

Part number:

61201-1104

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February 13, 2014, 11:30 AM

Corporate Headquarters

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Customer support

<http://support.flir.com>

Legal disclaimer

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

Information and equipment described herein may require US Government authorization for export purposes. Diversion contrary to US law is prohibited.



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	45° × 33.8° / 0.20 m (0.66 ft.)
Focal length	9.66 mm (0.38 in.)
Spatial resolution (IFOV)	2.45 mrad
Lens identification	Automatic
F-number	1.3
Image frequency	30 Hz
Focus	Automatic or manual (built in motor)
Zoom	1–8× continuous, digital, interpolating zooming on images

Detector data

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
Measurement option	Measurement Mask Filter Schedule response: File sending (ftp), email (SMTP)
Difference temperature	Delta temperature between measurement functions or reference temperature
Reference temperature	Manually set or captured from any measurement function
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, Digital In, Camera temperature, timer
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P/N: 61201-1104

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Alarm	
Alarm output	Digital Out, log, store image, file sending (ftp), email (SMTP), notification
Set-up	
Color palettes	Color palettes (BW, BW inv, Iron, Rain)
Set-up commands	Date/time, Temperature°C/°F
Storage of images	
Storage media	Built-in memory for image storage
File formats	Standard JPEG, 16-bit measurement data included
Ethernet	
Ethernet	Control, result and image
Ethernet, type	100 Mbps
Ethernet, standard	IEEE 802.3
Ethernet, connector type	RJ-45
Ethernet, communication	TCP/IP socket-based FLIR proprietary
Ethernet, video streaming	MPEG-4, ISO/IEC 14496-1 MPEG-4 ASP@L5
Ethernet, image streaming	16-bit 320 x 240 pixels @ 7-8 Hz - Radiometric
Ethernet, power	Power over Ethernet, PoE IEEE 802.3af class 0
Ethernet, protocols	Ethernet/IP, Modbus TCP, TCP, UDP, SNMP, RTSP, RTP, HTTP, ICMP, IGMP, ftp, SMTP, SMB (CIFS), DHCP, MDNS (Bonjour), uPnP
Digital input/output	
Digital input, purpose	Image tag (start/stop/general), Input ext. device (programmatically read)
Digital input	2 opto-isolated, 10–30 VDC
Digital output, purpose	As function of ALARM, Output to ext. device (programmatically set)
Digital output	2 opto-isolated, 10–30 VDC, max 100 mA
Digital I/O, isolation voltage	500 VRMS
Digital I/O, supply voltage	12/24 VDC, max 200 mA
Digital I/O, connector type	6-pole jackable screw terminal
Composite video	
Video out	Composite video output, PAL and NTSC compatible
Video, standard	CVBS (ITU-R-BT.470 PAL/SMPTE 170M NTSC)
Power system	
External power operation	12/24 VDC, 24 W absolute max
External power, connector type	2-pole jackable screw terminal
Voltage	Allowed range 10–30 VDC
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)



FLIR A310f 45°

P/N: 61201-1104

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Physical data

Weight	4.8 kg (10.6 lb.)
Size (L x W x H)	460 x 140 x 159 mm (18.1 x 5.5 x 6.3 in.)
Base mounting	TBA
Housing material	Aluminum

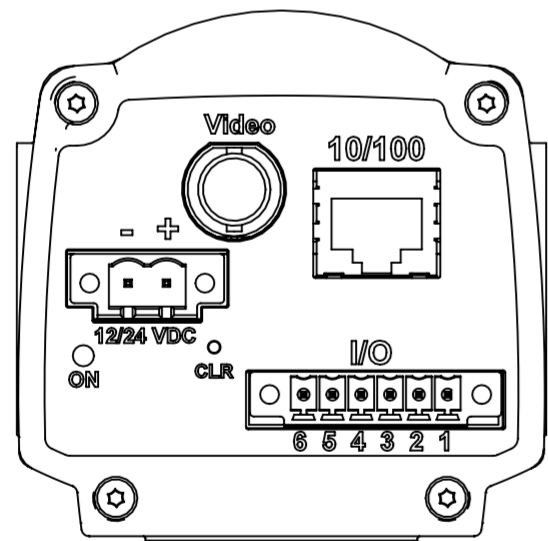
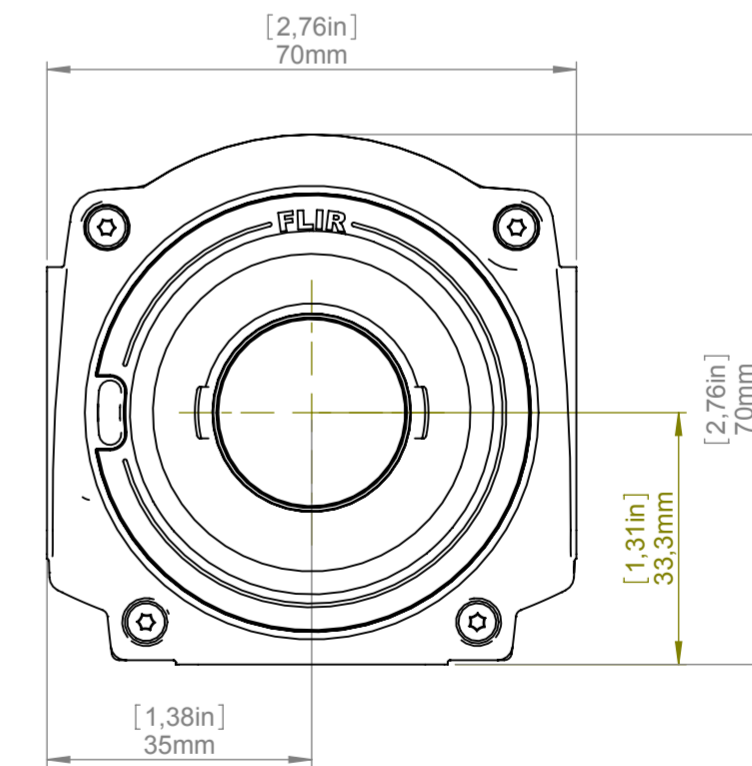
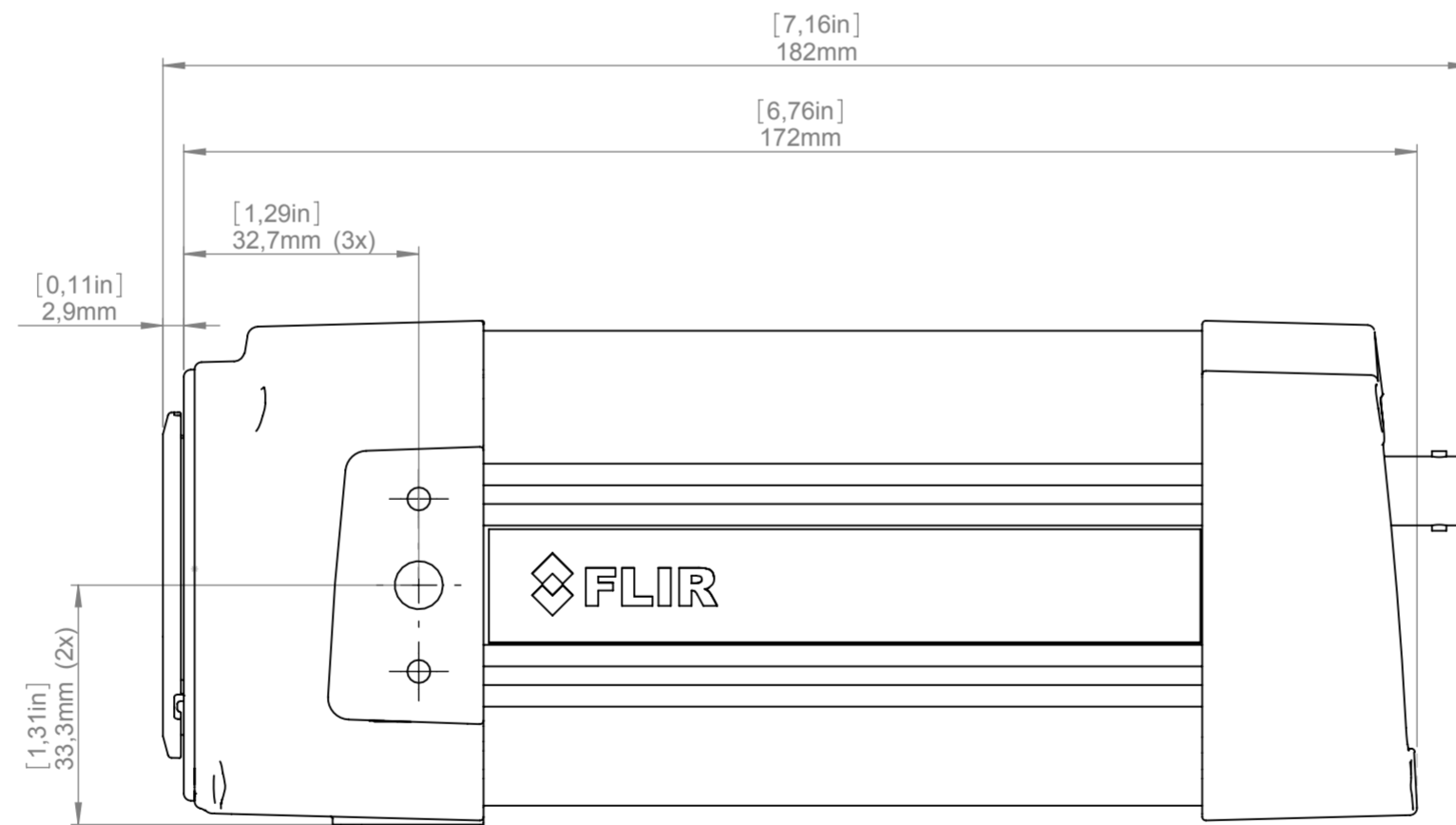
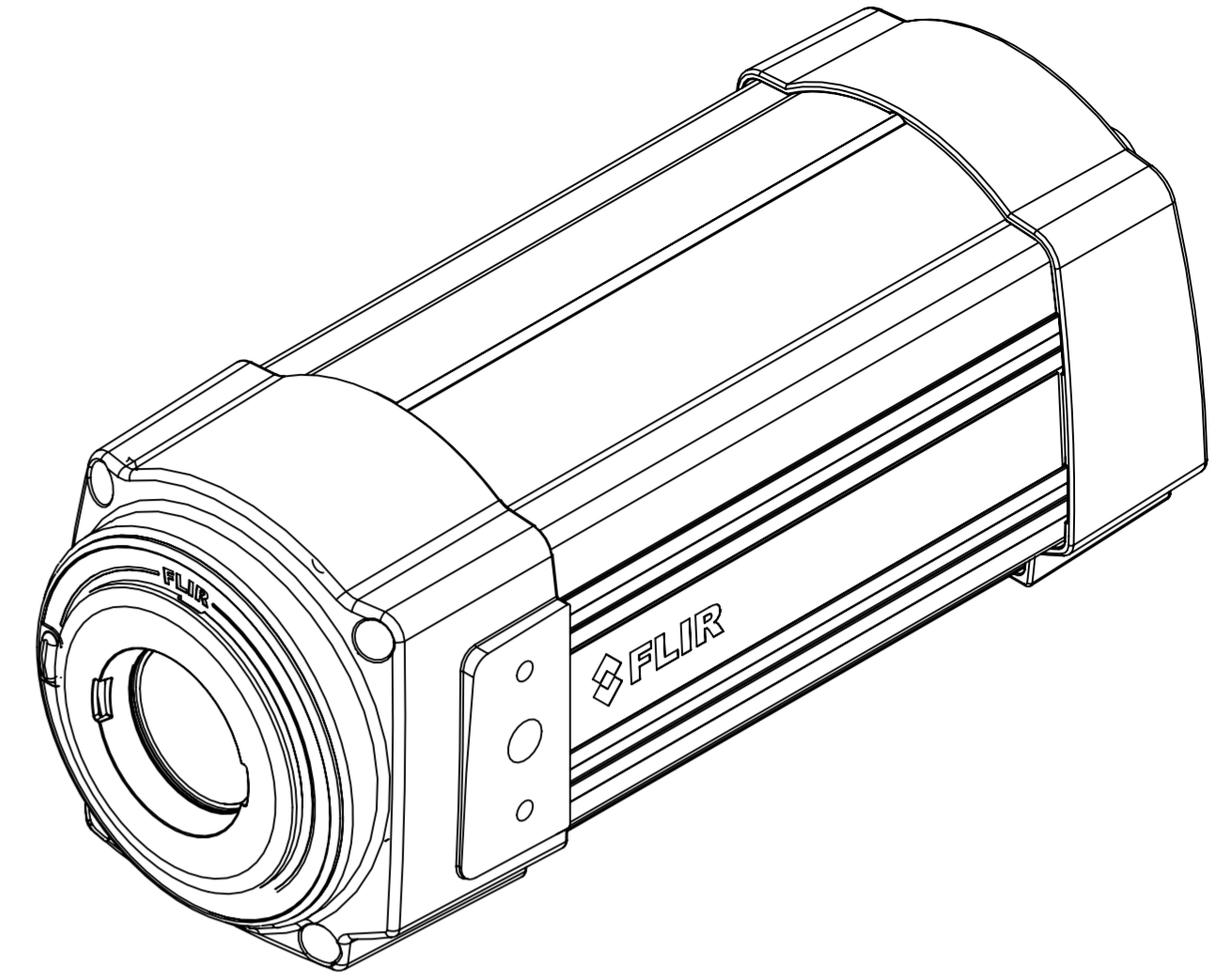
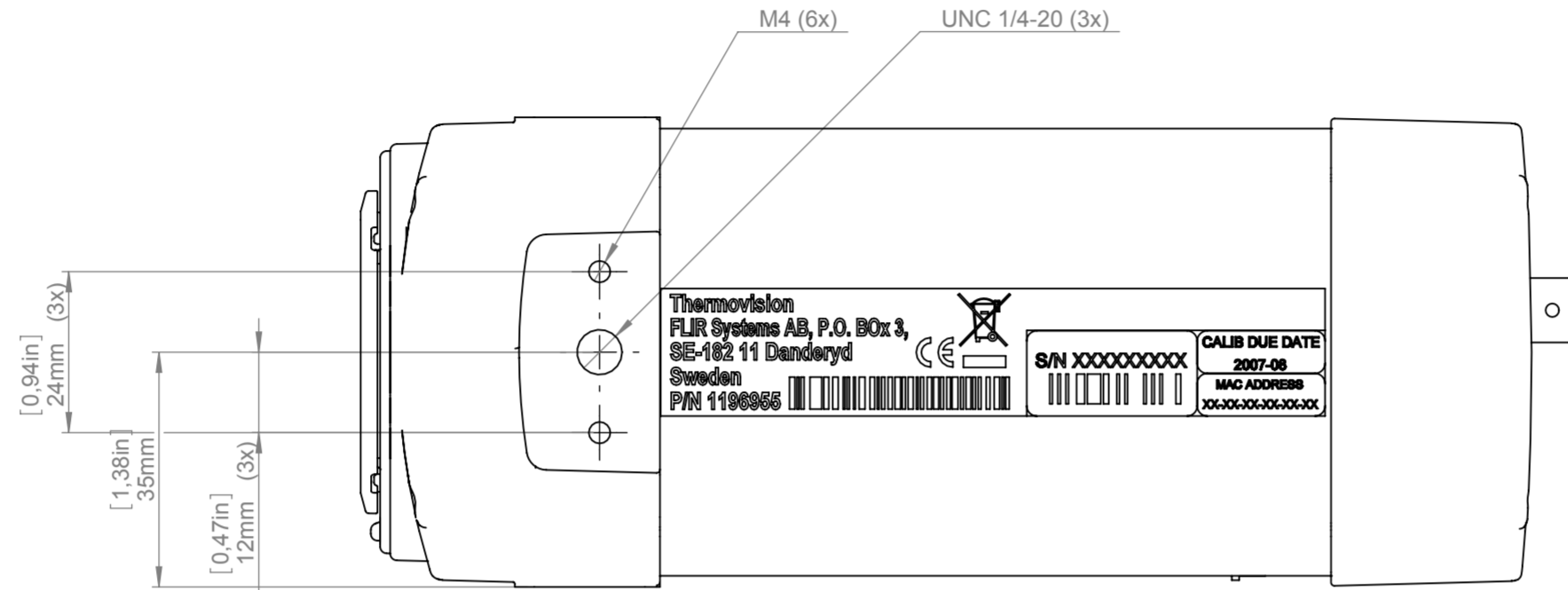
System features

External power operation (heater)	24 VDC 25 W max w/heater @ 24 VDC
External power, connector type (heater)	2-pole jackable screw terminal
Voltage (heater)	Allowed range 21-30 VDC
Automatic heaters	Clears window from ice

Shipping information

- Cardboard box
 - Infrared camera with lens and environmental housing
 - Calibration certificate
 - Downloads brochure
 - FLIR Sensors Manager CD-ROM
 - Lens cap
 - Printed Getting Started Guide
 - Printed Important Information Guide
 - Service & training brochure
 - Small accessories kit
 - User documentation CD-ROM
 - FLIR Tools & Utilities CD-ROM
 - Registration card
-

