

P/N: 89206-0101

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Document identity

Publ. No.: 89206-0101

Commit: 61564

Language:

Modified: 2019-12-03

Formatted: 2019-12-03

Website

<http://www.flir.com>

Customer support

<http://support.flir.com>

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Imaging and optical data	
Infrared resolution	640 × 480 pixels
UltraMax (super-resolution) ¹	Yes
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° • Macro mode 50 μm as option, 24°
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"> • 1.2 mrad/pixel, 42° • 0.7 mrad/pixel, 24° • 0.4 mrad/pixel, 14°
Available extra lenses	<ul style="list-style-type: none"> • 6° (service calibration required)
Lens identification	Automatic
f number	<ul style="list-style-type: none"> • 1.1, 42° • 1.3, 24° • 1.5, 14°
Image frequency	30 Hz

1. Not supported when using macro.

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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		1–8× continuous
Detector data		
Focal plane array/spectral range		Uncooled microbolometer/7.5–14 μm
Detector pitch		12 μm
Image presentation		
Resolution (display)		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		2
Viewfinder		Yes
Image adjustment		<ul style="list-style-type: none"> • Automatic • Automatic maximum • Automatic minimum • Manual
Image presentation modes		
Infrared image		Yes
Visual image		Yes
MSX		Yes
Picture in picture		Resizable and movable
Gallery		Yes
Measurement		
Camera temperature range	Object temperature range	Accuracy — for ambient temperature 15 to 35°C (59 to 95°F)
–20 to 120°C (–4 to 248°F)	–20 to 100°C (–4 to 212°F)	±2°C (±3.6°F)
	100 to 120°C (212 to 248°F)	±2%
0 to 650°C (32 to 1202°F)	0 to 100°C (32 to 212°F)	±2°C (±3.6°F)
	100 to 650°C (212 to 1202°F)	±2%
300 to 2000°C (572 to 3632°F) ²	300 to 2000°C (572 to 3632°F) ²	±2%

2. For 42° lens; 300 to 1800°C.

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Measurement analysis	
Spotmeter	3 in live mode
Area	3 in live mode
Automatic hot/cold detection	Automatic maximum/minimum markers within area
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 at 37°C (98.6°F) with reference
Alarm	
Color alarm (isotherm)	<ul style="list-style-type: none"> Above Below Interval Condensation (moisture/humidity/dewpoint) Insulation
Measurement function alarm	Audible/visual alarms (above/below) on any selected measurement function
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	Using USB cable or SD card
Storage of images	
Storage media	Removable memory: SD card
Time lapse (Periodic image storage)	10 seconds to 24 hours (infrared)
Remote control operation	Using USB cable or Wi-Fi
Image file format	Standard JPEG, measurement data included. Infrared-only mode.
Image annotations	
Voice	60 seconds with 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



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Image annotations	
Image sketch	Yes: on infrared only
Sketch	From touchscreen
METERLiNK	Wireless connection (Bluetooth) to: FLIR meters with METERLiNK
Laser distance meter information	Yes
Area measurement information	Yes
GPS	Location data automatically added to every still image and 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)	Over UVC
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° × 41°
Video lamp	Built-in LED light
Laser pointer	
Laser alignment	Position is automatically displayed on the infrared image
Laser distance meter	Activated by dedicated button
Laser	Class 2, 0.05–40 m (0.16–131 ft.) ±1% of measured distance
Data communication interfaces	
Interfaces	USB 2.0, Bluetooth, Wi-Fi, DisplayPort
METERLiNK/Bluetooth	Communication with headset and external sensors
Wi-Fi	Peer to peer (ad hoc) or infrastructure (network)
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



