

P/N: 61201-1203**Copyright**

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Website

<http://www.flir.com>

Customer support

<http://support.flir.com>

Disclaimer

Specifications subject to change without further notice. Camera models and accessories subject to regional market considerations. License procedures may apply. Products described herein may be subject to US Export Regulations. Please refer to exportquestions@flir.com with any questions.

**General description**

The main purpose of the housing on the FLIR A315f is to increase the environmental specification of the standard FLIR A315 to IP66 without affecting any of the features available in the camera itself.

The built-in FLIR A315 camera has features and functions that make it the natural choice for anyone who uses PC software to solve problems and for whom 320 × 240 pixel resolution is sufficient. Among its main features are GigE Vision and GenICam compliance, which makes it plug-and-play when used with software packages such as IMAQ Vision and Halcon.

Key features:

- Encapsulation to IP66.
- Affordable.
- GigE compliant.
- GenICam compliant.
- Trig/synchronization/GPIO.
- 16-bit 320 × 240 pixel images at 60 Hz, signal, temperature linear, and radiometric.
- Compliant with any software that supports GenICam, including National Instruments IMAQ Vision and Stemmers Common Vision Blox.

Typical applications:

- High-end infrared machine vision that needs temperature measurement.
- Slag detection.
- Food processing.
- Electronics testing.
- Power resistor testing.
- Automotive.

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)	25° × 18.8°
Minimum focus distance	0.4 m (1.31 ft.)
Focal length	18 mm (0.7 in.)
Spatial resolution (IFOV)	1.36 mrad
Lens identification	Automatic
F-number	1.3
Image frequency	60 Hz
Focus	Automatic or manual (built in motor)

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Detector data	
Detector type	Focal plane array (FPA), uncooled microbolometer
Spectral range	7.5–13 µm
Detector pitch	25 µm
Detector time constant	Typical 12 ms
Measurement	
Object temperature range	<ul style="list-style-type: none"> -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	
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 object parameters
Ethernet	
Ethernet	Control and image
Ethernet, type	Gigabit Ethernet
Ethernet, standard	IEEE 802.3
Ethernet, connector type	RJ-45
Ethernet, communication	TCP/IP socket-based FLIR proprietary and GenICam protocol
Ethernet, image streaming	16-bit 320 × 240 pixels @ 60 Hz - Signal linear - Temperature linear - Radiometric GigE Vision and GenICam compatible
Ethernet, protocols	TCP, UDP, SNTP, RTSP, RTP, HTTP, ICMP, IGMP, ftp, SMTP, SMB (CIFS), DHCP, MDNS (Bonjour), uPnP
Digital input/output	
Digital input, purpose	Image tag (start, stop, general), Image flow control, (stream on/off), Input ext. device (programmatically read)
Digital input	2 opto-isolated, 10–30 VDC
Digital output, purpose	Output to ext. device (programmatically set)
Digital output	2 opto-isolated, 10–30 VDC, max. 100 mA
Digital I/O, isolation voltage	500 VRMS

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Digital input/output	
Digital I/O, supply voltage	12/24 VDC, max. 200 mA
Digital I/O, connector type	6-pole jackable screw terminal
Power system	
External power operation	The camera operates on 12/24 VDC, 9 W max. (allowed range: 10-30 VDC) and heaters on 24 VDC, 25 W max. In total: 34 W.
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)
Physical data	
Weight	5 kg (11.0 lb.)
Size (L × W × H)	460 × 140 × 159 mm (18.1 × 5.5 × 6.3 in.)
Base mounting	
Housing material	Aluminum
System features	
External power operation (heater)	24 VDC, 25 W max.
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	
Packaging, type	Cardboard box
List of contents	<ul style="list-style-type: none"> Infrared camera with lens and environmental housing FLIR Sensors Manager download card FLIR Tools & Utilities CD-ROM Lens cap Printed documentation Small accessories kit
Packaging, weight	
Packaging, size	534 × 207 × 230 mm (21.0 × 8.1 × 9.1 in.)
EAN-13	7332558006153

