

Technical Data

FLIR A310pt 15° NTSC

Part number:

61002-1102

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Legal disclaimer

Specifications subject to change without further notice. Camera models and accessories subject to regional market considerations. License procedures may apply.

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Imaging and optical data

IR resolution	320 × 240 pixels
Thermal sensitivity/NETD	< 0.05°C @ +30°C (+86°F) / 50 mK
Field of view (FOV) / Minimum focus distance	15° × 11.25° / 1.2 m (3.93 ft.)
Focal length	30.38 mm (1.2 in.)
Spatial resolution (IFOV)	0.82 mrad
Lens identification	Automatic
F-number	1.3
Image frequency	30 Hz
Focus	Automatic or manual (built in motor)
Zoom	1–8x continuous, digital, interpolating zooming on images
Focal Plane Array (FPA) / Spectral range	Uncooled microbolometer / 7.5–13 μm
Detector pitch	25 μm
Detector time constant	Typical 12 ms

Measurement

Object temperature range	–20 to +120°C (–4 to +248°F) 0 to +350°C (+32 to +662°F)
Accuracy	±4°C (±7.2°F) or ±4% of reading

Measurement analysis

Spotmeter	10
Area	10 boxes with max./min./average/position
Isotherm	1 with above/below/interval
Atmospheric transmission correction	Automatic, based on inputs for distance, atmospheric temperature and relative humidity
Optics transmission correction	Automatic, based on signals from internal sensors
Emissivity correction	Variable from 0.01 to 1.0
Reflected apparent temperature correction	Automatic, based on input of reflected temperature
External optics/windows correction	Automatic, based on input of optics/window transmission and temperature
Measurement corrections	Global and individual object parameters

Alarm

Alarm functions	6 automatic alarms on any selected measurement function, camera temperature
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Set-up

Color palettes	Color palettes (BW, BW inv, Iron, Rain)
Set-up commands	Date/time, Temperature°C/°F

Imaging and optical data (visual camera)

Field of view (FOV)	57.8° (H) to 1.7° (H)
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Imaging and optical data (visual camera)

Focal length	3.4 mm (wide) to 122.4 mm (tele)
F-number	1.6 to 4.5
Focus	Automatic or manual (built in motor)
Optical Zoom	36x continuous
Electronic Zoom	12x continuous, digital, interpolating

Detector data (visual camera)

Focal Plane Array (FPA)	1/4" Exview HAD CCD
Effective pixels	380.000

Technical specification (pan & tilt)

Azimuth Range	Az velocity 360° continuous, 0.1 to 60°/sec max
Elevation Range	El velocity +/- 45°, 0.1 to 30°/sec. max
Programmable presets	128
Automatic heaters	Clears window from ice. Switched on at +4°C (39°F). Switched off at +15°C (59°F).

Ethernet

Ethernet	Control, result and image
Ethernet, type	100 Mbps
Ethernet, standard	IEEE 802.3
Ethernet, connector type	RJ-45
Ethernet, communication	TBA
Ethernet, video streaming	Two independent channels for each camera - MPEG-4, H.264, or M-JPEG

Digital input/output

Video out	Composite video output, NTSC compatible
Video, standard	CVBS (SMPTE 170M NTSC)

Power system

Power	24 VAC (21-30 VAC; 24 VAC: 215 VA max. with heater) or 24 VDC (21-30 VDC; 24 VDC: 195 W max. with heater).
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Environmental data

Operating temperature range	-25°C to +50°C (-13°F to +122°F)
Storage temperature range	-40°C to +70°C (-40°F to +158°F)
Humidity (operating and storage)	IEC 60068-2-30/24 h 95% relative humidity +25°C to +40°C (+77°F to +104°F)
EMC	<ul style="list-style-type: none">EN 61000-6-2 (Immunity)EN 61000-6-3 (Emission)FCC 47 CFR Part 15 Class B (Emission)
Encapsulation	IP 66 (IEC 60529)
Bump	5 g, 11 ms (IEC 60068-2-27)
Vibration	2 g (IEC 60068-2-6)

Physical data

Weight	17.9 kg (39.5 lb.)
Size (L x W x H)	460 x 467 x 326 mm (18.1 x 18.4 x 12.8 in.)
Base mounting	TBA
Housing material	Aluminum



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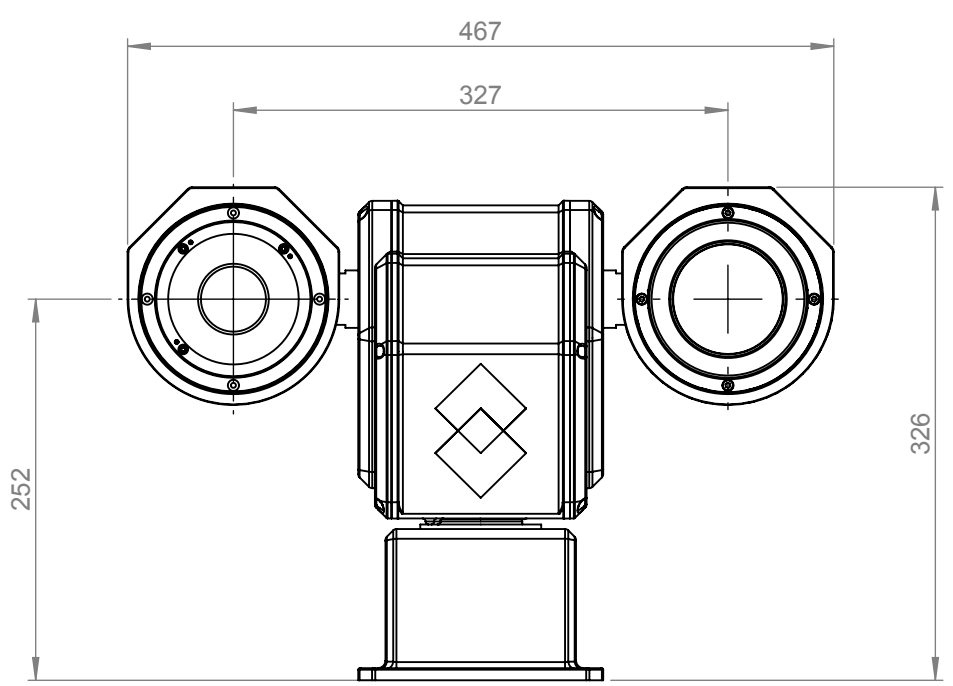
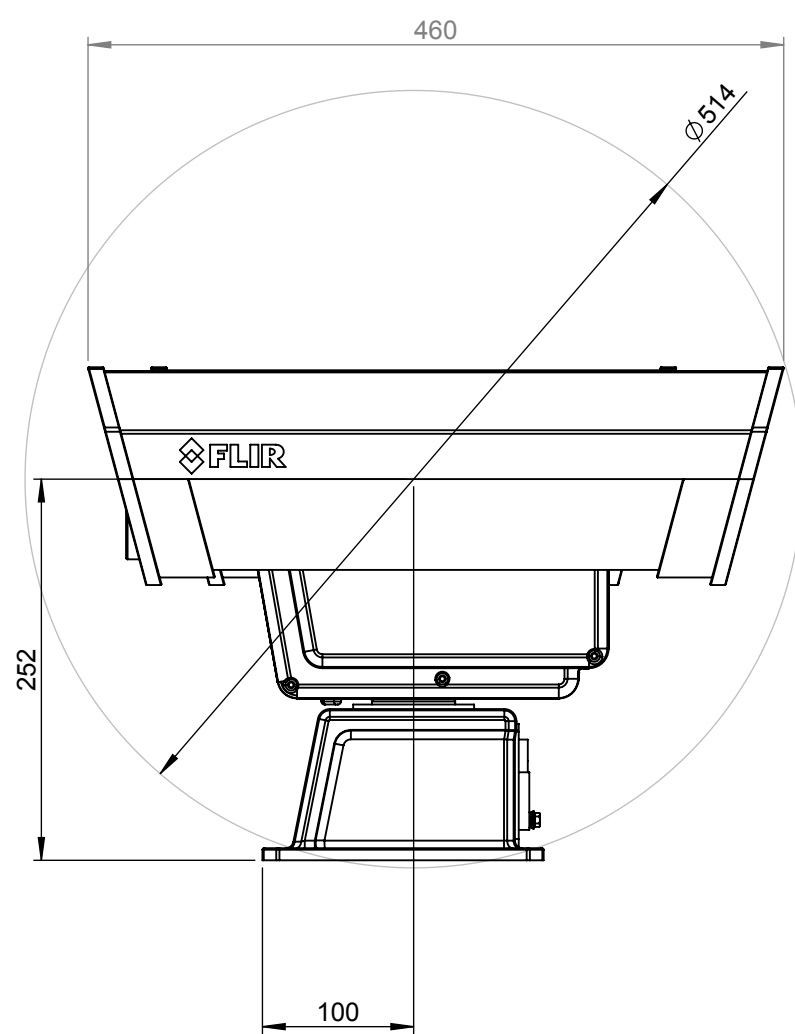
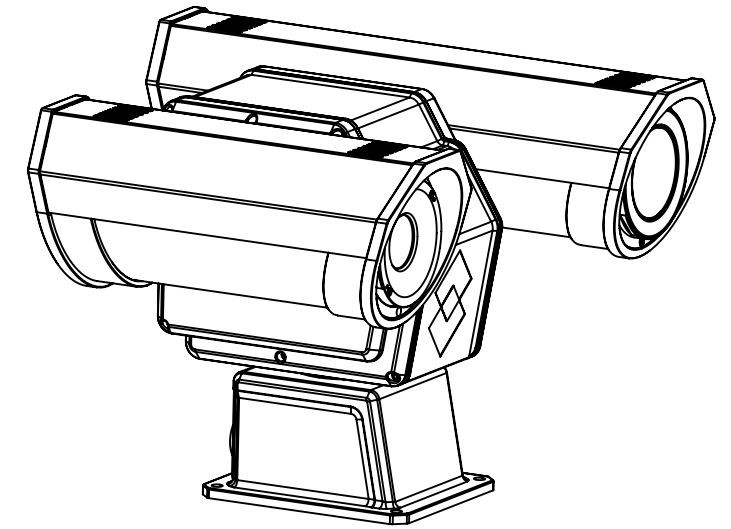
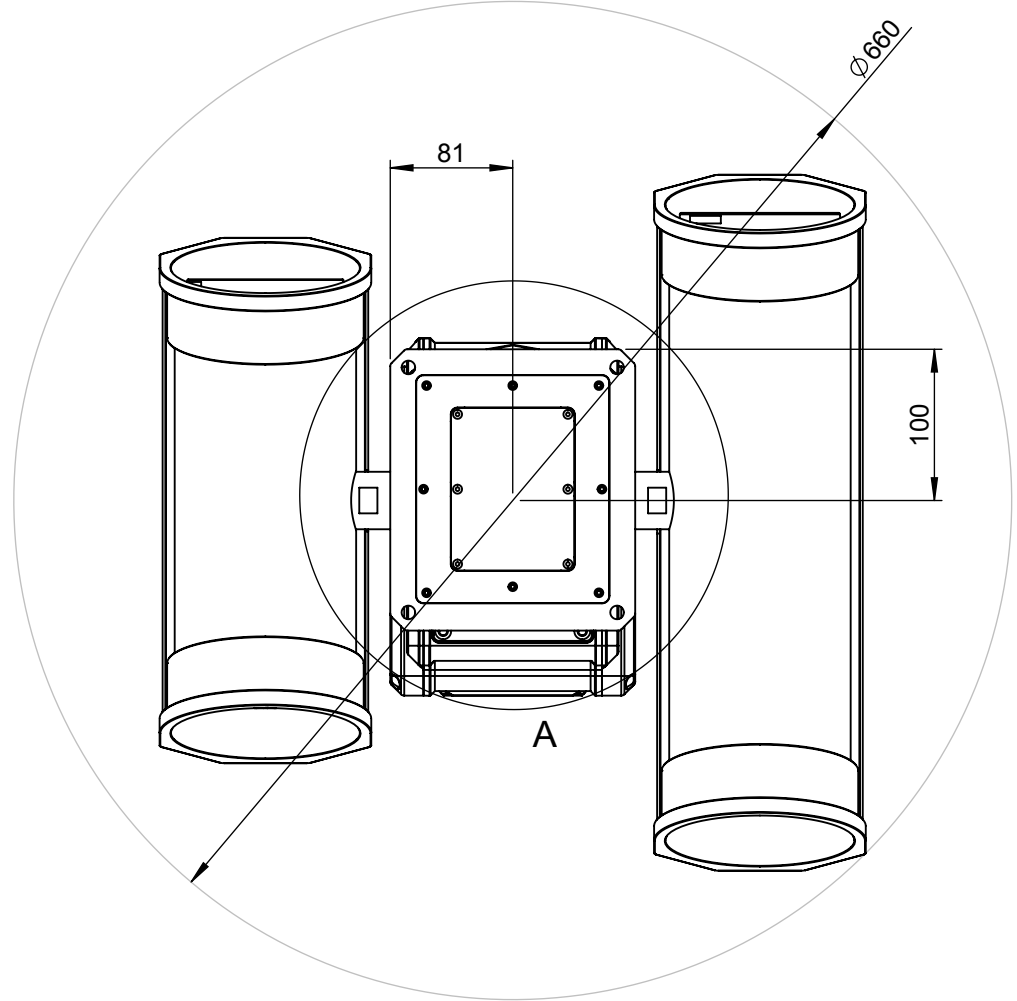
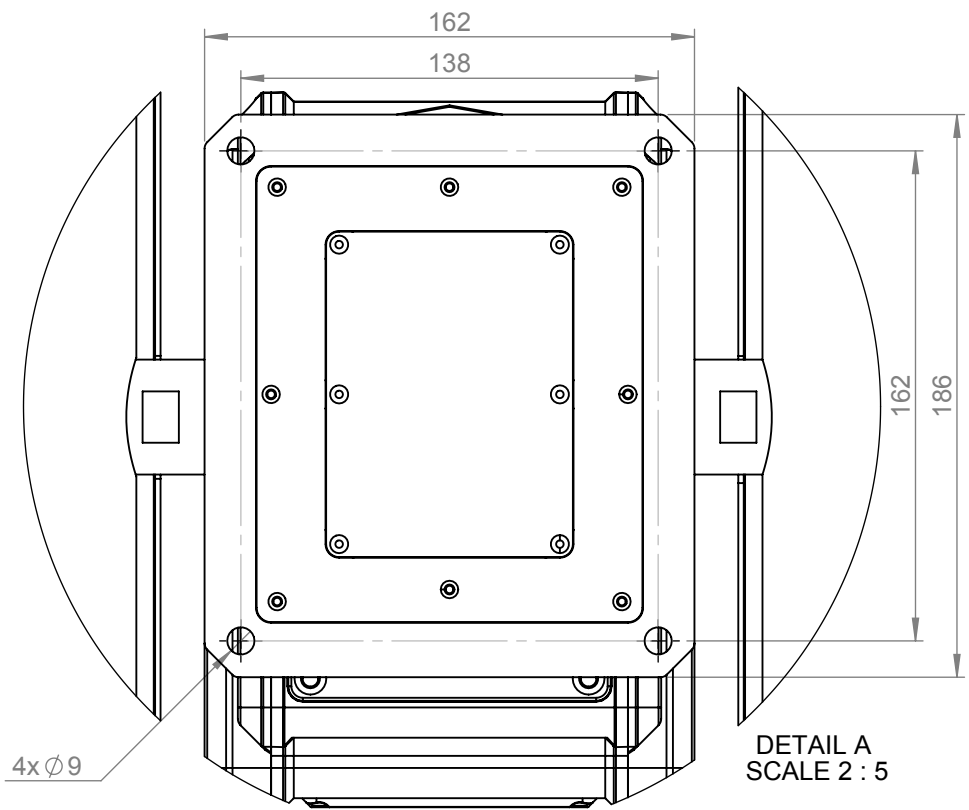
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System features

