

P/N: 48001-1001

Copyright

© 2017, FLIR Systems, Inc.

All rights reserved worldwide. Names and marks appearing herein are either registered trademarks or trademarks of FLIR Systems and/or its subsidiaries. All other trademarks, trade names or company names referenced herein are used for identification only and are the property of their respective owners.

Document identity

Publ. No.: 48001-1001

Release:

Commit: 35207

Language: en-US

Modified: 2016-04-27

Formatted: 2017-06-07

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

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	±2°C (±3.6°F) or ±2% of reading

P/N: 48001-1001

© 2017, FLIR Systems, Inc.

#48001-1001; r. /35207; en-US

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 <ul style="list-style-type: none"> • 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
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)

P/N: 48001-1001

© 2017, FLIR Systems, Inc.

#48001-1001; r. /35207; en-US

Environmental data	
EMC	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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
- 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 +250 to +1200 deg C
- 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



FLIR A325sc

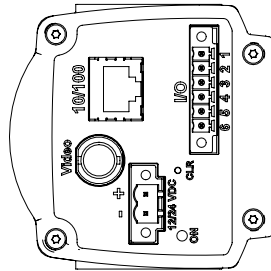
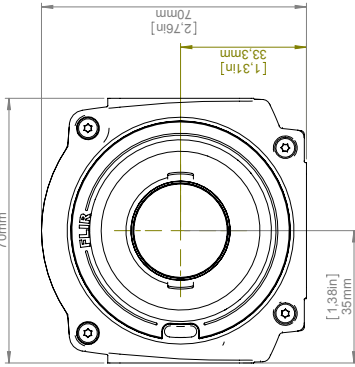
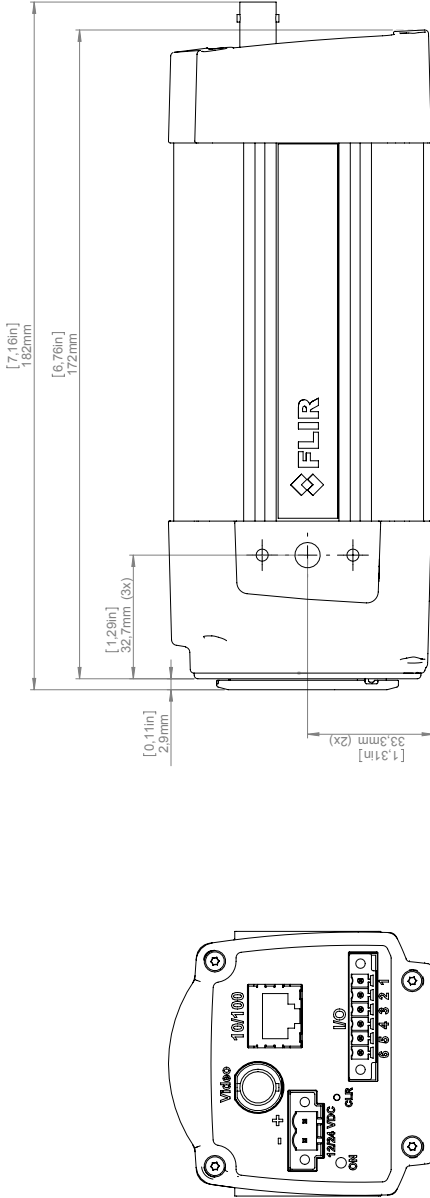
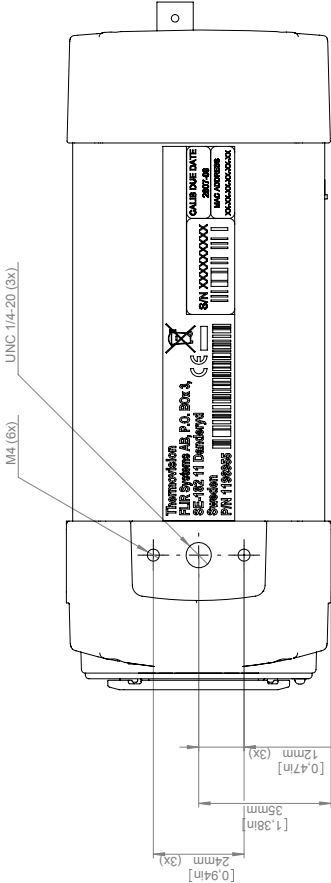
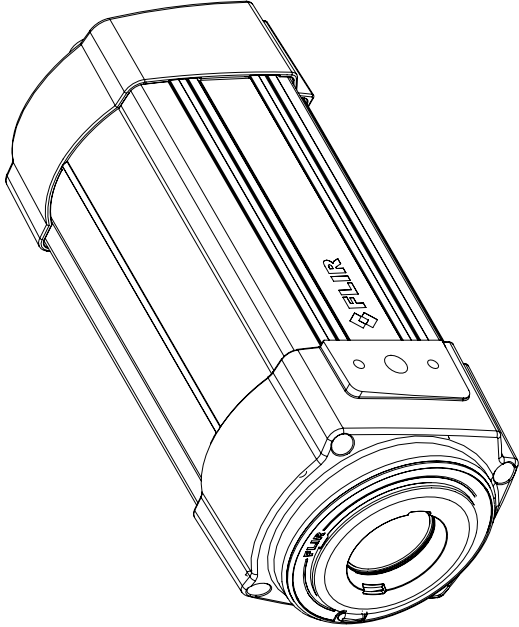
P/N: 48001-1001

