

P/N: 89401-0203

Copyright

© 2022, FLIR Systems, Inc.

All rights reserved worldwide. Names and marks appearing herein are either registered trademarks or trademarks of FLIR Systems and/or its subsidiaries. All other trademarks, trade names or company names referenced herein are used for identification only and are the property of their respective owners.

Document identity

Publ. No.: 89401-0203 Commit: 88895 Language: Modified: 2022-12-13

Modified: 2022-12-13 Formatted: 2022-12-13

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.



General description

The FLIR Cx5 is certified for use in many explosive environments, eliminating the need to acquire hot work permits due to gas, vapor, and dust, while making T-Class surveys quick and easy.

With FLIR MSX® (Multi-Spectral Dynamic Imaging) and 1-Touch Level/Span, the Cx5 can help you identify potential problems quickly to improve plant performance. The 3.5-inch touchscreen interface is simple to use, and 160 × 120 thermal resolution gives you accurate temperature measurement of nearby targets. Built-in FLIR Ignite™ cloud service provides direct data transfer, storage, and backup, so images are always available and securely stored on all your devices. With the FLIR Cx5 in your toolbox, you'll always be ready to investigate mechanical and electrical equipment around your production site.

Imaging and optical data	
IR resolution	160 × 120 pixels
Thermal sensitivity/NETD	< 70 mK
Field of view (FOV)	54° × 42°
Minimum focus distance	Thermal: 0.1 m (0.32 ft) MSX: 0.3 m (0.98 ft)
Spatial resolution (IFOV)	6.3 mrad/pixel
F-number	1.1
Image frequency	8.7 Hz
Focus	Focus free
Digital zoom	Yes, zoom pinch, 1–4× continuous
Detector data	
Detector type	Focal plane array, uncooled microbolometer
Spectral range	8–14 μm
Detector pitch	12 μm



P/N: 89401-0203

© 2022, FLIR Systems, Inc. #89401-0203; r. 88895;

Г	T
Image presentation	
Display resolution	640 × 480 pixels
Screen size	3.5 in
Aspect ratio	4:3
Auto orientation	Yes
Touch screen	Yes, capacitive
Display technology	IPS
Image adjustment	Automatic level and spanManual level and span1-Touch level and span
Image modes	Infrared image Visual image MSX Picture in picture (IR area on visual image)
Gallery	Yes, incl. thumbnails and custom folder structure
Measurement	
Object temperature range	-20 to 400°C (-4 to 752°F)
Accuracy at ambient temp. 15 to 35°C (59 to 95°F) and object temp. above 0°C (32°F)	0 to 100°C (32 to 212°F): ±5°C (±9°F) 100 to 400°C (212 to 752°F): ±5%
Measurement analysis	
Measurement functions	Spot Box with max./min.
Measurements correction	Emissivity; matt/semi-matt/semi-glossy + custom value Reflected apparent temperature Atmospheric compensation
Color palettes	Iron Gray Rainbow Arctic Lava Rainbow HC
Set-up	
Set-up commands	Local adaptation of units, language, date and time formats Screen brightness (high, medium, low)
Languages	Arabic, Czech, Danish, Dutch, English, Finnish, French, German, Greek, Hungarian, Italian, Japanese, Korean, Norwegian, Polish, Portuguese, Russian, simplified Chinese, Spanish, Swedish, traditional Chinese, Turkish
Service functions	
Camera software update	Automatic over Wi-Fi USB via computer



P/N: 89401-0203 © 2022, FLIR Systems, Inc. #89401-0203; r. 88895;