- Cardboard box
 - Pan & tilt with infrared camera including lens and visual camera
 - FLIR Sensors Manager download card
 - Lens cap
 - Printed documentation
 - Small accessories kit
 - User documentation CD-ROM
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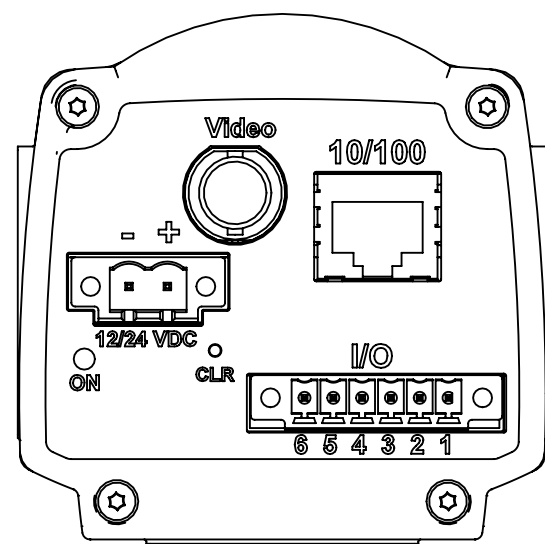
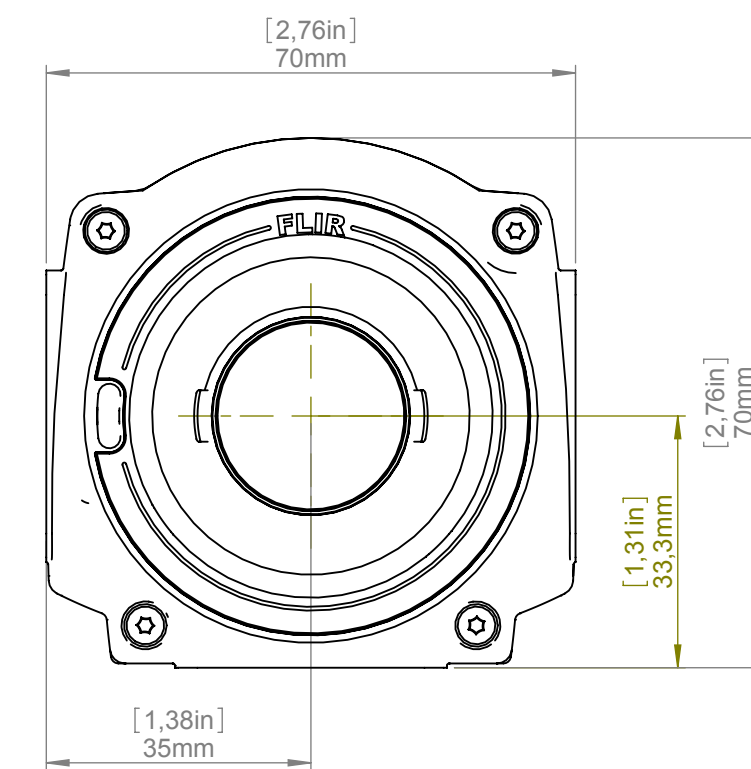
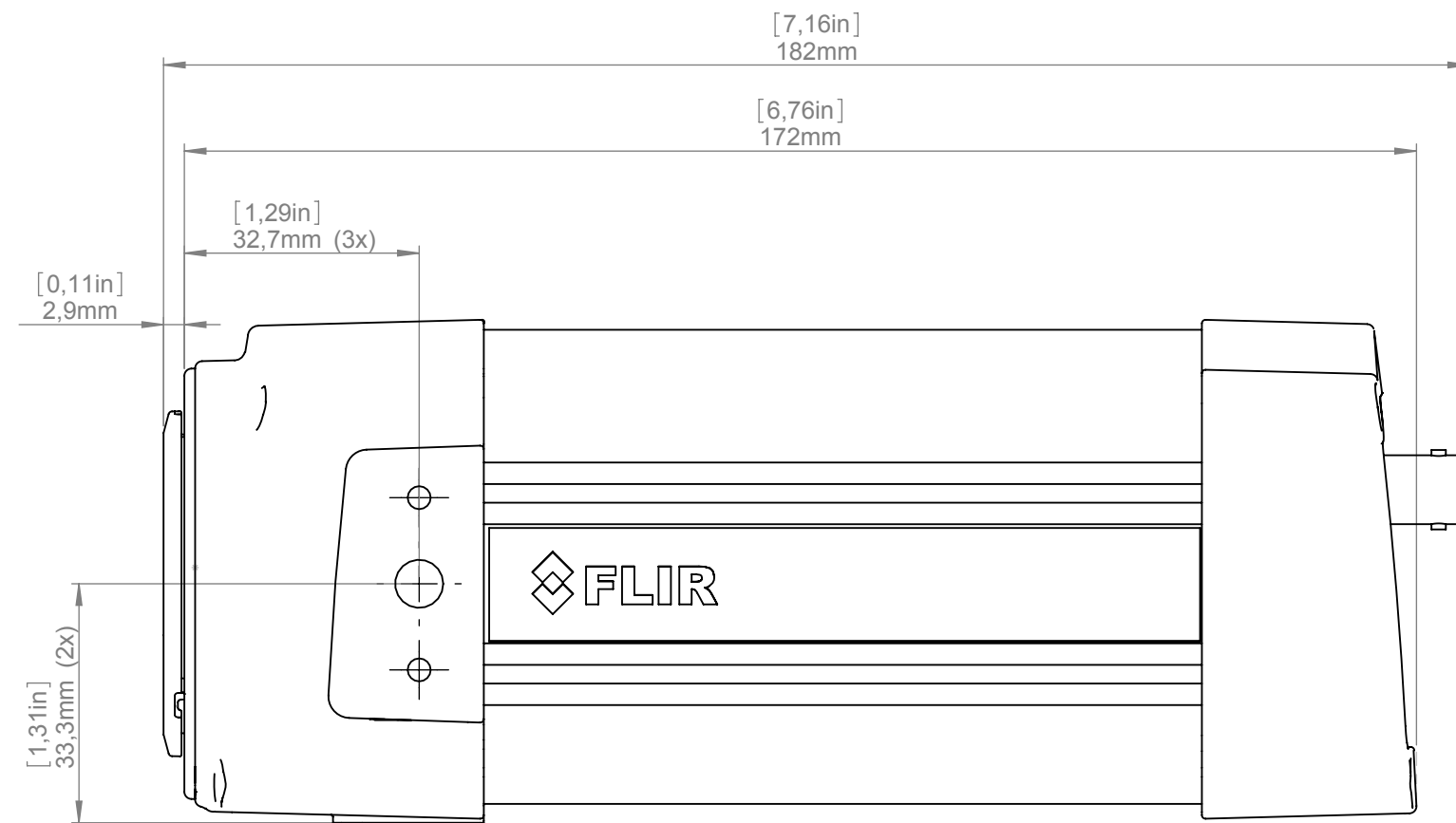
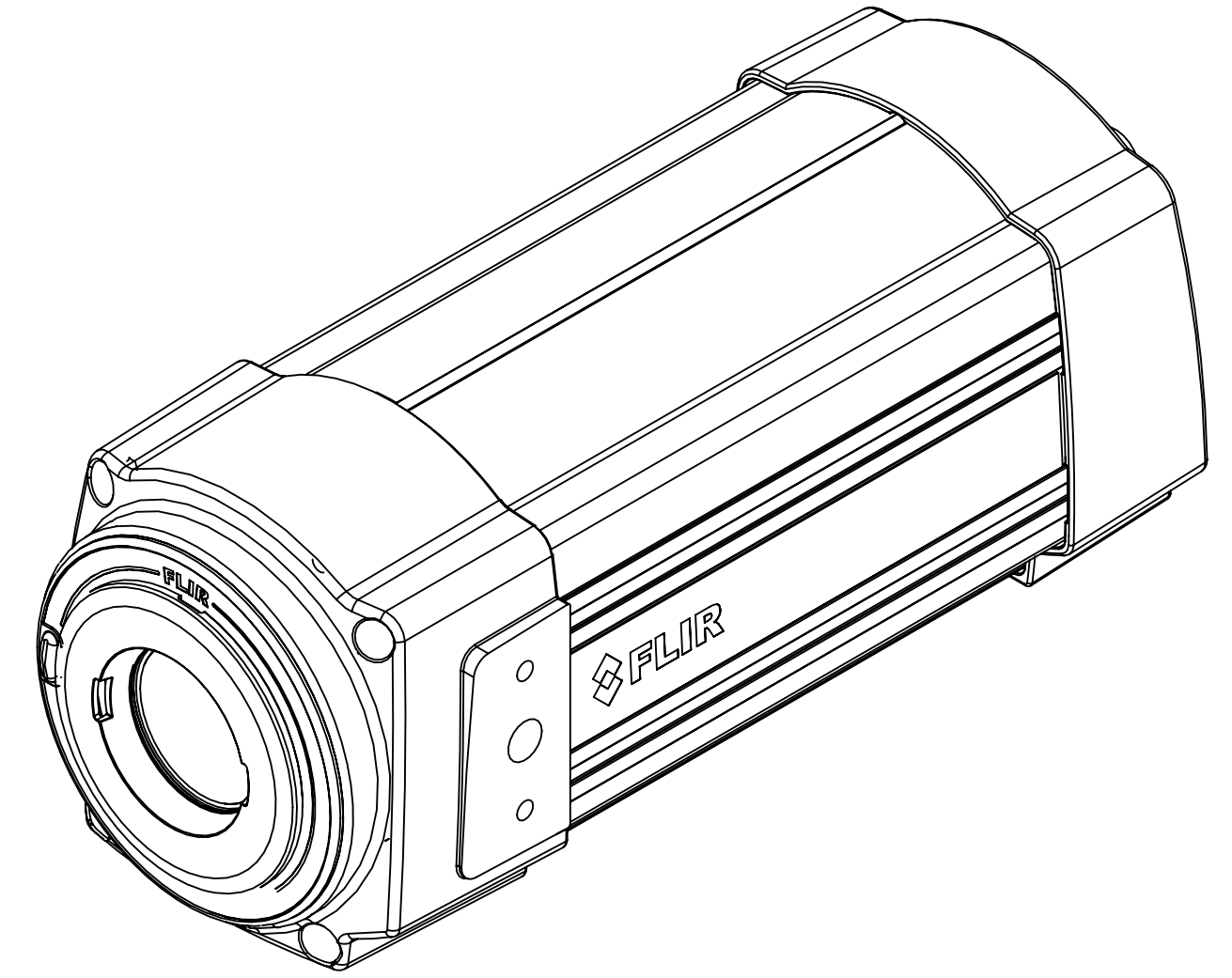
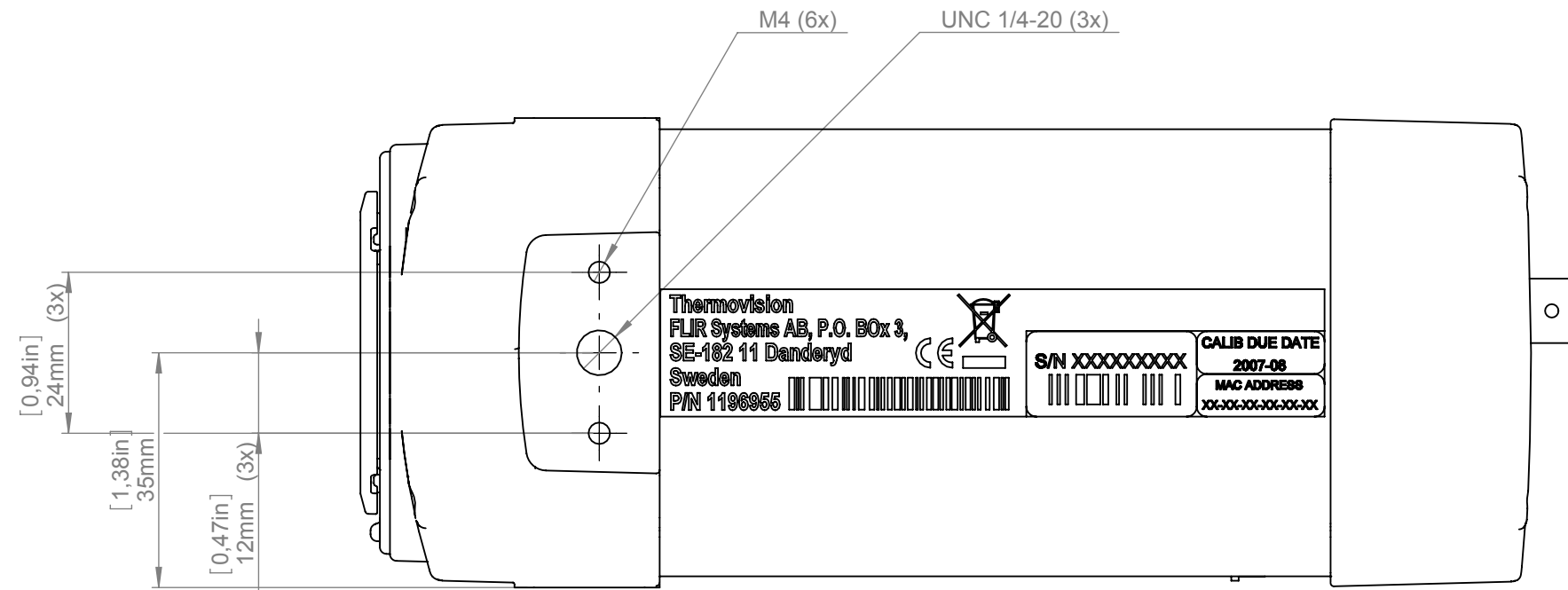
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Konstr/Drawn H. ÖSTLING	Datum/Date 2011-10-31	Kontr/Check ULGU	Material	
Ändrad av/Modified by H. ÖSTLING	Ändrad/Modified 2011-11-28	Ytjämnhet/Roughness Ra - µm	Ytbehandling/Surface treatment -	
Där ej annat anges/Unless otherwise stated Gen tol ISO 2768-mK Utdrag ur/Excerpt from ISO 2768-m		Benämning/Denomination DIMENSIONAL DRAWING PT		Skala/Scale 1:5
0,5-6 ±0,1 Hålkårsradier (6)-30 ±0,2 Fillet radii (30)-120 ±0,3 (120)-400 ±0,5 Kanter brutna (400)-1000 ±0,8 Edges broken				Blad/Sheet 1(1) Size A3
			Ritn nr/Drawing No T127400	Rev B