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Radio	
Operating frequency	Bluetooth + EDR/LE: 2402–2480 MHz WLAN 2.4 GHz: 2412–2462 MHz WLAN 5 GHz: 5150–5350 MHz (DFS: only slave mode) Note that frequency band 5150–5350 MHz is for indoor use only, see national regulations.
RF output (EIRP)	Bluetooth + EDR/LE: < 10 dBm WLAN: < 17 dBm
Antenna	Integrated PIFA antenna (gain: maximum 1.4 dBi)
Power system	
Battery type	Rechargeable Li-ion battery
Battery voltage	3.6 V
Battery operating time	> 4 hours at 25°C (77°F) with typical use
Charging system	In camera (AC adapter or 12 V from a vehicle) or two-bay charger
Charging time (using two-bay charger)	3.5 h to 90% capacity, on-screen indicator
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)/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 Class B (emission)
Radio spectrum	<ul style="list-style-type: none"> ETSI EN 300 228 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)
Safety	EN/UL/CSA/PSE 60950-1
Physical data	
Weight (including battery)	1.4 kg (3.1 lb.)
Size (L × W × H)	<ul style="list-style-type: none"> Lens vertical: 164.3 × 201.3 × 84.1 mm (6.5 × 7.9 × 3.3 in.) Lens horizontal: 164.3 × 201.3 × 167.3 mm (6.5 × 7.9 × 6.6 in.)
Battery weight	195 g (6.89 oz.)
Battery size (L × W × H)	59 × 66 × 94 mm (2.3 × 2.6 × 3.7 in.)
Tripod mounting	UNC ¼"-20

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Physical data	
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 ◦ USB Type-C to HDMI and PD adapter ◦ USB Type-C to USB Type-C cable (USB 2.0 standard) • Accessory box II: <ul style="list-style-type: none"> ◦ Lens cap strap ◦ Lens cleaning cloth ◦ Neck strap ◦ Small eyecup • Battery (2 ea) • Battery charger • Extra lens, 14° • Extra lens, 42° • FLIR Thermal Studio Pro license card (1 year subscription) • Hard transport case • Infrared camera with lens • Lens cap, front • Lens cap, front and rear (only for extra lenses)
Packaging, weight	6.5 kg (14.3 lb.)
Packaging, size	500 × 190 × 370 mm (19.7 × 7.5 × 14.6 in.)
EAN-13	7332558024973
UPC-12	845188020729
Country of origin	Sweden

Supplies & accessories:

- T199300ACC; Battery
- T199610; Battery charger
- T199347ACC; Hard transport case for FLIR T8xx, T5xx, and GF7x series
- T300030; Option, No radio
- T130531ACC; Large eyecup
- T300188; Hand strap and neck strap
- T199609; Option, Macro mode 50/71/101 μm for 24°
- T850105; FLIR Inspection Route - Camera Option
- T130337ACC; Calibration target
- T199588; IR lens, f=29 mm (14°) with case
- T199589; IR lens, f=17 mm (24°) with case
- T199590; IR lens, f=10 mm (42°) with case
- T300095; IR lens, f=70 mm (6°) with case
- T911630ACC; Power supply for camera, 15 W/3 A
- T911631ACC; USB 2.0 A to USB Type-C cable, 0.9 m
- T911633ACC; Power supply for battery charger
- T911705ACC; USB Type-C to USB Type-C cable (USB 2.0 standard), 1.0 m
- T911706ACC; Car adapter 12 V



