



CNGE THERMAL LENS CATALOGUE

| Since 1960



1960

Found In 1960

China Germanium Co., Ltd.(CNGE) was established in December 2012 with registered capital RMB 200 million; previously Nanjing"718" factory of the former ministry of metallurgical industry (founded in 1960), one of national key construction units during the "first five - year' period. The factory has been merged and becomes a subsidiary of the Fujian Susino Group in 2012.CNGE with 120,000m² , is located at Lishui Economic Development Zone, Nanjing, Jiangsu Province.

The company includes five business units engaged in the R&D, production, and sales of semiconductor substrate wafers, infrared material & lens, EO components, laser&photonics, and application systems. The company provides innovative solutions for the defense and security, nature conservation, sports hunting optics and industrial sectors.

1960

More than 100 sets of world market leading equipment.

CNGE now has several advanced, highly intelligent and perfect production lines for related products, of which the output and quality of germanium products are particularly prominent in the global market. The company has strong technical strength, advanced technology and equipment, and has more than 100 sets of leading equipments in the global market. Today, the company has more than 20 advanced patent technologies with independent intellectual property rights, with over 400 employees. Also, the compny has high tech talents and professional R & D team composed of a number of workers with degree of Ph.D., master and bachelor as well as more than 50 engineering and technical personnel.

20

Over 20 advanced patented technologies.

400

More than 400 employees.



MWIR & LWIR LENS SERIES

MOTORIZED FOCUS

Model	FL;F#	Remark
MWIR/CNGE-1030	10mm-300mm;F/#=4	1
MWIR/CNGE-1520	15mm-300mm;F/#=4	2
MWIR/CNGE-2014	20mm-275mm;F/#=5.5	3
MWIR/CNGE-3220	32mm-660mm;F/#=4	4
MWIR/CNGE-5020	50mm-1000mm;F/#=5.5	5
MWIR/CNGE-10010	100mm-1100mm;F/#=5.5	6

ELECTRIC FOCUSING & FIXED

Model	FL;F#	Remark
LWIR/CNGE-10F1-75	75mm;F/#=1.0	7
LWIR/CNGE-10F1-100	100mm;F/#=1.0	8
LWIR/CNGE-10F1-100-U	100mm;F/#=1.0	9
LWIR/CNGE-10F1-160	160mm;F/#=1.0	10

ELECTRIC FOCUSING & ZOOM

Model	FL;F#	Remark
LWIR/CNGE-10F1-25-75	25mm-75mm;F/#=1.0	11
LWIR/CNGE-10F1-25-75-U	25mm-75mm;F/#=1.2	12
LWIR/CNGE-11F1-22.5-90	22.5mm-90mm;F/#=1.1	13
LWIR/CNGE-10F1-20-100	20mm-100mm;F/#=1.0	14
LWIR/CNGE-12F1-25-150	25mm-150mm;F/#=0.8/1.2	15
LWIR/CNGE-12F1-30-160	30mm-160mm;F/#=1.2	16
LWIR/CNGE-12F1-30-160-U	30mm-160mm;F/#=1.2	17
LWIR/CNGE-14F1-30-180-U	30mm-180mm;F/#=1.4	18
LWIR/CNGE-15F1-25-225	25mm-225mm;F/#=1.5	19
LWIR/CNGE-15F1-25-225-U	25mm-225mm;F/#=1.0-1.5	20
LWIR/CNGE-15F1-15-300	15mm-300mm;F/#=1.5	21
LWIR/CNGE-15F1-30-300	30mm-300mm;F/#=0.8@30/1.3@300	22

MWIR & LWIR LENS SERIES

MANUAL FOCUSING & FIXED FOCUS

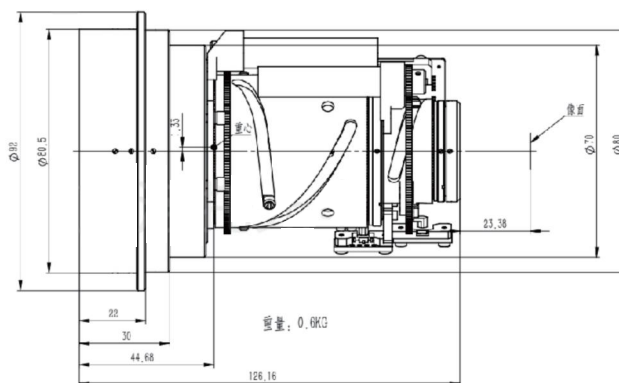
Model	FL;F#	Remark
LWIR/CNGE-10F2-5	5mm;F/#=1.25	23
LWIR/CNGE-10F2-7	7mm; F/#=1.1	24
LWIR/CNGE- 10F2-25	25mm;F/#=1.0	25
LWIR/CNGE- 10F2-35	35mm;F/#=1.0	26
LWIR/CNGE-10F2-35-U	30mm;F/#=1.0	27
LWIR/CNGE- 10F2-50	50mm;F/#=1.0	28
LWIR/CNGE- 10F2-75	75mm;F/#=1.0	29
LWIR/CNGE- 10F2-90	90mm;F/#=1.0	30
LWIR/CNGE-10F2-90-U	90mm; F/#=1.0	31
LWIR/CNGE- 12F2-100	100mm;F/#=1.2	32

MANUAL FOCUSING & ATHERMALIZED

Model	FL;F#	Remark
LWIR/CNGE-10F3-6.3	6.3mm;F/#=1.0	33
LWIR/CNGE-10F3-9.1	9.1mm;F/#=1.0	34
LWIR/CNGE-10F3-13	13mm;F/#=1.0	35
LWIR/CNGE-10F3-25	25mm;F/#=1.0	36
LWIR/CNGE-10F3-25-U	25mm;F/#=1.2	37
LWIR/CNGE-10F3-35	35mm;F/#=1.0	38
LWIR/CNGE-10F3-121	121mm; F/#=1.2	39

CNGE-1030

中波红外连续变焦镜头 10mm-300mm
电动对焦 Motorized Focus



光学部分Optical

焦距Focal Length(mm)	10mm -300mm	
探测器Detector	F/#=4;640*512array, 15μm	
光谱范围Spectral Range(μm)	3-5μm	
视场角FOV	51.28°×42.01°	1.83°×1.47°
光学膜层Optical Film	首面DLC保护膜, 内部高透过率增透膜 Front DLC protective film, inner high permeability anti-reflection film	
畸变Distortion	<4%	

机械部分Mechanical

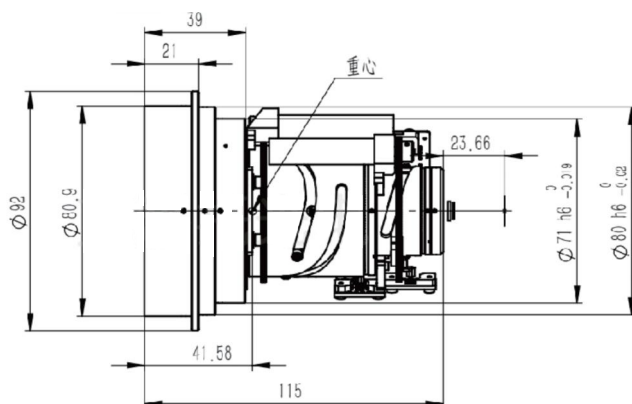
聚焦方式Focus Mechanism	电动对焦Motorized Focus
驱动电压Driving Voltage	12~30VDC
重量Weight(kg)	0.6
光机尺寸Dimensions(mm)	92mm(D)×126mm(L)

环境部分 Environmental

工作温度 Operating Temperature	-40°C~+60°C
存放温度 Storage Temperature	-40°C~+70°C
首片防护等级 Front Lens Sealing	IP66

CNGE-1520

中波红外连续变焦镜头15mm-300mm 电动对焦 Motorized Focus



光学部分Optical

焦距Focal Length(mm)	15mm -300mm	
探测器Detector	F/#=4;640*512array, 15μm	
光谱范围Spectral Range(μm)	3-5μm	
视场角FOV	51.28°×42.01°	1.83°×1.47°
光学膜层Optical Film	首面DLC保护膜, 内部高透过率增透膜 Front DLC protective film, inner high permeability anti-reflection film	
畸变Distortion	<4%	

机械部分Mechanical

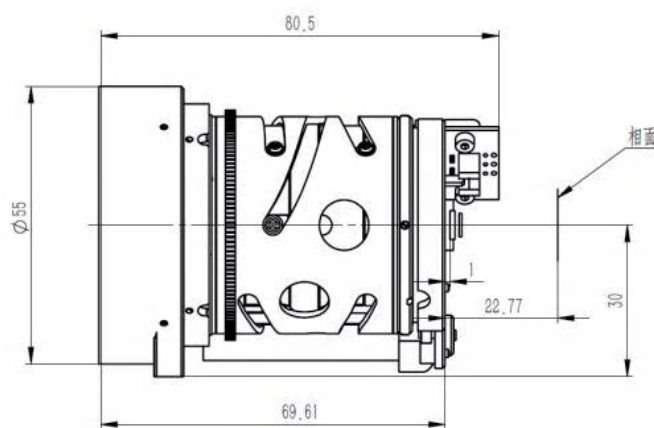
聚焦方式Focus Mechanism	电动对焦Motorized Focus	
驱动电压Driving Voltage	12~30VDC	
重量Weight(kg)	0.7	
光机尺寸Dimensions(mm)	92mm(D)×126mm(L)	

环境部分 Environmental

工作温度 Operating Temperature	-40°C~+60°C	
存放温度 Storage Temperature	-40°C~+70°C	
首片防护等级 Front Lens Sealing	IP66	

CNGE-2014

中波红外连续变焦镜头20mm-275mm 电动调焦 Electric Focusing



光学部分Optical

焦距Focal Length(mm)	20mm -275mm	
探测器Detector	F/#=5.5;640*512array, 15μm	
光谱范围Spectral Range(μm)	3.7-4.8μm	
视场角FOV	27° x 21.74°	2° x 1.6°
光学膜层Optical Film	首面DLC保护膜, 内部高透过率增透膜 Front DLC protective film, inner high permeability anti-reflection film	
畸变Distortion	<4%	

