

P/N: 62103-1701

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Document identity

Publ. No.: 62103-1701

Release: -

Commit: 15419

Language: en-US

Modified: 2014-06-19

Formatted: 2014-06-22

Corporate Headquarters

FLIR Systems, Inc.

27700 SW Parkway Ave.

Wilsonville, OR 97070

USA

Telephone: +1-503-498-3547

Website

<http://www.flir.com>

Customer support

<http://support.flir.com>

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General description

The FLIR T440bx is a camera that offers good performance at an affordable price. Excellent ergonomics, a walk-up-and-use interface, and easy communication make the T440bx a truly user-friendly camera for the beginner or advanced user.

Benefits:

- Excellent ergonomics: The T440bx has a tiltable IR unit and auto-orientation, which make it easy to capture images from any angle comfortably. The small size and low weight of the camera facilitate its use over a full working day.
- Affordable performance: The T440bx camera is equipped with the innovative 'Multi Spectral Dynamic Imaging (MSX)' feature, which produces an image richer in detail than ever before. You can highlight objects of interest, in both the IR and the visual image, by sketching or adding predefined stamps directly on the camera's touch screen.
- Extensive communication options: The Wi-Fi connectivity of the T440bx allows you to connect to smart phones or tablet PCs, for the wireless transfer of images or the remote control of the camera. The Bluetooth-based Meterlink function transfers readings from external measurement instruments to the IR image.

Imaging and optical data

IR resolution	320 × 240 pixels
Thermal sensitivity/NETD	<45 mK @ +30°C (+86°F)
Field of view (FOV)	25° × 19°
Minimum focus distance	0.4 m (1.31 ft.)
Focal length	18 mm (0.7 in.)
Spatial resolution (IFOV)	1.36 mrad
F-number	1.3
Image frequency	60 Hz
Focus	Automatic (one shot) or manual
Digital zoom	2×, 4× and 8×

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Detector data	
Detector type	Focal plane array (FPA), uncooled microbolometer
Spectral range	7.5–13 μm
Image presentation	
Display	Touch screen, 3.5 in. LCD, 320 \times 240 pixels
Image adjustment	Auto or manual
Image presentation modes	
Image modes	Thermal, Thermal MSX, Picture in Picture, Digital Camera
Multi Spectral Dynamic Imaging (MSX)	Thermal image with enhanced detail presentation
Picture in Picture	Resizable and movable IR area on visual image
Measurement	
Object temperature range	–20°C to +120°C (–4°F to +248°F) 0°C to +650°C (+32°F to +1202°F)
Accuracy	$\pm 2^\circ\text{C}$ ($\pm 3.6^\circ\text{F}$) or 2%, whichever is greater, at 25°C (77°F) nominal.
Measurement analysis	
Spotmeter	5
Area	5 areas (boxes or circles) with max./min./average
Profile	1 line profile with max/min temp.
Automatic hot/cold detection	Auto hot or cold spotmeter markers within area and profile
Measurement presets	No measurements, Center spot, Hot spot, Cold spot, User preset 1, User preset 2
Difference temperature	Delta temperature between measurement functions or reference temperature
Reference temperature	Manually set using difference temperature
Emissivity correction	Variable from 0.01 to 1.0 or selected from materials list
Measurement corrections	Emissivity, reflected temperature, relative humidity, atmospheric temperature, object distance, external IR window compensation
Alarm	
Measurement function alarm	Audible/visual alarms (above/below) on any selected measurement function
Screening	Difference temperature alarm, audible
Humidity alarm	1 humidity alarm, including dew point alarm
Insulation alarm	1 insulation alarm
Set-up	
Set-up commands	Define user presets, Save options, Programmable button, Reset options, Set up camera, Wi-Fi, Compass, Bluetooth, Language, Time & units, Camera information

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Storage of images	
Image storage	Standard JPEG, including digital photo and measurement data, on memory card
Image storage mode	Simultaneous storage of thermal and digital photo in same JPEG. Optional to store digital photo as separate JPEG.
Image annotations	
Voice	60 seconds (via Bluetooth) stored with the image
Text	Add table. Select between predefined templates or create your own in FLIR Tools
Sketch	Draw on thermal/digital photo or add predefined stamps
Meterlink	Wireless connection (Bluetooth®) to: FLIR meters with MeterLink
Report generation	<ul style="list-style-type: none"> Instant Report (*.pdf file) in camera including IR and visual images Separate PC software with extensive report generation
Geographic Information System	
Compass	Camera direction automatically added to every image
Video recording in camera	
Non-radiometric IR-video recording	MPEG-4 to memory card
Visual video recording	MPEG-4 to memory card
Video streaming	
Radiometric IR-video streaming	Full dynamic to PC using USB or to mobile devices using Wi-Fi.
Non-radiometric IR-video streaming	MPEG-4 using Wi-Fi Uncompressed colorized video using USB
Digital camera	
Built-in digital camera	3.1 Mpixel with LED light
Digital camera, focus	Fixed focus
Digital camera, FOV	Adapts to the IR lens
Built-in digital lens data	FOV 53° × 41°
Digital camera, aspect ratio	4:3
Laser pointer	
Laser	Activated by dedicated button
Laser alignment	Position is automatic displayed on the IR image
Laser classification	Class 2
Laser type	Semiconductor AlGaInP diode laser
Laser power	1 mW
Laser wavelength	635 nm (red)

