dataTec

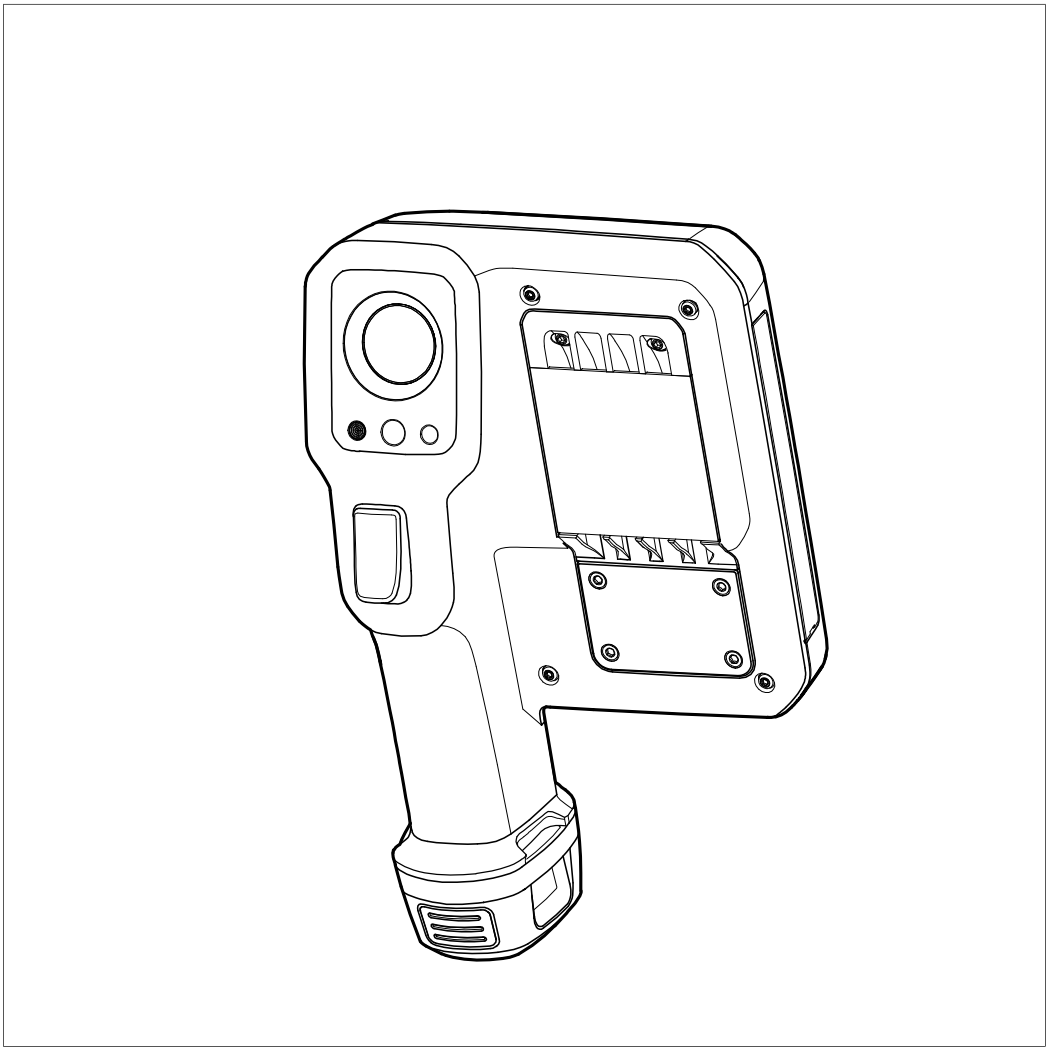
Mess- und Prüftechnik. Die Experten.

Ihr Ansprechpartner / Your Partner:

dataTec AG
E-Mail: info@datatec.eu
>>> www.datatec.eu

FLIR® PREMIUM PARTNER

User manual
Flir ixx series



Important note
Before operating the device, you must read, understand, and follow all instructions, warnings, cautions, and legal disclaimers.

Důležitá poznámka
Před použitím zařízení si přečtěte veškeré pokyny, upozornění, varování a vyvázání se ze záruky, ujistěte se, že jim rozumíte, a řiďte se jimi.

Vigtig meddelelse
Før du betjener enheden, skal du du læse, forstå og følge alle anvisninger, advarsler, sikkerhedsforanstaltninger og ansvarsfraskrivelser.

Wichtiger Hinweis
Bevor Sie das Gerät in Betrieb nehmen, lesen, verstehen und befolgen Sie unbedingt alle Anweisungen, Warnungen, Vorsichtshinweise und Haftungsausschlüsse

Σημαντική σημείωση
Πριν από τη λειτουργία της συσκευής, πρέπει να διαβάσετε, να κατανοήσετε και να ακολουθήσετε όλες τις οδηγίες, προειδοποιήσεις, προφυλάξεις και νομικές αποποιήσεις.

Nota importante
Antes de usar el dispositivo, debe leer, comprender y seguir toda la información sobre instrucciones, advertencias, precauciones y renuncias de responsabilidad.

Tärkeä huomautus
Ennen laitteen käyttämistä on luettava ja ymmärrettävä kaikki ohjeet, vakavat varoitukset, varoitukset ja lakitiedotteet sekä noudatettava niitä.

Remarque importante
Avant d'utiliser l'appareil, vous devez lire, comprendre et suivre l'ensemble des instructions, avertissements, mises en garde et clauses légales de non-responsabilité.

Fontos megjegyzés
Az eszköz használata előtt figyelmesen olvassa el és tartsa be az összes utasítást, figyelmeztetést, óvintézkedést és jogi nyilatkozatot.

Nota importante
Prima di utilizzare il dispositivo, è importante leggere, capire e seguire tutte le istruzioni, avvertenze, precauzioni ed esclusioni di responsabilità legali.

重要な注意
デバイスをご使用になる前に、あらゆる指示、警告、注意事項、および免責条項をお読み頂き、その内容を理解して従ってください。

중요한 참고 사항
장치를 작동하기 전에 반드시 다음의 사용 설명서와 경고, 주의사항, 법적 책임제한을 읽고 이해하며 따라야 합니다.

Viktig
Før du bruker enheten, må du lese, forstå og følge instruksjoner, advarsler og informasjon om ansvarsfraskrivelse.

Belangrijke opmerking
Zorg ervoor dat u, voordat u het apparaat gaat gebruiken, alle instructies, waarschuwingen en juridische informatie hebt doorgelezen en begrepen, en dat u deze opvolgt en in acht neemt.