© 2017, FLIR Systems, Inc.

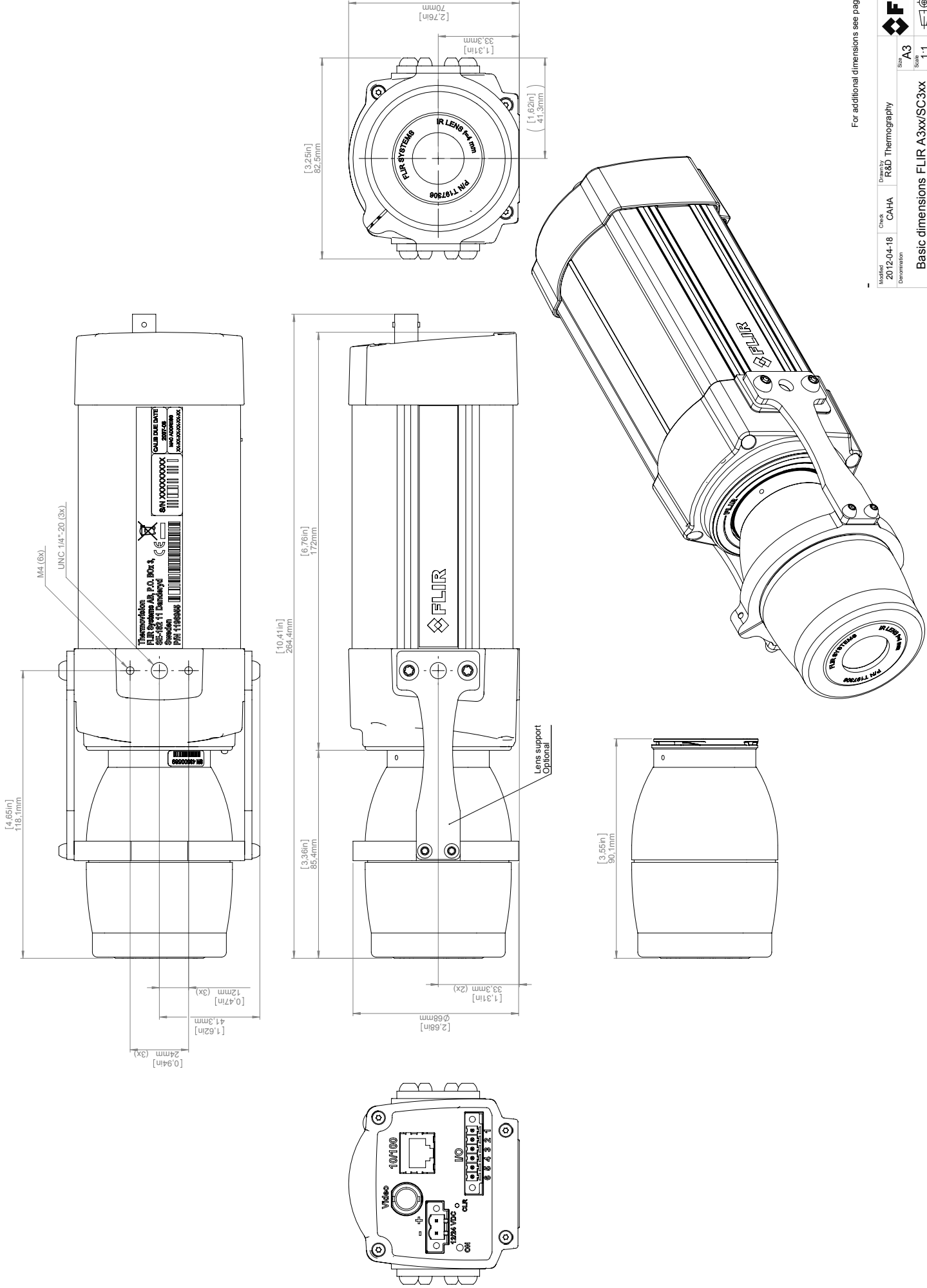
#48001-1001; r. /35207; en-US

- 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°)



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



For additional dimensions see page 1

Modified 2012-04-18	Check CAHA	Drawn by R&D Thermography	Size A3	Scale 1:1	Sheet 2(8)	Size A
Basic dimensions FLIR A3xx/SC3xx						T125002

Camera with Lens IR f=10 mm (45°)

The drawing includes the following views and dimensions:

- Front View:** Shows the camera body with a lens diameter of $\phi 47\text{mm}$ [1.85in]. The mounting flange has a diameter of 33.3mm [1.31in] with two mounting holes. The overall width is 70mm [2.76in] and the height is 35mm [1.38in].
- Side View:** Shows the camera's profile with a total length of 213mm [8.37in]. The mounting bracket has a height of 34mm [1.33in] and a width of 171mm [6.75in].
- Rear View:** Shows the back of the camera with a video port, a 10/100 Ethernet port, and an I/O port. The mounting flange has a diameter of 33.3mm [1.31in] with two mounting holes. The overall width is 70mm [2.76in] and the height is 35mm [1.38in].
- Top View:** Shows the camera from above with a lens diameter of $\phi 47\text{mm}$ [1.85in]. The mounting flange has a diameter of 33.3mm [1.31in] with two mounting holes. The overall width is 70mm [2.76in] and the height is 35mm [1.38in].
- Bottom View:** Shows the camera from below with a lens diameter of $\phi 47\text{mm}$ [1.85in]. The mounting flange has a diameter of 33.3mm [1.31in] with two mounting holes. The overall width is 70mm [2.76in] and the height is 35mm [1.38in].
- Mounting Bracket:** Shows the mounting bracket with a lens diameter of $\phi 47\text{mm}$ [1.85in]. The mounting flange has a diameter of 33.3mm [1.31in] with two mounting holes. The overall width is 70mm [2.76in] and the height is 35mm [1.38in].