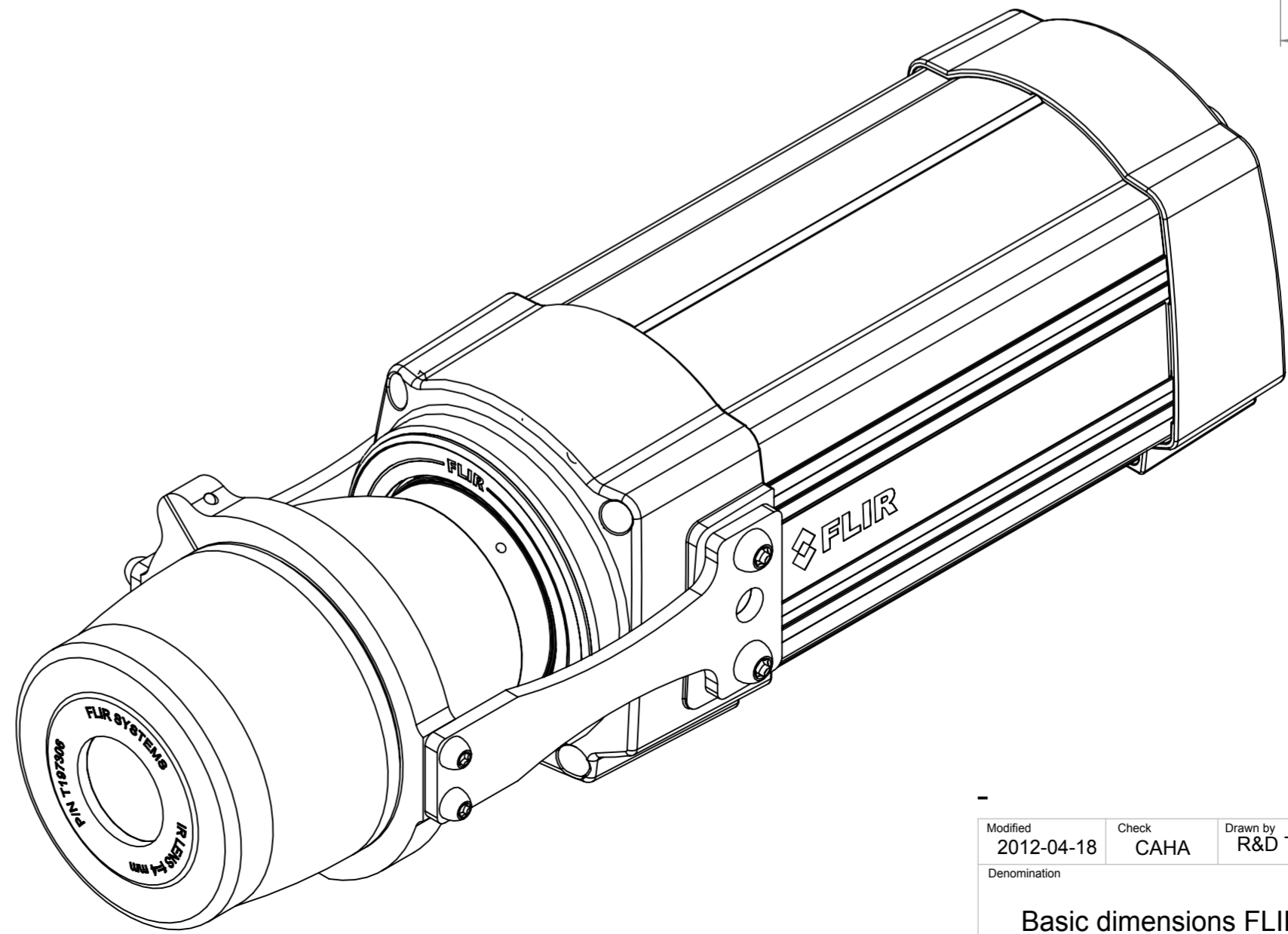
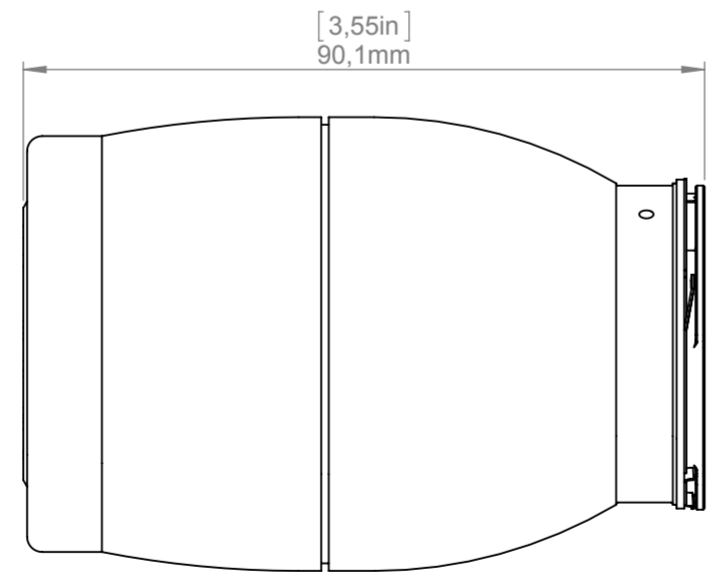
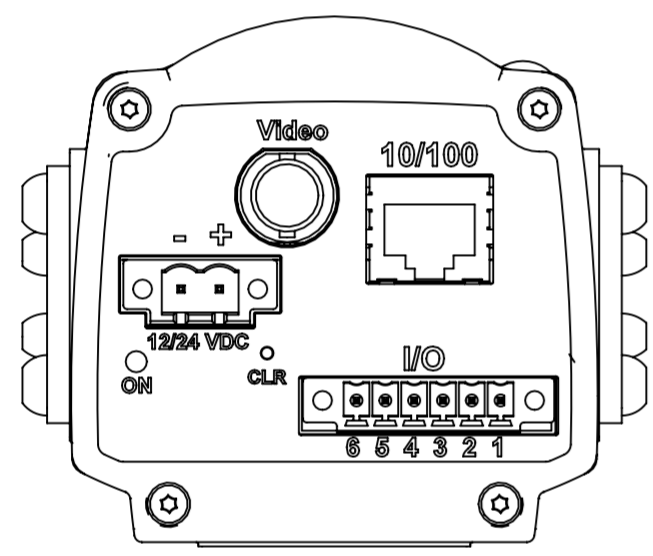
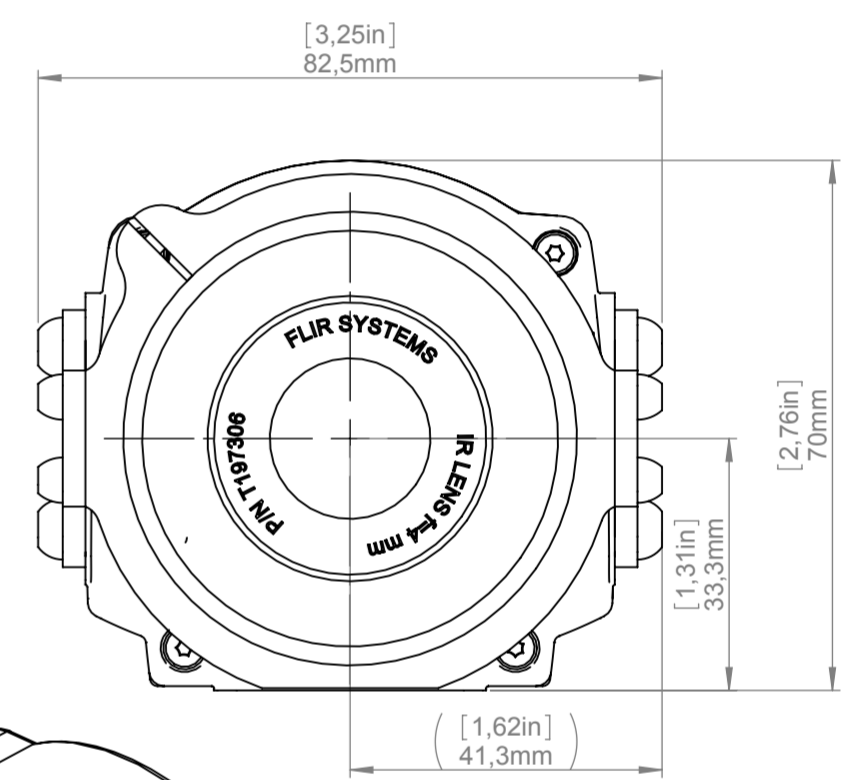
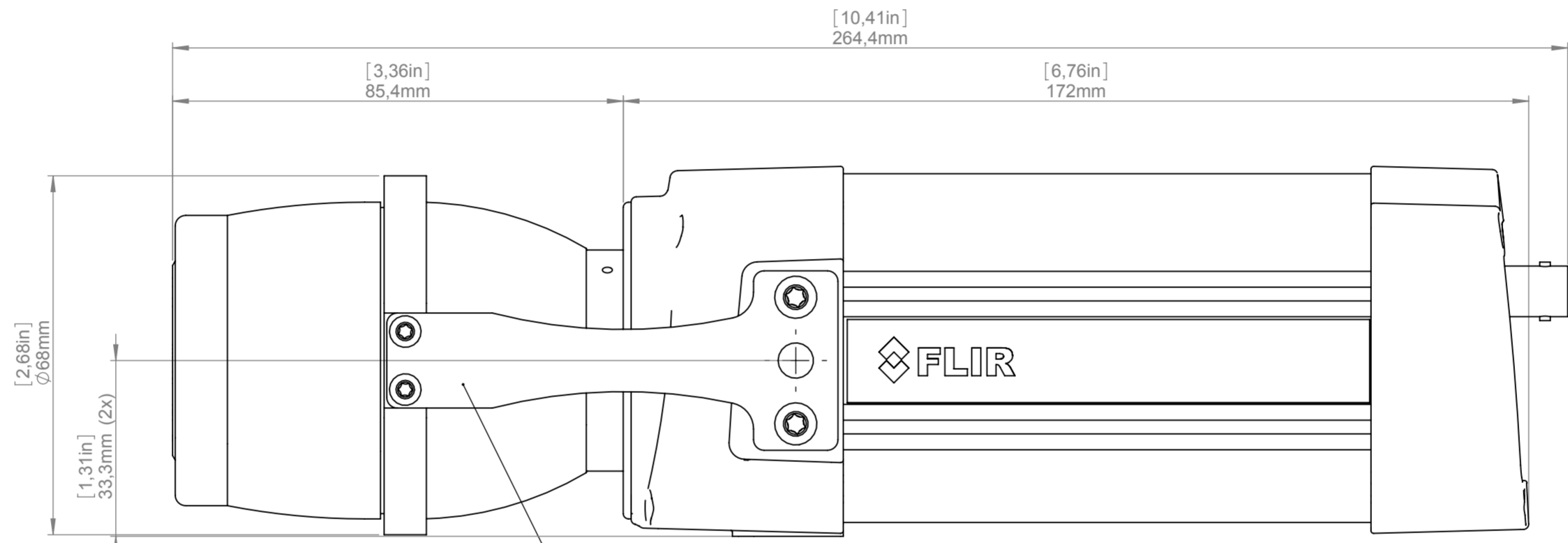
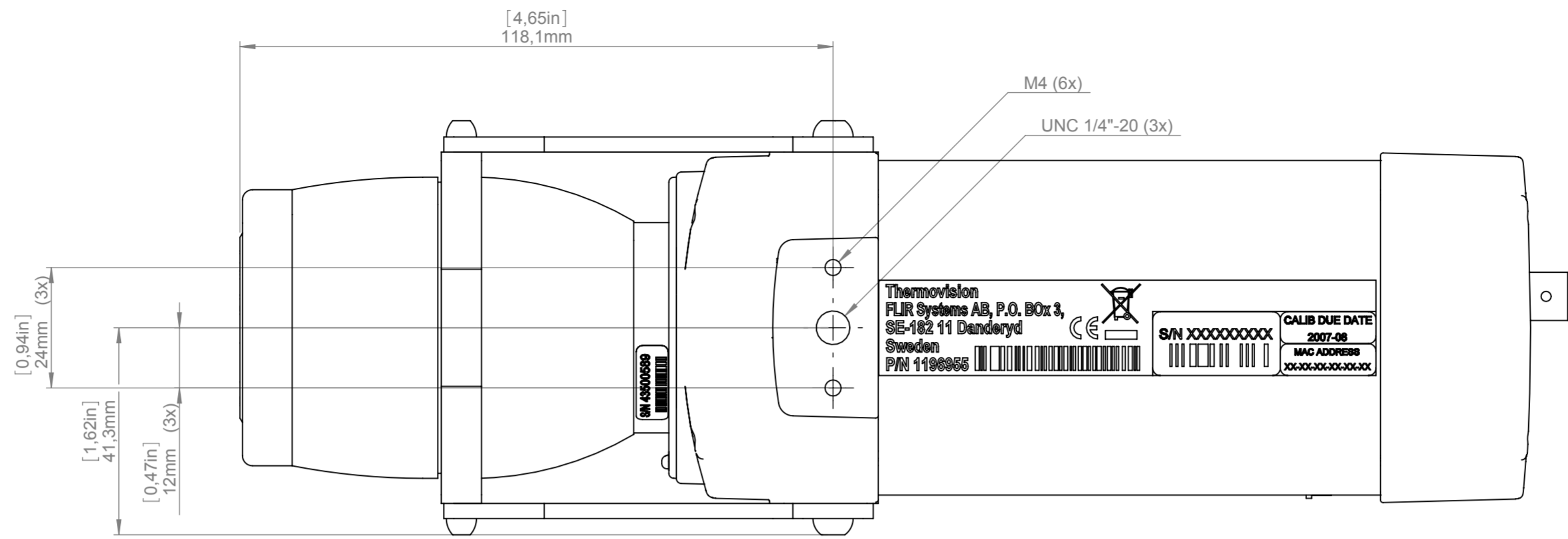
Camera with built-in IR lens f=18 mm (25°)



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

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



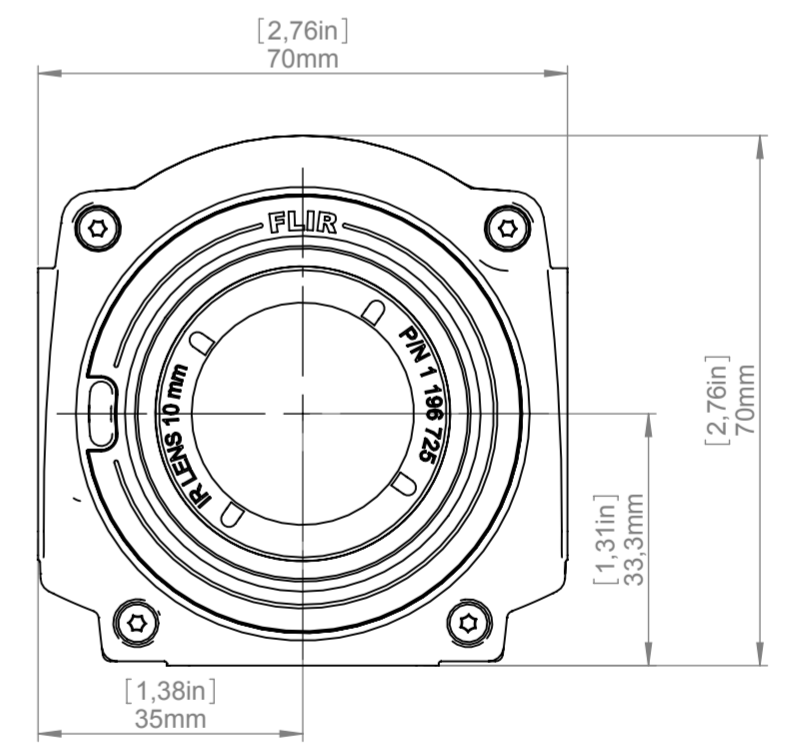
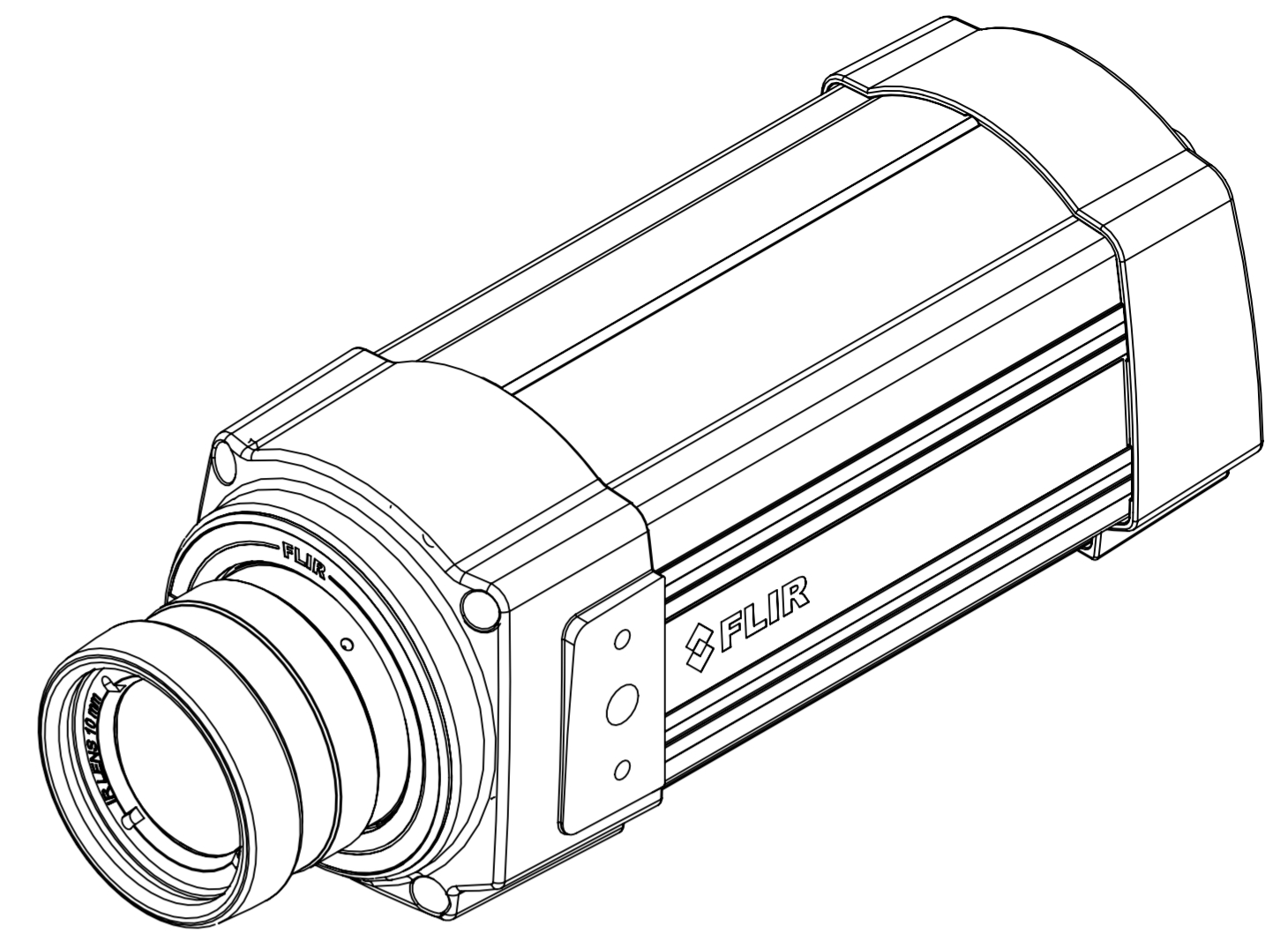
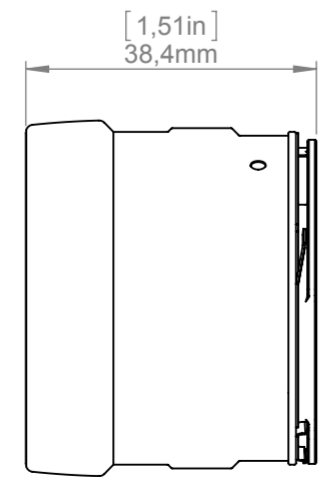
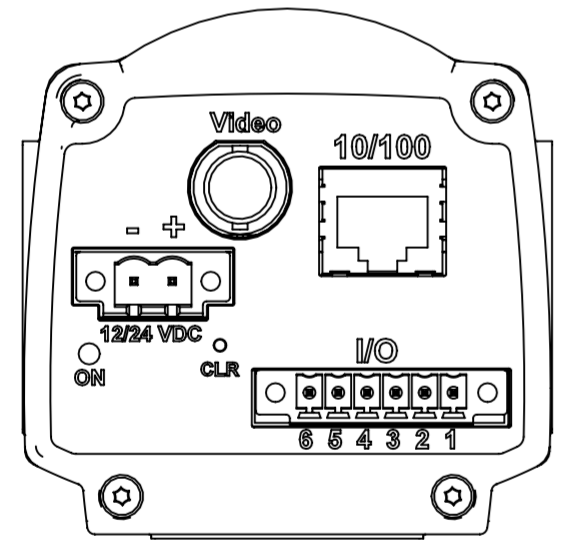
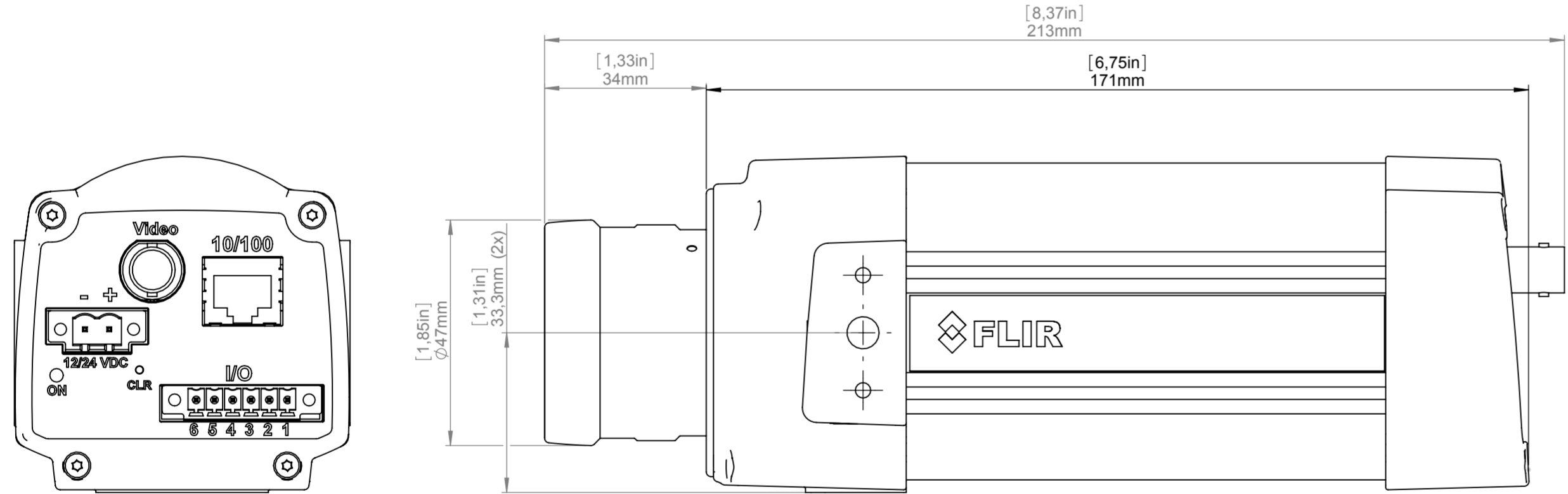
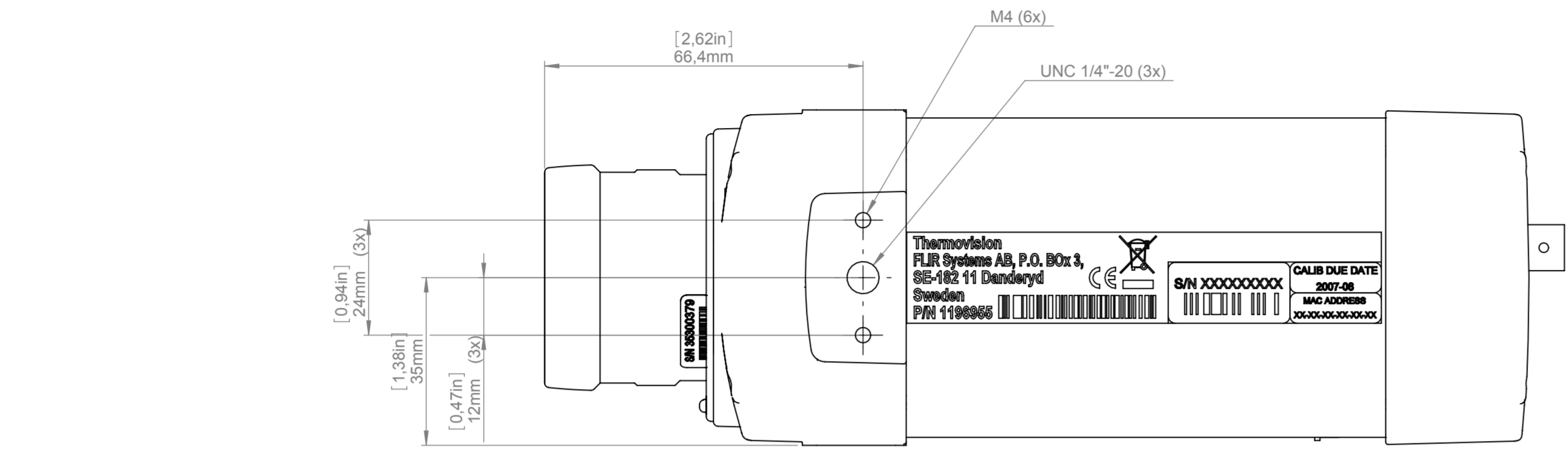
Lens support
Optional

For additional dimensions see page 1

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Drawing No. T125002			Size A

Camera with Lens IR f=10 mm (45°)