Storage media Internal memory and onboard FLIR Ignite cloud connectivity (with Wi-Fi) Image storage capacity > 5000 sets of images Image file format Standard JPEG, 14-bit measurement data included Image annotations Text Soft keyboard on touchscreen, auto-prompt for note when image is saved Video streaming Non-radiometric video streaming Yes; MSX, Thermal, Visual, Picture in Picture. USB Video Class colorized uncompressed with overlay 9 Hz. Digital camera Resolution 5 MP Focus Fixed Field of view 71.5 ° x 56° (84° diagonal) Video lamp Yes Data communication interfaces Wi-Fi 802.11 a/ac/b/g/n (2.4 and 5 GHz) (5 GHz only for indoor use in Japan and Canada) USB USB 2.0, Type-C connector Bluetooth PAN Radio Wi-Fi Standard: 802.11 a/b/g/n (HT20) - Frequency range: 2 2401–2473 MHz - 5150–5250 MHz - Max. output power: 15 dBm Bluetooth + EDR Power system Battery type Rechargeable Li ion battery (built-in) Battery voltage 3.7 V Battery capacity 1800 mAh Battery operating time 4 hours Battery charge life 5000 mare from the standard on the standard on the standard of the st	Storage of images	
connectivity (with Wi-Fi) Image storage capacity > 5000 sets of images Image file format Standard JPEG, 14-bit measurement data included Image annotations Text Soft keyboard on touchscreen, auto-prompt for note when image is saved Video streaming Non-radiometric video streaming Yes; MSX, Thermal, Visual, Picture in Picture. USB Video Class colorized uncompressed with overlay 9 Hz. Digital camera Resolution 5 MP Focus Fixed Field of view 71.5 ° x 56° (84° diagonal) Video lamp Yes Data communication interfaces Wi-Fi 802.11 a/ac/b/g/n (2.4 and 5 GHz) (5 GHz only for indoor use in Japan and Canada) USB USB 2.0, Type-C connector Bluetooth PAN Radio Wi-Fi - Standard: 802.11 a/b/g/n (HT20) - Frequency range: - 2401–2473 MHz - 5150–5250 MHz - Max. output power: 15 dBm Bluetooth + EDR - Frequency range: - 2400–2484 MHz - Max. output power: 10 dBm Power system Battery type Rechargeable Li ion battery (built-in) Battery voltage 3.7 V Battery capacity Battery operating time 4 hours Battery charge life > 500 cycles	Storage of images	Lettered and and the LEUR Later to
Image file format Image annotations Text Soft keyboard on touchscreen, auto-prompt for note when image is saved Video streaming Non-radiometric video streaming Yes; MSX, Thermal, Visual, Picture in Picture. USB Video Class colorized uncompressed with overlay 9 Hz. Digital camera Resolution 5 MP Focus Fixed Field of view 71.5 ° x 56° (84° diagonal) Video lamp Ves Data communication interfaces Wi-Fi 802.11 a/ac/b/g/n (2.4 and 5 GHz) (5 GHz only for indoor use in Japan and Canada) USB USB 2.0, Type-C connector Bluetooth PAN Radio Wi-Fi Standard: 802.11 a/b/g/n (HT20) Frequency range: 2401-2473 MHz 5150-5250 MHz Max. output power: 15 dBm Bluetooth + EDR Frequency range: 2400-2484 MHz Max. output power: 10 dBm Power system Battery type Rechargeable Li ion battery (built-in) Battery voltage 3.7 V Battery operating time A hours Battery charge life > 5000 cycles	Storage media	
Image annotations Text Soft keyboard on touchscreen, auto-prompt for note when image is saved Video streaming Non-radiometric video streaming Pes; MSX, Thermal, Visual, Picture in Picture. USB Video Class colorized uncompressed with overlay 9 Hz. Digital camera Resolution 5 MP Focus Fixed Field of view 71.5 ° x 56° (84° diagonal) Video lamp Ves Data communication interfaces Wi-Fi 802.11 a/ac/b/g/n (2.4 and 5 GHz) (5 GHz only for indoor use in Japan and Canada) USB USB 2.0, Type-C connector Bluetooth PAN Radio Wi-Fi Standard: 802.11 a/b/g/n (HT20) Frequency range: 2401-2473 MHz 5150-250 MHz Max. output power: 15 dBm Bluetooth + EDR Frequency range: 2400-2484 MHz Max. output power: 10 dBm Power system Battery type Rechargeable Li ion battery (built-in) Battery voltage 3.7 V Battery operating time Battery operating time Battery charge life > 500 cycles	Image storage capacity	> 5000 sets of images
Text Soft keyboard on touchscreen, auto-prompt for note when image is saved Video streaming Non-radiometric video streaming Yes; MSX, Thermal, Visual, Picture in Picture. USB Video Class colorized uncompressed with overlay 9 Hz. Digital camera Resolution 5 MP Focus Fixed Fixed Field of view 71.5 ° × 56° (84° diagonal) Video lamp Yes Data communication interfaces Wi-Fi 802.11 a/ac/b/g/n (2.4 and 5 GHz) (5 GHz only for indoor use in Japan and Canada) USB USB 2.0, Type-C connector Bluetooth PAN Radio Wi-Fi Standard: 802.11 a/b/g/n (HT20) Frequency range: 2 2401–2473 MHz 5 150–5250 MHz Hax. output power: 15 dBm Bluetooth + EDR Frequency range: 2 2400–2484 MHz Hax. output power: 10 dBm Power system Battery type Rechargeable Li ion battery (built-in) Battery voltage 3.7 V Battery capacity Battery operating time 4 hours Battery charge iffe	Image file format	· · · · · · · · · · · · · · · · · · ·
