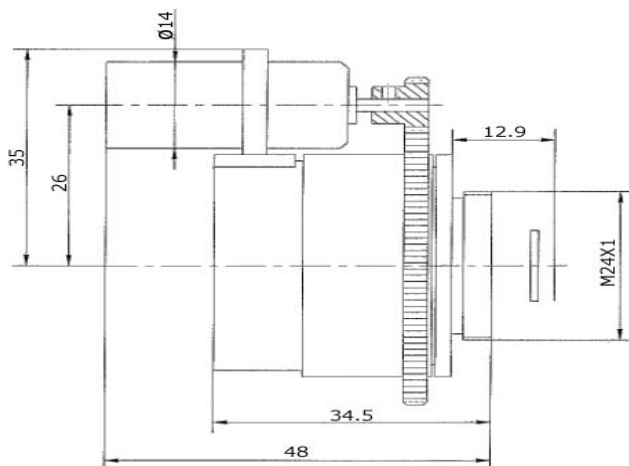


LWIR Lens 8-12μm

Part no.: IR17-1.0-320N-MOT

Opto-Mechanic Property	Specification	Remarks
Focal Length	17mm	
F#	1.0	
Wavelength	8μm—14μm	
Image Diagonal	10mm	
Average Transmission	>85%@8-14μm	
Circular FOV	32.78°	
Back Focus Distance	12.9mm	
Back Working Distance	Refer to drawing	
Dimensions	Max. 78mm x 48mm	
Focus Type	Motorized Focus	
Focus Range	-	
Mount Type	M24*1	
Detector	320*240pixels, 25μm	
Weight	-	
Motor Voltage	6V DC	
Environmental		
Operating Temperature	-20°C to +60°C	
Storage Temperature	-40°C to +80°C	
External Coating	DLC	Diamond like coating
Humidity	100%RH at 26°C and 74%RH at 35°C for 24 hours	

Drawing

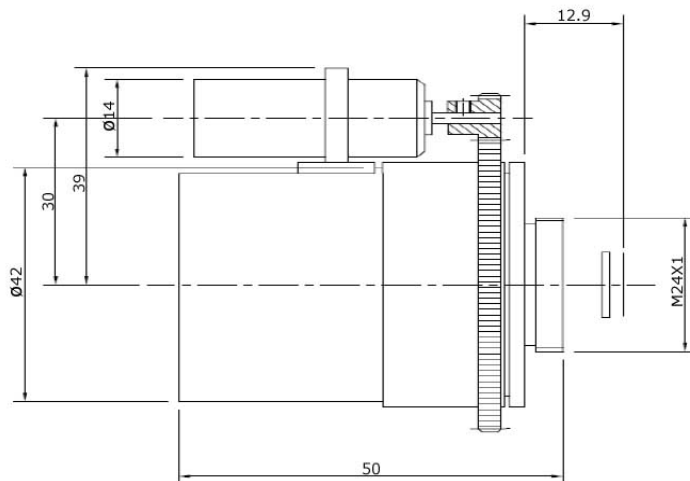


LWIR Lens 8-12μm

Part no.: IR25-1.0-320N-MOT

Opto-Mechanic Property	Specification	Remarks
Focal Length	25mm	
F#	1.0	
Wavelength	8μm—14μm	
Image Diagonal	10mm	
Average Transmission	>85%@8-14um	
Circular FOV	22.62°	
Back Focus Distance	12.9mm	
Back Working Distance	Refer to drawing	
Dimensions	Length50mm, Φ42mm	
Focus Type	Motorized Focus	
Focus Range	-	
Mount Type	M24*1	
Detector	320*240pixels, 25μm	
Weight	-	
Motor Voltage	6V DC	
Environmental		
Operating Temperature	-20°C to +60°C	
Storage Temperature	-40°C to +80°C	
External Coating	DLC	Diamond like coating
Humidity	100%RH at 26°C and 74%RH at 35°C for 24 hours	

Drawing

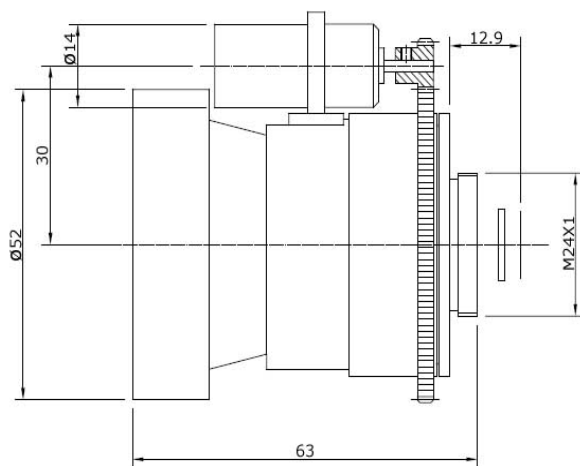


LWIR Lens 8-12μm

Part no.: IR35-1.0-320N-MOT

Opto-Mechanic Property	Specification	Remarks
Focal Length	35mm	
F#	1.0	
Wavelength	8μm—14μm	
Image Diagonal	10mm	
Average Transmission	90%@8-14μm	
Circular FOV	16.26°	
Back Focus Distance	12.9mm	
Back Working Distance	Refer to drawing	
Dimensions	Length63mm, Ø52mm	
Focus Type	Motorized Focus	
Focus Range	-	
Mount Type	M24*1	
Detector	320*240pixels, 25μm	
Weight	200g	
Motor Voltage	6V DC	
Environmental		
Operating Temperature	-20°C to +60°C	
Storage Temperature	-40°C to +80°C	
External Coating	AR	Anti Reflection coating
Humidity	100%RH at 26°C and 74%RH at 35°C for 24 hours	

Drawing

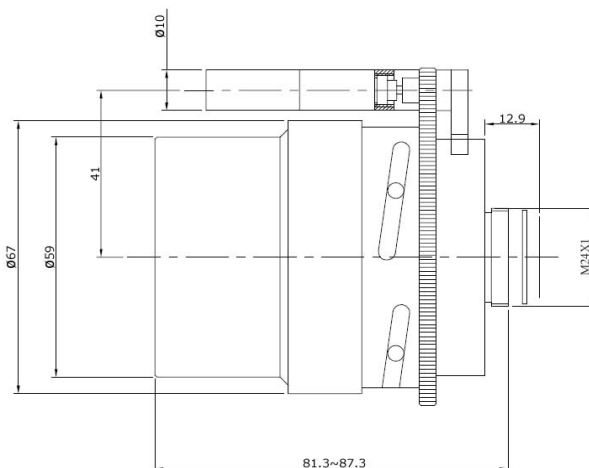


LWIR Lens 8-12μm

Part no.: IR50-1.0-320N-MOT

Opto-Mechanic Property	Specification	Remarks
Focal Length	50mm	
F#	1.0	
Wavelength	8μm—14μm	
Image Diagonal	10mm	
Average Transmission	90%@8-14μm	
Circular FOV	11.42°	
Back Focus Distance	12.9mm	
Back Working Distance	Refer to drawing	
Dimensions	Length 81.3~87.3mm, Φ67mm	
Focus Type	Motorized Focus	
Focus Range	-	
Mount Type	M24*1	
Detector	320*240pixels, 25μm	
Weight	-	
Motor Voltage	6V DC	
Environmental		
Operating Temperature	-20°C to +60°C	
Storage Temperature	-40°C to +80°C	
External Coating	AR	Anti-Reflection coating
Humidity	100%RH at 26°C and 74%RH at 35°C for 24 hours	

Drawing

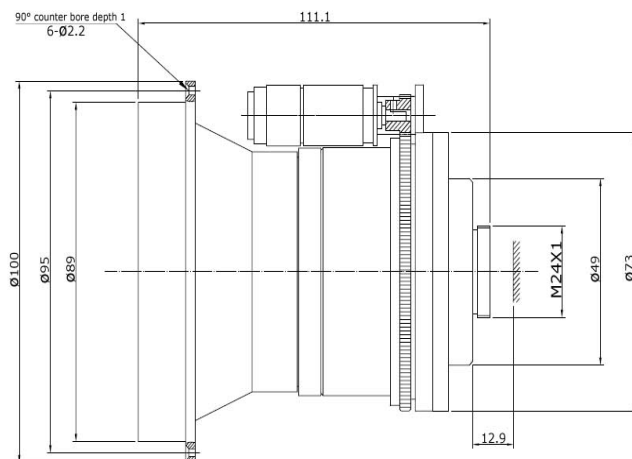


LWIR Lens 8-12μm

Part no.: IR75-1.0-320N-MOT

Opto-Mechanic Property	Specification	Remarks
Focal Length	75mm	
F#	1.0	
Wavelength	8μm—14μm	
Image Diagonal	10mm	
Average Transmission	90%@8-14μm	
Circular FOV	7.63°	
Back Focus Distance	12.9mm	
Back Working Distance	Refer to drawing	
Dimensions	Length 111.1mm, Φ100mm	
Focus Type	Motorized Focus	
Focus Range	-	
Mount Type	M24*1	
Detector	320*240pixels, 25μm	
Weight	630g	
Motor Voltage	12V DC	
Environmental		
Operating Temperature	-20°C to +60°C	
Storage Temperature	-40°C to +80°C	
External Coating	AR	Anti-Reflection coating
Humidity	100%RH at 26°C and 74%RH at 35°C for 24 hours	

Drawing

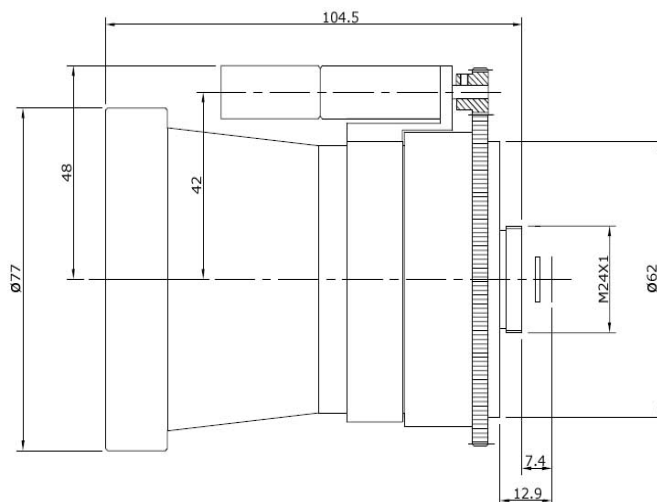


LWIR Lens 8-12μm

Part no.: IR75-1.2-320N-MOT

Opto-Mechanic Property	Specification	Remarks
Focal Length	75mm	
F#	1.2	
Wavelength	8μm—12μm	
Image Diagonal	10mm	
Average Transmission	>85%@8-12μm	
Circular FOV	7.63°	
Back Focus Distance	12.9mm	
Back Working Distance	7.4mm	
Dimensions	Length104.5mm, Φ77mm	
Focus Type	Motorized Focus	
Focus Range	-	
Mount Type	M24*1	
Detector	320*240pixels, 25μm	
Weight	500g	
Motor Voltage	12V DC	
Environmental		
Operating Temperature	-20°C to +60°C	
Storage Temperature	-40°C to +80°C	
External Coating	AR	Anti-Reflection Coating
Humidity	100%RH at 26°C and 74%RH at 35°C for 24 hours	

