

FLIR TG165-X

P/N: 87501-0101

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Website

http://www.flir.com

Customer support

http://support.flir.com

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General description

The FLIR TG165-X lets you both see and evaluate the hot and cold spots that can indicate serious issues. Ideal for commercial electrical, facility maintenance applications, the FLIR TG165-X reduces diagnostic time while simplifying repair and maintenance reporting. FLIR MSX enhancement improves image clarity by embossing visual scene details on full thermal images, providing added context to help you accurately target potential faults and troubleshoot repairs. Record images to monitor maintenance history and reassure your customer that problems have been resolved.

Key features:

- See beyond the limitations of single-spot IR thermometers with a 80×60 (4,800 pixel) true thermal imager.
- FLIR patented MSX enhancement adds sharp visual detail to thermal images, making it easier to diagnose problems.
- Measure a wide range of temperatures, from -25°C to 300°C (-13°F to 572°F).
- Multipoint Laser pointer provides a circle to clearly show the area you are measuring.
- Rugged and reliable with an IP54 enclosure that protects the camera from dirt, dust, and oil.

Imaging and optical data	
IR resolution	80 × 60 pixels
Thermal sensitivity/NETD	< 70 mK
Field of view (FOV)	51° × 66°
Minimum focus distance	0.3 m (0.98 ft.)
Distance to spot ratio	24:1
Pseudo dual range	No
Image frequency	8.7 Hz
Focus	Fixed
Detector data	
Focal plane array/spectral range	Uncooled microbolometer/7.5–14 μm
Detector pitch	17 μm
Image presentation	
Display resolution	320 × 240 pixels
Surface brightness (cd/m²)	400
Screen size	2.4 in. portrait
Viewing angle	80°



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Image presentation	
Color depth (bits)	24
Aspect ratio	4:3
Display technology	TFT
Cover glass material	Optical grade silicon
Image adjustment	Automatic
Image modes	MSX (Multi Spectral Dynamic Imaging) Visual with temperature reading
Gallery	Yes
Measurement	
Object temperature range	–25 to 300°C (–13 to 572°F)
Object temperature range and accuracy	-25 to 0°C (-13 to 32°F), acc. ±3°C (±7°F)
(ambient temp. 15 to 35°C (59 to 95°F))	0 to 50°C (32 to 122°F), acc. ±2.5°C (±5°F)
	50 to 100°C (122 to 212°F), acc. ±1.5°C (±3°F)
	100 to 300°C (212 to 572°F), acc. ±2.5%
IR temperature resolution	0.1°C (0.2°F)
Repeatability of reading	±1% of reading or ±1°C (2°F), whichever is greater
Response time	150 ms
IR thermometer measurement	Continuous scanning
Minimum measurement distance	0.26 m (0.85 ft.)
Measurement analysis	
Spotmeter	Center spot on/off
Color palettes	Iron Rainbow Whitehot Blackhot Arctic
	Lava
Set-up	
Set-up Set-up commands	
•	Local adaptation of units, language, date, and time formats Screen brightness (high, medium, low)
Set-up commands	Local adaptation of units, language, date, and time formats Screen brightness (high, medium, low) Gallery, deletion of images Yes: 4 pre-set levels with custom adjustment of
Set-up commands Emissivity correction	Local adaptation of units, language, date, and time formats Screen brightness (high, medium, low) Gallery, deletion of images Yes: 4 pre-set levels with custom adjustment of 0.1–0.99 Czech, Danish, Dutch, English, Finnish, French, German, Greek, Hungarian, Italian, Japanese, Korean, Norwegian, Polish, Portuguese, Russian, simplified Chinese, Spanish, Swedish, traditional
Set-up commands Emissivity correction Languages	Local adaptation of units, language, date, and time formats Screen brightness (high, medium, low) Gallery, deletion of images Yes: 4 pre-set levels with custom adjustment of 0.1–0.99 Czech, Danish, Dutch, English, Finnish, French, German, Greek, Hungarian, Italian, Japanese, Korean, Norwegian, Polish, Portuguese, Russian, simplified Chinese, Spanish, Swedish, traditional
Set-up commands Emissivity correction Languages Service functions	Local adaptation of units, language, date, and time formats Screen brightness (high, medium, low) Gallery, deletion of images Yes: 4 pre-set levels with custom adjustment of 0.1–0.99 Czech, Danish, Dutch, English, Finnish, French, German, Greek, Hungarian, Italian, Japanese, Korean, Norwegian, Polish, Portuguese, Russian, simplified Chinese, Spanish, Swedish, traditional Chinese, Turkish
Set-up commands Emissivity correction Languages Service functions Camera software update	Local adaptation of units, language, date, and time formats Screen brightness (high, medium, low) Gallery, deletion of images Yes: 4 pre-set levels with custom adjustment of 0.1–0.99 Czech, Danish, Dutch, English, Finnish, French, German, Greek, Hungarian, Italian, Japanese, Korean, Norwegian, Polish, Portuguese, Russian, simplified Chinese, Spanish, Swedish, traditional Chinese, Turkish
Set-up commands Emissivity correction Languages Service functions Camera software update Storage of images	Local adaptation of units, language, date, and time formats Screen brightness (high, medium, low) Gallery, deletion of images Yes: 4 pre-set levels with custom adjustment of 0.1–0.99 Czech, Danish, Dutch, English, Finnish, French, German, Greek, Hungarian, Italian, Japanese, Korean, Norwegian, Polish, Portuguese, Russian, simplified Chinese, Spanish, Swedish, traditional Chinese, Turkish Download from http://support.flir.com



