

## SPECIFICATIONS

### OVERVIEW

<b>Accuracy</b>	$\pm 2^{\circ}\text{C}$ ( $\pm 3.6^{\circ}\text{F}$ ) or $\pm 2\%$ of reading for ambient temperature $15^{\circ}\text{C}$ to $35^{\circ}\text{C}$ ( $59^{\circ}\text{F}$ to $95^{\circ}\text{F}$ ) and object temperature above $0^{\circ}\text{C}$ ( $32^{\circ}\text{F}$ )
<b>Alarm</b>	Moisture alarm, insulation alarm, measurement alarms
<b>Color alarm (isotherm)</b>	Above/below/interval/condensation/insulation
<b>Difference Temperature</b>	Yes
<b>Display Technology</b>	IPS
<b>Field of view (FOV)</b>	$24^{\circ} \times 18^{\circ}$ (17 mm lens)
<b>Focal Length</b>	17 mm (0.67 in.), $24^{\circ}$
<b>Housing material</b>	PCABS with TPE, magnesium
<b>IR Resolution</b>	320 x 240
<b>Laser</b>	Class 2, 0.05–40 m (1.6–131 ft.) $\pm 1\%$ of measured distance
<b>Object Temperature Range</b>	$-20$ to $+120^{\circ}\text{C}$ ( $-4$ to $248^{\circ}\text{F}$ ) • $0$ – $650^{\circ}\text{C}$ ( $32$ – $1200^{\circ}\text{F}$ ) • Optional $300$ – $1000^{\circ}\text{C}$ ( $572$ – $1830^{\circ}\text{F}$ )
<b>Packaging Size</b>	500 x 190 x 370 mm (19.7 x 7.5 x 14.6 in.)
<b>Programmable Buttons</b>	1
<b>Resolution</b>	$640 \times 480$ pixels (VGA)
<b>Screening</b>	$0.5^{\circ}\text{C}$ ( $0.9^{\circ}\text{F}$ ) accuracy @ $37^{\circ}\text{C}$ ( $98.6^{\circ}\text{F}$ ) with reference
<b>Thermal Sensitivity/NETD</b>	$<40$ mK, $24^{\circ}$ @ $+30^{\circ}\text{C}$ ( $+86^{\circ}\text{F}$ )
<b>Warranty</b>	<a href="http://www.flir.com/warranty/">http://www.flir.com/warranty/</a>
<b>Compass GPS</b>	Yes; automatic GPS image tagging
<b>Text</b>	Text from predefined list or soft keyboard on touchscreen

<b>Time Lapse [Infrared]</b>	No
<b>Voice</b>	60 seconds built-in microphone and speaker (and via Bluetooth) on still images and video
<b>Weight &amp; Dimensions (without lens)</b>	1 kg (2.2 lbs), 27.8 x 11.6 x 11.3 cm (11.0 x 4.6 x 4.4 in)

## CONNECTIONS & COMMUNICATIONS

<b>Audio</b>	Microphone and speaker for voice annotation of images
<b>Charging</b>	In camera (AC adapter or 12 V from a vehicle) or two-bay charger
<b>Communication Interfaces</b>	USB 2.0, Bluetooth, Wi-Fi
<b>Remote Control</b>	•Using FLIR Tools (using USB cable) •FLIR Tools Mobile (over Wi-Fi)
<b>Storage Media</b>	Removable SD card (8 GB)
<b>USB</b>	USB Type-C: data transfer/video/power
<b>USB - Standard</b>	USB 2.0 High Speed
<b>Video Out</b>	DisplayPort over USB Type-C
<b>METERLiNK</b>	Wireless connection (Bluetooth) to: FLIR meters with METERLiNK
<b>WiFi</b>	Peer to peer (ad hoc) or infrastructure (network)
<b>Setup Commands</b>	Local adaptation of units, language, date and time formats

## ENVIRONMENTAL

<b>Drop</b>	Designed for 2 m (6.6 ft.)
<b>EMC</b>	•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)
<b>Emissivity Correction</b>	Yes: variable from 0.01 to 1.0 or selected from materials list
<b>Humidity (Operating and Storage)</b>	IEC 60068-2-30/24 hours/95% relative humidity 25–40°C (77–104°F)/two cycles

<b>Operating Temperature Range</b>	-15°C to 50°C (5°F to 122°F)
<b>Radio Spectrum</b>	•ETSI EN 300 328 •FCC Part 15.249 •RSS-247 Issue 2
<b>Safety</b>	EN/UL/CSA/PSE 60950-1
<b>Storage Temperature Range</b>	-40°C to 70°C (-40°F to 158°F)
<b>Tripod Mounting</b>	UNC 1/4"-20
<b>Shock &amp; Vibration &amp; Encapsulation</b>	25 g / IEC 60068-2-27, 2 g / IEC 60068-2-6, IP 54 /IEC 60529; EN/UL/CSA/PSE 60950-1

