

## P/N: 48201-1001

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### Document identity

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### Website

<http://www.flir.com>

### Customer support

<http://support.flir.com>

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### General description

The FLIR A300 offers an affordable and accurate temperature measurement solution for anyone who needs to solve problems that do not call for the highest speed or reaction and who uses a PC. Due to its composite video output, it is also an excellent choice for thermal image automation applications, where you can utilize its unique properties such as looking through steam.

#### Key features:

- MPEG-4 streaming.
- PoE (Power over Ethernet).
- Built-in web server.
- General purpose I/O.
- 100 Mbps Ethernet (100 m cable, wireless, fiber, etc.).
- Synchronization through SNTP.
- Composite video output.
- Multi-camera utility software: FLIR IP Config and FLIR IR Monitor included.
- Open and well-described TCP/IP protocol for control and set-up.
- 16-bit 320 × 240 pixel images at 3 Hz, radiometric.
- Lenses: 25° included, 15° and 45° optional.

#### Typical applications:

- Fire prevention, critical vessel monitoring, and power utility asset management.
- Volume-oriented industrial control (multi-camera installation is possible).


### 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	30 Hz
Focus	Automatic or manual (built in motor)
Zoom	1–8× continuous, digital, interpolating zooming on images

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<b>Detector data</b>	
Detector type	Focal plane array (FPA), uncooled microbolometer
Spectral range	7.5–13 $\mu\text{m}$
Detector pitch	25 $\mu\text{m}$
Detector time constant	Typical 12 ms
<b>Measurement</b>	
Object temperature range	<ul style="list-style-type: none"> <li>–20 to +120°C (–4 to +248°F)</li> <li>0 to +350°C (+32 to +662°F)</li> </ul>
Accuracy	$\pm 2^\circ\text{C}$ ( $\pm 3.6^\circ\text{F}$ ) or $\pm 2\%$ of reading
<b>Set-up</b>	
Color palettes	Color palettes (BW, BW inv, Iron, Rain)
Set-up commands	Date/time, Temperature ( $^\circ\text{C}/^\circ\text{F}$ )
<b>Storage of images</b>	
Storage media	Built-in memory for image storage
File formats	Standard JPEG, 16-bit measurement data included
<b>Ethernet</b>	
Ethernet	Control 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 $\times$ 240 pixels @ 3 Hz <ul style="list-style-type: none"> <li>Radiometric</li> </ul>
Ethernet, power	Power over Ethernet, PoE IEEE 802.3af class 0. <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p> <b>NOTE</b></p> <p>In cameras manufactured before 2013, due to an error in the implementation of power over Ethernet, in some rare cases the camera will not be powered. In such cases, power the camera using the external power cable, or modify the camera according to Service bulletin SB14-006. For modification, please contact your local service department. See <a href="http://support.flir.com/service">http://support.flir.com/service</a> for contact details.</p> </div>
Ethernet, protocols	TCP, UDP, SNMP, RTSP, RTP, HTTP, ICMP, IGMP, ftp, SMTP, SMB (CIFS), DHCP, MDNS (Bonjour), uPnP

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<b>Digital input/output</b>	
Digital input, purpose	Image tag (start/stop/general), 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

<b>Composite video</b>	
Video out	Composite video output, PAL and NTSC compatible
Video, standard	CVBS (ITU-R-BT.470 PAL/SMPTE 170M NTSC)
Video, connector type	Standard BNC connector

<b>Power system</b>	
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

<b>Environmental data</b>	
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	<ul style="list-style-type: none"> <li>EN 61000-6-2:2001 (Immunity)</li> <li>EN 61000-6-3:2001 (Emission)</li> <li>FCC 47 CFR Part 15 Class B (Emission)</li> </ul>
Encapsulation	IP 40 (IEC 60529)
Shock	25 g (IEC 60068-2-27)
Vibration	2 g (IEC 60068-2-6)

<b>Physical data</b>	
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

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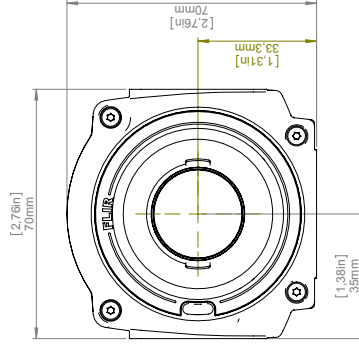
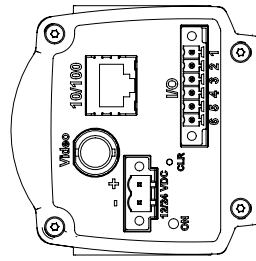
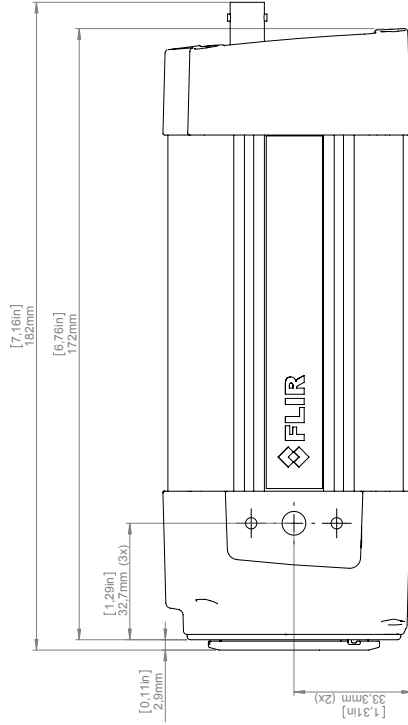
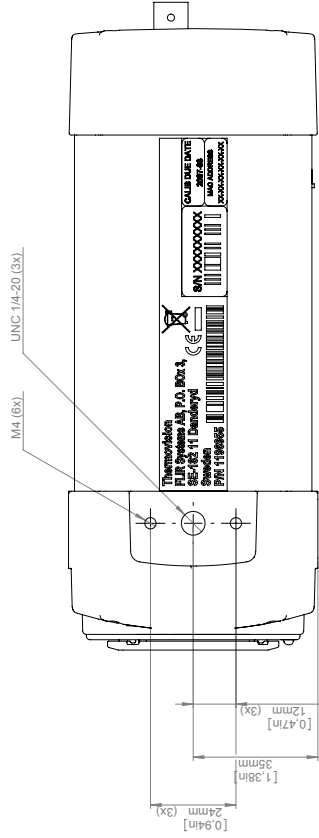
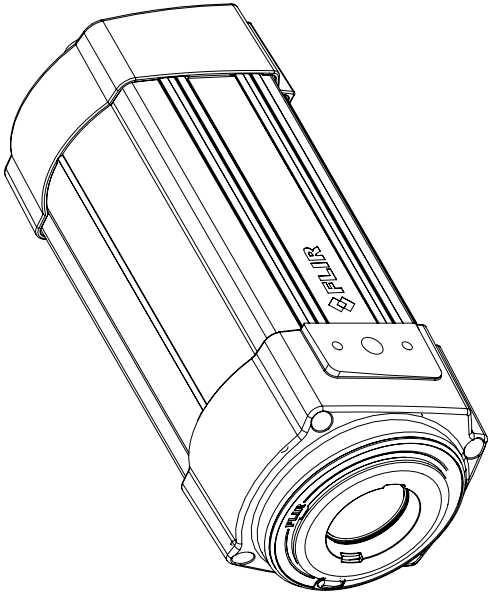
#48201-1001; r. /35207; en-US