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Resolution		
Fixed Fixe	Digital camera	
Field of view	Resolution	2 MP (1600 × 1200 pixels)
Flashlight Flashlight LED CCT 6500°K LED CRI 70 Beam angle 220° Rated power 0.5 W Light output (Lumens) 100 Laser pointer Laser pointer Laser pointer Laser Class 1 Data communication interfaces Interfaces USB 2.0 USB 12.0 High Speed Power system Battery type Rechargeable Li ion battery Battery voltage Battery voltage Battery operating time - 5 hours of scanning (LCM medium brightness) b 4.5 hours with laser on (LCM medium brightness) charging system Battery charge life 30 days minimum Charging system Battery documents Battery documents For documents like MSDs and UN38.3 test reports/summaries, see: https://support.flir.com/resources/msds Environmental data Operating emperature range -30 to 55°C (-22 to 113°F) O-45% RH (37 to 45°C (98.6 to 113°F)) O-45% RH (45 to 55°C (113 to 131°F)) EMC EMC	Focus	Fixed
Flashlight LED CCT 6500°K LED CRI 70 Beam angle ±20° Rated power 0.5 W Light output (Lumens) 100 Laser pointer Laser pointer Laser pointer Laser Class 1 Data communication interfaces Interfaces USB 2.0 USB 2.0 USB 2.0 High Speed Power system Battery type Rechargeable Li ion battery Battery voltage 3.6 V Battery capacity Battery operating time - 5 hours of scanning (LCM medium brightness) - 4.5 hours with laser on (LCM medium brightness) - brightness) Battery charge life 30 days minimum Charging system Battery is charged inside the camera Charging time 4 hours to 90%, 6 hours to 100% Charging temperature 0 to 45°C (32 to 113°F) Power management Environmental data Operating temperature range -10 to 45°C (14 to 113°F) Storage temperature range -90% relative humidity (RH) (0 to 37°C (32 to 113°F)) -4.5% RH (45 to 55°C (13 to 113°F)) -4.5% RH (45 to 55°C (13 to 113°F)) -4.5% RH (45 to 55°C (13 to 113°F)) -4.5% RH (65 to 55°C (13 to 131°F)) -4.5% RH (65	Field of view	71° × 56°, adapts to the IR lens
LED CCT	Flashlight	
LED CRI	Flashlight	Bright LED on/off
Beam angle	LED CCT	6500°K
Rated power Light output (Lumens) Laser pointer Laser pointer Laser pointer Laser Class 1 Data communication interfaces Interfaces USB 2.0 USB USB Type-C: data transfer/power USB 2.0 High Speed Power system Battery type Rechargeable Li ion battery Battery voltage 3.6 V Battery operating time 5 hours of scanning (LCM medium brightness) - 4.5 hours with laser on (LCM medium brightness) - 4.5 hours with laser on (LCM medium brightness) Charging system Battery days iminum Charging system Charging time 4 hours to 90%, 6 hours to 100% Charging temperature 0 to 45°C (32 to 113°F) Power management Adjustable: off, 5 minutes, 15 minutes, 30 minutes Battery documents For documents like MSDS and UN38.3 test reports/summaries, see: https://support.fiir.com/resources/msds Environmental data Operating temperature range -10 to 45°C (-22 to 131°F) Humidity (operating and storage) 9.90% relative humidity (RH) (0 to 37°C (32 to 98.6°F)) 045% RH (45 to 55°C (113 to 131°F)) EMC • EN 61000-6-2 • FCC 47 CFR Part 15 Class B	LED CRI	70