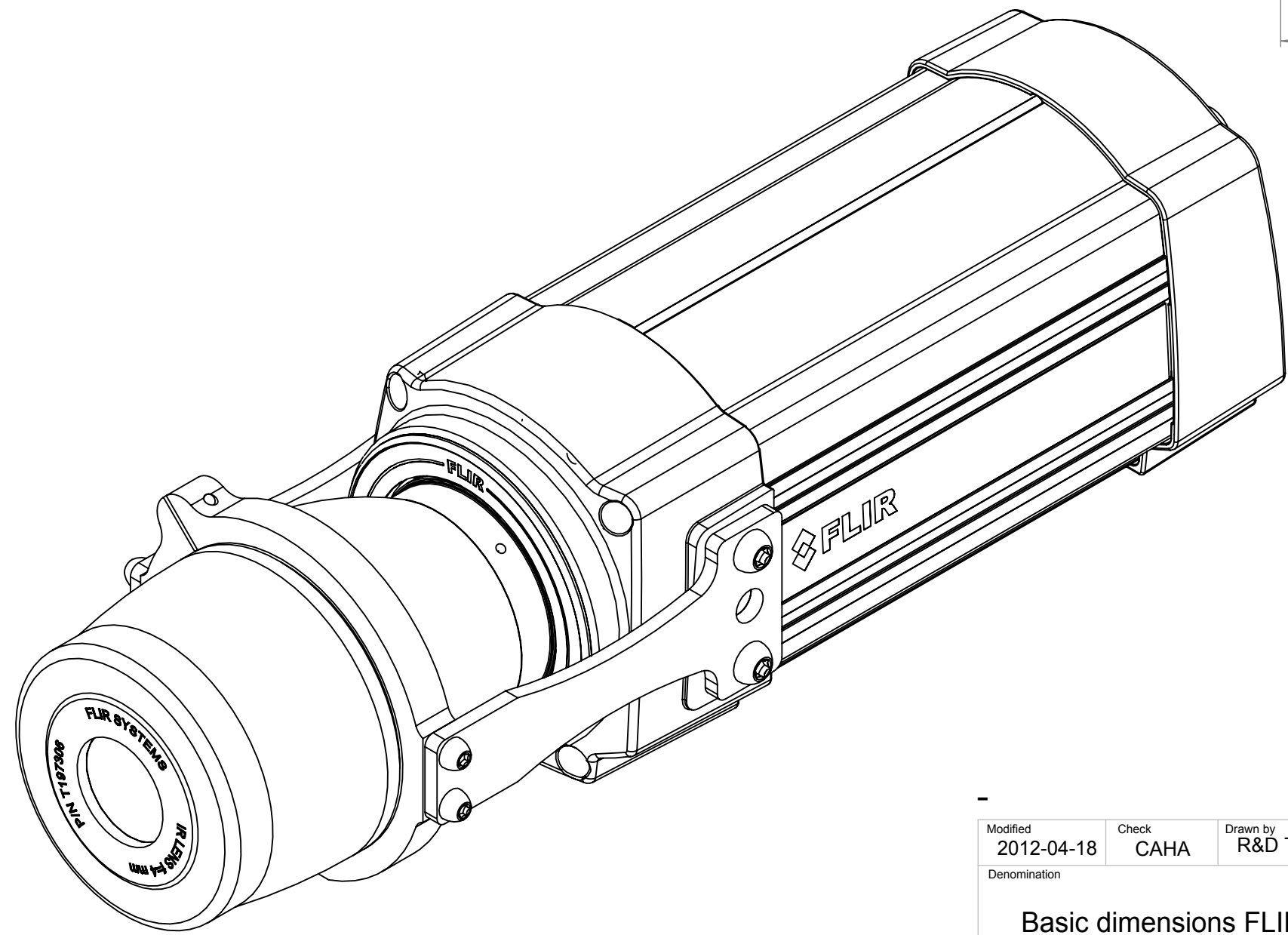
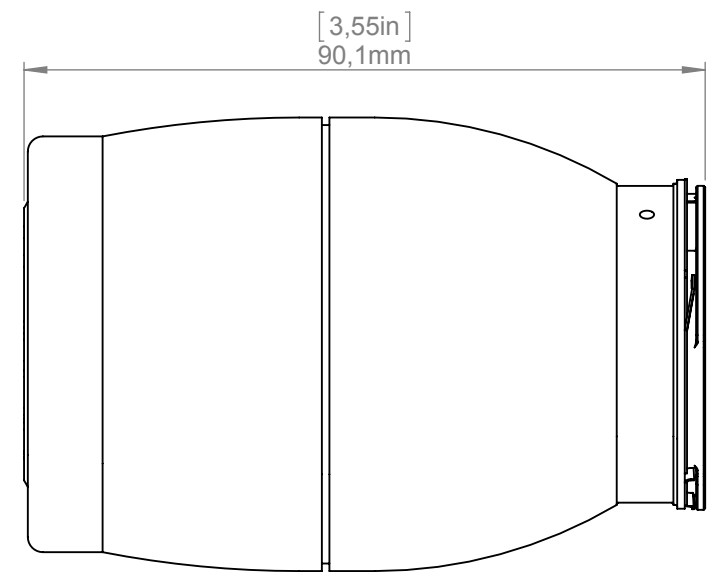
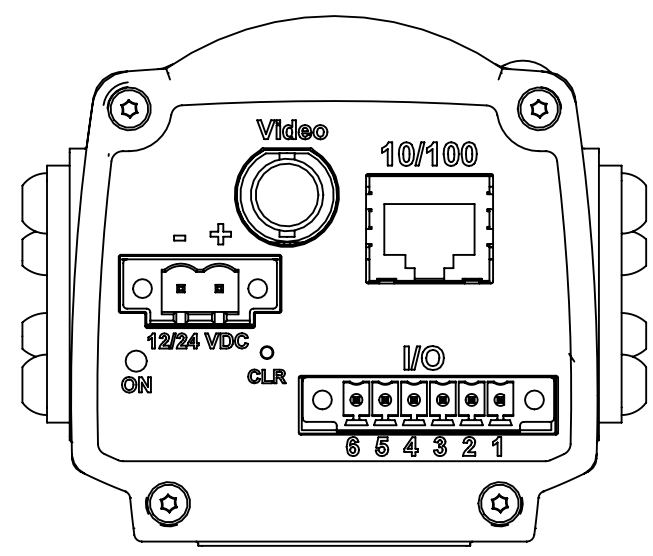
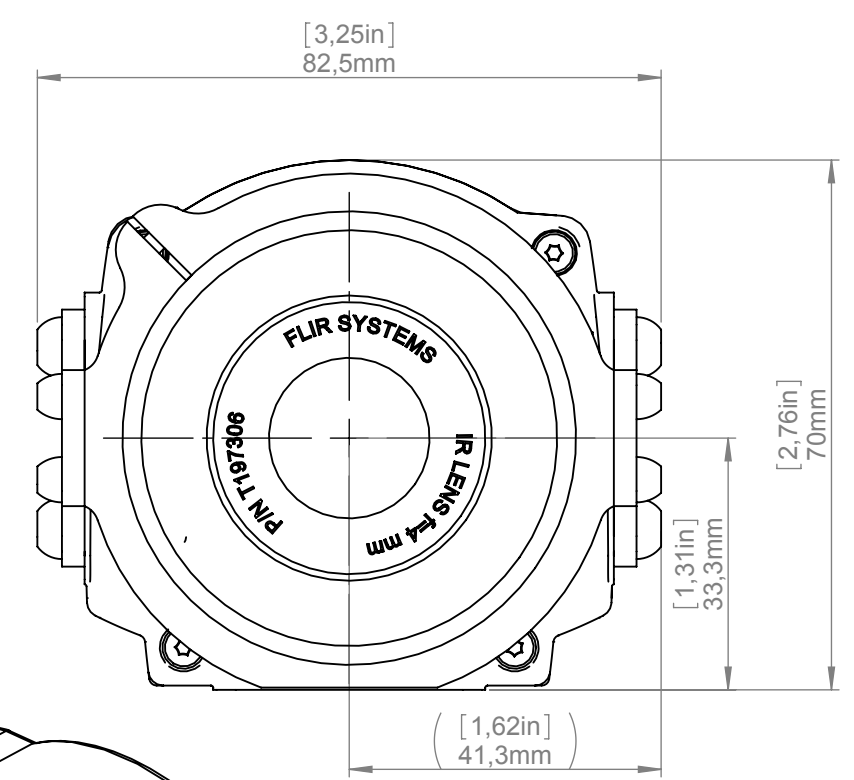
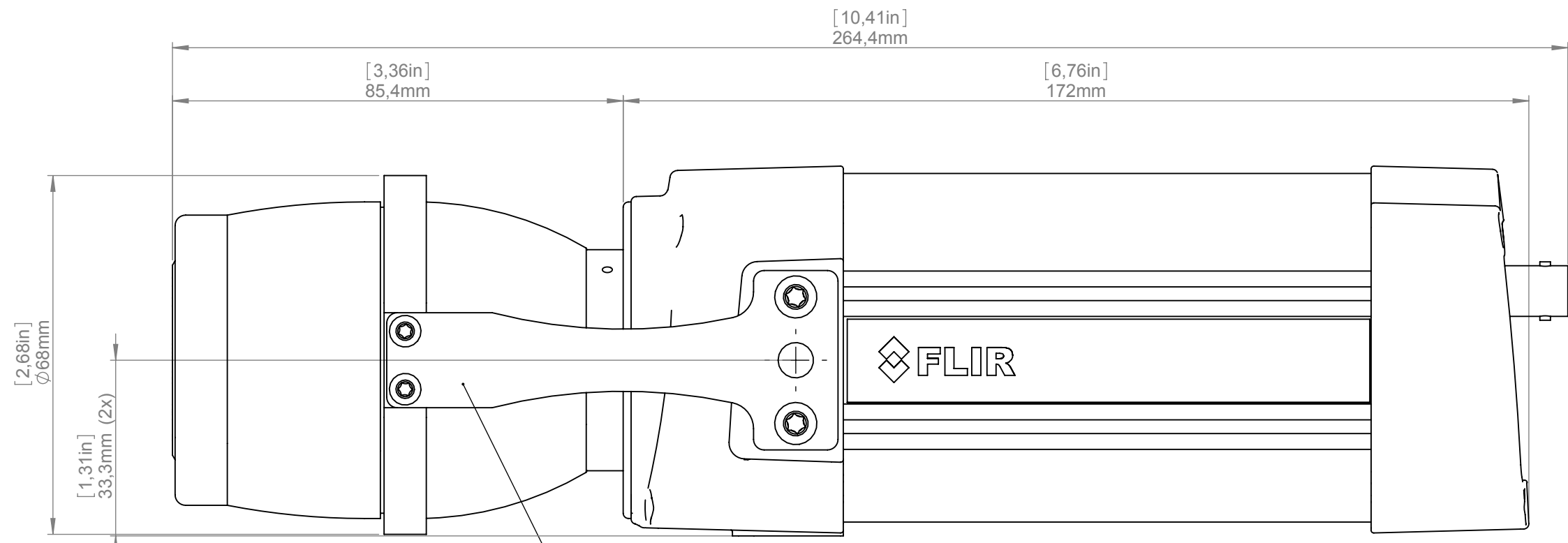
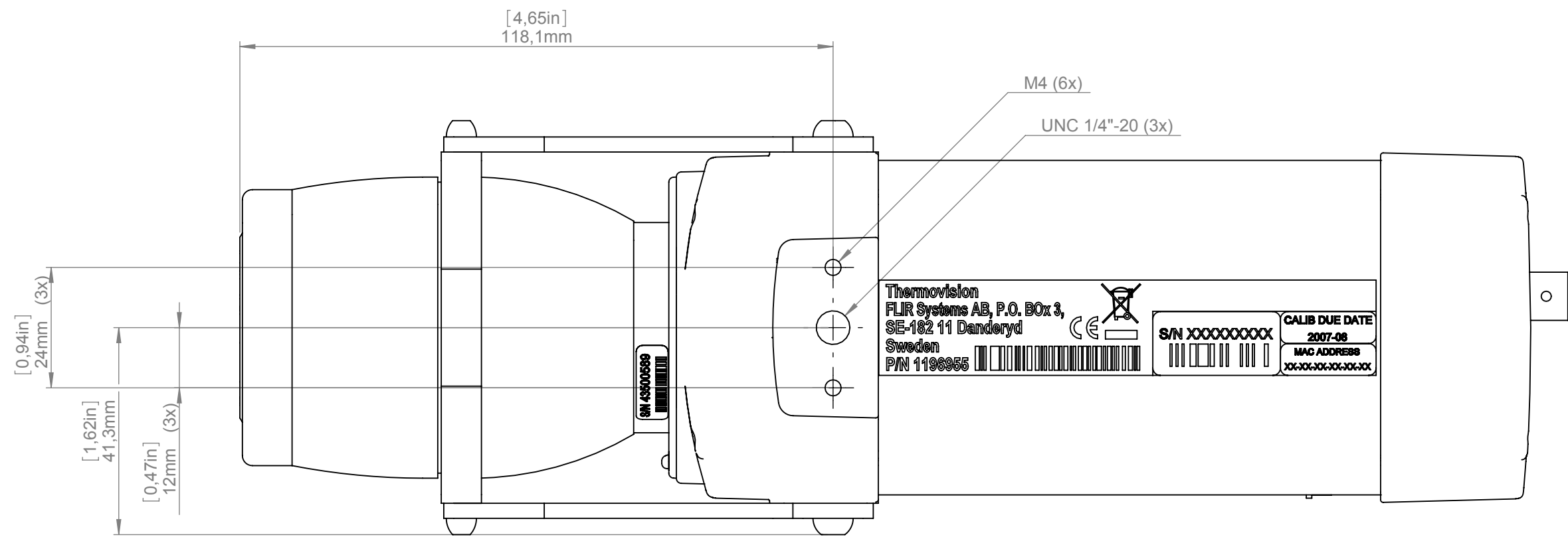
Camera with built-in IR lens f=18 mm (25°)