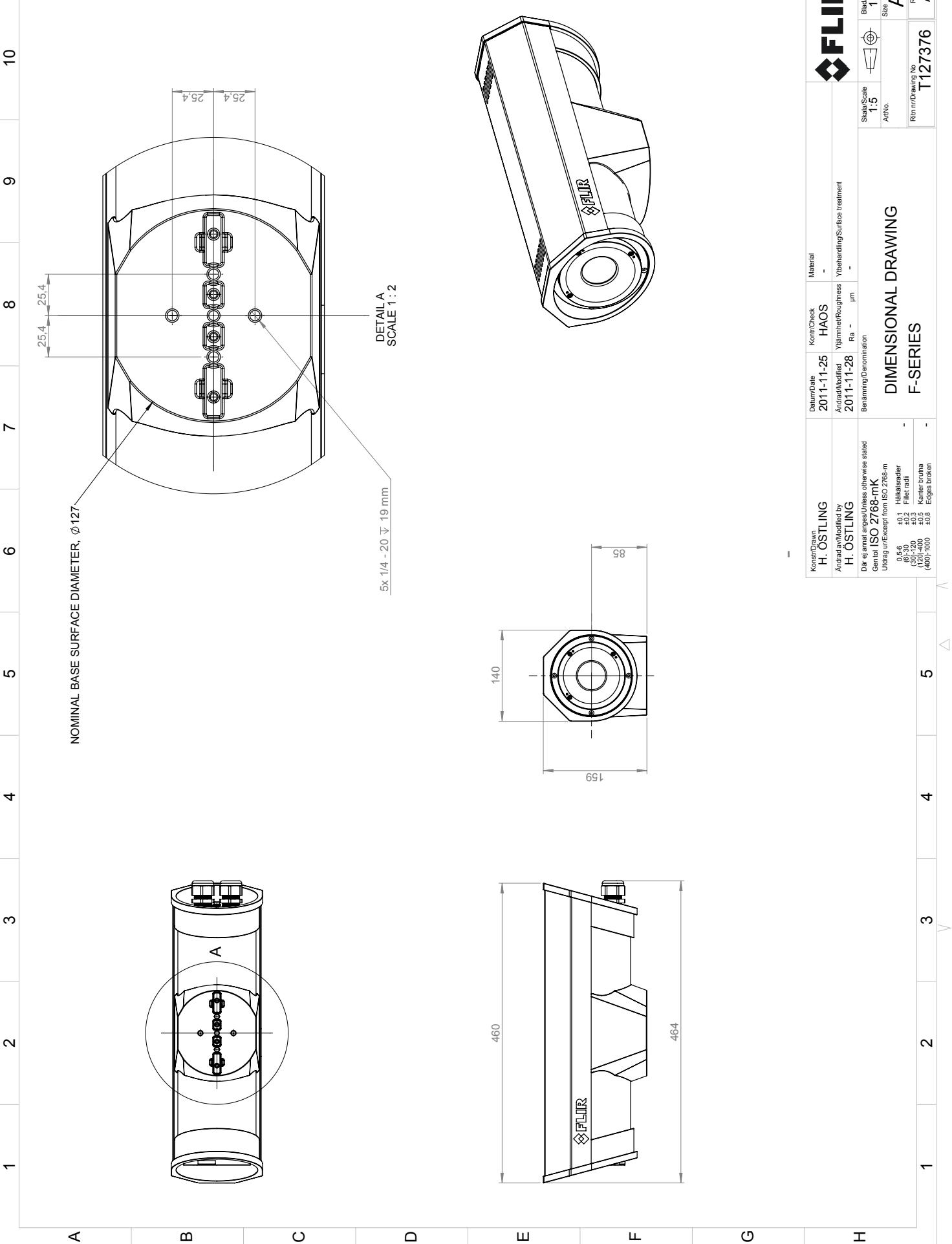
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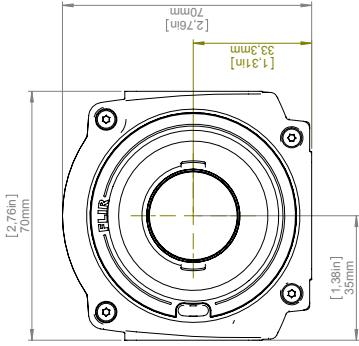
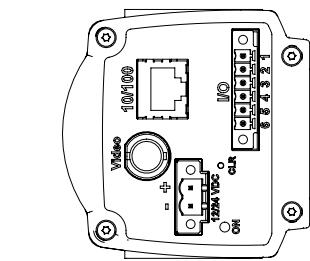
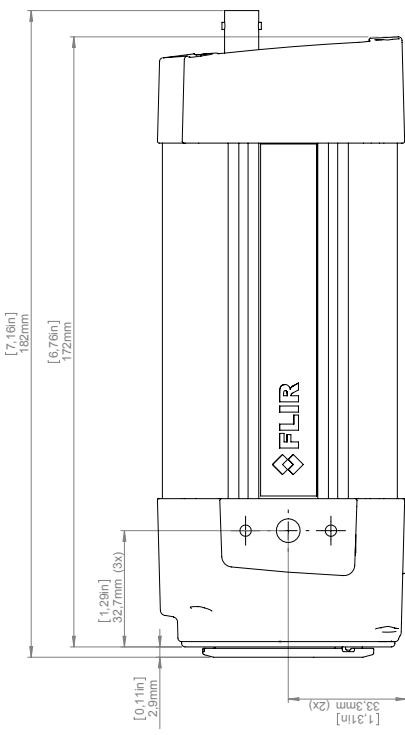
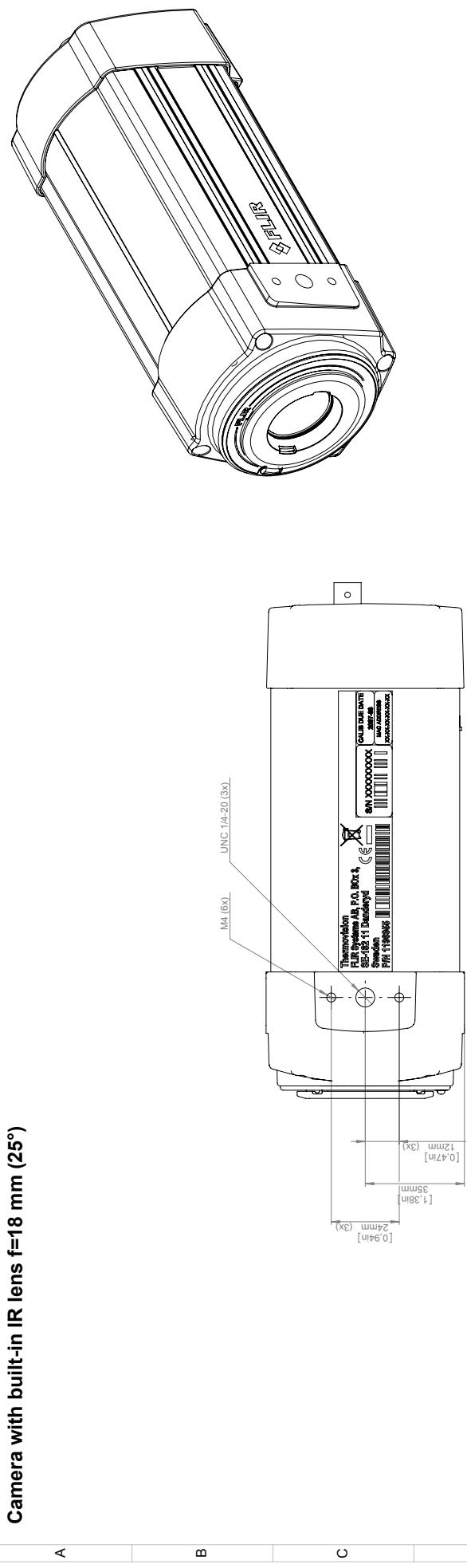
Shipping information	
UPC-12	845188006464
Country of origin	Sweden