FLIR T860 24° + 14° & 42°

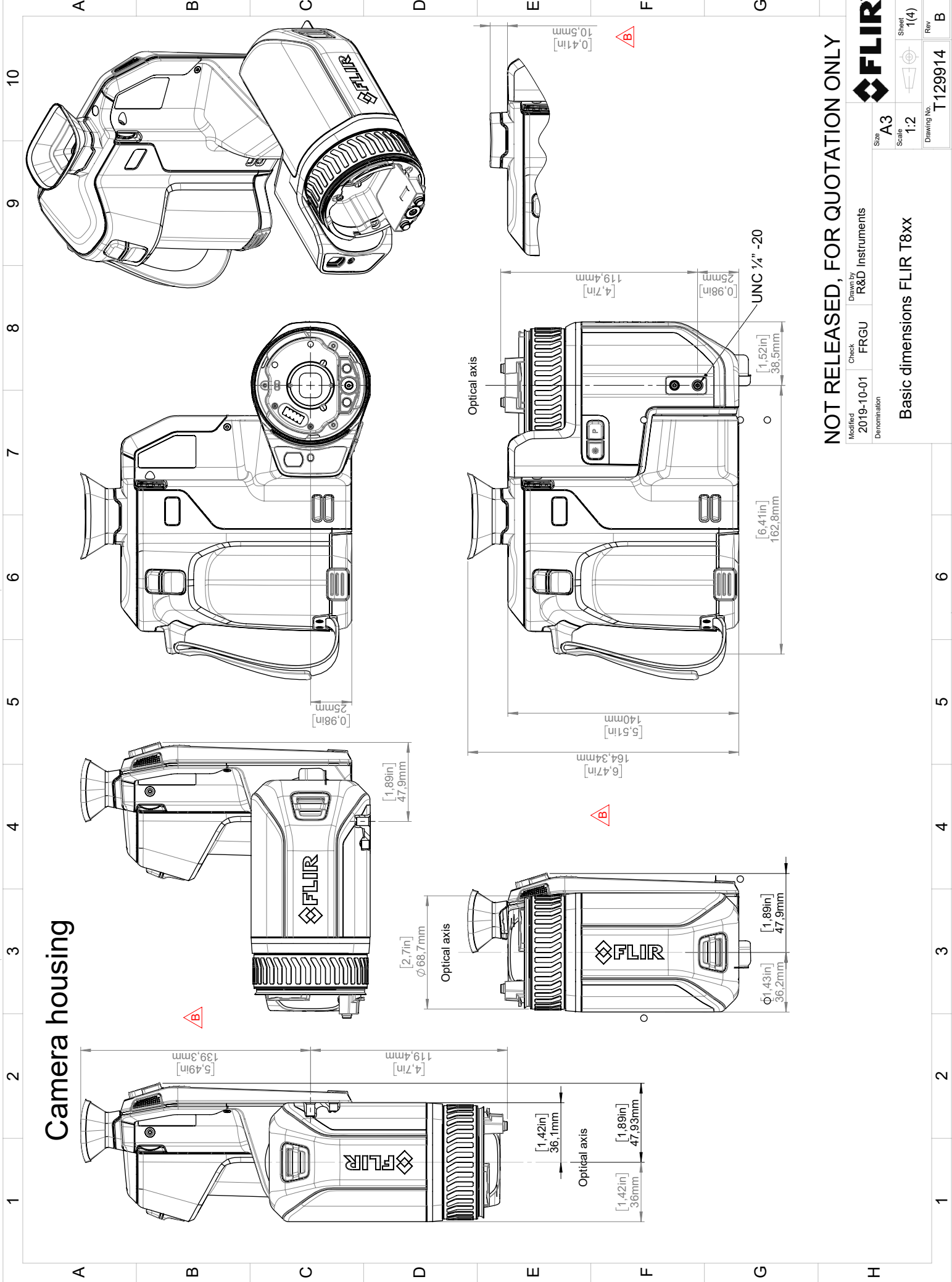
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- T911845ACC; USB Type-C to HDMI and PD adapter
- T911846ACC; USB 2.0 A to USB Type-C with Power supply
- T198495; Pouch
- T197771ACC; Bluetooth Headset
- T300244; FLIR Route Creator Plugin for FLIR Thermal Studio Pro, 1 Year Subscription
- T300243; FLIR Thermal Studio Pro, 1 Year Subscription
- T300083; FLIR Thermal Studio Pro, Perpetual license
- T300258; FLIR Thermal Studio, Perpetual license
- 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)
- INST-EW-0155; Extended Warranty 1 Year for A3xxf, T540, T600/bx, T610, T840, T860
- INST-EWGM-0165; Premium Service Package for T540, T600/bx, T610, T840, T860
- INST-GM-0150; General Maintenance Package for T540, T6xx, T840, T860

