FLIR A325sc

P/N: 48001-1001

Document identity

Publ. No.: 48001-1001
Release:
Commit: 35207
Language: en-US
Modified: 2016-04-27
Formatted: 2016-04-27

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 FLIR A325sc is an excellent choice for those working in R&D and need high frame rates but for whom 320 × 240 pixel resolution is sufficient. When using the camera in R&D, it is highly recommended to use the FLIR ResearchIR software from FLIR Systems.
Key features:
• Affordable. • 16-bit 320 × 240 pixel images at 60 Hz. • Start-and-stop recording in FLIR ResearchIR using digital input. • Lenses: 25° included, 15° and 45° optional.
Typical applications:
• Entry- or mid-level industrial R&D.

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)

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

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Measurement	
Object temperature range	• –20 to +120°C (–4 to +248°F) • 0 to +350°C (+32 to +662°F)
Accuracy	±2°C (±3.6°F) or ±2% 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, 0–1.5 V = low, 3–25 V = high
Digital output, purpose	Output to ext. device (programmatically set)
Digital output	2 opto-isolated, ON = supply (max. 100 mA), OFF = open
Digital I/O, isolation voltage	500 VRMS
Digital I/O, supply voltage	6–24 VDC, max. 200 mA
Digital I/O, connector type	6-pole jackable screw terminal

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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	–15°C to +50°C (+5°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	• EN 61000-6-2:2001 (Immunity) • EN 61000-6-3:2001 (Emission) • FCC 47 CFR Part 15 Class B (Emission)
Encapsulation	IP 40 (IEC 60529)
Shock	25 g (IEC 60068-2-27)
Vibration	2 g (IEC 60068-2-6)

Physical data	
Weight	0.7 kg (1.54 lb.)
Camera size (L × W × H)	170 × 70 × 70 mm (6.7 × 2.8 × 2.8 in.)
Tripod mounting	UNC ¼"-20 (on three sides)
Base mounting	2 × M4 thread mounting holes (on three sides)
Housing material	Aluminum

Shipping information	
Packaging, type	Cardboard box
List of contents	• Infrared camera with lens • Ethernet cable • FLIR ResearchIR Max 4 (licence only) • Hard transport case • Mains cable • Power cable, pig-tailed • Power supply • Printed documentation
Packaging, weight	5.0 kg (11.0 lb.)
Packaging, size	495 × 370 × 192 mm (19.5 × 14.6 × 7.6 in.)
EAN-13	7332558004203
UPC-12	845188004231
Country of origin	Sweden

Supplies & accessories:

- 1196961; IR lens, f = 30 mm, 15° incl. case
- 1196960; IR lens, f = 10 mm, 45° incl. case
- T197215; Close-up 4× (100 µm) incl. case
- T197214; Close-up 2× (50 µm) incl. case
- T197407; IR lens, 76 mm (6°) with case and mounting support for A3xx, A3xxsc
- T197411; IR lens, 4 mm (90°) with case and mounting support for A3xx, A3xxsc
- T197415; Close-up 1× (25 µm) incl. case and mounting support for A3xx, A3xxsc

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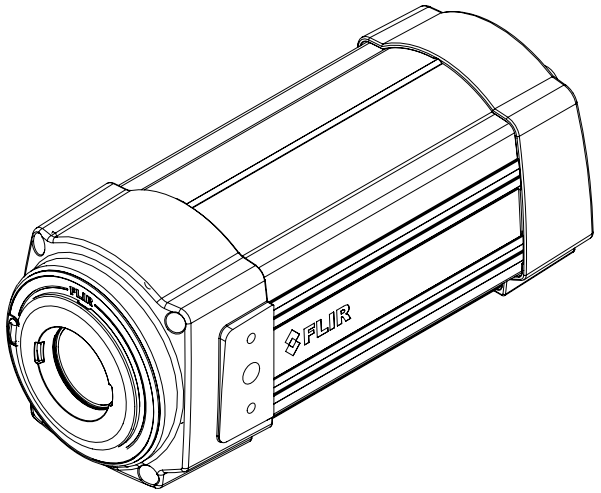
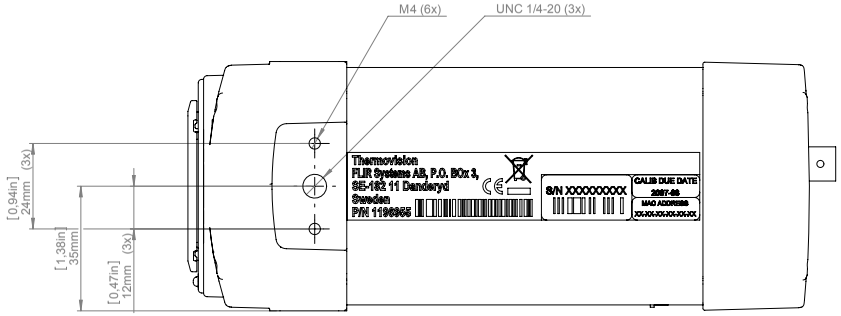
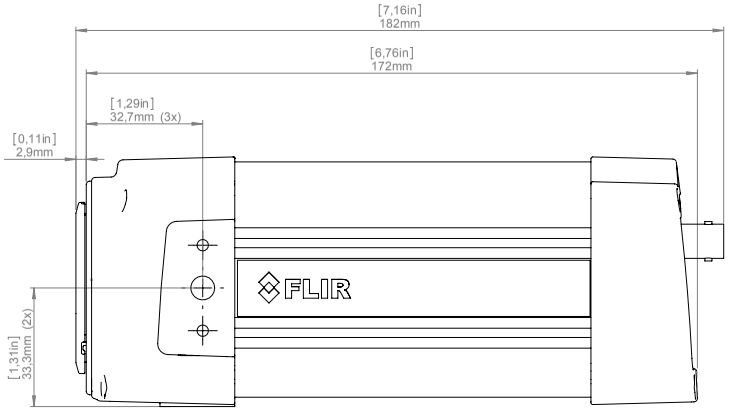
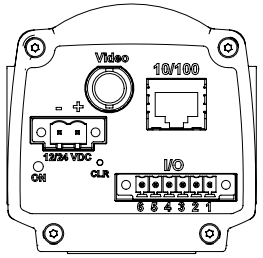
- T197000; High temp. option +1200°C (+2192°F)
- 1910400; Power cord EU
- 1910401; Power cord US
- 1910402; Power cord UK
- T910922; Power supply, incl. multi plugs, for A3xx, A3xxsc, A6xx and A6xxsc
- T911182; Power supply for A3xx f, IP66
- T951004ACC; Ethernet cable CAT6, 2 m/6.6 ft.
- T911307ACC; Ethernet cable, CAT6, 2 m/6.6 ft, 1 screw connector
- 1910586ACC; Power cable, pigtailed
- T197871ACC; Hard transport case for A3xx/A6xx series
- T197870ACC; Cardboard box for A3xx/A6xx series
- T198584; FLIR Tools
- T198583; FLIR Tools+ (download card incl. license key)
- DSW-10000; FLIR IR Camera Player
- T198697; FLIR ResearchIR Max + HSDR 4 (hardware sec. dev.)
- T199014; FLIR ResearchIR Max + HSDR 4 (printed license key)
- T199044; FLIR ResearchIR Max + HSDR 4 Upgrade (printed license key)
- T198696; FLIR ResearchIR Max 4 (hardware sec. dev.)
- T199013; FLIR ResearchIR Max 4 (printed license key)
- T199043; FLIR ResearchIR Max 4 Upgrade (printed license key)
- T198731; FLIR ResearchIR Standard 4 (hardware sec. dev.)
- T199012; FLIR ResearchIR Standard 4 (printed license key)
- T199042; FLIR ResearchIR Standard 4 Upgrade (printed license key)
- 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