Shipping information	
Packaging, type	Cardboard box
List of contents	<ul style="list-style-type: none"> <li>• Infrared camera with lens</li> <li>• Ethernet cable</li> <li>• Mains cable</li> <li>• Power cable, pig-tailed</li> <li>• Power supply</li> <li>• Printed documentation</li> <li>• Utility CD-ROM</li> </ul>
Packaging, weight	
Packaging, size	495 × 370 × 192 mm (19.5 × 14.6 × 7.6 in.)
EAN-13	7332558003336
UPC-12	845188003081
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
- T129252; Special temperature range -20 to +700 deg C
- T129253; Special temperature range -20 to +500 deg C
- T129254; High temperature measurement option -20 to +2000 deg C
- T130151; Special temperature range -20 to +2000 deg C
- T130152; Special temperature range +200 to +1200 deg C
- 1910400; Power cord EU
- 1910402; Power cord UK
- 1910401; Power cord US
- T911803; Power supply, 24 VDC, 2 A, 50 W
- T910922; Power supply, incl. multi plugs, for A3xx, A3xxsc, A6xx and A6xxsc
- 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
- 908929; Video cable, 3.0 m/9.8 ft.
- T197871ACC; Hard transport case for A3xx/A6xx series
- T197870ACC; Cardboard box for A3xx/A6xx series
- 61301-0002; Fixed Housing for A3xx 25°/45°/90°
- 61301-0001; Fixed Housing for A3xx 7°/15°
- 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

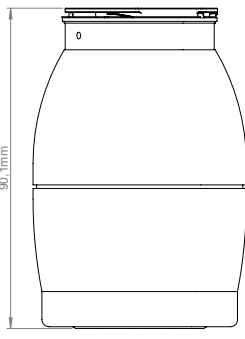
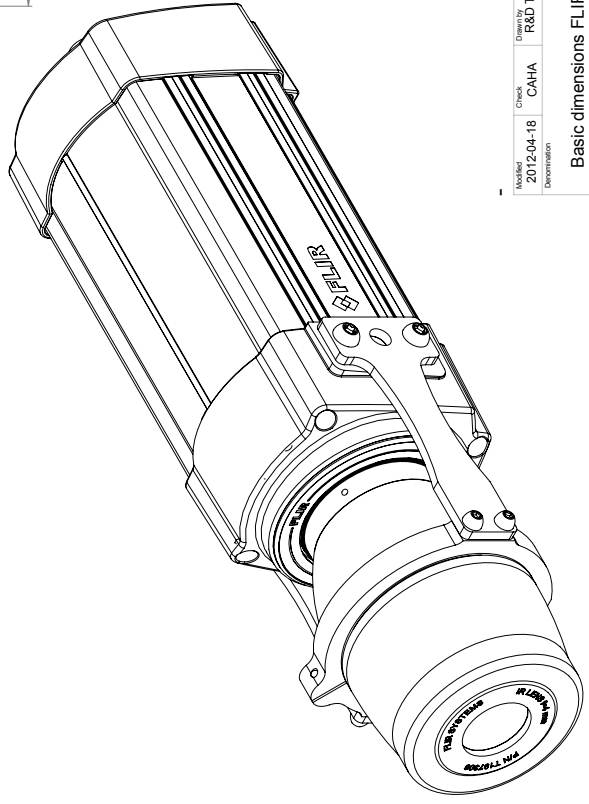
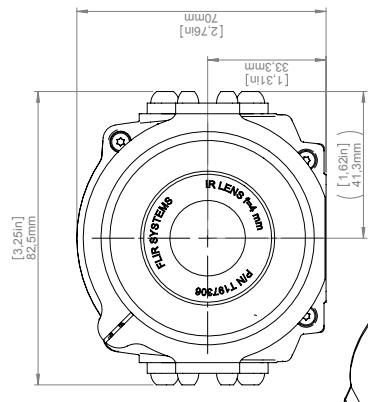
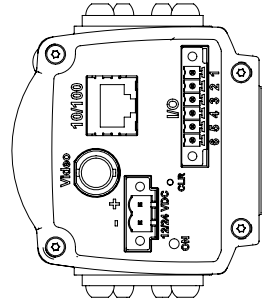
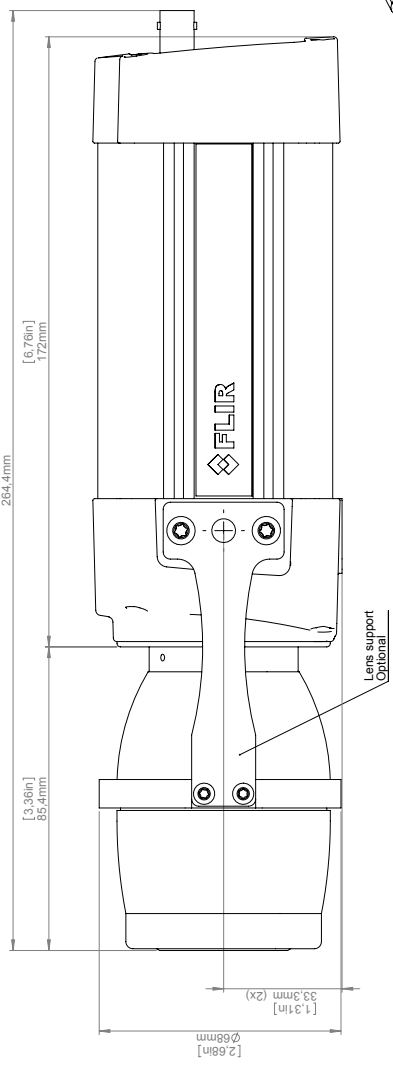
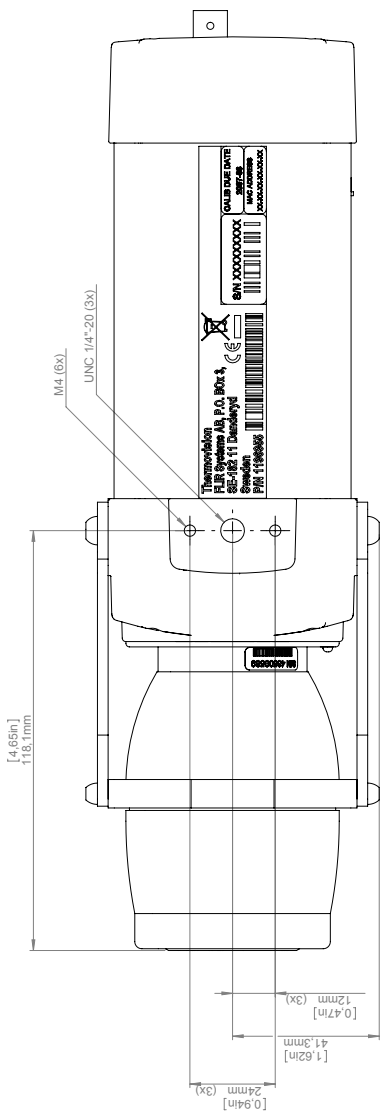
Camera with built-in IR lens f=18 mm (25°)