Laser pointer Laser pointer Laser pointer Laser Class 1 Data communication interfaces Interfaces USB 2.0 USB 7ype-C: data transfer/power USB 2.0 High Speed Description of the measurement area USB 2.0 High Speed Description of the measurement area USB 2.0 High Speed Description of the measurement area USB 2.0 High Speed Description of the measurement area USB 2.0 High Speed Description of the measurement area USB 2.0 High Speed Description of the measurement area Leas Description of the measurement area D	Beam angle	±20°
Laser pointer Laser pointer Laser Class 1 Data communication interfaces Interfaces USB 2.0 USB 2.0 USB 2.0 High Speed Power system Battery type Battery voltage Battery capacity Battery capacity Battery charge life Charging system Battery charge life Charging time Charging time Charging time A hours to 90%, 6 hours to 100% Charging temperature Battery documents Environmental data Operating temperature range Humidity (operating and storage) EMC EMC Data Communication interfaces USB 2.0 Enchargedip Li ion battery 1 5 hours of scanning (LCM medium brightness) 1 4.5 hours with laser on (LCM medium brightness) 2 4.5 hours with laser on (LCM medium brightness) 2 4.5 hours with laser on (LCM medium brightness) 2 4.5 hours with laser on (LCM medium brightness) 2 4.5 hours with laser on (LCM medium brightness) 2 4.5 hours with laser on (LCM medium brightness) 2 4.5 hours with laser on (LCM medium brightness) 2 6.0 4 5.0 4 5 hours with laser on (LCM medium brightness) 2 6.0 4 5 hours with laser on (LCM medium brightness) 2 6.0 4 5 hours with laser on (LCM medium brightness) 2 6.0 4 5 hours with laser on (LCM medium brightness) 2 6.0 4 5 hours with laser on (LCM medium brightness) 2 6.0 4 5 hours with laser on (LCM medium brightness) 2 6.0 4 5 hours with laser on (LCM medium brightness) 2 6.0 4 5 hours with laser on (LCM medium brightness) 2 6.0 4 5 hours with laser on (LCM medium brightness) 2 6.0 4 5 hours with laser on (LCM medium brightness) 2 6.0 4 6 hours to 90% (A hours to 100% (A hours to 100% (A hours to 10	Rated power	0.5 W
Laser Class 1 Data communication interfaces Interfaces USB 2.0 USB 2.0 USB Type-C: data transfer/power USB 2.0 High Speed Power system Battery type Battery voltage Battery capacity Battery operating time - 5 hours of scanning (LCM medium brightness) - 4.5 hours with laser on (LCM medium brightness) - 4.5 hours with laser on (LCM medium brightness) - 4.5 hours of scanning threes Battery charge life 30 days minimum Charging system Battery is charged inside the camera Charging time 4 hours to 90%, 6 hours to 100% Charging temperature Oto 45°C (32 to 113°F) Power management Adjustable: off, 5 minutes, 15 minutes, 30 minutes For documents like MSDS and UN38.3 test reports/summaries, see: https://support.filr.com/resources/msds Environmental data Operating temperature range -10 to 45°C (14 to 113°F) Storage temperature range -30 to 55°C (-22 to 131°F) O-90% relative humidity (RH) (0 to 37°C (32 to 98.6°F)) O-65% RH (37 to 45°C (98.6 to 113°F)) O-65% RH (45 to 55°C (113 to 131°F)) EMC - EN 61000-6-2 - EN 61000-6-2 - FCC 47 CFR Part 15 Class B	Light output (Lumens)	100