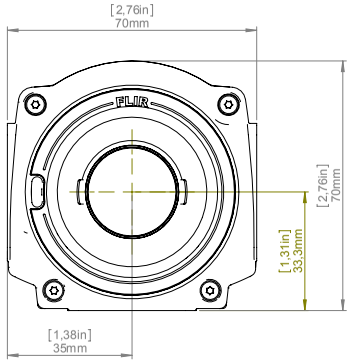
Camera with built-in IR lens f=18 mm (25°)











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Modified	Check	Drawn by
2012-04-18	CAHA	R&D Thermography

Denomination

Basic dimensions FLIR A3xx/SC3xx

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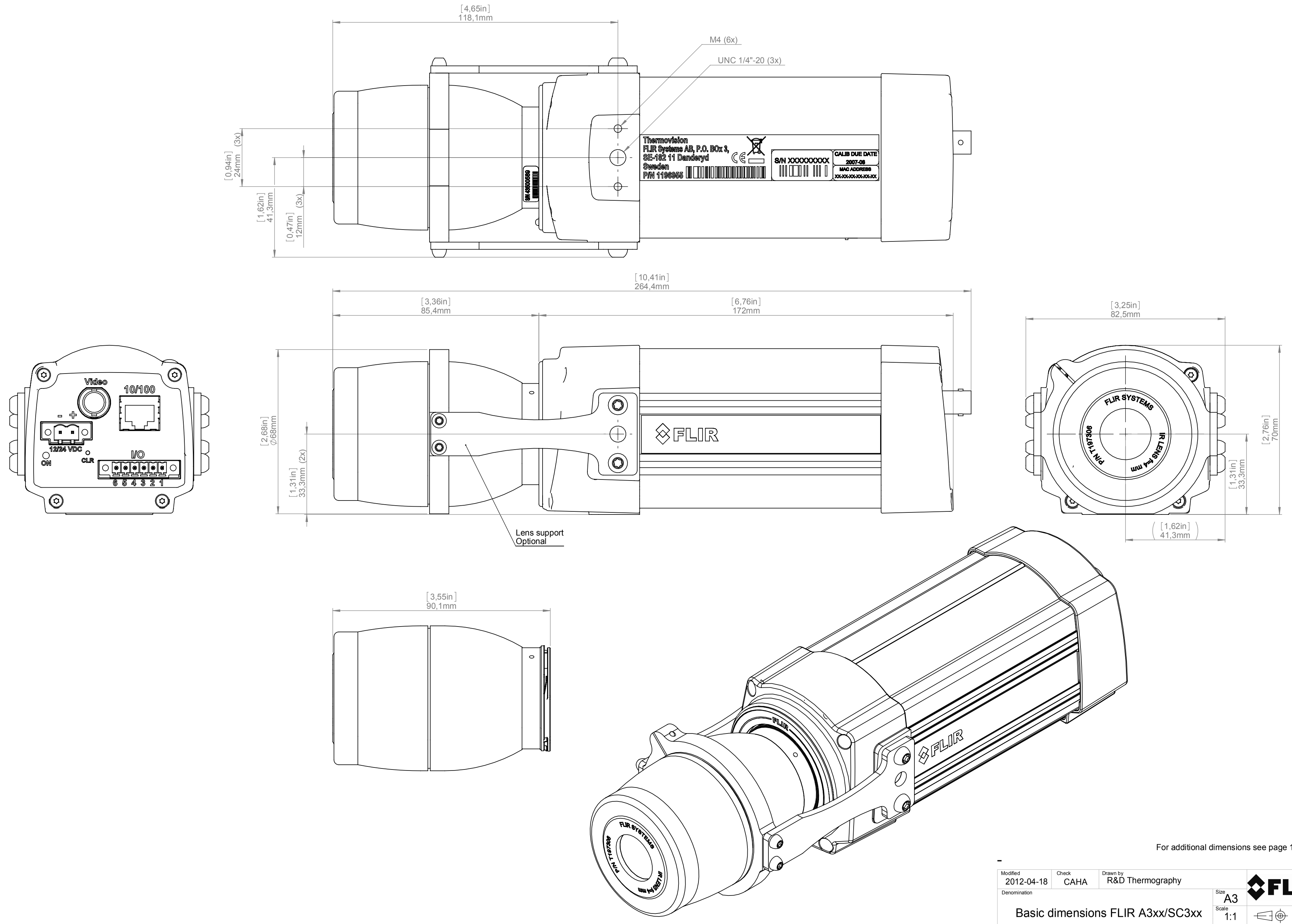
FLIR

