Technical Data
FLIR i5

Part number:
60101-0201

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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.

General description

The FLIR i5 is an easy-to-use point-and-shoot infrared camera that gives you access to the infrared world. The camera is an affordable replacement for an infrared thermometer, providing a thermal image with temperature information in every pixel.
The FLIR ix series cameras are light-weight, compact, and rugged, for use in harsh environments.

Benefits:

- Easy-to-use: The FLIR i5 is fully automatic and focus-free with an intuitive interface for simple measurement.
- Compact and rugged: The camera's low weight of 0.365 kg and an accessory belt pouch make it easy to bring along at all times. Its rugged design and passing a 2 m drop test ensure ease-of-use, even in harsh environments.
- Ground breaking affordability: The ix series cameras are the most affordable infrared cameras on the market.

Imaging and optical data

IR resolution	100 × 100 pixels
Thermal sensitivity/NETD	< 0.1°C (0.18°F) / 100 mK
Field of view (FOV)	21° × 21°
Minimum focus distance	0.6 m (2 ft.)
Spatial resolution (IFOV)	3.7 mrad
F-number	1.5
Image frequency	9 Hz
Focus	Focus free

Detector data

Detector type	Focal plane array (FPA), uncooled microbolometer
Spectral range	7.5–13 µm

Image presentation

Display	2.8 in. color LCD
Image adjustment	Automatic adjust/lock image

Measurement

Object temperature range	–20°C to +250°C (–4°F to +482°F)
Accuracy	±2°C (±3.6°F) or ±2% of reading, for ambient temperature 10°C to 35°C (+50°F to 95°F) and object temperature above +0°C (+32°F)

Measurement analysis

Spotmeter	Center spot
Emissivity correction	Variable from 0.1 to 1.0
Emissivity table	Emissivity table of predefined materials
Reflected apparent temperature correction	Automatic, based on input of reflected temperature

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Set-up	
Color palettes	Black and white, iron and rainbow
Set-up commands	Local adaptation of units, language, date and time formats

Storage of images	
Storage media	miniSD card
File formats	Standard JPEG, 14-bit measurement data included

Data communication interfaces	
Interfaces	USB Mini-B: Data transfer to and from PC

Power system	
Battery type	Rechargeable Li Ion battery
Battery voltage	3.6 V
Battery operating time	Approx. 5 hours at +25°C (+77°F) ambient temperature and typical use
Charging system	Battery is charged inside the camera.
Charging time	3 h to 90% capacity
Power management	Automatic shut-down
AC operation	AC adapter, 90–260 VAC input, 5 VDC output to camera

Environmental data	
Operating temperature range	0°C to +50°C (+32°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
EMC	• EN 61000-6-2:2005 (Immunity) • EN 61000-6-3:2007 (Emission) • FCC 47 CFR Part 15 Class B (Emission)
Encapsulation	Camera housing and lens: IP 43 (IEC 60529)
Bump	25 g (IEC 60068-2-29)
Vibration	2 g (IEC 60068-2-6)
Drop	2 m (6.6 ft.)

Physical data	
Camera weight, incl. battery	0.365 kg (0.80 lb.)
Camera size (L × W × H)	223 × 79 × 85 mm (8.8 × 3.1 × 3.4 in.)
Material	Polycarbonate + acrylonitrile butadiene styrene (PC-ABS) Thixomold magnesium Thermoplastic elastomer (TPE)
Color	Black and gray

Certifications	
Certification	UL, CSA, CE, PSE and CCC

Shipping information	
Packaging, type	Hard case

- Hard transport case
- Infrared camera
- Battery (inside camera)
- Calibration certificate
- Downloads brochure
- FLIR Tools software
- miniSD card, with SD card adapter
- Power supply/charger with EU, UK, US and Australian plugs
- Printed Getting Started Guide
- Printed Important Information Guide
- Service & training brochure
- USB cable
- User documentation CD-ROM
- Warranty extension card

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Optional Accessories

- T910737 Memory card micro-SD with adapters
- 1910423 USB cable Std A <-> Mini-B
- T910711 Power supply/charger with EU, UK, US and AU plugs
- T197619 Hard transport case for ix
- T197410 Battery
- T911085 Pouch for FLIR ix series
- T911093 Tool belt
- T911025 Car charger
- 19250-100 IR Window 2 in
- 19251-100 IR Window 3 in.
- 19252-100 IR Window 4 in.