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Data communication interfaces	
Bluetooth	Communication with headset and external sensors
Wi-Fi	Peer to peer (adhoc) or infrastructure (network)
SD Card	One card slot for removable SD memory cards
Audio	Microphone headset via Bluetooth for voice annotation of images
USB	
USB	<ul style="list-style-type: none"> • USB-A: Connect external USB device • USB Mini-B: Data transfer to and from PC / Uncompressed colorized video
USB, standard	USB Mini-B: 2.0
USB, connector type	<ul style="list-style-type: none"> • USB-A connector • USB Mini-B connector
Composite video	
Video out	Composite
Video, standard	CVBS (ITU-R-BT.470 PAL/SMPTE 170M NTSC)
Video, connector type	4-pole 3.5 mm jack
Radio	
Wi-Fi	Standard: 802.11 b/g Frequency range: 2412–2462 MHz Max output power: 15 dBm
Bluetooth	Frequency range: 2402–2480 MHz
Antenna	Internal
Power system	
Battery type	Rechargeable Li Ion battery
Battery voltage	3.7 V
Battery capacity	4.4 Ah, at +20°C to +25°C (+68°F to +77°F)
Battery operating time	Approx. 4 hours at +25°C (+77°F) ambient temperature and typical use
Charging system	In camera (AC adapter or 12 V from a vehicle) or 2-bay charger
Charging time	4 h to 90% capacity, charging status indicated by LED's
Power management	Automatic shutdown and sleep mode (user selectable)
AC operation	AC adapter, 90–260 VAC input, 12 V output to camera
Start-up time from sleep mode	Instant on
Environmental data	
Operating temperature range	–15°C to +50°C (+5°F to +122°F)
Storage temperature range	–40°C to +70°C (–40°F to +158°F)

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Environmental data	
Humidity (operating and storage)	IEC 60068-2-30/24 h 95% relative humidity +25° C to +40°C (+77°F to +104°F) / 2 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 B (Emission) • ICES-003
Radio spectrum	<ul style="list-style-type: none"> • ETSI EN 300 328 • FCC Part 15.247 • RSS-210
Magnetic fields	EN 61 000-4-8, Test level 5 for continuous field (Severe industrial environment)
Encapsulation	IP 54 (IEC 60529)
Bump	25 g (IEC 60068-2-29)
Vibration	2 g (IEC 60068-2-6)
Safety	EN/UL/CSA/PSE 60950-1

Physical data	
Camera weight, incl. battery	0.880 kg (1.94 lb.)
Camera size (L x W x H)	106 x 201 x 125 mm (4.2 x 7.9 x 4.9 in.), with built-in lens pointing forward
Tripod mounting	UNC ¼"-20 (adapter needed)
Material	Polycarbonate + acrylonitrile butadiene styrene (PC-ABS) Thixomold magnesium Thermoplastic elastomer (TPE)
Color	Graphite gray and black

Shipping information	
<ul style="list-style-type: none"> • Infrared camera with lens • Battery (2 ea.) • Battery charger • Bluetooth headset • Camera lens cap • Calibration certificate • FLIR Tools download card • User documentation CD-ROM • Printed documentation • Hard transport case • Memory card • Neckstrap • Power supply, incl. multi-plugs • Sunshield • USB cable • Video cable 	
EAN-13	7332558006535
UPC-12	845188006884
Country of origin	Sweden