Size A3 | Scale 1:1 | Sheet 1(8)

Drawing No. T125002 | Size A

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



For additional dimensions see page 1

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2012-04-18	CAHA	R&D Thermography

Denomination: Basic dimensions FLIR A3xx/SC3xx

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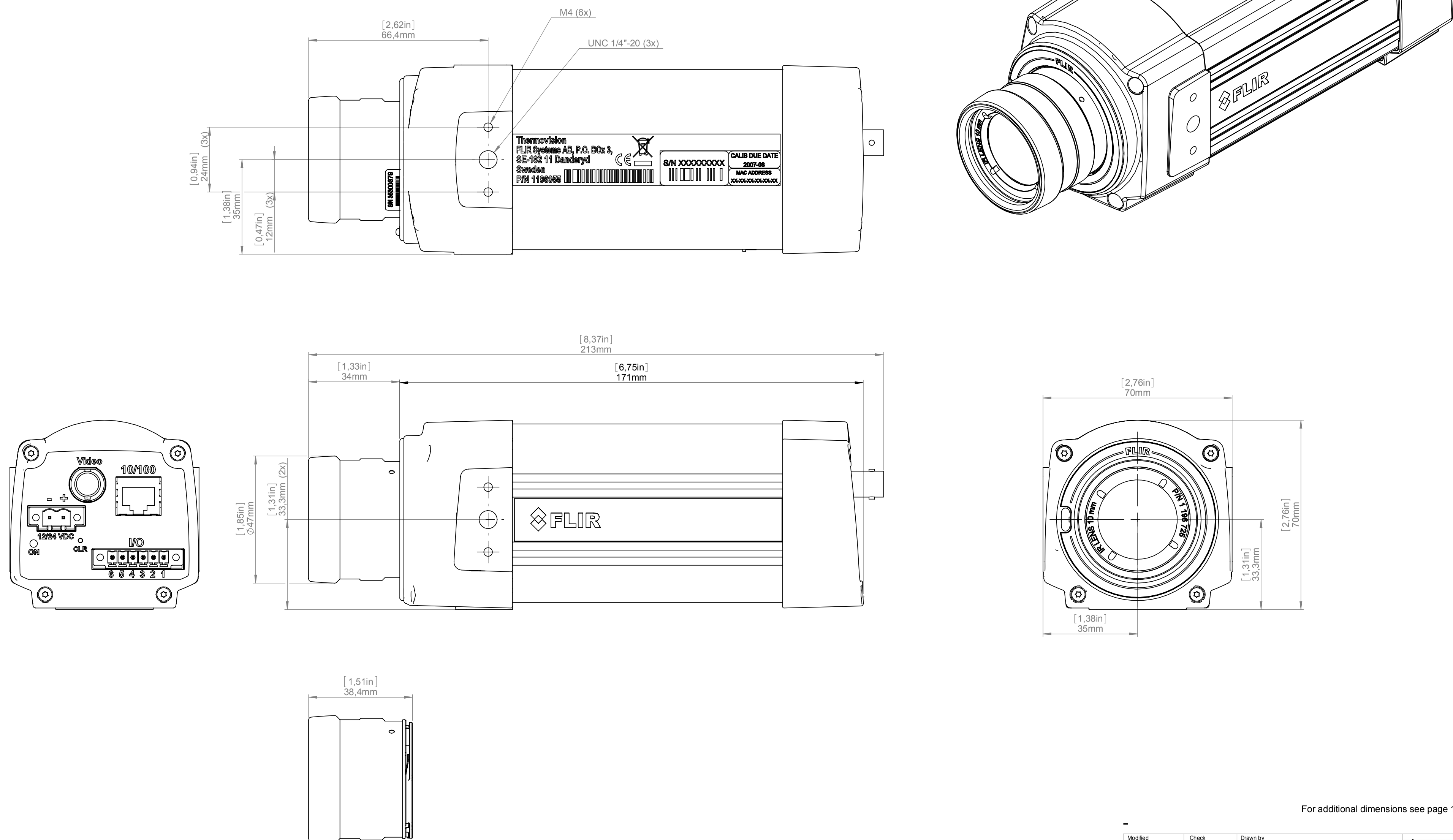
Size: A3 | Scale: 1:1 | Sheet: 2(8)

Drawing No. T125002 | Size: A

FLIR

Camera with Lens IR f=10 mm (45°)



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Modified	Check	Drawn by
2012-04-18	CAHA	R&D Thermography