Drawing

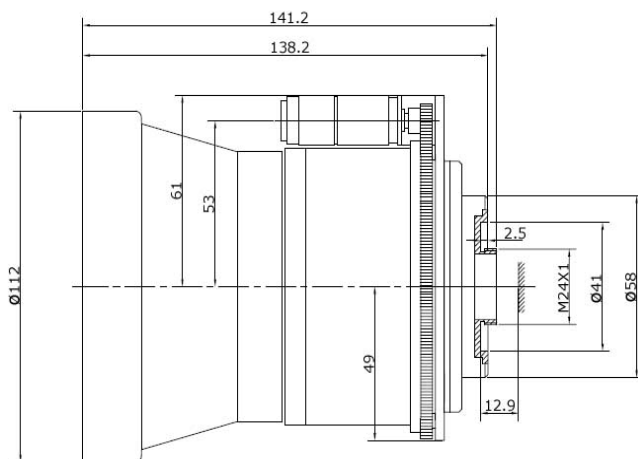


LWIR Lens 8-12μm

Part no.: IR2100-1.0-320N-MOT

Opto-Mechanic Property	Specification	Remarks
Focal Length	100mm	
F#	1.0	
Wavelength	8μm—14μm	
Image Diagonal	10mm	
Average Transmission	89%@8-14μm	
Circular FOV	5.72°	
Back Focus Distance	12.9mm	
Back Working Distance	7.4mm	
Dimensions	Length141.2mm, Φ112mm	
Focus Type	Motorized Focus	
Focus Range	-	
Mount Type	M24*1	
Detector	320*240pixels, 25μm	
Weight	1250g	
Motor Voltage	12V DC	
Environmental		
Operating Temperature	-20°C to +60°C	
Storage Temperature	-40°C to +80°C	
External Coating	DLC	Diamond like coating
Humidity	100%RH at 26°C and 74%RH at 35°C for 24 hours	

Drawing



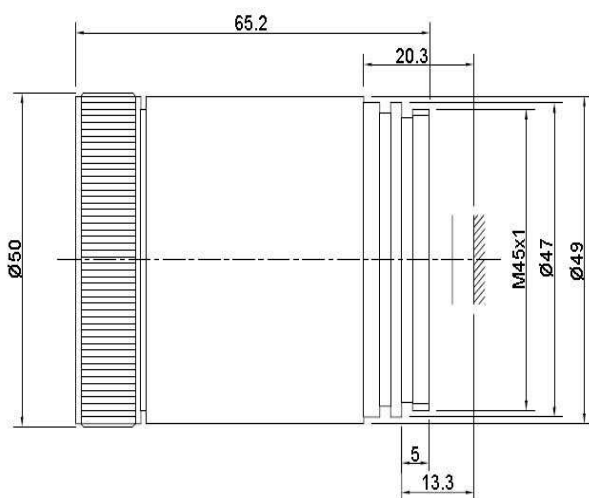
LWIR Lens 8-12μm



Part no.: IR35-1.0-324

Opto-Mechanic property	Specification	Remarks
Focal Length	35mm	
F#	1.0	
Wavelength	8μm—12μm	
Image Diagonal	10.3mm	
Average Transmission	>85%	
Circular FOV	16.74°	
Back Focus Distance	13.3mm	
Back Working Distance	8.3mm	
Dimensions	Length 65.2mm, Ø50mm	
Focus Type	Manual Focus	
Focus Range	1m to infinity	
Mount Type	Thread M45*1	
Detector	324*256pixels, 25μm	
Weight	-	
Environmental		
Operating Temperature	-20°C to +60°C	
Storage Temperature	-40°C to +80°C	
External Coating	DLC	Diamond like coating
Humidity	100%RH at 26°C and 74%RH at 35°C for 24 hours	

Drawing



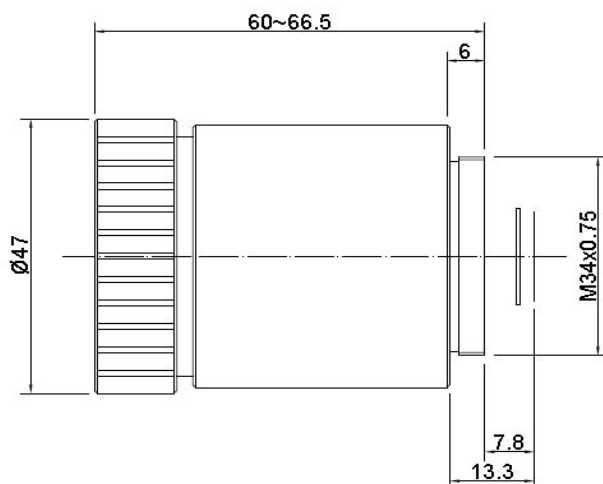
LWIR Lens 8-12μm



Part no.: IR35-1.3-324

Opto-Mechanic property	Specification	Remarks
Focal Length	35mm	
F#	1.3	
Wavelength	8μm—12μm	
Image Diagonal	10.3mm	
Average Transmission	>85%	
Circular FOV	16.74°	
Back Focus Distance	13.3mm	
Back Working Distance	7.8mm	
Dimensions	Length60~66.5mm, Φ47mm	
Focus Type	Manual Focus	
Focus Range	1m to infinity	
Mount Type	Thread M34*0.75	
Detector	324*256pixels, 25μm	
Weight	-	
Environmental		
Operating Temperature	-20°C to +60°C	
Storage Temperature	-40°C to +80°C	
External Coating	DLC	Diamond like coating
Humidity	100%RH at 26°C and 74%RH at 35°C for 24 hours	

Drawing



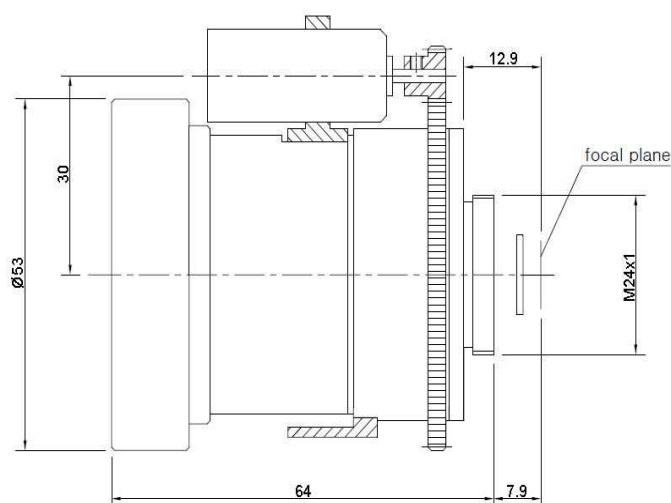
LWIR Lens 8-12μm



Part no.: IR35-1.0-324-MOT

Opto-Mechanic property	Specification	Remarks
Focal Length	35mm	
F#	1.0	
Wavelength	8μm—12μm	
Image Diagonal	10.3mm	
Average Transmission	>85%	
Circular FOV	16.74°	
Back Focus Distance	12.9mm	
Back Working Distance	7.9mm	
Dimensions	Length 64mm, Ø53mm	
Focus Type	Manual Focus	
Focus Range	1m to infinity	
Mount Type	Thread M24*1	
Detector	324*256pixels, 25μm	
Weight	-	
Environmental		
Operating Temperature	-20°C to +60°C	
Storage Temperature	-40°C to +80°C	
External Coating	DLC	Diamond like coating
Humidity	100%RH at 26°C and 74%RH at 35°C for 24 hours	

Drawing



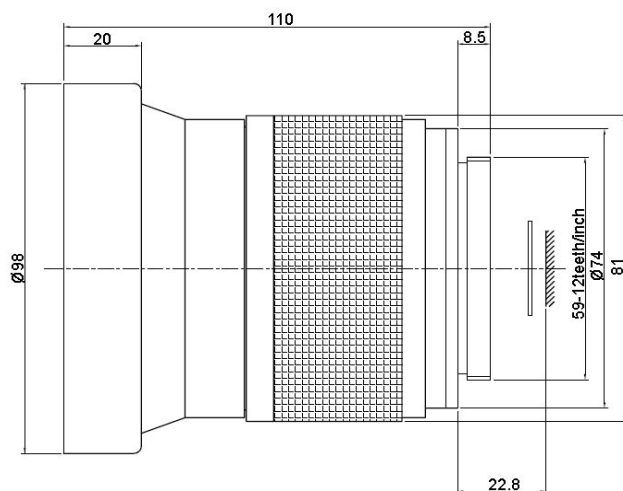
LWIR Lens 8-12μm

NEW

Part no.: IR90-1.1-360

Opto-Mechanic property	Specification	Remarks
Focal Length	90mm	
F#	1.1	
Wavelength	8μm—14μm	
Image Diagonal	10.8mm	
Average Transmission	>85%	
Circular FOV	6.9°	
Back Focus Distance	22.8mm	
Back Working Distance	14.3mm	
Dimensions	Length110mm, Ø98mm	
Focus Type	Manual Focus	
Focus Range	1m to infinity	
Mount Type	Thread M24*1	
Detector	360*240pixels, 25μm	
Weight	-	
Environmental		
Operating Temperature	-20°C to +60°C	
Storage Temperature	-40°C to +80°C	
External Coating	DLC	Diamond like coating
Humidity	100%RH at 26°C and 74%RH at 35°C for 24 hours	