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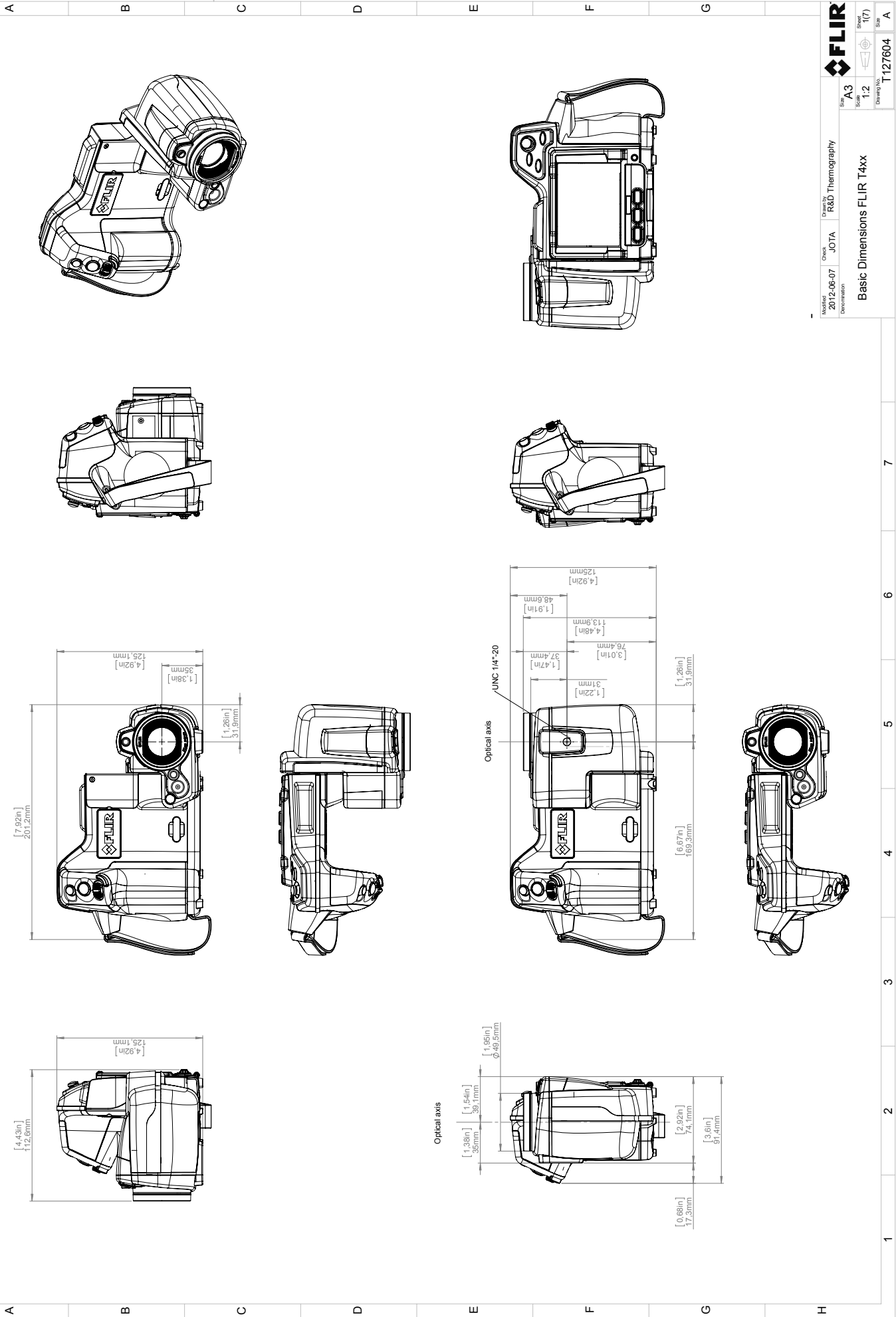
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Supplies & accessories:

- 1196961; IR lens, f = 30 mm, 15° incl. case
- 1196960; IR lens, f = 10 mm, 45° incl. case
- T197215; Close-up 4x (100 µm) incl. case
- T197214; Close-up 2x (50 µm) incl. case
- T197408; IR lens, 76 mm (6°) with case and mounting support for T/B-200/400
- T197412; IR lens, 4 mm (90°) with case and mounting support for T/B2xx-4xx
- T197000; High temp. option +1200°C/+2192°F for FLIR T/B2xx to T/B4xx and A3xx, A3xxf, A3xxpt, A3xxsc series
- T910814; Power supply, incl. multi plugs
- T197667; Battery package
- T197650; 2-bay battery charger, incl. power supply with multi plugs
- 1196398ACC; Battery
- T911230ACC; Memory card SDHC 4 GB
- 1910423; USB cable Std A <-> Mini-B
- T198509; Cigarette lighter adapter kit, 12 VDC, 1.2 m/3.9 ft.
- 1910582ACC; Video cable
- T198370ACC; Hard transport case for FLIR T/B2xx-4xx
- T198495; Pouch for FLIR T6xx and T4xx series
- 1124545; Pouch
- T198493; Sun shield
- T198499; Neck strap
- T197771ACC; Bluetooth Headset
- T910972; EX845; Clamp meter + IR therm TRMS 1000A AC/DC
- T910973; MO297; Moisture meter, pinless with memory
- T911093; Tool belt
- T198586; FLIR Reporter Professional (license only)
- T198584; FLIR Tools
- T198583; FLIR Tools+ (license only)
- DSW-10000; FLIR IR Camera Player
- APP-10002; FLIR Tools Mobile (Android Application)
- APP-10004; FLIR Tools (MacOS Application)
- T127597L5; FLIR ResearchIR 3 (license only), 5 user licenses
- T127597L10; FLIR ResearchIR 3 (license only), 10 user licenses
- T127598L5; FLIR ResearchIR 3 Max (license only), 5 user licenses
- T127598L10; FLIR ResearchIR 3 Max (license only), 10 user licenses
- T198696; FLIR ResearchIR Max 4
- T198697; FLIR ResearchIR Max + HSDR 4
- T198579; FLIR ResearchIR 3 (CD)
- T198578; FLIR ResearchIR 3 (license only)
- T198575; FLIR ResearchIR 3 Max (CD)
- T198574; FLIR ResearchIR 3 Max (license only)
- T198292; Upgrade previous version to FLIR ResearchIR 3
- T198291; Upgrade previous version to FLIR ResearchIR 3 Max
- T198290; Upgrade FLIR ResearchIR 3 to FLIR ResearchIR 3 Max

Camera with built-in IR lens f=18 mm (25°)