For additional dimensions see page 1

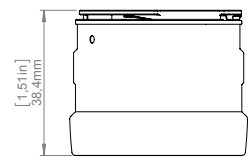
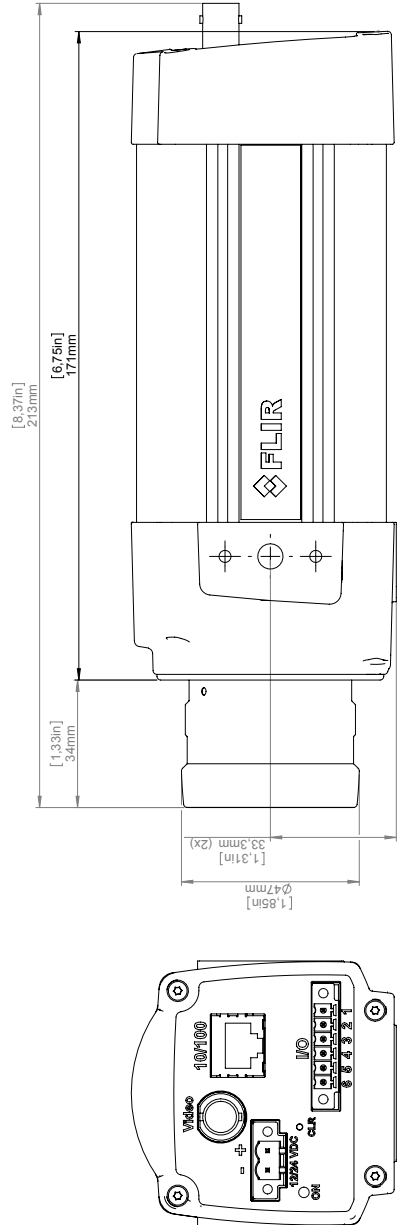
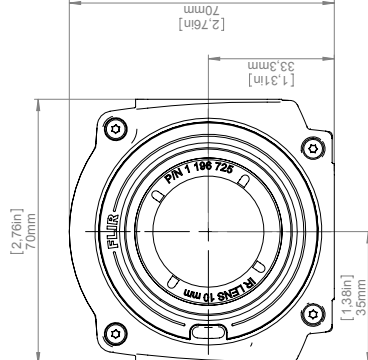
Model	Check	Drawn by	Decomposition
2012-04-18	CAHA	R&D Thermography	