Supplies & accessories:

- T197000; High temp. option +1200°C (+2192°F)
- T911182; Power supply for A3xx f, IP66
- T951004ACC; Ethernet cable CAT6, 2 m/6.6 ft.
- 1910586ACC; Power cable, pigtailed
- 324-0004-00; HARD CASE - WITH FOAM, F - SERIES
- 500-0463-00; PEDESTAL MOUNT ASSY - F-SERIES
- 4119507; POLE ADAPTER - F-SERIES
- 500-0462-00; WALL MOUNT ASSY - F-SERIES
- T198584; FLIR Tools
- T198583; FLIR Tools+ (download card incl. license key)
- DSW-10000; FLIR IR Camera Player
- APP-10002; FLIR Tools Mobile (Android Application)
- T199233; FLIR Atlas SDK for .NET
- T199234; FLIR Atlas SDK for MATLAB
- T198567; ThermoVision™ System Developers Kit Ver. 2.6
- T198566; ThermoVision™ LabVIEW® Digital Toolkit Ver. 3.3



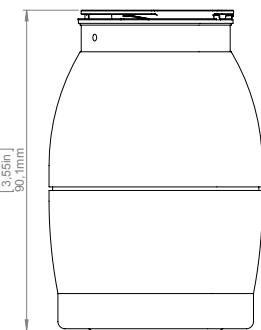
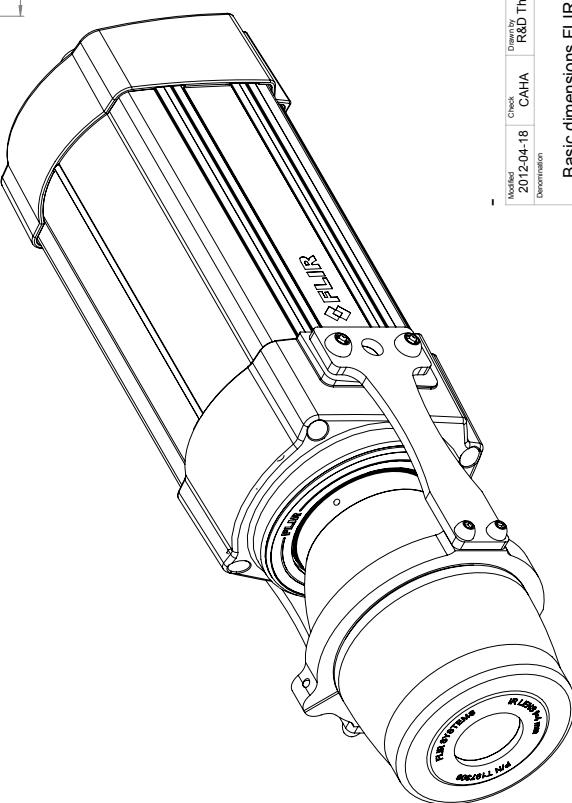
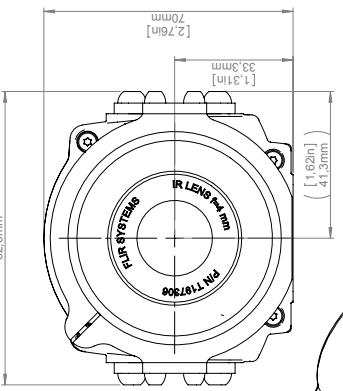
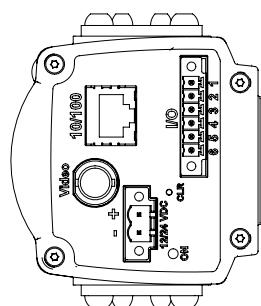
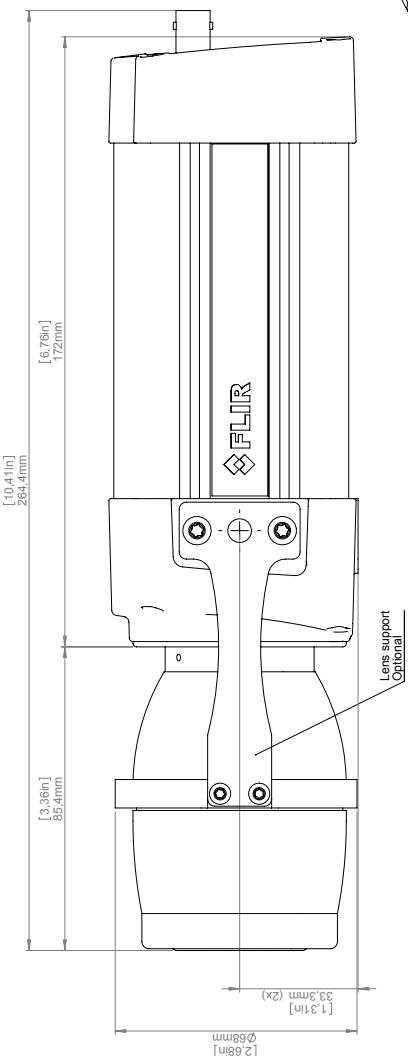
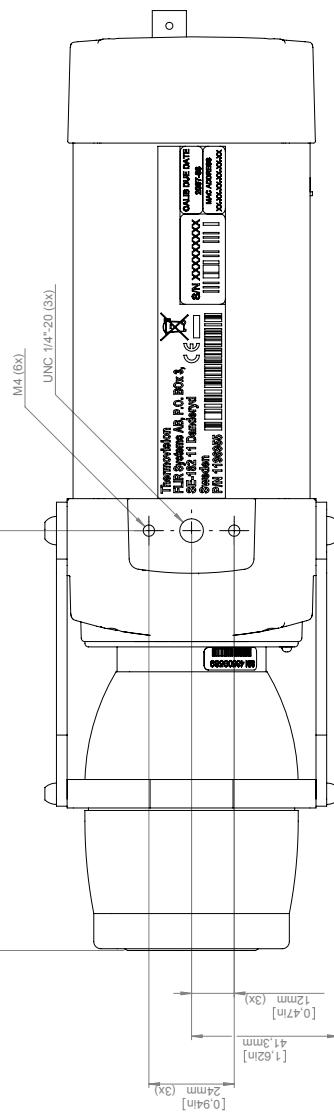
Camera with built-in IR lens f=18 mm (25°)