Class 1	Laser pointer	
Data communication interfaces Interfaces USB 2.0 USB Type-C: data transfer/power USB standard USB 2.0 High Speed Power system Battery type Rechargeable Li ion battery Battery capacity 3000 mAh Battery operating time • 5 hours of scanning (LCM medium brightness) • 4.5 hours with laser on (LCM medium brightness) • 4.5 hours with laser on (LCM medium brightness) • 4.5 hours with laser on (LCM medium brightness) • 4 hours to 90%, 6 hours to 100% Charging system Battery is charged inside the camera Charging time 4 hours to 90%, 6 hours to 100% Charging temperature 0 to 45°C (32 to 113°F) Power management Adjustable: off, 5 minutes, 15 minutes, 30 minutes Battery documents For documents like MSDS and UN38.3 test reports/summaries, see: https://support.flir.com/resources/msds Environmental data Operating temperature range -10 to 45°C (14 to 113°F) Storage temperature range -30 to 55°C (-22 to 131°F) Humidity (operating and storage) 0 -90% relative humidity (RH) (0 to 37°C (32 to 98.6°F)) 0 -65% RH (37 to 45°C (98.6 to 113°F)) 0 -65% RH (45 to 55°C (113 to 131°F)) EMC • EN 61000-6-2 • EN 61000-6-2 • EN 61000-6-2 • FCC 47 CFR Part 15 Class B	Laser pointer	Indicating the size of the measurement area
USB 2.0 USB Type-C: data transfer/power USB standard USB 2.0 High Speed USB 2.0 Hig	Laser	Class 1
USB Type-C: data transfer/power USB standard USB 2.0 High Speed Power system Battery type Rechargeable Li ion battery 3.6 V Battery capacity 3000 mAh Battery operating time • 5 hours of scanning (LCM medium brightness) • 4.5 hours with laser on (LCM medium brightness) • 4.5 hours with laser on (LCM medium brightness) • 4 hours to 90%, 6 hours to 100% Charging system Battery is charged inside the camera Charging time 4 hours to 90%, 6 hours to 100% Charging temperature 0 to 45°C (32 to 113°F) Power management Adjustable: off, 5 minutes, 15 minutes, 30 minutes Battery documents For documents like MSDS and UN38.3 test reports/summaries, see: https://support.flir.com/resources/msds Environmental data Operating temperature range -10 to 45°C (14 to 113°F) Storage temperature range -30 to 55°C (-22 to 131°F) Humidity (operating and storage) 0-90% relative humidity (RH) (0 to 37°C (32 to 98.6°F)) 0-65% RH (37 to 45°C (98.6 to 113°F)) 0-45% RH (45 to 55°C (113 to 131°F)) EMC • EN 61000-6-3 • EN 61000-6-2 • FCC 47 CFR Part 15 Class B	Data communication interfaces	
Power system Battery type Battery voltage 3.6 V Battery capacity 3000 mAh Battery operating time • 5 hours of scanning (LCM medium brightness) • 4.5 hours with laser on (LCM medium brightness) • 4.5 hours with laser on (LCM medium brightness) • 4 hours to 90%, 6 hours to 100% Charging system Battery is charged inside the camera Charging time 4 hours to 90%, 6 hours to 100% Charging temperature 0 to 45°C (32 to 113°F) Power management Adjustable: off, 5 minutes, 15 minutes, 30 minutes Battery documents For documents like MSDS and UN38.3 test reports/summaries, see: https://support.flir.com/resources/msds Environmental data Operating temperature range -10 to 45°C (14 to 113°F) Storage temperature range -30 to 55°C (-22 to 131°F) Humidity (operating and storage) 0-90% relative humidity (RH) (0 to 37°C (32 to 98.6°F)) 0-65% RH (37 to 45°C (98.6 to 113°F)) 0-45% RH (45 to 55°C (113 to 131°F)) EMC • EN 61000-6-3 • EN 61000-6-3 • EN 61000-6-2 • FCC 47 CFR Part 15 Class B	Interfaces	USB 2.0