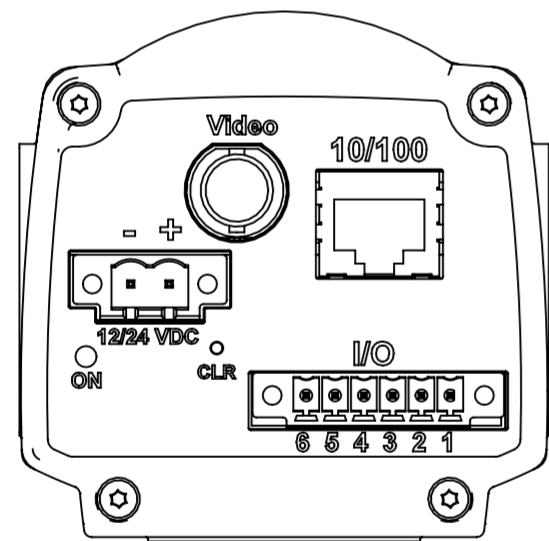
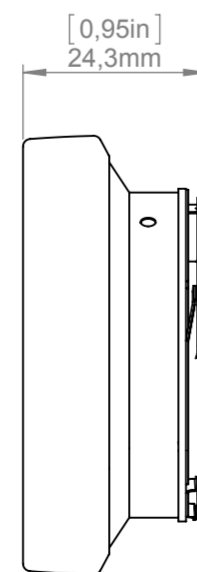
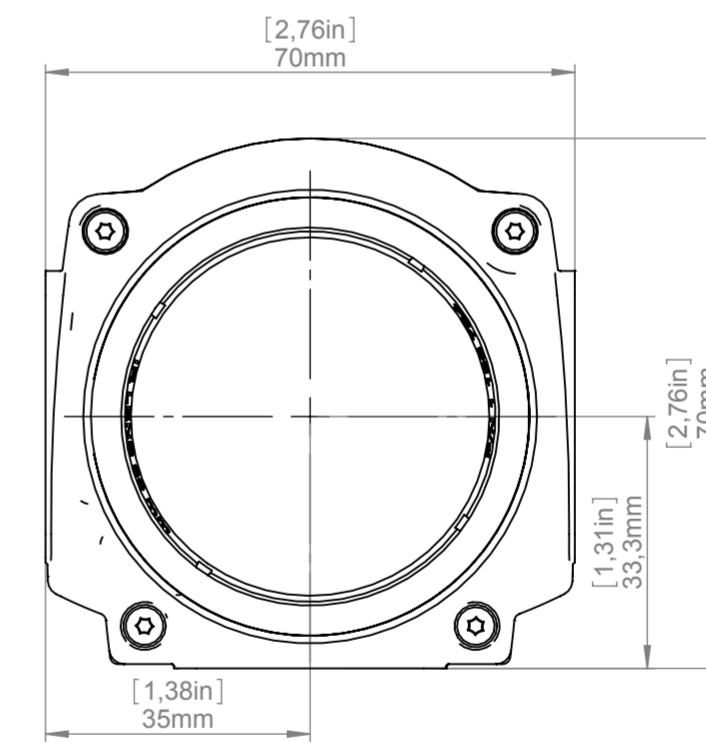
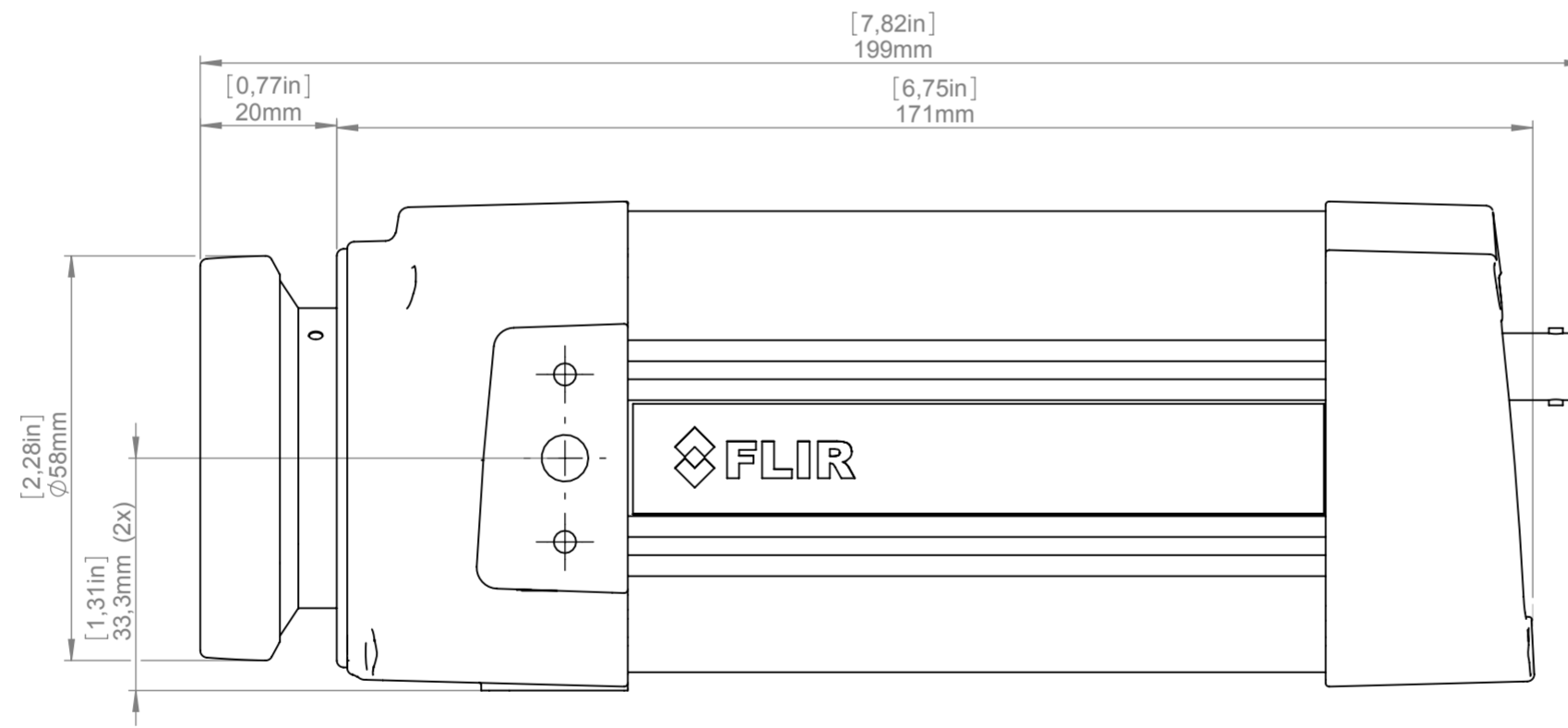
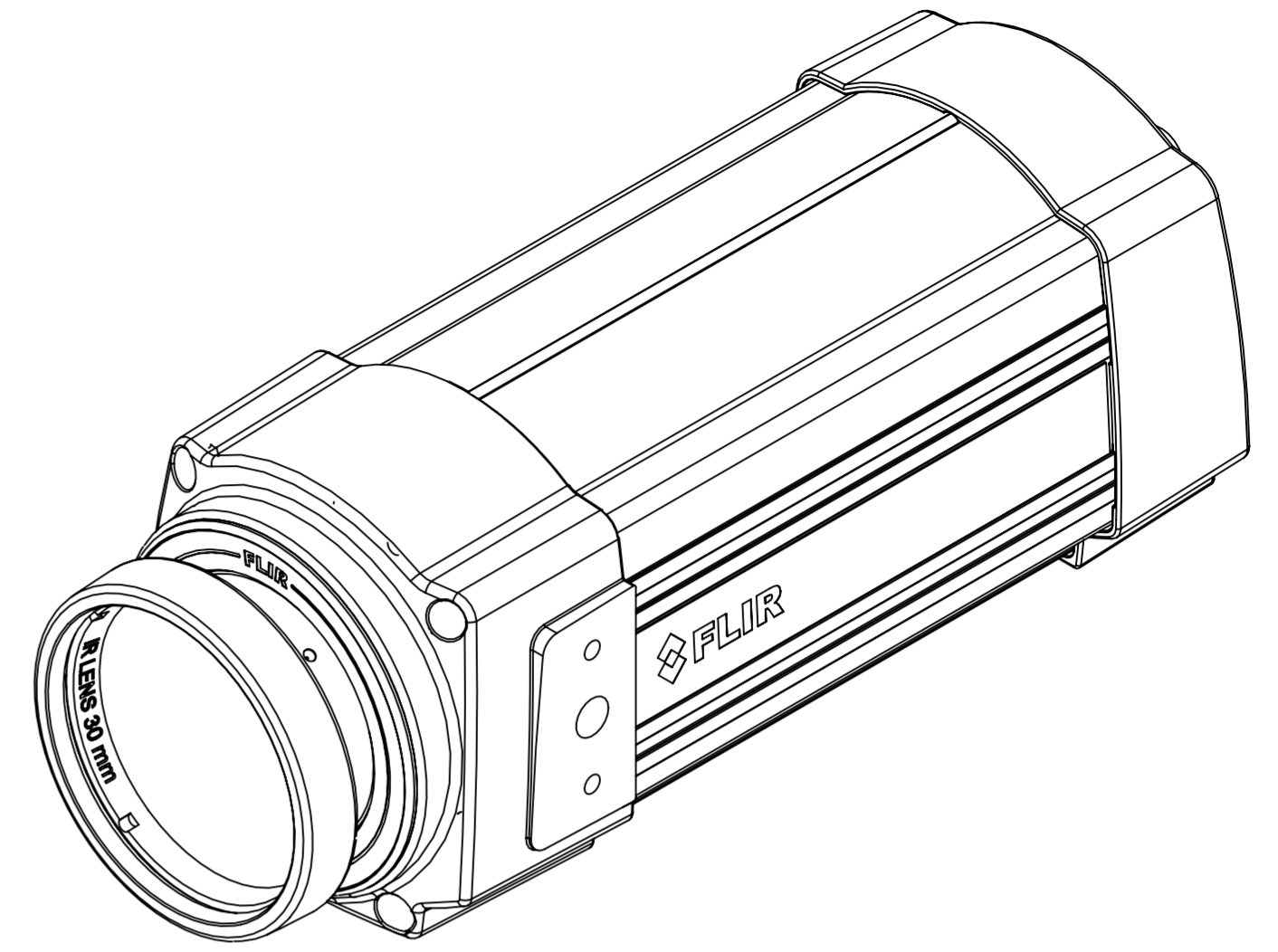
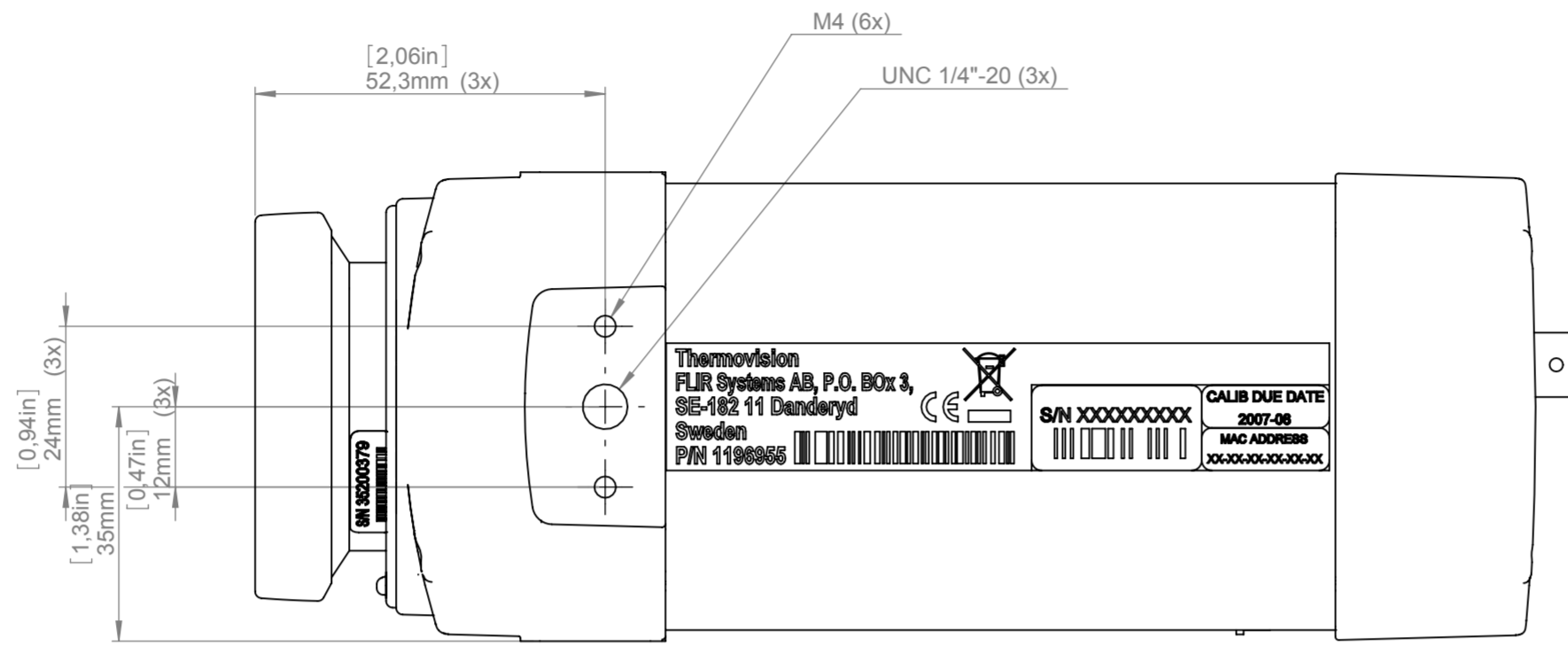


For additional dimensions see page 1

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

Camera with Lens IR f=30 mm (15°)

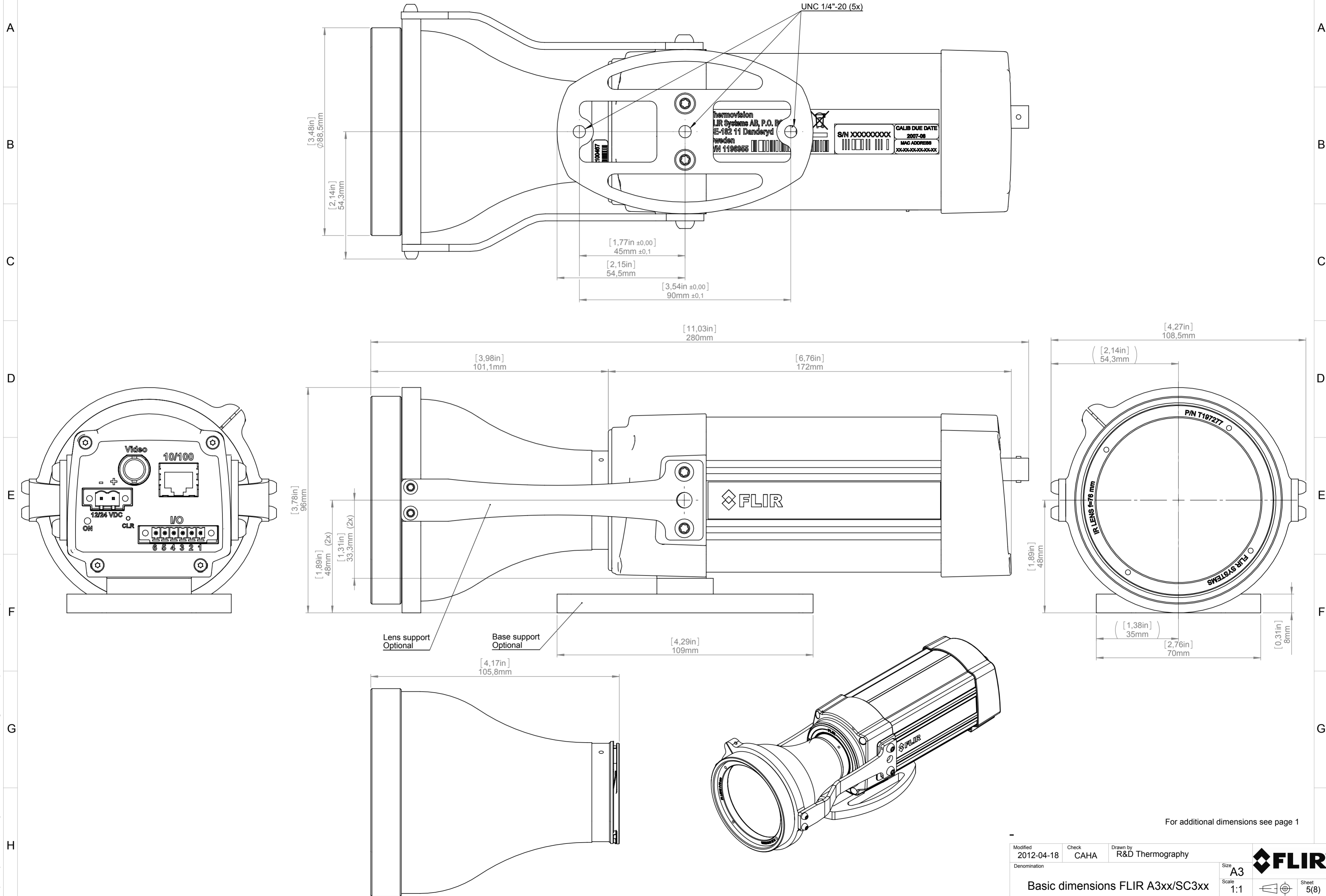


For additional dimensions see page 1

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Denomination			
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Drawing No. T125002			Size A

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

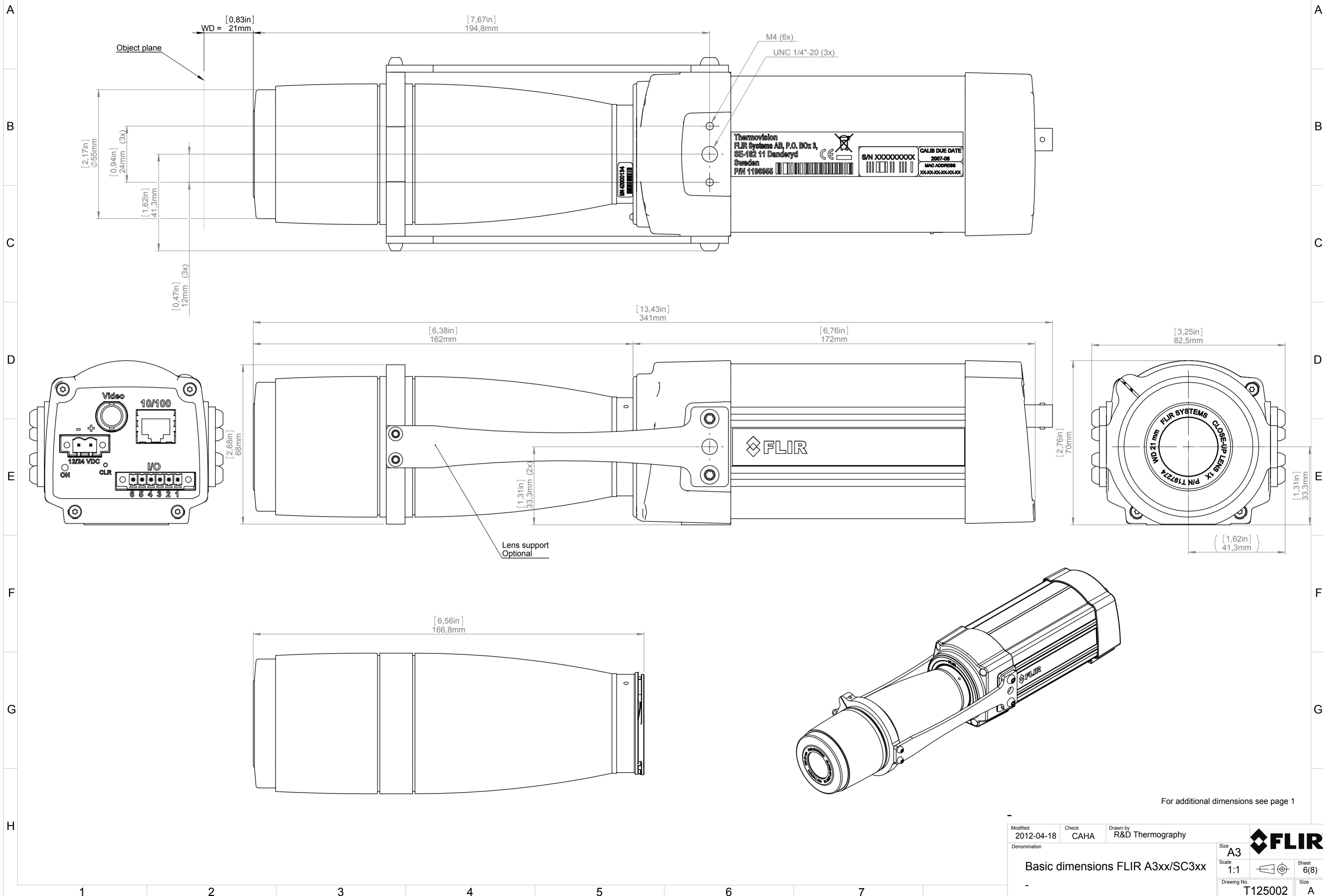


For additional dimensions see page 1

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Denomination			
Basic dimensions FLIR A3xx/SC3xx			Size A3 Scale 1:1 Sheet 5(8) Drawing No. T125002 Size A