机械部分Mechanical

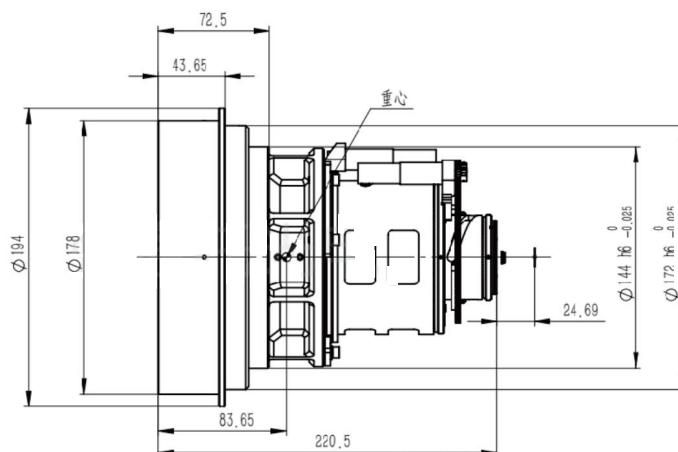
聚焦方式Focus Mechanism	电动调焦Electric focusing
驱动电压Driving Voltage	12~30VDC
重量Weight(kg)	0.28
光机尺寸Dimensions(mm)	55mm(D)×69.61mm(L)

环境部分 Environmental

工作温度 Operating Temperature	-40℃~+60℃
存放温度 Storage Temperature	-40℃~+70℃
首片防护等级 Front Lens Sealing	IP66

CNGE-3220

中波红外连续变焦镜头32mm-660mm 电动对焦 Motorized Focus



光学部分Optical

焦距Focal Length(mm)	32mm -660mm
探测器Detector	F/#=4;640*512array, 15μm
光谱范围Spectral Range(μm)	3-5μm
视场角FOV	17.06°X13.69°
光学膜层Optical Film	首面DLC保护膜, 内部高透过率增透膜 Front DLC protective film, inner high permeability anti-reflection film
畸变Distortion	<5%

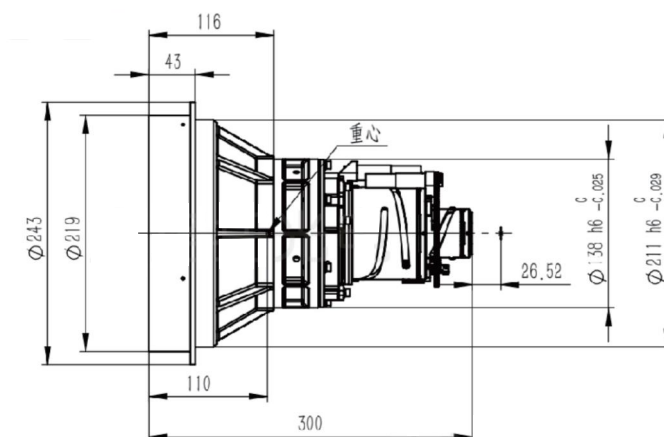
机械部分Mechanical

聚焦方式Focus Mechanism	电动对焦Motorized Focus
驱动电压Driving Voltage	12~30VDC
重量Weight(kg)	3.75
光机尺寸Dimensions(mm)	210mm(D)×220mm(L)

环境部分 Environmental

工作温度 Operating Temperature	-40°C~+60°C
存放温度 Storage Temperature	-40°C~+70°C
首片防护等级 Front Lens Sealing	IP66

中波红外连续变焦镜头50mm-1000mm 电动对焦 Motorized Focus

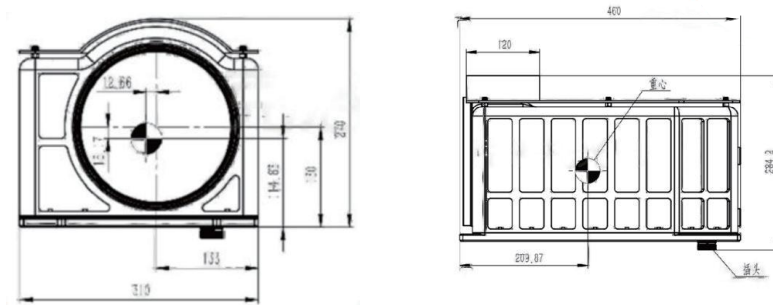


IP66

CNGE-10010

中波红外连续变焦镜头100mm-1100mm

电动对焦 Motorized Focus



光学部分Optical

焦距Focal Length(mm)	100mm -1100mm	
探测器Detector	F/#=5.5;640*512array, 15μm	
光谱范围Spectral Range(μm)	3-5μm	
视场角FOV	5.49°×4.39°	0.55°×0.44°
光学膜层Optical Film	首面DLC保护膜, 内部高透过率增透膜 Front DLC protective film, inner high permeability anti-reflection film	
畸变Distortion	<5%	

机械部分Mechanical

聚焦方式Focus Mechanism	电动对焦Motorized Focus	
驱动电压Driving Voltage	12~30VDC	
重量Weight(kg)	17	
光机尺寸Dimensions(mm)	310mm(W)×284.2mm(D)×460mm(L)	

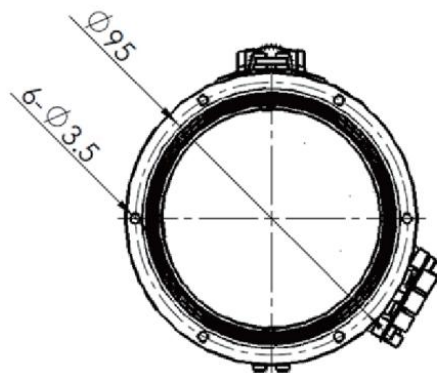
环境部分 Environmental

工作温度 Operating Temperature	-40°C~+60°C	
存放温度 Storage Temperature	-40°C~+70°C	
首片防护等级 Front Lens Sealing	IP66	

CNGE-10F1-75

长波红外定焦镜头 75mm

电动调焦 Electric focusing



光学部分Optical

焦距Focal Length(mm)	75mm
F/#	1.0
光谱范围Spectral Range(μm)	8-12μm
探测器分辨率及像元DetectorType/size(μm)	640×512(12μm) 、384×288(12μm)
视场角FOV	5.8°×4.6° 3.5°×2.6°
透过率 Average Transmission(8~12μm)	≥88%(DLC)

机械部分Mechanical

聚焦方式Focus Mechanism	电动对焦Motorized Focus
驱动电压Driving Voltage	DC12V
重量Weight(kg)	≤0.7
光机尺寸Dimensions(mm)	Φ102×L99.3

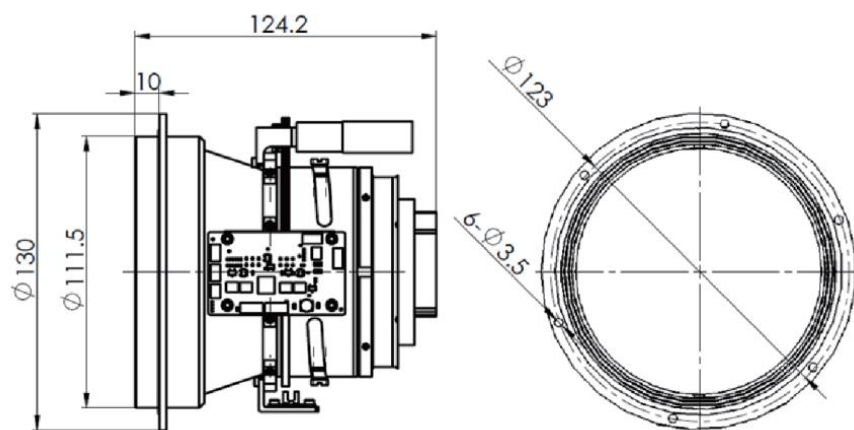
环境部分 Environmental

工作温度 Operating Temperature	-40°C~+60°C
存放温度 Storage Temperature	-45°C~+70°C
首片防护等级 Front Lens Sealing	IP67

CNGE-10F1-100

长波红外定焦镜头 100 mm

电动调焦 Electric focusing



光学部分Optical

焦距Focal Length(mm)	100mm
F/#	1.0
光谱范围Spectral Range(μm)	8-12μm
探测器分辨率及像元DetectorType/size(μm)	640×512(12μm) 、 384×288(12μm)
视场角FOV	4.4° × 3.5° 2.6° × 1.9°
透过率 Average Transmission(8~12μm)	≥88%(DLC)

机械部分Mechanical

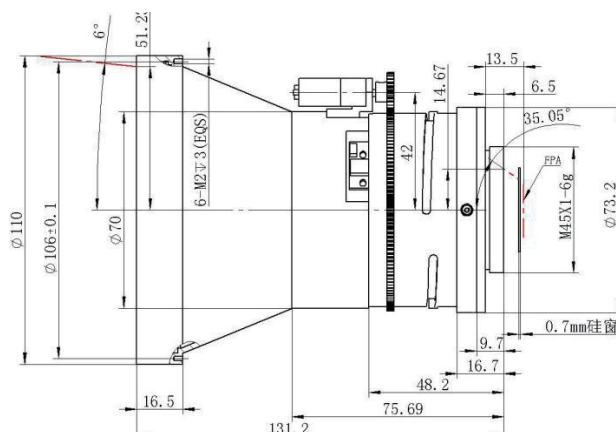
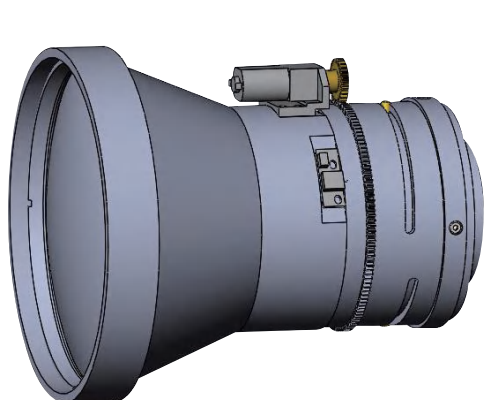
聚焦方式Focus Mechanism	电动对焦Motorized Focus
驱动电压Driving Voltage	DC12V
重量Weight(kg)	≤1
光机尺寸Dimensions(mm)	Φ130×L124