Ważna uwaga
Przed rozpoczęciem korzystania z urządzenia należy koniecznie zapoznać się z wszystkimi instrukcjami, ostrzeżeniami, przestrogami i uwagami prawnymi. Należy zawsze postępować zgodnie z zaleceniami tam zawartymi.

Nota importante
Antes de utilizar o dispositivo, deverá proceder à leitura e compreensão de todos os avisos, precauções, instruções e isenções de responsabilidade legal e assegurar-se do seu cumprimento.

Важное примечание
До того, как пользоваться устройством, вам необходимо прочитать и понять все предупреждения, предостережения и юридические ограничения ответственности и следовать им.

Viktig information
Innan du använder enheten måste du läsa, förstå och följa alla anvisningar, varningar, försiktighetsåtgärder och ansvarsfriskrivningar.

Önemli not
Cihazı çalıştırmadan önce tüm talimatları, uyarıları, ikazları ve yasal açıklamaları okumalı, anlamalı ve bunlara uymalısınız.

重要注意事项
在操作设备之前，您必须阅读、理解并遵循所有说明、警告、注意事项和法律免责声明。

重要注意事項
操作裝置之前，您務必閱讀、了解並遵循所有說明、警告、注意事項與法律免責聲明。

Table of contents

1 Safety information 1
1.1 Electro Magnetic Compatibility, EMC 1
1.1.1 FCC/IC 1
1.1.2 JPN and CAN 1
1.2 Handling and operation 1
1.3 Battery and charging 2
1.4 Laser radiation 2
1.5 Declaration of conformity 2
2 Notice to user 3
2.1 Register your camera 3
2.2 Online documentation 3
2.3 About this manual 3
2.4 Support 3
2.5 Training 3
3 Camera parts 4
3.1 View from the front 4
3.2 View from the rear 4
3.3 Connector compartment and SIM card 5
3.4 Serial number 5
4 Getting started 6
4.1 Basic steps 6
4.2 Battery 6
4.2.1 Insert battery 6
4.2.2 Remove battery 6
4.2.3 Charge battery 6
4.3 Insert/remove micro SIM card 6
4.3.1 Insert the micro SIM card 7
4.3.2 Remove the micro SIM card 7
4.4 Power on/off 7
4.4.1 Power on 7
4.4.2 Standby 7
4.4.3 Power off 7
5 Camera user interface 8
5.1 Screen elements 8
5.1.1 General 8
5.1.2 Status icons and indicators 8
5.2 Main toolbar 9
5.2.1 Navigation keypad 9
5.3 Screen lock and passcode 10
6 Pre-installed apps 11
6.1 Camera 11
6.1.1 Image modes 11
6.1.2 Measuring temperatures 12
6.1.3 Thermal image adjustment 13
6.1.4 Color palettes 15
6.1.5 Above and Below 16
6.1.6 Measurement parameters 16
6.2 Library 17
6.2.1 Open image files 17
6.2.2 Add a folder 17
6.2.3 Rename a folder 17
6.2.4 Change the active folder 17
6.2.5 Move files between folders 18
6.2.6 Upload files and folders 18

6.2.7 Delete files and folders 18
6.2.8 Edit a saved image 18
6.3 Settings 19
6.3.1 Flir Account 19
6.3.2 Firmware updates 19
6.3.3 Settings 20
6.3.4 Camera temperature range 20
6.3.5 Register camera 20
6.3.6 Save options & storage 20
6.3.7 Wireless connectivity 20
6.4 Flir Assetlink 21
6.4.1 To start a Route 21
6.4.2 Do an inspection 21
6.4.3 Upload inspection results to Flir Assetlink 22
6.5 Flir Ignite 22
6.5.1 Setup 22
6.5.2 Create a Flir Ignite account 22
6.5.3 Automatic upload 22
6.5.4 Manual upload 22
6.5.5 Access Flir Ignite 23
6.6 Flir Apps 23
6.6.1 Download an app 23
6.6.2 Update an app 23
6.7 Third-party apps 23
7 Maintenance and cleaning 25
7.1 Calibration 25
7.2 Update the Camera 25
7.2.1 Update the camera Over-The-Air (OTA) 25
7.3 Clean the camera 25
7.3.1 Camera housing, cables, and other items 25
7.3.2 Infrared lens 25
8 Disposal of electronic waste 27
8.1 Battery removal 27
9 Disclaimers 28
9.1 Legal disclaimer 28
9.2 Export controls 28
9.3 Patents 28
9.4 Quality assurance 28
9.5 Third-party licenses 28
9.6 Usage statistics 28
9.7 Copyright 28

1 Safety information

1.1 Electro Magnetic Compatibility, EMC

1.1.1 FCC/IC

WARNING

This device complies with Part 15 of the FCC Rules and with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions:

1. this device may not cause harmful interference, and
2. this device must accept any interference received, including interference that may cause undesired operation.

CAUTION

This portable transmitter with its antenna has shown compliance with FCC's SAR limits for general population / uncontrolled exposure. The maximum listed SAR level is 1.24 W/kg (head) and 1.24 W/kg (body) at 0 mm. The antenna used for this device must not be re-located or operating in conjunction with any other antenna or transmitter.

1.1.2 JPN and CAN

WARNING

The 5 GHz band is only allowed for indoor use in Japan and Canada.

WARNING

This equipment contains specified radio equipment that has been certified to the Technical Regulation Conformity Certification under the Japanese Radio Law. 当該機器には電波法に基づく、技術基準適合証明等を受けた特定無線設備を装着している。

WARNING

The users manual or instruction manual for an intentional or unintentional radiator shall caution the user that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. In cases where the manual is provided only in a form other than paper, such as on a computer disk or over the Internet, the information required by this section may be included in the manual in that alternative form, provided the user can reasonably be expected to have the capability to access information in that form.

1.2 Handling and operation

CAUTION

Do not use the camera in temperatures more than +50°C (+122°F), unless other information is specified in the user documentation or technical data. High temperatures can cause damage to the camera.

CAUTION

If you do not obey these Cautions, damage to the equipment can occur.

Protect the camera and accessories from dirt, dust, impacts, and liquids.

Only use the accessories and spare parts that Flir provides.

Do not disassemble the camera.

Do not use a damaged camera, or accessories.

CAUTION

Do not point the infrared camera (with or without the lens cover) at strong energy sources, for example, devices that cause laser radiation, or the sun. This can have an unwanted effect on the accuracy of the camera. It can also cause damage to the detector in the camera.