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

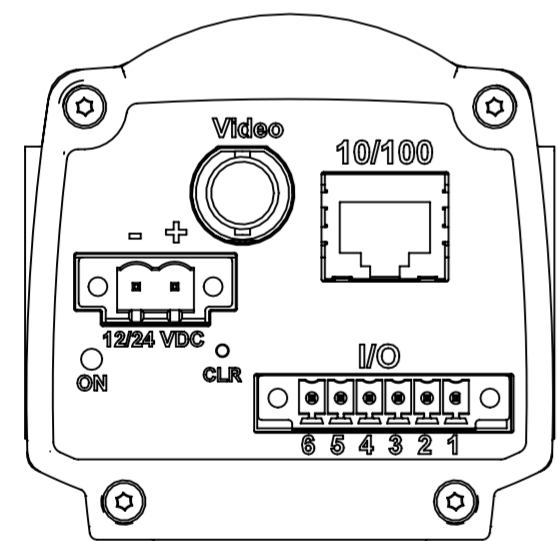
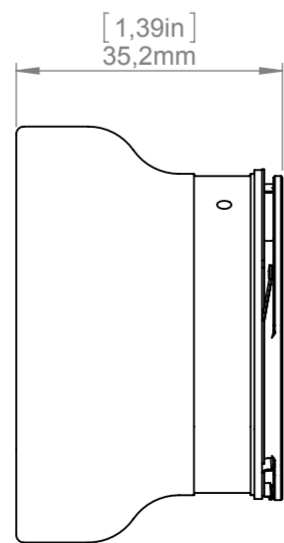
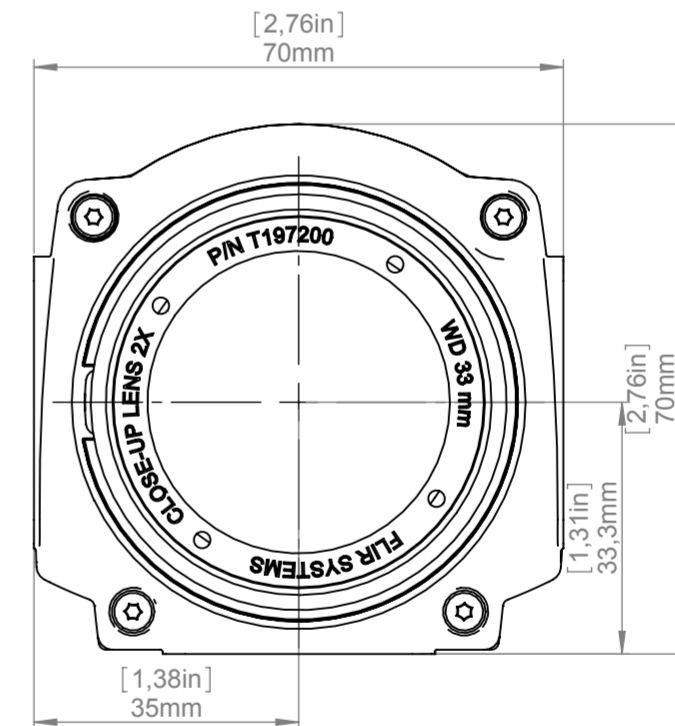
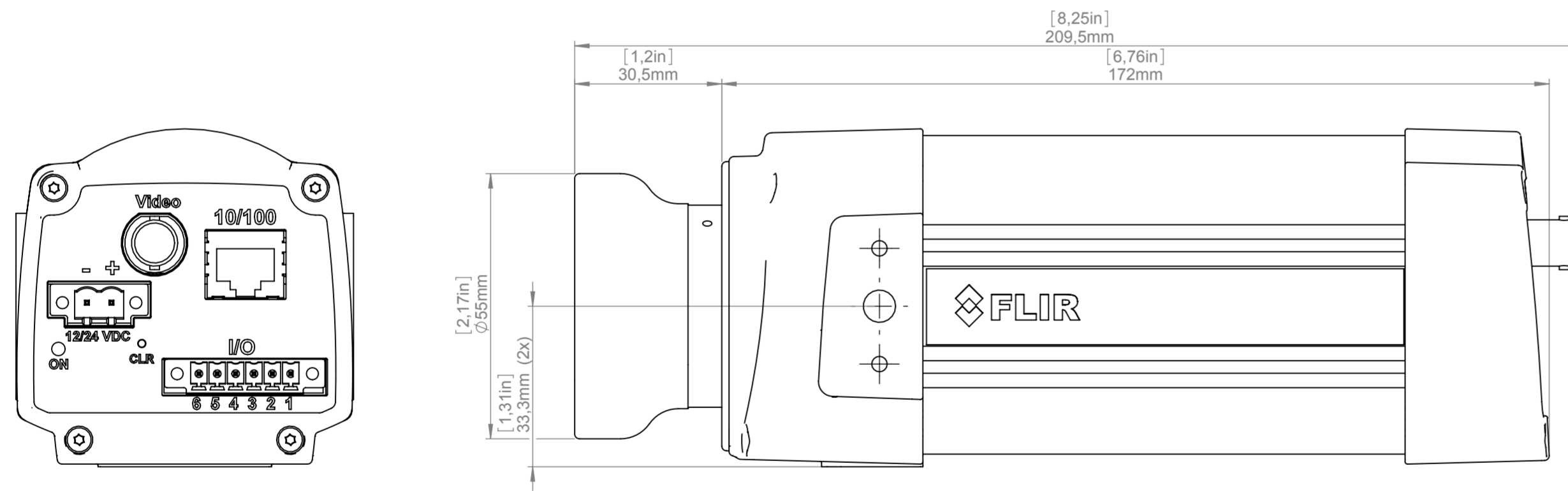
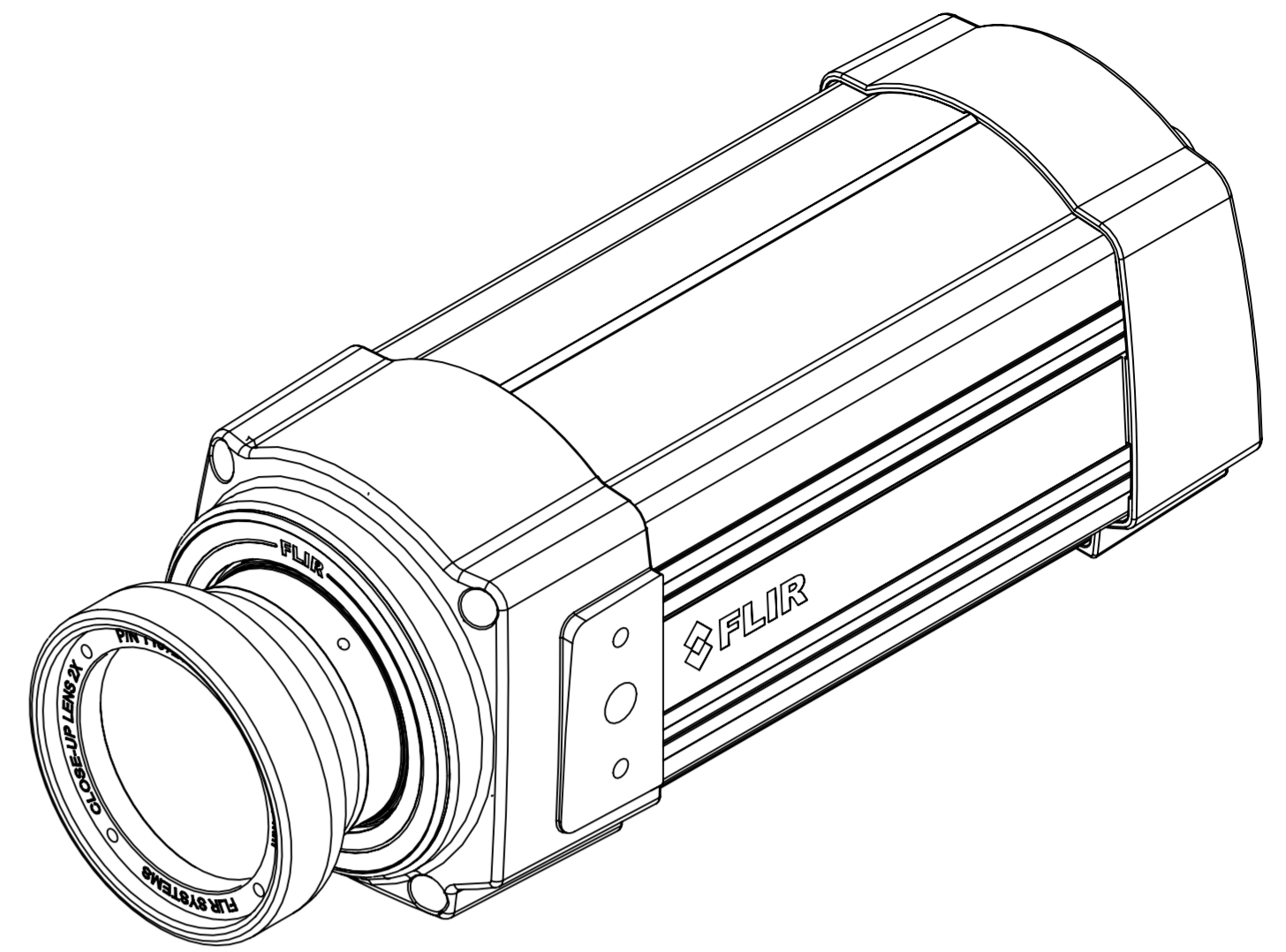
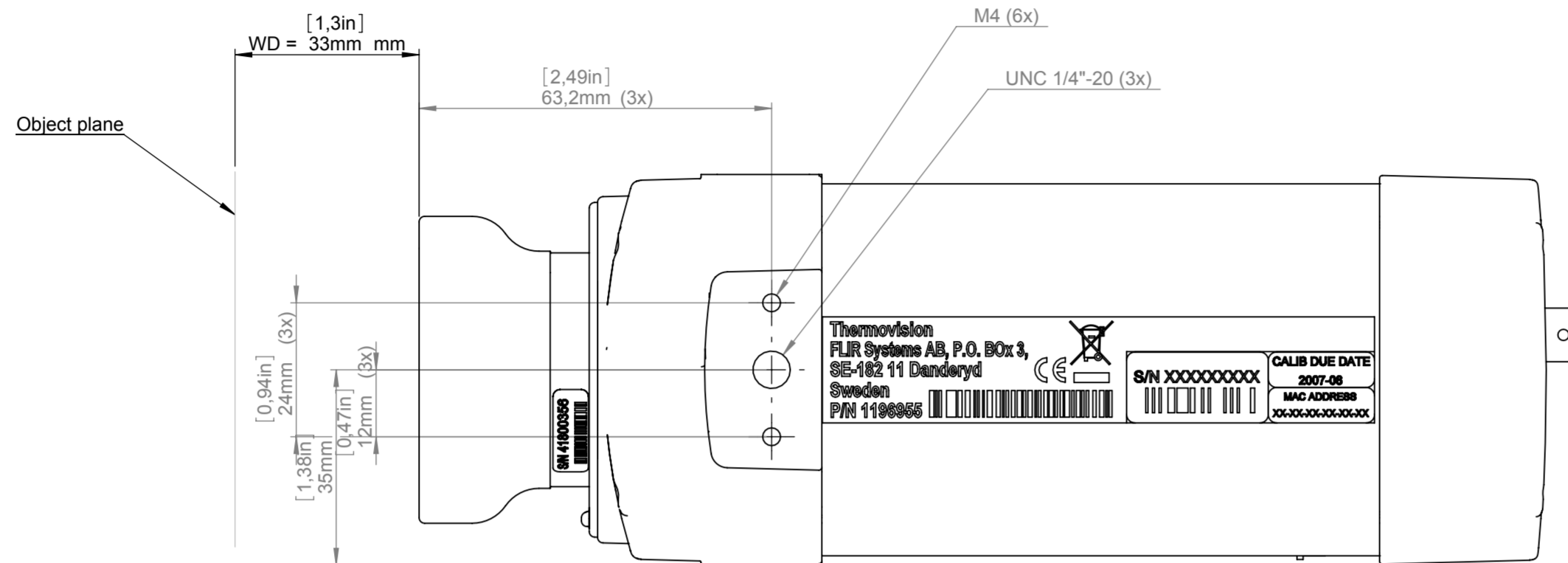


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Drawing No. T125002			Size A

Camera with Close-up lens 2X (50 μm)

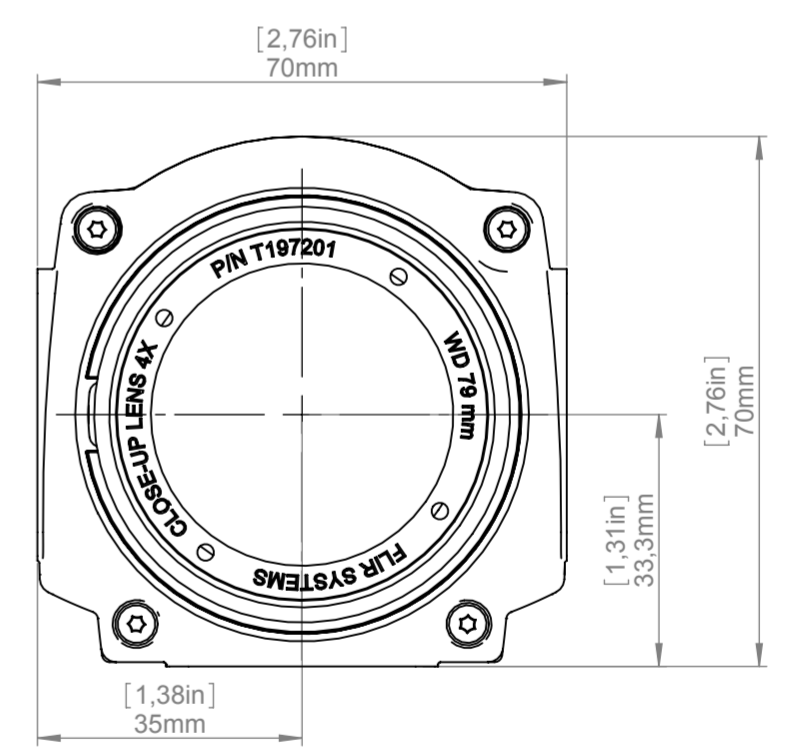
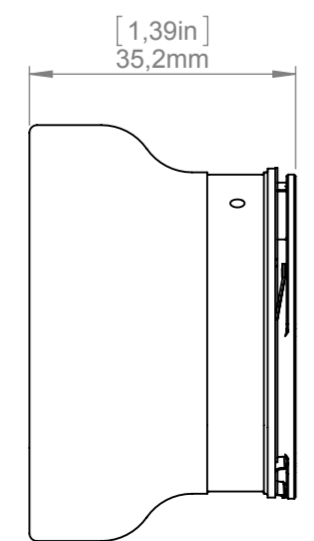
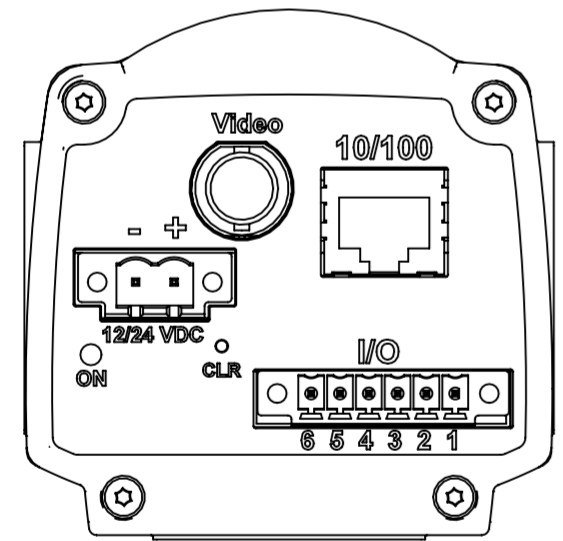
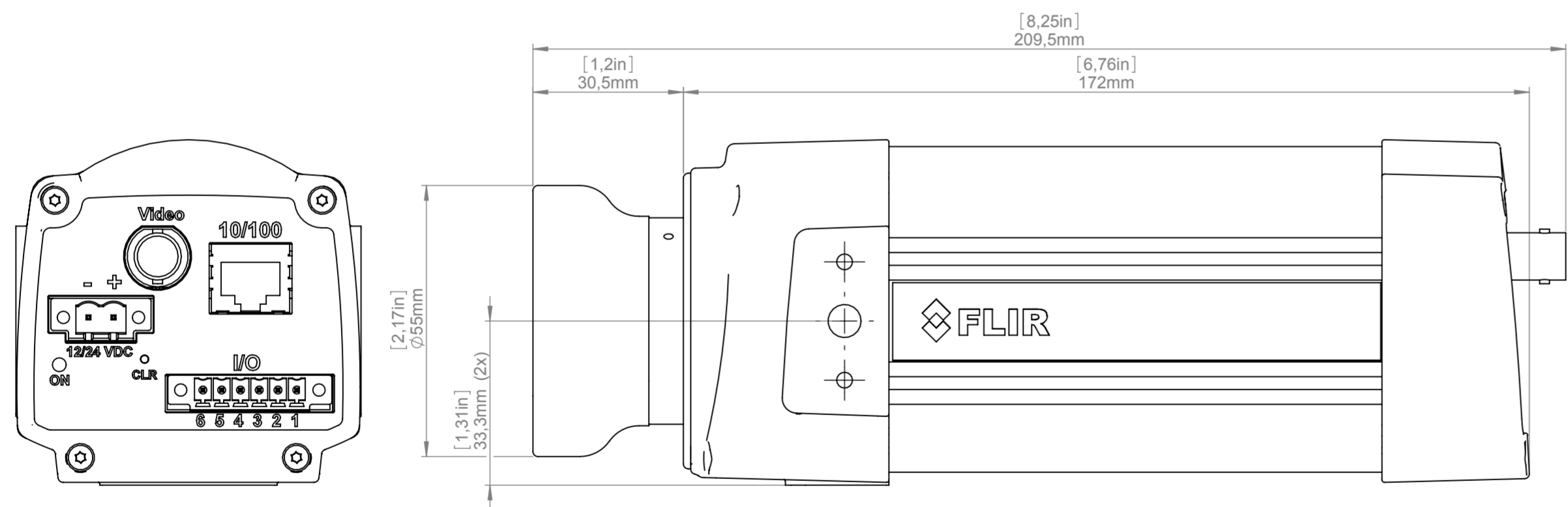
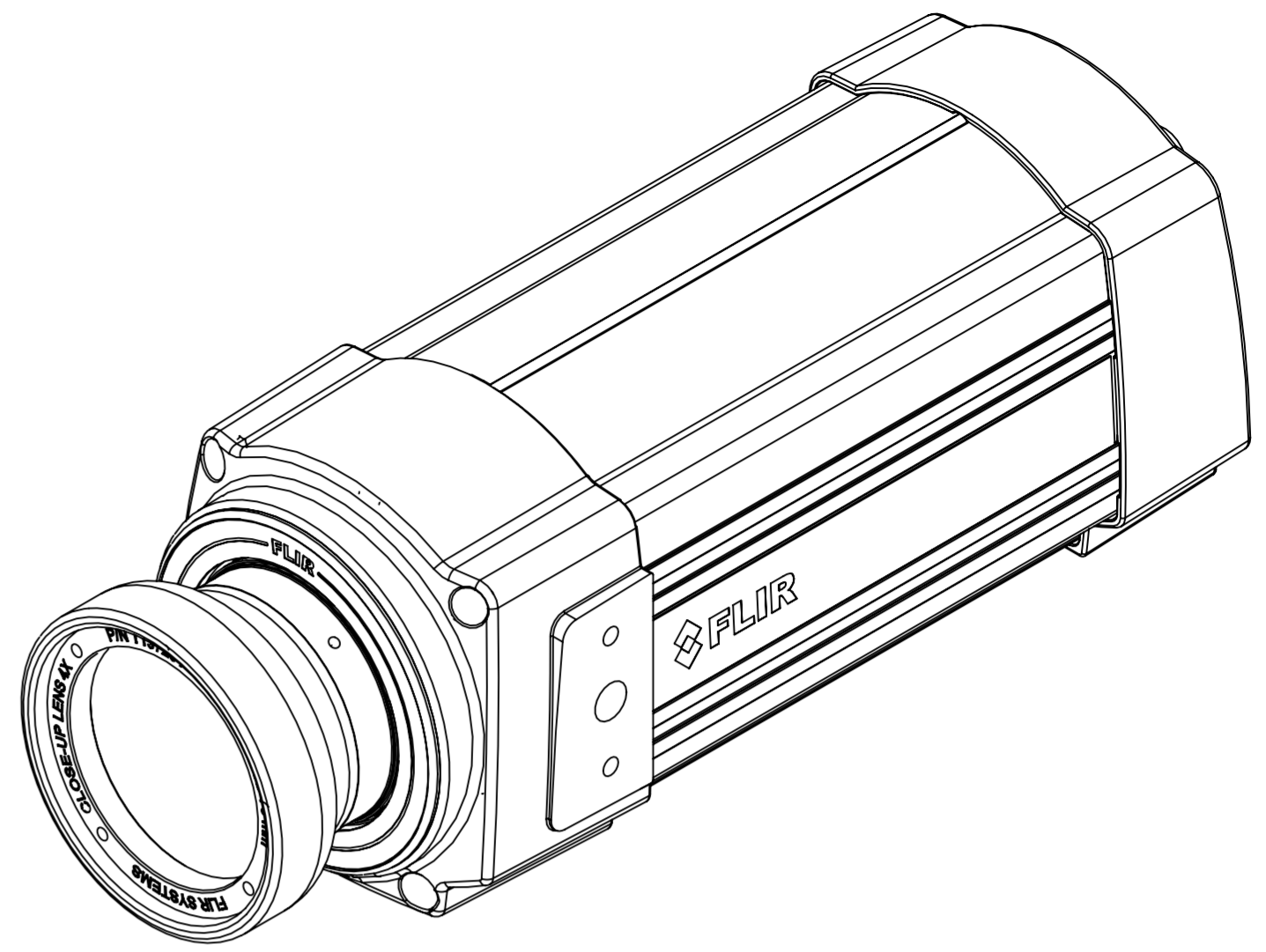
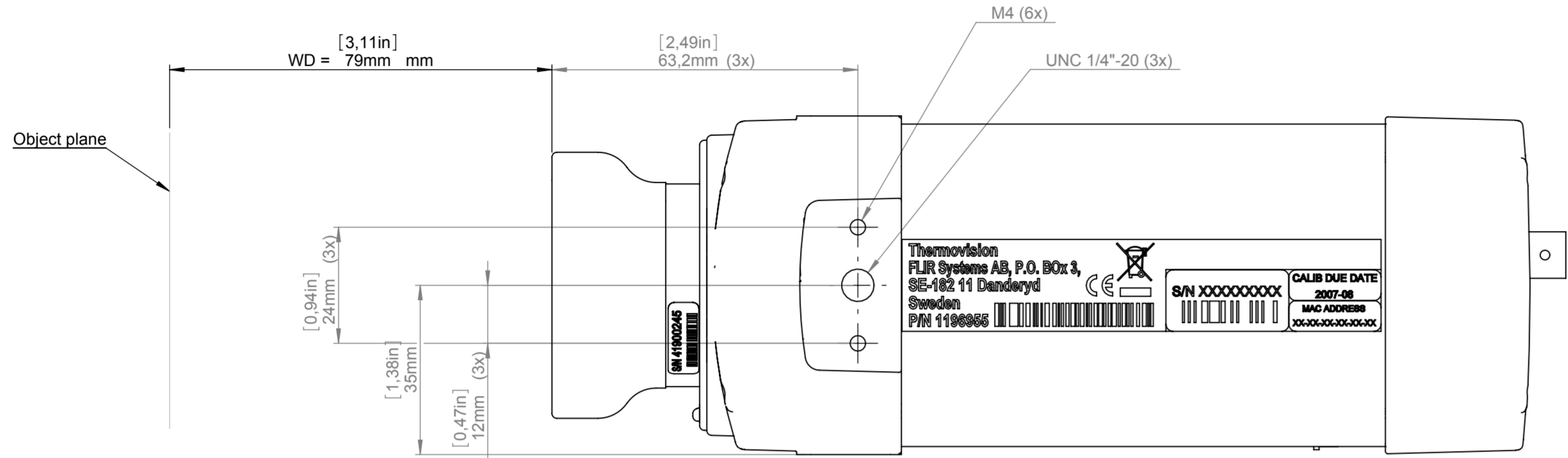


For additional dimensions see page 1

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

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Camera with Close-up lens 4X (100 μm)

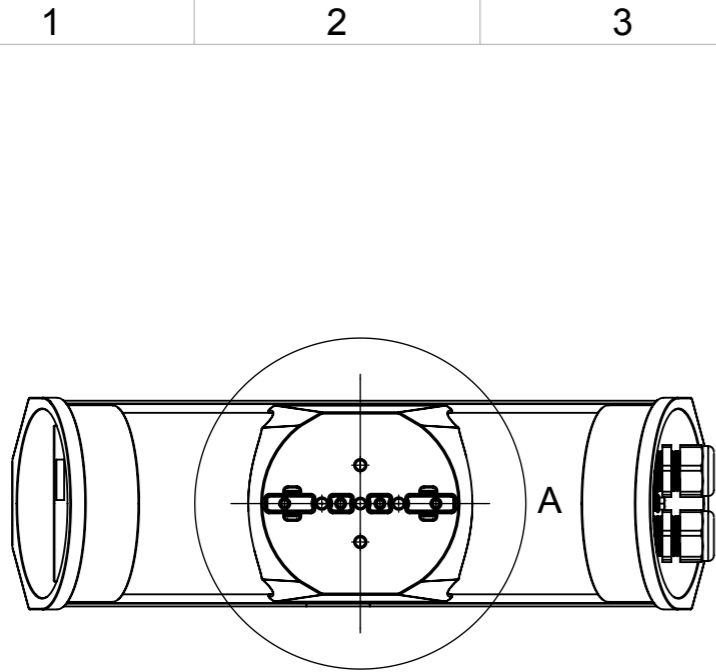


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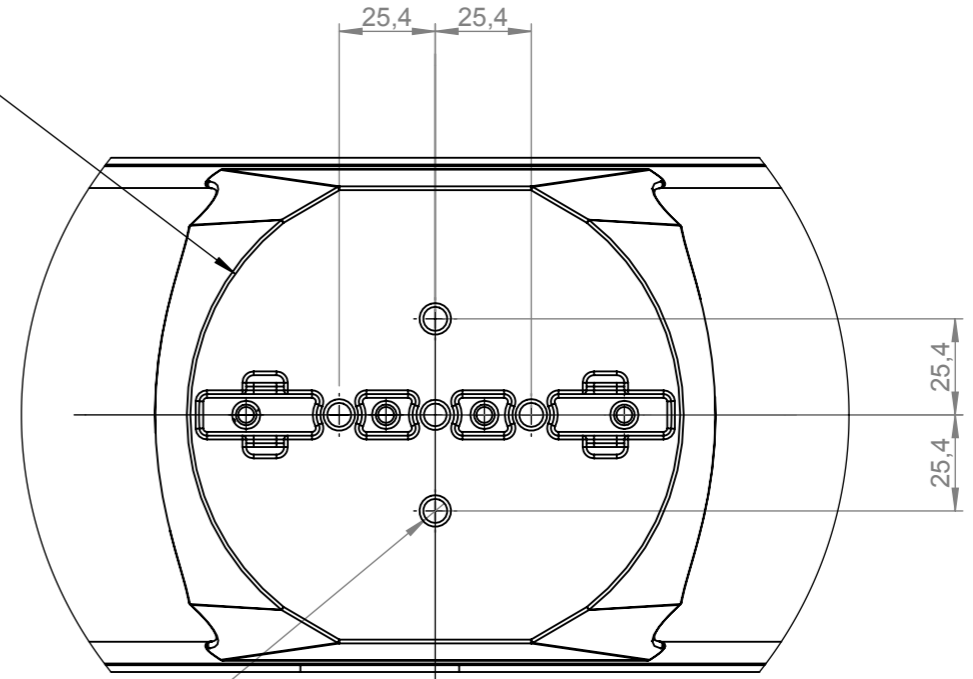
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			Sheet 8(8) Size A