环境部分 Environmental

工作温度 Operating Temperature	-40℃~+60℃
存放温度 Storage Temperature	-45℃~+70℃
首片防护等级 Front Lens Sealing	IP67

CNGE-10F1-100-U

长波红外定焦镜头 100mm
电动调焦 Electric Focusing



光学部分Optical

焦距Focal Length(mm)	100mm
F/#	1.0
光谱范围Spectral Range(μm)	8-12μm
探测器分辨率及像元DetectorType/size(μm)	1280X1024 12μm
视场角FOV	8.78°X7°
透过率Average Transmission(8~12μm)	≥88% (DLC), ≥94%(AR)

机械部分Mechanical

聚焦方式Focus Mechanism	Electric focusing
重量Weight	< 780g
光机尺寸 (mm)	Φ88xL107

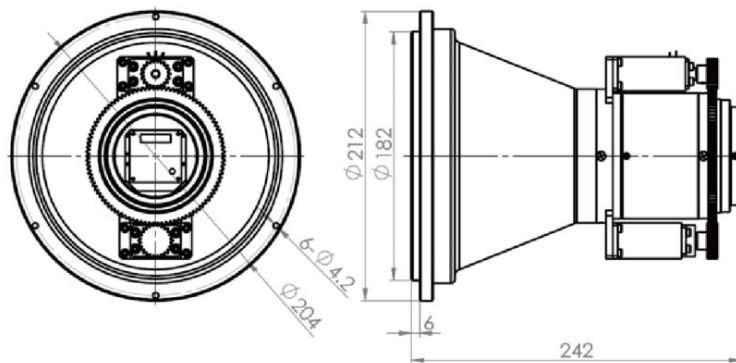
Environmental

工作温度 Operating Temperature	-40°C~+60°C
储存温度Storage Temperature	-45°C~+70°C
首片防护Front Lens Sealing	IP67(Only Lens)

CNGE-10F1-160

长波红外定焦镜头 160mm

电动调焦 Electric focusing



光学部分Optical

焦距Focal Length(mm)	160mm
F/#	1.0
光谱范围Spectral Range(μm)	8-12 μm
探测器分辨率及像元DetectorType/size(μm)	640×512(17 μm)、336×256(17 μm)
视场角FOV	3.9°×3° 2°× 1.5°
透过率 Average Transmission(8~12 μm)	≥88%(DLC)

机械部分Mechanical

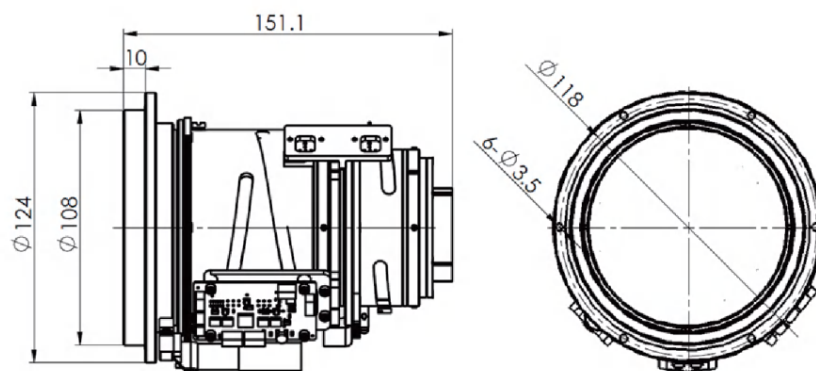
聚焦方式Focus Mechanism	电动对焦Motorized Focus
驱动电压Driving Voltage	DC12V
重量Weight(kg)	≤4
光机尺寸Dimensions(mm)	$\Phi 212 \times L242$

环境部分 Environmental

工作温度 Operating Temperature	-40°C~+60°C
存放温度 Storage Temperature	-45°C~+70°C
首片防护等级 Front Lens Sealing	IP67

CNGE-10F1-25-75

长波红外连续变焦镜头 25-75 mm
电动调焦 Electric focusing



光学部分Optical

焦距Focal Length(mm)	25-75mm
F/#	1.0
光谱范围Spectral Range(μm)	8-12μm
探测器分辨率及像元DetectorType/size(μm)	640 × 512(12μm) 、 384 × 288(12μm)
视场角FOV	17.4 ° × 14 ° ~ 5.8 ° × 4.6 10.5 ° × 7.9 ° ~ 3.5 ° × 2.6 °
透过率 Average Transmission(8 ~ 12μm)	≥80%(DLC)

机械部分Mechanical

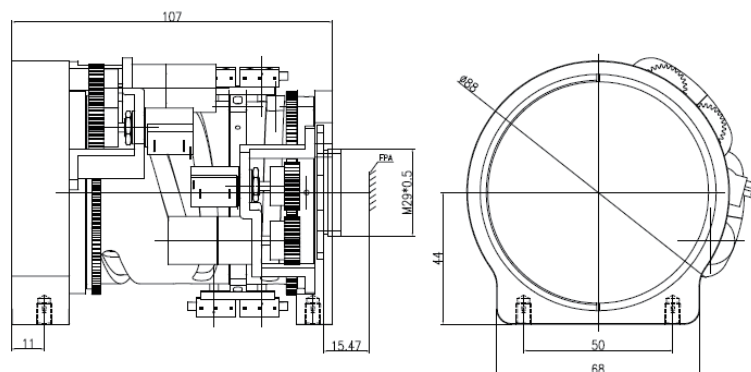
聚焦方式Focus Mechanism	电动调焦Electric focusing
驱动电压Driving Voltage	DC12V
重量Weight(kg)	≤1.5
光机尺寸Dimensions(mm)	Φ124 × L151

环境部分 Environmental

工作温度 Operating Temperature	-40°C~+60°C
存放温度 Storage Temperature	-45°C~+70°C
首片防护等级 Front Lens Sealing	IP67

CNGE-10F1-25-75-U

长波红外连续变焦镜头 25-75mm
电动调焦Electric focusing



光学部分Optical

焦距Focal Length(mm)	25-75mm±5%
F/#	1.2
光谱范围Spectral Range(μm)	8-12μm
探测器分辨率及像元 DetectorType/size (μm)	640x512 (17μm)
视场角FOV	24.6°x19.8°~8.3°x6.6°
透过率 Average Transmission(8~12μm)	>84% (DLC)

机械部分Mechanical

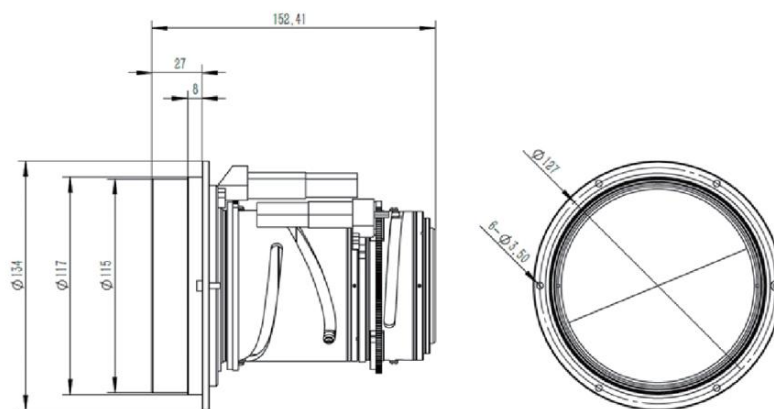
调焦方式Focus Mechanism	电动调焦Electric focusing
重量Weights (kg)	2.51±5%
光机尺寸Dimensions (mm)	Φ107xL107

环境部分 Environmental

工作温度 Operating Temperature	40°C~+60°C
储存温度Storage Temperature	-40°C~+80°C
首片防护Front lens Sealing	IP67 (First lens)

CNGE-11F1-22.5-90

长波红外连续变焦镜头 22.5-90 mm
电动调焦 Electric focusing



光学部分Optical

焦距Focal Length(mm)	22.5-90mm
F/#	1.1
光谱范围Spectral Range(μm)	8-12μm
探测器分辨率及像元DetectorType/size(μm)	640×512(17μm) 、336×256(17μm)
视场角FOV	27.1°×21.9°~6.9°×5.5° 14.4°×11°~3.6°×2.7°
透过率 Average Transmission(8~12μm)	≥80%(DLC)

机械部分Mechanical

聚焦方式Focus Mechanism	电动调焦Electric focusing
驱动电压Driving Voltage	DC12V
重量Weight(kg)	≤2
光机尺寸Dimensions(mm)	Φ134× L153

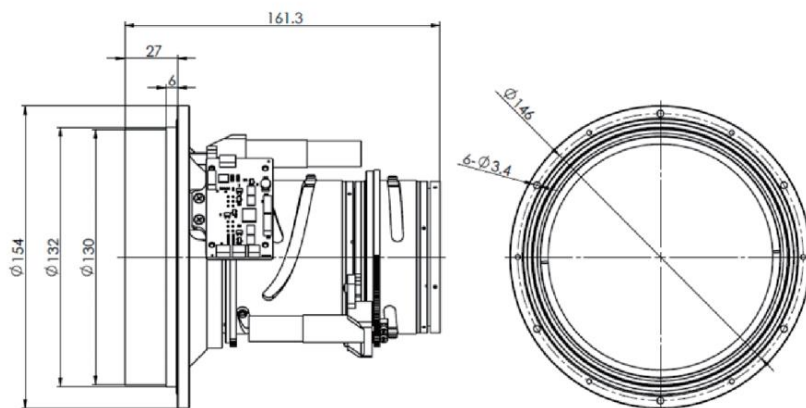
环境部分 Environmental

工作温度 Operating Temperature	-40℃~+60℃
存放温度 Storage Temperature	-45℃~+70℃
首片防护等级 Front Lens Sealing	IP67