Drawing

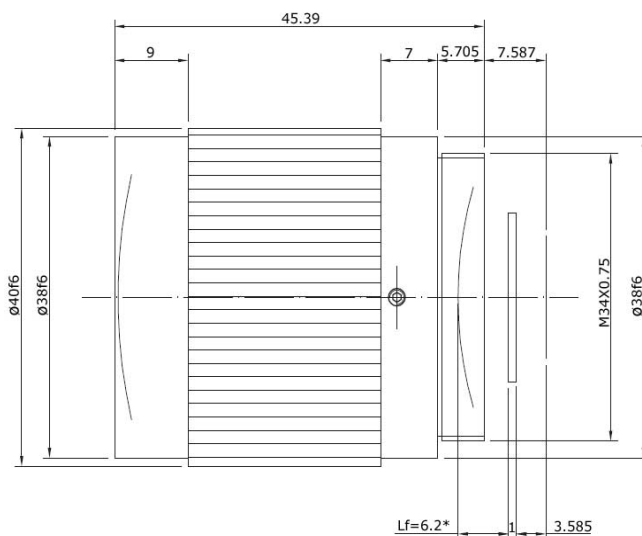


LWIR Lens 8-12μm

Part no.: IR02510384G

Opto-Mechanic property	Specification	Remarks
Focal Length	25mm	
F#	1.0	
Wavelength	8μm—12μm	
Image Diagonal	16.8mm	
Average Transmission	>85%	
Circular FOV	37.14°	
Back Focus Distance	13.292mm	
Back Working Distance	7.587mm	
Dimensions	Length 45.39mm, Ø40mm	
Focus Type	Manual Focus	
Focus Range	1m to infinity	
Mount Type	Thread M34*0.75	
Detector	384*288pixels, 35μm	
Weight	-	
Environmental		
Operating Temperature	-20°C to +60°C	
Storage Temperature	-40°C to +80°C	
External Coating	DLC	Diamond like coating
Humidity	100%RH at 26°C and 74%RH at 35°C for 24 hours	

Drawing

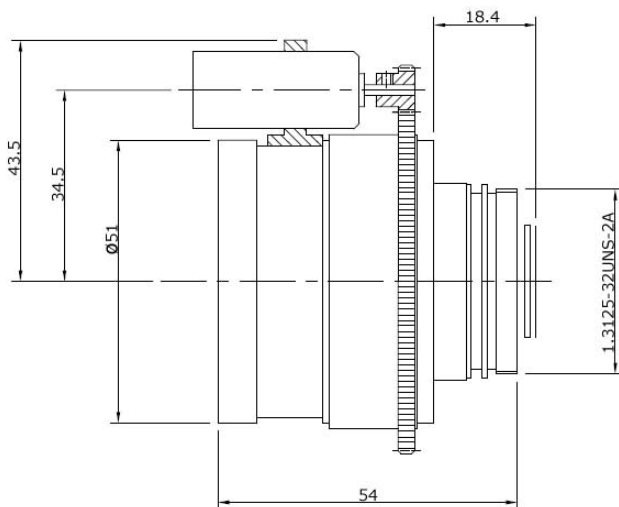


LWIR Lens 8-12μm

Part no.: IR02510384-MOT

Opto-Mechanic Property	Specification	Remarks
Focal Length	25mm	
F#	1.0	
Wavelength	8μm—12μm	
Image Diagonal	16.8mm	
Average Transmission	>85%	
Circular FOV	37.14°	
Back Focal Distance	18.4mm	
Back Working Distance	Refer to drawing	
Dimensions	Length 54mm, Ø51mm	
Focus Type	Motorized Focus	
Focus Range	1m to infinity	
Mount Type	1.3125-32UNS-2A	
Detector	384*288pixels, 35μm	
Weight	-	
Environmental		
Operating Temperature	-20°C to +60°C	
Storage Temperature	-40°C to +80°C	
External Coating	DLC	Diamond like coating
Humidity	100%RH at 26°C and 74%RH at 35°C for 24 hours	

Drawing

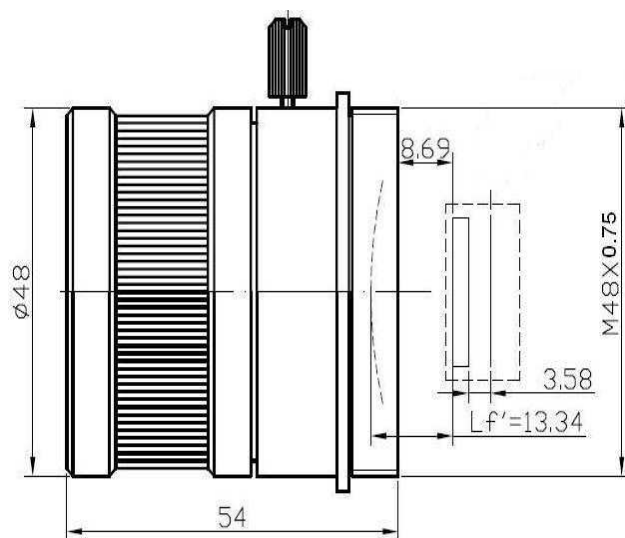


LWIR Lens 8-12μm

Part no.: IR03510384

Opto-Mechanic Property	Specification	Remarks
Focal Length	35mm	
F#	1.0	
Wavelength	8μm—12μm	
Image Diagonal	16.8mm	
Average Transmission	>85%	
Circular FOV	27°	
Back Focal Distance	13.34mm(Lf')	
Back Working Distance	8.69mm	
Dimensions	Length 54mm, Φ48mm	
Focus Type	Manual Focus	
Focus Range	1m to infinity	
Mount Type	M48*0.75	
Detector	384*288pixels, 35μm	
Weight	200g	
Environmental		
Operating Temperature	-20°C to +60°C	
Storage Temperature	-40°C to +80°C	
External Coating	DLC	Diamond like coating
Humidity	100%RH at 26°C and 74%RH at 35°C for 24 hours	

Drawing



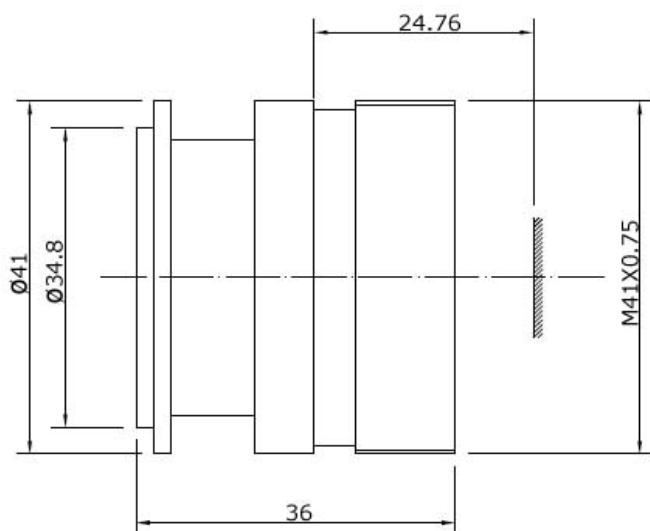
LWIR Lens
(8-12μm)

LWIR Lens 8-12μm

Part no.: IR14-0.9-384

Opto-Mechanic Property	Specification	Remarks
Focal Length	14mm	
F#	0.9	
Wavelength	8μm—14μm	
Image Diagonal	12mm	
Average Transmission	85%@8-14μm	
Circular FOV	46.4°	
Back Focus Distance	-	
Back Working Distance	-	
Dimensions	Length36mm, Φ41mm	
Focus Type	Manual Focus	
Focus Range	-	
Mount Type	M41*0.75	
Detector	384*288pixels, 25μm	
Weight	90g	
Environmental		
Operating Temperature	-20°C to +60°C	
Storage Temperature	-40°C to +80°C	
External Coating	DLC	Diamond like coating
Humidity	100%RH at 26°C and 74%RH at 35°C for 24 hours	

Drawing

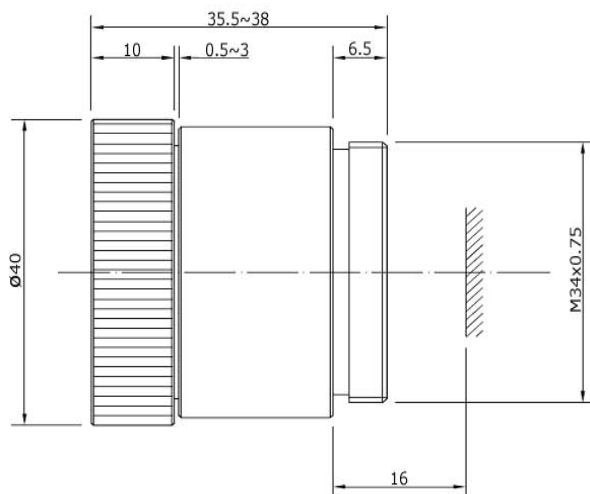


LWIR Lens 8-12μm

Part no.: IR17-1.0-384

Opto-Mechanic Property	Specification	Remarks
Focal Length	17mm	
F#	1.0	
Wavelength	8μm—14μm	
Image Diagonal	12mm	
Average Transmission	90%@8-14μm	
Circular FOV	38.9°	
Back Focus Distance	-	
Back Working Distance	9.5mm	
Dimensions	Length 35.5~38mm, Φ40mm	
Focus Type	Manual Focus	
Focus Range	-	
Mount Type	M34*0.75	
Detector	384*288pixels, 25μm	
Weight	80g	
Environmental		
Operating Temperature	-20°C to +60°C	
Storage Temperature	-40°C to +80°C	
External Coating	AR	Anti-Reflection coating
Humidity	100%RH at 26°C and 74%RH at 35°C for 24 hours	

Drawing



LWIR Lens
(8-12μm)