Modified	2012-04-18	Check	CAHA	Drawn by	R&D Thermography
Denomination	Basic dimensions FLIR A3xx/SC3xx				
Size	A3	Sheet	11	Sheet	1(8)
Drawing No.	T125002	Size	A		



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



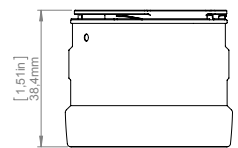
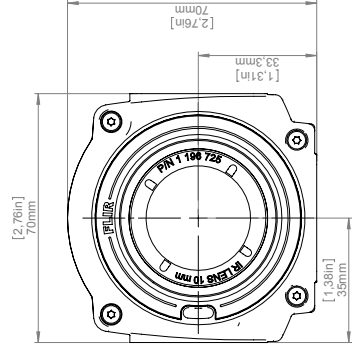
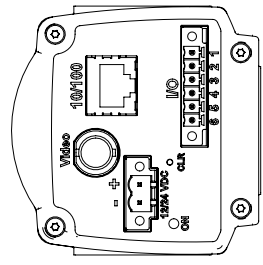
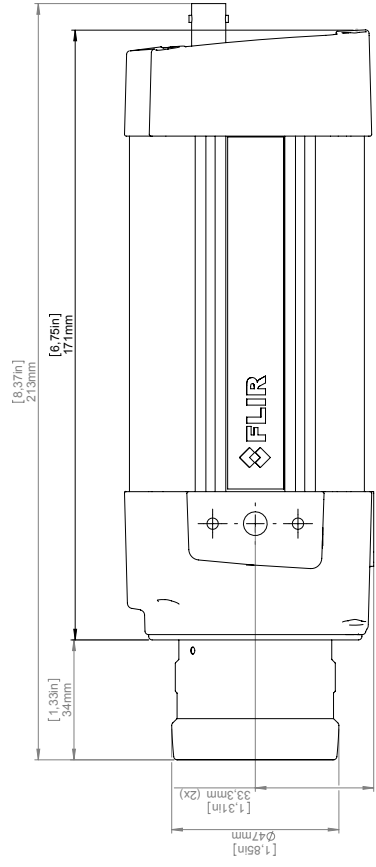
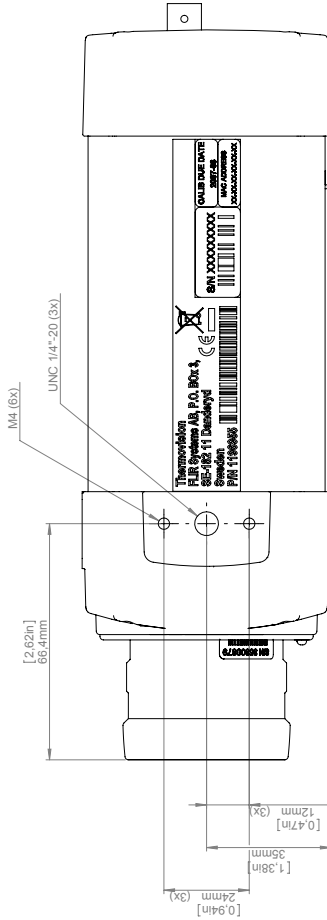
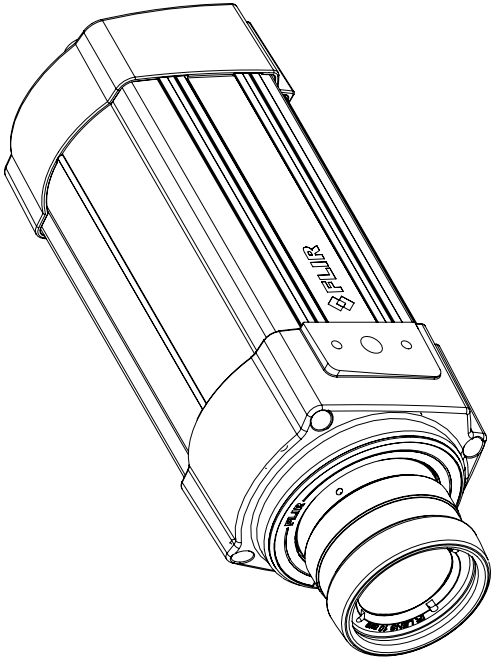
For additional dimensions see page 1