CNGE-10F1-20-100

长波红外连续变焦镜头 20-100 mm

电动调焦 Electric focusing



光学部分Optical

焦距Focal Length(mm)	20-100mm	
F/#	1.0	
光谱范围Spectral Range(μm)	8-12μm	
探测器分辨率及像元DetectorType/size(μm)	640×512(12μm) 、 384×288(12μm)	
视场角FOV	21.7°× 17.4°~4.4°×3.5°	13.1°×9.8°~2.6°× 1.9°
透过率 Average Transmission(8~12μm)	≥80%(DLC)	

机械部分Mechanical

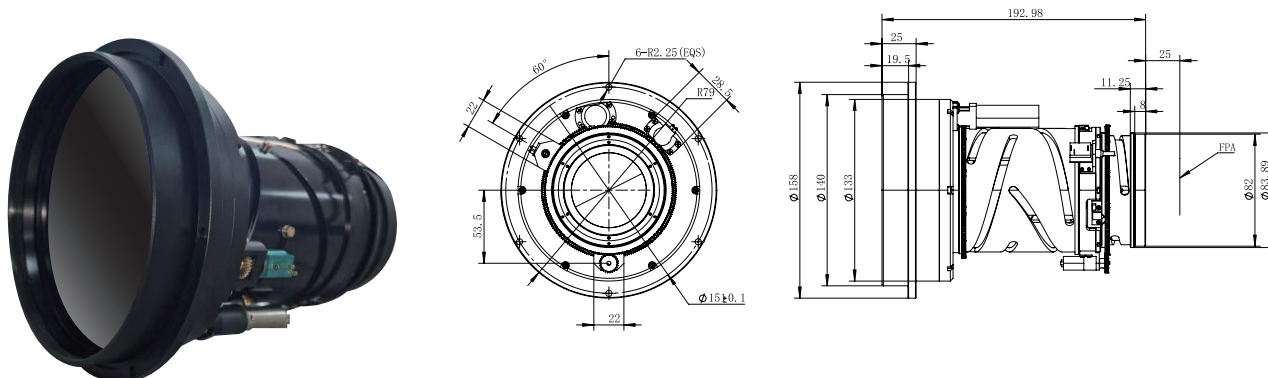
聚焦方式Focus Mechanism	电动调焦Electric focusing	
驱动电压Driving Voltage	DC12V	
重量Weight(kg)	≤2.5	
光机尺寸Dimensions(mm)	Φ154×L161	

环境部分 Environmental

工作温度 Operating Temperature	-40℃~+60℃	
存放温度 Storage Temperature	-45℃~+70℃	
首片防护等级 Front Lens Sealing	IP67	

CNGE-12F1-25-150

长波红外连续变焦镜头 25-150mm
电动调焦 Electric focusing



光学部分Optical

焦距Focal Length(mm)	25-150mm(6X continuous zoom)
F/#	0.8/1.2
光谱范围Spectral Range(μm)	8~12μm
探测器分辨率及像元 DetectorType/size (μm)	640*512 (12um)
视场角HFOV/VFOV: (f' 25/f' 150)	14.9°X 11.2°/2.5°X 1.9° (384X288 17um) 24.6°X 19.8°/4.2°X 3.3° (640X512 17um)
透过率 Average Transmission(8~12μm)	≥84% (DLC)

机械部分Mechanical

调焦方式Focus Mechanism	电动调焦Electric focusing
驱动电压 Driving Voltage	DC12V
重量Weights (kg)	2.15
光机尺寸Dimensions (mm)	φ158xL93

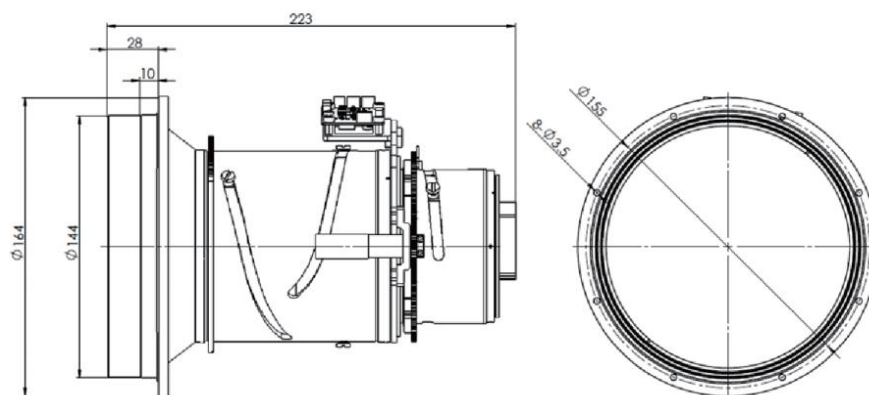
环境部分 Environmental

工作温度 Operating Temperature	-40°C~+60°C
存放温度 Storage Temperature	-45°C~+70°C
首片防护等级 Front Lens Sealing	IP67

CNGE-12F1-30-160

长波红外连续变焦镜头 30-160 mm

电动调焦 Electric focusing



光学部分Optical

焦距Focal Length(mm)	30-160mm
F/#	1.2
光谱范围Spectral Range(μm)	8-12μm
探测器分辨率及像元DetectorType/size(μm)	640×512(12μm) 、384×288(12μm)
视场角FOV	14.5°× 11.6°~2.7°×2.2° 8.7°×6.5°~ 1.6°×1.2°
透过率 Average Transmission(8~12μm)	≥80%(DLC)

机械部分Mechanical

聚焦方式Focus Mechanism	电动调焦Electric focusing
驱动电压Driving Voltage	DC12V
重量Weight(kg)	≤4
光机尺寸Dimensions(mm)	Φ164×L223

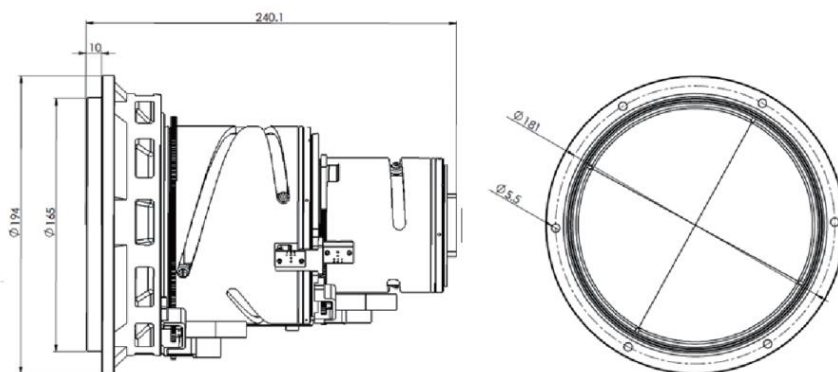
环境部分 Environmental

工作温度 Operating Temperature	-40℃~+60℃
存放温度 Storage Temperature	-45℃~+70℃
首片防护等级 Front Lens Sealing	IP67

CNGE-12F1-30-160-U

长波红外连续变焦镜头 30-160 mm

电动调焦 Electric focusing



光学部分Optical

焦距Focal Length(mm)	30-160mm	
F/#	1.2	
光谱范围Spectral Range(μm)	8-12μm	
探测器分辨率及像元DetectorType/size(μm)	640×512(12μm) 、1280× 1024(12μm)	
视场角FOV	14.5°× 11.6°~2.7 °×2.2°	28.7 °×23.1°~5.5 °×4.4°
透过率 Average Transmission(8~12μm)	≥80%(DLC)	

机械部分Mechanical

聚焦方式Focus Mechanism	电动调焦Electric focusing	
驱动电压Driving Voltage	DC12V	
重量Weight(kg)	≤4.5	
光机尺寸Dimensions(mm)	Φ194×L240	

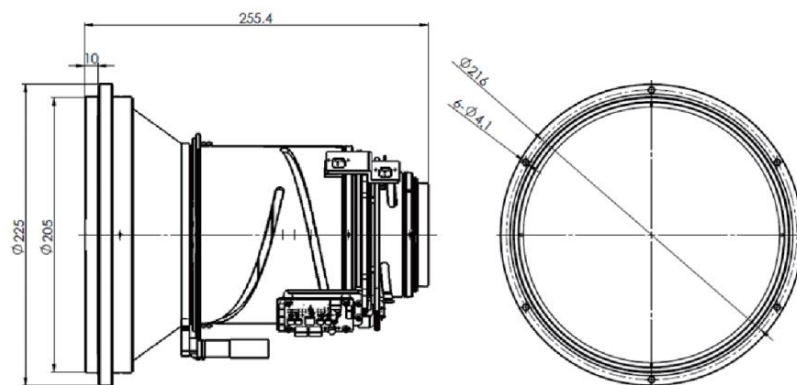
环境部分 Environmental

工作温度 Operating Temperature	-40℃~+60℃	
存放温度 Storage Temperature	-45℃~+70℃	
首片防护等级 Front Lens Sealing	IP67	

CNGE-14F1-180-U

长波红外连续变焦镜头 30-180 mm

电动调焦 Electric focusing



光学部分Optical

焦距Focal Length(mm)	30-180mm	
F/#	1.4	
光谱范围Spectral Range(μm)	8-12μm	
探测器分辨率及像元DetectorType/size(μm)	640×512(12μm) 、1280× 1024(12μm)	
视场角FOV	14.5°× 11.6°~2.4°× 1.9°	28.7°×23.1°~4.8°×3.9°
透过率 Average Transmission(8~12μm)	≥75%(DLC)	