CAUTION

Be careful and use only minimum force to clean the infrared lens. The lens has an anti-reflective coating which is easily damaged. Damage to the infrared lens can occur.

1.3 Battery and charging

CAUTION

The temperature range in which you can charge the battery is ±0°C to +45°C (+32°F to +113°F), except for the Korean market where the approved temperature is +10°C to +45°C (+50°F to +113°F). Charging the battery at temperatures outside this range may cause the battery to heat up or break, and may also reduce battery performance or lifespan.

WARNING

Do not remove the battery from the product.

Do not disassemble or crush battery cells and battery packs.

CAUTION

Do not store a battery/camera longer than 1 month in a discharged state.

Do not store a battery/camera for more than 1 year without recharge.

WARNING

Risk of fire or explosion and damage to equipment or leakage of flammable liquid or gas.

Do not replace the battery with an incorrect type not suppled by FLIR Systems.

Do not dispose in fire or hot oven.

Do not cur or crush the battery.

Do not expose the battery to extreme temperatures.

Do not expose the battery to extremely low air pressure.

WARNING

Charge batteries to approximately 50% of their capacity before storing them for extended periods.

Check the charge level periodically (every few months) and recharge them if they drop below 30%.

1.4 Laser radiation

WAVELENGTH: 650 nm MAX. OUTPUT POWER: 1 mW
クラス2レーザー製品 最大出力:<1mW、波長: 650 nm

1.5 Declaration of conformity

The full text of the Declaration of conformity is available at the following internet address: https://support.flir.com/resources/h5jf.

2 Notice to user

2.1 Register your camera

Register your camera to receive an extended warranty and other related benefits. Register the camera during onboarding or at any time later.

To access the registration form, you must log in to your Flir account or sign up for a new account.

To start the registration wizard, turn on the camera and select *Settings* > *Register camera*.

To complete the registration, you must enter a verification code into the camera. The code is available in your Flir account, under *My Products*.

2.2 Online documentation

Our manuals are continuously updated and published online.

To access the Flir ixx series user manual and other product documentation, go to https://support.flir.com/resources/h5jf.

To access the manuals for our other products, as well as manuals for our discontinued products, go to https://support.flir.com/resources/app.

For more information regarding the manual, compatible software and certificates, see https://support.flir.com/Ixx.

2.3 About this manual

Flir Systems issues generic manuals that cover several models within a camera series. This means that this manual may contain descriptions and explanations that do not apply to your particular camera model.

The authoritative version of this publication is English. In the event of divergences due to translation errors, the English text has precedence. Any late changes are first implemented in English.

2.4 Support

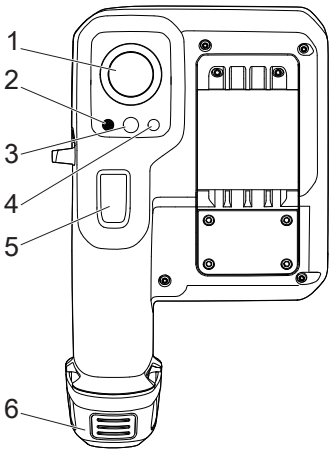
Contact our Technical Support Center if you experience problems or have any questions about your product: https://support.flir.com.

2.5 Training

For training resources and courses, go to https://www.flir.com/support-center/training.

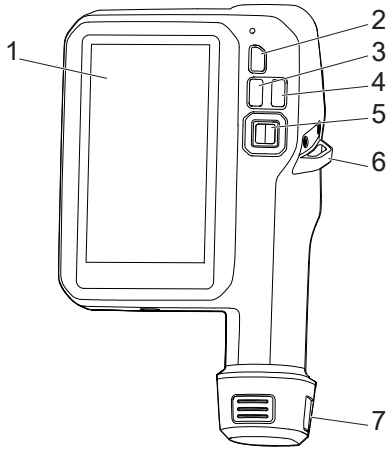
3 Camera parts

3.1 View from the front



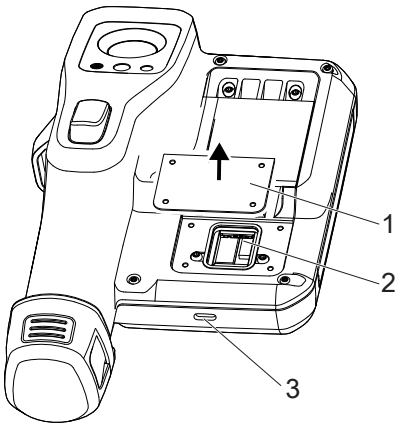
1. Infrared lens
2. Camera lamp
3. Visual camera
4. Laser
5. Trigger
6. Battery

3.2 View from the rear



1. Touch screen
2. Power on/off
3. Menu
4. Back
5. Navigation keypad
6. Attachment point for wrist/neck strap
7. Attachment point for wrist/neck strap

3.3 Connector compartment and SIM card



1. SIM card cover
2. Micro SIM card slot
3. USB port

3.4 Serial number

- A label with the serial number is visible when the battery is removed.
- In the Settings app, select *About camera* > *Camera information*.

4 Getting started

Note Before operating the camera, read and follow the warnings and cautions in section 1 *Safety information*.

Note For information about LTE and connectivity, contact https://support.flir.com.

4.1 Basic steps

1. Charge the battery.
2. Push the battery into the camera battery compartment.
3. Press and hold the Power button to start the camera.
4. Follow the instructions on the camera screen to set up the camera according to your preferences.

   Note Select the settings as a part of the initial setup of the camera or later at any time via the *Settings* app.
5. Aim the camera toward the object, to measure a temperature. The spotmeter temperature is displayed on the screen.
6. Pull the trigger to save the image.

4.2 Battery

4.2.1 Insert battery

Push the battery into the battery compartment.

4.2.2 Remove battery

1. Power off the camera.
2. Remove the battery from the battery compartment.

4.2.3 Charge battery

⚠ CAUTION
Select a socket that is easy to access. Should a hazardous situation occur, you must be able to easily disconnect the power supply.

Note Disconnect the power supply from the mains socket when not in use.

4.2.3.1 Charge the battery in the battery charger

1. Put the battery in the battery charger.
2. Connect the power supply to the battery charger.
3. Connect the power supply to a mains socket.

4.2.3.1.1 Battery charger indicator

- Flashing light, the battery is charging.
- Steady light, the battery is fully charged.