Denomination: Basic dimensions FLIR A3xx/SC3xx

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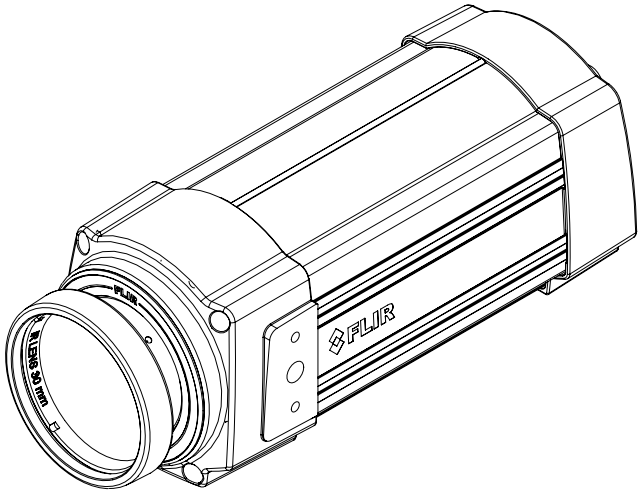
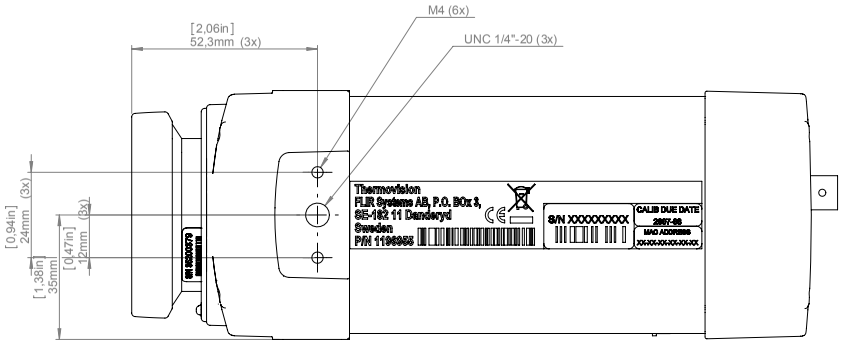
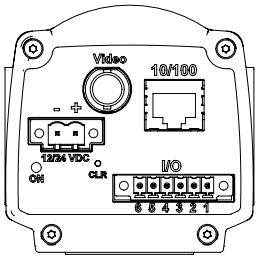
Size: A3 | Scale: 1:1 | Sheet: 3(8)

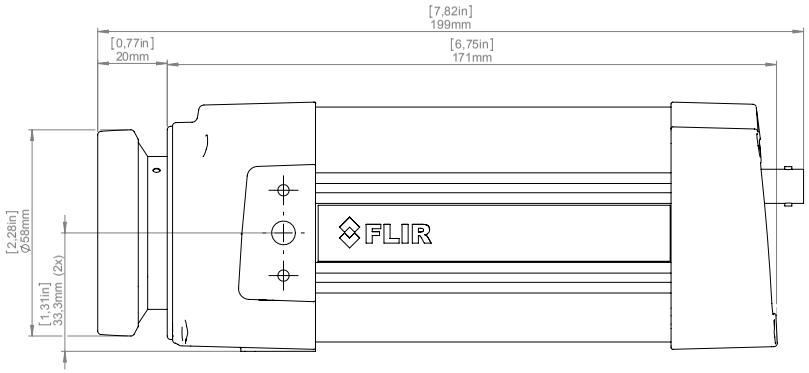
Drawing No.: T125002 | Size: A

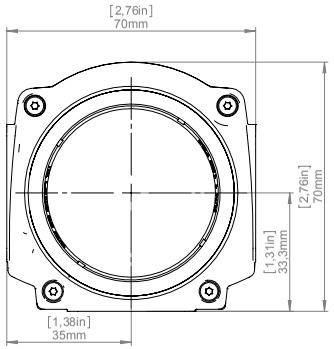
Camera with Lens IR f=30 mm (15°)

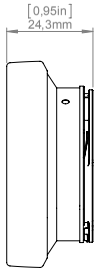












For additional dimensions see page 1

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Modified	Check	Drawn by
2012-04-18	CAHA	R&D Thermography