Power system Battery type Rechargeable Li ion battery Battery voltage 3.6 V Battery capacity 3000 mAh Battery operating time • 5 hours of scanning (LCM medium brightness) • 4.5 hours with laser on (LCM medium brightness) • 4.5 hours with laser on (LCM medium brightness) • 4.5 hours with laser on (LCM medium brightness) • 4.5 hours with laser on (LCM medium brightness) • 4.5 hours with laser on (LCM medium brightness) • 4.5 hours with laser on (LCM medium brightness) • 4.5 hours with laser on (LCM medium brightness) • 4.5 hours with laser on (LCM medium brightness) • 6 hours to 10CM medium brightness •	USB	USB Type-C: data transfer/power
Battery type Battery voltage 3.6 V Battery capacity 3000 mAh Battery operating time • 5 hours of scanning (LCM medium brightness) • 4.5 hours with laser on (LCM medium brightness) • 4.5 hours with laser on (LCM medium brightness) • 4.5 hours with laser on (LCM medium brightness) • 4.5 hours with laser on (LCM medium brightness) • 4.5 hours with laser on (LCM medium brightness) • 4.5 hours with laser on (LCM medium brightness) • 4.5 hours with laser on (LCM medium brightness) • 4.5 hours with laser on (LCM medium brightness) • 4.5 hours with laser on (LCM medium brightness) • 4.5 hours with laser on (LCM medium brightness) • 4.5 hours with laser on (LCM medium brightness) • 4.5 hours of scanning (LCM medium brightness) • 5 hours of scanning (LCM medium brightness) • 4.5 hours of scanning (LCM medium brightness) • 4.5 hours of scanning (LCM medium brightness) • 6 hours to 100%	USB standard	USB 2.0 High Speed
Battery voltage Battery capacity 3000 mAh Battery operating time • 5 hours of scanning (LCM medium brightness) • 4.5 hours with laser on (LCM medium brightness) • 4.5 hours with laser on (LCM medium brightness) • 4.5 hours with laser on (LCM medium brightness) Battery charge life 30 days minimum Charging system Battery is charged inside the camera 4 hours to 90%, 6 hours to 100% Charging temperature 0 to 45°C (32 to 113°F) Power management Adjustable: off, 5 minutes, 15 minutes, 30 minutes Battery documents For documents like MSDS and UN38.3 test reports/summaries, see: https://support.flir.com/resources/msds Environmental data Operating temperature range -10 to 45°C (14 to 113°F) Storage temperature range -30 to 55°C (-22 to 131°F) Humidity (operating and storage) 0-90% relative humidity (RH) (0 to 37°C (32 to 98.6°F)) 0-65% RH (37 to 45°C (98.6 to 113°F)) 0-45% RH (45 to 55°C (113 to 131°F)) EMC • EN 61000-6-3 • EN 61000-6-3 • EN 61000-6-2 • FCC 47 CFR Part 15 Class B	Power system	