Model	2012-04-18	Check	CAHA	Drawn by	R&D Thermography	Rev	A3
Dimension						Scale	1:1
						Sheet	2(8)
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						Size	A



Basic dimensions FLIR A3xx/SC3xx

# Camera with Lens IR f=10 mm (45°)



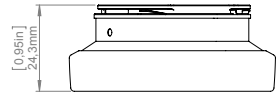
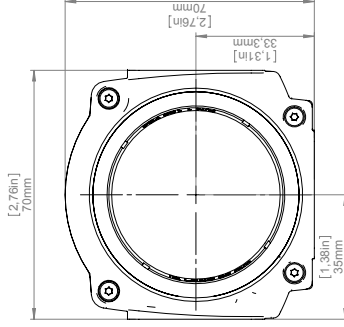
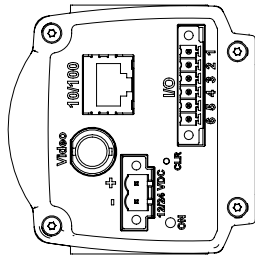
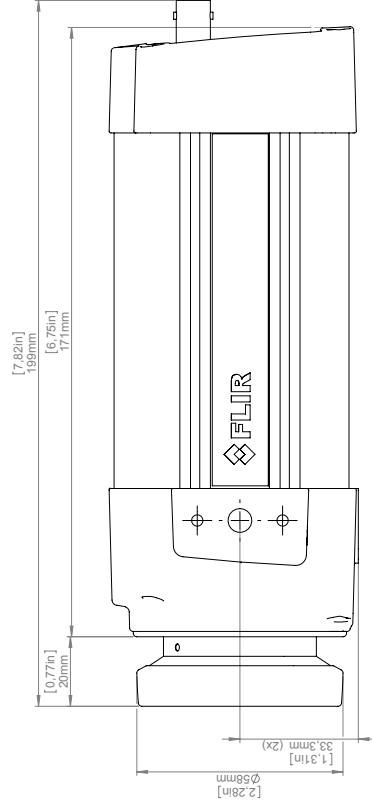
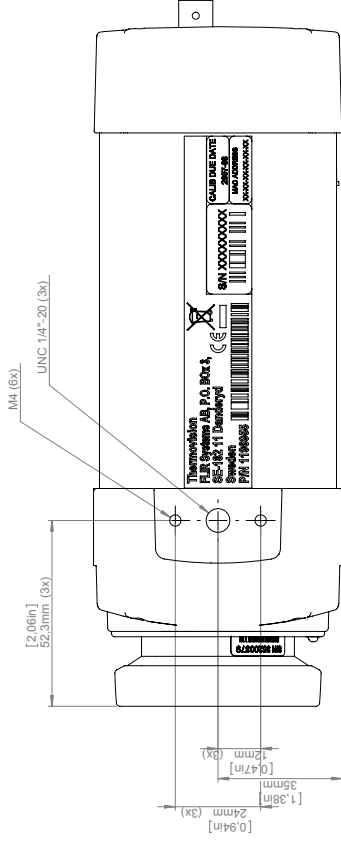
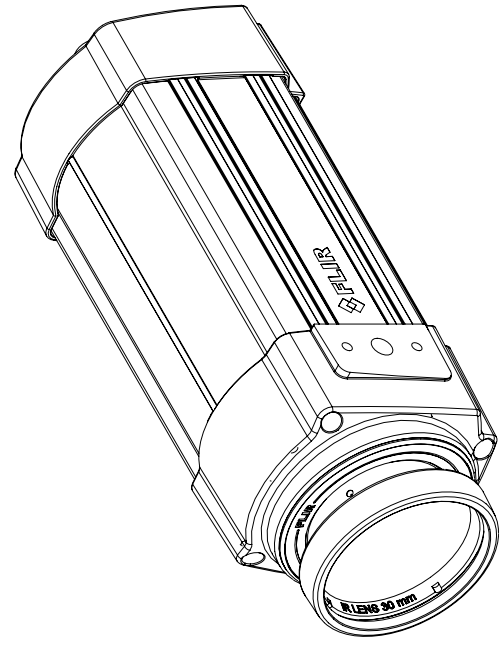
For additional dimensions see page 1

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Revision						Scale	1:1
						Sheet	3(e)
						Drawing No.	T-125002
						Sheet	A



Basic dimensions FLIR A3xx/SC3xx

Camera with Lens IR f=30 mm (15°)