Denomination

Basic dimensions FLIR A3xx/SC3xx

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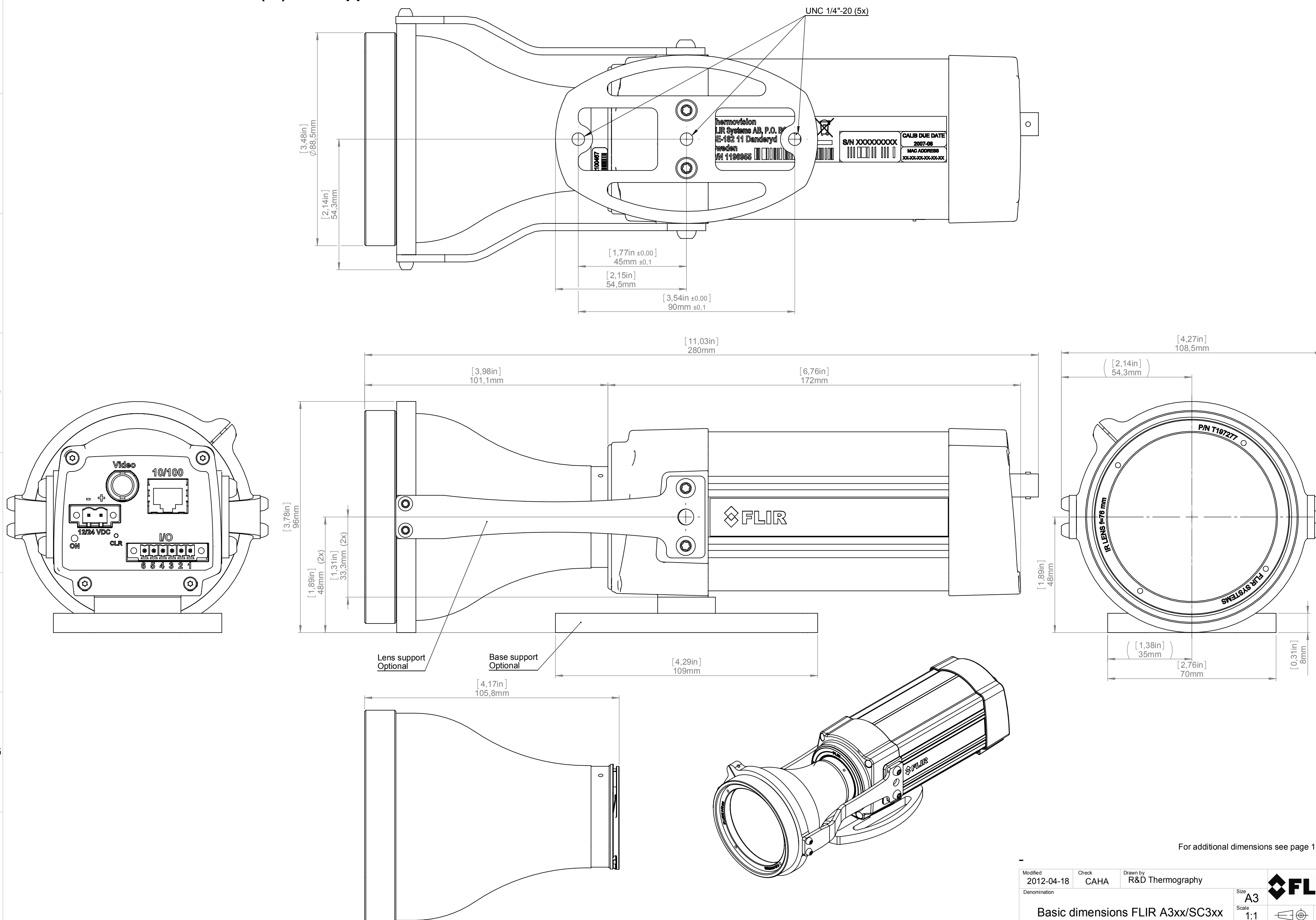
Size A3 | Scale 1:1 | Sheet 4(8)

Drawing No. T125002 | Size A

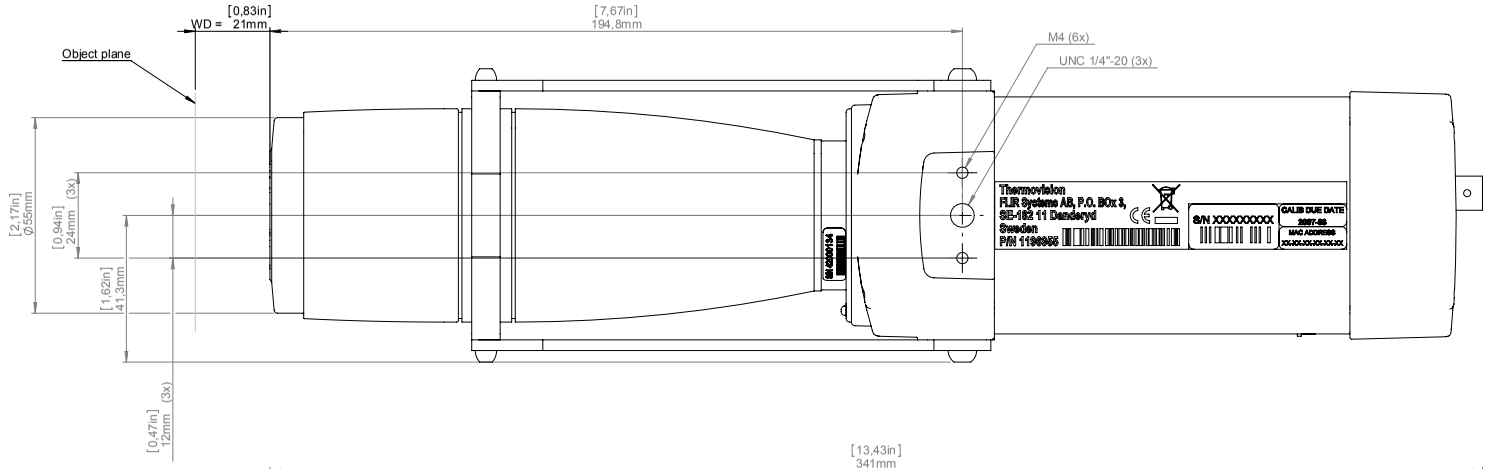
Camera with Lens IR f=76 mm (6°) incl support