Video streaming Non-radiometric video streaming Yes; MSX, Thermal, Visual, Picture in Picture. USB Video Class colorized uncompressed with overlay 9 Hz. Digital camera Resolution Fixed Fixed Field of view 71.5 ° x 56° (84° diagonal) Video lamp Yes Data communication interfaces Wi-Fi 802.11 a/ac/b/g/n (2.4 and 5 GHz) (5 GHz only for indoor use in Japan and Canada) USB USB 2.0, Type-C connector Bluetooth PAN Radio Wi-Fi Standard: 802.11 a/b/g/n (HT20) Frequency range: 2 2401–2473 MHz 5 150–5250 MHz Max. output power: 15 dBm Bluetooth + EDR Power system Battery type Battery type Battery voltage 3.7 V Battery operating time Battery charge iife > 500 cycles	Image annotations	
Non-radiometric video streaming Yes; MSX, Thermal, Visual, Picture in Picture. USB Video Class colorized uncompressed with overlay 9 Hz. Digital camera Resolution 5 MP Focus Fixed Field of view 71.5° × 56° (84° diagonal) Video lamp Yes Data communication interfaces Wi-Fi 802.11 a/ac/b/g/n (2.4 and 5 GHz) (5 GHz only for indoor use in Japan and Canada) USB USB 2.0, Type-C connector Bluetooth PAN Radio Wi-Fi Standard: 802.11 a/b/g/n (HT20) Firequency range: 2401-2473 MHz 5150-5250 MHz Max. output power: 15 dBm Bluetooth + EDR Frequency range: 2400-2484 MHz Max. output power: 10 dBm Power system Battery type Rechargeable Li ion battery (built-in) Battery voltage 3.7 V Battery capacity 1800 mAh Battery operating time 4 hours Battery charge life >500 cycles	Text	
Digital camera Resolution Focus Fixed Fixed Field of view 71.5 ° x 56° (84° diagonal) Video lamp Ves Data communication interfaces Wi-Fi 802.11 a/ac/b/g/n (2.4 and 5 GHz) (5 GHz only for indoor use in Japan and Canada) USB USB 2.0, Type-C connector Bluetooth PAN Radio Wi-Fi Standard: 802.11 a/b/g/n (HT20) Frequency range: 2401–2473 MHz 5150–5250 MHz Max. output power: 15 dBm Bluetooth + EDR Frequency range: 2400–2484 MHz Max. output power: 10 dBm Power system Battery type Rechargeable Li ion battery (built-in) Battery voltage 3.7 V Battery capacity Battery operating time 4 hours Battery charge life >500 cycles	Video streaming	
Digital camera Resolution Focus Fixed Field of view 71.5 ° × 56° (84° diagonal) Video lamp Yes Data communication interfaces Wi-Fi 802.11 a/ac/b/g/n (2.4 and 5 GHz) (5 GHz only for indoor use in Japan and Canada) USB USB 2.0, Type-C connector Bluetooth PAN Radio Wi-Fi Standard: 802.11 a/b/g/n (HT20) Firequency range: 2401–2473 MHz 5150–5250 MHz Hax. output power: 15 dBm Bluetooth + EDR Frequency range: 2400–2484 MHz Max. output power: 10 dBm Power system Battery type Rechargeable Li ion battery (built-in) Battery voltage 3.7 V Battery capacity 1800 mAh Battery operating time 4 hours Battery charge life > 500 cycles	Non-radiometric video streaming	Yes; MSX, Thermal, Visual, Picture in Picture.
Resolution		
Focus Fixed Field of view 71.5 ° x 56° (84° diagonal) Video lamp Yes Data communication interfaces Wi-Fi 802.11 a/ac/b/g/n (2.4 and 5 GHz) (5 GHz only for indoor use in Japan and Canada) USB USB 2.0, Type-C connector Bluetooth PAN Radio Wi-Fi • Standard: 802.11 a/b/g/n (HT20) • Frequency range: 2401–2473 MHz 5150–5250 MHz • Max. output power: 15 dBm Bluetooth + EDR • Frequency range: 2400–2484 MHz • Max. output power: 10 dBm Power system Battery type Rechargeable Li ion battery (built-in) Battery voltage 3.7 V Battery capacity 1800 mAh Battery operating time 4 hours Battery charge life >500 cycles	Digital camera	
Field of view 71.5 ° x 56° (84° diagonal) Video lamp Yes Data communication interfaces ■	Resolution	5 MP
Video lamp Yes Data communication interfaces B02.11 a/ac/b/g/n (2.4 and 5 GHz) (5 GHz only for indoor use in Japan and Canada) USB USB 2.0, Type-C connector Bluetooth PAN Radio Wi-Fi • Standard: 802.11 a/b/g/n (HT20) • Frequency range:	Focus	Fixed
Data communication interfaces Wi-Fi 802.11 a/ac/b/g/n (2.4 and 5 GHz) (5 GHz only for indoor use in Japan and Canada) USB USB 2.0, Type-C connector Bluetooth PAN Radio Wi-Fi • Standard: 802.11 a/b/g/n (HT20) • Frequency range: • 2401–2473 MHz • 5150–5250 MHz • Max. output power: 15 dBm Bluetooth + EDR • Frequency range: • 2400–2484 MHz • Max. output power: 10 dBm Power system Battery type Rechargeable Li ion battery (built-in) Battery voltage 3.7 V Battery capacity 1800 mAh Battery operating time 4 hours Solo cycles	Field of view	71.5 ° × 56° (84° diagonal)
Wi-Fi 802.11 a/ac/b/g/n (2.4 and 5 GHz) (5 GHz only for indoor use in Japan and Canada) USB USB 2.0, Type-C connector Bluetooth PAN Radio Wi-Fi Standard: 802.11 a/b/g/n (HT20) Frequency range: 2401–2473 MHz 5150–5250 MHz Max. output power: 15 dBm Bluetooth + EDR Frequency range: 2400–2484 MHz Max. output power: 10 dBm Power system Battery type Rechargeable Li ion battery (built-in) Battery voltage 3.7 V Battery capacity 1800 mAh Battery operating time 4 hours Battery charge life > 5500 cycles	Video lamp	Yes