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Modified 2012-04-18	Check CAHA	Drawn by R&D Thermography	Size A3		Sheet 1(8)
Denomination Basic dimensions FLIR A3xx/SC3xx			Scale 1:1		Sheet 1(8)
			Drawing No. T125002	Size A	

Camera with Lens IR f=4 mm (90°) incl support



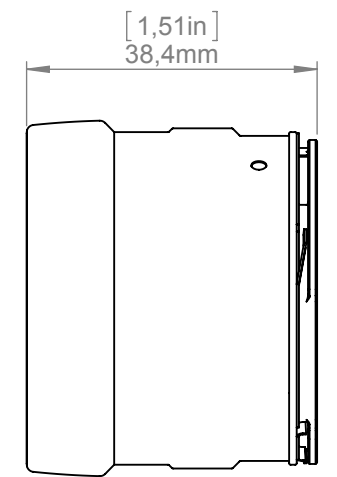
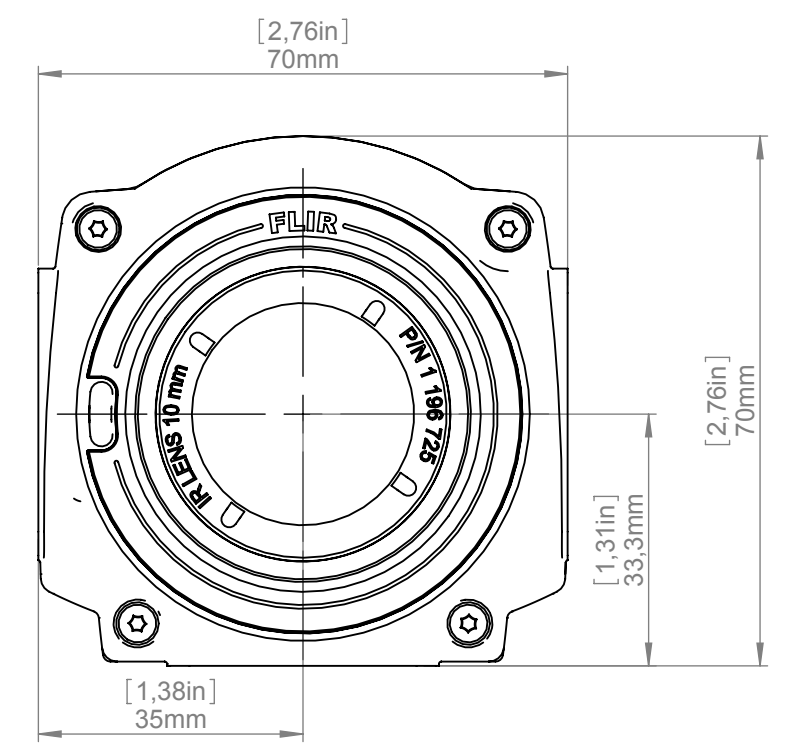
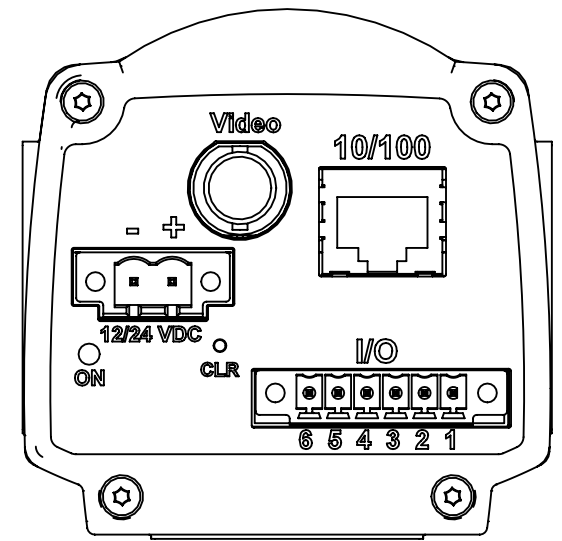
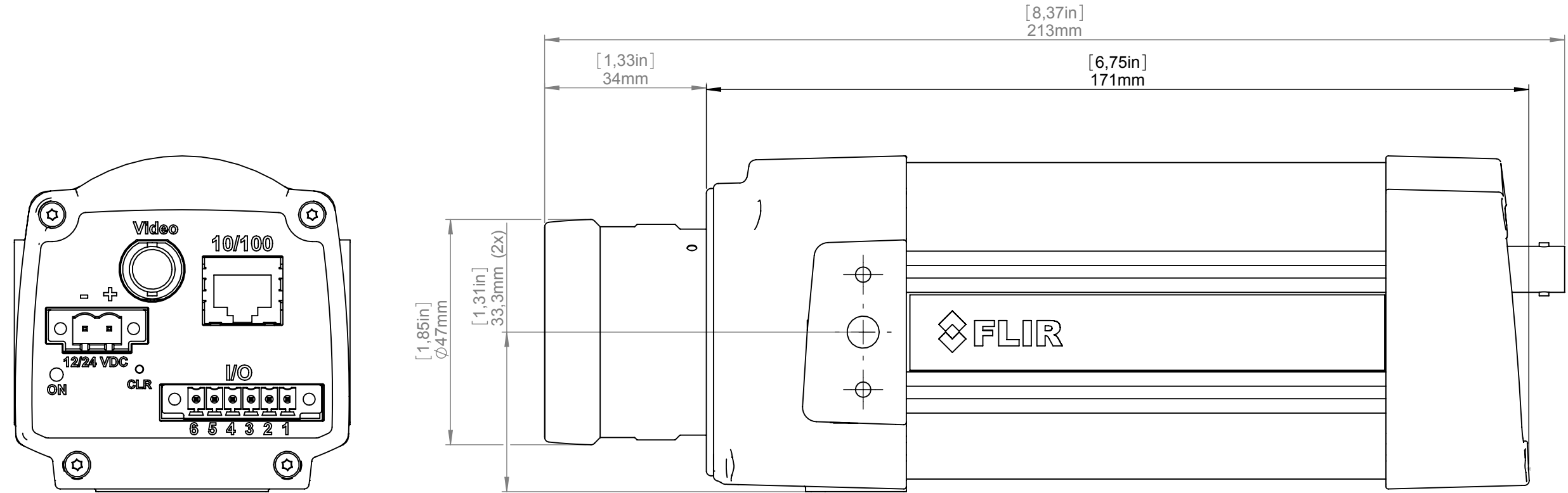
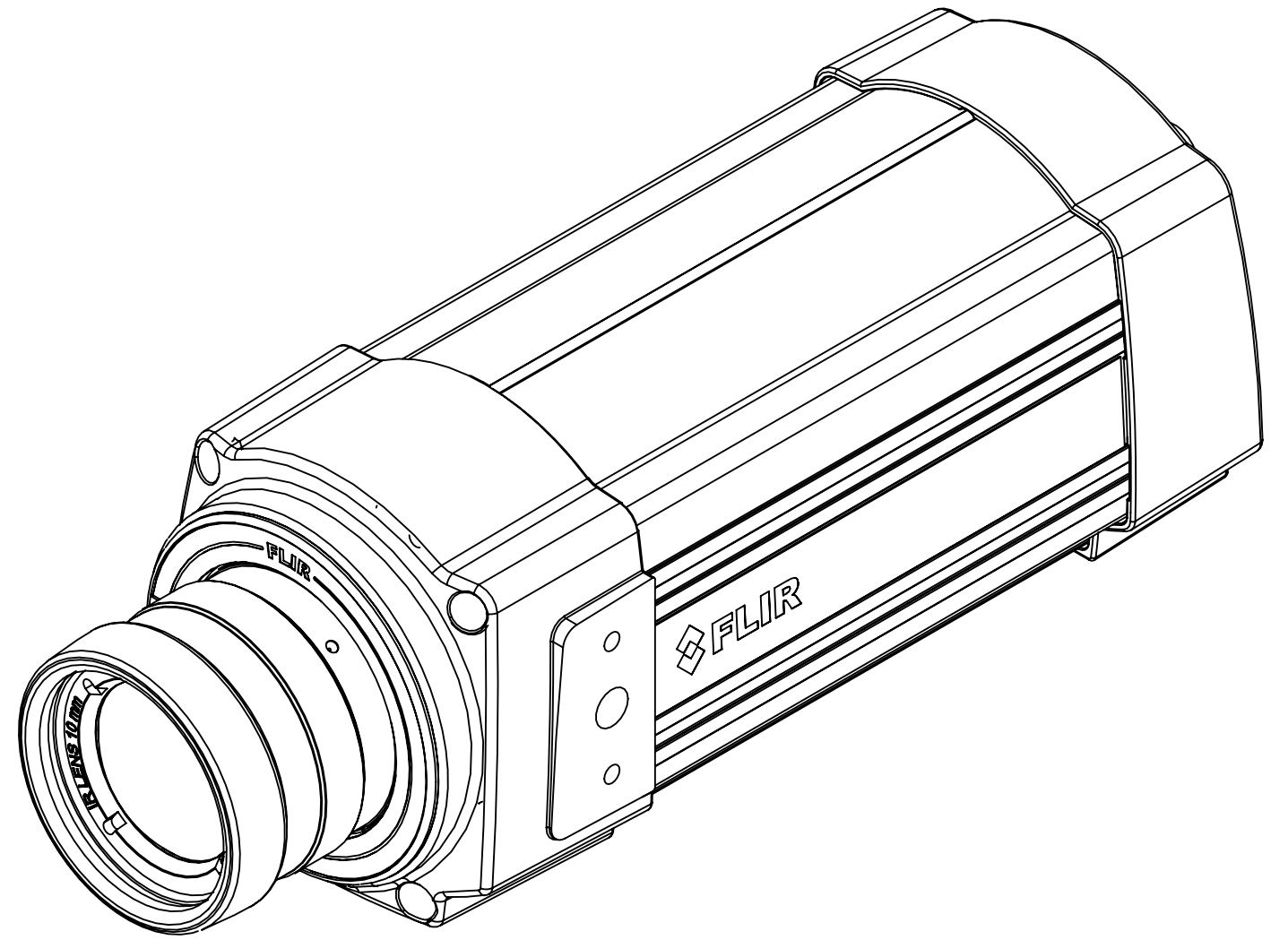
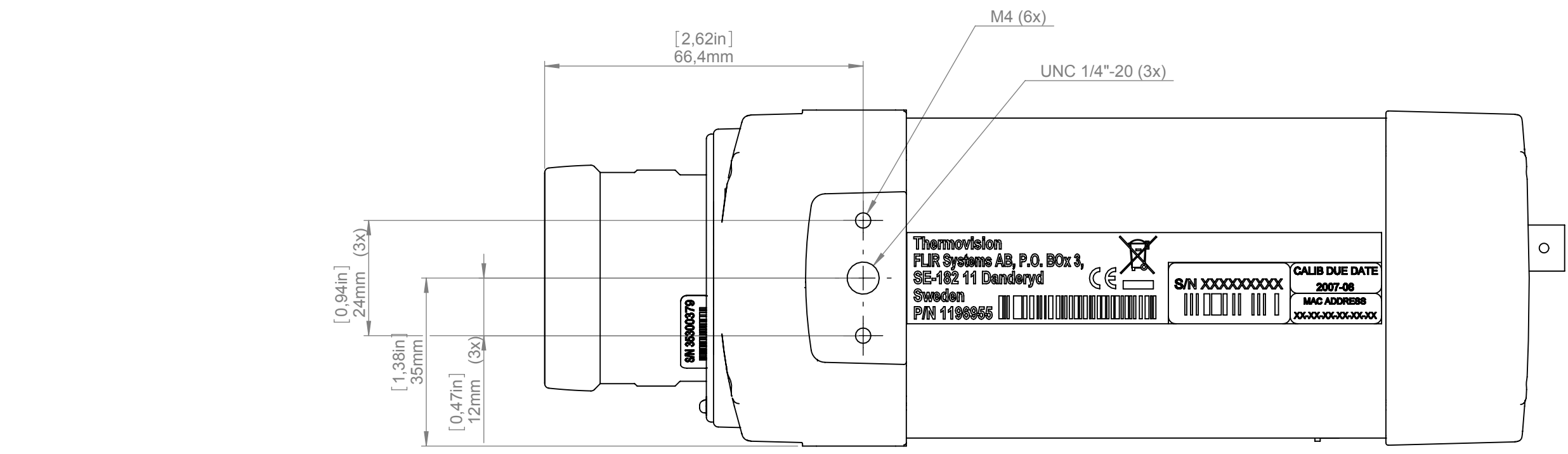
Lens support
Optional