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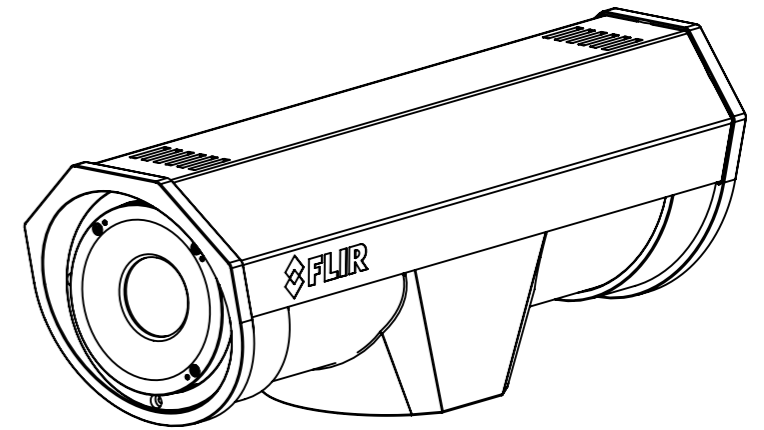
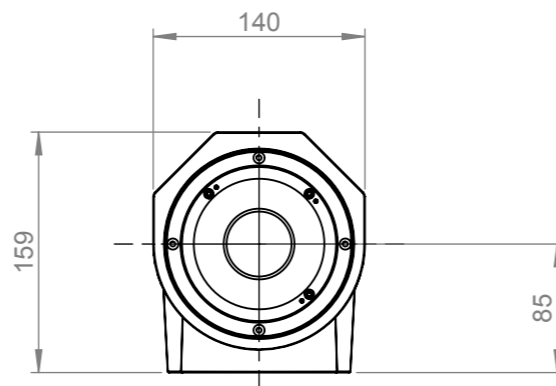
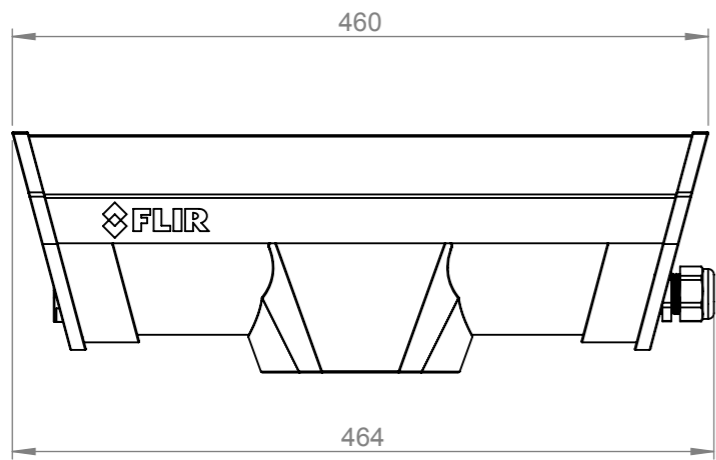


NOMINAL BASE SURFACE DIAMETER, $\phi 127$



5x 1/4 - 20 ∇ 19 mm

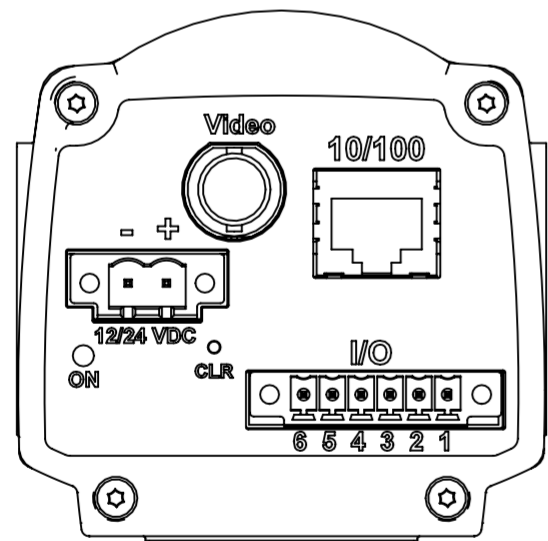
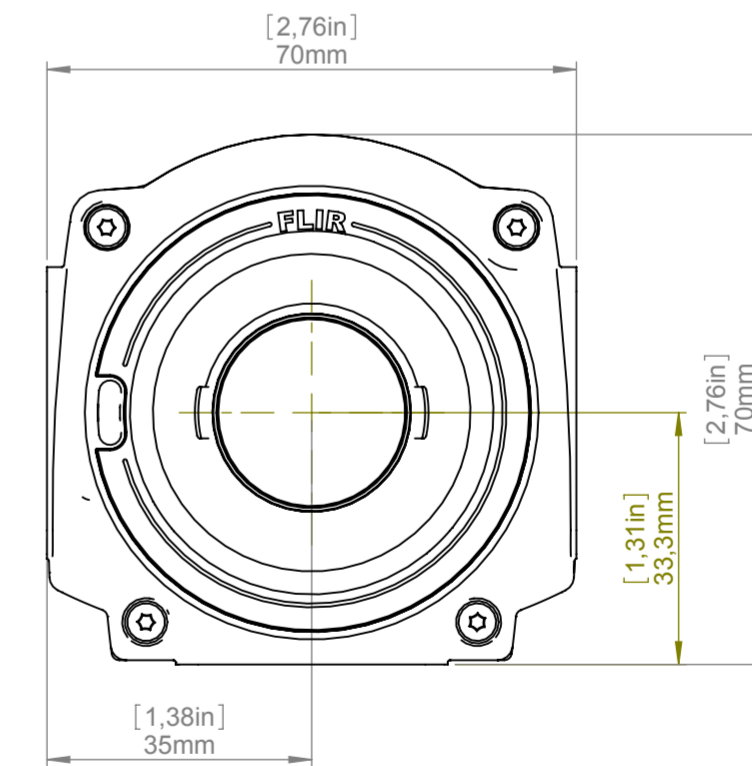
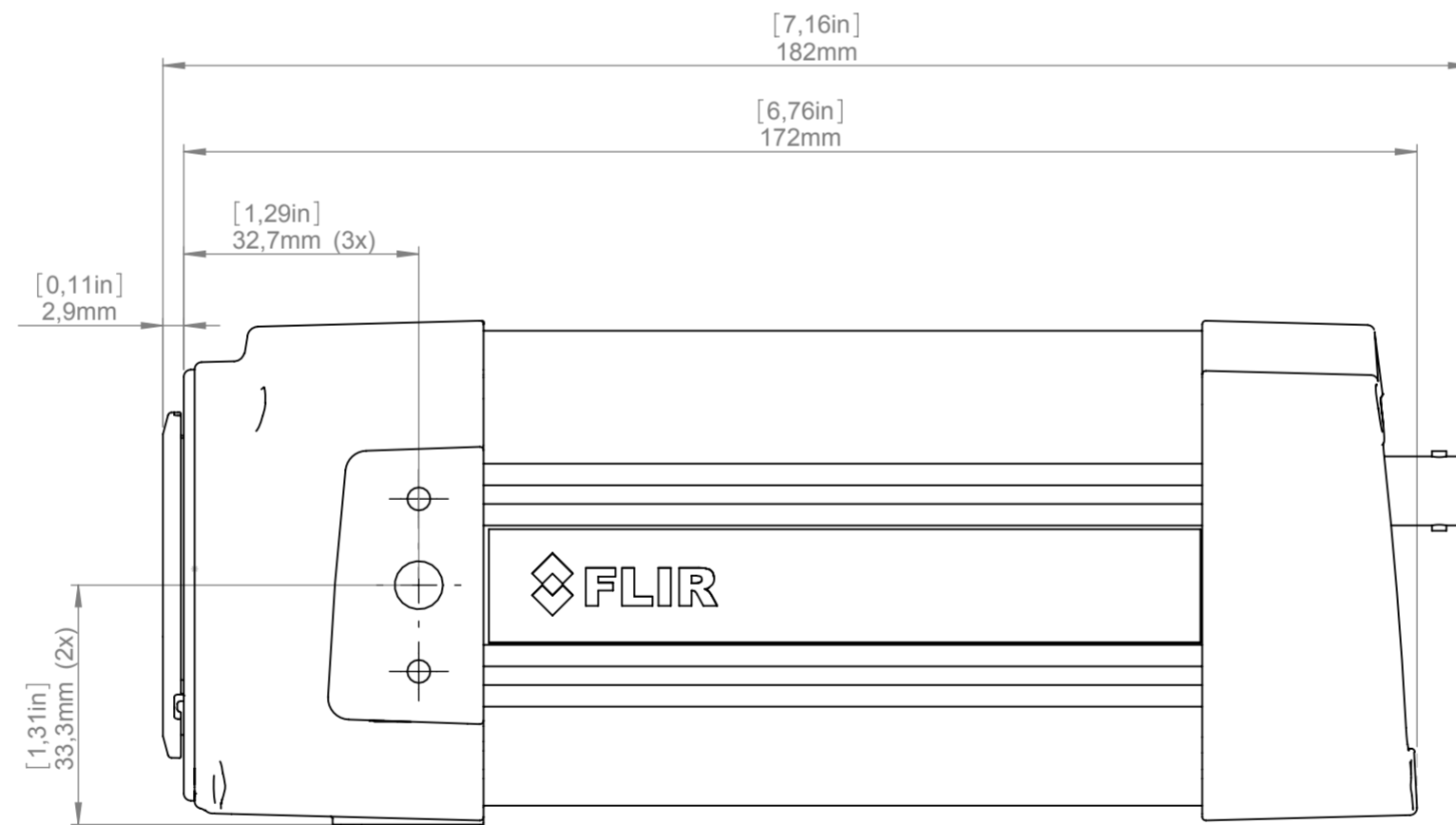
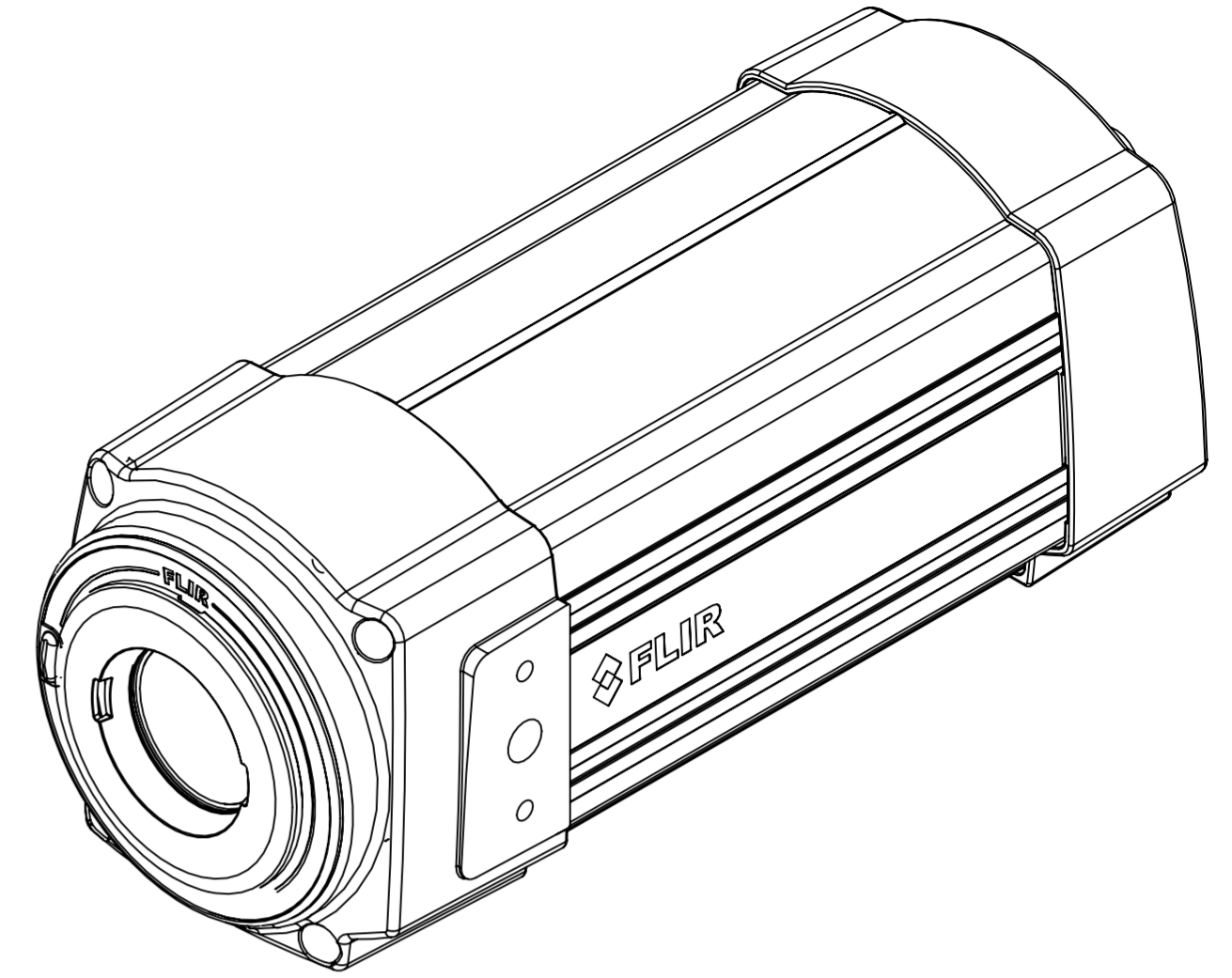
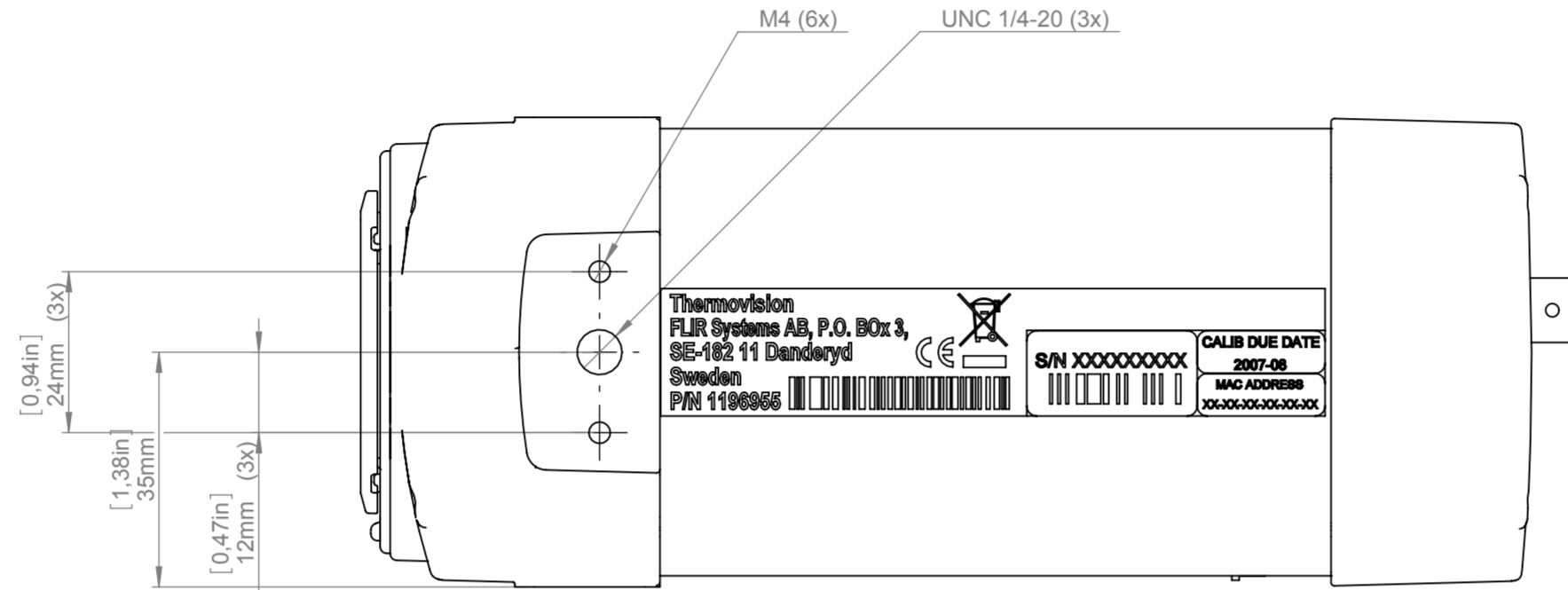
DETAIL A
SCALE 1 : 2



Denna handling får ej delges annan, kopieras i sin helhet eller delar utan vårt medgivande. Överträdelse härav beivras med stöd av gällande lag. FLIR SYSTEMS AB

Konstr/Drawn H. ÖSTLING	Datum/Date 2011-11-25	Kontr/Check HAOS	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 F-SERIES			Skala/Scale 1:5
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				Rev A