Size: A3
Scale: 1:1
Sheet: 3(6)
Drawing No: T125002


Basic dimensions FLIR A3xx/SC3xx

FLIR

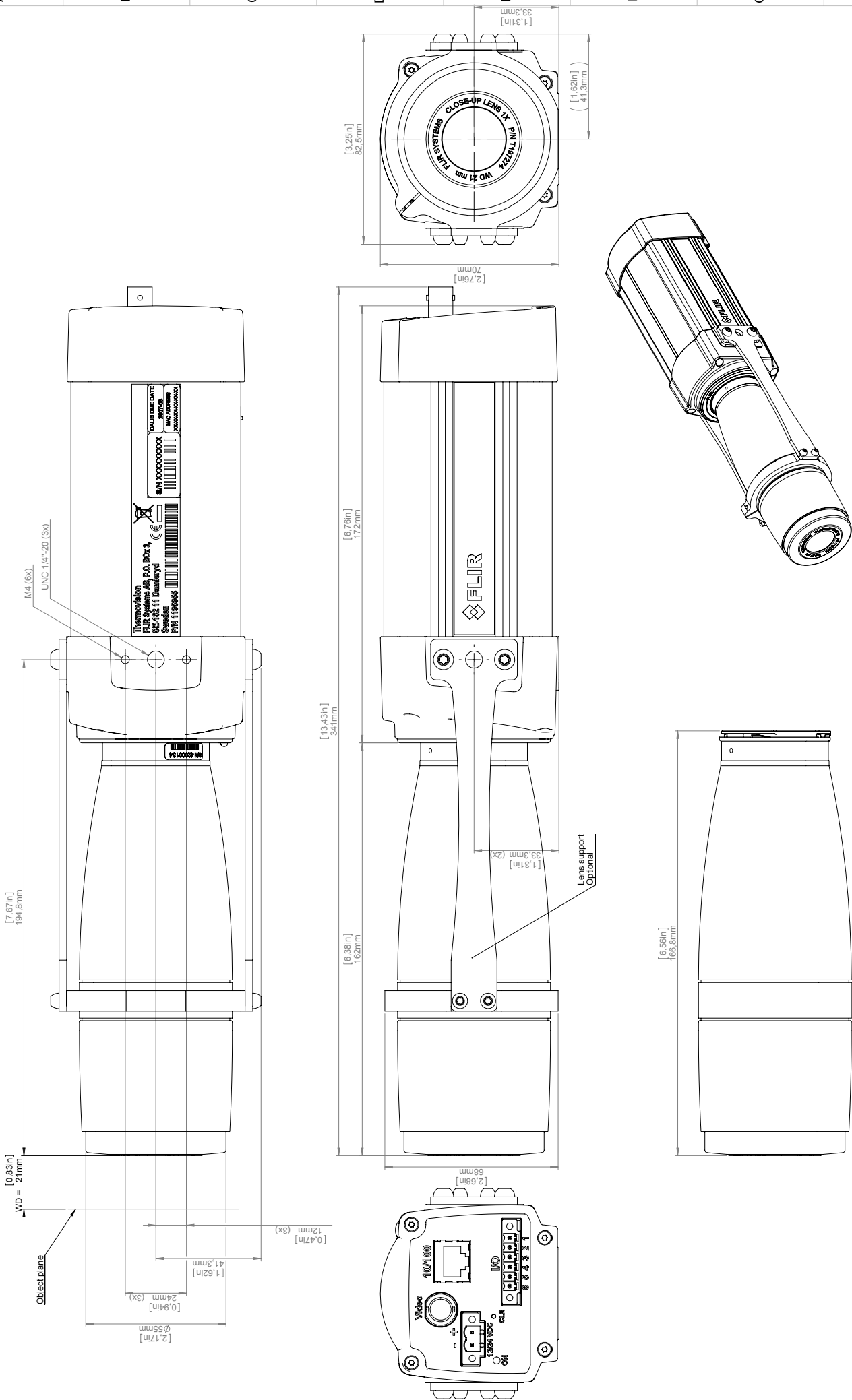
Modified 2012-04-18	Check CAHA	Drawn by R&D Thermography	Size A3	  
Basic dimensions FLIR A3xx/SC3xx			Drawing No. T125002	Size A



[illegible]

Modified 2012-04-18	Check CAHA	Drawn by R&D Thermography	Size A3	    
Basic dimensions FLIR A3xx/SC3xx				