For additional dimensions see page 1

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Camera with Lens IR f=10 mm (45°)

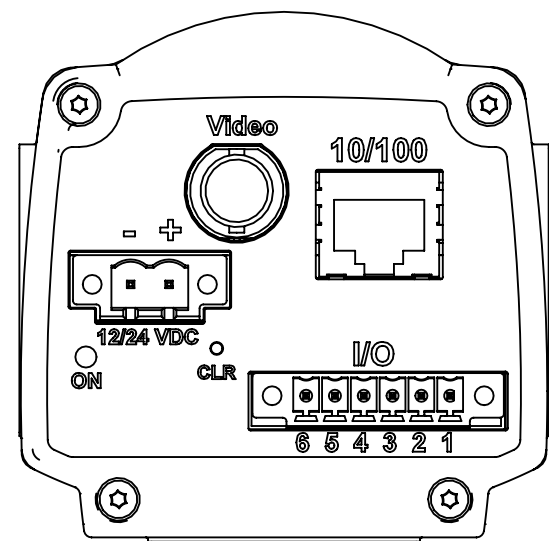
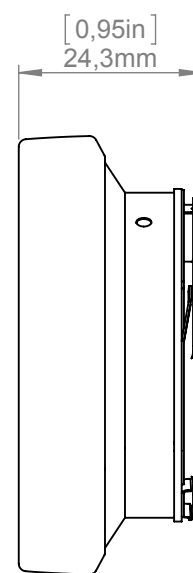
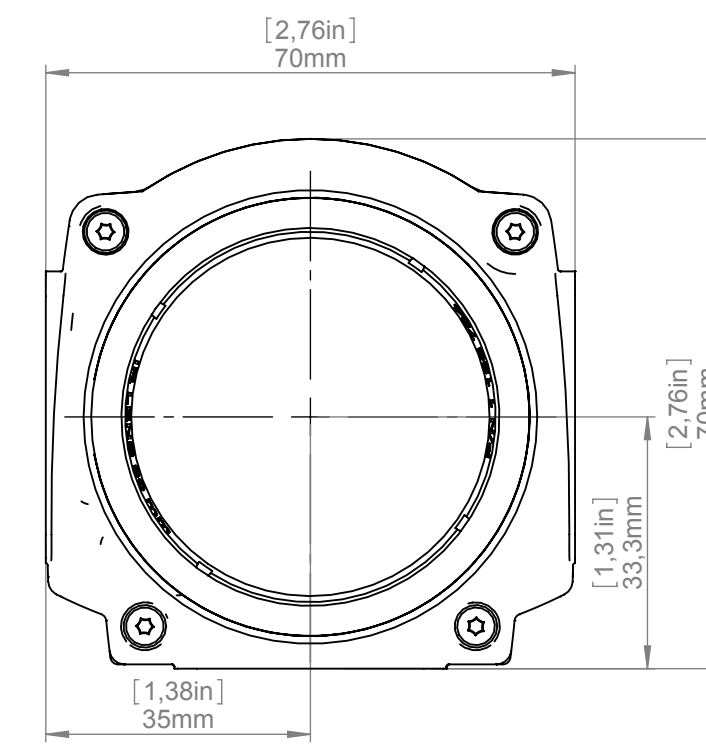
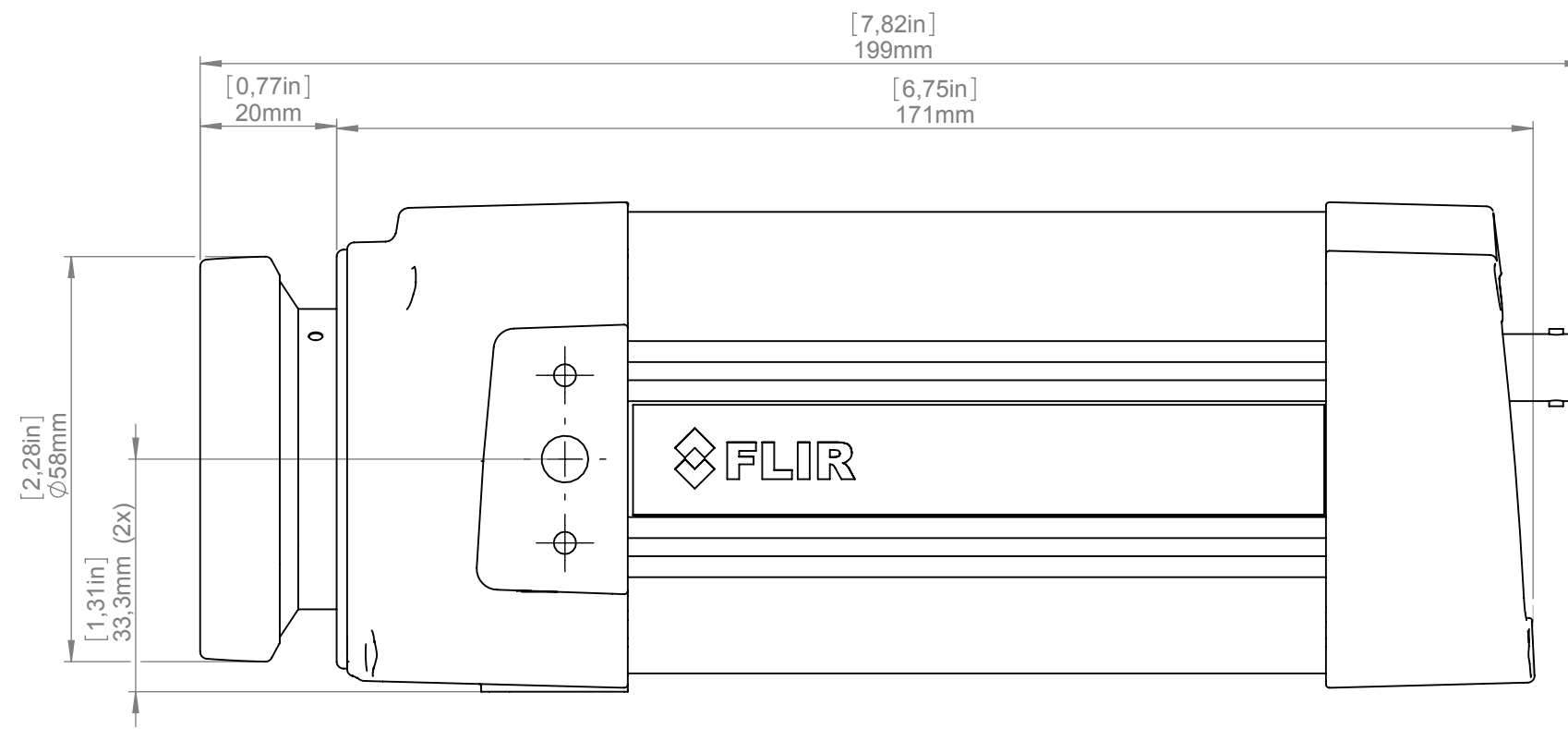
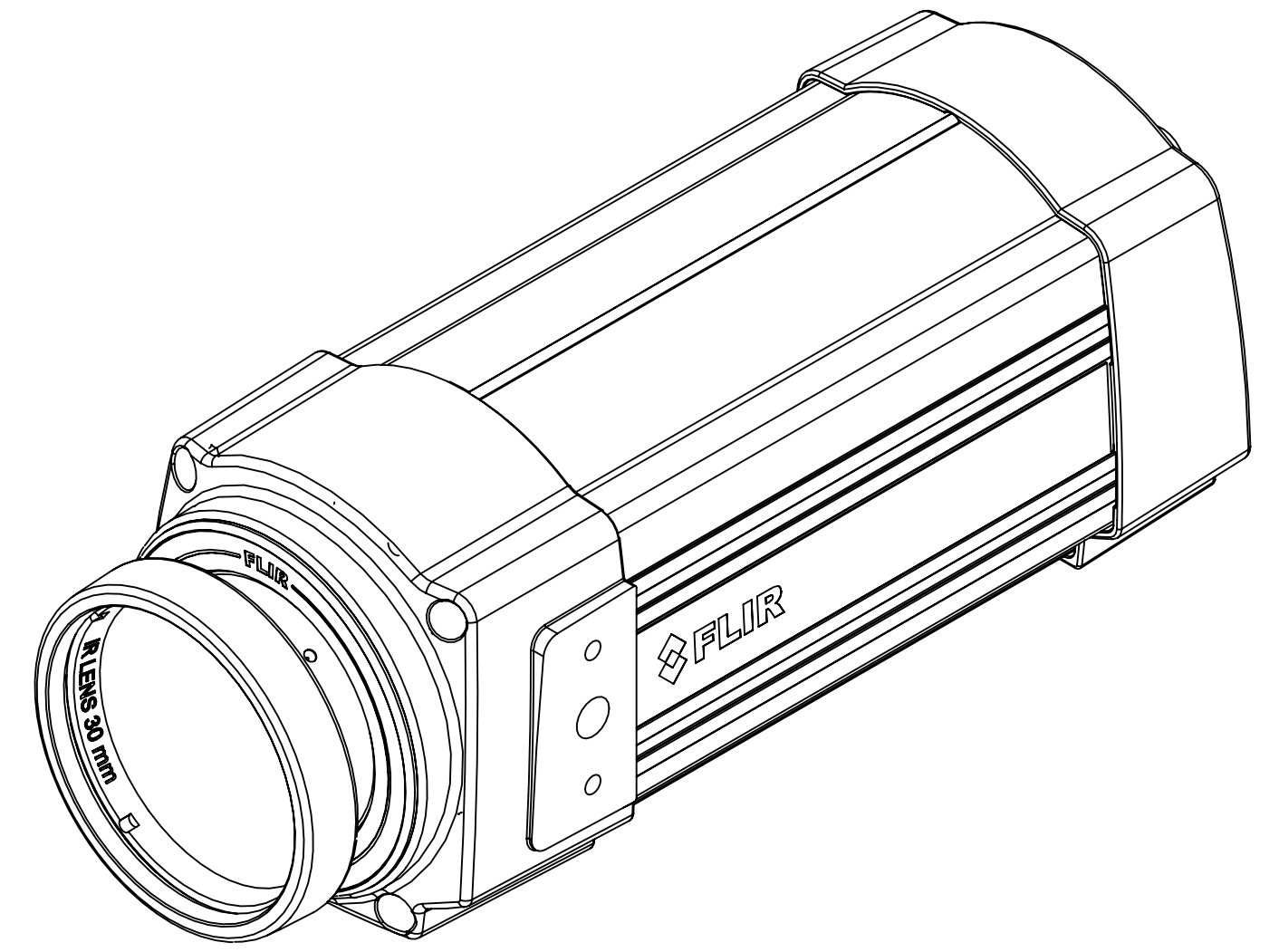
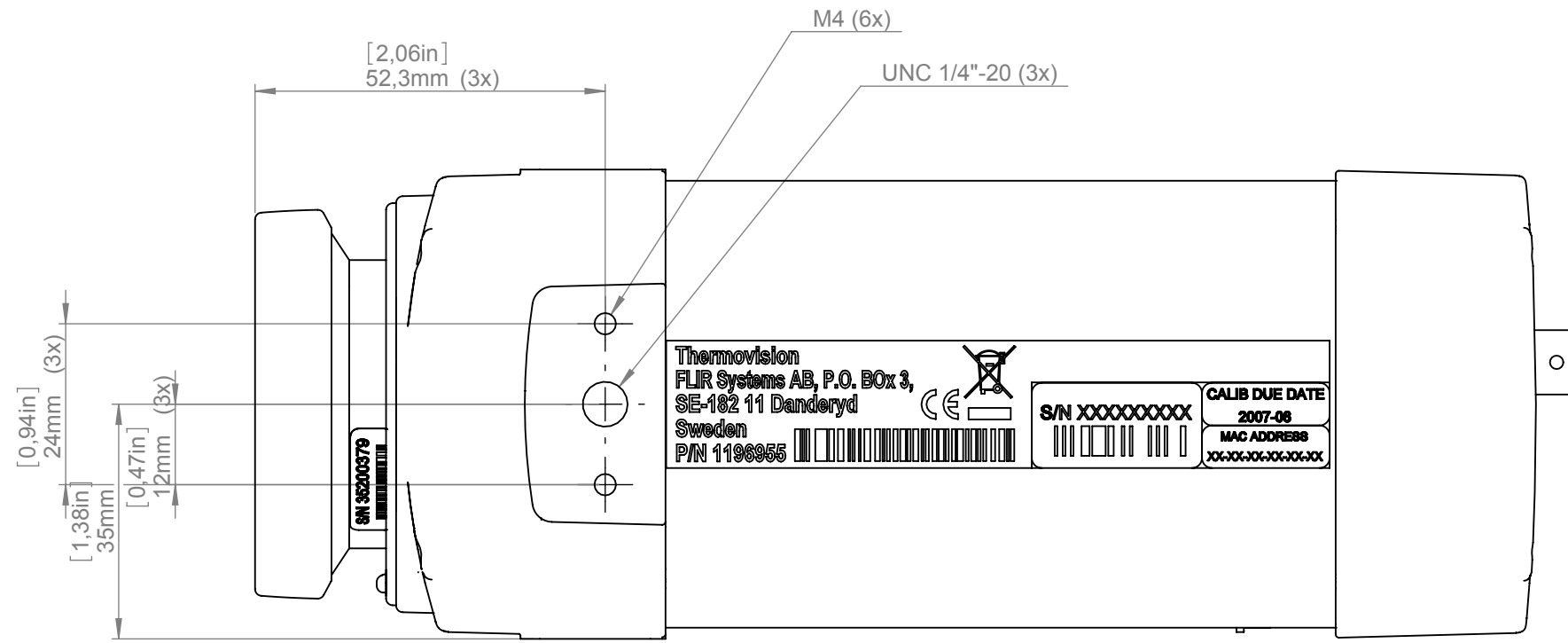