Optional Software

- T197717 FLIR Reporter Professional (DVD)
- T127451 FLIR Reporter Professional (license only)
- T197965 FLIR Tools
- T127648 FLIR Tools+ (license only)

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T910737; Memory card micro-SD with adapters

General description

Micro-SD Card for data storage (e.g. images)

Technical data

Memory card, size	At least 2 GB

Shipping information

- micro-SD
- Adapter to miniSD Card
- Adapter from miniSD Card to SD memory card

v1.03

1910423; USB cable Std A <-> Mini-B

General description

This cable is used to connect the infrared camera with a computer, using the USB protocol.

Technical data

Weight	60 g (2.1 oz.)
Cable length	1.8 m (5.9 ft.)
Connector	Standard USB-A to USB Mini-B

v1.02

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T910711; Power supply/charger with EU, UK, US and AU plugs

General description

Combined power supply & battery charger.

Technical data

AC operation	100–240 VAC, 50/60 Hz, output 5.0 VDC, 1.2 A
Power	6 W
Size (L × W × H)	69.2 × 43.3 × 29.8 mm (2.7 × 1.7 × 1.2 in.)
Cable length	1.8 m (5.9 ft.)

Shipping information

- Power supply/Battery charger
- EU, UK, US and Australian plugs

v1.02

T197619; Hard transport case for ix

General description

Hard transport case for FLIR iX and Extech iX

Technical data

Weight	1.69 kg (3.73 lb.)
Size (L × W × H)	390 × 330 × 120 mm (15.4 × 13.0 × 4.7 in.)
Color	Black

v1.0

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T197410; Battery

General description

High capacity battery for the IR camera.

Technical data

Battery type	Rechargeable Li Ion battery
Battery voltage	3.7 V
Battery capacity	2.2 Ah at +20°C (+68°F)
Battery note	Approximate lithium content: 0.7 g
Charging system	Battery is charged inside the camera
Charging temperature	0°C to +45°C (+32°F to +113°F)
Battery storage temperature range	–40°C to +70°C (–40°F to +158°F)

v1.03

T911085; Pouch for FLIR ix series

General description

Pouch, including shoulder strap, for FLIR ix series.

Technical data

Weight	0.100 kg (0.22 lb.), excluding shoulder strap
Color	Black

Shipping information

- Pouch
- Shoulder strap

EAN-13	7332558003435
UPC-12	845188003197

v1.03

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T911093; Tool belt

General description

Tool belt for FLIR camera pouches.

Technical data

Weight	0.117 kg (0.26 lb.)
Length	1.44 m (4.7 ft.)
Color	Black

Shipping information

- Tool belt

EAN-13	7332558003442

v1.01

T911025; Car charger

General description

This cable is used to power the infrared camera from the 12 V socket in a car.

Technical data

Voltage	Input: 12/24 V Output: 5 V
Cable length	1 m (3.3 ft.)
Color	Black

Shipping information

EAN-13	7332558003459
UPC-12	845188003203

v1.02

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19250-100; IR Window 2 in

General description

This device is a viewport which consist of a crystal "glass" window, mounted in an aluminum frame. The glass is specially formulated to allow transmission of infrared light to allow use of infrared thermal sensing equipment without opening the enclosure. This device is intended for installation in doors or walls of electrical enclosures without compromising the integrity of the enclosure.