机械部分Mechanical

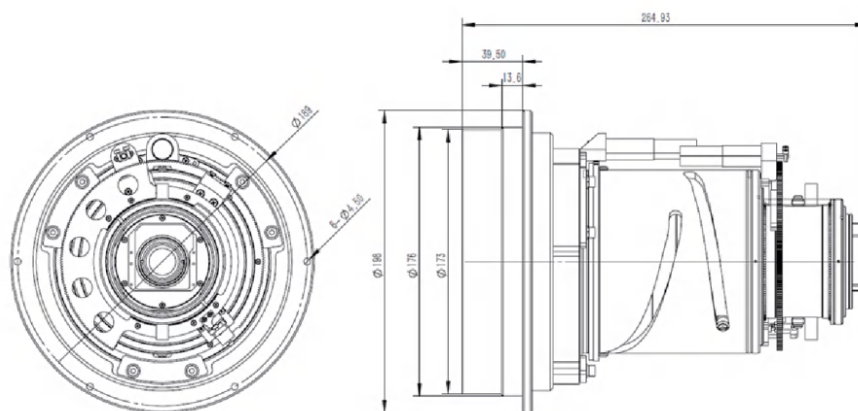
聚焦方式Focus Mechanism	电动调焦Electric focusing	
驱动电压Driving Voltage	DC12V	
重量Weight(kg)	≤6	
光机尺寸Dimensions(mm)	Φ225×L256	

环境部分 Environmental

工作温度 Operating Temperature	-40℃~+60℃	
存放温度 Storage Temperature	-45℃~+70℃	
首片防护等级 Front Lens Sealing	IP67	

CNGE-15F1-25-225

长波红外连续变焦镜头 25-225 mm
电动调焦 Electric focusing



光学部分Optical

焦距Focal Length(mm)	25-225mm
F/#	1.2
光谱范围Spectral Range(μm)	8-12μm
探测器分辨率及像元DetectorType/size(μm)	640×512(17μm) 、336×256(17μm)
视场角FOV	24.4°×20°~2.7°×2.2° 13°× 10°~ 1.4 °×1.1°
透过率 Average Transmission(8~12μm)	≥75%(DLC)

机械部分Mechanical

聚焦方式Focus Mechanism	电动调焦Electric focusing
驱动电压Driving Voltage	DC12V
重量Weight(kg)	≤5.5
光机尺寸Dimensions(mm)	Φ198×L265

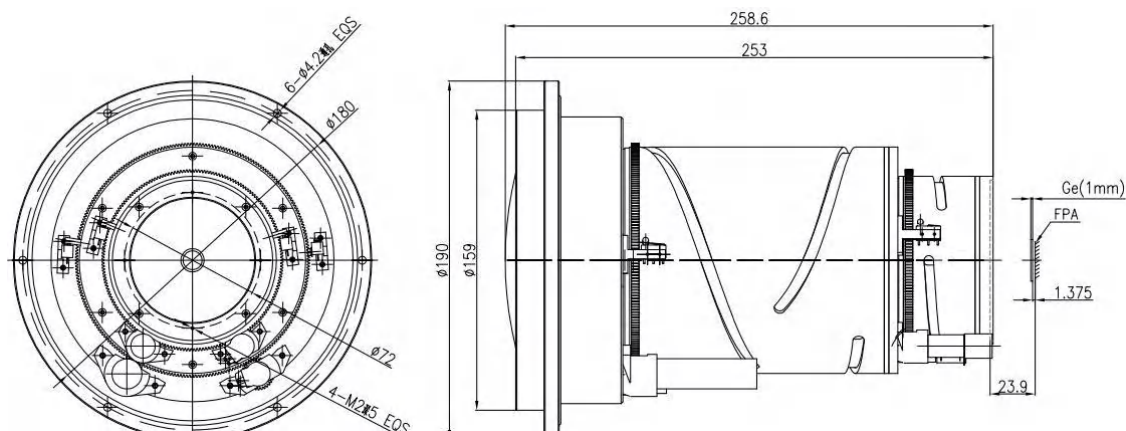
环境部分 Environmental

工作温度 Operating Temperature	-40℃~+60℃
存放温度 Storage Temperature	-45℃~+70℃
首片防护等级 Front Lens Sealing	IP67

CNGE-15F1-25-225-U

长波红外连续变焦镜头 25-225mm

电动调焦Electric focusing



光学部分Optical

焦距Focal Length(mm)	25~225mm±5%
F/#	1.0-1.5
光谱范围Spectral Range(μm)	8~12μm
探测器分辨率及像元 DetectorType/size (μm)	1280X1024 (12um)
视场角FOV	34.2° ×27.6° ~3.9° ×3.1°
透过率Average Transmission(8~12μm)	≥84% (DLC)

机械部分Mechanical

调焦方式Focus Mechanism	电动调焦Electric focusing
驱动电压 Driving Voltage	DC12V
重量Weight (kg)	3.6±5%
光机尺寸Dimensions (mm)	Φ190xL258.6

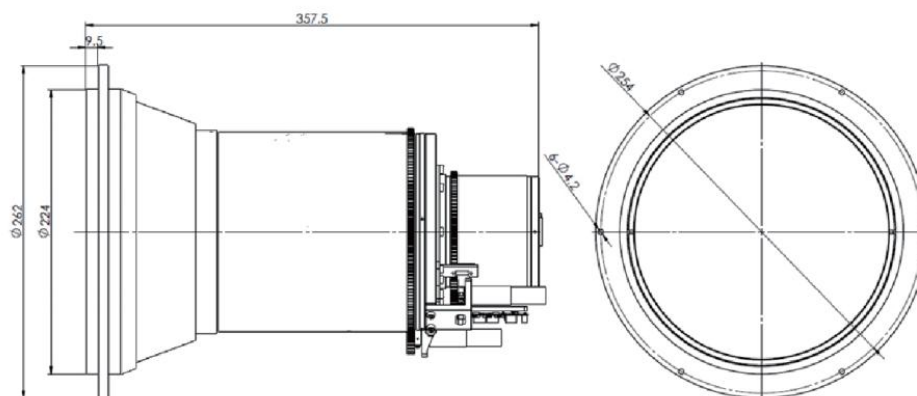
环境部分 Environmental

工作温度Operating Temperature	-40°C~+60°C
储存温度Storage Temperature	-45°C~+70°C
首片防护Front Lens Sealing	IP67

CNGE-15F1-15-300

长波红外连续变焦镜头 15-300 mm

电动调焦 Electric focusing



光学部分Optical

焦距Focal Length(mm)	15-300mm	
F/#	1.4	
光谱范围Spectral Range(μm)	8-12μm	
探测器分辨率及像元DetectorType/size(μm)	640×512(17μm) 、 336×256(17μm)	
视场角FOV	39.8°×32.3°~2°× 1.6°	21.5°× 16.5°~ 1.1°×0.8°
透过率 Average Transmission(8~12μm)	≥75%(DLC)	

机械部分Mechanical

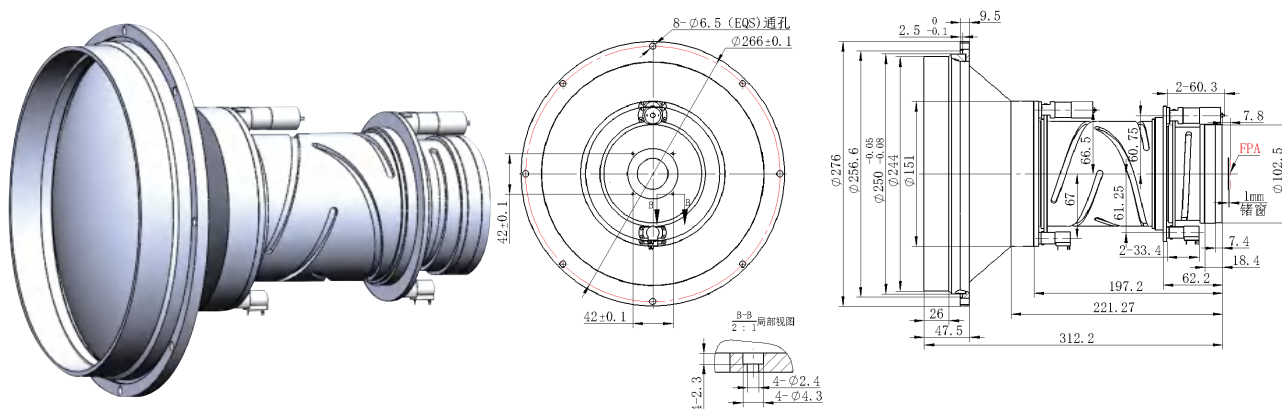
聚焦方式Focus Mechanism	电动调焦Electric focusing	
驱动电压Driving Voltage	DC12V	
重量Weight(kg)	≤9.4	
光机尺寸Dimensions(mm)	Φ262×L358	

环境部分 Environmental

工作温度 Operating Temperature	-40°C~+60°C	
存放温度 Storage Temperature	-45°C~+70°C	
首片防护等级 Front Lens Sealing	IP67	

CNGE-15F1-30-300

长波红外连续变焦镜头30-300mm
电动调焦Electric focusing



光学部分Optical

焦距Focal Length	30-300(10X)
F/#	0.8@30/1.3@300
光谱范围Spectral Range (μm)	8~12μm
探测器分辨率及像元 DetectorType/size (μm)	1280X1024 (12um)
视场角FOV	2.9°X2.3°/28.7°X 23.1°
透过率Average Transmission(8~12μm)	≥80% (DLC)

机械部分Mechanical

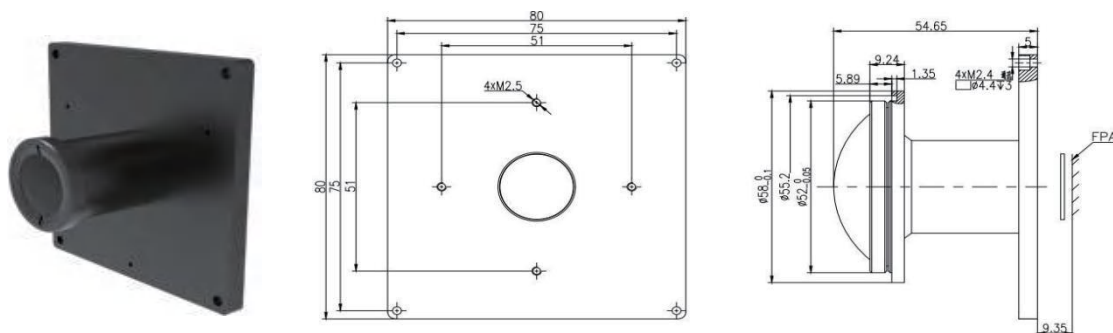
调焦方式Focus Mechanism	电动调焦Electric focusing
驱动电压Driving Voltage	DC12V
重量Weight(kg)	7.35
光机尺寸Dimensions(mm)	φ276×L312.2