For additional dimensions see page 1

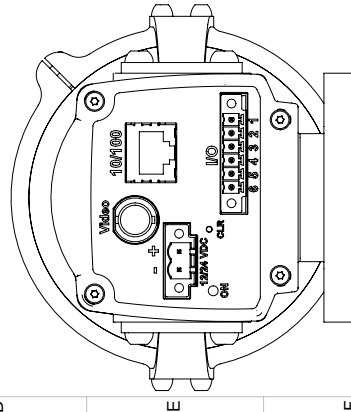
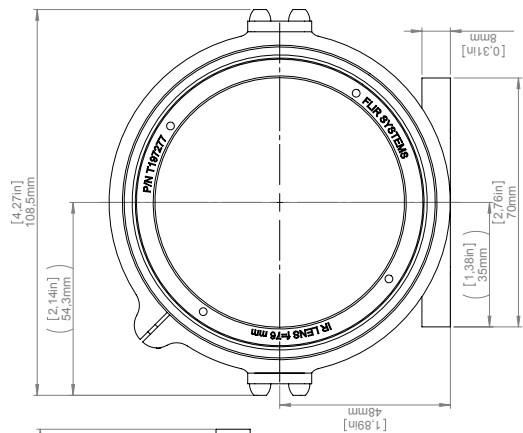
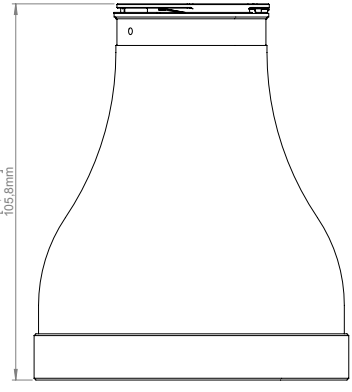
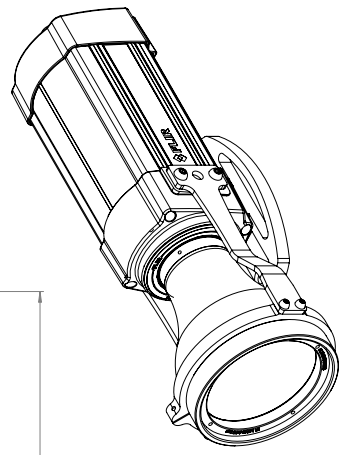
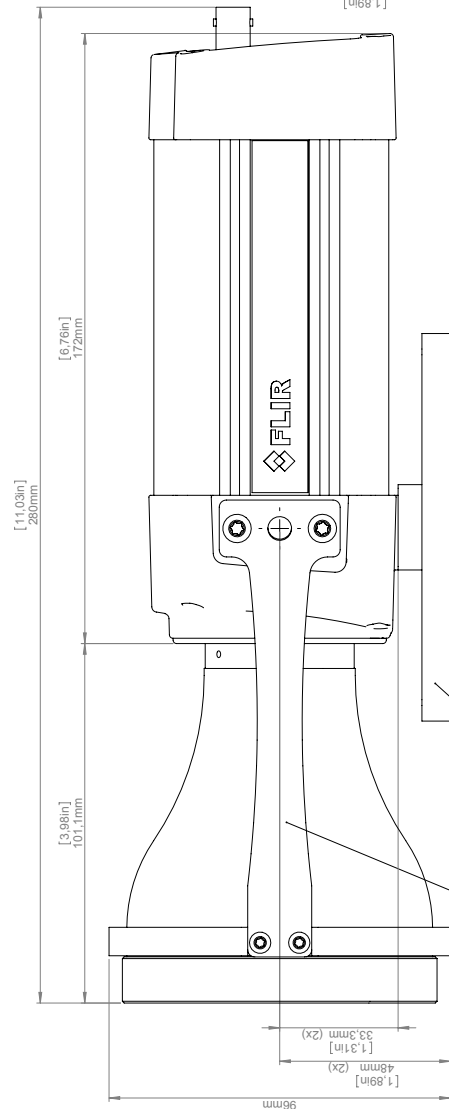
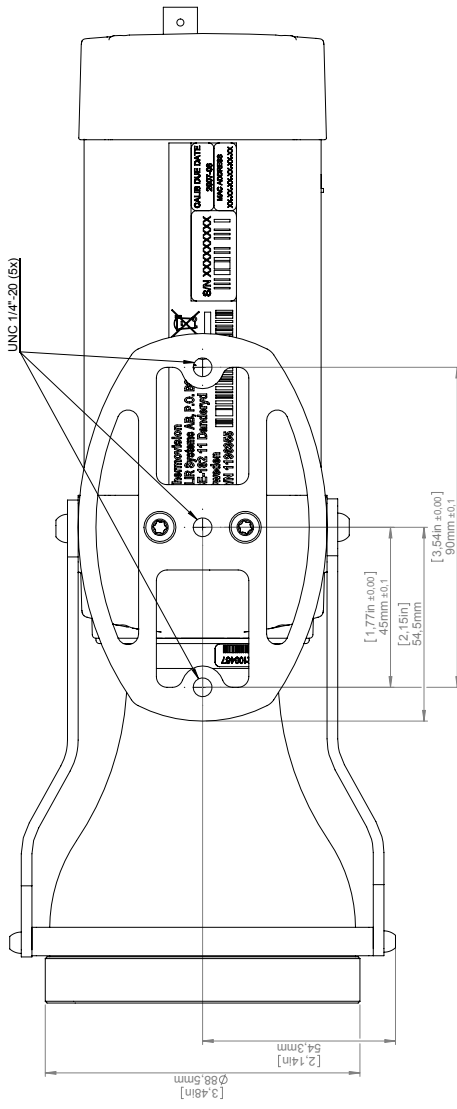
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Basic dimensions FLIR A3xx/SC3xx



