

P/N: 78503-0101

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Website

<http://www.flir.com>

Customer support

<http://support.flir.com>

Disclaimer

Specifications subject to change without further notice. Camera models and accessories subject to regional market considerations. License procedures may apply. Products described herein may be subject to US Export Regulations. Please refer to exportquestions@flir.com with any questions.



| | |
|---------------------------------|--|
| Imaging and optical data | |
| Infrared resolution | 320 × 240 pixels |
| UltraMax (super-resolution) | In FLIR Tools |
| NETD | <ul style="list-style-type: none"> • <30 mK, 42° @ +30°C (+86°F) • <40 mK, 24° @ +30°C (+86°F) • <50 mK, 14° @ +30°C (+86°F) |
| Field of view | <ul style="list-style-type: none"> • 42° × 32° • 24° × 18° • 14° × 10° |
| Minimum focus distance | <ul style="list-style-type: none"> • 0.15 m (0.49 ft.), 42° • 0.15 m (0.49 ft.), 24° • 1.0 m (3.28 ft.), 14° |
| Minimum focus distance with MSX | <ul style="list-style-type: none"> • 0.65 m (2.13 ft.), 42° • 0.5 m (1.64 ft.), 24° • 1.0 m (3.28 ft.), 14° |
| Focal length | <ul style="list-style-type: none"> • 10 mm (0.39 in.), 42° • 17 mm (0.67 in.), 24° • 29 mm (1.41 in.), 14° |
| Spatial resolution (IFOV) | <ul style="list-style-type: none"> • 2.41 mrad/pixel, 42° • 1.31 mrad/pixel, 24° • 0.75 mrad/pixel, 14° |
| Additional lenses | <ul style="list-style-type: none"> • 42° • 14° |
| Lens identification | Automatic |
| f number | <ul style="list-style-type: none"> • 1.1, 42° • 1.3, 24° • 1.5, 14° |
| Image frequency | 30 Hz |

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| Imaging and optical data | |
|---|--|
| Focus | <ul style="list-style-type: none"> • Continuous LDM • One-shot LDM • One-shot contrast • Manual |
| Field of view match | Yes |
| Digital zoom | 1–4× continuous |
| Detector data | |
| Focal plane array/spectral range | Uncooled microbolometer/7.5–14 μm |
| Detector pitch | 17 μm |
| Image presentation | |
| Resolution | 640 × 480 pixels (VGA) |
| Surface brightness (cd/m ²) | 400 |
| Screen size | 4 in. |
| Viewing angle | 80° |
| Color depth (bits) | 24 |
| Aspect ratio | 4:3 |
| Auto-rotation | Yes |
| Touchscreen | Optically bonded PCAP |
| Display technology | IPS |
| Cover glass material | Dragontrail® |
| Programmable buttons | 1 |
| Viewfinder | No |
| Image adjustment | <ul style="list-style-type: none"> • Automatic • Automatic maximum • Automatic minimum • Manual |
| Image presentation modes | |
| Infrared image | Yes |
| Visual image | Yes |
| Thermal fusion | No |
| MSX | Yes |
| Picture in Picture | Resizable and movable |
| Gallery | Yes |
| Measurement | |
| Object temperature range | <ul style="list-style-type: none"> • –20 to +120°C (–4 to 248°F) • 0–650°C (32–1200°F) • Optional 300–1000°C (572–1830°F) |
| Accuracy | ±2°C (±3.6°F) or ±2% of reading, for ambient temperature 15–35°C (59–95°F) and object temperature above 0°C (32°F) |

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| Measurement analysis | |
|-------------------------------------|---|
| Spotmeter | 1 in live mode |
| Area | 1 in live mode |
| Automatic hot/cold detection | Auto-maximum/minimum markers within area |
| Color alarm (isotherm) | <ul style="list-style-type: none"> • Above • Below • Interval • Condensation • Insulation |
| Measurement presets | <ul style="list-style-type: none"> • No measurements • Center spot • Hot spot • Cold spot • User preset 1 • User preset 2 |
| Difference temperature | Yes |
| Reference temperature | Yes |
| Emissivity correction | Yes: variable from 0.01 to 1.0 or selected from materials list |
| Measurement corrections | Yes |
| External optics/windows correction | Yes |
| Screening | 0.,5°C (0.9°F) accuracy @ 37°C (98.6°F) with reference |
| Alarm | |
| Moisture alarm | Yes |
| Insulation alarm | Yes |
| Measurement alarm | Audible/visual alarms above/below |
| Set-up | |
| Color palettes | <ul style="list-style-type: none"> • Iron • Gray • Rainbow • Arctic • Lava • Rainbow HC |
| Setup commands | Local adaptation of units, language, date and time formats |
| Languages | 21 |
| Service functions | |
| Camera software update | Use PC software FLIR Tools |
| Storage of images | |
| Storage media | Removable memory; SD card (8 GB) |
| Time lapse (periodic image storage) | No |
| Remote control operation | <ul style="list-style-type: none"> • Using FLIR Tools (using USB cable) • FLIR Tools Mobile (over Wi-Fi) |
| Image file format | Standard JPEG, measurement data included. Infrared-only mode |