Technical data

Voltage	Any range
Environment	Indoor/outdoor type 4/12
Operating temperature range	Maximum: 260°C (500°F)
Storage temperature range	Optics, maximum: 1357°C (2474°F)
Size (L × W × H)	25.5 × 73 × 86 mm (1.0 × 2.87 × 3.36 in.)
Viewing aperture diameter	45 mm (1.77 in.)
Material	Optics: CaF2 (Calcium Fluoride Crystal) Body: Anodized aluminum Hardware: steel
Comments to physical data	Required hole diameter, nominal: 60.3 mm (2.375 in.) Greenlee Punch: 76BB Maximum pullout strength: 658 kg (1450 lb.)
Waveband	Broadband IR: short-, mid-, and longwave
Visible light spectrum	Yes
Certification	UL, IP67, NEMA Type 4/12, CSA

Shipping information

- IR window
- Case
- Mounting instruction
- Additional safety screw

v1.04

19251-100; IR Window 3 in.

General description

This device is a viewport which consist of a crystal "glass" window, mounted in an aluminum frame. The glass is specially formulated to allow transmission of infrared light to allow use of infrared thermal sensing equipment without opening the enclosure. This device is intended for installation in doors or walls of electrical enclosures without compromising the integrity of the enclosure.

Technical data

Voltage	Any range

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Technical data

Environment	Indoor/outdoor type 4/12
Operating temperature range	Maximum: 260°C (500°F)
Storage temperature range	Optics, maximum: 1357°C (2474°F)
Size (L × W × H)	26.9 × 99 × 107 mm (1.05 × 3.89 × 4.22 in.)
Viewing aperture diameter	69 mm (2.71 in.)
Material	Optics: CaF2 (Calcium Fluoride Crystal) Body: Anodized aluminum Hardware: steel
Comments to physical data	Required hole diameter, nominal: 88.9 mm (3.5 in.) Greenlee Punch: 739BB Maximum pullout strength: 1656 kg (3650 lb.)
Waveband	Broadband IR: short-, mid-, and longwave
Visible light spectrum	Yes
Certification	UL, IP67, NEMA Type 4/12, CSA

Shipping information

- IR window
- Case
- Mounting instruction
- Additional safety screw

v1.04

19252-100; IR Window 4 in.

General description

This device is a viewport which consist of a crystal "glass" window, mounted in an aluminum frame. The glass is specially formulated to allow transmission of infrared light to allow use of infrared thermal sensing equipment without opening the enclosure. This device is intended for installation in doors or walls of electrical enclosures without compromising the integrity of the enclosure.

Technical data

Voltage	Any range
Environment	Indoor/outdoor type 4/12
Operating temperature range	Maximum: 260°C (500°F)
Storage temperature range	Optics, maximum: 1357°C (2474°F)
Size (L × W × H)	29.3 × 127 × 137 mm (1.15 × 5.01 × 5.37 in.)
Viewing aperture diameter	89 mm (3.50 in.)
Material	Optics: CaF2 (Calcium Fluoride Crystal) Body: Anodized aluminum Hardware: steel
Comments to physical data	Required hole diameter, nominal: 114.3 mm (4.5 in.) Greenlee Punch: 742BB Maximum pullout strength: 1678 kg (3700 lb.)
Waveband	Broadband IR: short-, mid-, and longwave
Visible light spectrum	Yes
Certification	UL, IP67, NEMA Type 4/12, CSA

Optional Accessories

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Shipping information

- IR window
- Case
- Mounting instruction
- Additional safety screw

v1.04

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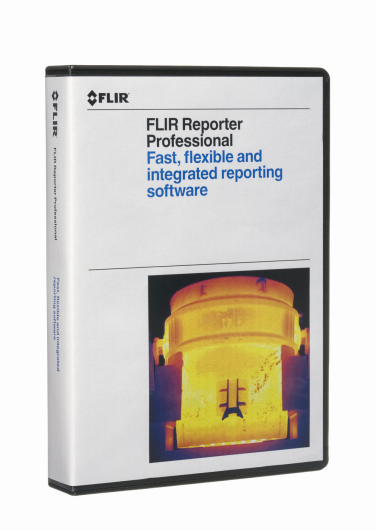
T197717; FLIR Reporter Professional (DVD)



General description

FLIR Reporter Professional is a powerful software for creating compelling and professional, fully customized, easy-to-interpret maintenance reports.

Professional Report Wizard guides you step-by-step in combining all IR inspection data - infrared and visual images, temperature measurements, and text notes – into a professional, easy-to-interpret maintenance report.