Basic dimensions FLIR A3xx/SC3xx		Sheet 1/1	Size A
Model No.	2012-04-18	Check CAHA	Drawn by RD Thermography
Decommission			
Date			

Product may be subject to US Export Regulations. Please refer to appropriate sections of the Specification sheet for more information. Products may be subject to US law if shipped. Please note that certain countries prohibit the export of certain products. License procedures may apply.

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



For additional dimensions see page 1

Modelled	2012-04-18	Check	CANIA	Drawn by	R&D Thermography
Described					

Basic dimensions FLIR A3xx/SC3xx

1

2

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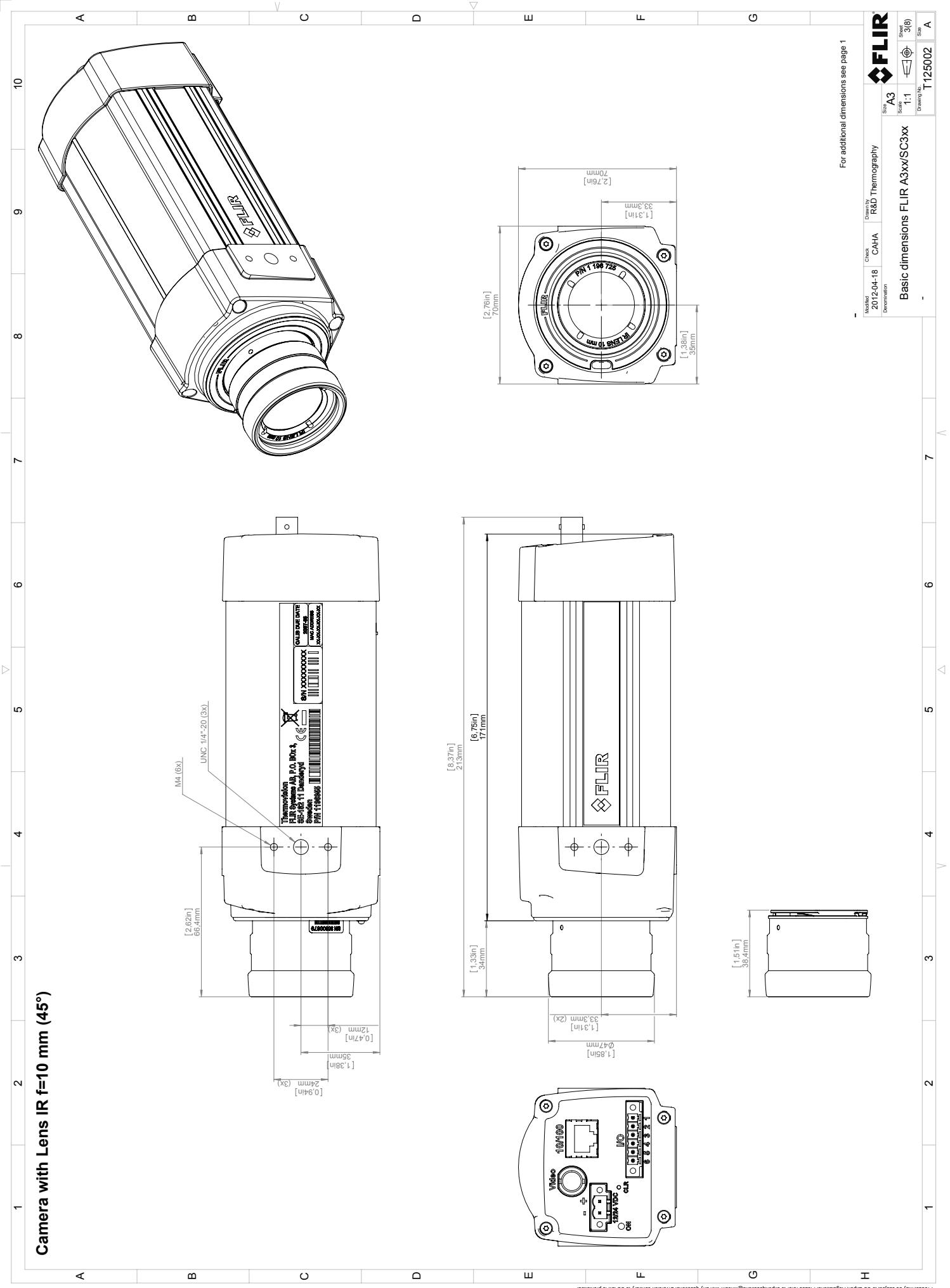
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Camera with Lens IR f=10 mm (45°)