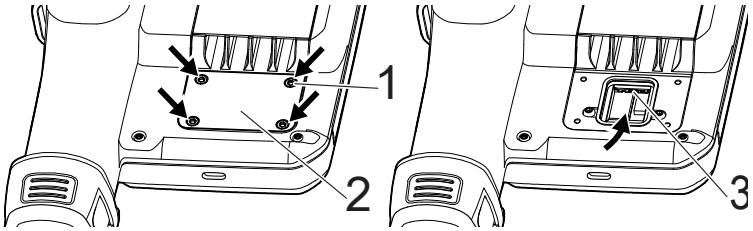
4.2.3.2 Charge the battery in the camera

1. Connect the camera to a power supply, using the USB cable.
2. Connect the power supply to a mains socket.

4.3 Insert/remove micro SIM card

Note Only applies to camera models with LTE.

Note The camera must be turned off.



4.3.1 Insert the micro SIM card

1. Loosen and remove the four T8 screws (1) to the SIM card cover (2).
2. Remove the SIM card cover (2).
3. Slide the micro SIM card into place. Make sure it goes all the way into the slot (3).
4. Install the SIM card cover (2).
5. Tighten the four T8 screws (1).

4.3.2 Remove the micro SIM card

1. Loosen and remove the four T8 screws (1) to the SIM card cover (2).
2. Remove the SIM card cover (2).
3. Give the micro SIM card a push to release it.
4. Remove the micro SIM card.
5. Install the SIM card cover (2) and tighten the T8 screws (1).

Note The encapsulation rating is only applicable when the cover for the connector compartment is closed and locked in place and when the battery is correctly installed.

4.4 Power on/off

4.4.1 Power on

Press and hold the Power button to turn on the camera.

4.4.2 Standby

- Put the camera in standby mode, press the Power button.
- Get the camera to enter standby mode automatically after a period of inactivity:

  1. Open the *Settings* app.
  2. Open *Display settings*.
  3. Select *Screen timeout*.

4.4.3 Power off

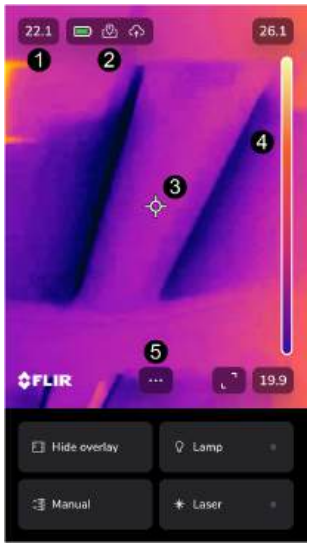
1. Press and hold the On/Off button to turn off the camera.

Note Do not remove the battery to power off the camera.

5 Camera user interface

5.1 Screen elements

5.1.1 General



1. Result table
2. Status icons and indicators
3. Spotmeter
4. Temperature scale
5. Menu button
6. Full screen

5.1.2 Status icons and indicators

	Battery level • Green: above 65% • Yellow: up to 65% • Red: up to 25% • No color: below 10%
	Charging
	The available storage space in the camera memory is running low.
	GPS
	Cloud/Ignite

5.2 Main toolbar

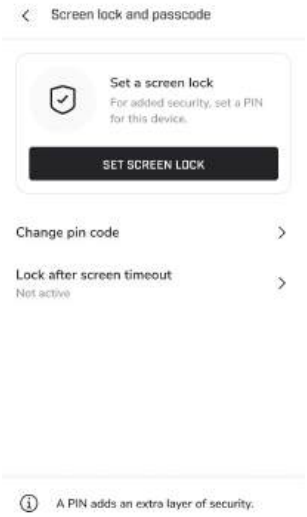
1. Recording mode: still image/video
2. Image adjustment: auto/manual
3. Parameters
4. Camera mode
5. Measurement
6. Color

5.2.1 Navigation keypad

To navigate the user interface, you can use the touch screen and/or the navigation keypad and Back button.

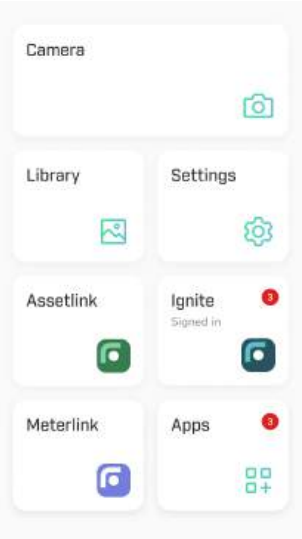
- To display the main toolbar, push the three dots or the center of the navigation keypad.
- To navigate the toolbars, menus, and dialog boxes, and to change values in dialog boxes, tap the navigation keypad up/down or left/right.
- To confirm changes and settings in menus and dialog boxes, push the center of the navigation keypad or on the screen outside the toolbar.
- To leave the dialog boxes and to go back in the menu system, push the Back button or tap the center of the navigation pad.

5.3 Screen lock and passcode



To secure the camera, it is possible to enable a screen lock and password. Do this in the onboarding or at any time later.

6 Pre-installed apps



- Camera
- Library
- Flir Ignite
- Settings
- Flir Apps
- Flir Assetlink
- Files

6.1 Camera

6.1.1 Image modes

The camera can capture thermal and visual images at the same time. In image mode, select which type of image to display on the screen.

The camera supports the following image modes:

- *Thermal MSX* (Multi Spectral Dynamic Imaging): An infrared image where the edges of the objects are enhanced with visual image details.
- *Thermal*: An infrared image.
- *Picture in picture*: An infrared image frame is displayed on top of the visual image.
- *Digital camera*: The visual image captured by the digital camera.

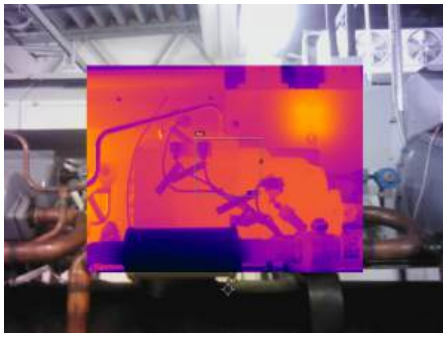
Note

- For the *Thermal MSX*, *Thermal*, and *Picture in picture* modes, all thermal and visual information is stored when an image is saved. This means that you can edit the image later, in the camera image library or in a Flir Thermography software, and select any of the image modes.
- For the *Digital camera* image mode, a digital image with full resolution is stored when an image is saved. However, no thermal information is stored.

Note The following images are only sample images, they were not taken with an ixx camera.

Thermal MSX

Thermal



Picture in picture

Digital camera

6.1.1.1 Change image mode

1. On the main toolbar, select *Image mode*.
2. A new toolbar will show.
3. Select an image mode.

6.1.1.2 Align the thermal and visual images

In *Thermal MSX* and *Picture in picture* modes, the camera displays a combination of thermal and visual images.