Camera housing



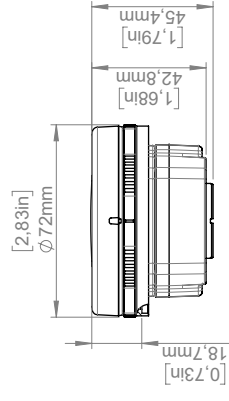
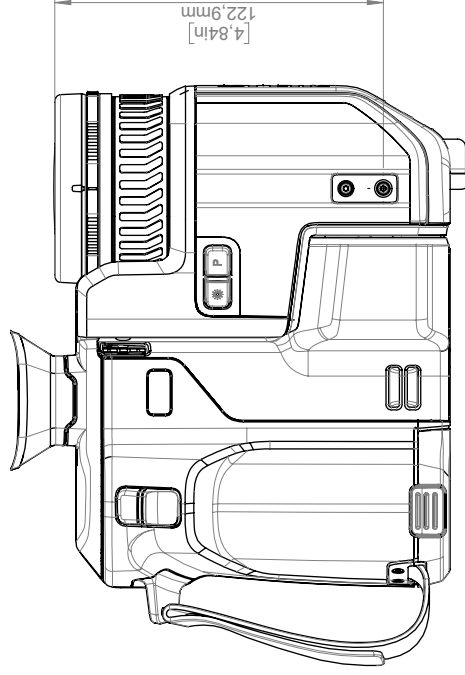
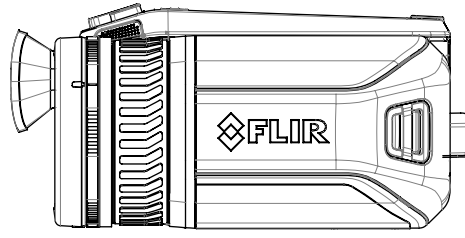
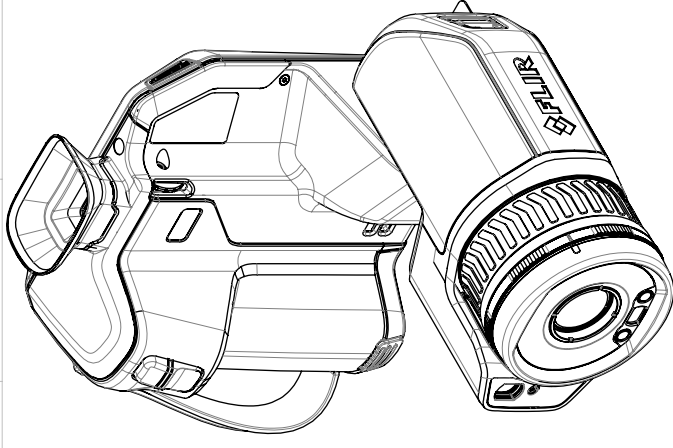
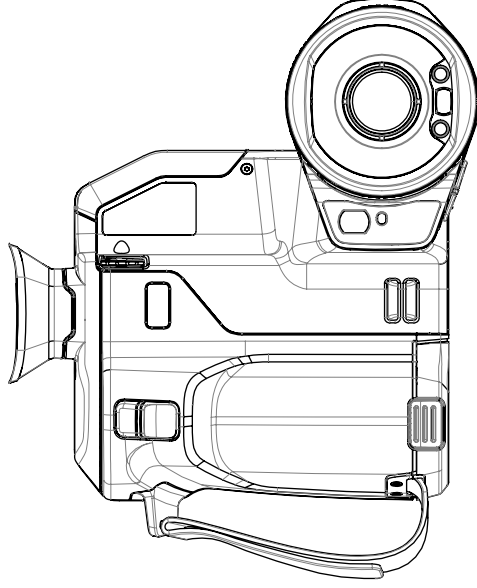
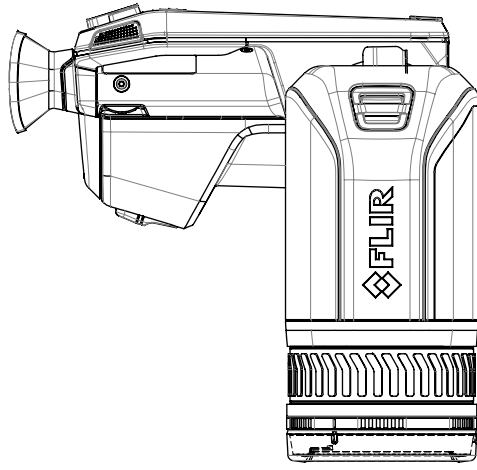
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Modified	2019-10-01	Check	FRGU	Drawn by	R&D Instruments	Size	A3	Sheet	1(4)
Denomination	Basic dimensions FLIR T8xx			Scale	1:2	Rev	T129914	B	