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Drawing No. T125002			Size A

Camera with Lens IR f=30 mm (15°)

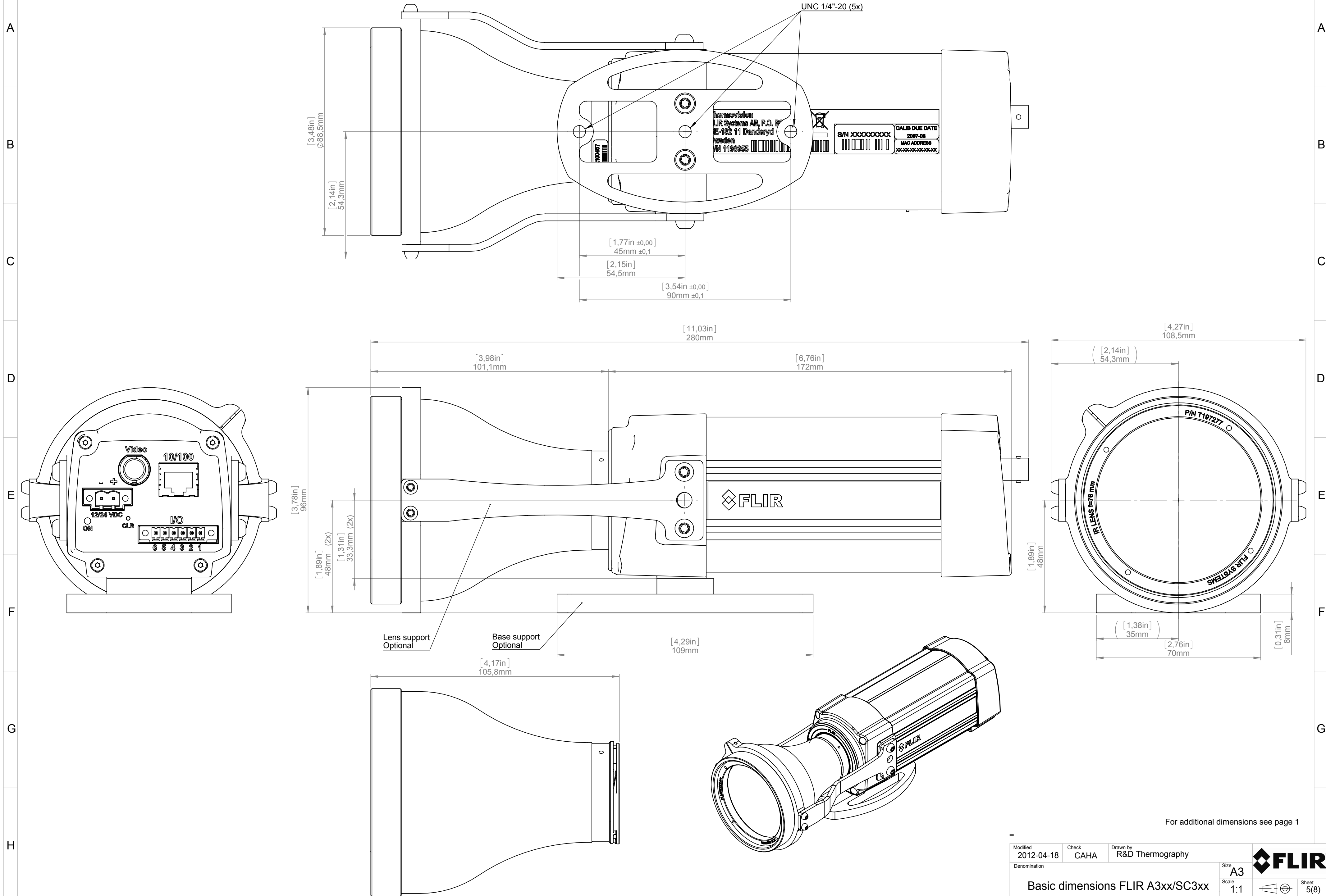


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Denomination Basic dimensions FLIR A3xx/SC3xx			Scale 1:1		Size A
			Drawing No. T125002		

Camera with Lens IR f=76 mm (6°) incl support

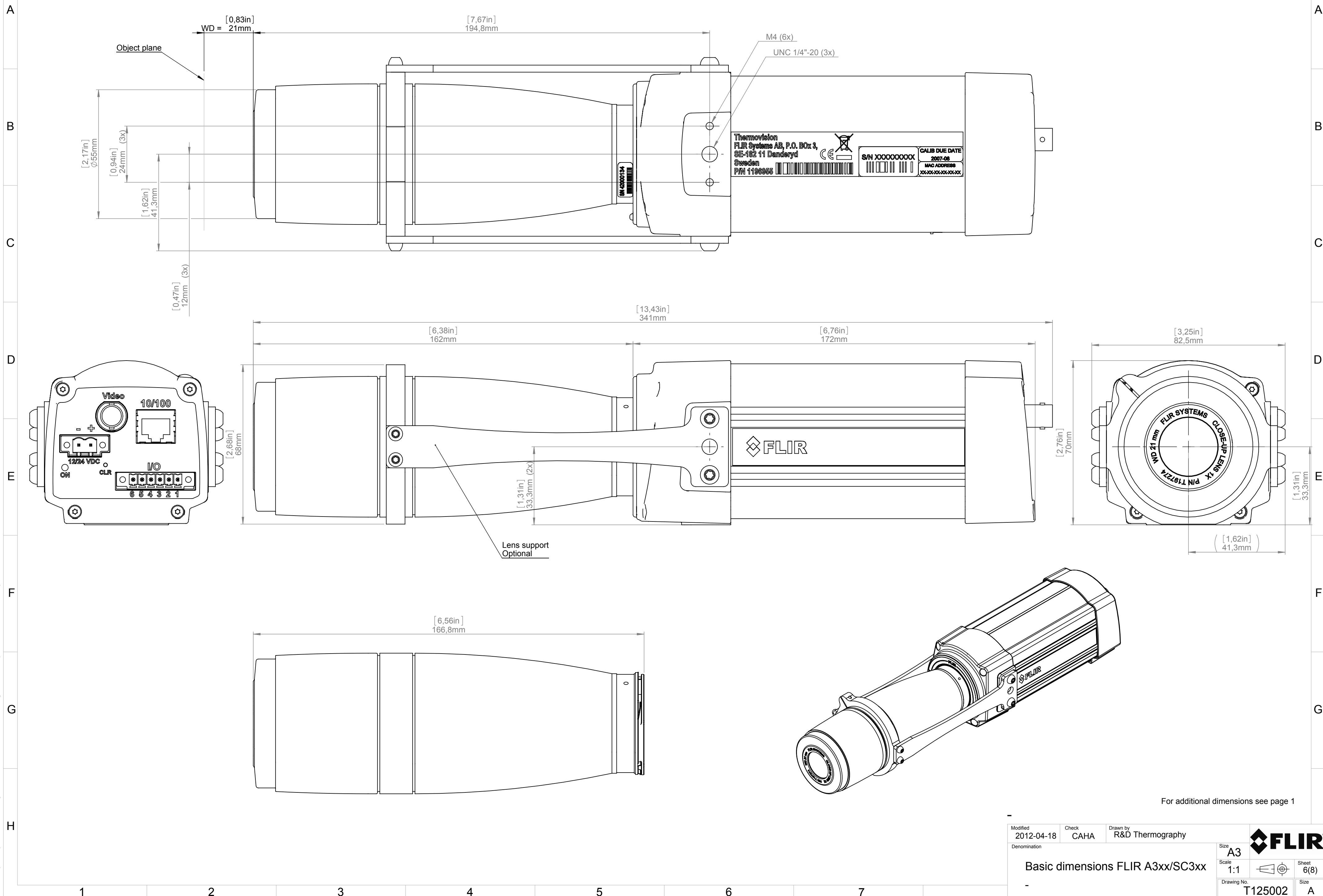


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Camera with Close-up lens 1X (25 µm) incl support