To align the thermal and visual images, do the following:

1. Tap the distance indicator at the top of the screen.
2. Move the slider to align the images.

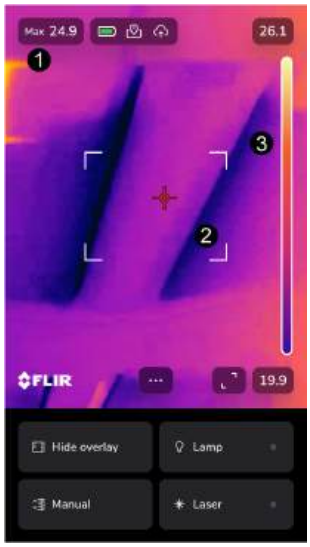
6.1.2 Measuring temperatures

6.1.2.1 Basic steps to temperature measurements

- Select a temperature range that matches the expected temperature of the object you are inspecting.
- Adjust the temperature scale manually or automatically, see section 6.1.3 *Thermal image adjustment*, to detect anomalies and smaller temperature differences.
- Select the color palette that best suits the situation.
- For accurate temperature measurements, it is important to use appropriate measurement parameters.

6.1.2.2 Measurement tools

To measure a temperature, use different measurement tools, e.g. a spot or a box.



1. Result table
2. Hot spot box
3. Temperature scale

6.1.2.2.1 Move a spot

1. Activate edit mode by tapping the spot on the screen. The spot is now displayed with a handle.
2. Press the navigation pad or tap the Menu button. This displays a toolbar.
3. On the toolbar, do the following:
   - Select *Move*. Push the navigation pad up/down/left/right to move the tool. It is also possible to use the touchscreen to move the spot and to resize the box.
   - Select *Center* to center the spot on the screen.
   - To exit edit mode, do one of the following:
     - Press the navigation pad and select *Done*.
     - Tap the screen outside the tool.

6.1.3 Thermal image adjustment

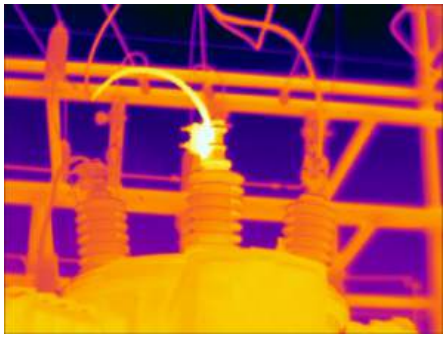
Thermal image adjustment, or thermal tuning, means adjusting a thermal image in order to maximize the brightness and contrast in the image.

In automatic mode, the camera continuously adjusts the image for the best presentation. If needed, adjust the temperature scale in manual mode to get more contrast.

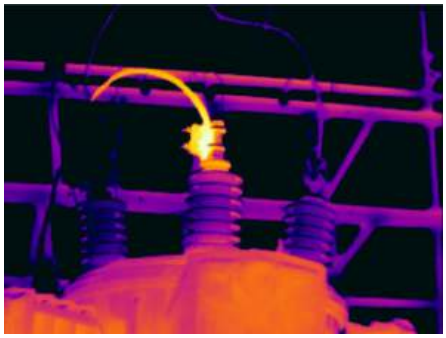
Note The following images are only sample images, they were not taken with an ixx camera.

Automatic

Manual



Automatic



Manual

6.1.3.1 Change mode

To change the image adjustment mode:

1. Open the main toolbar.
2. Select *Image adjustment*.
3. Select *Auto* or *Manual*

6.1.3.2 Manual adjustment by touching the screen

When manual mode is active, an adjustment wheel is displayed to the right of the temperature scale.

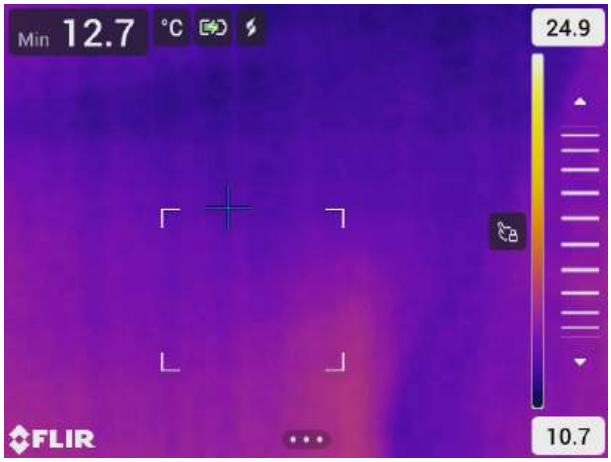


Figure 6.1 Manual adjustment mode active

To manually adjust the image, do the following:

1. To enter manual adjustment mode, select *Image adjustment* > *Manual* on the main toolbar.
2. To simultaneously change the maximum and minimum limits of the temperature scale, place your finger on the screen and move it up/down.
3. To change the maximum or minimum limit, do the following:

   3.1. Tap the maximum or minimum temperature.
   3.2. Place your finger on the screen and move it up/down to change the value of the highlighted temperature.

   or

   3.1. Press the Up/Down/Left/Right buttons.

6.1.3.2.1 1-Touch Level/Spam

In manual mode, you can auto-adjust the image by touching the screen. The image will be auto-adjusted based on the thermal content of the area around the touched point. The top and bottom levels in the temperature scale will be set to the maximum and minimum temperatures in that area.

By using the color information only for the relevant temperatures, you will get more details in your area of interest.

6.1.3.2.2 Lock touch screen

When you have adjusted the image to levels that allow you to study your area of interest, you can lock the touch screen to prevent further unintentional adjustments.

To lock/unlock the screen, tap the icon to the left of the temperature scale.

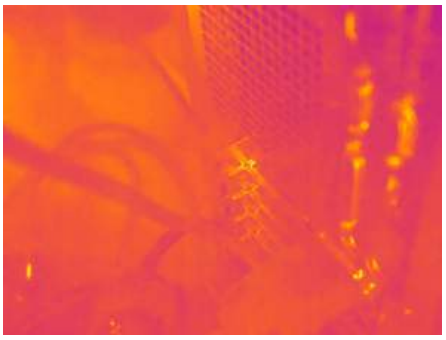
Note If you switch to automatic mode, the screen automatically unlocks and your manual adjustments are lost.