Camera with Lens IR f=10mm (42°)
 Camera with Lens IR f=17mm (24°)
 Camera with Lens IR f=29mm (14°)



[4.84in]
122.9mm

For additional dimensions see page 1

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 Denomination
 Check FRGU
 Drawn by R&D Instruments



Size A3

Basic dimensions FLIR T8xx

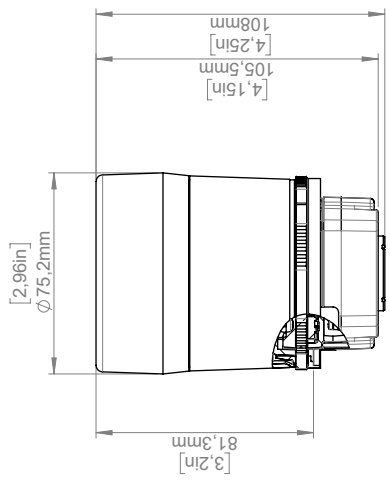
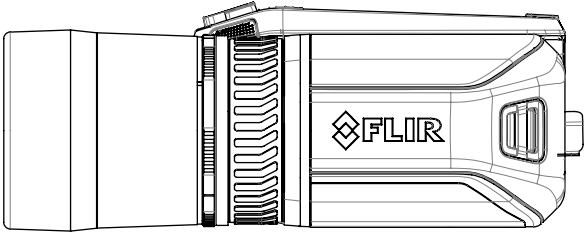
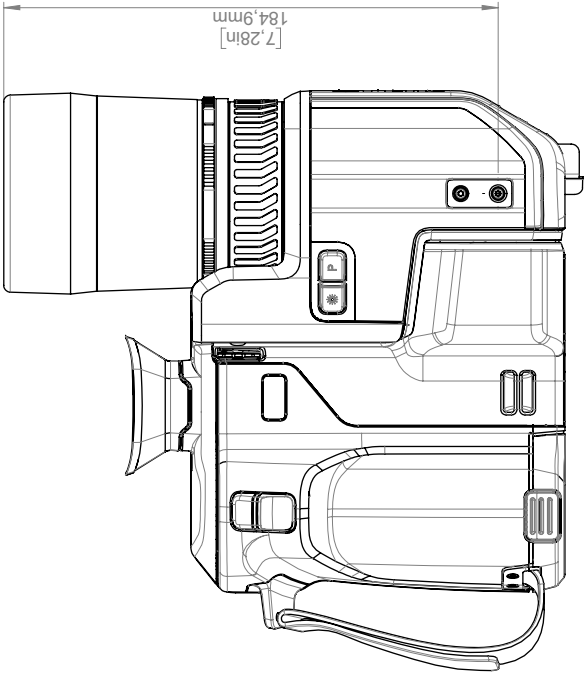
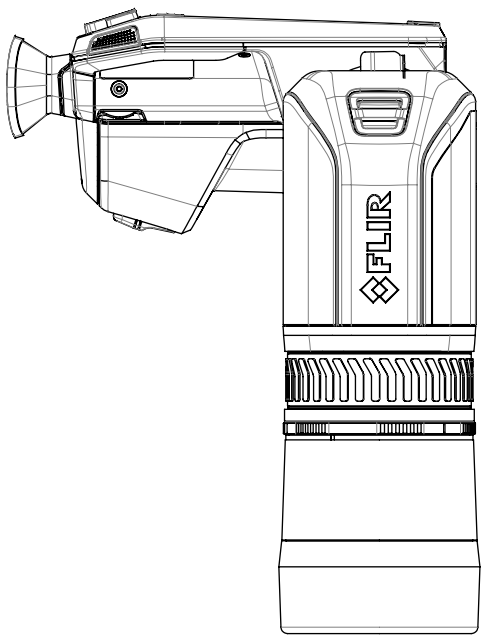
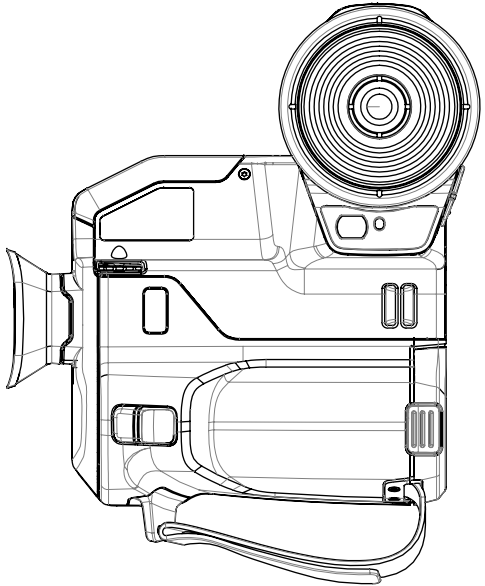
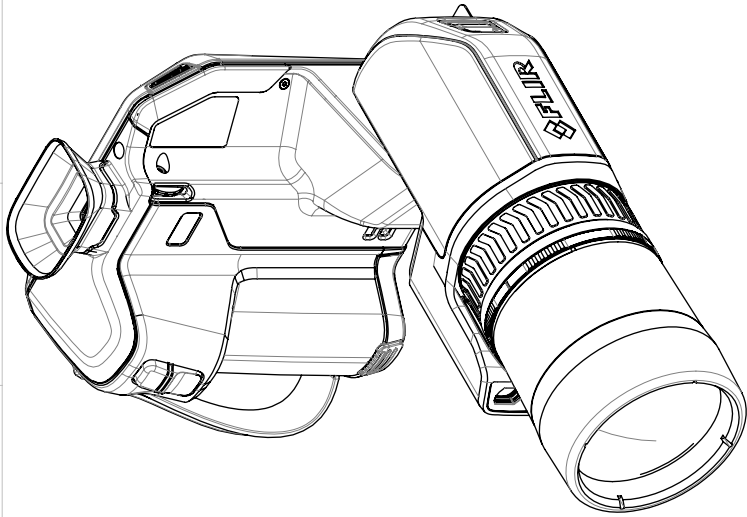
Scale 1:5