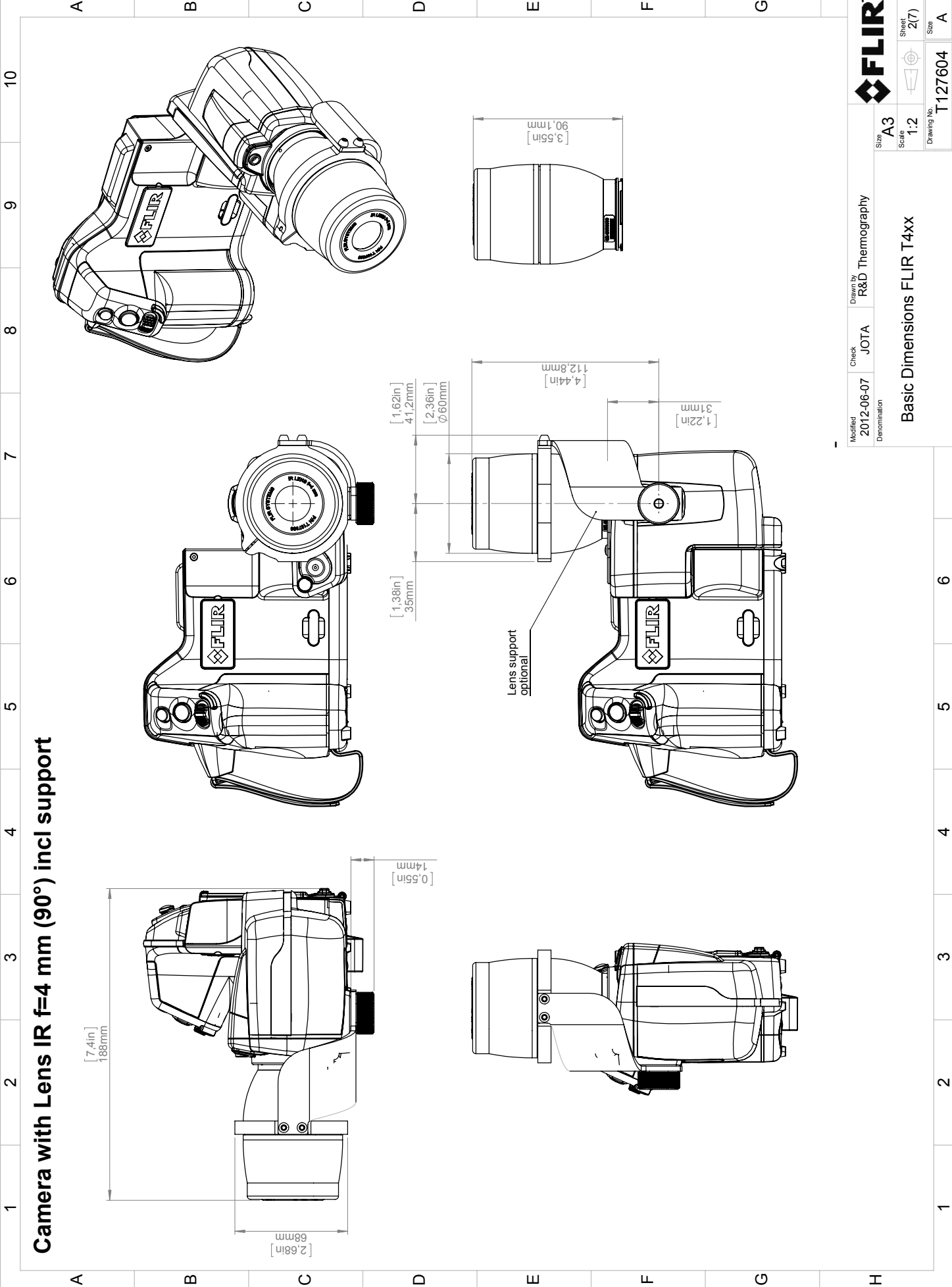
FLIR

Model: 2012-06-07
 Check: JOTA
 Drawn by: R&D Thermography
 Sheet: A3
 Scale: 1:2
 Sheet: 1(7)
 Drawing No.: T127604

Basic Dimensions FLIR T4xx

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



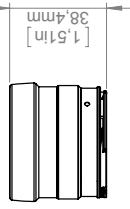
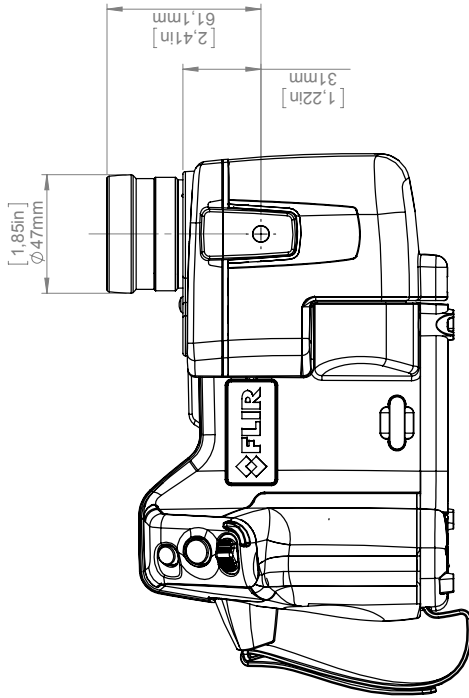
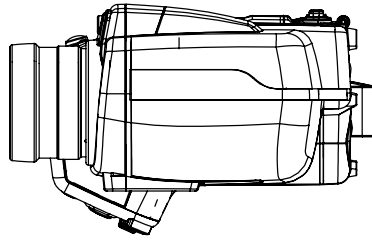
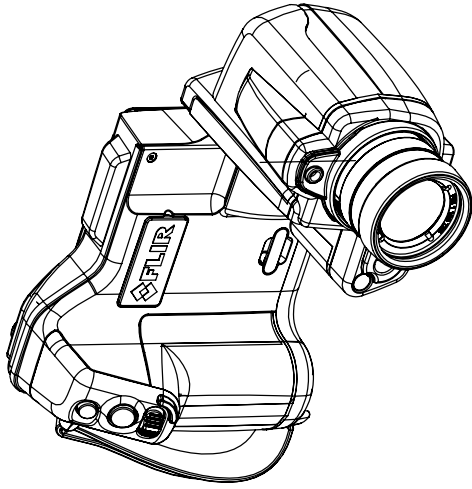
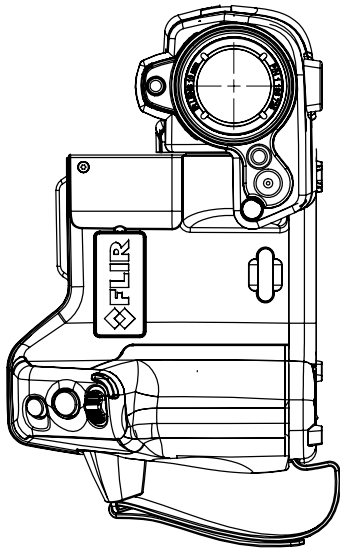
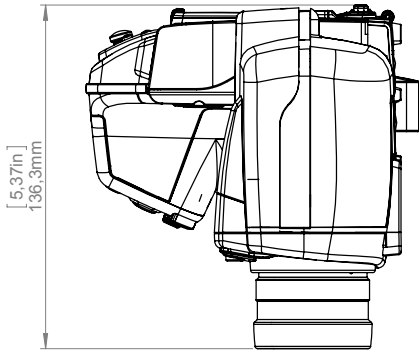
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						Drawing No.	T1127604
						Size	A