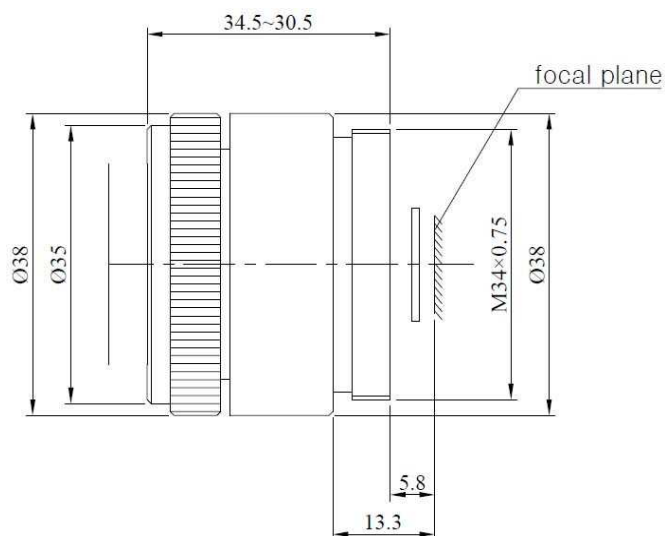
LWIR Lens 8-12μm



Part no.: IR25-1.0-384

Opto-Mechanic Property	Specification	Remarks
Focal Length	25mm	
F#	1.0	
Wavelength	8μm—14μm	
Image Diagonal	12mm	
Average Transmission	90%@8-14μm	
Circular FOV	26.99°	
Back Focus Distance	13.3mm	
Back Working Distance	5.8mm	
Dimensions	Length 34.5~30.5mm, Φ38mm	
Focus Type	Manual Focus	
Focus Range	-	
Mount Type	M34*0.75	
Detector	384*288pixels, 25μm	
Weight	-	
Environmental		
Operating Temperature	-20°C to +60°C	
Storage Temperature	-40°C to +80°C	
External Coating	AR	Anti-Reflection coating
Humidity	100%RH at 26°C and 74%RH at 35°C for 24 hours	

Drawing

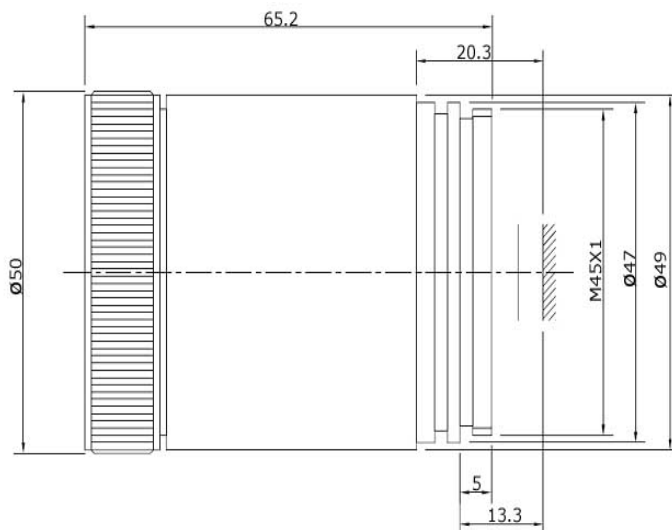


LWIR Lens 8-12μm

Part no.: IR35-1.0-384

Opto-Mechanic Property	Specification	Remarks
Focal Length	35mm	
F#	1.0	
Wavelength	8μm—14μm	
Image Diagonal	12mm	
Average Transmission	90%@8-14μm	
Circular FOV	19.45°	
Back Focus Distance	-	
Back Working Distance	8.3mm	
Dimensions	Length 65.2mm, Ø50mm	
Focus Type	Manual Focus	
Focus Range	-	
Mount Type	M45*1	
Detector	384*288pixels, 25μm	
Weight	210g	
Environmental		
Operating Temperature	-20°C to +60°C	
Storage Temperature	-40°C to +80°C	
External Coating	AR	Anti-Reflection coating
Humidity	100%RH at 26°C and 74%RH at 35°C for 24 hours	

Drawing



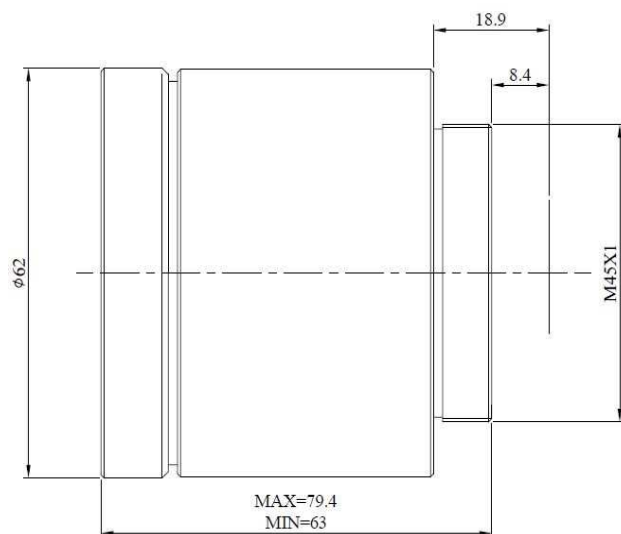
LWIR Lens 8-12μm



Part no.: IR50-1.0-384

Opto-Mechanic Property	Specification	Remarks
Focal Length	50mm	
F#	1.0	
Wavelength	8μm—14μm	
Image Diagonal	12mm	
Average Transmission	90%@8-14μm	
Circular FOV	13.69°	
Back Focus Distance	18.9mm	
Back Working Distance	8.4mm	
Dimensions	Length79.4~63mm, Φ52mm	
Focus Type	Manual Focus	
Focus Range	-	
Mount Type	M45*1	
Detector	384*288pixels, 25μm	
Weight	-	
Environmental		
Operating Temperature	-20°C to +60°C	
Storage Temperature	-40°C to +80°C	
External Coating	AR	Anti-Reflection coating
Humidity	100%RH at 26°C and 74%RH at 35°C for 24 hours	

Drawing

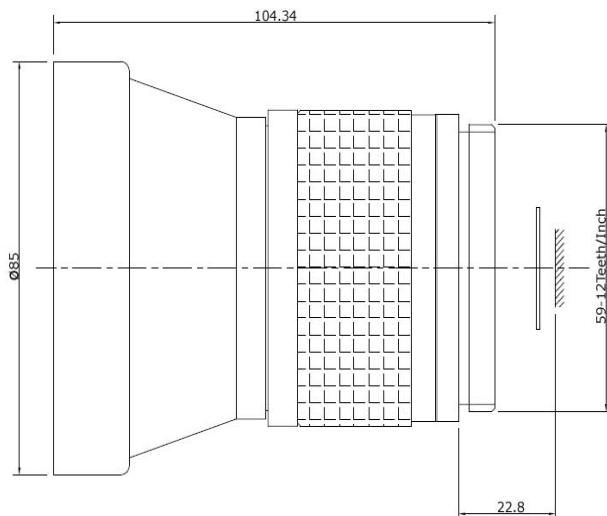


LWIR Lens 8-12μm

Part no.: IR75-1.0-384

Opto-Mechanic Property	Specification	Remarks
Focal Length	75mm	
F#	1.0	
Wavelength	8μm—14μm	
Image Diagonal	12mm	
Average Transmission	90%@8-14μm	
Circular FOV	9.15°	
Back Focus Distance	22.8mm	
Back Working Distance	-	
Dimensions	Length 65.2mm, Φ50mm	
Focus Type	Manual Focus	
Focus Range	-	
Mount Type	M59*12teeth/inch	
Detector	384*288pixels, 25μm	
Weight	210g	
Environmental		
Operating Temperature	-20°C to +60°C	
Storage Temperature	-40°C to +80°C	
External Coating	AR	Anti-Reflection coating
Humidity	100%RH at 26°C and 74%RH at 35°C for 24 hours	

Drawing

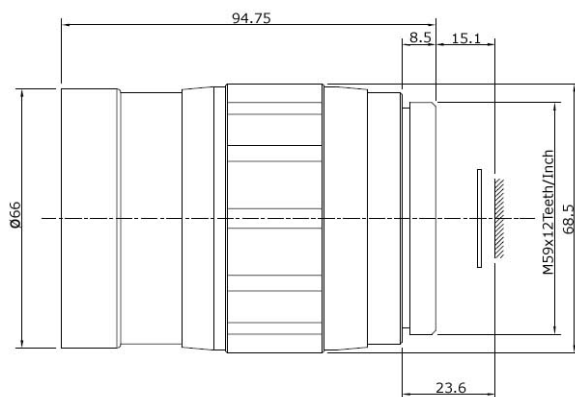


LWIR Lens 8-12μm

Part no.: IR75-1.4-384

Opto-Mechanic Property	Specification	Remarks
Focal Length	75mm	
F#	1.4	
Wavelength	8μm—14μm	
Image Diagonal	16.8mm	384*288pixels, 35μm
	20mm	640*480pixels, 25μm
Average Transmission	>85%@8-14μm	
Circular FOV	12.78°	
	15.19°	
Back Focus Distance	23.6mm	
Back Working Distance	15.1mm	
Dimensions	Length94.75mm, Φ66mm	
Focus Type	Manual Focus	
Focus Range	-	
Mount Type	M59*12teeth/inch	
Detector	384*288pixels, 35μm	
	640*480pixels, 25μm	
Weight	-	
Environmental		
Operating Temperature	-20°C to +60°C	
Storage Temperature	-40°C to +80°C	
External Coating	DLC	Diamond like coating
Humidity	100%RH at 26°C and 74%RH at 35°C for 24 hours	

Drawing

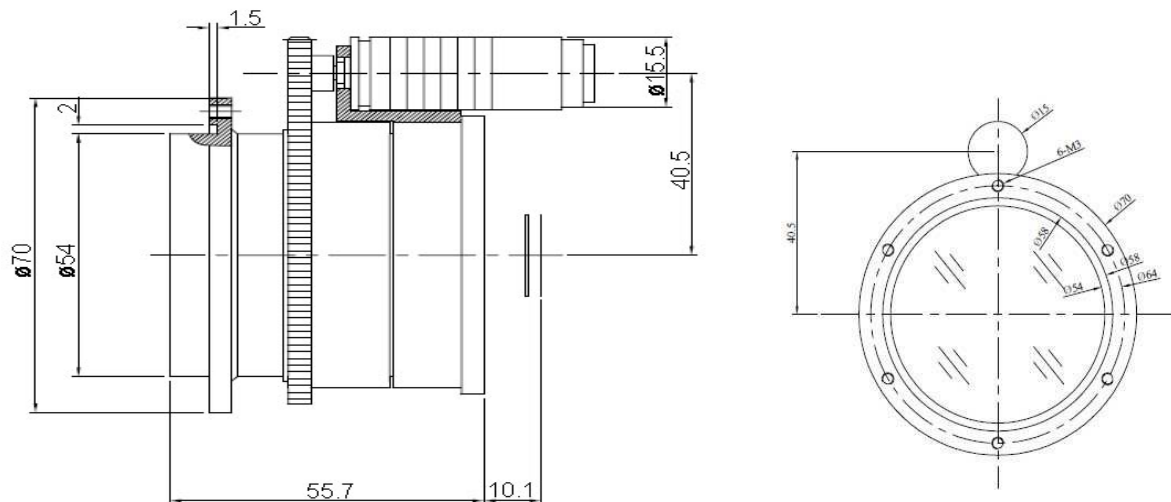


LWIR Lens 8-12μm

NEW**Part no.: IR40-1.0-384-MOT**

Opto-Mechanic Property	Specification	Remarks
Focal Length	40mm	
F#	1.0	
Wavelength	8μm—14μm	
Image Diagonal	12mm	
Average Transmission	>85%@8-14μm	
Circular FOV	17.06°	
Back Focus Distance	Refer to drawing	
Back Working Distance	10.1mm	
Dimensions	Length70mm, Φ71mm	
Focus Type	Motorized Focus	
Focus Range	-	
Mount Type	-	
Detector	384*288pixels, 25μm	
Weight	-	
Motor Voltage	12V DC	
Environmental		
Operating Temperature	-20℃ to +60℃	
Storage Temperature	-40℃ to +80℃	
External Coating	DLC	Diamond like coating
Humidity	100%RH at 26℃ and 74%RH at 35℃ for 24 hours	