Sheet Z(4)

Drawing No. T129914

Rev. B

Camera with Lens IR f=70mm (6°)



For additional dimensions see page 1
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Denomination Basic dimensions FLIR T8xx			Scale 1:5	Rev T129914
			Drawing No.	B



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February 2, 2019 Täby, Sweden

AQ320246

CE Declaration of Conformity – EU Declaration of Conformity

Product: FLIR T5XX-, T8XX- and GF7X-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 T5XX-, T8XX- and GF7X-series (Product Model Name FLIR-T8210).
 The object of the declaration described above is in conformity with the relevant Union harmonisation legislation:

Directives:

Directive	2012/19/EU	Waste electrical and electric equipment
Directive	2014/53/EU	Radio Equipment Directive (RED)
Directive	1999/519/EC	Limitation of exposure to electromagnetic fields (SAR)
Directive	2011/65/EU	RoHS and 2015/830/EU

Standards:

EMC Radio:	ETSI EN 301 489-1 + -17	EMC for radio, broadband data transmission
Emission:	EN 61000-6-3/A1:2011	EMC – Generic standards
Immunity:	EN 61000-6-2:2005	Electromagnetic Compability Generic
	EN 301489-1:2016 v2.1.0	ERM – EMC for radio equipment
	EN 301489-17:2012 v2.2.1	ERM – EMC Wideband data
Laser:	EN 60825-1	Safety of laser products
Radio:	ETSI EN 300 328 v2.1.1	Harmonized EN covering essential requirements of the R&TTE Directive
	ETSI EN 301 893 v.2.1.1	5GHz WLAN
	EN 303 413 v1.1.0	Radio Spectrum Efficiency (gps)
SAR:	EN 50566:2013/AC:2014	Handheld and body mounted wireless
Safety:	EN 62209-02:2010	Handheld and body mounted wireless
	IEC 60950-1:2005+A1:2009+	Information technology equipment
	A2:2013 EN 60950-1:2006+	
RoHS:	A11:2009+AC:2011+A12:2011	
	EN 50581:2012	Technical documentation

FLIR Systems AB
 Quality Assurance



Lea Dabiri
 Quality Manager