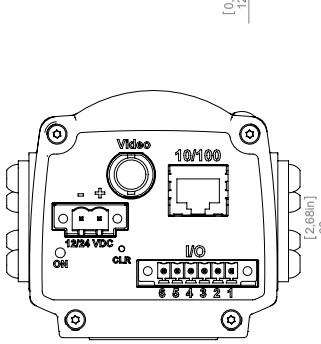


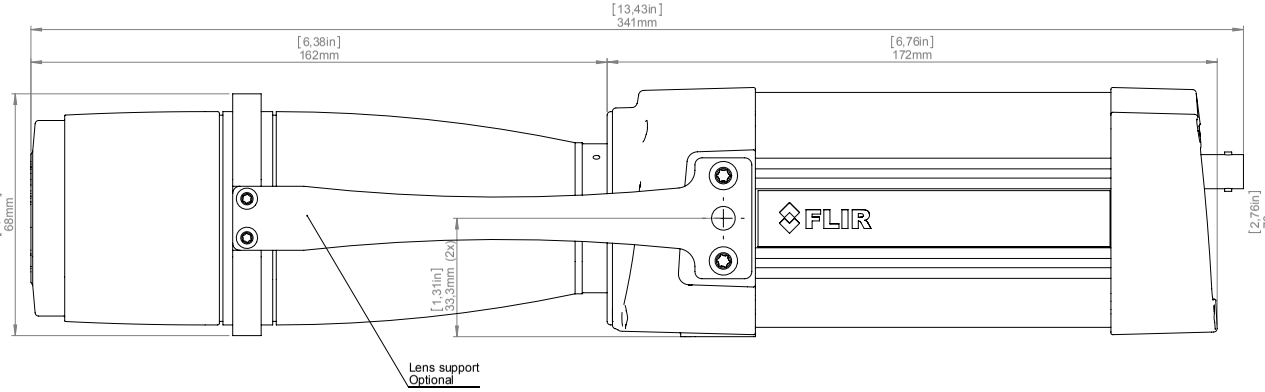
For additional dimensions see page 1

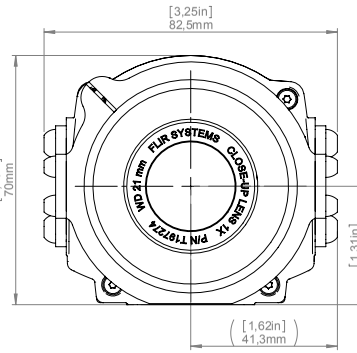
Modified: 2012-04-18	Check: CAHA	Drawn by: R&D Thermography	FLIR
Denomination: Basic dimensions FLIR A3xx/SC3xx		Size: A3	
-		Scale: 1:1	Sheet: 5(8)
		Drawing No.: T125002	Size: A

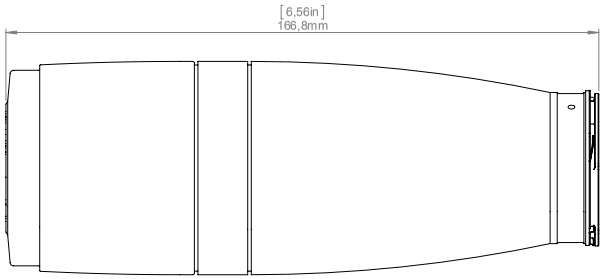
Camera with Close-up lens 1X (25 µm) incl support

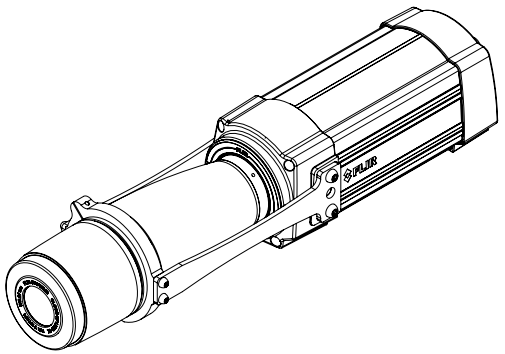












For additional dimensions see page 1

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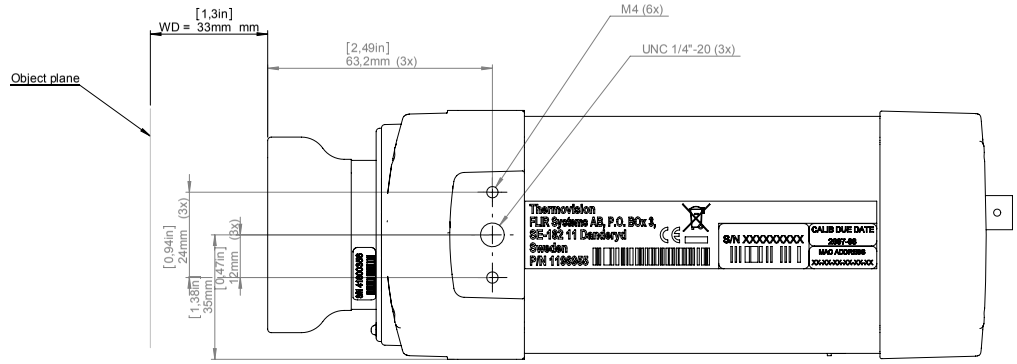
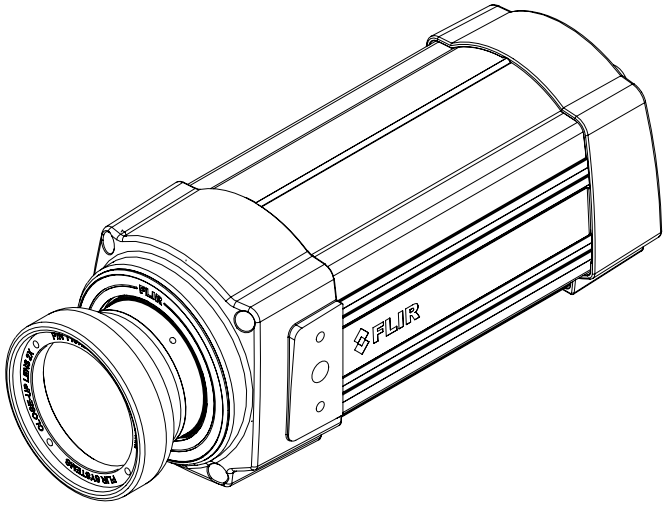
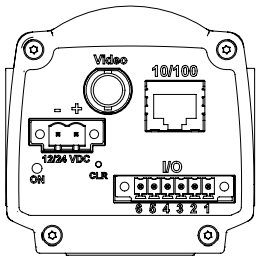
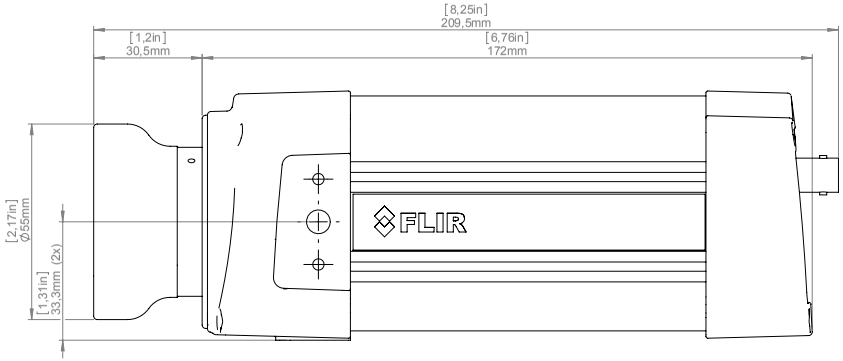
2012-04-18	CAHA	R&D Thermography	FLIR
Denomination: Basic dimensions FLIR A3xx/SC3xx		Size: A3	Sheet: 6(8)
-		Scale: 1:1	
		Drawing No.: T125002	Size: A