Battery capacity Battery operating time • 5 hours of scanning (LCM medium brightness) • 4.5 hours with laser on (LCM medium brightness) • 4.5 hours with laser on (LCM medium brightness) Battery charge life 30 days minimum Charging system Battery is charged inside the camera Charging time 4 hours to 90%, 6 hours to 100% Charging temperature 0 to 45°C (32 to 113°F) Power management Adjustable: off, 5 minutes, 15 minutes, 30 minutes Battery documents For documents like MSDS and UN38.3 test reports/summaries, see: https://support.flir.com/resources/msds Environmental data Operating temperature range -10 to 45°C (14 to 113°F) Storage temperature range -30 to 55°C (-22 to 131°F) U-90% relative humidity (RH) (0 to 37°C (32 to 98.6°F)) 0-65% RH (37 to 45°C (98.6 to 113°F)) 0-45% RH (45 to 55°C (113 to 131°F)) EMC • EN 61000-6-3 • EN 61000-6-2 • FCC 47 CFR Part 15 Class B	Battery type	Rechargeable Li ion battery
Battery operating time • 5 hours of scanning (LCM medium brightness) • 4.5 hours with laser on (LCM medium brightness) Battery charge life 30 days minimum Charging system Battery is charged inside the camera Charging time 4 hours to 90%, 6 hours to 100% Charging temperature 0 to 45°C (32 to 113°F) Power management Adjustable: off, 5 minutes, 15 minutes, 30 minutes Battery documents For documents like MSDS and UN38.3 test reports/summaries, see: https://support.flir.com/resources/msds Environmental data Operating temperature range -10 to 45°C (14 to 113°F) Storage temperature range -30 to 55°C (-22 to 131°F) Humidity (operating and storage) 0-90% relative humidity (RH) (0 to 37°C (32 to 98.6°F)) 0-65% RH (37 to 45°C (98.6 to 113°F)) 0-45% RH (45 to 55°C (113 to 131°F)) EMC • EN 61000-6-3 • EN 61000-6-2 • FCC 47 CFR Part 15 Class B	Battery voltage	3.6 V
Battery charge life 30 days minimum Charging system Battery is charged inside the camera 4 hours to 90%, 6 hours to 100% Charging temperature 0 to 45°C (32 to 113°F) Power management Adjustable: off, 5 minutes, 15 minutes, 30 minutes Battery documents For documents like MSDS and UN38.3 test reports/summaries, see: https://support.flir.com/resources/msds Environmental data Operating temperature range -10 to 45°C (14 to 113°F) Storage temperature range -30 to 55°C (-22 to 131°F) Humidity (operating and storage) 0-90% relative humidity (RH) (0 to 37°C (32 to 98.6°F)) 0-65% RH (37 to 45°C (98.6 to 113°F)) 0-45% RH (45 to 55°C (113 to 131°F)) EMC • EN 61000-6-3 • EN 61000-6-2 • FCC 47 CFR Part 15 Class B	Battery capacity	3000 mAh
Charging system Charging time 4 hours to 90%, 6 hours to 100% Charging temperature 0 to 45°C (32 to 113°F) Power management Adjustable: off, 5 minutes, 15 minutes, 30 minutes Battery documents For documents like MSDS and UN38.3 test reports/summaries, see: https://support.flir.com/resources/msds Environmental data Operating temperature range -10 to 45°C (14 to 113°F) Storage temperature range -30 to 55°C (-22 to 131°F) Humidity (operating and storage) 0-90% relative humidity (RH) (0 to 37°C (32 to 98.6°F)) 0-65% RH (37 to 45°C (98.6 to 113°F)) 0-45% RH (45 to 55°C (113 to 131°F)) EMC • EN 61000-6-3 • EN 61000-6-2 • FCC 47 CFR Part 15 Class B	Battery operating time	4.5 hours with laser on (LCM medium