6.1.4 Color palettes

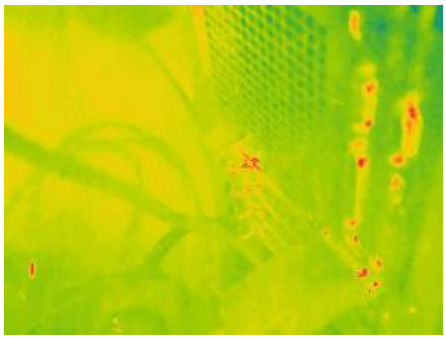
The camera supports a number of different color palettes. Frequently used palettes include the iron, white hot, and rainbow palettes.

- The iron palette is intuitive and also easy to understand for those without much experience in thermography. It offers a good balance between geometric and thermal resolution.
- The rainbow palette is more colorful and alternates between light and dark colors. This results in greater contrast, but this can lead to a noisy image for objects with different surfaces or many temperatures.
- White hot are particularly suited to resolving small geometric details, but are less suited to display small differences in temperature.

Note The following images are only sample images, they were not taken with an ixx camera.

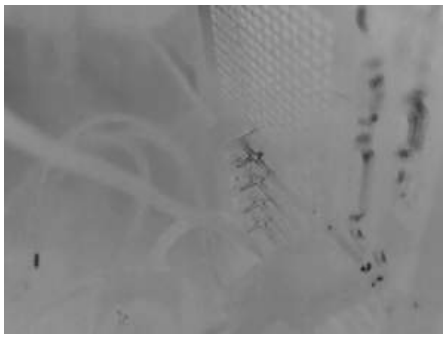


Iron



Rainbow

White hot



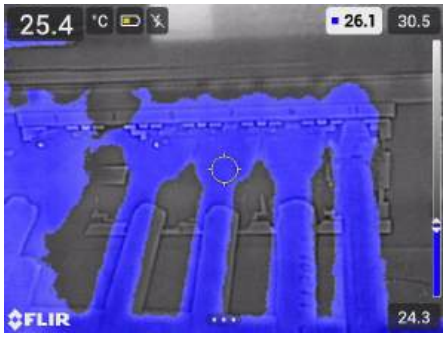
Black hot

6.1.5 Above and Below

By using Above and Below (isotherms), anomalies can easily be discovered in an infrared image. The isotherm command applies a contrasting color to all pixels with a temperature above or below the specified temperature level.

Note The following images are only sample images, they were not taken with an ixx camera.

Above alarm: Highlights all pixels with a temperature above the specified temperature level.



Below alarm: Highlights all pixels with a temperature below the specified temperature level.

6.1.6 Measurement parameters

The single most important parameter to set is Emissivity. This parameter determines how much of the radiation comes from the object being inspected. If the value is 1, all radiation comes from the object. If the value is 0 all radiation that the camera sees comes from other objects that is reflected in the object.

- *Emissivity*: The emissivity determines how much of the radiation originates from the object as opposed to being reflected by it. There are three settings: Values (default), Materials and Surfaces.
- *Reflected temperature*: The temperature of objects that are reflected in the object under inspection. This value is important if the emissivity is low.
- *Relative humidity*: Distance deals with atmospheric absorption and has an effect on larger distances.
- *Atmospheric temperature*: Distance deals with atmospheric absorption and has an effect on larger distances.
- *Distance*: Distance deals with atmospheric absorption and has an effect on larger distances.

6.1.6.1 Recommended values

The following values are recommended:

Emissivity	0.95
Reflected temperature	+20°C (+69°F)
Relative humidity	50%
Atmospheric temperature	+20°C (+69°F)
Distance	1 m (3.3 ft.)

6.2 Library

In the camera, the image archive is called *Library*. The *Library* can include one or several folders. New images will be saved to the active folder, at the top level of the *Library* app.

6.2.1 Open image files

1. Go to a folder in the *Library* app.
2. Select the image you want to view.
3. Tap the left/right icon to view the previous/next image.
4. Select the DC or IR icon to switch between the thermal image and visual image.
5. Select the pen icon at the top of the screen to edit the image.

6.2.2 Add a folder

1. Select ⋮ to display the top toolbar.
2. Select *Add folder*.
3. Enter a folder name and press the center pad (or tap the checkmark icon).
4. The new folder automatically becomes the active folder and appears at the top in the *Library* app.

6.2.3 Rename a folder

1. Select ⋮ to display the top toolbar.
2. Select *Select*.
3. Select the folder to rename.
4. Select ⋮.
5. Select *Rename*.

6.2.4 Change the active folder

New images are saved to the active folder.

1. Select ⋮ to display the top toolbar.

2. Select *Select*.
3. Select the folder that new images should be saved to.
4. On the right toolbar, select .
5. The selected folder is moved to the top of the *Library*.

6.2.5 Move files between folders

1. Go to a folder in the *Library* app.
2. Select .
3. Select the files you want to move.
4. On the right toolbar, select .
5. Select the destination folder.

6.2.6 Upload files and folders

You can manually upload images and folders to your Flir Ignite account when the camera is connected to the internet. For more information, see section 6.5.4 *Manual upload*.

6.2.7 Delete files and folders

6.2.7.1 Delete folders

1. Select to display the toolbar.
2. Select *Select*.
3. Checkmark the folder to be deleted.
4. Select and click *Delete*.

6.2.7.2 Delete a file

1. Open the file in the *Library* app.
2. Select and click *Delete*.

6.2.7.3 Delete multiple files

1. Go to a folder in the *Library* app.
2. Select .
3. Select *Select*.
4. Checkmark the images(s) to delete.
5. Select and click *Delete*.

Alternatively:

1. Go to a folder in the *Library* app.
2. Select and click *Select all*.
3. Click *Delete*.

6.2.8 Edit a saved image

1. Open an image.
2. On the top toolbar, select . This opens the image in edit mode.

3. Adjust level/span (changing max/min limits of the image).
4. Click on the three dots. This displays a toolbar, where you can do the following:
    - Exit edit mode.
    - Change the measurement parameters.
    - Change the image mode.
    - Add a measurement tool.
    - Change the color palette or set a color alarm.
    - Save and exit edit mode.
5. To get the edited image stored online, make a manual upload of the image. See section 6.5.4 *Manual upload*.

6.3 Settings

In the *Settings* app, you can set the camera to your preferences and view information about your camera.