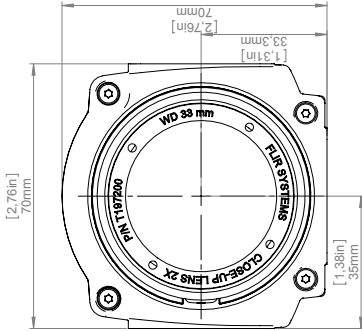
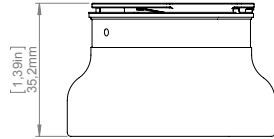
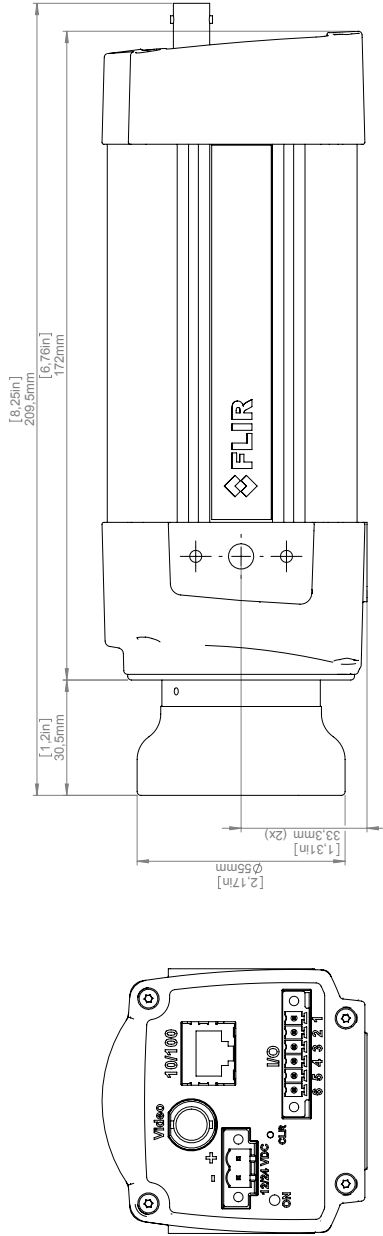
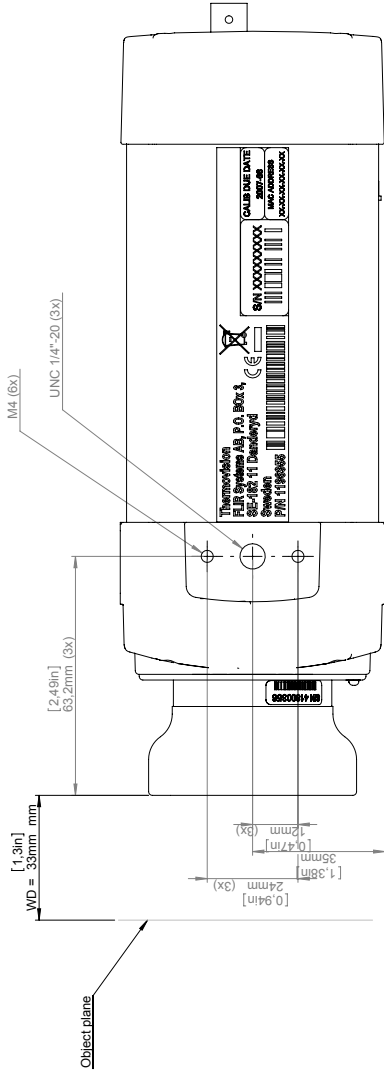
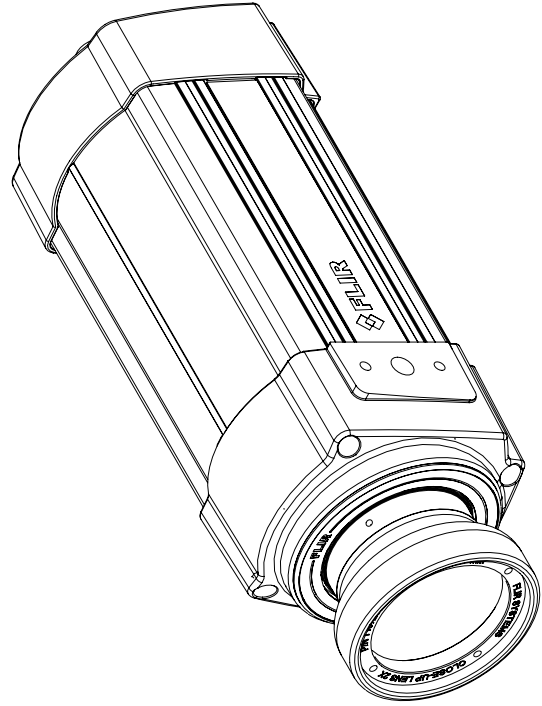
Camera with Close-up lens 1X (25 µm) incl support



For additional dimensions see page 1

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



Camera with Close-up lens 2X (50 µm)



For additional dimensions see page 1

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

[illegible]