Charging time 4 hours to 90%, 6 hours to 100% Charging temperature 0 to 45°C (32 to 113°F) Power management Adjustable: off, 5 minutes, 15 minutes, 30 minutes Battery documents For documents like MSDS and UN38.3 test reports/summaries, see: https://support.flir.com/resources/msds Environmental data Operating temperature range -10 to 45°C (14 to 113°F) Storage temperature range -30 to 55°C (-22 to 131°F) Humidity (operating and storage) 0-90% relative humidity (RH) (0 to 37°C (32 to 98.6°F)) 0-65% RH (37 to 45°C (98.6 to 113°F)) 0-45% RH (45 to 55°C (113 to 131°F)) EMC • EN 61000-6-3 • EN 61000-6-2 • FCC 47 CFR Part 15 Class B	Battery charge life	30 days minimum
Charging temperature O to 45°C (32 to 113°F) Power management Adjustable: off, 5 minutes, 15 minutes, 30 minutes For documents like MSDS and UN38.3 test reports/summaries, see: https://support.flir.com/resources/msds Environmental data Operating temperature range -10 to 45°C (14 to 113°F) Storage temperature range -30 to 55°C (-22 to 131°F) Humidity (operating and storage) 0-90% relative humidity (RH) (0 to 37°C (32 to 98.6°F)) 0-65% RH (37 to 45°C (98.6 to 113°F)) 0-45% RH (45 to 55°C (113 to 131°F)) EMC • EN 61000-6-3 • EN 61000-6-2 • FCC 47 CFR Part 15 Class B	Charging system	Battery is charged inside the camera
Power management Adjustable: off, 5 minutes, 15 minutes, 30 minutes For documents like MSDS and UN38.3 test reports/summaries, see: https://support.flir.com/resources/msds Environmental data Operating temperature range -10 to 45°C (14 to 113°F) Storage temperature range -30 to 55°C (-22 to 131°F) Humidity (operating and storage) 0-90% relative humidity (RH) (0 to 37°C (32 to 98.6°F)) 0-65% RH (37 to 45°C (98.6 to 113°F)) 0-45% RH (45 to 55°C (113 to 131°F)) EMC • EN 61000-6-3 • EN 61000-6-2 • FCC 47 CFR Part 15 Class B	Charging time	4 hours to 90%, 6 hours to 100%
Battery documents For documents like MSDS and UN38.3 test reports/summaries, see: https://support.flir.com/resources/msds	Charging temperature	0 to 45°C (32 to 113°F)
reports/summaries, see: https://support.flir.com/resources/msds Environmental data Operating temperature range	Power management	Adjustable: off, 5 minutes, 15 minutes, 30 minutes
Operating temperature range	Battery documents	reports/summaries, see:
Storage temperature range	Environmental data	
Humidity (operating and storage) 0–90% relative humidity (RH) (0 to 37°C (32 to 98.6°F)) 0–65% RH (37 to 45°C (98.6 to 113°F)) 0–45% RH (45 to 55°C (113 to 131°F)) EMC • EN 61000-6-3 • EN 61000-6-2 • FCC 47 CFR Part 15 Class B	Operating temperature range	-10 to 45°C (14 to 113°F)
98.6°F)) 0-65% RH (37 to 45°C (98.6 to 113°F)) 0-45% RH (45 to 55°C (113 to 131°F)) EMC • EN 61000-6-3 • EN 61000-6-2 • FCC 47 CFR Part 15 Class B	Storage temperature range	−30 to 55°C (−22 to 131°F)
0–45% RH (45 to 55°C (113 to 131°F)) • EN 61000-6-3 • EN 61000-6-2 • FCC 47 CFR Part 15 Class B	Humidity (operating and storage)	, , , , , , , , , , , , , , , , , , , ,
 EN 61000-6-3 EN 61000-6-2 FCC 47 CFR Part 15 Class B 		0-65% RH (37 to 45°C (98.6 to 113°F))
EN 61000-6-3 EN 61000-6-2 FCC 47 CFR Part 15 Class B		0–45% RH (45 to 55°C (113 to 131°F))
Magnetic fields	EMC	• EN 61000-6-2
Magnetic fields EN 61000-4-8 Class 3	Magnetic fields	EN 61000-4-8 class 3