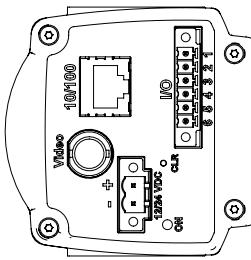
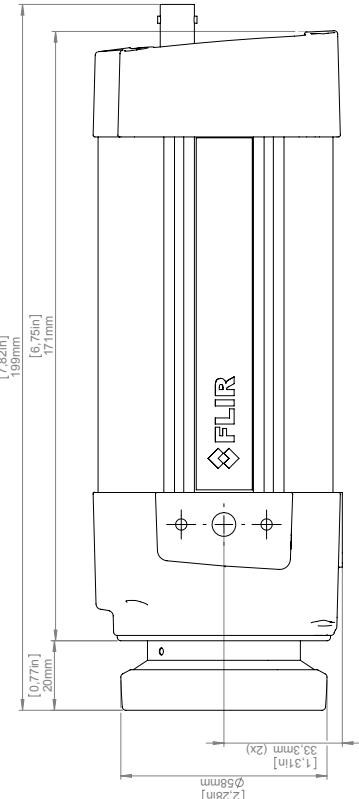
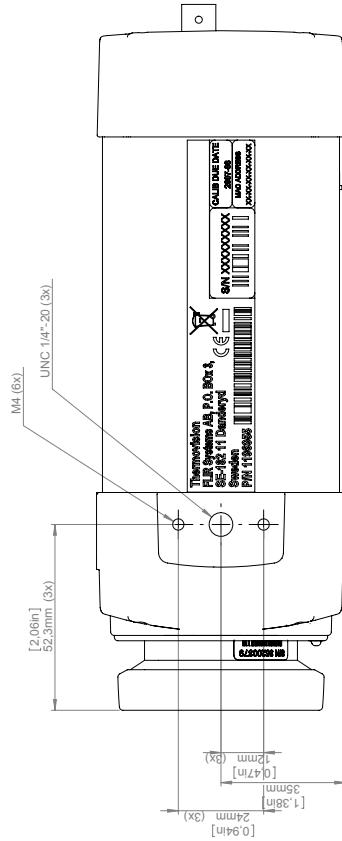
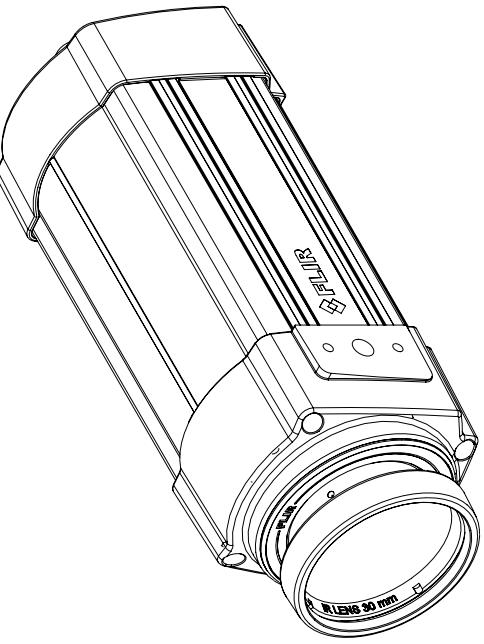
For additional dimensions see page 1

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Reviewed 2012-04-18	Check CAHA

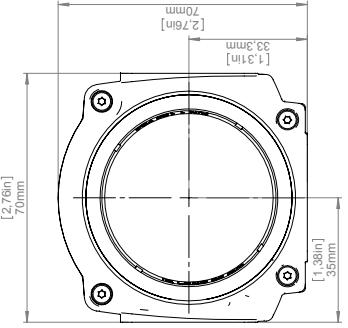
Basic dimensions FLIR A3xx/SC3xx

Sheet 3/8
Drawing No. T125002
Scale 1:1

Camera with Lens f=30 mm (15°)



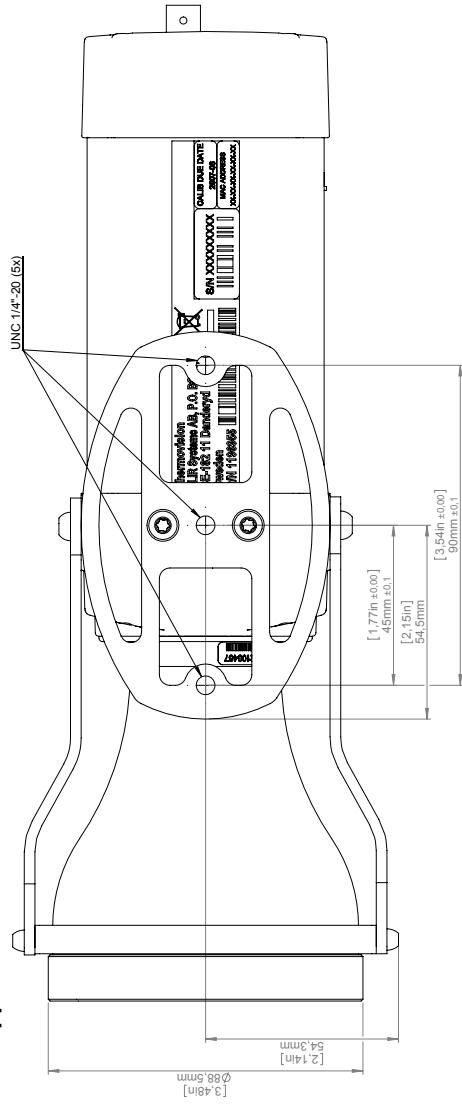
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For additional dimensions see page 1