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



For additional dimensions see page 1

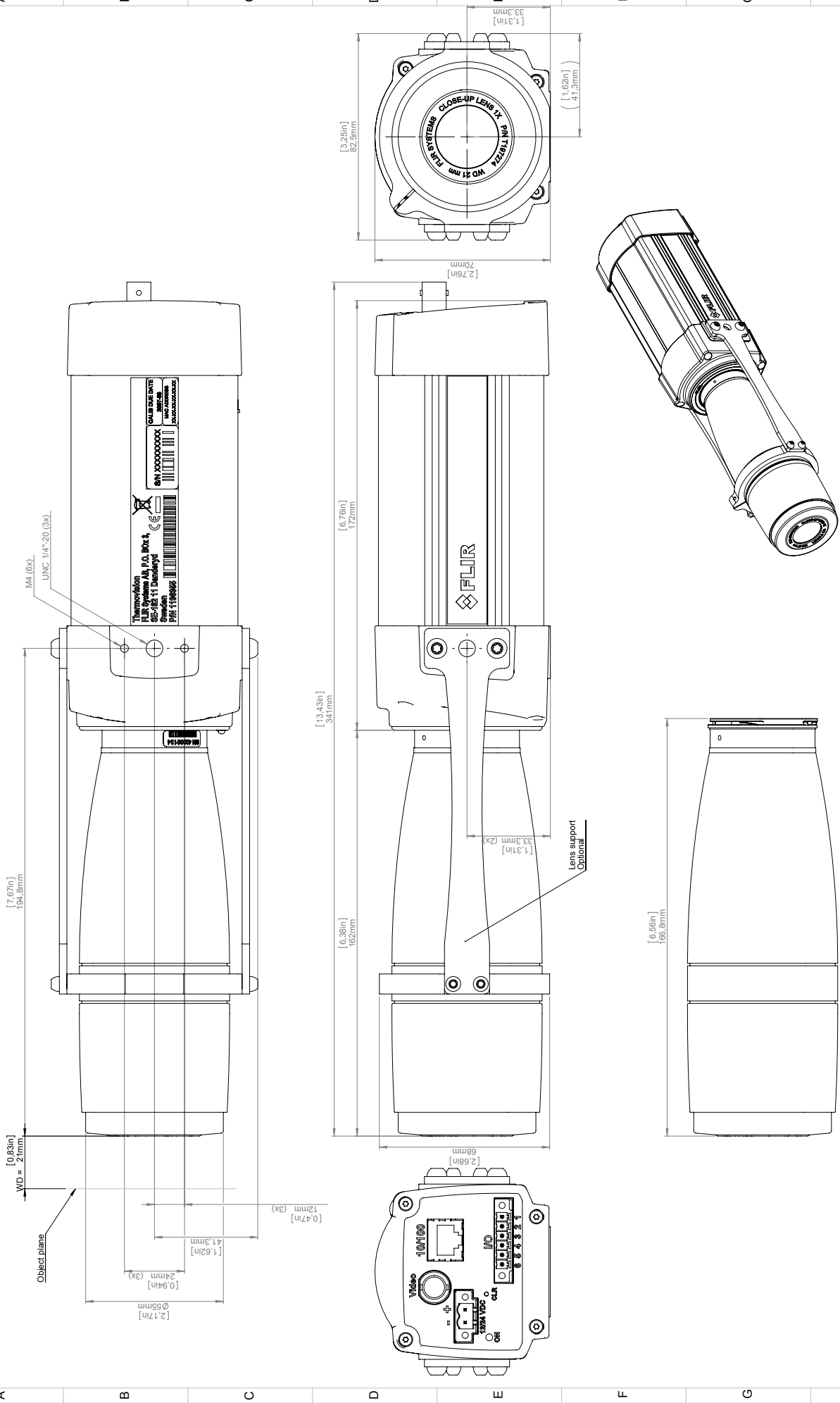
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Basic dimensions FLIR A3xx/SC3xx

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



For additional dimensions see page 1

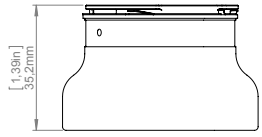
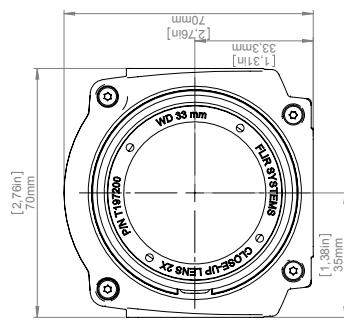
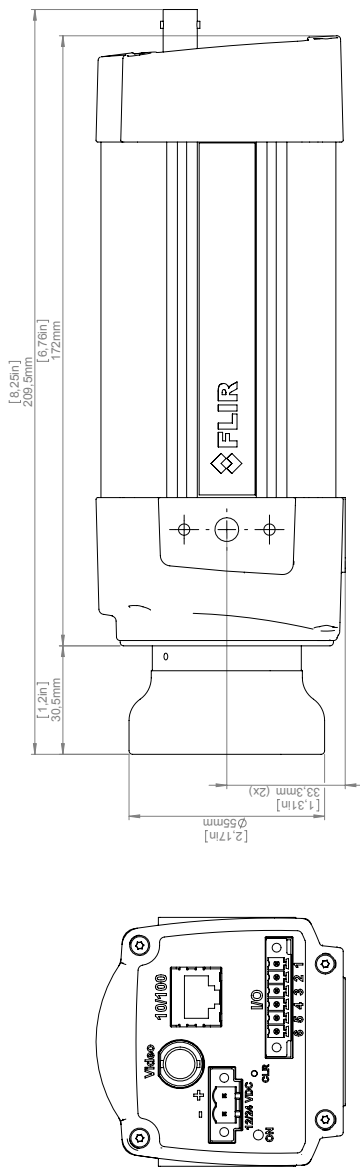
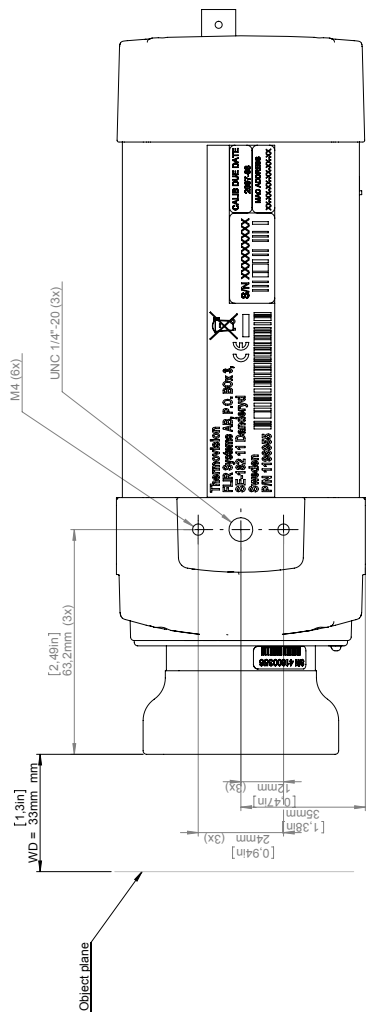
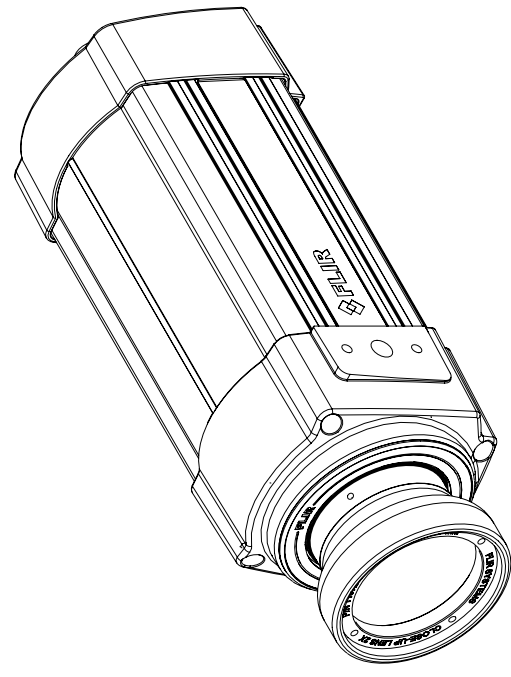
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						Size	A