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| Image annotations | |
|---|---|
| Voice | 60 seconds built-in microphone and speaker (and via Bluetooth) on still images and video |
| Text | Text from predefined list or soft keyboard on touchscreen |
| Visual image annotation | Yes |
| Image sketch | Yes: on infrared images only |
| Sketch | From touchscreen |
| METERLiNK | Yes, several readings |
| Compass | Yes |
| Laser distance meter information | Yes |
| Area measurement information | No |
| GPS | Yes: location data automatically added to every still image and the first frame in video from built-in GPS |
| Video recording in camera | |
| Radiometric infrared-video recording | RTRR (.csq) |
| Non-radiometric infrared-video recording | H.264 to memory card |
| Visual video recording | H.264 to memory card |
| Video streaming | |
| Radiometric infrared-video streaming (compressed) | Yes: over UVC or RTSP (Wi-Fi) |
| Non-radiometric video streaming (compressed: IR, MSX, visual, Picture in Picture) | <ul style="list-style-type: none"> • H.264 (AVC) over RTSP (Wi-Fi) • MPEG4 over RTSP (Wi-Fi) • MJPEG over UVC and RTSP (Wi-Fi) |
| Visual video streaming | Yes |
| Digital camera | |
| Resolution | 5 MP with LED light |
| Focus | Fixed |
| Field of view | 53° x 41° |
| Video lamp | Built-in LED light |
| Laser pointer | |
| Laser alignment | Position is automatically displayed on the infrared image |
| Laser distance meter | Activated by a dedicated button |
| Laser | Class 2, 0.05–40 m (1.6–131 ft.) ±1% of measured distance |
| Data communication interfaces | |
| Interfaces | USB 2.0, Bluetooth, Wi-Fi, DisplayPort |
| Bluetooth | Communication with headset and external sensors |
| Wi-Fi | Peer to peer (<i>ad hoc</i>) or infrastructure (network) |

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| Data communication interfaces | |
|---------------------------------------|--|
| Audio | Microphone and speaker for voice annotation of images |
| USB | USB Type-C: data transfer/video/power |
| USB standard | USB 2.0 High Speed |
| Video out | DisplayPort |
| Video connector type | DisplayPort over USB Type-C |
| Power system | |
| Battery type | Rechargeable Li-ion battery |
| Battery voltage | 3.6 V |
| Battery operating time | > 2.5 hours at 25°C (68°F) and typical use |
| Charging system | In camera (AC adapter or 12 V from a vehicle) or two-bay charger |
| Charging time (using two-bay charger) | 2.5 hours to 90% capacity with charging status indicated by LEDs |
| Charging temperature | 0°C to +45°C (+32°F to +113°F), except for the Korean market: +10°C to +45°C (+50°F to +113°F) |
| External power operation | AC adapter 90–260 V AC, 50/60 Hz, or 12 V from a vehicle (cable with standard plug—optional) |
| Power management | Automatic shut-down and sleep mode |
| Environmental data | |
| Operating temperature range | –15 to +50°C (5–122°F) |
| Storage temperature range | –40 to +70°C (–40 to +158°F) |
| Humidity (operating and storage) | IEC 60068-2-30/24 hours/95% relative humidity 25–40°C (77–104°F)/two cycles |
| EMC | <ul style="list-style-type: none"> • ETSI EN 301 489-1 (radio) • ETSI EN 301 489-17 • EN 61000-6-2 (immunity) • EN 61000-6-3 (emission) • FCC 47 CFR Part 15 Class B (emission) |
| Radio spectrum | <ul style="list-style-type: none"> • ETSI EN 300 328 • FCC Part 15.249 • RSS-247 Issue 2 |
| Encapsulation | IP 54 (IEC 60529) |
| Shock | 25g (IEC 60068-2-27) |
| Vibration | 2g (IEC 60068-2-6) |
| Drop | Designed for 2 m (6.6 ft.) |
| Safety | EN/UL/CSA/PSE 60950-1 |
| Physical data | |
| Weight (including battery) | 1 kg (2.2 lb.) |
| Size (L × W × H) | 278.4 × 116.1 × 113.1 mm (11.0 × 4.6 × 4.4 in.) |
| Battery weight | 140 g (4.9 oz.) |
| Battery size (L × W × H) | 150 × 46 × 55 mm (5.9 × 1.8 × 2.2 in.) |