Drawing

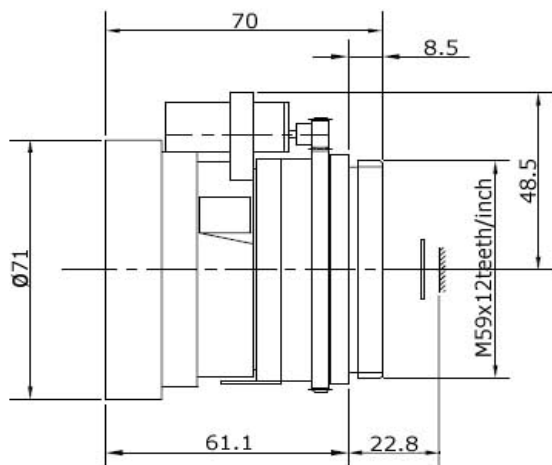


LWIR Lens 8-12μm

Part no.: IR250-0.8-MOT

Opto-Mechanic Property	Specification	Remarks
Focal Length	50mm	
F#	0.8	
Wavelength	8μm—14μm	
Image Diagonal	16.8mm	
Average Transmission	>85%@8-14μm	
Circular FOV	19.07°	
Back Focus Distance	22.8mm	
Back Working Distance	14.3mm	
Dimensions	Length 70mm, Ø71mm	
Focus Type	Motorized Focus	
Focus Range	-	
Mount Type	M59*12teeth/inch	
Detector	384*288pixels, 35μm	
Weight	400g	
Motor Voltage	6V DC	
Environmental		
Operating Temperature	-20°C to +60°C	
Storage Temperature	-40°C to +80°C	
External Coating	DLC	Diamond like coating
Humidity	100%RH at 26°C and 74%RH at 35°C for 24 hours	

Drawing



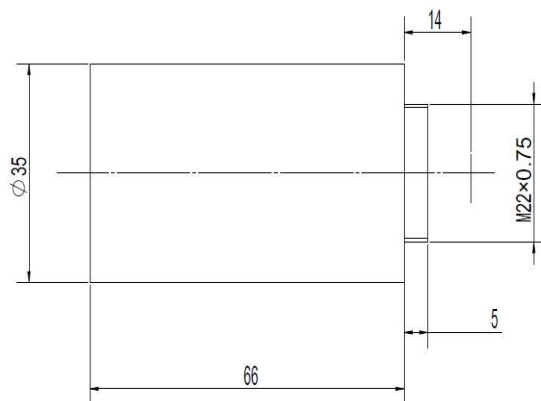
LWIR Lens 8-12μm

NEW

Part no.: IR37.5-2.0-640

Opto-Mechanic Property	Specification	Remarks
Focal Length	37.5mm	
F#	2.0	
Wavelength	8μm—14μm	
Image Diagonal	13.6mm	
Average Transmission	>90%@8-14μm	
Circular FOV	16.52°	
Back Focus Distance	14mm	
Back Working Distance	9mm	
Dimensions	Length 66mm, Φ35mm	
Focus Type	Manual Focus	
Focus Range	-	
Mount Type	M20*0.75	
Detector	640*480pixels, 17μm	
Weight		
Environmental		
Operating Temperature	-20°C to +60°C	
Storage Temperature	-40°C to +80°C	
External Coating	AR	Anti-Reflection coating
Humidity	100%RH at 26°C and 74%RH at 35°C for 24 hours	

Drawing



LWIR Lens
(8-12μm)

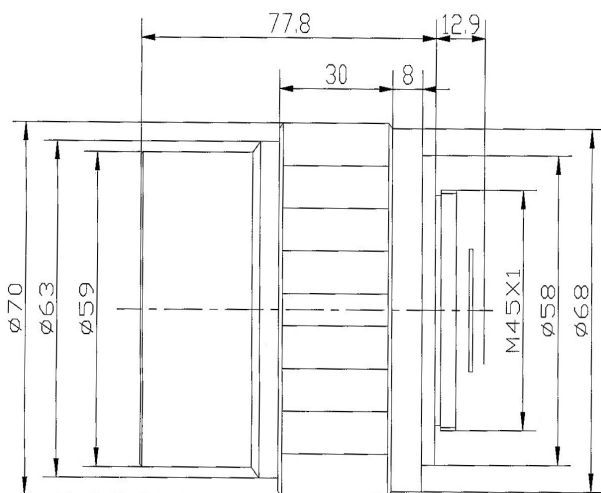
LWIR Lens 8-12μm

NEW

Part no.: IR50-1.0-640

Opto-Mechanic Property	Specification	Remarks
Focal Length	50mm	
F#	1.0	
Wavelength	8μm—14μm	
Image Diagonal	20mm	
Average Transmission	>90%	
Circular FOV	22.62°	
Back Focus Distance	12.9mm	
Back Working Distance	-	
Dimensions	Length 77.8mm, Φ70mm	
Focus Type	Manual Focus	
Focus Range	-	
Mount Type	M45*1	
Detector	640*480pixels, 25μm	
Weight		
Environmental		
Operating Temperature	-20°C to +60°C	
Storage Temperature	-40°C to +80°C	
External Coating	DLC	Diamond like coating
Humidity	100%RH at 26°C and 74%RH at 35°C for 24 hours	

Drawing



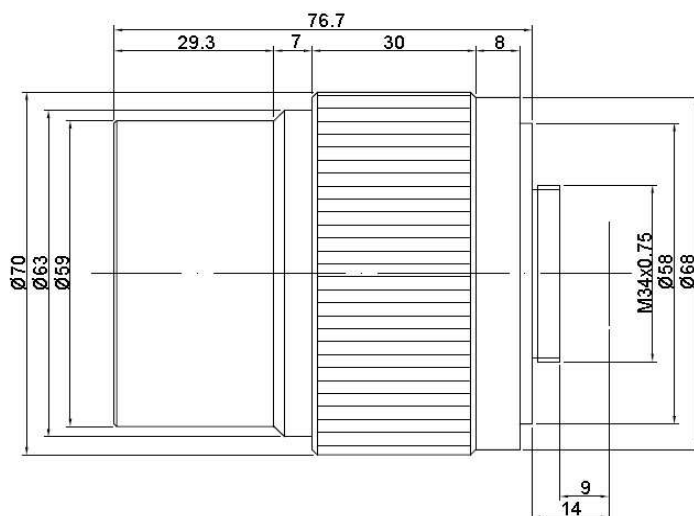
LWIR Lens 8-12μm



Part no.: IR50-1.0-640D

Opto-Mechanic Property	Specification	Remarks
Focal Length	50mm	
F#	1.0	
Wavelength	8μm—14μm	
Image Diagonal	13.6mm	
Average Transmission	>90%	
Circular FOV	15.5°	
Back Focus Distance	14mm	
Back Working Distance	9mm	
Dimensions	Length 76.7mm, Ø70mm	
Focus Type	Manual Focus	
Focus Range	-	
Mount Type	M34*0.75	
Detector	640*480pixels, 17μm	
Weight		
Environmental		
Operating Temperature	-20°C to +60°C	
Storage Temperature	-40°C to +80°C	
External Coating	DLC	Diamond like coating
Humidity	100%RH at 26°C and 74%RH at 35°C for 24 hours	

Drawing



LWIR Lens
(8-12μm)

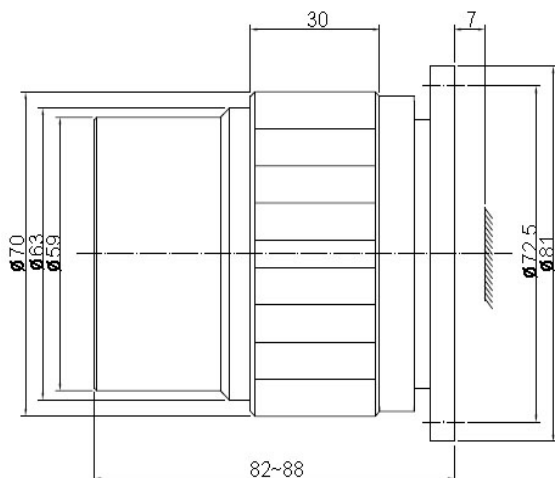
LWIR Lens 8-12μm

NEW

Part no.: IR50-1.0-640D-1

Opto-Mechanic Property	Specification	Remarks
Focal Length	50mm	
F#	1.0	
Wavelength	8μm—14μm	
Image Diagonal	13.6mm	
Average Transmission	>85%	
Circular FOV	15.5°	
Back Focus Distance	-	
Back Working Distance	7mm	
Dimensions	Length82~88m, Φ70mm	
Focus Type	Manual Focus	
Focus Range	-	
Mount Type	-	
Detector	640*480pixels, 17μm	
Weight	540g	
Environmental		
Operating Temperature	-20°C to +60°C	
Storage Temperature	-40°C to +80°C	
External Coating	DLC	Diamond like coating
Humidity	100%RH at 26°C and 74%RH at 35°C for 24 hours	