Basic dimensions FLIR A3xx/SC3xx

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# Camera with Close-up lens 2X (50 μm)



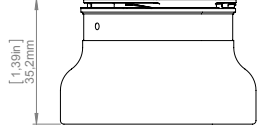
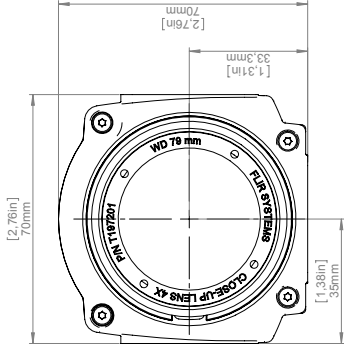
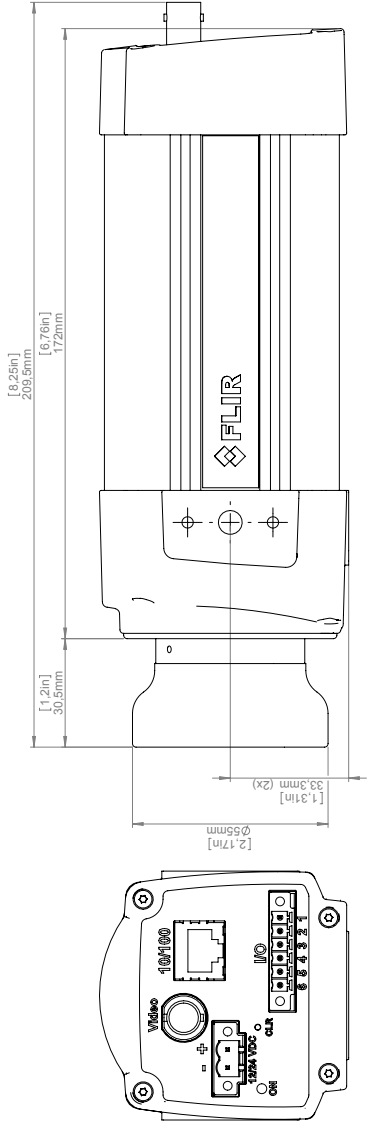
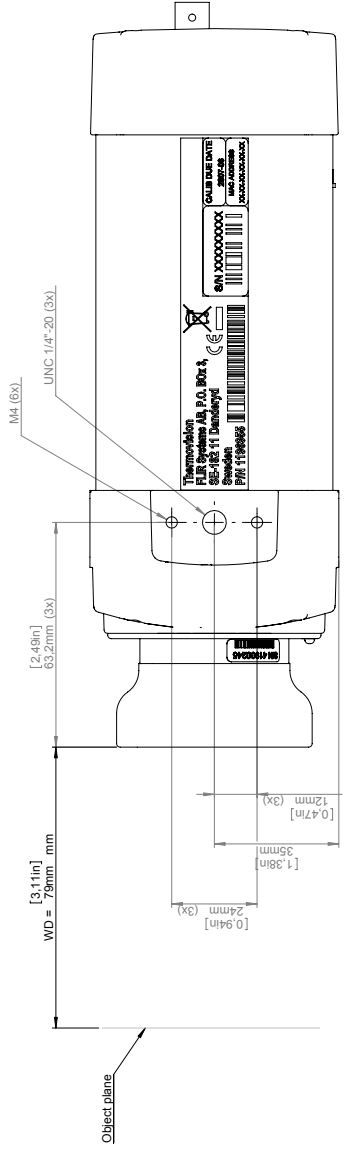
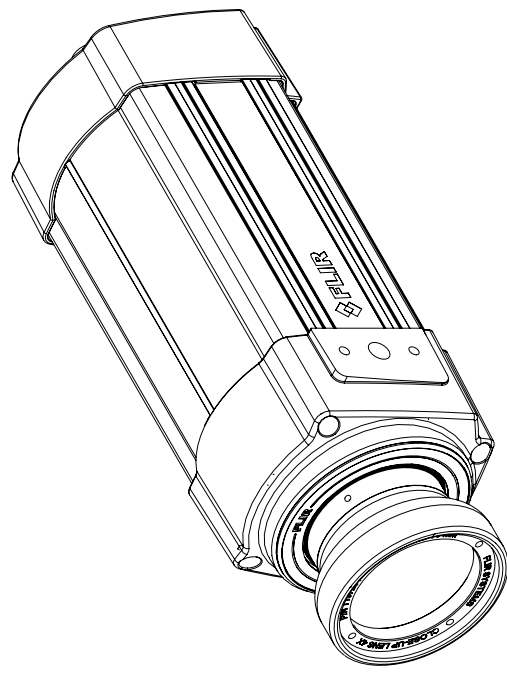
For additional dimensions see page 1