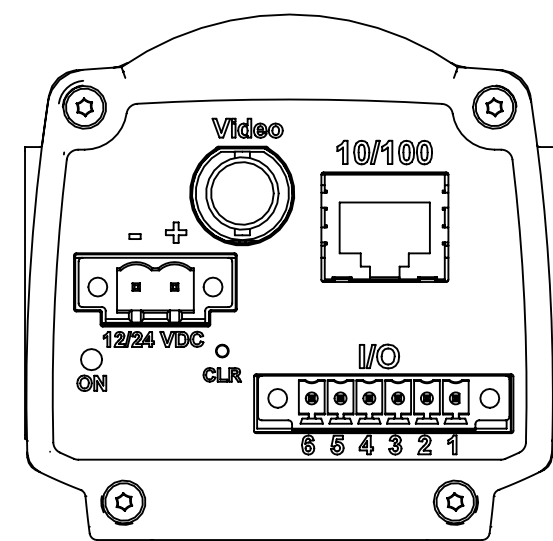
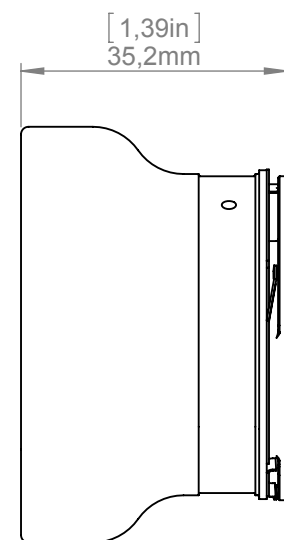
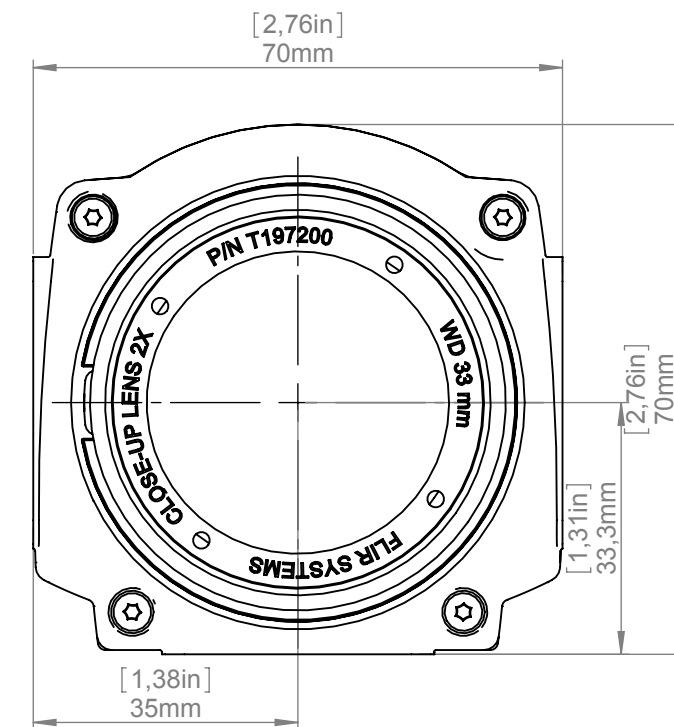
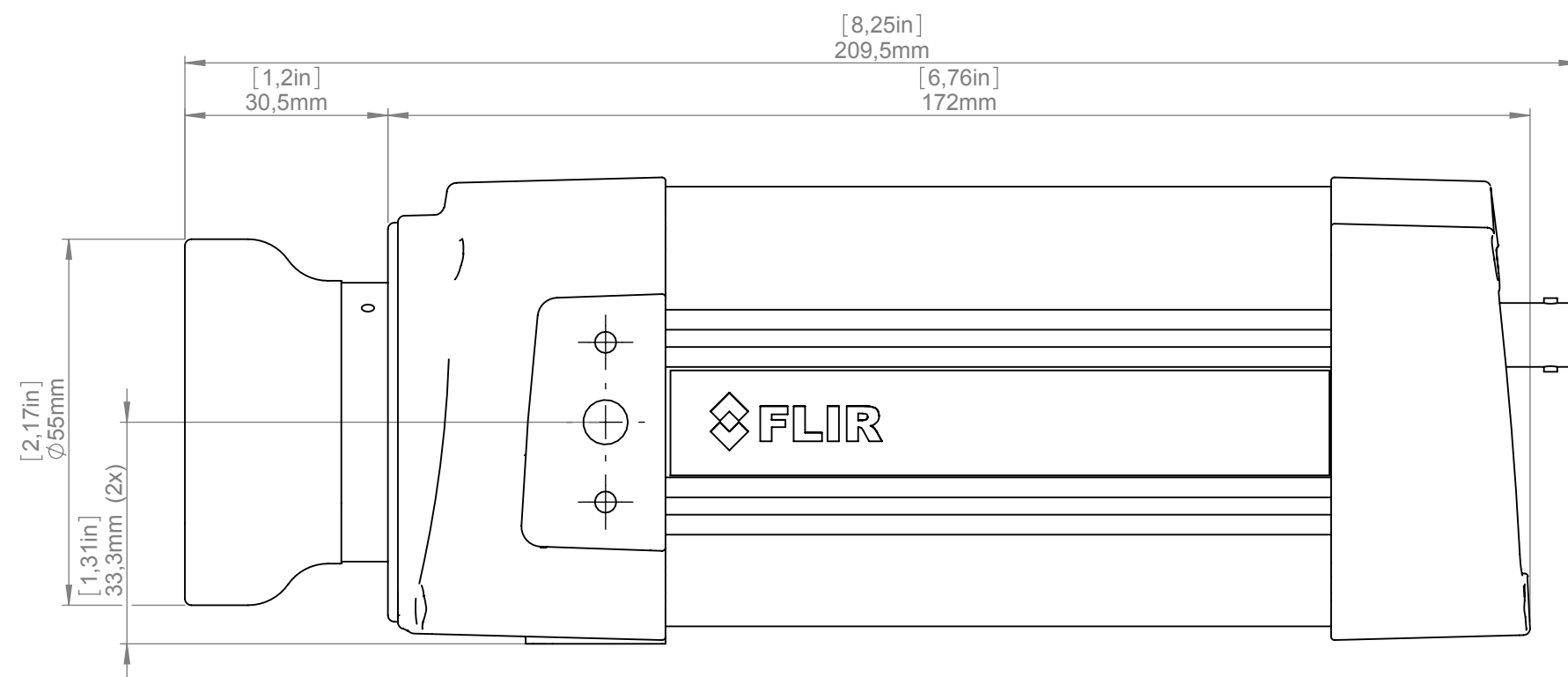
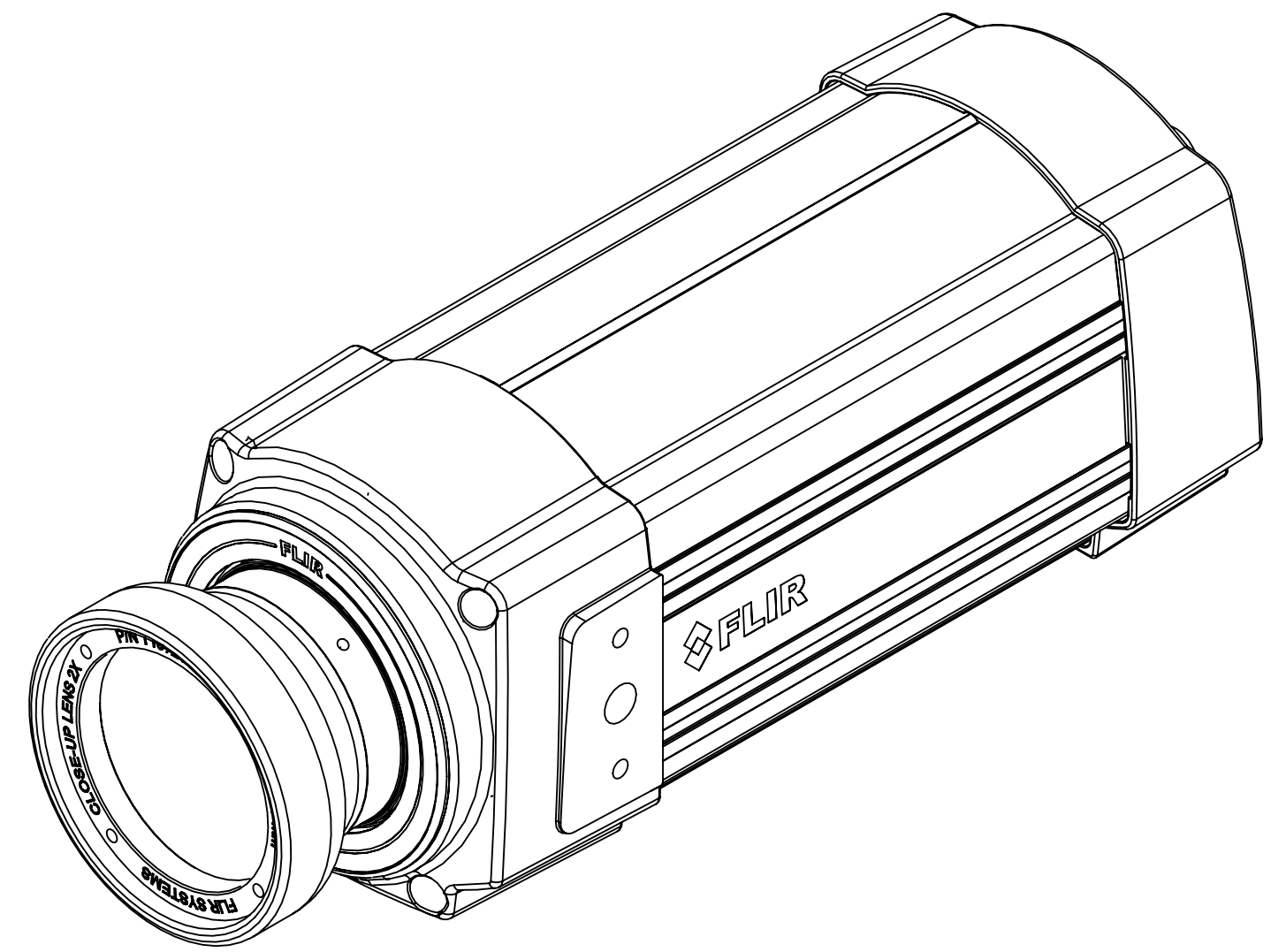
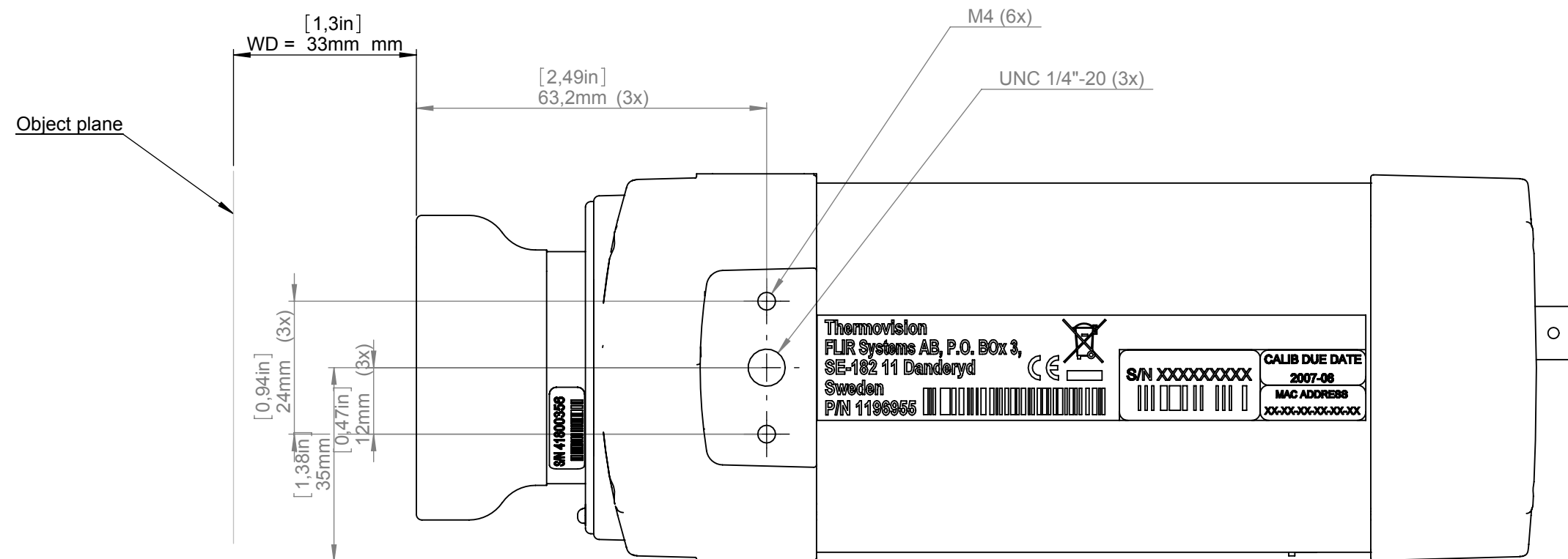