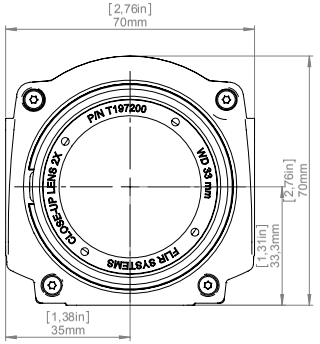
Camera with Close-up lens 2X (50 µm)

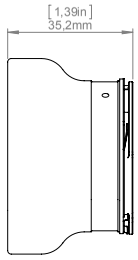












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2012-04-18	CAHA	R&D Thermography	FLIR

Denomination

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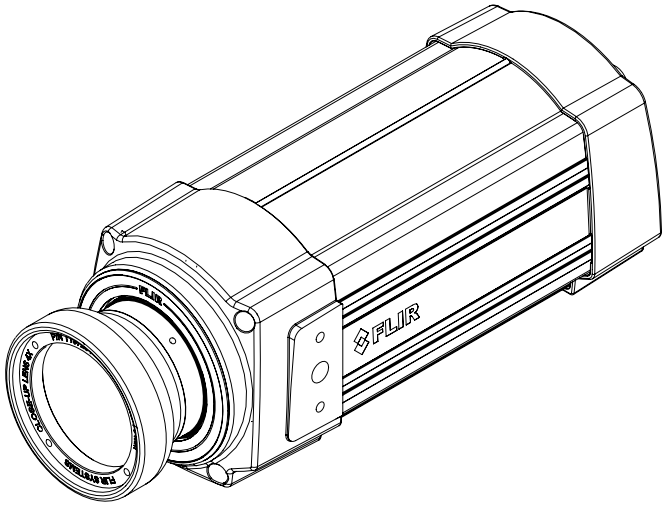
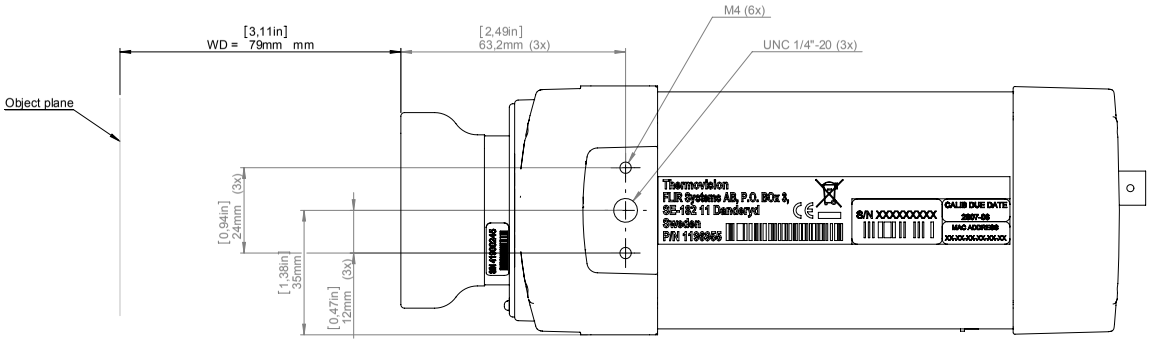
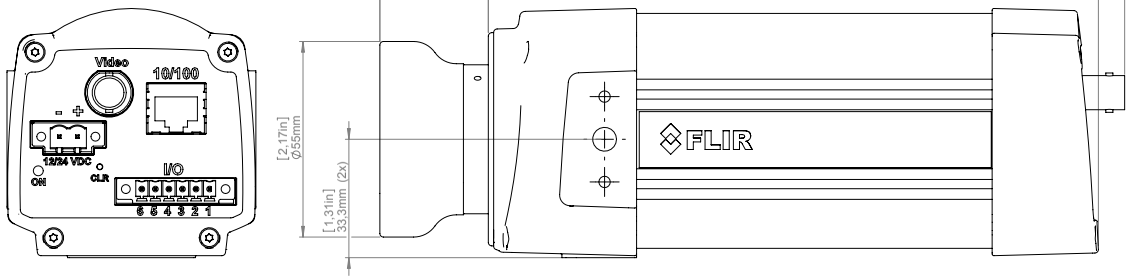
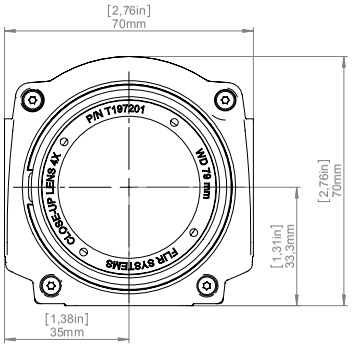
Size	Sheet
A3	7(8)
Scale 1:1	
Drawing No. T125002	Size A