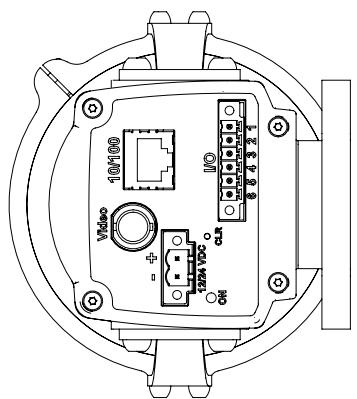
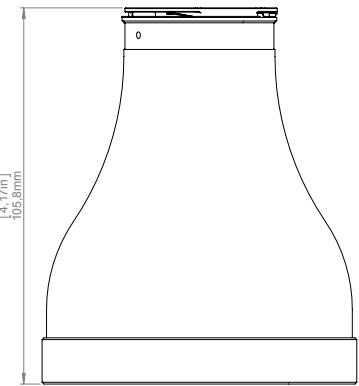
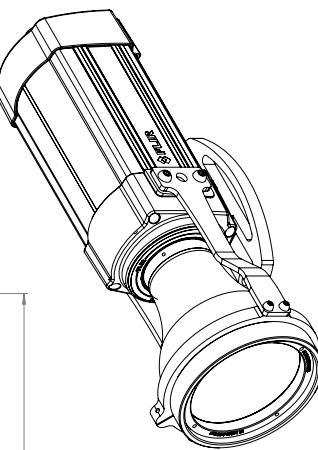
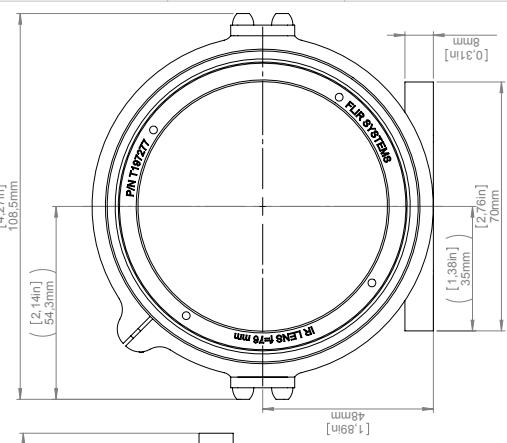
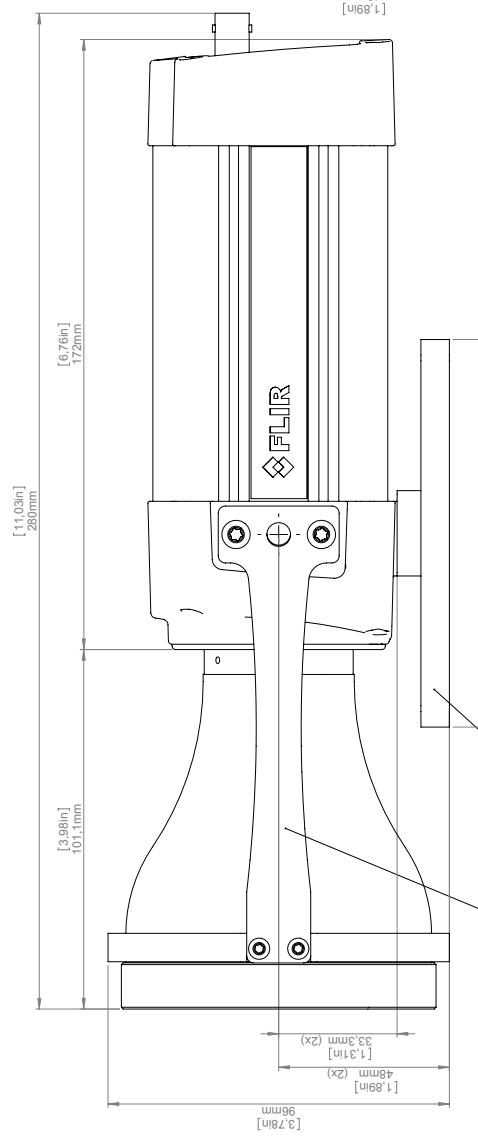
Model	Date	Check	Drawing
2012-04-18	CANIA	R&D Thermography	
Description			
Basic dimensions FLIR A3xx/SC3xx			
-			
Sheet 1 of 4			
Drawing No. T125002			
Page A			

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



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All rights reserved. All rights reserved worldwide. No part of this drawing may be reproduced without written permission from the manufacturer. Drawing number is 105-002. Drawing date is 2012-04-18. Drawing is valid until superseded by a later version. All rights reserved worldwide. No part of this drawing may be reproduced without written permission from the manufacturer. Drawing number is 105-002. Drawing date is 2012-04-18. Drawing is valid until superseded by a later version.