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| | |
|-----------------------------|--|
| Physical data | |
| Tripod mounting | UNC ¼"-20 |
| Housing material | PCABS with TPE, magnesium |
| Color | Black |
| Warranty and service | |
| Warranty | http://www.flir.com/warranty/ |
| Shipping information | |
| Packaging, type | Cardboard box |
| Packaging, contents | <ul style="list-style-type: none"> • Accessory Box I: <ul style="list-style-type: none"> ◦ Power supply for battery charger ◦ Power supply, 15 W/3 A ◦ Printed documentation ◦ SD card (8 GB) ◦ USB 2.0 A to USB Type-C cable, 1.0 m ◦ USB Type-C to HDMI adapter, standard specification UH311 ◦ USB Type-C to USB Type-C cable (USB 2.0 standard), 1.0 m • Accessory box II: <ul style="list-style-type: none"> ◦ Accessory box III: <ul style="list-style-type: none"> – Front protection fastener – Hand strap bracket, left – Hand strap bracket, right – Lens cap strap – Screws – Torx T10 wrench ◦ Front protection ◦ Hand strap ◦ Lanyard strap, battery charger ◦ Lanyard strap, camera ◦ Lens cleaning cloth ◦ Wrist strap • Battery (2 ea) • Battery charger • Hard transport case • Infrared camera with lens • Lens cap, front • Lens cap, front and rear (only for extra lenses) |
| Packaging, weight | |
| Packaging, size | 500 × 190 × 370 mm (19.7 × 7.5 × 14.6 in.) |
| EAN-13 | 4743254002661 |
| UPC-12 | 845188013899 |
| Country of origin | Estonia |

Supplies & accessories:

- T197771ACC; Bluetooth Headset
- T199425ACC; Battery charger
- T911705ACC; USB Type-C to USB Type-C cable (USB 2.0 standard), 1.0 m
- T911632ACC; USB Type-C to HDMI adapter, standard specification UH311
- T911631ACC; USB 2.0 A to USB Type-C cable, 0.9 m
- T911630ACC; Power supply for camera, 15 W/3 A



