

Technical Data

FLIR i3

Part number:

60101-0101

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December 15, 2012, 06:28 AM

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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 i3 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 i3 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 | 60 × 60 pixels |
| Thermal sensitivity/NETD | < 0.15°C (0.27°F) / 150 mK |
| Field of view (FOV) | 12.5° × 12.5° |
| 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 | $\pm 2^{\circ}$ C ($\pm 3.6^{\circ}$ F) or $\pm 2\%$ of reading, for ambient temperature 10°C to 35°C ($\pm 50^{\circ}$ F to 95°F) and object temperature above $\pm 0^{\circ}$ C ($\pm 32^{\circ}$ F) |
| Measurement analysis | |
| Spotmeter | Center spot |
| Emissivity correction | Variable from 0.1 to 1.0 |

Emissivity table of predefined materials

Automatic, based on input of reflected temperature

Emissivity table

Reflected apparent temperature correction

FLIR i3

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| 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 an 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 brookurs | |

- 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

FLIR i3

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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

- 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

- 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



Pouch, including shoulder strap, for FLIR ix series.

General description

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.

| 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 |



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Shipping information

- IR window Case Mounting instruction Additional safety screw

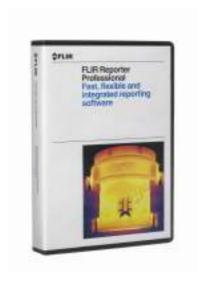
v1.04



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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-tointerpret 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

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| nelease 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-

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:

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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 (|

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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
- 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

http://www.flir.com

Version FLIR Tools+ 2.2

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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 |

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