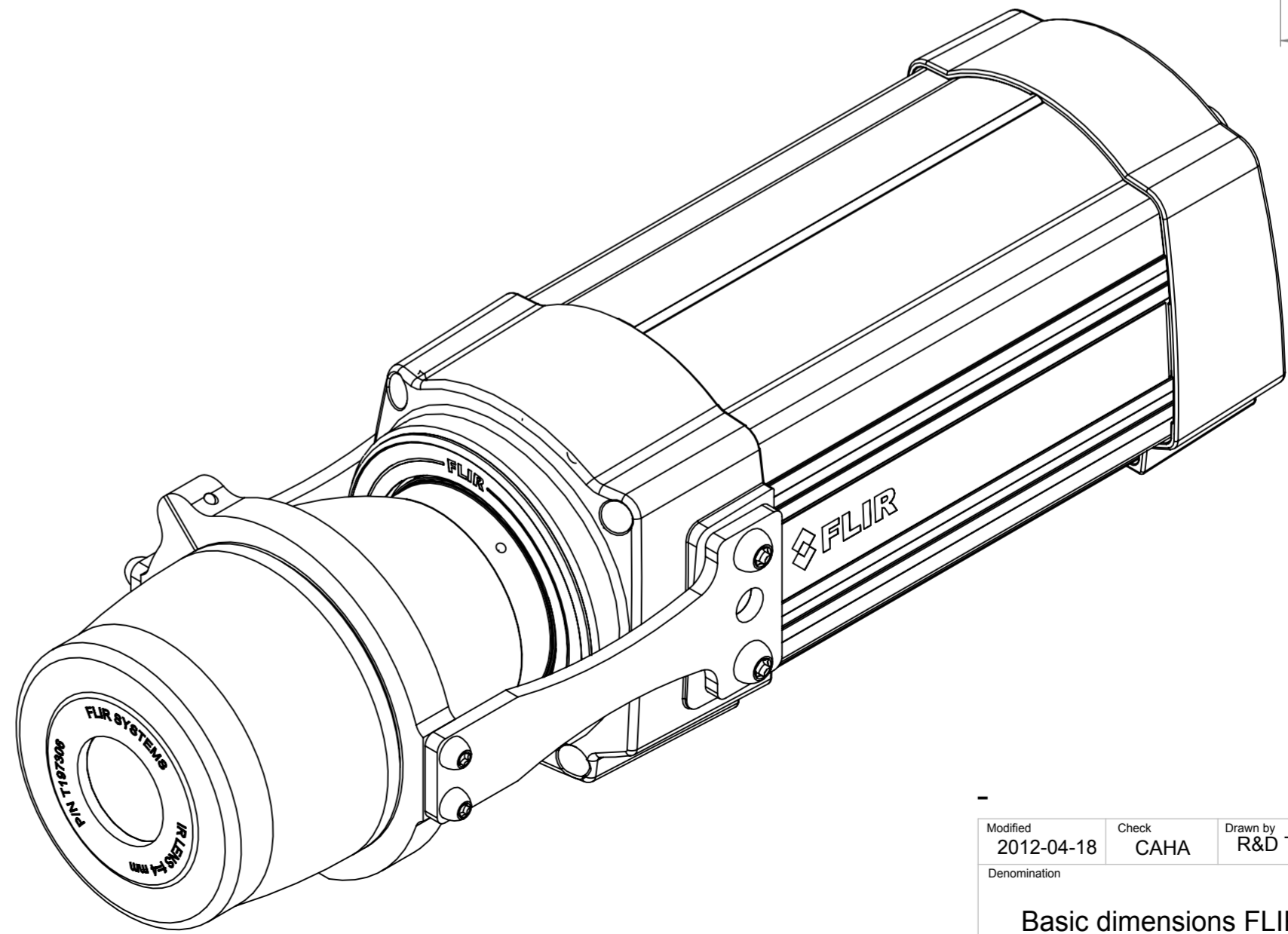
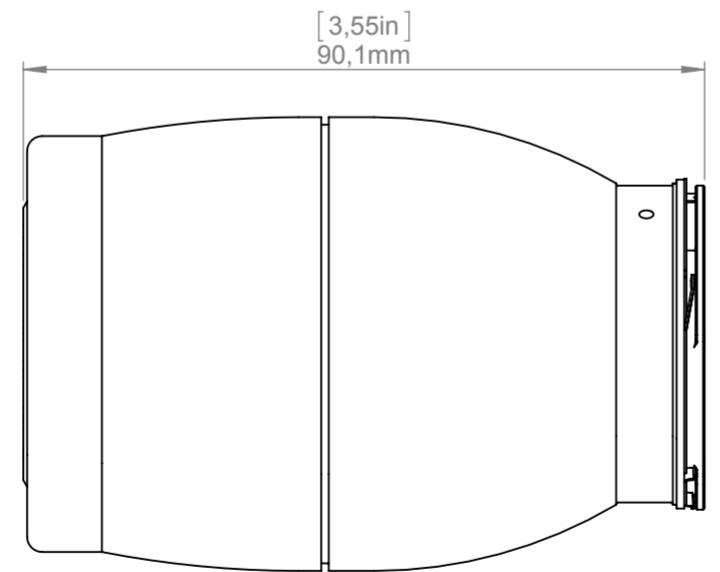
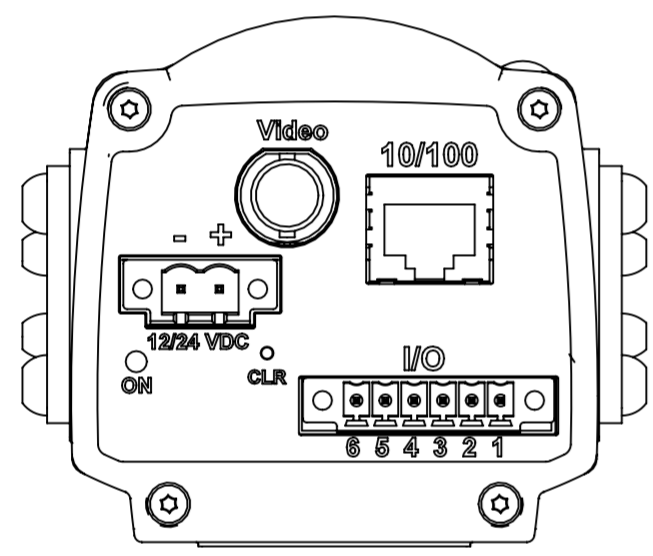
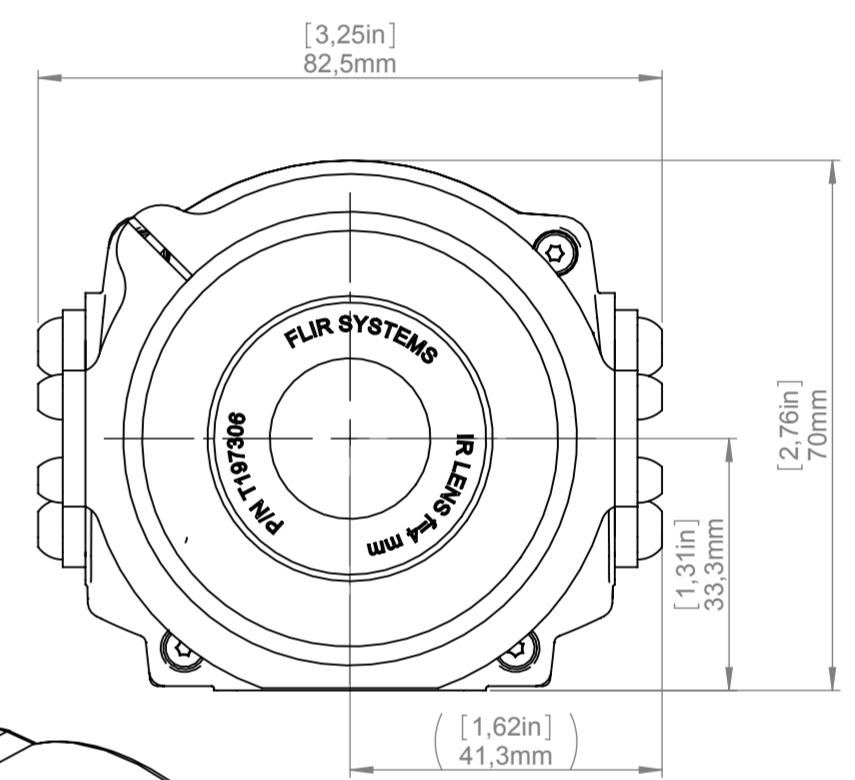
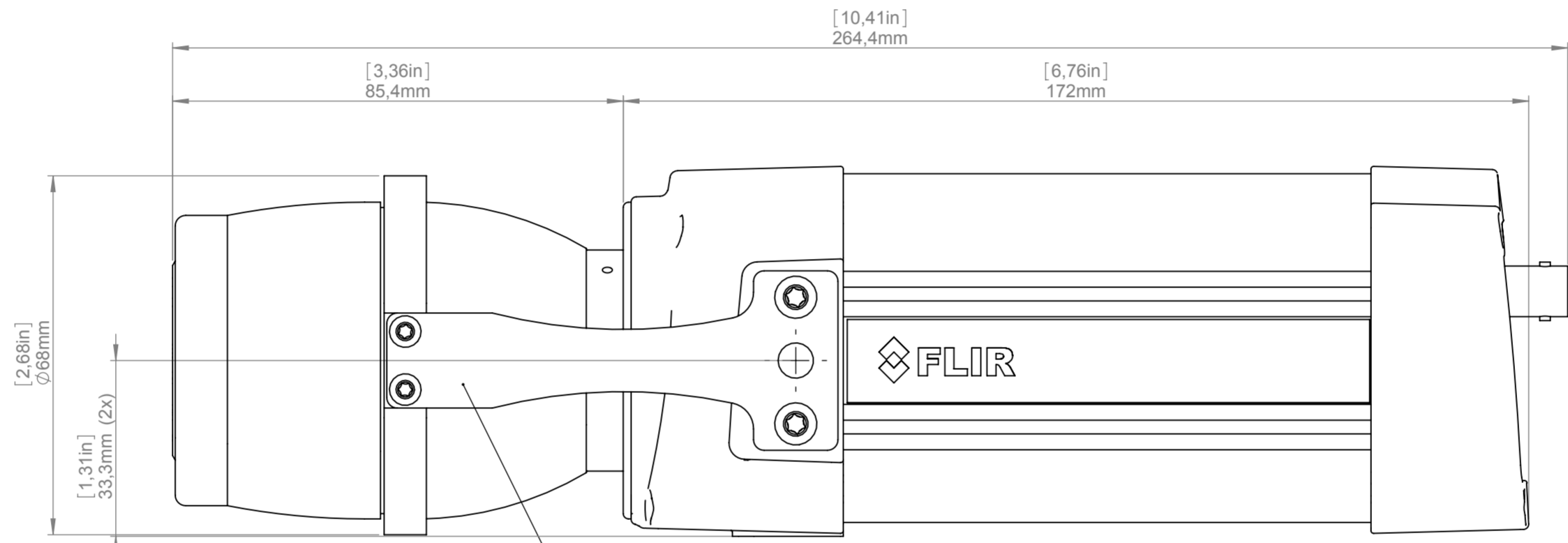
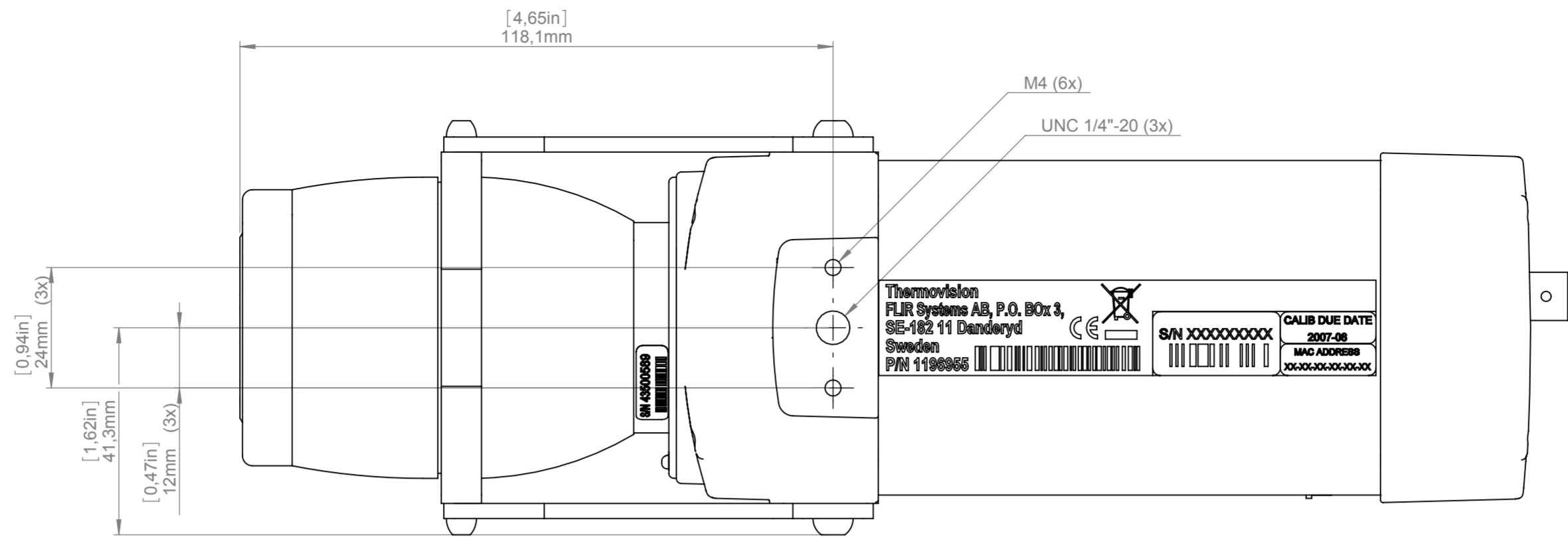
Camera with built-in IR lens f=18 mm (25°)



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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		Size A
Drawing No. T125002					

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



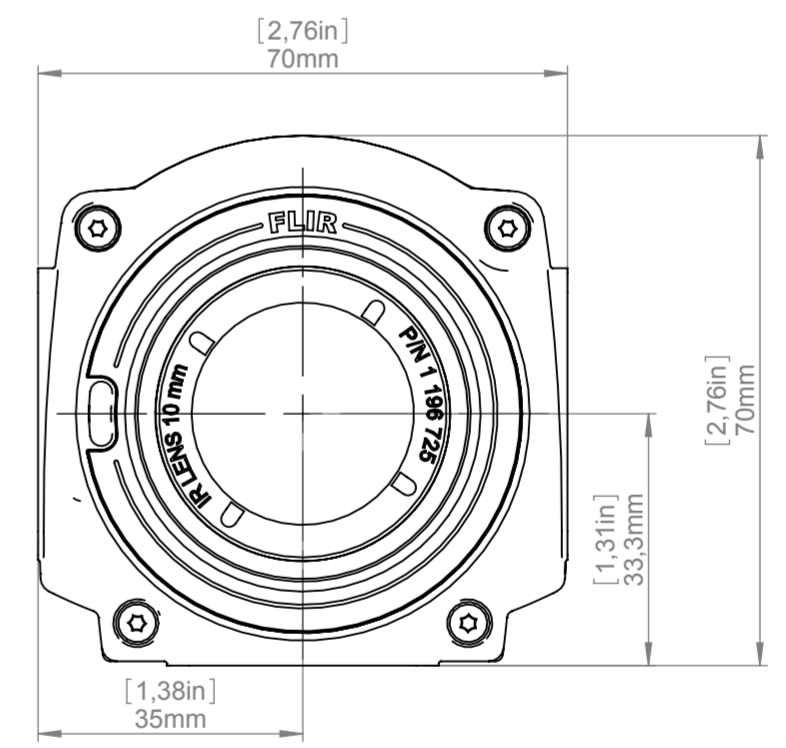
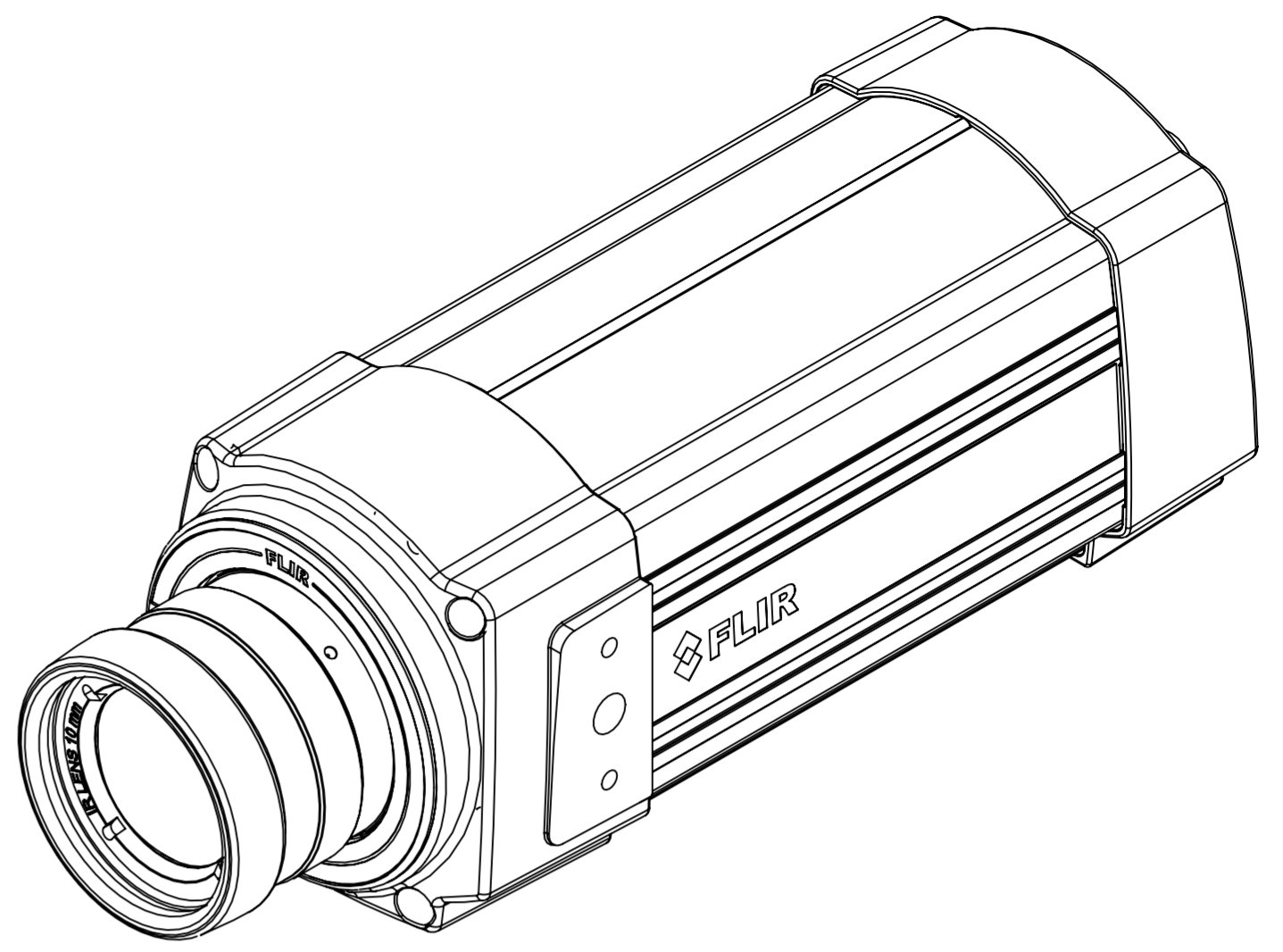
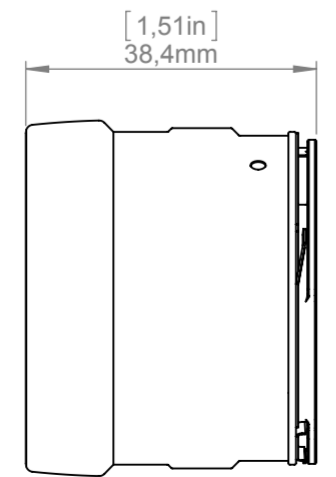
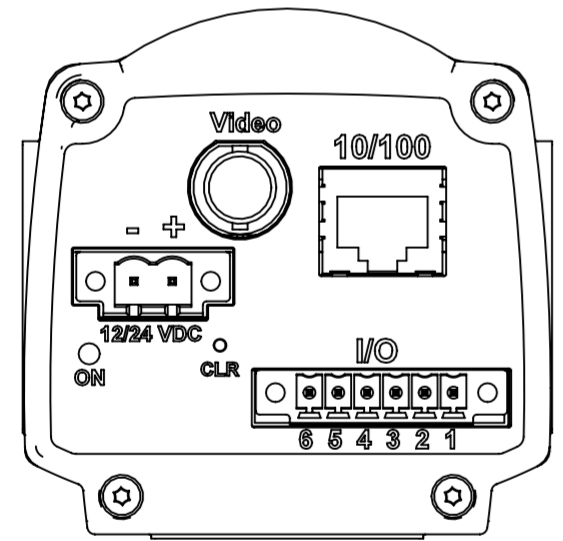
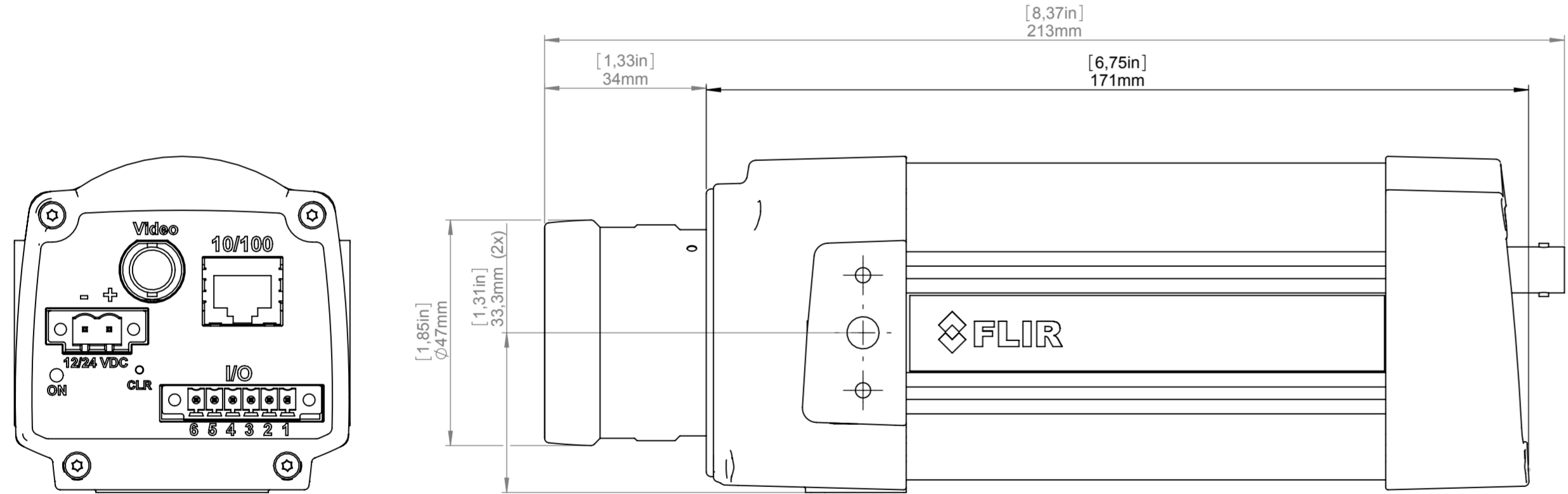
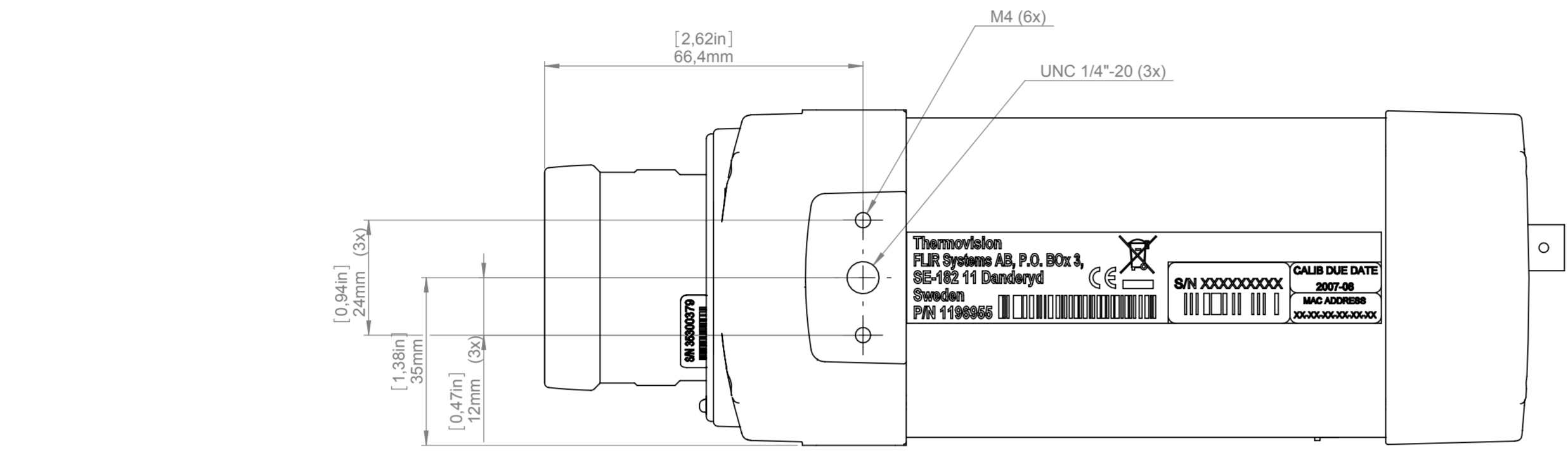
Lens support
Optional

For additional dimensions see page 1

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Modified 2012-04-18	Check CAHA	Drawn by R&D Thermography	
Denomination			
Basic dimensions FLIR A3xx/SC3xx			Size A3 Scale 1:1 Sheet 2(8)
Drawing No. T125002			Size A

Camera with Lens IR f=10 mm (45°)