USB USB 2.0, Type-C connector Bluetooth PAN Radio Wi-Fi Standard: 802.11 a/b/g/n (HT20) Frequency range: 2401–2473 MHz 5150–5250 MHz Max. output power: 15 dBm Bluetooth + EDR Frequency range: 2400–2484 MHz Max. output power: 10 dBm Power system Battery type Rechargeable Li ion battery (built-in) Battery voltage 3.7 V Battery capacity 1800 mAh Battery operating time 4 hours Battery charge life > 5500 cycles	Data communication interfaces	
USB 2.0, Type-C connector Bluetooth Radio Wi-Fi • Standard: 802.11 a/b/g/n (HT20) • Frequency range: • 2401–2473 MHz • 5150–5250 MHz • Max. output power: 15 dBm Bluetooth + EDR • Frequency range: • 2400–2484 MHz • Max. output power: 10 dBm Power system Battery type Rechargeable Li ion battery (built-in) Battery voltage 3.7 V Battery capacity Battery operating time 4 hours Battery charge life > 500 cycles	Wi-Fi	802.11 a/ac/b/g/n (2.4 and 5 GHz)
Bluetooth Radio Wi-Fi Standard: 802.11 a/b/g/n (HT20) Frequency range: 2401–2473 MHz 5150–5250 MHz Max. output power: 15 dBm Bluetooth + EDR Frequency range: 2400–2484 MHz Max. output power: 10 dBm Power system Battery type Rechargeable Li ion battery (built-in) Battery voltage 3.7 V Battery capacity 1800 mAh Battery operating time 4 hours Battery charge life >500 cycles		(5 GHz only for indoor use in Japan and Canada)
Radio Wi-Fi Standard: 802.11 a/b/g/n (HT20) Frequency range: 2401–2473 MHz 5150–5250 MHz Max. output power: 15 dBm Bluetooth + EDR Frequency range: 2400–2484 MHz Max. output power: 10 dBm Power system Rechargeable Li ion battery (built-in) Battery type Rethargeable Li ion battery (built-in) Battery capacity 1800 mAh Battery operating time 4 hours Battery charge life >500 cycles	USB	USB 2.0, Type-C connector
Wi-Fi Standard: 802.11 a/b/g/n (HT20) Frequency range: 2401–2473 MHz 5150–5250 MHz Max. output power: 15 dBm Frequency range: 2400–2484 MHz Max. output power: 10 dBm Power system Battery type Rechargeable Li ion battery (built-in) Battery voltage 3.7 V Battery capacity 1800 mAh Battery operating time 4 hours Battery charge life >500 cycles	Bluetooth	PAN
Standard: 802.11 a/b/g/n (HT20) Frequency range: 2401–2473 MHz 5150–5250 MHz Max. output power: 15 dBm Bluetooth + EDR Frequency range: 2400–2484 MHz Max. output power: 10 dBm Power system Battery type Rechargeable Li ion battery (built-in) Battery voltage 3.7 V Battery capacity 1800 mAh Battery operating time 4 hours Battery charge life >500 cycles	Radio	
□ 5150–5250 MHz □ Max. output power: 15 dBm Bluetooth + EDR □ Frequency range: □ 2400–2484 MHz □ Max. output power: 10 dBm Power system □ Rechargeable Li ion battery (built-in) □ Battery type □ Rethery voltage □ 3.7 V □ Battery capacity □ 1800 mAh □ Hours □ Story charge life □ >500 cycles	Wi-Fi	_ , , , ,
Bluetooth + EDR • Frequency range: • 2400–2484 MHz • Max. output power: 10 dBm Power system Battery type Rechargeable Li ion battery (built-in) Battery voltage 3.7 V Battery capacity 1800 mAh Battery operating time 4 hours Battery charge life >500 cycles		
Power system Battery type Battery voltage Battery capacity Battery operating time Battery charge life Prequency range: 2400–2484 MHz Max. output power: 10 dBm Rechargeable Li ion battery (built-in) 3.7 V 1800 mAh 4 hours >500 cycles		Max. output power: 15 dBm
Max. output power: 10 dBm Power system Battery type Rechargeable Li ion battery (built-in) Battery voltage 3.7 V Battery capacity 1800 mAh Battery operating time 4 hours Battery charge life >500 cycles	Bluetooth + EDR	Frequency range:
Power system Battery type Rechargeable Li ion battery (built-in) Battery voltage 3.7 V Battery capacity 1800 mAh Battery operating time 4 hours Battery charge life >500 cycles		。 2400–2484 MHz
Battery type Rechargeable Li ion battery (built-in) Battery voltage 3.7 V Battery capacity 1800 mAh Battery operating time 4 hours Battery charge life >500 cycles		Max. output power: 10 dBm
Battery voltage 3.7 V Battery capacity 1800 mAh Battery operating time 4 hours Battery charge life >500 cycles	Power system	
Battery capacity Battery operating time 4 hours Battery charge life >500 cycles	Battery type	Rechargeable Li ion battery (built-in)
Battery operating time 4 hours Battery charge life >500 cycles	Battery voltage	3.7 V
Battery charge life >500 cycles	Battery capacity	1800 mAh
	Battery operating time	4 hours
Charging system	Battery charge life	>500 cycles
Charging system USB-C (TA)	Charging system	USB-C (1 A)
Charging time 2 hours	Charging time	2 hours
Charging temperature 35°C (95°F)	Charging temperature	35°C (95°F)