Basic Dimensions FLIR T4xx



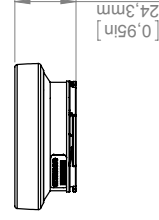
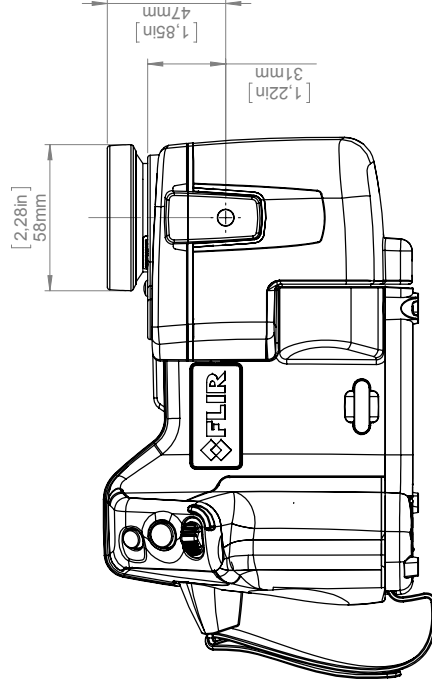
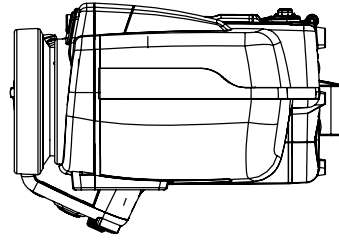
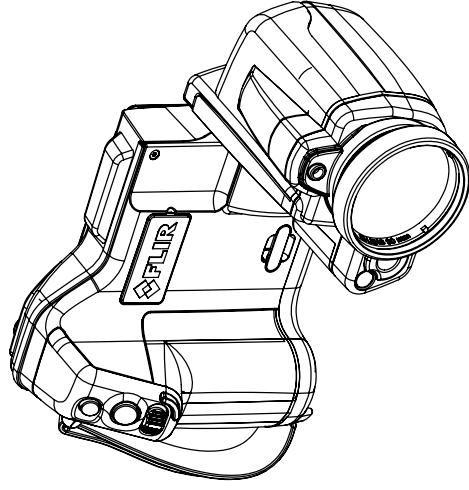
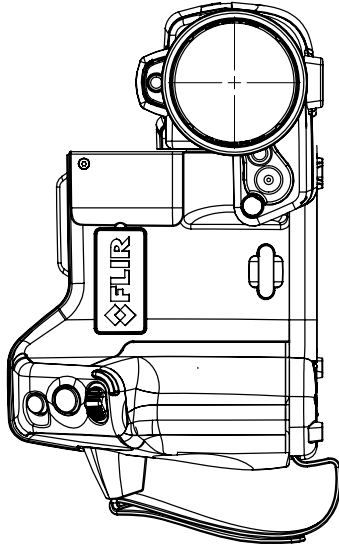
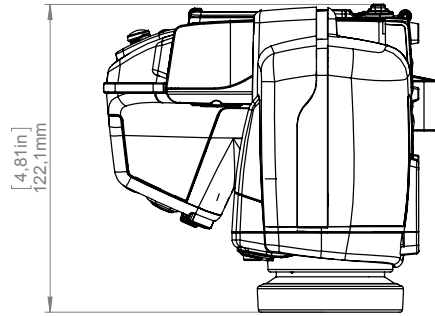
Camera with Lens IR f=10 mm (45°)



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Drawing No. T127604		Size A	
Basic Dimensions FLIR T4xx			