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Environmental data	
Radio spectrum	 ETSI EN 300 328 FCC Part 15.249 RSS-247 Issue 2 EN 301 489-1:2011 EN 301 489-17:2009
Encapsulation	IP 54 (IEC60529)
Shock	25 g (IEC 60068-2-27)
Vibration	2 g (IEC 60068-2-6)
Drop	Designed for 2 m (6.56 ft.)
Safety	CE/CB/EN61010/UL
Environmental safety	REACH Regulation EC 1907/2006 RoHS2 Directive 2011/65/EC WEEE Directive 2012/19/EC JIS C 6802:2011 laser directive (ongoing) IEC 60825-1 class I laser directive FDA laser
Humidity requirement	 IEC 60068-2-30 / 24h 95% Relative Humidity +25 - +70°C / 2 Cycles (Storage) IEC 60068-2-30 / 24h 95% Relative Humidity +25 - +40°C / 2 Cycles (Operating)
Declaration of conformity	See: https://support.flir.com/resources/DoC
	occ. https://oupport.mi.com//resources/200
Physical data	ecc. https://dapport.iiii.com/resources/200
,	0.394 kg (13.9 oz.)
Physical data	
Physical data Weight (including battery)	0.394 kg (13.9 oz.)
Physical data Weight (including battery) Size (L × W × H)	0.394 kg (13.9 oz.) 210 × 64 × 81 mm (8.3 × 2.5 × 3.2 in.)
Physical data Weight (including battery) Size (L × W × H) Tripod mounting	0.394 kg (13.9 oz.) 210 × 64 × 81 mm (8.3 × 2.5 × 3.2 in.)
Physical data Weight (including battery) Size (L × W × H) Tripod mounting Warranty and service	0.394 kg (13.9 oz.) 210 × 64 × 81 mm (8.3 × 2.5 × 3.2 in.) UNC 1/4"-20
Physical data Weight (including battery) Size (L × W × H) Tripod mounting Warranty and service Warranty	0.394 kg (13.9 oz.) 210 × 64 × 81 mm (8.3 × 2.5 × 3.2 in.) UNC 1/4"-20
Physical data Weight (including battery) Size (L × W × H) Tripod mounting Warranty and service Warranty Shipping information	0.394 kg (13.9 oz.) 210 × 64 × 81 mm (8.3 × 2.5 × 3.2 in.) UNC ¼"-20 http://www.flir.com/warranty/
Physical data Weight (including battery) Size (L × W × H) Tripod mounting Warranty and service Warranty Shipping information Packaging, type	0.394 kg (13.9 oz.) 210 × 64 × 81 mm (8.3 × 2.5 × 3.2 in.) UNC ¼"-20 http://www.flir.com/warranty/ Cardboard box TG165-X FLIR Thermal Studio Starter Printed documentation Wirst strap lanyard USB cable
Physical data Weight (including battery) Size (L × W × H) Tripod mounting Warranty and service Warranty Shipping information Packaging, type Packaging, contents	0.394 kg (13.9 oz.) 210 × 64 × 81 mm (8.3 × 2.5 × 3.2 in.) UNC 1/4"-20 http://www.flir.com/warranty/ Cardboard box TG165-X FLIR Thermal Studio Starter Printed documentation Wrist strap lanyard USB cable Pouch
Physical data Weight (including battery) Size (L × W × H) Tripod mounting Warranty and service Warranty Shipping information Packaging, type Packaging, contents Packaging, weight	0.394 kg (13.9 oz.) 210 × 64 × 81 mm (8.3 × 2.5 × 3.2 in.) UNC ¼"-20 http://www.flir.com/warranty/ Cardboard box TG165-X FLIR Thermal Studio Starter Printed documentation Wrist strap lanyard USB cable Pouch 0.942 kg (2.08 lb.)
Physical data Weight (including battery) Size (L × W × H) Tripod mounting Warranty and service Warranty Shipping information Packaging, type Packaging, contents Packaging, weight Packaging, size	0.394 kg (13.9 oz.) 210 × 64 × 81 mm (8.3 × 2.5 × 3.2 in.) UNC 1/4"-20 http://www.flir.com/warranty/ Cardboard box TG165-X FLIR Thermal Studio Starter Printed documentation Wrist strap lanyard USB cable Pouch 0.942 kg (2.08 lb.) 284 × 151 × 105 mm (11.2 × 5.95 × 4.12 in.)

Supplies & accessories:

• T130976ACC; Retractable lanyard, 7 N (24 oz)