Key features:

- Flexible report page design and layout for customized reports
- Use quick insert function to easily create custom report pages
- Fully integrated with standard Microsoft Word
- Generates reports in standard MS Office format and PDF-format
- Powerful temperature analysis
- Triple Fusion Picture-in-Picture (movable, sizable, scalable)
- Rapid report manager supporting automatic report generation by drag-and-drop
- Support for MSX (Multi-Spectral Dynamic Imaging) images
- Support for sketch images in both IR and visual with on/off toggling
- Support for same FOV (“Field of View Match”)
- Grid settings
- Trending functionality
- Automatic link to Google™ Maps for images with GPS coordinates
- Automatic summary table for the report
- Fine tune images and make full temperature analysis directly in Microsoft Word
- Spell check
- Create your own formulas including measurement values from images
- Play radiometric sequences directly in the report
- Search functionality to quickly finding images for your report
- Panorama tool for combining several images to a larger image
- Support for GF series IR images
- Auto Update function
- Office 2003 (32-bit), Office 2007 (32-bit) and Office 2010 (32-bit)
- Windows 7 (32 and 64-bit), Windows Vista (32 and 64-bit)
- Support for MeterLink™ data
- *.docx compatibility

Download

To download a 30-day evaluation version, click the following link:

http://support.flir.com/SwDownload/app/RssSWDownload.aspx?ID=93

Release notes

Version	9.0

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Release notes

New features	• --- News in 9.0: --- • Support for MSX (Multi-Spectral Dynamic Imaging) images. • Support for sketch images in both IR and visual with on/off toggling. • Support for same FOV (“Field of View Match”). • Grid settings. • New user interface for New Report and Pro Wizard. • New templates. • Various bug fixes. • --- News in SP4: --- • Big endian issue of DC images resolved. • IR Table labels can be changed. • IR Summary Table labels can be changed. • Various bug fixes.

Shipping information

- FLIR Reporter Professional
- Getting Starting Guide

System requirements

Operating system	• Windows XP, 32-bit • Windows Vista, 32-bit • Windows Vista, 64-bit • Windows 7, 32-bit • Windows 7, 64-bit
Software requirements	• Office 2007 (32-bit) • Office 2010 (32-bit)

v1.07

T127451; FLIR Reporter Professional (license only)

General description

FLIR Reporter Professional is a powerful software for creating compelling and professional, fully customized, easy-to-interpret maintenance reports.

Professional Report Wizard guides you step-by-step in combining all IR inspection data - infrared and visual images, temperature measurements, and text notes – into a professional, easy-to-interpret maintenance report.

Key features:

Optional Software

P/N: 60101-0201

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General description

- Flexible report page design and layout for customized reports
- Use quick insert function to easily create custom report pages
- Fully integrated with standard Microsoft Word
- Generates reports in standard MS Office format and PDF-format
- Powerful temperature analysis
- Triple Fusion Picture-in-Picture (movable, sizable, scalable)
- Rapid report manager supporting automatic report generation by drag-and-drop
- Support for MSX (Multi-Spectral Dynamic Imaging) images
- Support for sketch images in both IR and visual with on/off toggling
- Support for same FOV (“Field of View Match”)
- Grid settings
- Trending functionality
- Automatic link to Google™ Maps for images with GPS coordinates
- Automatic summary table for the report
- Fine tune images and make full temperature analysis directly in Microsoft Word
- Spell check
- Create your own formulas including measurement values from images
- Play radiometric sequences directly in the report
- Search functionality to quickly finding images for your report
- Panorama tool for combining several images to a larger image
- Support for GF series IR images
- Auto Update function
- Office 2003 (32-bit), Office 2007 (32-bit) and Office 2010 (32-bit)
- Windows 7 (32 and 64-bit), Windows Vista (32 and 64-bit)
- Support for MeterLink™ data
- *.docx compatibility

Download

Download your copy of FLIR Reporter Professional here:

http://support.flir.com/reporter

Release notes

Version	9.0
New features	• --- News in 9.0: --- • Support for MSX (Multi-Spectral Dynamic Imaging) images. • Support for sketch images in both IR and visual with on/off toggling. • Support for same FOV (“Field of View Match”). • Grid settings. • New user interface for New Report and Pro Wizard. • New templates. • Various bug fixes. • --- News in SP4: --- • Big endian issue of DC images resolved. • IR Table labels can be changed. • IR Summary Table labels can be changed. • Various bug fixes.