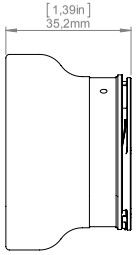
Camera with Close-up lens 4X (100 µm)











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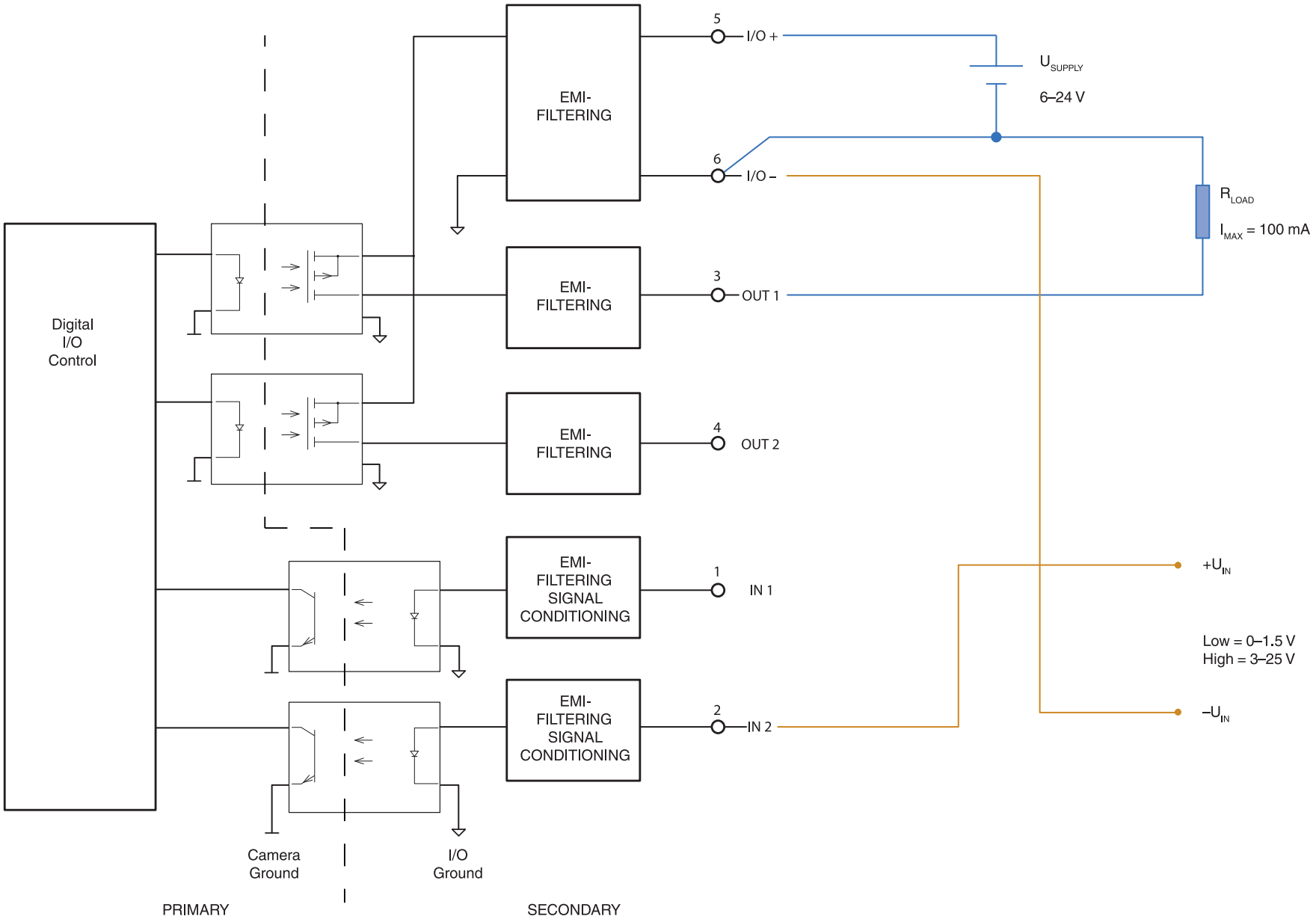
Size	Scale	Sheet
A3	1:1	8(8)

Drawing No.	Size
T125002	A

Digital I/O connection diagrams for FLIR A3xx/A6xx series



FLIR SYSTEMS AB

October 28, 2011 AQ115813

Certificate of Conformity

This is to certify that the System listed below has 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**
Directive 2006/95/EC;	**"Low voltage Directive"** (Power Supply)
Directive 2002/96/EC	**Waste electrical and electronic equipment; WEEE** (As applicable)

Standards:

Emission:	**EN 61000-6-3;**	**Electromagnetic Compatibility Generic standards - Emission**
Immunity:	**EN 61000-6-2;**	**Electromagnetic Compatibility; Generic standards – Immunity**
Safety (Power Supply)**:**	**EN 60950**	(or other) **Safety of information technology equipment**

System: **FLIR A3xx Series**

FLIR Systems AB
Quality Assurance

Olof Gawell
Director

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