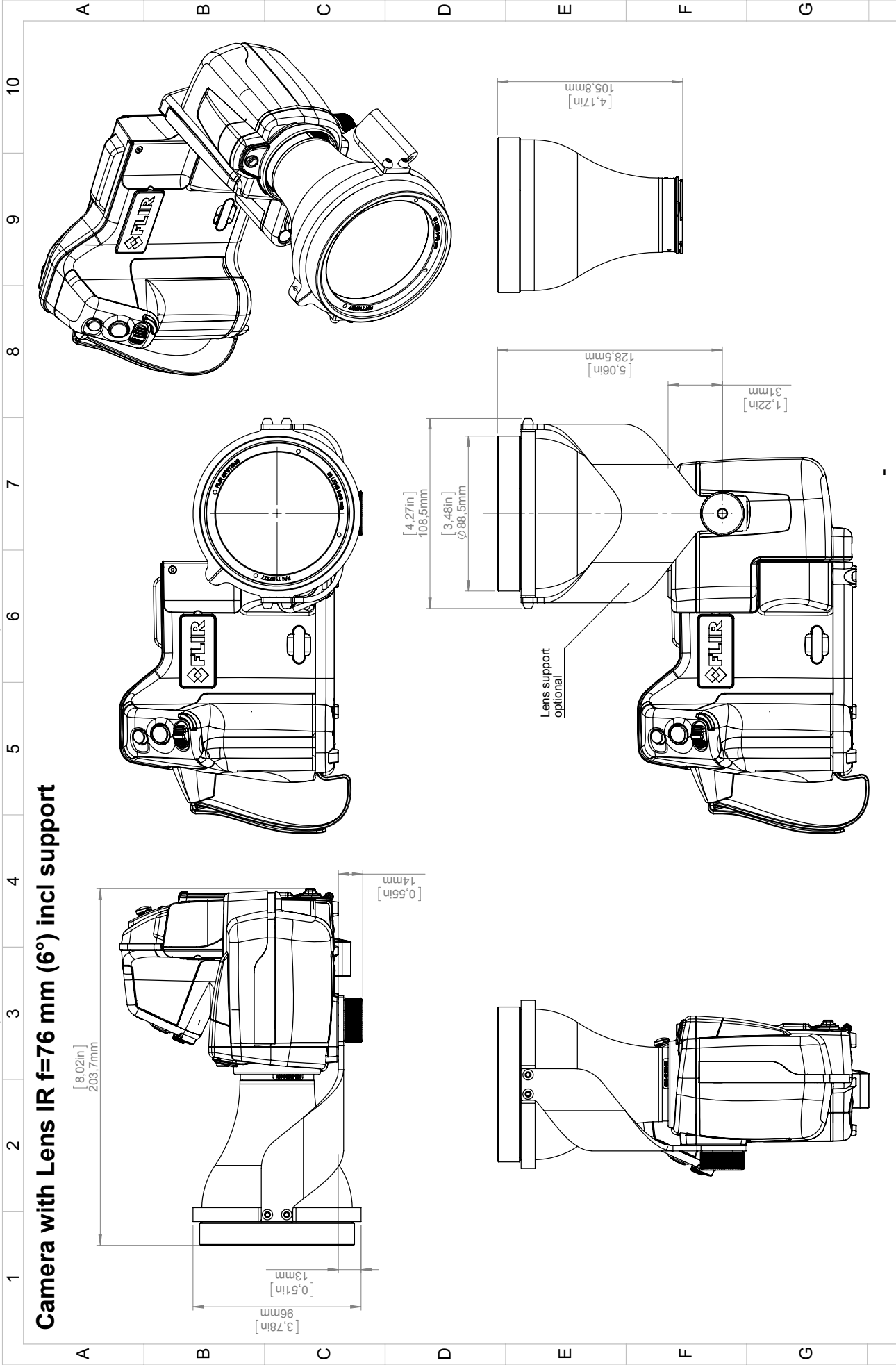
Camera with Lens IR f=30 mm (15°)



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Basic Dimensions FLIR T4xx			Drawing No. T127604
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Camera with Lens IR f=76 mm (6°) incl support

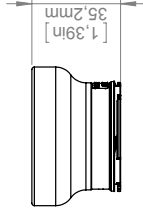
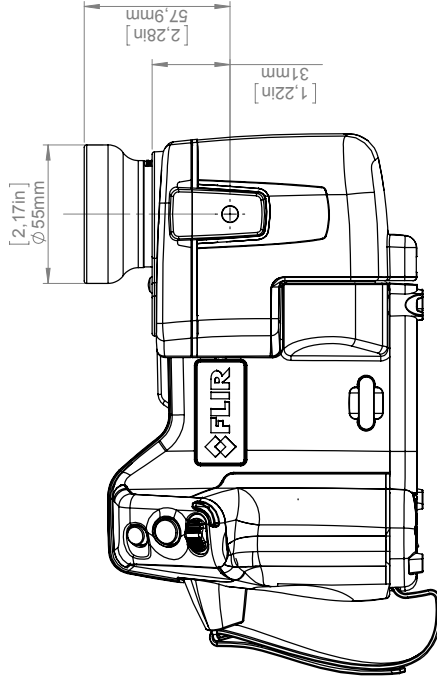
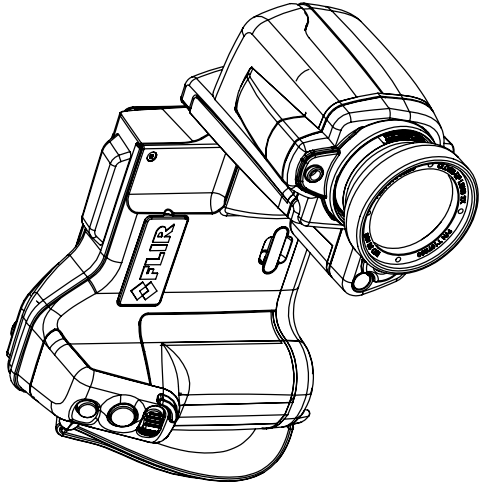
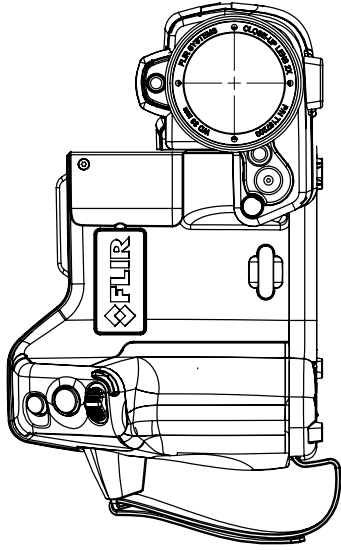
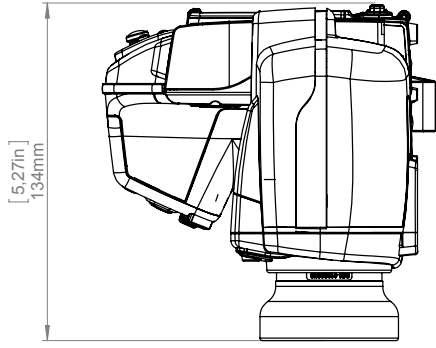