Drawing



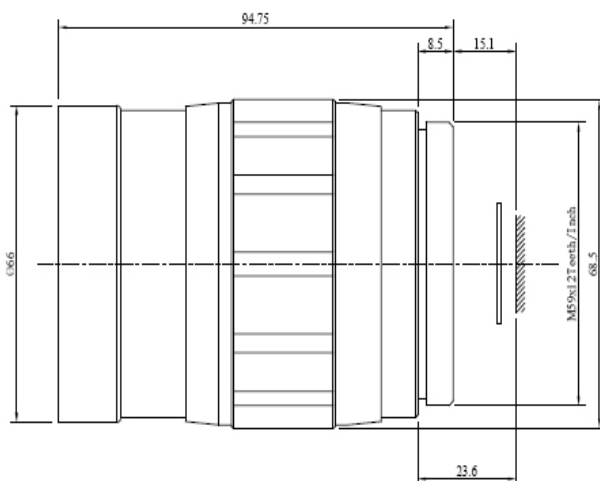
LWIR Lens 8-12μm



Part no.: IR75-1.4-640

Opto-Mechanic Property	Specification	Remarks
Focal Length	75mm	
F#	1.4	
Wavelength	8μm—14μm	
Image Diagonal	20mm	
Average Transmission	>90%@8-14μm	
Circular FOV	15.19°	
Back Focus Distance	23.6mm	
Back Working Distance	15.1mm	
Dimensions	Length94.75mm, Ø66mm	
Focus Type	Manual Focus	
Focus Range	-	
Mount Type	M59*12Teeth/inch	
Detector	640*480pixels, 25μm	
Weight		
Environmental		
Operating Temperature	-20°C to +60°C	
Storage Temperature	-40°C to +80°C	
External Coating	AR	Anti-Reflection coating
Humidity	100%RH at 26°C and 74%RH at 35°C for 24 hours	

Drawing



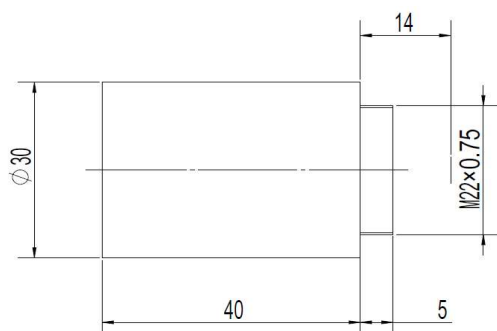
LWIR Lens 8-12μm

NEW

Part no.: IR75.3-2.5-640

Opto-Mechanic Property	Specification	Remarks
Focal Length	75.3mm	
F#	2.5	
Wavelength	8μm—14μm	
Image Diagonal	13.6mm	
Average Transmission	>90%@8-14μm	
Circular FOV	8.26°	
Back Focus Distance	14mm	
Back Working Distance	9mm	
Dimensions	Length40mm, Φ30mm	
Focus Type	Manual Focus	
Focus Range	-	
Mount Type	M20*0.75	
Detector	640*480pixels, 17μm	
Weight		
Environmental		
Operating Temperature	-20°C to +60°C	
Storage Temperature	-40°C to +80°C	
External Coating	AR	Anti-Reflection coating
Humidity	100%RH at 26°C and 74%RH at 35°C for 24 hours	

Drawing



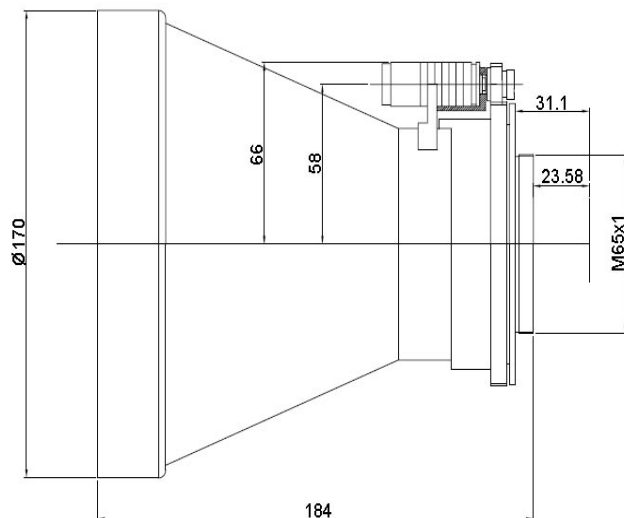
LWIR Lens 8-12μm

NEW

Part no.: IR150-1.0-640D-MOT

Opto-Mechanic Property	Specification	Remarks
Focal Length	150mm	
F#	1.0	
Wavelength	8μm—14μm	
Image Diagonal	13.6mm	
Average Transmission	>90%	
Circular FOV	5.19°	
Back Focus Distance	32.1mm	
Back Working Distance	23.58mm	
Dimensions	Length184mm, Φ170mm	
Focus Type	Motorized Focus	
Focus Range	-	
Mount Type	M65*1	
Detector	640*480pixels, 17μm	
Weight		
Environmental		
Operating Temperature	-20°C to +60°C	
Storage Temperature	-40°C to +80°C	
External Coating	AR	Anti-Reflection coating
Humidity	100%RH at 26°C and 74%RH at 35°C for 24 hours	

Drawing



LWIR Lens
(8-12μm)

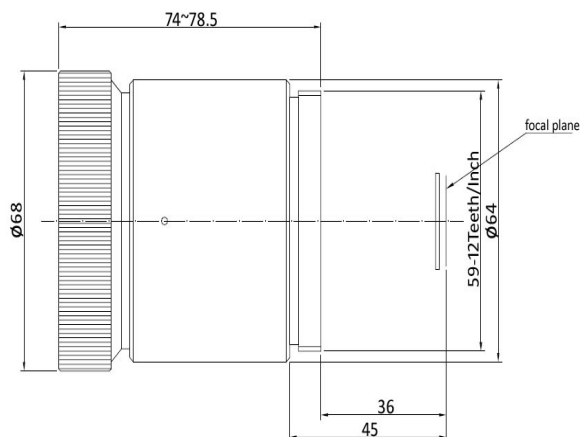
LWIR Lens 8-12μm



Part no.: IR07514640

Opto-Mechanic Property	Specification	Remarks
Focal Length	75mm	
F#	1.4	
Wavelength	7μm—14μm	
Image Diagonal	20mm	
Average Transmission	>90%	
Circular FOV	15°	
Back Focus Distance	45mm	
Back Working Distance	36mm	
Dimensions	Length78.5mm, Φ68mm	
Focus Type	Manual Focus	
Focus Range	-	
Mount Type	M59-12Teeth/inch	
Detector	640*480pixels, 25μm	
Weight	300g	
Environmental		
Operating Temperature	-30°C to +60°C	
Storage Temperature	-40°C to +80°C	
External Coating	AR	Anti-Reflection coating
Humidity	100%RH at 26°C and 74%RH at 35°C for 24 hours	

Drawing

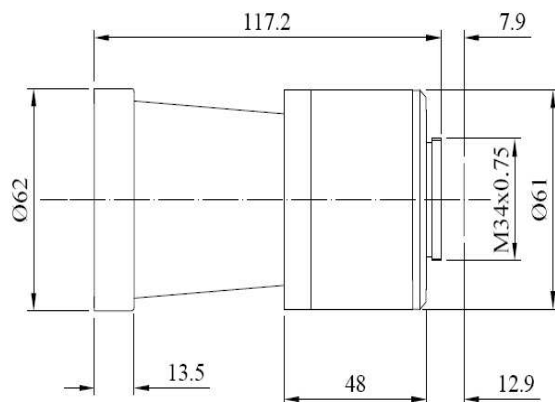


LWIR Lens 8-12μm

Part no.: IR10020640

Opto-Mechanic Property	Specification	Remarks
Focal Length	100mm	
F#	2.0	
Wavelength	8μm—12μm	
Image Diagonal	19.67mm	
Average Transmission	>80%	
Circular FOV	11.2°	
Back Focus Distance	12.9mm	
Back Working Distance	7.9mm	
Dimensions	Length 117.12mm, Φ62mm	
Focus Type	Manual Focus	
Focus Range	3m to infinity	
Mount Type	M34*0.75	
Detector	640*512pixels, 24μm	
Weight	-	
Environmental		
Operating Temperature	-30°C to +60°C	
Storage Temperature	-40°C to +80°C	
External Coating	DLC	Diamond like coating
Humidity	100%RH at 26°C and 74%RH at 35°C for 24 hours	

Drawing



LWIR Lens
(8-12μm)

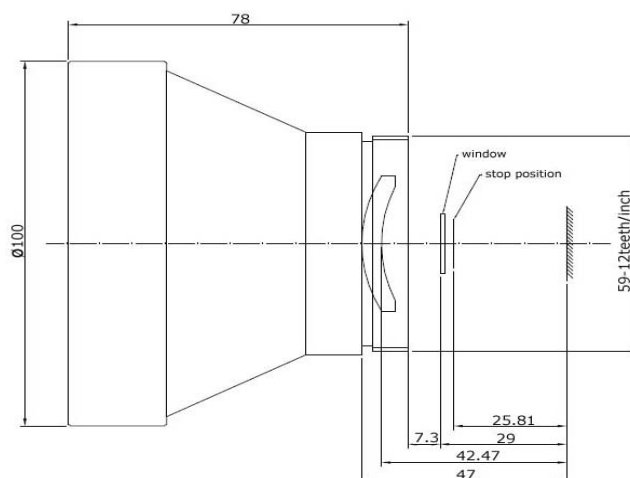
LWIR Lens 8-12μm



Part no.: IR10020640-B

Opto-Mechanic Property	Specification	Remarks
Focal Length	100mm	
F#	2.0	
Wavelength	8μm—12μm	
Image Diagonal	20mm	
Average Transmission	>85%	
Circular FOV	11.42°	
Back Focus Distance	42.47mm	
Back Working Distance	36.3mm	
Dimensions	Length78mm, Φ100mm	
Focus Type	Manual Focus	
Focus Range	2m to infinity	
Mount Type	M59*12Teeth/inch	
Detector	640*480pixels, 25μm	
Weight	-	
Environmental		
Operating Temperature	-30°C to +60°C	
Storage Temperature	-40°C to +80°C	
External Coating	DLC	Diamond like coating
Humidity	100%RH at 26°C and 74%RH at 35°C for 24 hours	