环境部分 Environmental

工作温度Operating Temperature	-40°C~+60°C
储存温度Storage Temperature	-45°C~+70°C
首片防护Front Lens Sealing	IP67

CNGE-10F2-5

长波红外定焦镜头 5mm
手动调焦 Manual focusing



光学部分Optical

焦距Focal Length	5mm±5%
F/#	1.25
光谱范围Spectral Range (μm)	8~12μm
探测器分辨率及像元Detector Type/size(μm)	1280×1024(12μm)
视场角FOV	(H)144°×(V)122°
透过率Average Transmission(8~12μm)	>89% (DLC)

机械部分Mechanical

调焦方式Focus Mechanism	手动调焦Manual focusing
重量Weights	206.6g ±5%
光机尺寸Dimensions(mm)	Φ58xL54.65

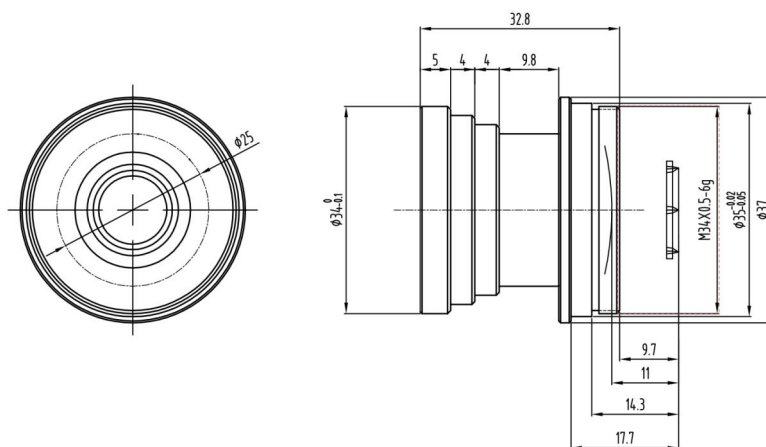
环境部分 Environmental

工作温度Operating Temperature	-40°C~+60°C
存储温度Storage Temperature	-40°C~+80°C
首片防护等级Front lens Sealing	IP67

CNGE-10F2-7

长波红外定焦镜头 7mm

手动调焦 Manual focusing



光学部分Optical

焦距Focal Length	7mm $\pm$ 5%
F/#	1.1
光谱范围Spectral Range (μ m)	8~12 μ m
探测器分辨率及像元Detector Type/size(μ m)	640 $\times$ 480(17 μ m)
视场角FOV	(H)80 $^\circ$ ×(V)60 $^\circ$ ×(D)102 $^\circ$
透过率Average Transmission(8~12 μ m)	>80% (DLC)

机械部分Mechanical

调焦方式Focus Mechanism	手动调焦Manual focusing
重量Weights	56g $\pm$ 5%
光机尺寸Dimensions (mm)	ϕ 37 $\times$ L32.8

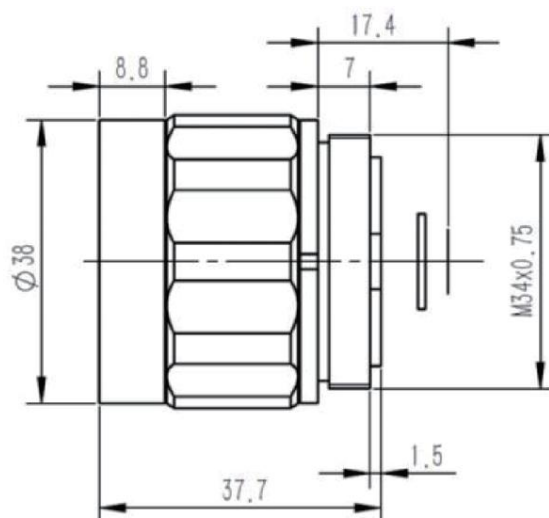
环境部分 Environmental

工作温度Operating Temperature	-40 $^\circ$ C~+80 $^\circ$ C
储存温度Storage Temperature	-40 $^\circ$ C~+80 $^\circ$ C
首片防护等级Front lens Sealing	IP67

CNGE-10F2-25

长波红外定焦镜头 25mm

手动调焦 Manual focusing



光学部分Optical

焦距Focal Length(mm)	25mm
F/#	1.0
光谱范围Spectral Range(μm)	8-12μm
探测器分辨率及像元DetectorType/size(μm)	640×512(12μm) 、 384×288(17μm)
视场角FOV	17.5°~ 14° 15 °× 11.2°
透过率 Average Transmission(8~12μm)	≥88%(DLC) ≥94%(AR)

机械部分Mechanical

聚焦方式Focus Mechanism	手动调焦Manual focusing
重量Weight(kg)	≤0.2
光机尺寸Dimensions(mm)	Φ38×L37.7

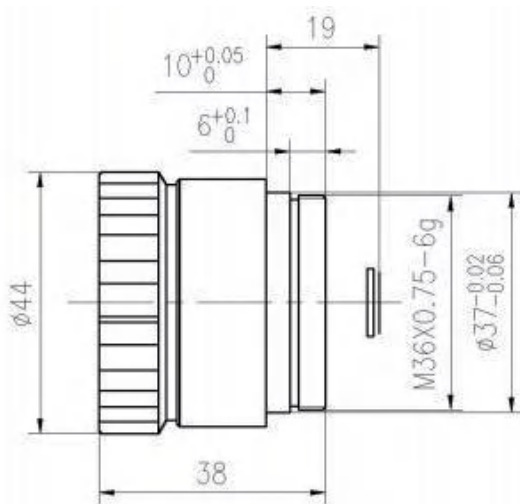
环境部分 Environmental

工作温度 Operating Temperature	-40℃~+60℃
存放温度 Storage Temperature	-45℃~+70℃
首片防护等级 Front Lens Sealing	IP67

CNGE-10F2-35

长波红外定焦镜头 35mm

手动调焦 Manual focusing



光学部分Optical

焦距Focal Length(mm)	35mm	
F/#	1.0	
光谱范围Spectral Range(μm)	8-12μm	
探测器分辨率及像元DetectorType/size(μm)	640×512(12μm) 、 384×288(17μm)	
视场角FOV	12.5°~ 10°	10.7 °×8°
透过率 Average Transmission(8~12μm)	≥88%(DLC)	≥94%(AR)

机械部分Mechanical

聚焦方式Focus Mechanism	手动调焦Manual focusing	
重量Weight(kg)	≤0.2	
光机尺寸Dimensions(mm)	Φ49×46.7	

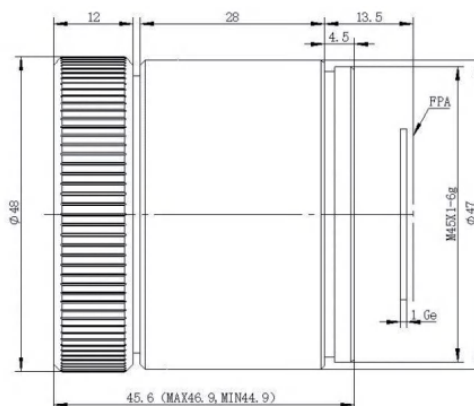
环境部分 Environmental

工作温度 Operating Temperature	-40℃~+60℃	
存放温度 Storage Temperature	-45℃~+70℃	
首片防护等级 Front Lens Sealing	IP67	

CNGE-10F2-35-U

长波红外定焦镜头 35mm

手动调焦 Manual focusing



光学部分Optical

焦距Focal Length(mm)	35mm
F/#	1.0
光谱范围Spectral Range(μm)	8-12 μm
探测器分辨率及像元DetectorType/size(μm)	1280×1024 (12 μm)
视场角FOV	28.0°X 21.1° (1024X768 17 μm)
透过率 Average Transmission(8~12 μm)	≥86% (DLC)

机械部分Mechanical

调焦方式Focus Mechanism	手动调焦Manual focusing
重量Weight	145g
光机尺寸Dimensions(mm)	Φ48x47

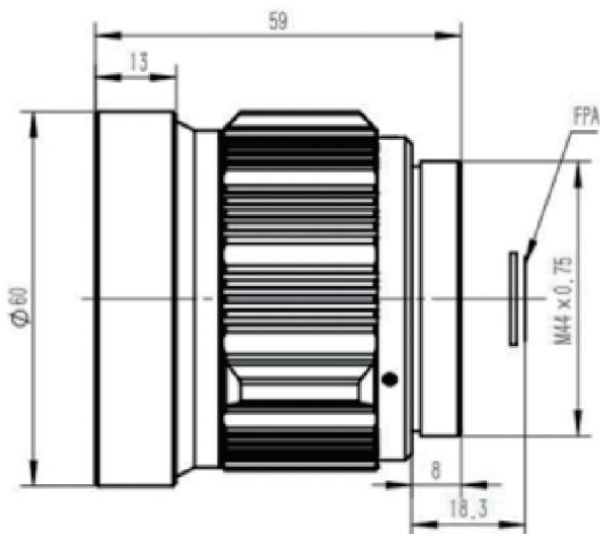
环境部分 Environmental

工作温度 Operating Temperature	-40°C~+60°C
储存温度Storage Temperature	-55°C~+70°C
首片防护Front lens Sealing	IP67

CNGE-10F2-50

长波红外定焦镜头 50mm

手动调焦 Manual focusing



光学部分Optical

焦距Focal Length(mm)	50mm	
F/#	1.0	
光谱范围Spectral Range(μm)	8-12μm	
探测器分辨率及像元DetectorType/size(μm)	640×512(17μm) 、 384×288(17μm)	
视场角FOV	12.4°~9.95 °	6.5 °×4.98°
透过率 Average Transmission(8~12μm)	≥88%(DLC)	≥94%(AR)