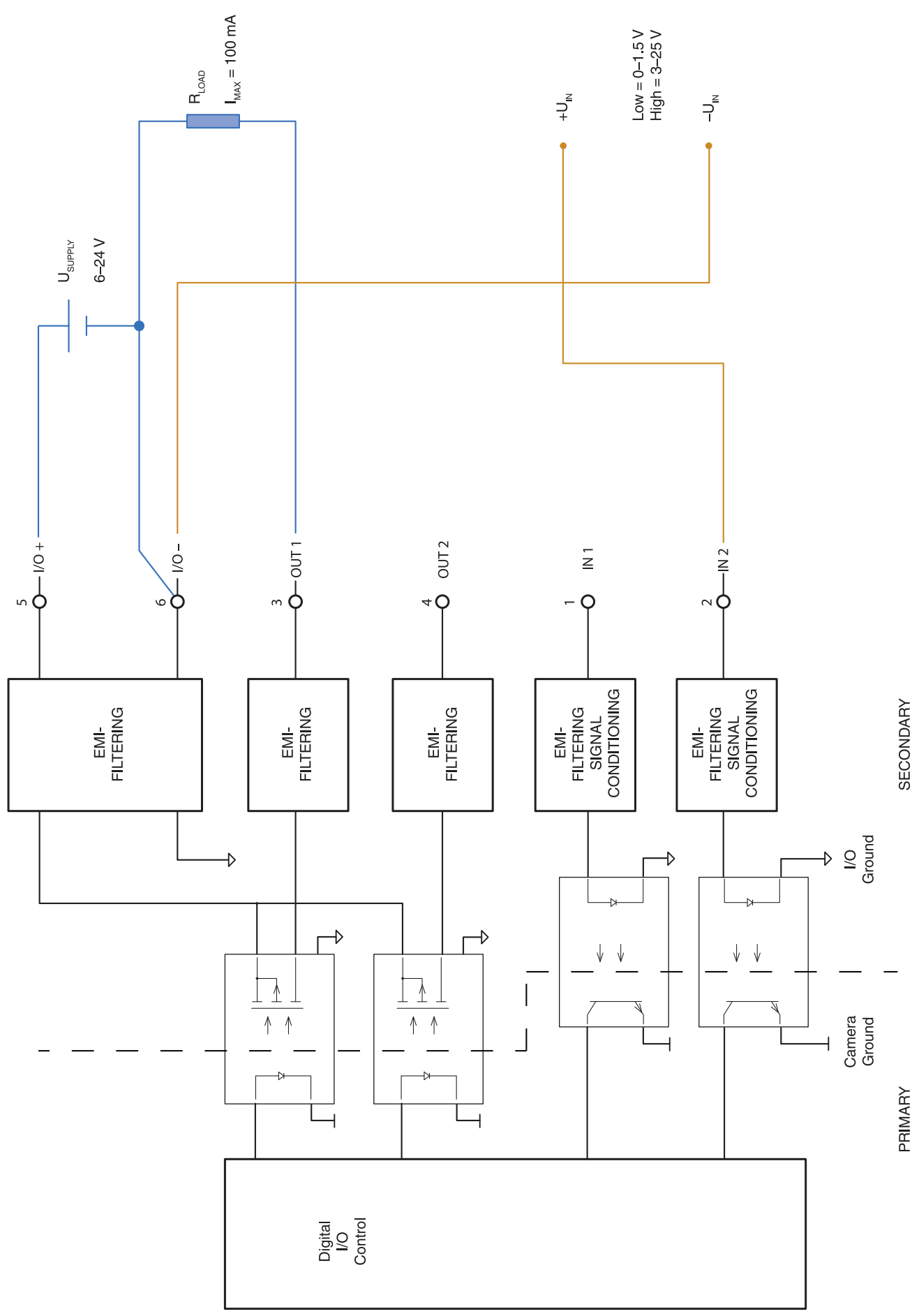
Modified 2012-04-18	Check CAHA	Drawn by R&D Thermography	Size A3	   
Basic dimensions FLIR A3xx/SC3xx			Drawing No. T125002	

Basic dimensions FLIR A3xx/SC3xx

Drawing No. **T125002**
Size **A**

© 2012 FLIR Systems, Inc. All rights reserved worldwide. No part of this drawing may be reproduced, stored in a retrieval system, or transmitted in any form, or by any means, electronic, mechanical, photocopying, recording, or otherwise, without written permission from FLIR Systems, Inc. Specifications subject to change without further notice. Dimensional data is based on nominal values. Products may be subject to regional market considerations. License procedures may apply. Product may be subject to US Export Regulations. Please refer to export@flir.com for any questions. Dimensional data is based on nominal values. Products may be subject to regional market considerations. License procedures may apply.

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