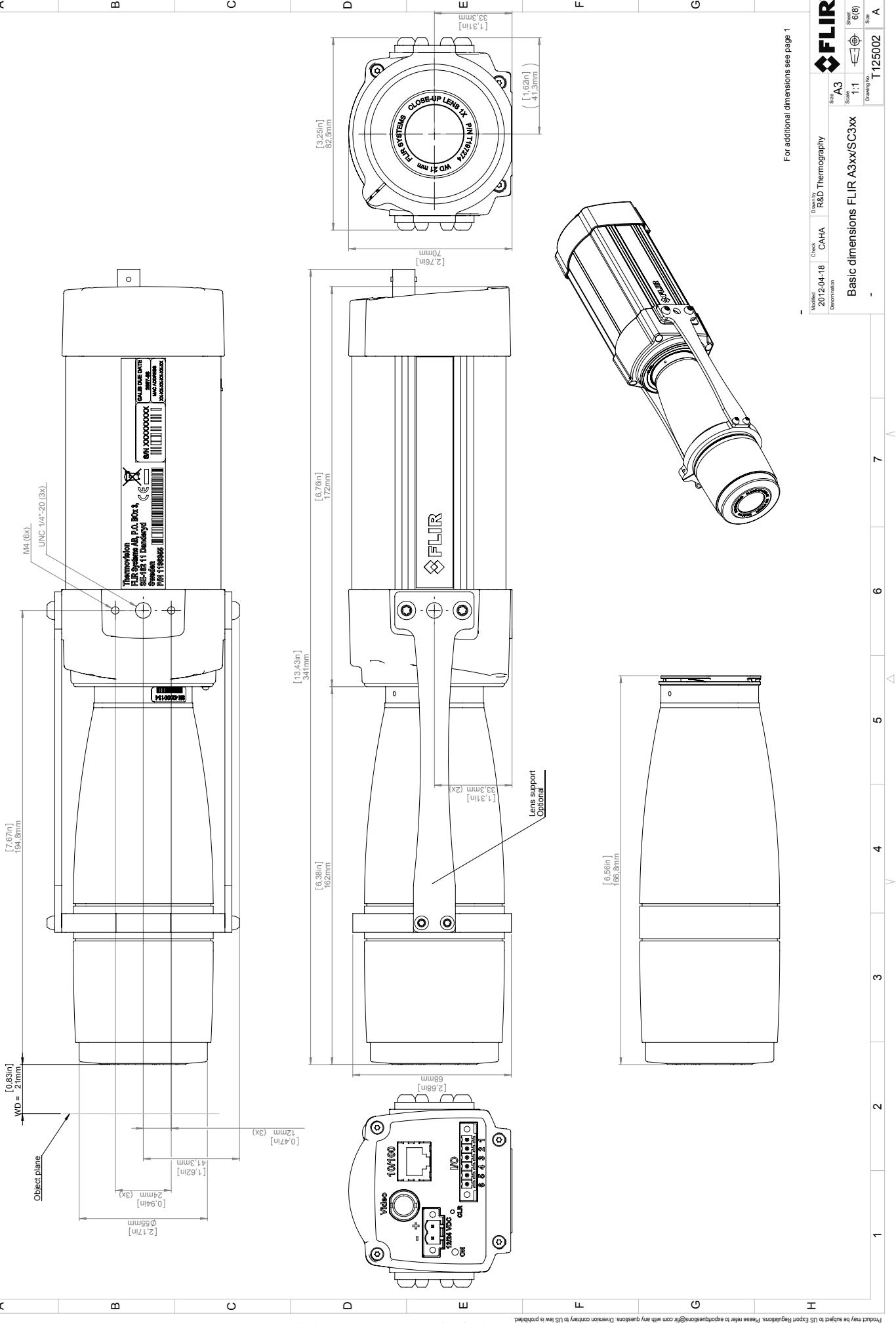


For additional dimensions see page 1

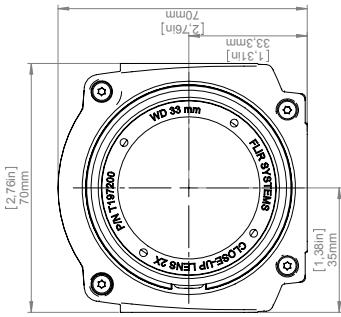
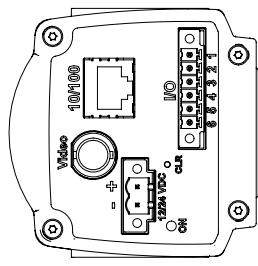
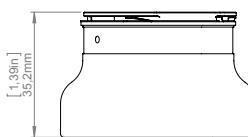
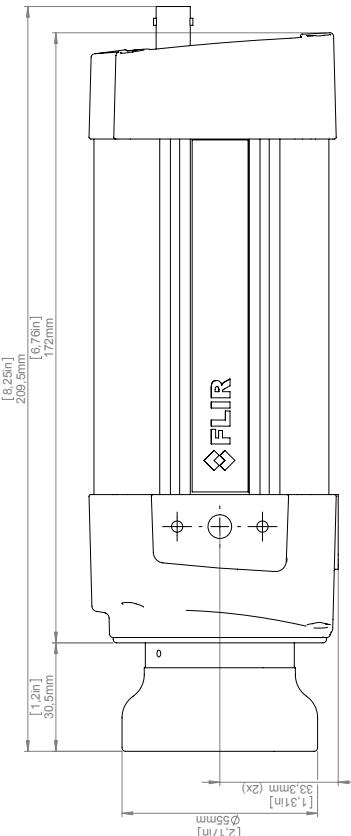
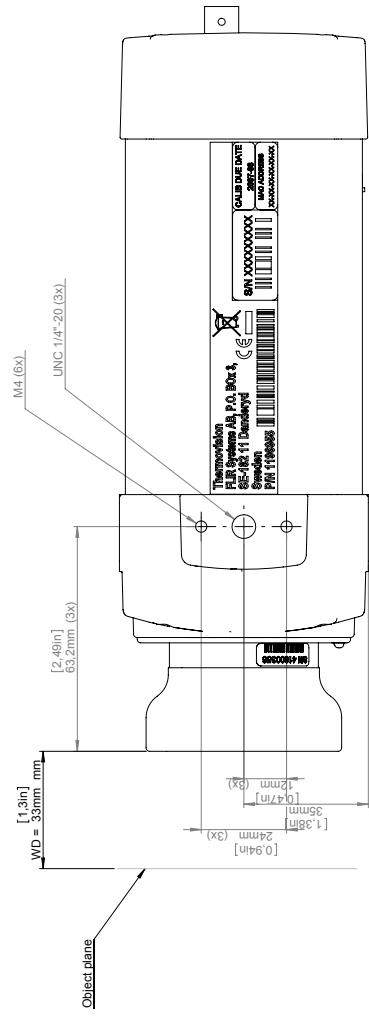
FLIR	
Model	CA1A
Date	R&D Thermography
Descrip.	-