机械部分Mechanical

聚焦方式Focus Mechanism	手动调焦Manual focusing	
重量Weight(kg)	≤0.22	
光机尺寸Dimensions(mm)	Φ60×L59	

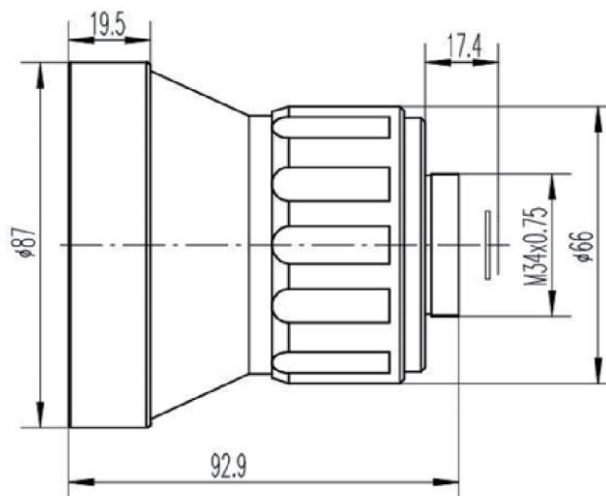
环境部分 Environmental

工作温度 Operating Temperature	-40℃~+60℃	
存放温度 Storage Temperature	-45℃~+70℃	
首片防护等级 Front Lens Sealing	IP67	

CNGE-10F2-75

长波红外定焦镜头 75mm

手动调焦 Manual focusing



光学部分Optical

焦距Focal Length(mm)	75mm
F/#	1.0
光谱范围Spectral Range(μm)	8-12μm
探测器分辨率及像元DetectorType/size(μm)	640×512(12μm) 、384×288(17μm)
视场角FOV	5.8°~4.6° 3.5 °×2.6°
透过率 Average Transmission(8~12μm)	≥88%(DLC) ≥94%(AR)

机械部分Mechanical

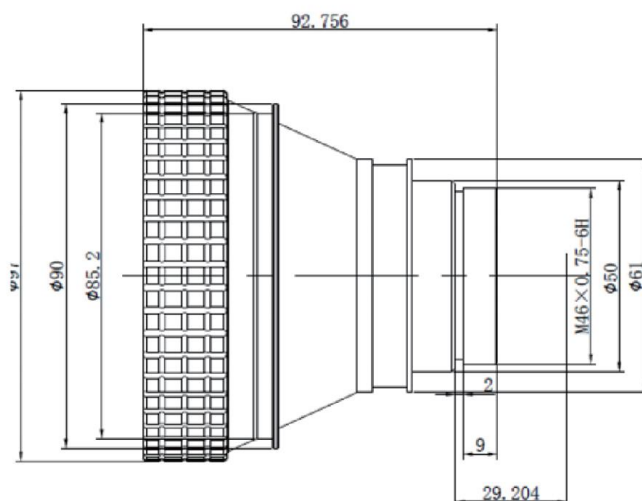
聚焦方式Focus Mechanism	手动调焦Manual focusing
重量Weight(kg)	≤0.36
光机尺寸Dimensions(mm)	Φ87×L92.9

环境部分 Environmental

工作温度 Operating Temperature	-40℃~+60℃
存放温度 Storage Temperature	-45℃~+70℃
首片防护等级 Front Lens Sealing	IP67

CNGE-10F2-90

长波红外定焦镜头 90mm
手动调焦 Manual focusing



光学部分Optical

焦距Focal Length(mm)	90mm
F/#	1.0
光谱范围Spectral Range(μm)	8-12μm
探测器分辨率及像元DetectorType/size(μm)	640×512(12μm) 、 384×288(12μm)
视场角FOV	4.9°~3.9° 2.9°×2.2°
透过率 Average Transmission(8~12μm)	≥88%(DLC) ≥94%(AR)

机械部分Mechanical

聚焦方式Focus Mechanism	手动调焦Manual focusing
重量Weight(kg)	≤0.36
光机尺寸Dimensions(mm)	Φ97×L93

环境部分 Environmental

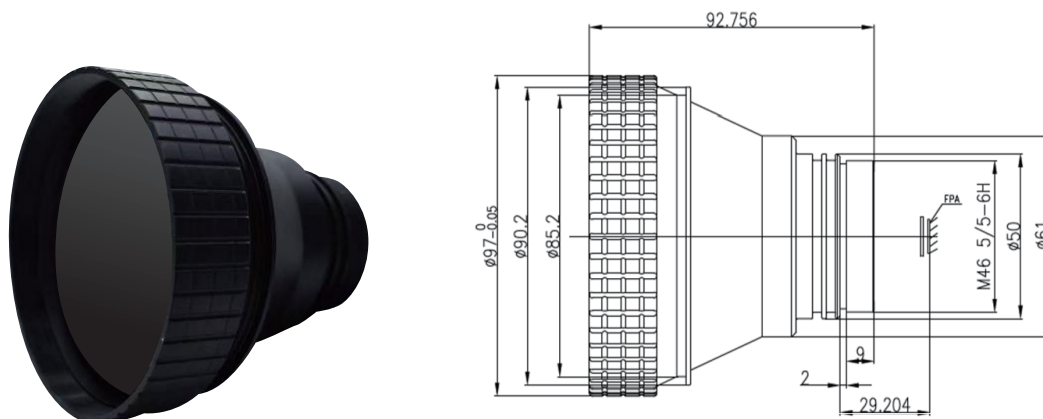
工作温度 Operating Temperature	-40°C~+60°C
存放温度 Storage Temperature	-45°C~+70°C
首片防护等级 Front Lens Sealing	IP67

CNGE-10F2-90-U

长波红外定焦镜头 90mm

手动调焦/电动调焦（可选）

Manual focusing/Electric focusing



光学部分Optical

焦距Focal Length(mm)	90mm±5%
F/#	1.0
光谱范围Spectral Range(μm)	8-12μm
探测器分辨率及像元DetectorType/size(μm)	640x512 (12μm)
视场角FOV	4.9°~3.9°
透过率 Average Transmission(8~12μm)	>89% (DLC)

机械部分Mechanical

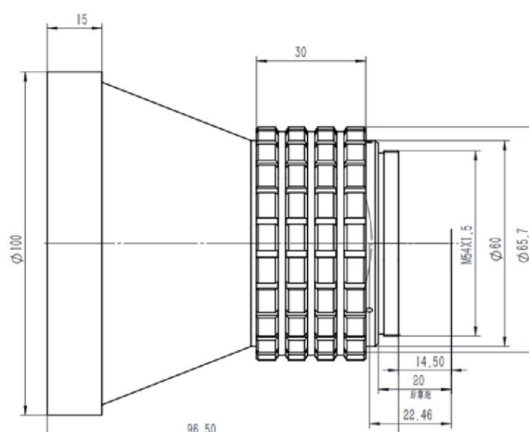
调焦方式Focus Mechanism	手动调焦Manual Focusing/电动调焦Electric Focusing
重量Weight	372.5g±5%
光机尺寸Dimensions(mm)	Φ97xL92.765

环境部分 Environmental

工作温度 Operating Temperature	40°C~+60°C
储存温度Storage Temperature	-40°C~+80°C
首片防护Front lens Sealing	IP67

CNGE-12F2-100

长波红外定焦镜头 100mm
手动调焦 Manual focusing



光学部分Optical

焦距Focal Length(mm)	100mm
F/#	1.2
光谱范围Spectral Range(μm)	8-12μm
探测器分辨率及像元DetectorType/size(μm)	640×512(12μm) 、 384×288(12μm)
视场角FOV	4.4°~3.3° 2.6 °×2.1°
透过率 Average Transmission(8~12μm)	≥86%(DLC) ≥92%(AR)

机械部分Mechanical

聚焦方式Focus Mechanism	手动调焦Manual focusing
重量Weight(kg)	≤0.4
光机尺寸Dimensions(mm)	Φ100×L96.5

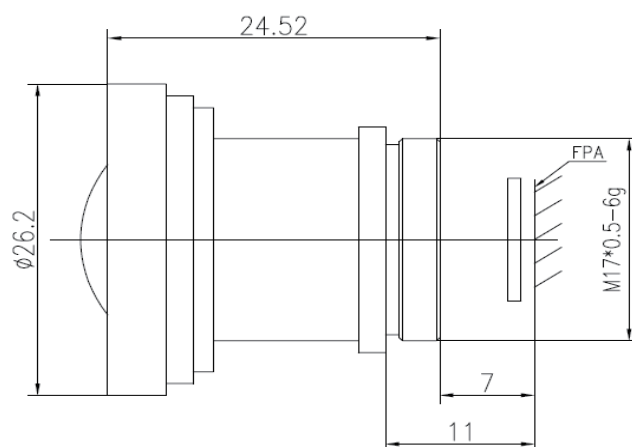
环境部分 Environmental

工作温度 Operating Temperature	-40°C~+60°C
存放温度 Storage Temperature	-45°C~+70°C
首片防护等级 Front Lens Sealing	IP67

CNGE-10F3-6.3

长波红外定焦镜头 6.3mm

无热化 Athermalized



光学部分Optical

焦距Focal Length(mm)	6.3mm±5%
F/#	1.0
光谱范围Spectral Range(μm)	8-12μm
探测器分辨率及像元DetectorType/size(μm)	640×480(12μm)
视场角FOV	(H)62.8°×(V)51.99°×(D)75.95°
透过率 Average Transmission(8~12μm)	>83% (DLC)

机械部分Mechanical

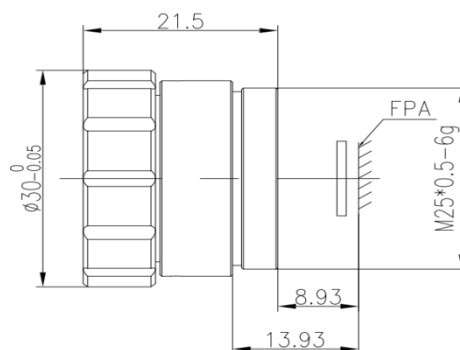
聚焦方式Focus Mechanism	手动调焦Manual Focusing
重量Weight	20g ±5%
光机尺寸Dimensions(mm)	Φ26.2xL24.52