Drawing



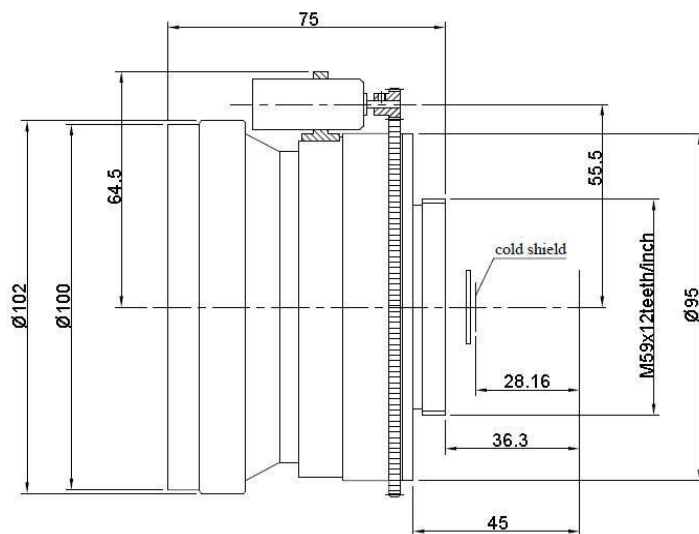
LWIR Lens 8-12μm



Part no.: IR10020640-B-MOT

Opto-Mechanic Property	Specification	Remarks
Focal Length	100mm	
F#	2.0	
Wavelength	8μm—12μm	
Image Diagonal	20mm	
Average Transmission	>85%	
Circular FOV	11.42°	
Back Focus Distance	45mm	
Back Working Distance	36.3mm	
Dimensions	Length 75mm, Φ100mm	
Focus Type	Motorized Focus	
Focus Range	2m to infinity	
Mount Type	M59*12Teeth/inch	
Detector	640*480pixels, 25μm	
Weight	-	
Environmental		
Operating Temperature	-30°C to +60°C	
Storage Temperature	-40°C to +80°C	
External Coating	DLC	Diamond like coating
Humidity	100%RH at 26°C and 74%RH at 35°C for 24 hours	

Drawing



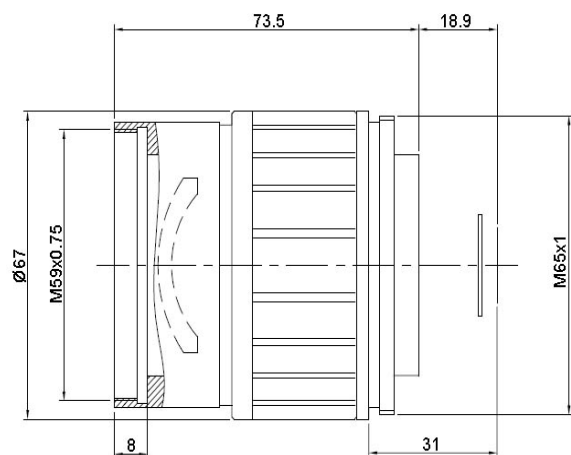
LWIR Lens 8-12μm



Part no.: IR01810640-B31

Opto-Mechanic Property	Specification	Remarks
Focal Length	18mm	
F#	1.0	
Wavelength	8μm—14μm	
Image Diagonal	20mm	
Average Transmission	90	
Circular FOV	58°	
Back Focus Distance	31mm	
Back Working Distance	18.9mm	
Dimensions	Length 73.5mm, Φ67mm	
Focus Type	Manual Focus	
Focus Range	-	
Mount Type	M65*1	
Detector	640*480pixels, 25μm	
Weight	-	
Environmental		
Operating Temperature	-20°C to +60°C	
Storage Temperature	-40°C to +80°C	
External Coating	AR or DLC	Upon Request
Humidity	100%RH at 26°C and 74%RH at 35°C for 24 hours	

Drawing

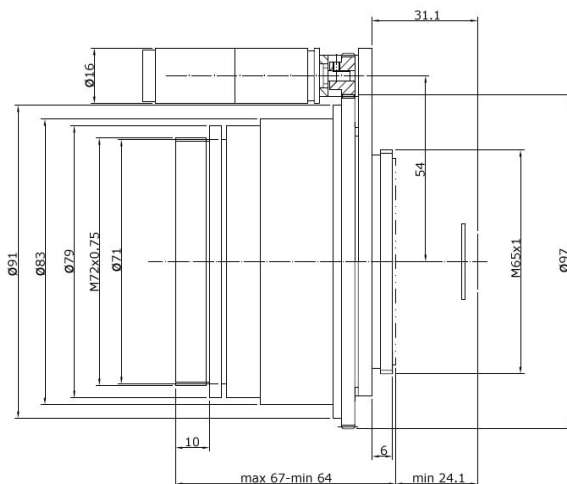


LWIR Lens 8-12μm

Part no.: IR05008640-B31-MOT

Opto-Mechanic Property	Specification	Remarks
Focal Length	50mm	
F#	0.8	
Wavelength	8μm—12μm	
Image Diagonal	20mm	
Average Transmission	90%@8-12μm	
Circular FOV	22.62°	
Back Focus Distance	31.1mm	
Back Working Distance	24.1mm	
Dimensions	Length 67mm, Ø91mm	
Focus Type	Motorized Focus	
Focus Range	-	
Mount Type	M65*1	
Detector	640*480pixels, 25μm	
Weight	725g	
Motor Voltage	12V DC	
Environmental		
Operating Temperature	-20°C to +60°C	
Storage Temperature	-40°C to +80°C	
External Coating	AR or DLC	Upon Request
Humidity	100%RH at 26°C and 74%RH at 35°C for 24 hours	

Drawing

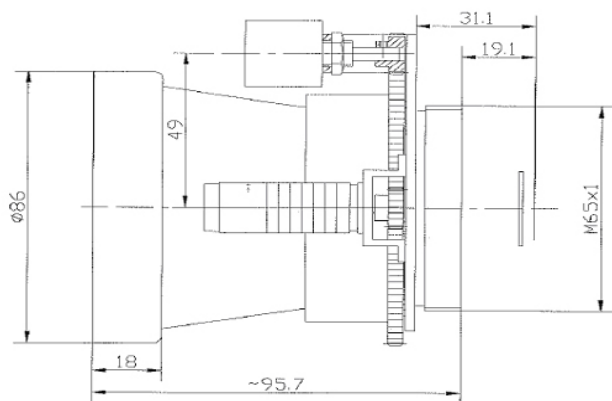


LWIR Lens 8-12μm

Part no.: IR07510640-B31-MOT

Opto-Mechanic Property	Specification	Remarks
Focal Length	75mm	
F#	1.0	
Wavelength	8μm—12μm	
Image Diagonal	20mm	
Average Transmission	>85%@8-12μm	
Circular FOV	15.19°	
Back Focus Distance	31.1mm	
Back Working Distance	19.1mm	
Dimensions	Length 95.7mm, Ø86mm	
Focus Type	Motorized Focus	
Focus Range	2.5m to infinity	
Mount Type	M65*1	
Detector	640*480pixels, 25μm	
Weight	-	
Motor Voltage	12V DC	
Environmental		
Operating Temperature	-20°C to +60°C	
Storage Temperature	-40°C to +80°C	
External Coating	AR or DLC	Upon Request
Humidity	100%RH at 26°C and 74%RH at 35°C for 24 hours	

Drawing

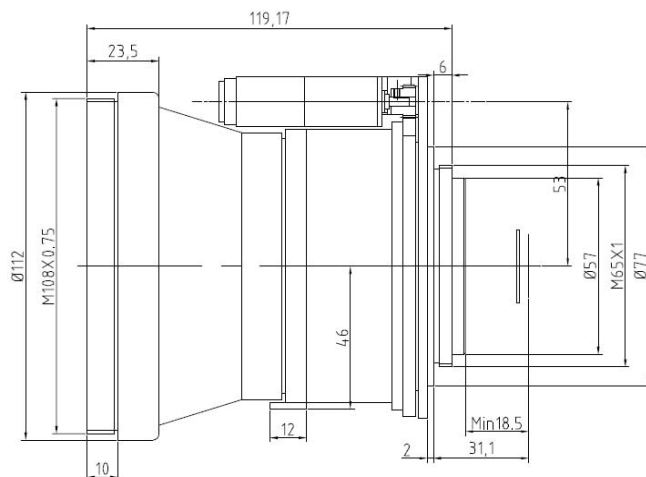


LWIR Lens 8-12μm

Part no.: IR10010640-B31-MOT

Opto-Mechanic Property	Specification	Remarks
Focal Length	100mm	
F#	1.0	
Wavelength	8μm—12μm	
Image Diagonal	20mm	
Average Transmission	>85%@8-12μm	
Circular FOV	11.42°	
Back Focus Distance	31.1mm	
Back Working Distance	18.5mm	
Dimensions	Length119.17mm, Φ112mm	
Focus Type	Motorized Focus	
Focus Range	-	
Mount Type	M65*1	
Detector	640*480pixels, 25μm	
Weight	-	
Motor Voltage	12V DC	
Environmental		
Operating Temperature	-20°C to +60°C	
Storage Temperature	-40°C to +80°C	
External Coating	AR or DLC	Upon Request
Humidity	100%RH at 26°C and 74%RH at 35°C for 24 hours	

Drawing



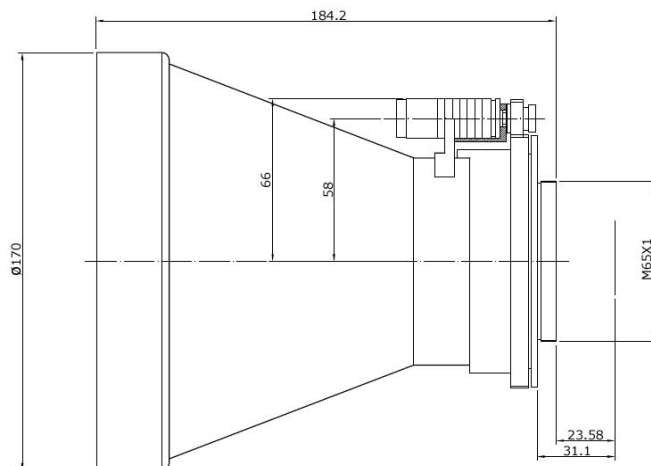
LWIR Lens
(8-12μm)

LWIR Lens 8-12μm

Part no.: IR15010640-B31-MOT

Opto-Mechanic Property	Specification	Remarks
Focal Length	150mm	
F#	1.0	
Wavelength	8μm—12μm	
Image Diagonal	20mm	
Average Transmission	>85%@8-12μm	
Circular FOV	11.42°	
Back Focus Distance	31.1mm	
Back Working Distance	23.58mm	
Dimensions	Length184.2mm, Φ170mm	
Focus Type	Motorized Focus	
Focus Range	20m to infinity	
Mount Type	M65*1	
Detector	640*480pixels, 25μm	
Weight	2425g	
Motor Voltage	12V DC	
Environmental		
Operating Temperature	-20°C to +60°C	
Storage Temperature	-40°C to +80°C	
External Coating	AR or DLC	Upon Request
Humidity	100%RH at 26°C and 74%RH at 35°C for 24 hours	