Shipping information

- FLIR Reporter Professional scratchcard

System requirements

Operating system	• Windows XP, 32-bit • Windows Vista, 32-bit • Windows Vista, 64-bit • Windows 7, 32-bit • Windows 7, 64-bit
Software requirements	• Office 2007 (32-bit) • Office 2010 (32-bit)

v1.08

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T197965; FLIR Tools

General description

FLIR Tools is a software suite specifically designed to provide an easy way to update your camera and create inspection reports.

Key features:

- Report templates (horizontal IR + DC, vertical IR + DC, horizontal IR + IR).
- Import images from your camera to your computer.
- Apply filters when searching for images.
- Search in all texts in images and text annotations.
- Store the five latest search criterias.
- Lay out, move, and resize measurement tools on any infrared image.
- Create PDF imagesheets of any images of your choice.
- Add headers, footers, and logos to the imagesheets.
- Create PDF reports of any images of your choice.
- Add headers, footers, and logotypes to the report.
- Report editor (report page preview and snap to grid).
- Sort function (by date, groups sorted by by path and groups sorted by date)
- Browse and purchase infrared cameras, software, and accessories in our webshop.
- Software localized to 21 languages.
- Camera update (applies to FLIR Exx, T4xx and T6xx series only).

Download

This software is a freeware. To download, click the following link:

http://support.flir.com/SwDownload/app/RssSWDownload.aspx?ID=120

Release notes

Version	FLIR Tools 2.2
New features	• --- News in 2.2: --- • Support for rotating DC images • Improved camera connection • Various bug fixes • --- News in 2.1: --- • New text comment template tab (Create, edit and transfer templates to and from any FLIR camera. Import and export templates.). • Support for MSX (Multi-Spectral Dynamic Imaging) images. • Support for sketch images in both IR and visual with on/off toggling. • Support for same FOV (“Field of View Match”). • Display of compass information in edit and report mode. • Display of GPS information in edit and in report mode (Direct link to Google Maps for GPS-tagged images from the report). • Support for FLIR A3x5 and A6x5. • Camera tab (Logging feature. Colorized status of camera availability). • An updated toolbar in the edit window. • Support for FLIR T4xx camera models when updating the camera. • Various bug fixes.

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Shipping information

- Digital download, or
- CD-ROM

System requirements

Operating system	• Windows XP, 32-bit • Windows Vista, 32-bit • Windows 7, 32-bit • Windows 7, 64-bit

v1.10

T127648; FLIR Tools+ (license only)

General description

Compared to FLIR Tools, FLIR Tools+ has the following features:
- Radiometric sequence recording
- Playback of recordings
FLIR Tools/Tools+ is a software suite specifically designed to provide an easy way to update your camera and create inspection reports.

FLIR Tools main features:

- Report templates (horizontal IR + DC, vertical IR + DC, horizontal IR + IR).
- Import images from your camera to your computer.
- Apply filters when searching for images.
- Search in all texts in images and text annotations.
- Store the five latest search criterias.
- Lay out, move, and resize measurement tools on any infrared image.
- Create PDF imagesheets of any images of your choice.
- Add headers, footers, and logos to the imagesheets.
- Create PDF reports of any images of your choice.
- Add headers, footers, and logotypes to the report.
- Report editor (report page preview and snap to grid).
- Sort function (by date, groups sorted by by path and groups sorted by date)
- Browse and purchase infrared cameras, software, and accessories in our webshop.
- Software localized to 21 languages.
- Camera update (applies to FLIR Exx, T4xx and T6xx series only).