## IMAGING & OPTICAL

<b>Additional lenses</b>	•42° •14°
<b>Aspect ratio</b>	4:3
<b>Auto Rotation</b>	Yes
<b>Camera software update</b>	Use PC software FLIR Tools
<b>Color</b>	Black
<b>Color depth (bits)</b>	24
<b>Color palettes</b>	Iron, Gray, Rainbow, Arctic, Lava, Rainbow HC
<b>Detector Type and Pitch</b>	Uncooled microbolometer, 17 µm
<b>Digital Camera</b>	5 MP, 53° x 41° FOV
<b>Digital Zoom</b>	1-4x continuous
<b>f-number</b>	1.3, 24°
<b>Field of view match</b>	Yes
<b>Focus</b>	Continuous, one-shot laser distance meter (LDM), one-shot contrast, manual
<b>Gallery</b>	Yes
<b>Image Adjustment</b>	•Automatic •Automatic maximum •Automatic minimum

•Manual

<b>Image Frequency</b>	30 Hz
<b>Image Modes</b>	Infrared, visual, MSX®, Picture-in-Picture
<b>Image Sketch</b>	Yes: on infrared images only
<b>Infrared Image</b>	Yes
<b>Lens Identification</b>	Automatic
<b>Minimum Focus Distance</b>	0.15 m (0.49 ft.), 24°
<b>Minimum Focus Distance with MSX</b>	0.5 m (1.64 ft.), 24°
<b>Non-Radiometric IR or Visual Video</b>	H.264 to memory card
<b>Non-radiometric IR video streaming</b>	H.264 or MPEG-4 over Wi-Fi MJPEG over UVC or Wi-Fi
<b>Picture-in-Picture</b>	Resizable and movable
<b>Radiometric IR video recording</b>	Real-time radiometric recording (.csq)
<b>Radiometric IR video streaming</b>	Over UVC
<b>Spatial resolution (IFOV)</b>	1.31 mrad/pixel, 24°
<b>Spectral Range</b>	7.5 - 14.0 $\mu$ m
<b>Viewfinder</b>	No
<b>MSX</b>	Embosses visual details on full resolution thermal image
<b>Sketch</b>	From touchscreen
<b>UltraMax</b>	Super-resolution process quadruples pixel count, activated in FLIR Tools+
<b>Viewing Angle</b>	80°
<b>Visual Video Streaming</b>	Yes

## MEASUREMENT & ANALYSIS

<b>Area</b>	1 in live mode
<b>Area measurement information</b>	No
<b>Languages</b>	21
<b>Measurement Corrections</b>	Yes
<b>Measurement Presets</b>	No measurement, center spot, hot spot, cold spot, User Preset 1, User Preset 2
<b>Reference Temperature</b>	Yes
<b>Spot Meter</b>	3 in live mode
<b>Laser Distance Measurement</b>	Yes, on-screen
<b>Automatic hot &amp; cold detection</b>	Auto-maximum/minimum markers within area

## METER DATA

<b>Cover Glass Material</b>	Dragontrail®
<b>Display</b>	4", 640 x 480 optically-bonded PCAP touchscreen, with 400 cd/m <sup>2</sup> surface brightness

## POWER

<b>Battery Life (Operating)</b>	> 2.5 hours at 25°C (68°F) and typical use
<b>Battery operating time</b>	Approx. 2.5 hours at 25°C (77°F) ambient temperature and typical use
<b>Battery size (L x W x H)</b>	150 × 46 × 55 mm (5.9 × 1.8 × 2.2 in.)
<b>Battery Type</b>	Li-ion battery, charged in camera or on separate charger
<b>Battery voltage</b>	3.6 V
<b>Battery weight</b>	140 g (4.9 oz.)

<b>Charging Temperature</b>	0°C to +45°C (+32°F to +113°F)
<b>Charging Time (using two-bay charger)</b>	2.5 hours to 90% capacity with charging status indicated by LEDs
<b>External Power Operation</b>	AC adapter 90–260 V AC, 50/60 Hz, or 12 V from a vehicle (cable with standard plug—optional)
<b>Power Management</b>	Automatic shut-down and sleep mode

## SHIPPING INFORMATION

<b>Packaging</b>	Infrared camera with lens, battery (2 ea), battery charger with power supply, front lens and light protection, straps (hand and wrist), lanyards, lens caps (front and rear), lens cleaning cloth, 15 W3 A power supply, printed documentation, 8 GB SD card, Torx screwdriver, cables (USB 2.0 A to USB Type-C, USB Type-C to HDMI, USB Type-C to USB Type-C)
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