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Basic Dimensions FLIR T4xx

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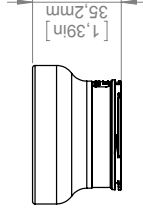
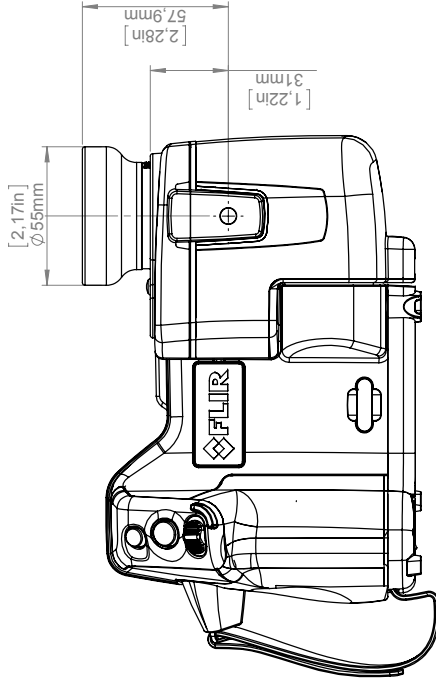
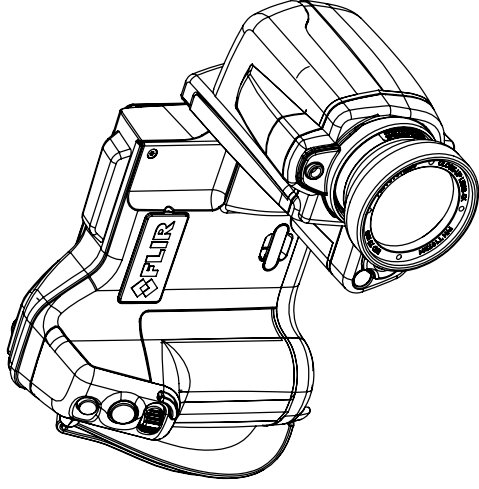
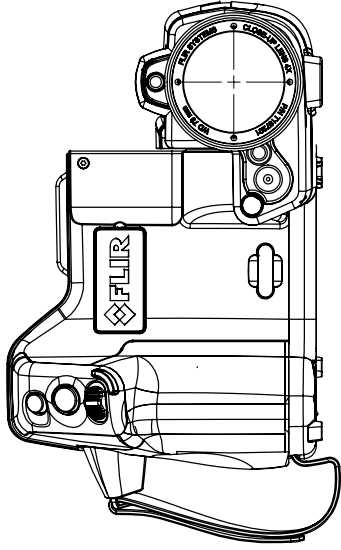
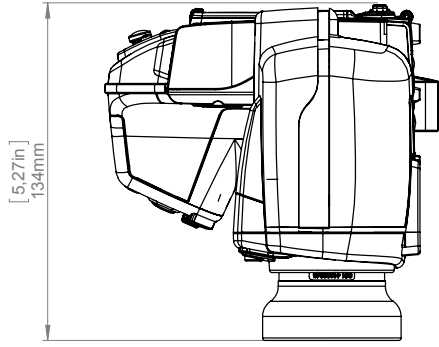
Camera with Close-up lens 2X (50 μm)



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Denomination Basic Dimensions FLIR T4xx			Sheet 6(7)
			Scale 1:2
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			Size A

Camera with Close-up lens 4X (100 μm)



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