Drawing

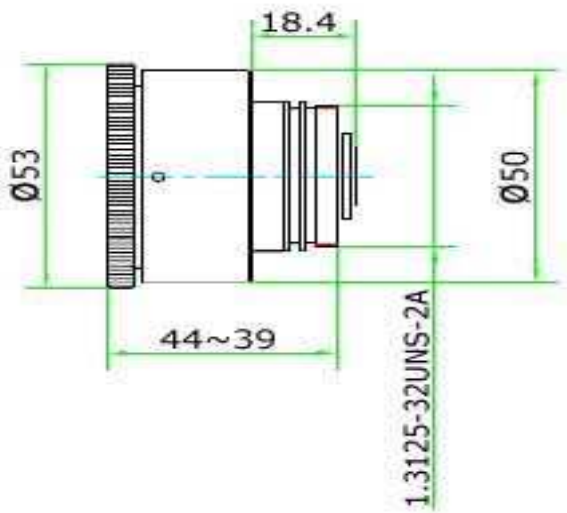


LWIR Lens 8-12μm

Part no.: IR25-1.0-4500

Opto-Mechanic Property	Specification	Remarks
Focal Length	25mm	
F#	1.0	
Wavelength	8μm—12μm	
Image Diagonal	12mm	
Average Transmission	>85%@8-12μm	
Circular FOV	26.99°	
Back Focus Distance	18.4mm	
Back Working Distance	14mm	
Dimensions	Length44~39mm, Φ53mm	
Focus Type	Manual Focus	
Focus Range	-	
Mount Type	1.3125-32UNS-2A	
Detector	320*240pixels, 30μm	
Weight	-	
Environmental		
Operating Temperature	-20°C to +60°C	
Storage Temperature	-40°C to +80°C	
External Coating	DLC	Diamond like coating
Humidity	100%RH at 26°C and 74%RH at 35°C for 24 hours	

Drawing



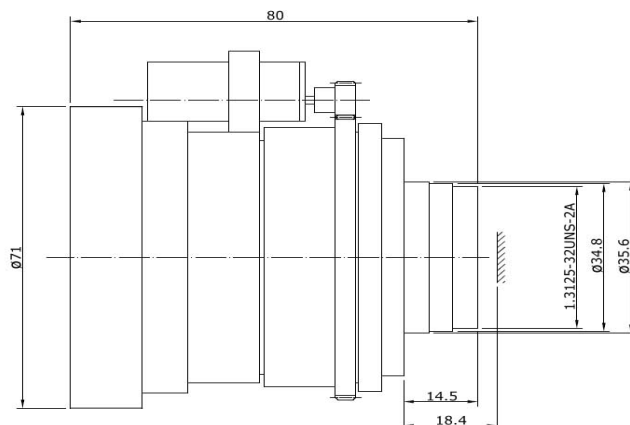
LWIR Lens
(8-12μm)

LWIR Lens 8-12μm

Part no.: IR50-0.8-4500-MOT

Opto-Mechanic Property	Specification	Remarks
Focal Length	50mm	
F#	0.8	
Wavelength	8μm—12μm	
Image Diagonal	16.8mm	
Average Transmission	>85%@8-12μm	
Circular FOV	19.07°	
Back Focus Distance	18.4mm	
Back Working Distance	3.9mm	
Dimensions	Length80mm, Φ71mm	
Focus Type	Motorized Focus	
Focus Range	-	
Mount Type	1.3125-32UNS-2A	
Detector	320*240pixels, 30μm	
	384*288pixels, 35μm	
Weight	-	
Motor Voltage	12V DC	
Environmental		
Operating Temperature	-20°C to +60°C	
Storage Temperature	-40°C to +80°C	
External Coating	DLC	Diamond like coating
Humidity	100%RH at 26°C and 74%RH at 35°C for 24 hours	

Drawing

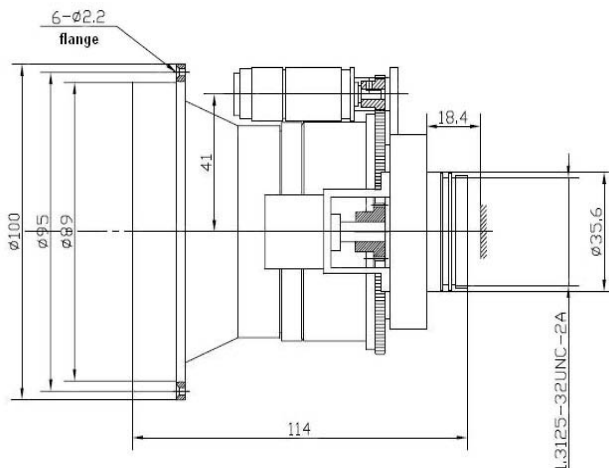


LWIR Lens 8-12μm

Part no.: IR75-1.0-4500-MOT

Opto-Mechanic Property	Specification	Remarks
Focal Length	75mm	
F#	1.0	
Wavelength	8μm—12μm	
Image Diagonal	12mm	
Average Transmission	>85%@8-12μm	
Circular FOV	9.15°	
Back Focus Distance	18.4mm	
Back Working Distance	Refer to drawing	
Dimensions	Length115.9mm, Ø89mm	
Focus Type	Motorized Focus	
Focus Range	-	
Mount Type	1.3125-32UNS-2A	
Detector	320*240pixels, 30μm	
Weight	700g	
Motor Voltage	12V DC	
Environmental		
Operating Temperature	-20°C to +60°C	
Storage Temperature	-40°C to +80°C	
External Coating	DLC	Diamond like coating
Humidity	100%RH at 26°C and 74%RH at 35°C for 24 hours	

Drawing



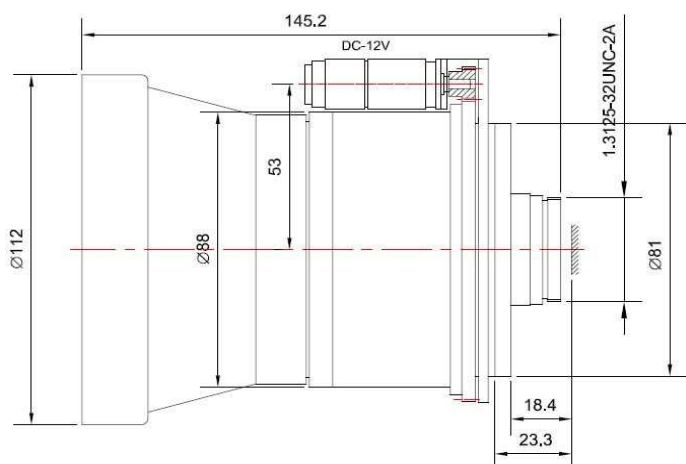
LWIR Lens
(8-12μm)

LWIR Lens 8-12μm

Part no.: IR100-1.0-4500-MOT

Opto-Mechanic Property	Specification	Remarks
Focal Length	100mm	
F#	1.0	
Wavelength	8μm—12μm	
Image Diagonal	16.8mm	
Average Transmission	>85%@8-12μm	
Circular FOV	9.6°	
Back Focus Distance	18.4mm	
Back Working Distance	Refer to drawing	
Dimensions	Length145.2mm, Φ112mm	
Focus Type	Motorized Focus	
Focus Range	-	
Mount Type	1.3125-32UNC-2A	
Detector	384*288pixels, 35μm	
Weight	-	
Motor Voltage	12V DC	
Environmental		
Operating Temperature	-20°C to +60°C	
Storage Temperature	-40°C to +80°C	
External Coating	DLC	Diamond like coating
Humidity	100%RH at 26°C and 74%RH at 35°C for 24 hours	

Drawing

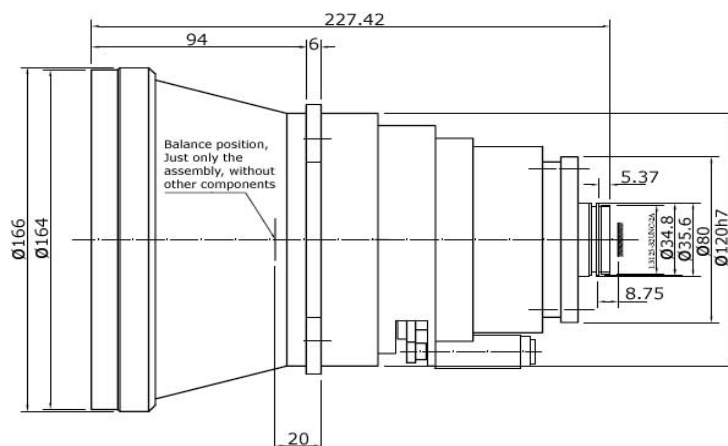


LWIR Lens 8-12μm

Part no.: IR150-1.0-4500-MOT

Opto-Mechanic Property	Specification	Remarks
Focal Length	150mm	
F#	1.0	
Wavelength	8μm—12μm	
Image Diagonal	16.8mm	
Average Transmission	>85%@8-12μm	
Circular FOV	9.6°	
Back Focus Distance	8.75mm	
Back Working Distance	Refer to Drawing	
Dimensions	Length227.42mm, Φ166mm	
Focus Type	Motorized Focus	
Focus Range	-	
Mount Type	1.3125-32UNC-2A	
Detector	320*240pixels, 30μm	
	384*288pixels, 35μm	
Weight	-	
Motor Voltage	12V DC	
Environmental		
Operating Temperature	-20°C to +60°C	
Storage Temperature	-40°C to +80°C	
External Coating	DLC	Diamond like coating
Humidity	100%RH at 26°C and 74%RH at 35°C for 24 hours	

Drawing



LWIR Lens 8-12μm



Part no.: IR50-1.0-1024

Opto-Mechanic Property	Specification	Remarks
Focal Length	50mm	
F#	1.0	
Wavelength	8μm—12μm	
Image Diagonal	24.62mm	
Average Transmission	>85%@8-12μm	
Circular FOV	28°	
Back Focus Distance	16mm	
Back Working Distance	8mm	
Dimensions	Length68mm, Φ66mm	
Focus Type	Manual Focus	
Focus Range	-	
Mount Type	M59*12teeth/inch	
Detector	1024*1024pixels, 17μm	
Weight	-	
Environmental		
Operating Temperature	-20°C to +60°C	
Storage Temperature	-40°C to +80°C	
External Coating	DLC	Diamond like coating
Humidity	100%RH at 26°C and 74%RH at 35°C for 24 hours	

Drawing