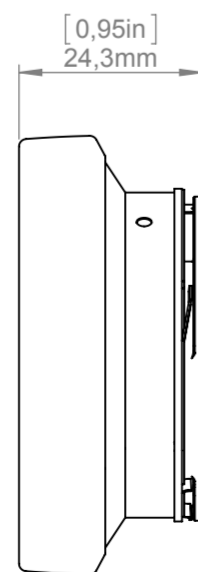
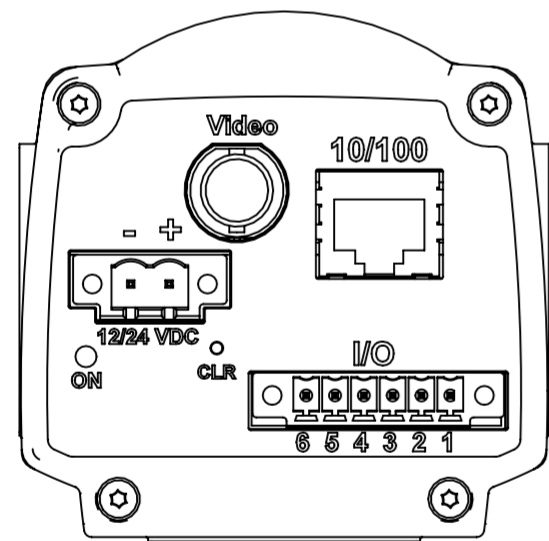
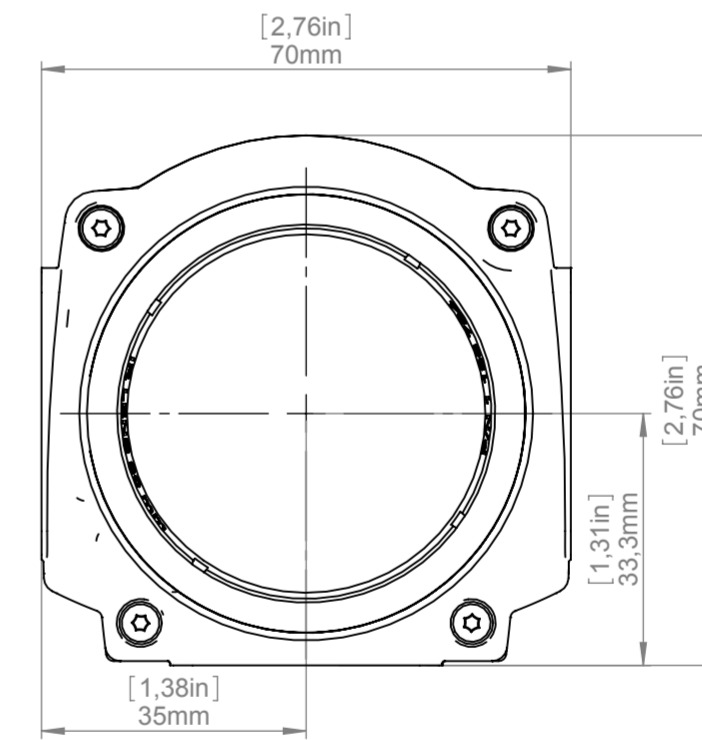
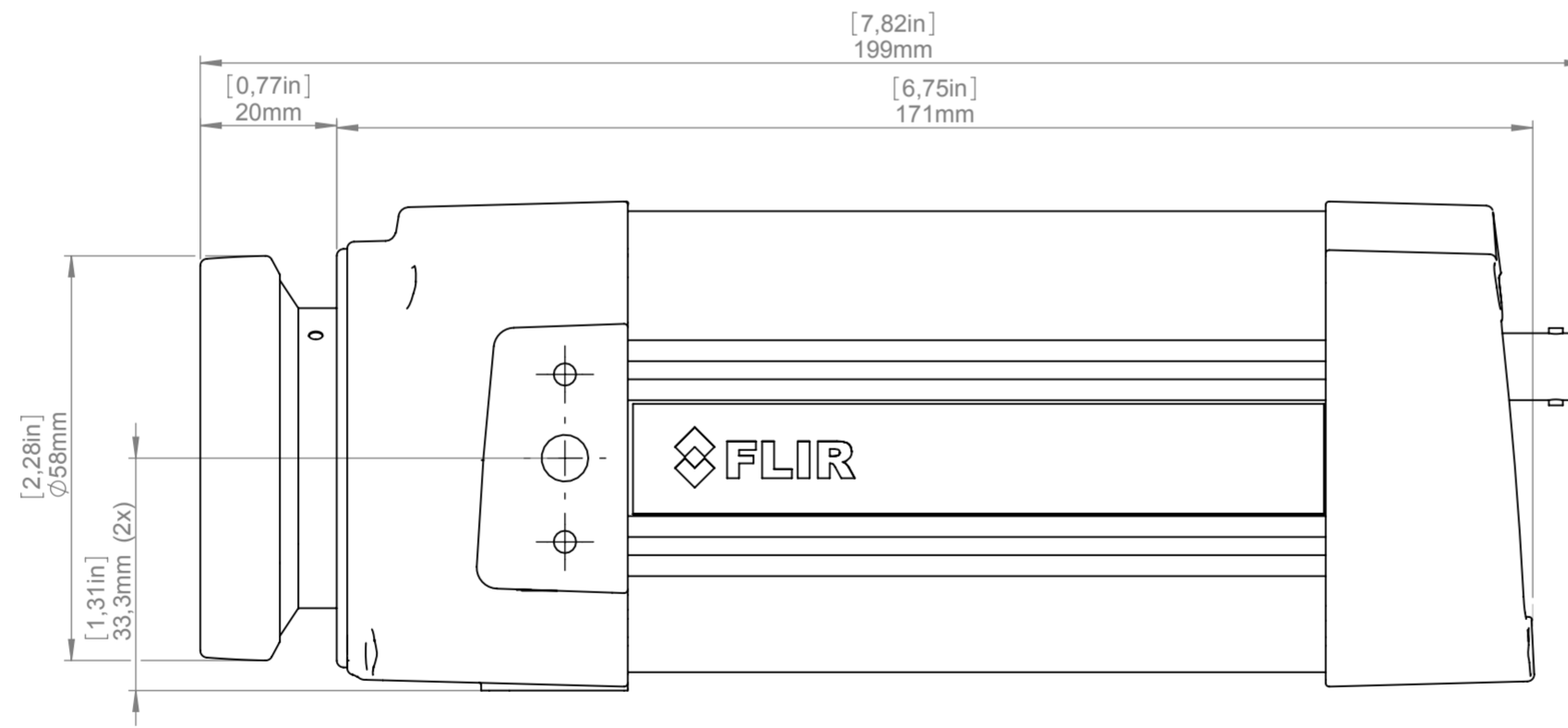
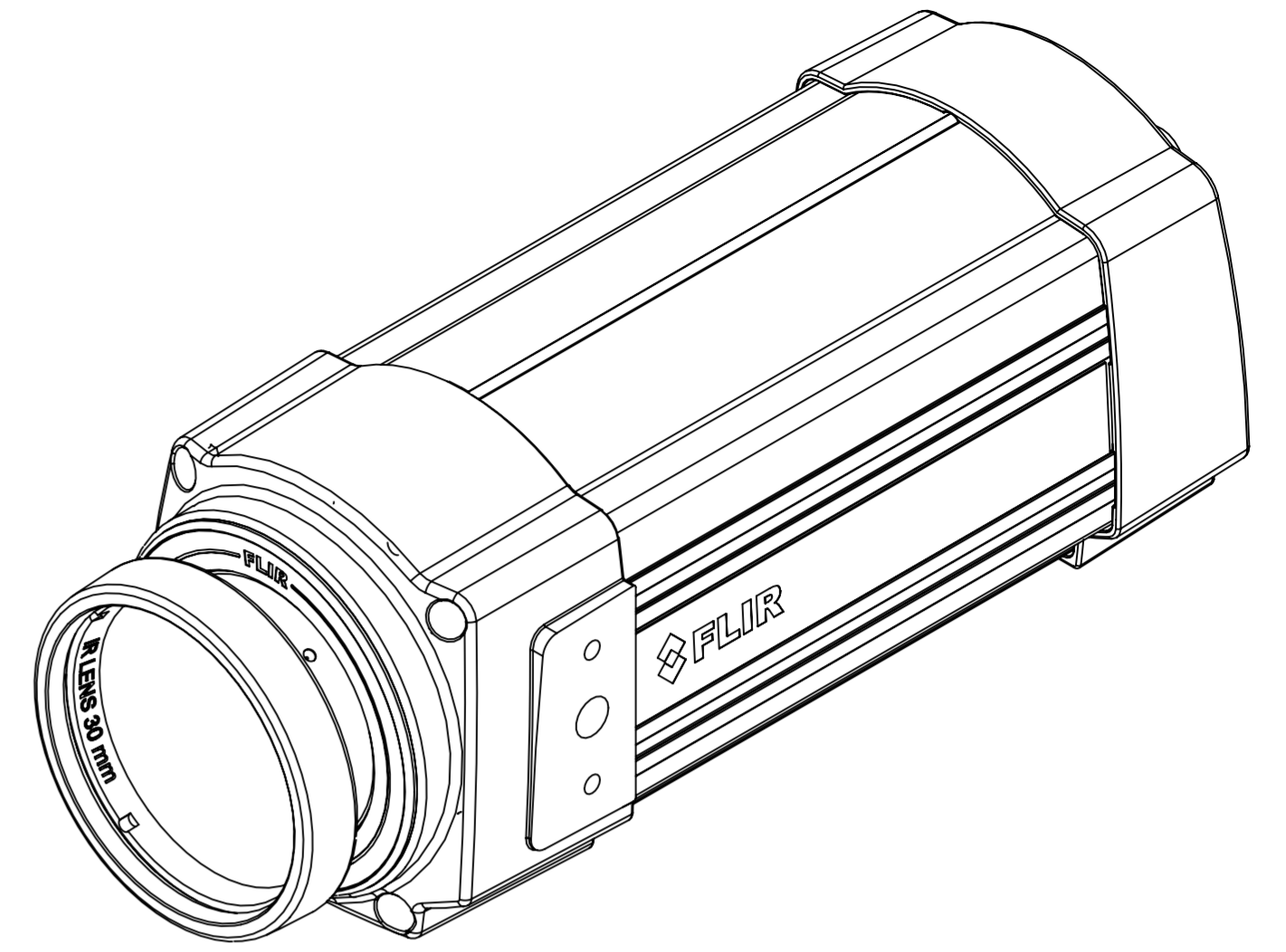
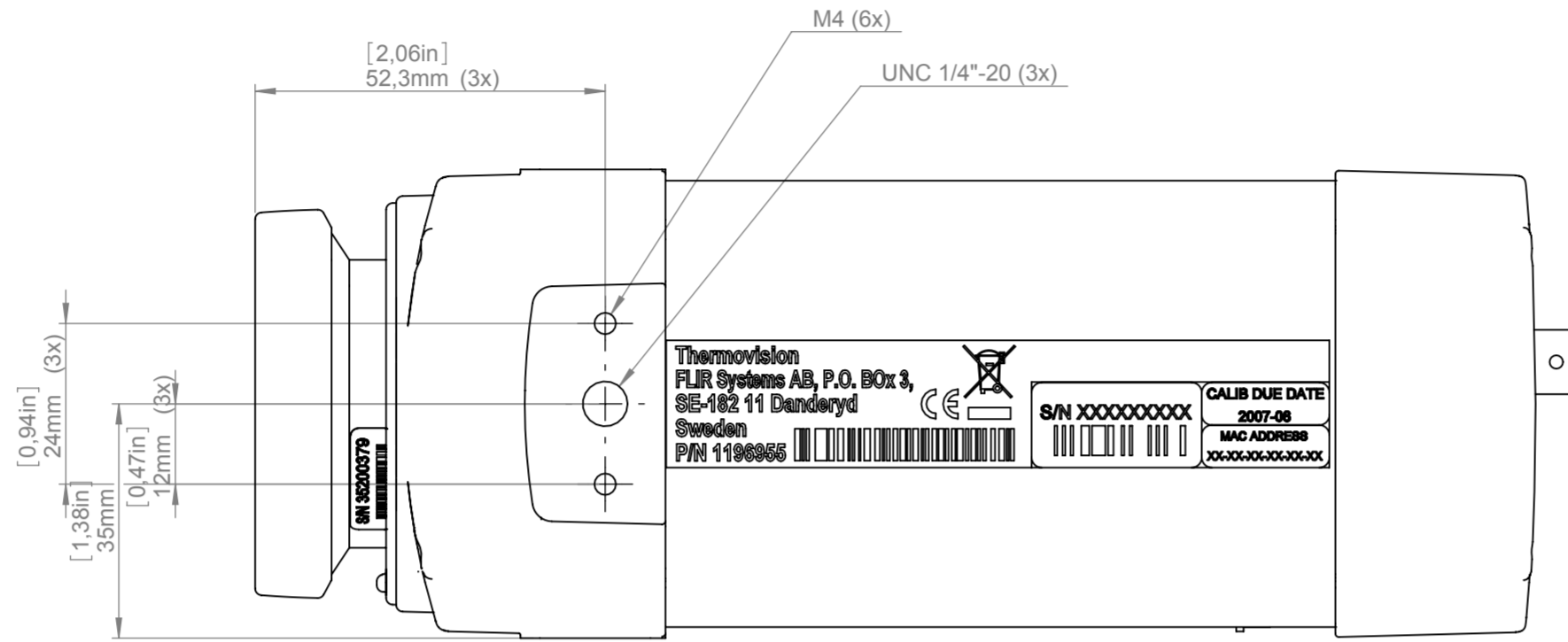


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Modified 2012-04-18	Check CAHA	Drawn by R&D Thermography	Size A3		Sheet 3(8)
Denomination Basic dimensions FLIR A3xx/SC3xx			Scale 1:1		Sheet 3(8)
			Drawing No. T125002	Size A	

Camera with Lens IR f=30 mm (15°)

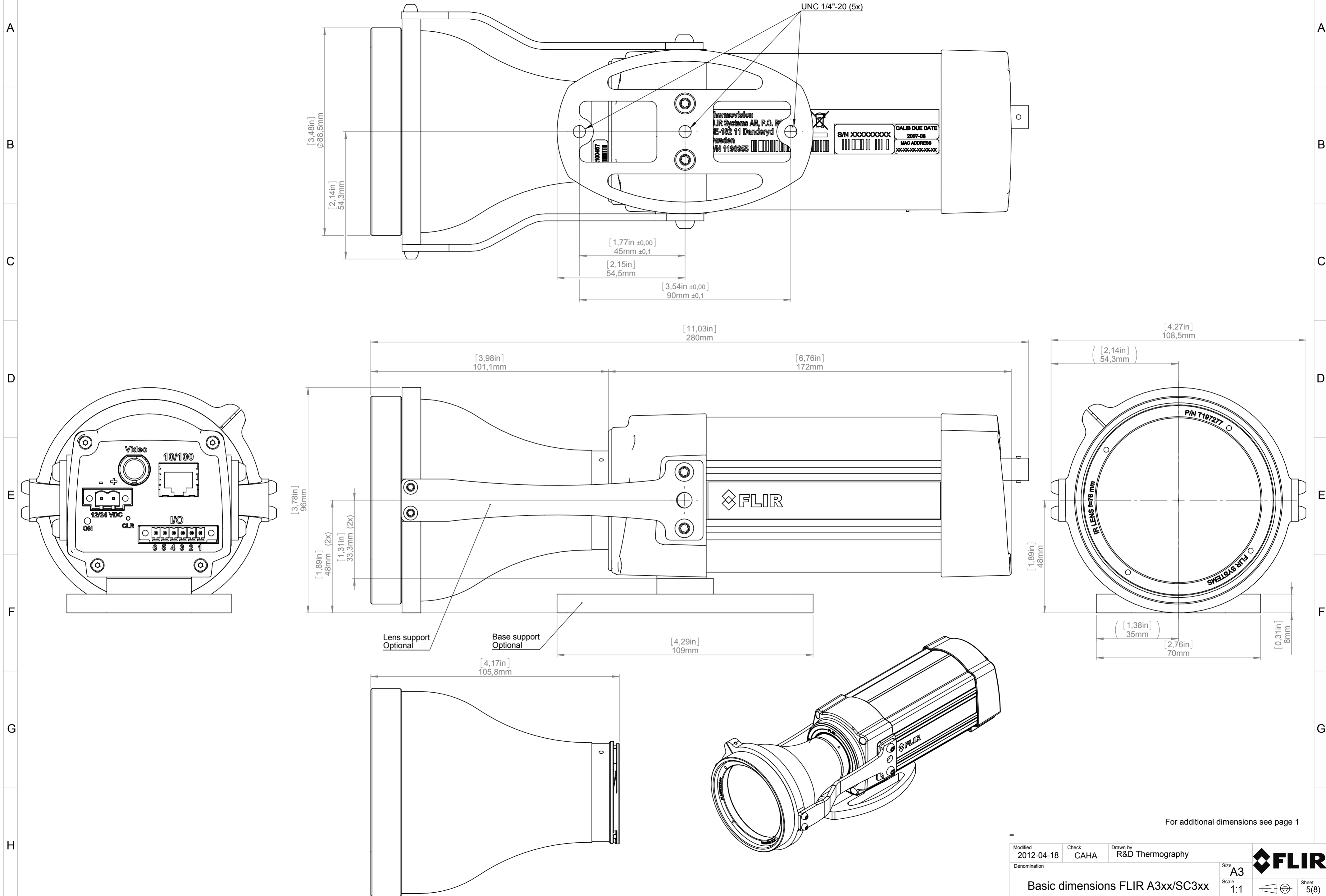


For additional dimensions see page 1

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Modified 2012-04-18	Check CAHA	Drawn by R&D Thermography	
Denomination			
Basic dimensions FLIR A3xx/SC3xx			Size A3 Scale 1:1 Sheet 4(8)
Drawing No. T125002			Size A

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

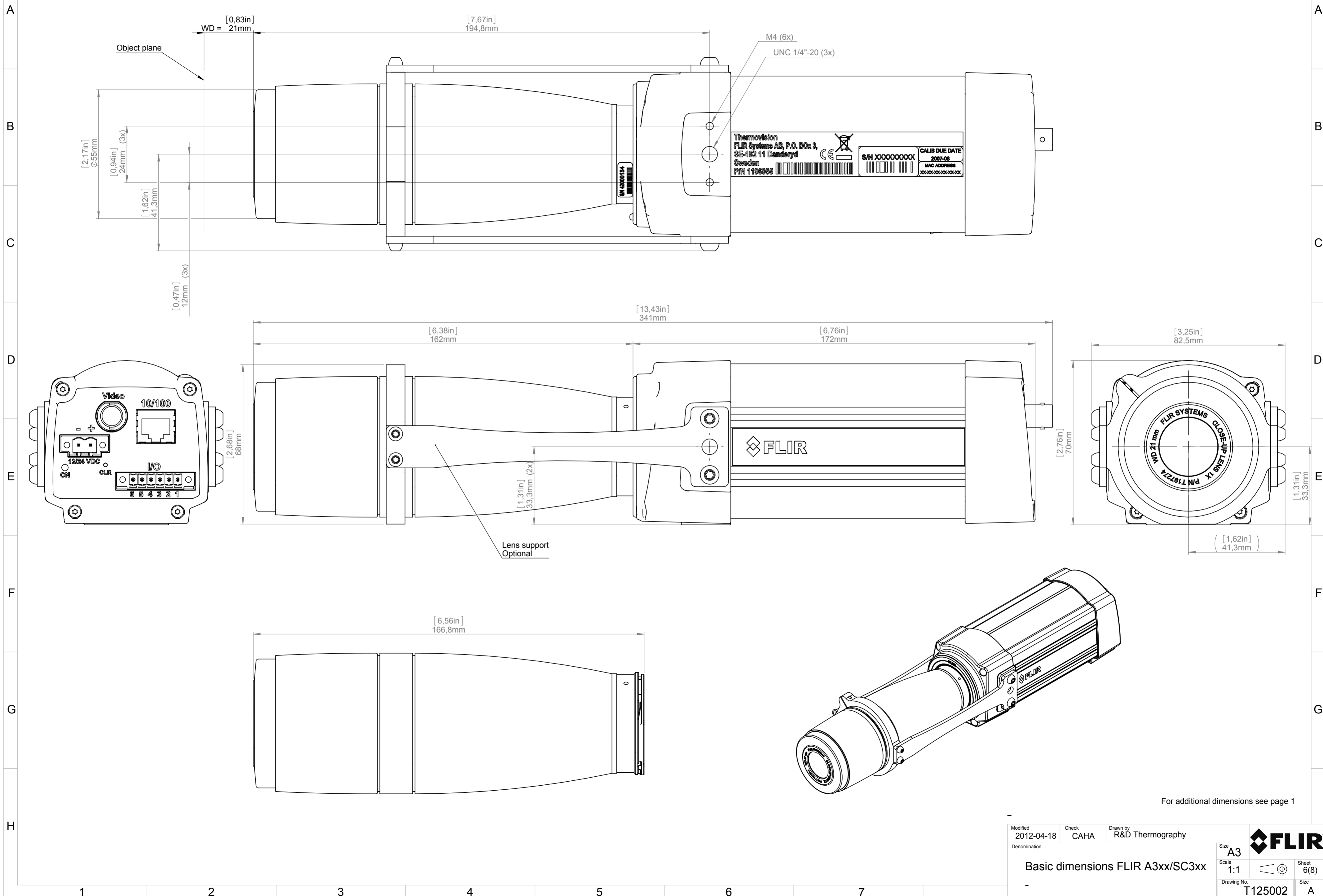


For additional dimensions see page 1

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Modified 2012-04-18	Check CAHA	Drawn by R&D Thermography	
Denomination			
Basic dimensions FLIR A3xx/SC3xx		Size A3 Scale 1:1 Drawing No. T125002	Sheet 5(8) Size A