环境部分 Environmental

工作温度 Operating Temperature	-40°C~+80°C
存储温度Storage Temperature	-50°C~+85°C
首片防护等级 Front Lens Sealing	IP67

CNGE-10F3-9.1

长波红外无热化镜头 9.1mm
无热化 Athermalized



光学部分Optical

焦距Focal Length(mm)	9.1mm±5%
F/#	1.0
光谱范围Spectral Range(μm)	8-12μm
探测器分辨率及像元DetectorType/size(μm)	640x512(12um)
视场角FOV	45.8°x37.3°
透过率 Average Transmission(8~12μm)	>90%(DLC)

机械部分Mechanical

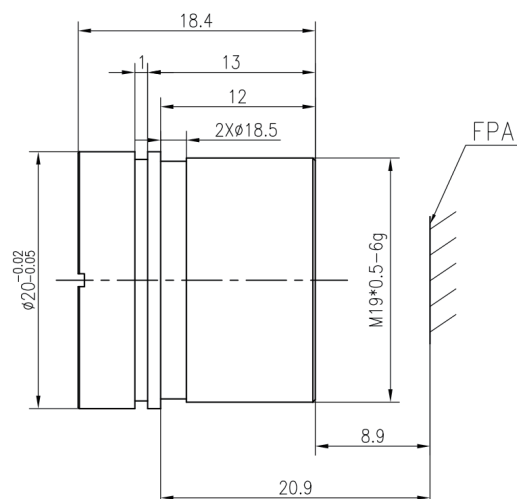
聚焦方式Focus Mechanism	手动调焦Manual focusing
重量Weight	28g±5%
光机尺寸Dimensions(mm)	φ30xL21.5

环境部分 Environmental

工作温度 Operating Temperature	40°C~+60°C
储存温度Storage Temperature	-50°C~+70°C
首片防护等级 Front Lens Sealing	IP67

CNGE-10F3-13

长波红外定焦镜头 13mm
无热化 Athermalized



光学部分Optical

焦距Focal Length (mm)	13mm
F/#	1.0
光谱范围Spectral Range(μm)	8-12μm
探测器分辨率及像元DetectorType/size(μm)	640x512(12um)
视场角FOV	31.7°×26.5°
平均透过率Average Transmisslon (8-12μm)	94%(AR)

机械部分Mechanical

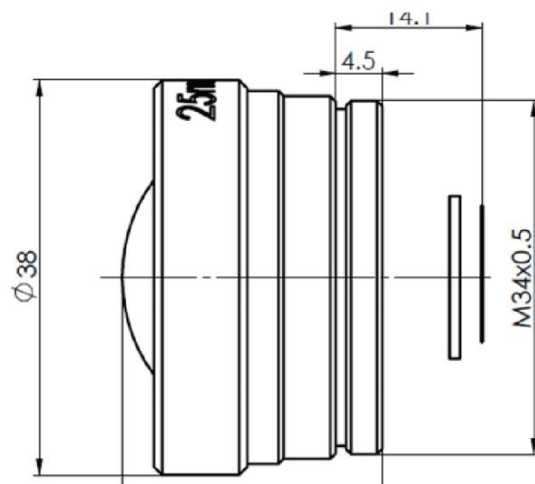
调焦方式Focus Mechanism	手动调焦Manual focusing
重量Weight	18g
光机尺寸Dimensions(mm)	Φ20mmxL18.4

环境部分 Environmental

工作温度 Operating Temperature	-40°C to +60°C
储存温度Storage Temperature	-55°C to +80°C
首片防护等级 Front Lens Sealing	IP67

CNGE-10F3-25

长波红外定焦镜头 25mm
无热化 Athermalized



光学部分Optical

焦距Focal Length(mm)	25mm	
F/#	1.0	
光谱范围Spectral Range(μm)	8-12μm	
探测器分辨率及像元DetectorType/size(μm)	640×512(17μm) 、 336×256(17μm)	
视场角FOV	24.4°~20 °	13 °× 10°
透过率 Average Transmission(8~12μm)	≥88%(DLC)	≥94%(AR)

机械部分Mechanical

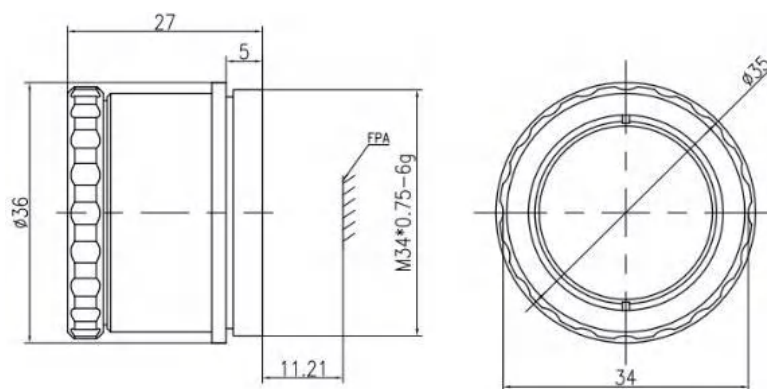
聚焦方式Focus Mechanism	手动调焦Manual focusing	
重量Weight(kg)	≤0.1	
光机尺寸Dimensions(mm)	Φ38×L25	

环境部分 Environmental

工作温度 Operating Temperature	-40℃~+60℃	
存放温度 Storage Temperature	-45℃~+70℃	
首片防护等级 Front Lens Sealing	IP67	

CNGE-10F3-25-U

长波红外定焦镜头 25mm
无热化 Athermalized



光学部分Optical

焦距Focal Length(mm)	35mm
F/#	1.2
光谱范围Spectral Range(μm)	8-12μm
探测器分辨率及像元DetectorType/size(μm)	640 x512(17μm)
视场角FOV	24.6°X19.8°
透过率Transmittance	>89% (DLC)

机械部分Mechanical

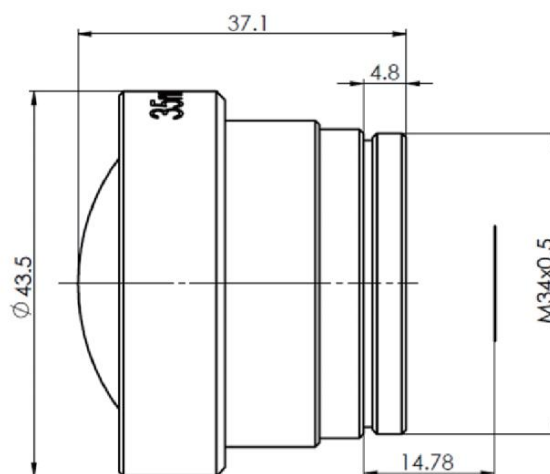
调焦方式Focus Mechanism	手动调焦Manual Focusing
重量Weight	61g
光机尺寸Dimensions(mm)	φ36/L27

环境部分 Environmental

工作温度Operating Temperature	-40°C~+60°C
存放温度 Storage Temperature	-40°C~+80°C
首片防护等级Front lens Sealing	IP67

CNGE-10F3-35

长波红外定焦镜头 35mm
无热化 Athermalized



光学部分Optical

焦距Focal Length(mm)	35mm	
F/#	1.2	
光谱范围Spectral Range(μm)	8-12μm	
探测器分辨率及像元DetectorType/size(μm)	640×512(12μm) 、 384×288(12μm)	
视场角FOV	4.4°~3.3°	2.6 °×2.1°
透过率 Average Transmission(8~12μm)	≥86%(DLC)	≥92%(AR)

机械部分Mechanical

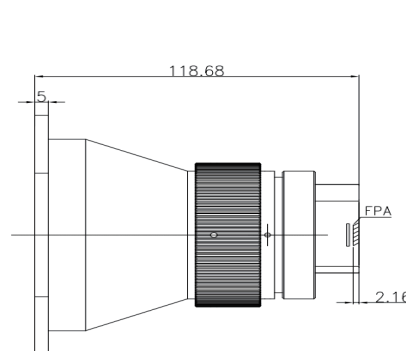
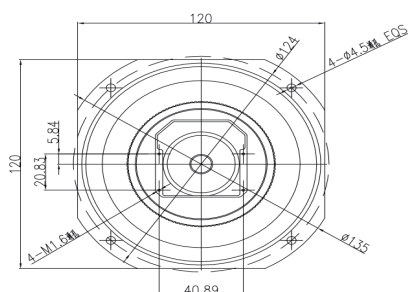
聚焦方式Focus Mechanism	手动调焦Manual focusing	
重量Weight(kg)	≤0.15	
光机尺寸Dimensions(mm)	Φ43.5×L37.1	

环境部分 Environmental

工作温度 Operating Temperature	-40°C~+60°C	
存放温度 Storage Temperature	-45°C~+70°C	
首片防护等级 Front Lens Sealing	IP67	

CNGE-10F3-121

长波红外无热化镜头 121mm
无热化 Athermalized



光学部分Optical

焦距Focal length	121mm
F/#	1.2
光谱范围Spectral Range(μm)	8-12μm
探测器分辨率及像元DetectorType/size(μm)	1280×1024 (12μm)
视场角FOV	7.3°×5.8°
透过率Average Transmission(8~12μm)	>88%(DLC)

机械部分Mechanical

调焦方式Focus Mechanism	手动调焦Manual Focusing
重量Weight (kg)	0.785
光机尺寸Dimensions(mm)	Φ130×L124

环境部分 Environmental

工作温度Operating Temperature	40°C~+60°C
储存温度Storage Temperature	-40°C~+80°C
首片防护等级Front lens Sealing	IP67

PRODUCTION EQUIPMENTS



Ultrasonic cleaning machine



SPDT machine



CNC Machine



Flat Polishing Machine



Metallization Coating



DLC Coating

TESTING EQUIPMENTS



Roughness Tester



Strength Testing



Laser interferometer



High and low temperature chamber



Vacuum Leak Tester



Transmittance tester



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