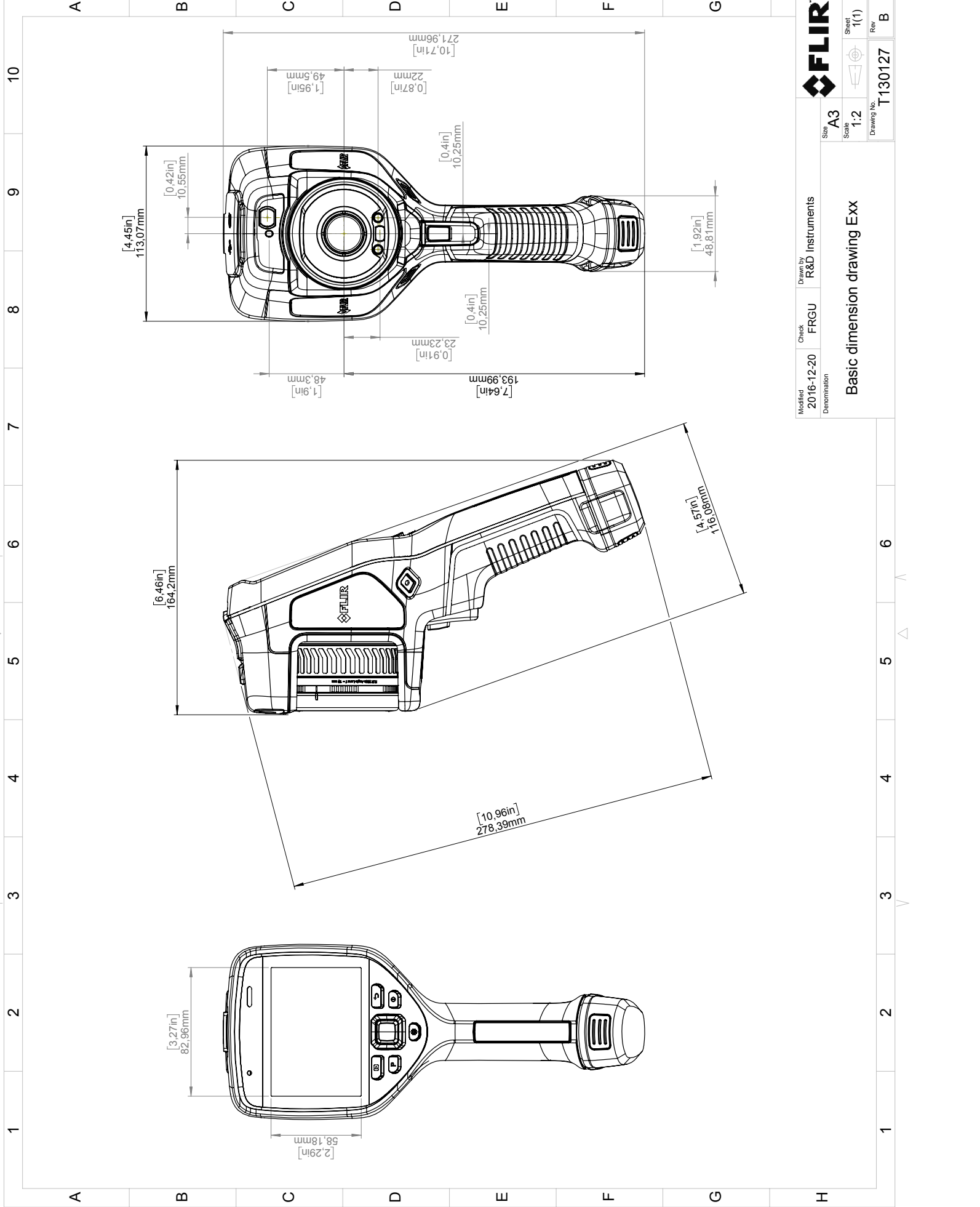
FLIR E75 42°

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- T199346ACC; Hard transport case
- T911633ACC; Power supply for battery charger
- T199330ACC; Battery
- T199557ACC; Accessory Box II
- T199559; High temperature option, +300 to +1000°C
- T198583; FLIR Tools+ (download card incl. license key)
- T198696; FLIR ResearchIR Max 4 (hardware sec. dev.)
- T199013; FLIR ResearchIR Max 4 (printed license key)
- T199043; FLIR ResearchIR Max 4 Upgrade (printed license key)



| | | | | |
|--|----------------------|--|-------------------------------|-----------------|
| | | Size A3 | Sheet 1(1) | Rev B |
| Modified 2016-12-20 | Check FRGU | Drawn by R&D Instruments | Drawing No. T130127 | |
| Denomination Basic dimension drawing Exx | | Scale 1:2 | | |

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July 3, 2017 Täby, Sweden

AQ320222

CE Declaration of Conformity – EU Declaration of Conformity

Product: FLIR E75 / E85 / 95 -series

Name and address of the manufacturer:

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

This declaration of conformity is issued under the sole responsibility of the manufacturer.
The object of the declaration: FLIR E75 / E85 / 95 -series (Product Model Name FLIR-E7850).
The object of the declaration described above is in conformity with the relevant Union harmonisation legislation:

Directives:

| | | |
|-----------|------------|---|
| Directive | 2014/30/EU | Electromagnetic Compatibility |
| Directive | 2014/35/EU | Low Voltage Directive (Power Supply) |
| Directive | 2012/19/EU | Waste electrical and electric equipment |
| Directive | 1999/5/EC | Radio and Telecommunications Terminal Equipment |

Standards:

| | | |
|---------------------------|---|---|
| Emission: | EN 61000-6-3/A1:2011 | Electromagnetic Compatibility Generic standards – Emission |
| Immunity: | EN 61000-6-2:2005 Draft EN 301489-1:2016 v2.1.0 EN 301489-17:2012 v2.2.1 | Electromagnetic Compatibility Generic standards – Immunity |
| Laser: | EN 60825-1 | Safety of laser products |
| Radio: | ETSI EN 300 328 | Harmonized EN covering essential requirements of the R&TTE Directive |
| Safety (Battery charger): | IEC 60950-1:2005+A1 EN 60950- 1:2006+A11:2009+A1:2010+A2:2013+AC:2011+A12:2011 | Information technology equipment |

FLIR Systems AB
Quality Assurance

Lea Dabiri
Quality Manager