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

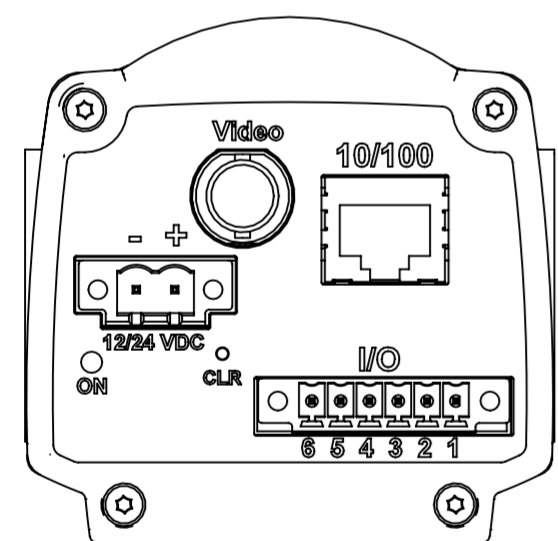
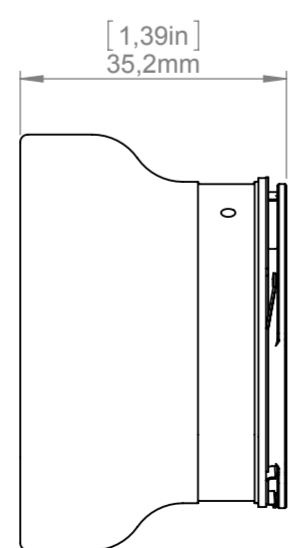
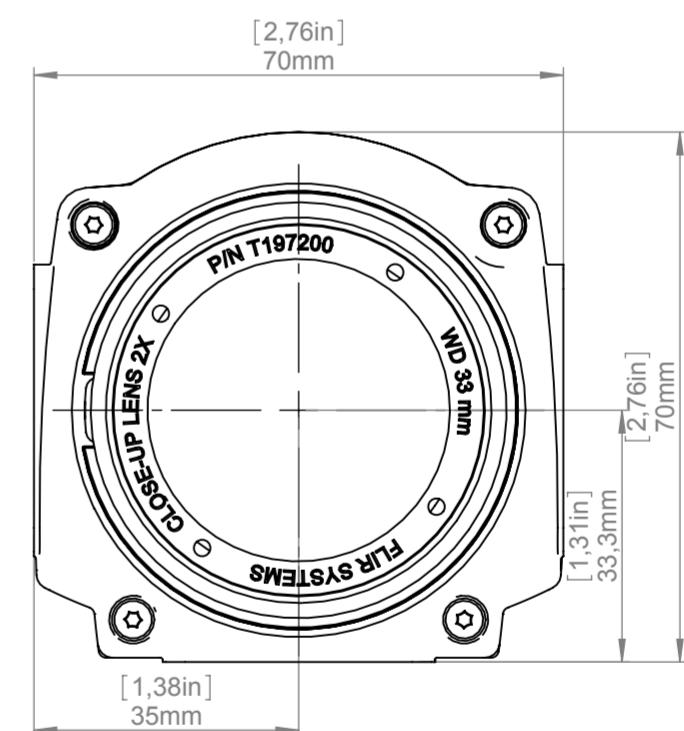
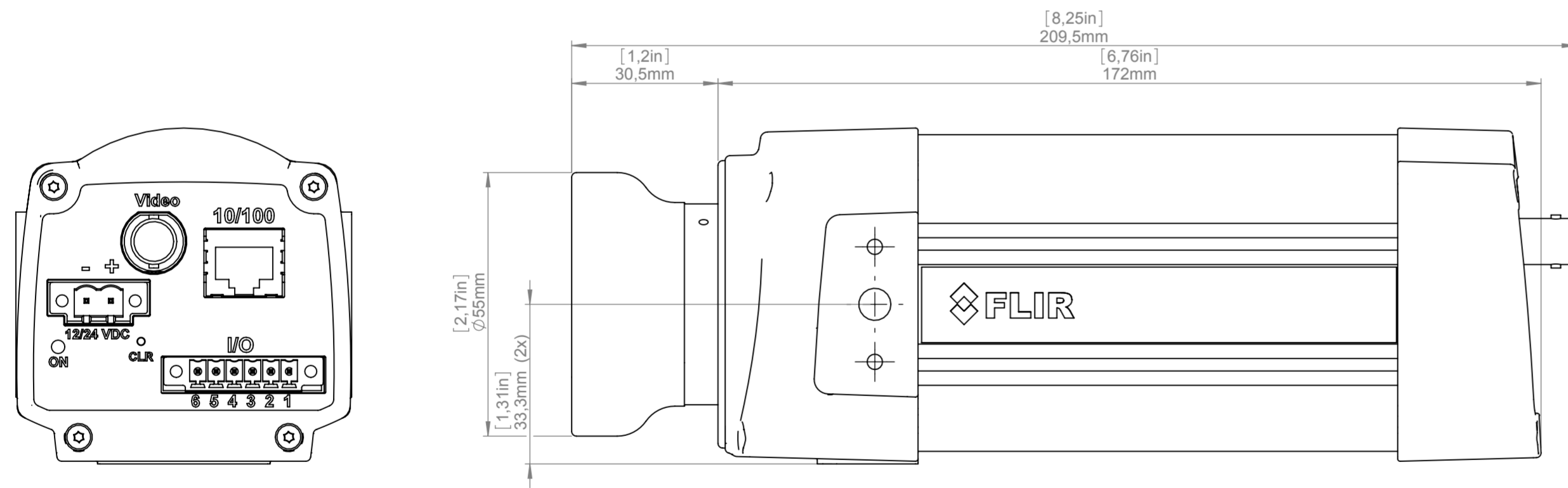
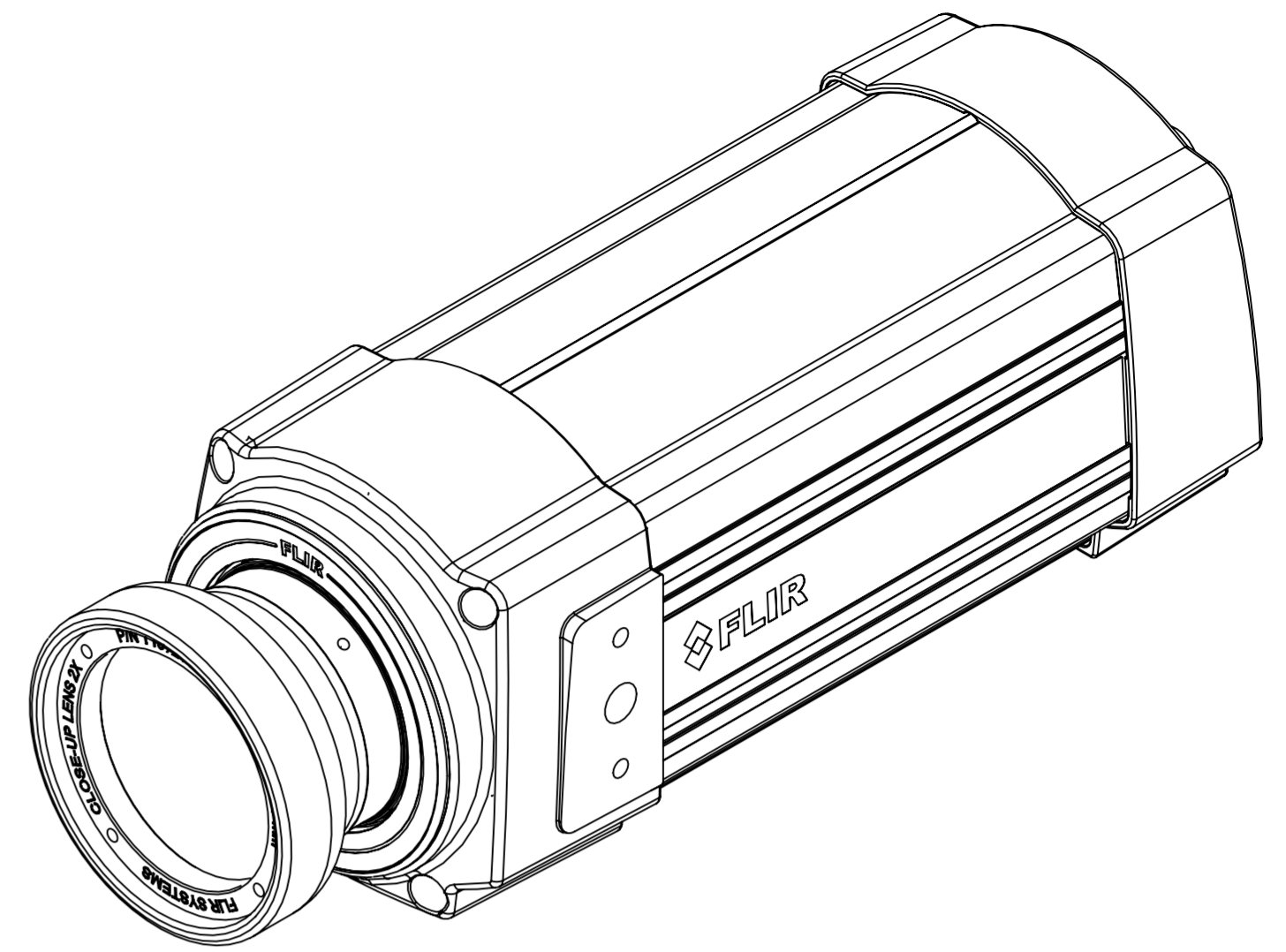
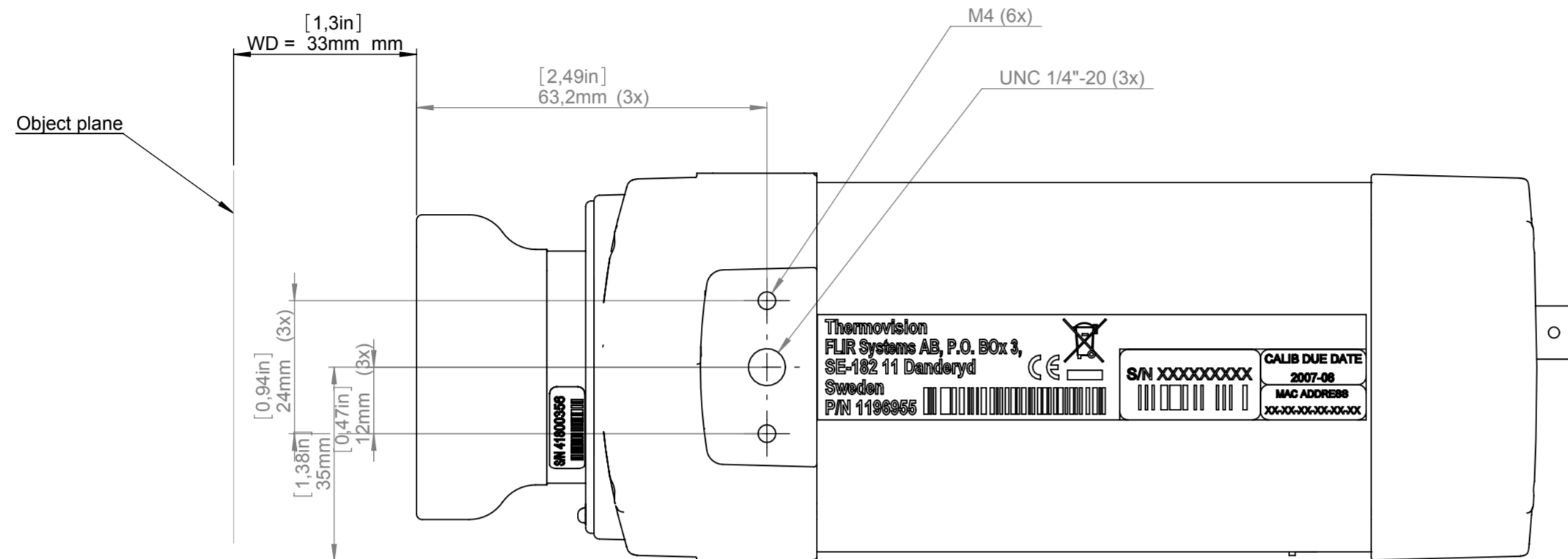


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For additional dimensions see page 1

Modified 2012-04-18	Check CAHA	Drawn by R&D Thermography	
Denomination			
Basic dimensions FLIR A3xx/SC3xx			Size A3 Scale 1:1 Drawing No. T125002 Sheet 6(8) Size A

Camera with Close-up lens 2X (50 μm)

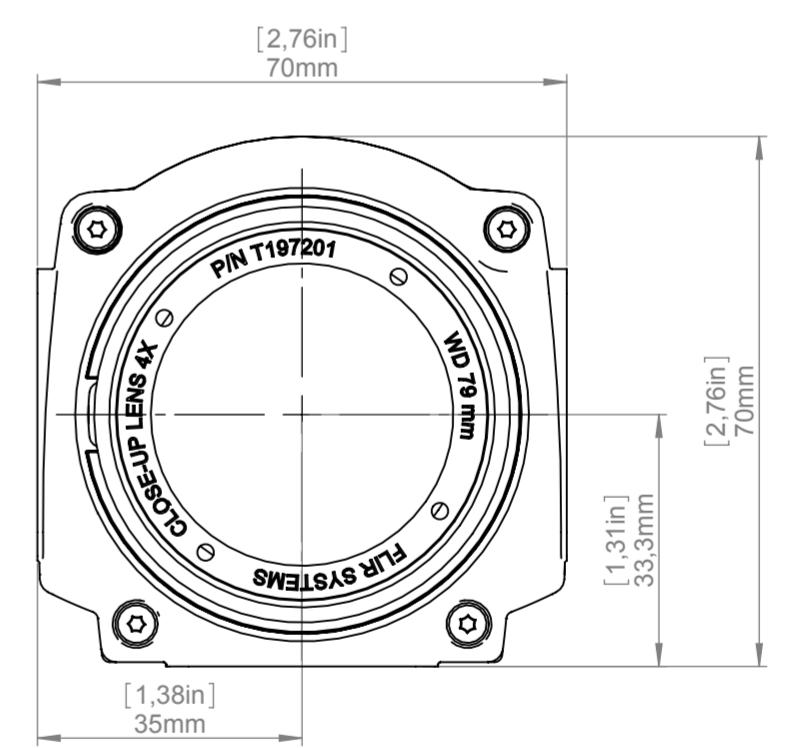
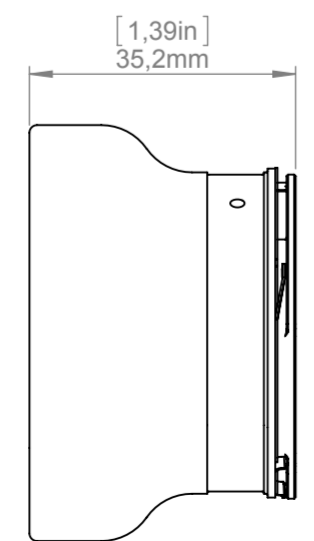
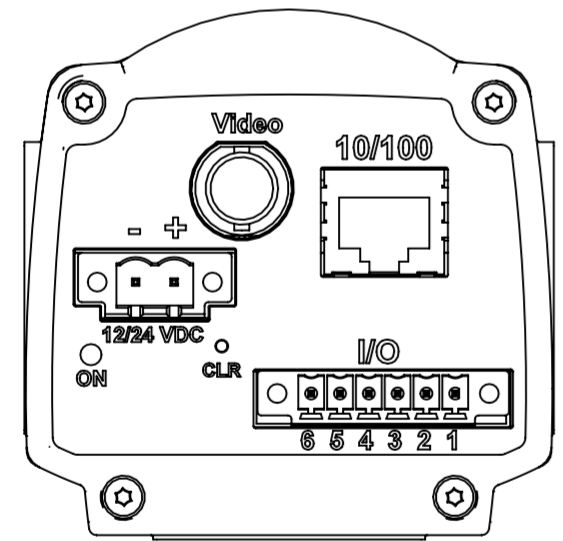
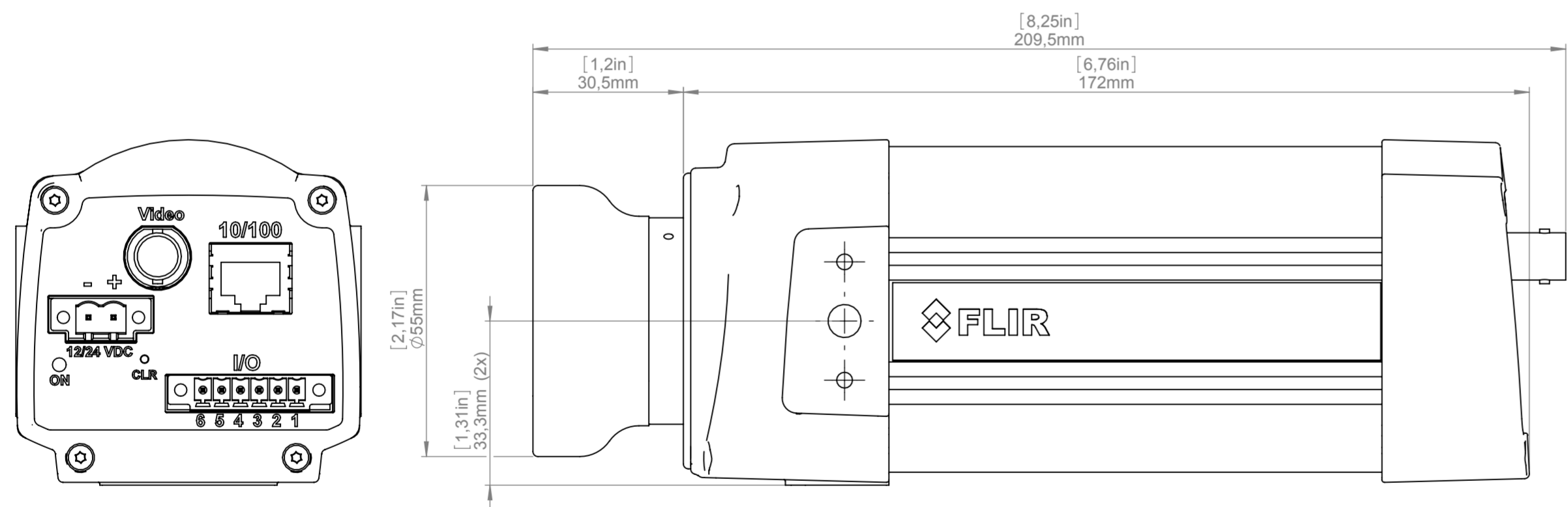
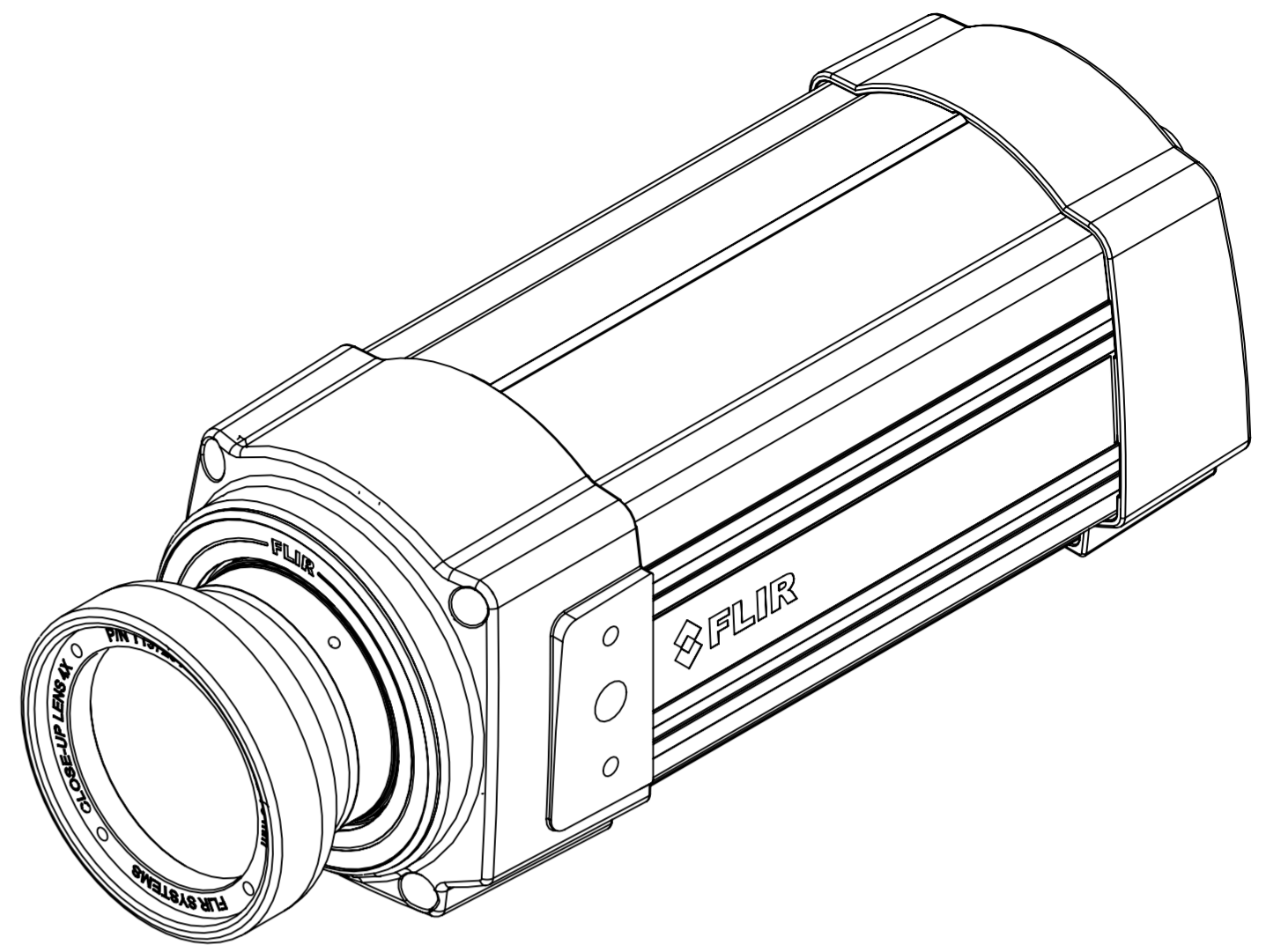
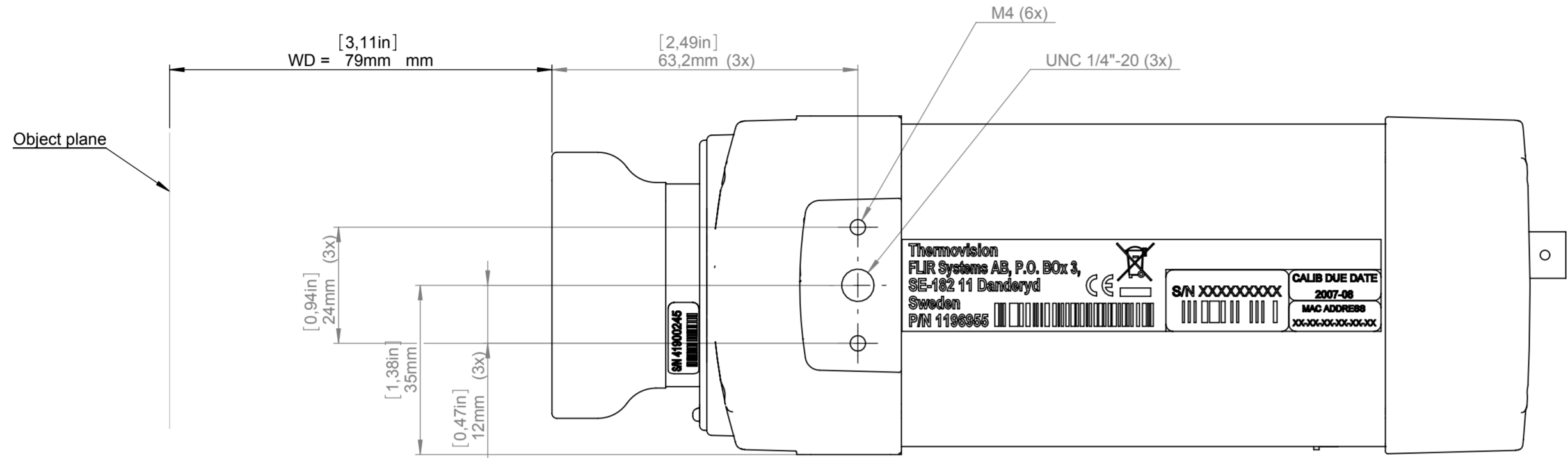


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Modified 2012-04-18	Check CAHA	Drawn by R&D Thermography	Size A3		Sheet 7(8)
Denomination Basic dimensions FLIR A3xx/SC3xx			Scale 1:1		Size A
			Drawing No. T125002		

Camera with Close-up lens 4X (100 μm)



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