Download

Download your copy of FLIR Tools+ here:

http://support.flir.com/toolsplus

Release notes

Version	FLIR Tools+ 2.2

Optional Software

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Release notes

New features	• --- News in 2.2: --- • Radiometric sequence recording • Playback of recordings • --- News in 2.1: --- • New text comment template tab (Create, edit and transfer templates to and from any FLIR camera. Import and export templates.). • Support for MSX (Multi-Spectral Dynamic Imaging) images. • Support for sketch images in both IR and visual with on/off toggling. • Support for same FOV (“Field of View Match”). • Display of compass information in edit and report mode. • Display of GPS information in edit and in report mode (Direct link to Google Maps for GPS-tagged images from the report). • Support for FLIR A3x5 and A6x5. • Camera tab (Logging feature. Colorized status of camera availability). • An updated toolbar in the edit window. • Support for FLIR T4xx camera models when updating the camera. • Various bug fixes.

Shipping information

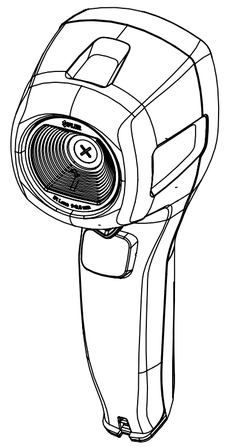
- FLIR Tools+ scratchcard

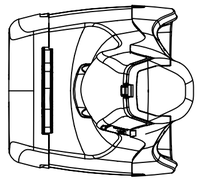
System requirements

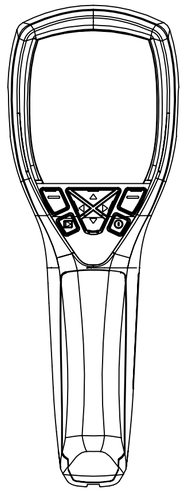
Operating system	• Windows XP, 32-bit • Windows Vista, 32-bit • Windows 7, 32-bit • Windows 7, 64-bit

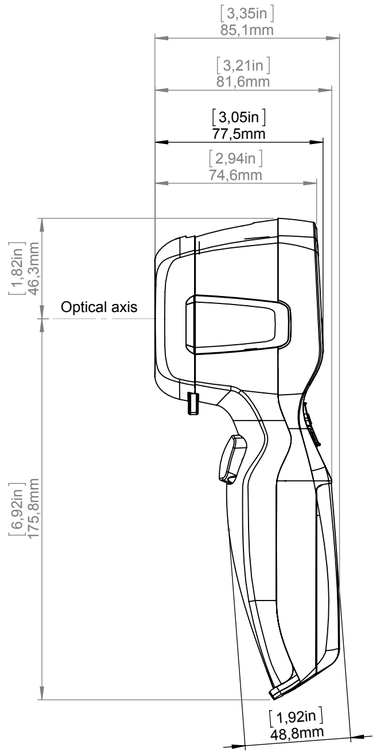
v1.03

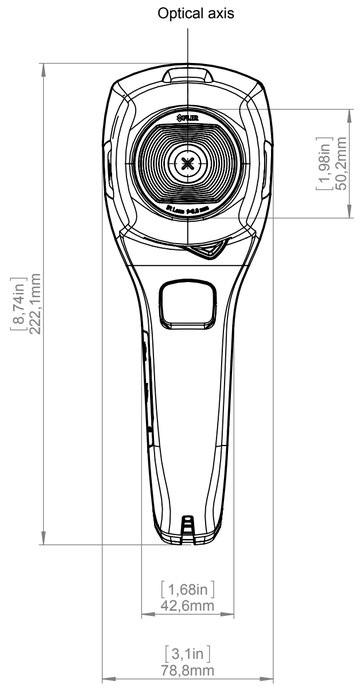
Camera with built-in IR lens f=6,8 mm (i3 12,5°)
Camera with built-in IR lens f=6,8 mm (i5 17°)
Camera with built-in IR lens f=6,8 mm (i7 25°)

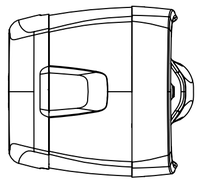












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Modified	Check	Drawn by
2012-04-19	CAHA	R&D Thermography

Denomination

Basic dimensions FLIR ix

Size	Sheet
A3	1(1)
Scale 1:2	
Drawing No. T127628	Size A