Scale	A3
Sheet	5/8
Page	A
Drawing No.	T125002

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



Camera with Close-up lens 2X (50 μ m)



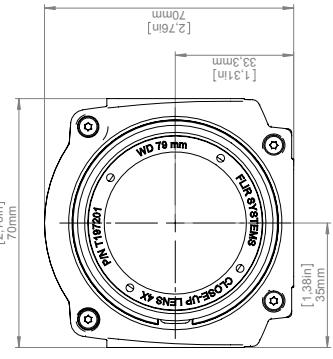
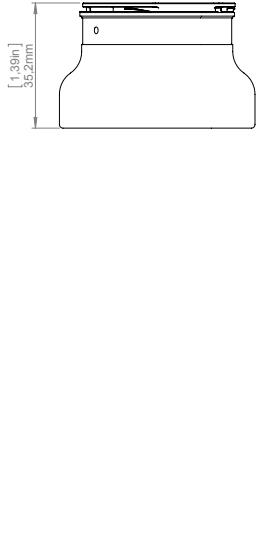
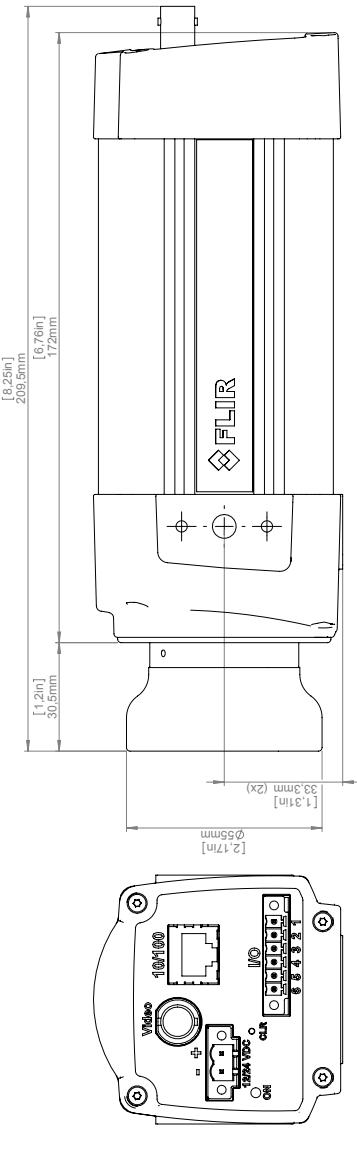
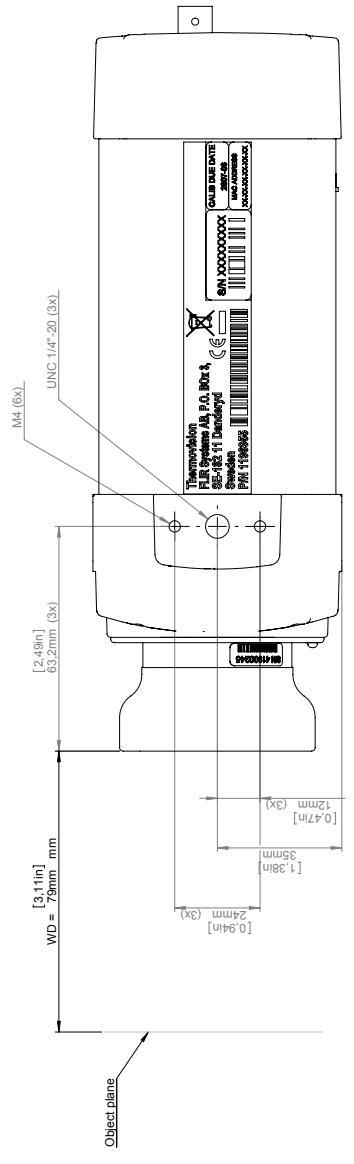
For additional dimensions see page 1

FLIR		
Model No.	2012-04-18	Check CAIA
Revision	R&D Thermography	Drawing No. T125002

Basic dimensions FLIR A3xx/SC3xx

Sheet 1 of 7 (8)

Camera with Close-up lens 4X (100 µm)



For additional dimensions see page 1

Modelled	Check	Drawing
2012-04-18	CANIA	R&D Thermography
Decription		
-	-	-
Basic dimensions FLIR A3xx/SC3xx	Size A3	Scale 1:1
-	Sheet 8/8	Drawng No. T125002



September 2, 2013 AQ320038

CE Declaration of Conformity

This is to certify that the System listed below have been designed and manufactured to meet the requirements, as applicable, of the following EU-Directives and corresponding harmonising standards. The systems consequently meet the requirements for the CE-mark.

Directives:

Directive 2004/108/EC; Electromagnetic Compatibility

Standards:

Emission: EN 61000-6-4; **Electro magnetic Compatibility**
Generic standards - Emission

Immunity: EN 61000-6-2; **Electro magnetic Compatibility;**
Generic standards - Immunity

System: **FLIR A310f series**

FLIR Systems AB
Quality Assurance

Björn Svensson
Director