The *Settings* app includes the following:

- *Flir Account*
- *Firmware updates*
- *Language*
- *Date/Time*
- *Display settings*
- *Battery & power saving*
- *Storage*
- *Geolocation*
- *App settings*.
- *Temperature unit*
- *Distance unit*
- *Temperature range*
- *Lamp & laser*
- *Overlay information*
- *Save options*
- *Wi-Fi*
- *Bluetooth*
- *Network (only applies to camera models with LTE)*
- *Register camera*
- *About camera*
- *Reset options*
- *Product improvement*
- *USB Preferences (when connected to USB)*
- *Developer options (when enabled)*
- *Screen lock*
- *Keyboard*

6.3.1 Flir Account

Sign in to Flir Account and view information about the Flir Ignite account the camera is paired with.

Enable/disable automatic upload of images.

For more information about Flir Ignite and online storage of images, see section 6.5 *Flir Ignite*.

6.3.2 Firmware updates

See section 7.2 *Update the Camera*.

6.3.3 Settings

- *Firmware updates*: Check for updates and install new firmware versions. The camera must be connected to the internet.
- *Language, time & units*: Select the language, units, date and time formats to be used in the camera.
- *Display settings*:
  - *Screen brightness*: Adjust the brightness of the screen.
- *Screen timeout*: The period of inactivity before the camera enters standby mode.
- *User interface options*:
  - *Color theme*: Select light or dark theme for the user interface.
- *Register camera*: Register the camera to receive an extended warranty and other benefits.
- *Camera information*: Information about the camera and regulatory information.
- *Reset options*: Reset the camera and Reset image counter.
  - *Reset device settings to factory default...*: This will affect all camera settings, including regional settings. Saved images will not be affected. The camera will be restarted and you will be prompted to set the regional settings.
  - *Reset image counter...*: This will reset the numbering of the images. The next number will be based on the highest existing number in the image archive.

  Note When a reset option is selected, a dialog box is displayed with more information. You can choose to execute the reset action or to cancel.

6.3.4 Camera temperature range

1. Go to *Temperature range*.
2. Select a temperature range that matches the expected temperature of the object to be inspected.

6.3.5 Register camera

See section

6.3.6 Save options & storage

- *Photo as separate JPEG*: A visual image is always saved in the same JPEG file as the thermal image.
- *Add note after saving*: The note tool will be displayed when an image has been saved.

6.3.7 Wireless connectivity

6.3.7.1 Connect the camera to Wi-Fi

Connect the camera to a Wi-Fi network as part of the initial setup of the camera or at any time via the *Settings* app.

Connect to Wi-Fi via the *Settings* app:

1. In the *Settings* app, scroll down to *Connectivity*.
2. Select *Wi-Fi*.
3. Turn on *Wi-Fi*.
4. Select one of the available networks.

Note

- Password-protected networks are indicated with a padlock icon and will require a password the first time you connect to the network. After that, the camera will automatically connect to the network. To disable the automatic connection, select the network in the list and then select *Forget network*.
- Some networks do not broadcast their existence. They appear in the list as *Untitled*. To connect to such a network, choose *Connect manually*.

6.4 Flir Assetlink

Flir Assetlink is a feature that makes it easier to plan and follow a specific route during inspections. It ensures that all necessary areas are covered efficiently and consistently, making work more organized and thorough.

To use Flir Assetlink the user need to sign in with a Flir Assetlink account. To create an account, go to https://assetlink.flir.com and click *Sign in*.

Note To learn more about Flir Assetlink and read the user manual go to https://support.flir.com/resources/z22r/.

6.4.1 To start a Route

1. Make sure the camera is connected to Wi-Fi, see section 6.3.7.1 *Connect the camera to Wi-Fi*.
2. Open the Flir Assetlink app.
3. Follow the onboarding for the app.
4. Log in with a Flir Assetlink account.
5. Click on *Add routes*.
6. Select an organization.
7. Select a workspace.
8. Select a site.
9. Select a route to download.
10. Click on Routes to view downloaded routes.
11. Click on *Routes* to see the downloaded routes.

6.4.2 Do an inspection

1. Select a route to inspect from available routes.
   - Click *CREATE NEW INSPECTION*, to start a new inspection.
     or
   - Select an ongoing inspection.
2. Select *INSPECT* to start an inspection.
3. The camera goes live.
4. Tap the reference image, shown in the corner of the screen, to view picture in picture (an infrared image is displayed on top of the visual image) for easy comparison of images.
5. The reference image menu will appear.

6. Slide with your finger on the screen to control the opacity of the reference image.
7. Take a picture with the trigger on the camera.
8. To set status for the picture, click the *No status* button.
9. Select status from the list.
10. To access the inspection list or enter an inspection comment, click *Set status*.
11. To get to the next asset, tap the arrow.

6.4.3 Upload inspection results to Flir Assetlink

When the inspection route is done, click *Summary*. The file is ready to be uploaded to Flir Assetlink.

6.4.3.1 Upload inspection with Wi-Fi

1. Select *Upload to Assetlink*.
2. The camera now uploads the Inspection file (.route) to your Flir Assetlink account. The Inspection file includes the inspection data and images.

6.4.3.2 Upload inspection with USB cable

1. Connect the USB cable from the computer to the camera.
2. Select *Export to device* to save the inspection file (.route) to your local storage
3. Select a location in *Files* to save the .route file to.

6.5 Flir Ignite

6.5.1 Setup

Set up the camera to upload images to Flir Ignite.

If automatic upload is enabled, new images will automatically be uploaded to the Flir Ignite account. You can also upload files manually.

To be able to upload images, connect the camera to the internet and pair the camera with a Flir Ignite account.

6.5.2 Create a Flir Ignite account

- To create a Flir Ignite account, go to https://ignite.flir.com and click *Sign up*.
- Create an Flir Ignite account in the Ignite app when doing the onboarding or at a later time.

  To create an account :

  1. Make sure the camera is connected to the internet, see section 6.3.7.1 *Connect the camera to Wi-Fi*.
  2. Open the *Ignite* app. Click on the toolbar and select *Sign in*.
  3. Create an account for Flir Ignite.

6.5.3 Automatic upload

When automatic upload is enabled, new images are uploaded automatically when the camera is connected to the internet and paired with Flir Ignite.

To enable automatic upload, do the following:

1. Make sure the camera is connected with a Flir Ignite account.
2. Open the Library or the Settings app.
3. Log in to your account and select *Auto upload*.

6.5.4 Manual upload

- Manually upload files and folders from the *Library* app when the camera is paired with a Flir Ignite account and connected to the internet.

6.5.4.1 Upload a file

1. Open the file in the *Library* app.
2. Push the navigation pad or tap the screen to display the top toolbar.
3. On the top toolbar, select ⋮.
4. Select ☁↑.