Modelled	2012-04-18	Checked	CAHA	Drawn by	R&D Thermography	Sheet	A3
Dimension						Scale	1:1
						Sheet	7(8)
						Drawing No.	T-125002
						Size	A



Basic dimensions FLIR A3xx/SC3xx

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

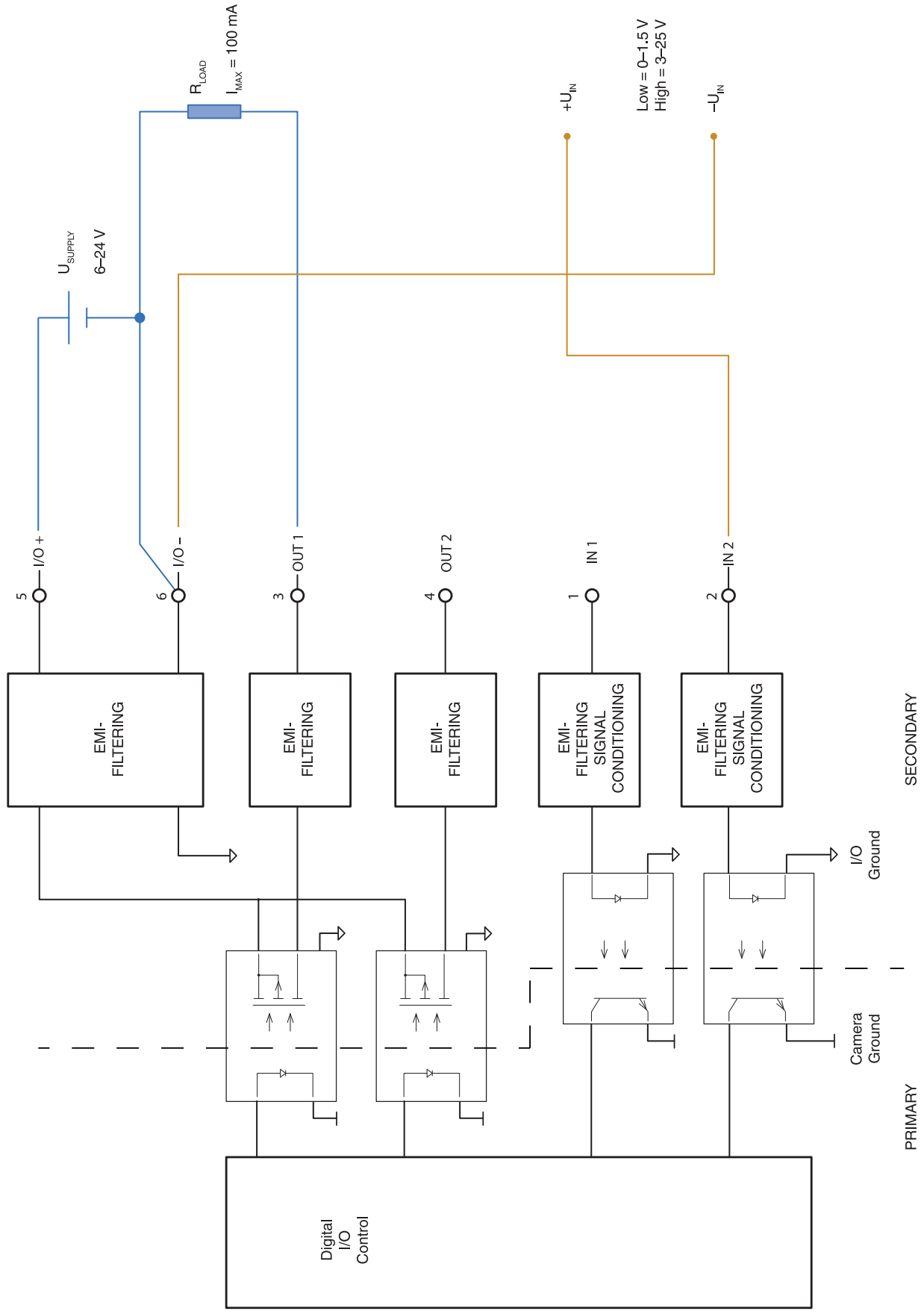


For additional dimensions see page 1

Model	2012-04-18	Check	CAHA	Drawn by	R&D Thermography	Size	A3	
Revision						Scale	1:1	
Basic dimensions FLIR A3xx/SC3xx							Sheet	8(6)
							Drawing No.	T-125002
							Size	A



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





The World's Sixth Sense™

April 24, 2017 Täby, Sweden

AQ320234

### CE Declaration of Conformity – EU Declaration of Conformity

Product: FLIR A3XX -series including A3XXSC

Name and address of the manufacturer:

FLIR Systems AB  
PO Box 7376  
SE-187 15 Täby, Sweden

This declaration of conformity is issued under the sole responsibility of the manufacturer.

The object of the declaration: FLIR A3XX -series including A3XXSC.

The object of the declaration described above is in conformity with the relevant Union harmonisation legislation:

#### Directives:

Directive	2014/30/EU	Electromagnetic Compatibility
Directive	2014/35/EU	Low Voltage Directive (Power Supply)
Directive	2012/19/EU	Waste electrical and electric equipment

#### Standards:

Emission:	EN 61000-6-3:2006	Electromagnetic Compatibility Generic standards – Emission
Immunity:	EN 61000-6-2:2005	Electromagnetic Compatibility Generic standards – Immunity
Safety (Power supply):	EN 60950-1	Information technology equipment

**FLIR Systems AB**  
Quality Assurance

Lea Dabiri  
Quality Manager