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Camera with Close-up lens 2X (50 μm)

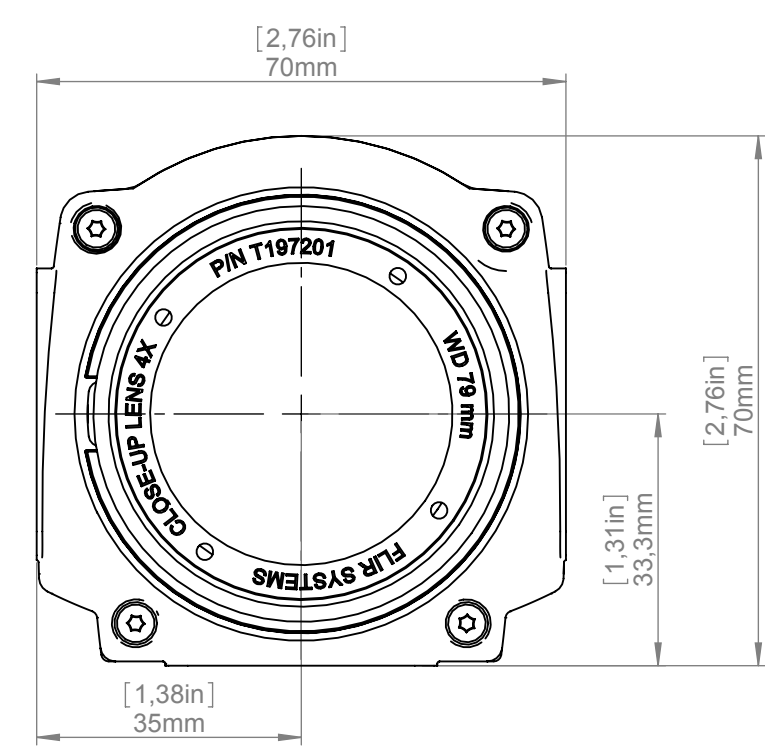
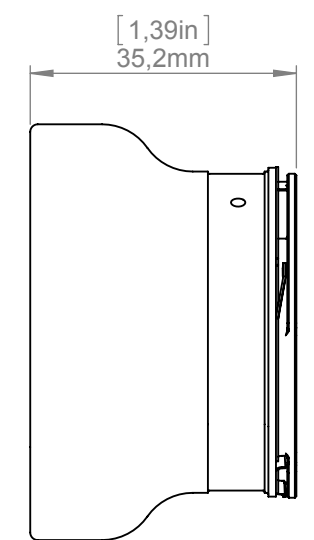
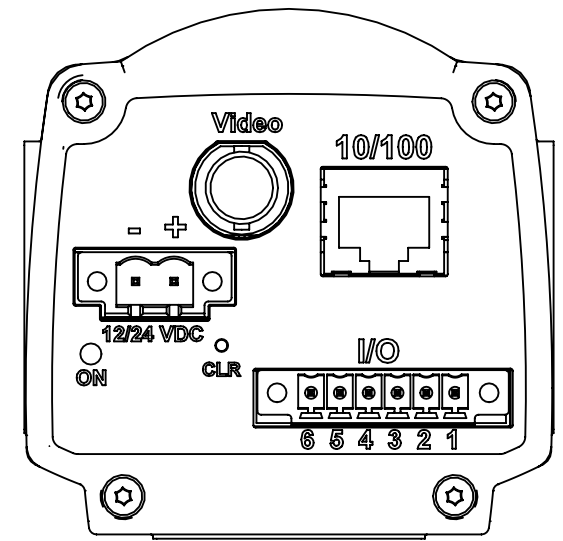
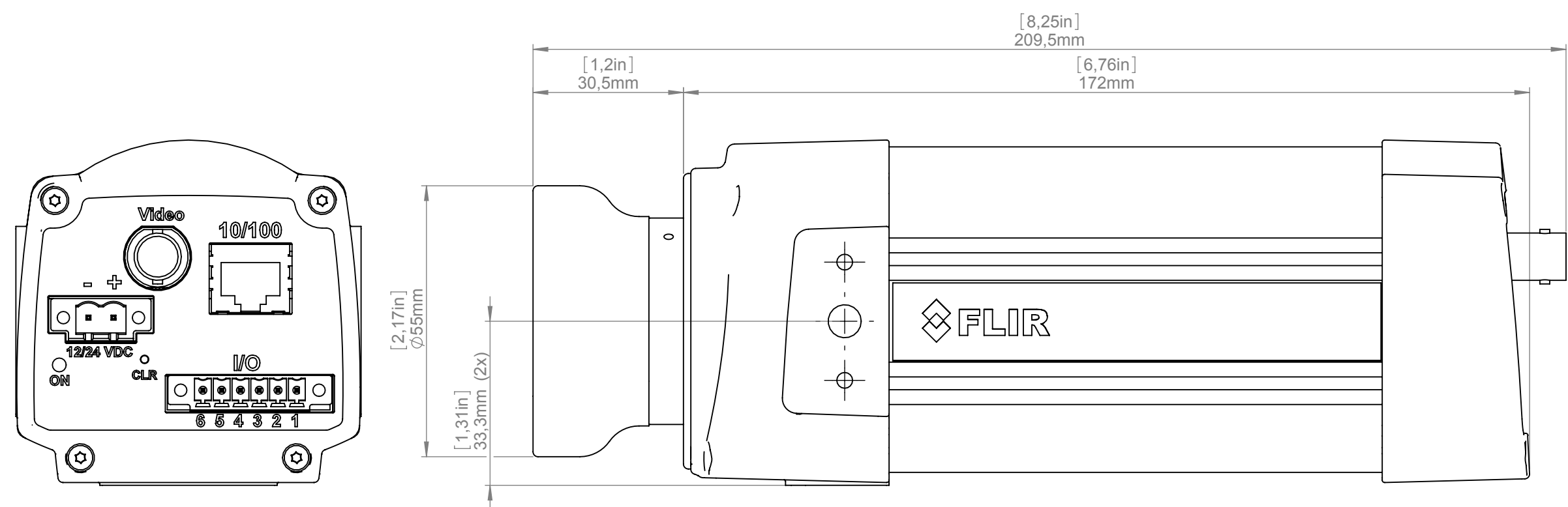
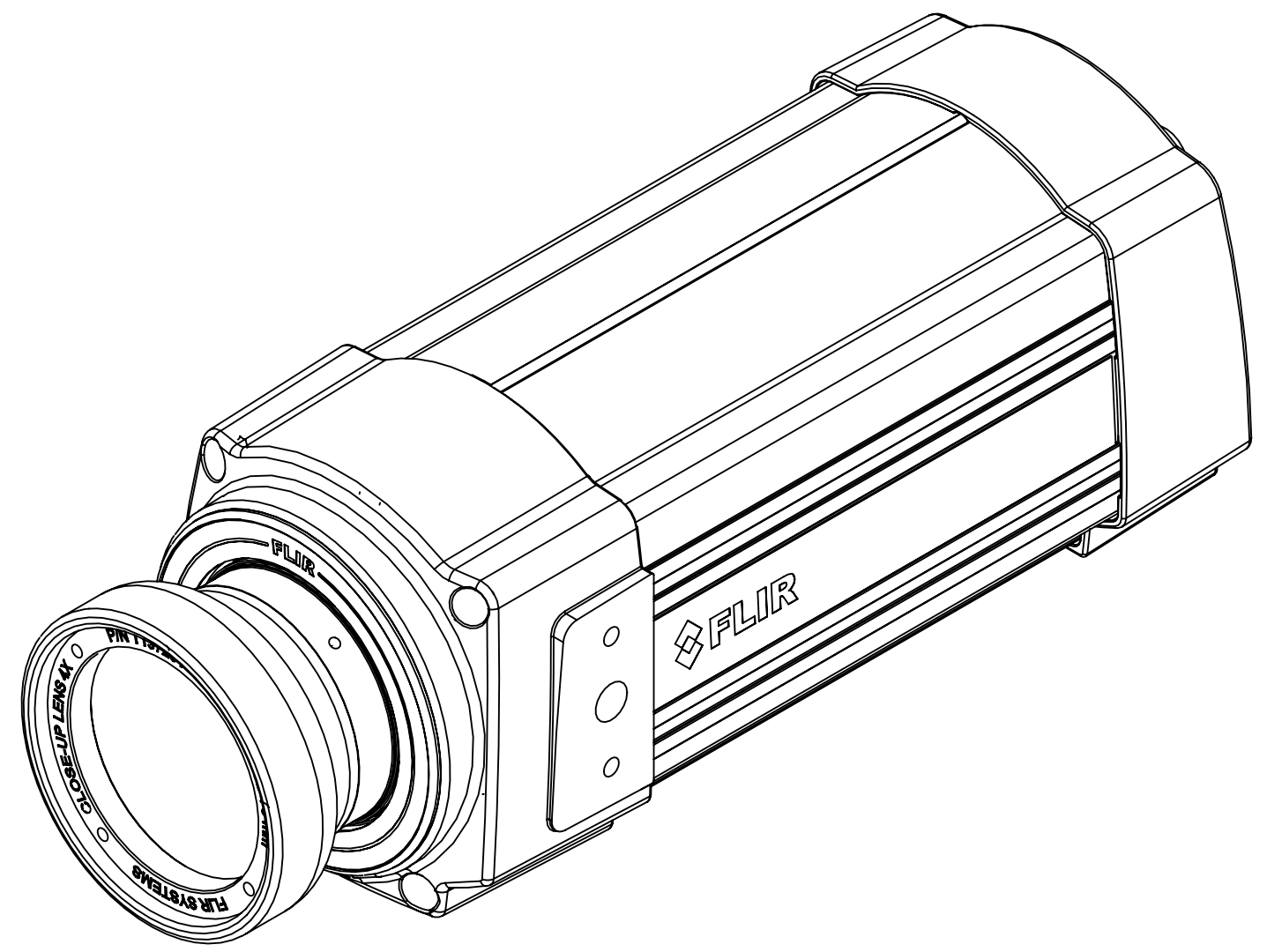
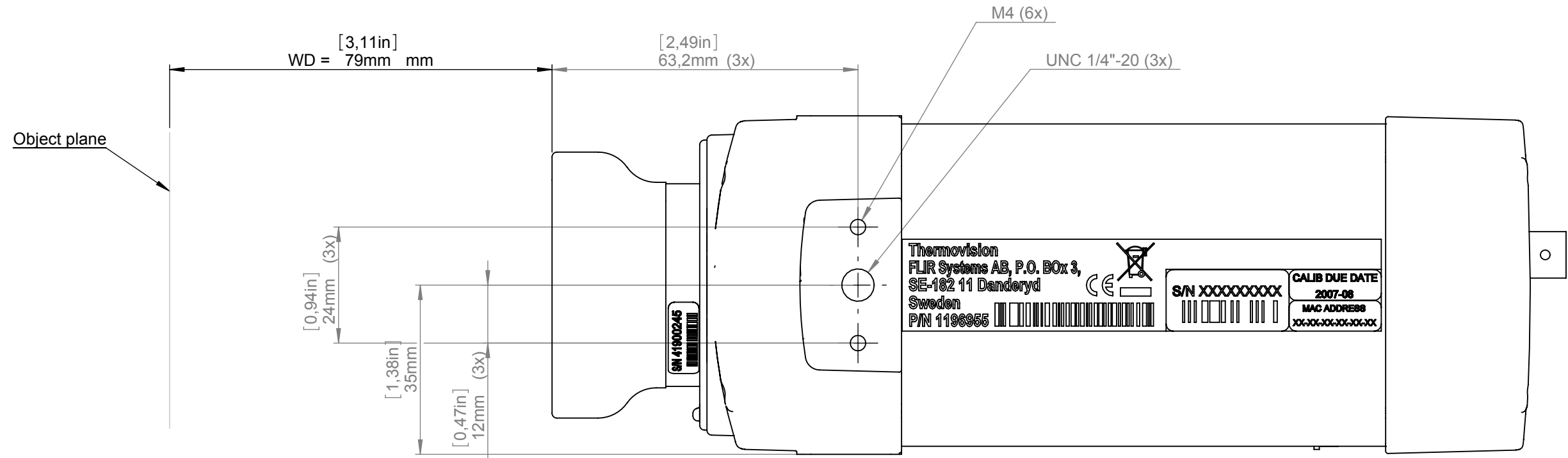


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Camera with Close-up lens 4X (100 μm)



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