6.5.4.2 Upload multiple files

1. Go to a folder in the *Library* app.
2. On the top toolbar, select ⋮.
3. Select the files you want to upload.
4. Select ☁↑.

6.5.4.3 Upload folders

1. Go to the top level in the *Library* app.
2. On the top toolbar, select ⋮.
3. Select the folders you want to upload.
4. Select ☁↑.

6.5.5 Access Flir Ignite

Access Flir Ignite from a browser on your desktop, tablet, mobile device or through the Flir Ignite app.

To access Flir Ignite, go to https://ignite.flir.com.

For more information, refer to the Flir Ignite user manual.

6.6 Flir Apps

Flir Apps provides access to both Flir-developed and third-party apps. Users can explore, try, and install apps directly from the platform.

- Apps may be free or require a separate purchase or subscription.
- A red dot will show on the Flir Apps icon in the app overview when updates are available for installed apps.
- Each app contains a details page with information such as app description, version information, supported languages, etc.

6.6.1 Download an app

1. Open Flir Apps.
2. Click *SIGN IN OR CREATE ACCOUNT* (for first time users).
   2.1. Enter e-mail address and password.
   2.2. Click *Sign in*.
3. Select the app to download.
4. Click *INSTALL*.

6.6.2 Update an app

1. In the app overview, a red dot indicates apps with available updates.
2. Open Flir Apps.
3. Select the app with an available update.
4. Click *INSTALL*.

6.7 Third-party apps

- These apps may require a separate user account and may be free or paid.

  Note Payment and account setup for third-party apps are handled outside of the Flir Apps platform, following each app's own instructions.

To download third-party apps, see section 6.6.1 *Download an app*.

7 Maintenance and cleaning

7.1 Calibration

We recommend that you send in the camera for calibration once a year. Contact your local sales office or contact our Technical Support Center at https://www.flir.com/support for instructions on where to send the camera.

7.2 Update the Camera

To take advantage of our latest camera firmware, it is important that you keep your camera updated.

There are several ways to update the camera:

- When the camera is connected to the internet, the camera automatically searches for firmware updates. Download and install new firmware versions Over-The-Air (OTA) as they become available, via the *Settings* app.
- When an update is available, there will be a notification (a red dot) in the *Settings* app or go to *Update* and search for updates.

7.2.1 Update the camera Over-The-Air (OTA)

Note When a new firmware version is available, there will be a notification (a red dot) in the *Settings* app.

To install a new firmware version, do the following:

1. Make sure the camera battery is fully charged.
2. Make sure the camera has Wi-Fi enabled and is connected to the internet.
3. Select the *Settings* app > *Device settings* > *Update*.
4. If an update is available, select *Download* to download the installation package.
5. Select *Install* to start the installation.
6. When the installation is completed, the camera will automatically restart.

7.3 Clean the camera

7.3.1 Camera housing, cables, and other items

Use one of these liquids:

- Warm water
- A weak detergent solution

Equipment:

- A soft cloth

Follow this procedure:

1. Soak the cloth in the liquid.
2. Twist the cloth to remove excess liquid.
3. Clean the part with the cloth.

⚠ **CAUTION**
Do not apply solvents or similar liquids to the camera, the cables, or other items. This can cause damage.

7.3.2 Infrared lens

Use one of these liquids:

- A commercial lens cleaning liquid with more than 30% isopropyl alcohol.
- 96% ethyl alcohol (C_2H_5OH).

Equipment:

- Cotton wool

CAUTION

If you use a lens cleaning cloth it must be dry. Do not use a lens cleaning cloth with the liquids that are listed above. These liquids can cause material on the lens cleaning cloth to become loose. This material can have an unwanted effect on the surface of the lens.

Follow this procedure:

1. Soak the cotton wool in the liquid.
2. Twist the cotton wool to remove excess liquid.
3. Clean the lens one time only and discard the cotton wool.

WARNING

Make sure that you read all applicable MSDS (Material Safety Data Sheets) and warning labels on containers before you use a liquid: the liquids can be dangerous.

CAUTION

- Be careful when you clean the infrared lens. The lens has a delicate anti-reflective coating.
- Do not clean the infrared lens too vigorously. This can damage the anti-reflective coating.

8 Disposal of electronic waste

Waste of Electrical and Electronic Equipment (WEEE) poses a risk to human health and the environment when not disposed of properly. This product should not be discarded as unsorted waste but must be sent to separate collection facilities for recovery and recycling. More information is available from the relevant local authority.

8.1 Battery removal

Before disposal of the camera, remove the battery.

Before you discard the battery, apply insulation to the terminals with adhesive tape or equivalent materials.

9 Disclaimers

9.1 Legal disclaimer

For warranty terms, refer to https://www.flir.com/warranty.

9.2 Export controls

Products described herein may be subject to export regulations.

This document does not contain export-controlled information.

9.3 Patents

This product is protected by patents, design patents, patents pending, or design patents pending. Refer to the FLIR Systems' patent registry:

https://www.flir.com/patentnotices

9.4 Quality assurance

The Quality Management System under which these products are developed and manufactured has been certified in accordance with the ISO 9001 standard.

These products are developed in accordance to ISO 27001 standard.

Flir Systems is committed to a policy of continuous development; therefore we reserve the right to make changes and improvements on any of the products without prior notice.

9.5 Third-party licenses

Information about third-party licenses is available in the user interface of the product.

9.6 Usage statistics

FLIR Systems reserves the right to gather anonymous usage statistics to help maintain and improve the quality of our software and services.

9.7 Copyright

© 2025 FLIR Systems, Inc. All rights reserved worldwide. No parts of the software including source code may be reproduced, transmitted, transcribed or translated into any language or computer language in any form or by any means, electronic, magnetic, optical, manual or otherwise, without the prior written permission of FLIR Systems.

The documentation must not, in whole or part, be copied, photocopied, reproduced, translated or transmitted to any electronic medium or machine readable form without prior consent, in writing, from FLIR Systems.

Names and marks appearing on the products 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.

dataTec
Mess- und Prüftechnik. Die Experten.

Ihr Ansprechpartner / Your Partner:

dataTec AG
E-Mail: info@datatec.eu
>>> www.datatec.eu

FLIR® PREMIUM PARTNER

Website
http://www.flir.com

Customer support
http://support.flir.com

Copyright
© 2025, FLIR Systems, Inc. All rights reserved worldwide.

Disclaimer
Specifications subject to change without further notice. 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.

Publ. No.: T810653
Release: AA
Commit: 107527
Head: 107527
Language: en-US
Modified: 2025-09-08
Formatted: 2025-09-08