P/N: 89401-0203

© 2022, FLIR Systems, Inc. #89401-0203; r. 88895;

Power system	
External power operation	5 V, USB-C
Power management	Adjustable stand-by and automatic shut-down
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°C to 50°C (14°F to 122°F)
Storage temperature range	-40°C to 70°C (-40°F to 158°F)
EMC	EN 301 487-1 EN 301 489-17 FCC 47 CFR Part 15 Class B
Magnetic fields	EN 61000-4-8 level 5
Radio spectrum	 ETSI EN 300 328 EN 301 489 FCC Title 47 CFR Part 15 RSS-247 Issue 2
Battery regulations	UL 1642 EN 62133 ed 2
Battery charging efficiency	BC Title 20 10 CFR Section 430.23 (aa)
Drop	Designed for 2 m (6.56 ft)
Humidity (operating and storage)	ATEX Directive 2014/34/EU
Relative humidity	
Encapsulation	
Shock	
Vibration	_
Safety	<u>_</u>
Environmental safety	
Certifications	 EN IEC 60079-0:2018 EN IEC 60079-15:2019 EN 60079-31:2014 IEC 60079-0:2017 IEC 60079-15:2017 IEC 60079-31:2013
Certificates and declarations of conformity	See: https://support.flir.com/resources/cx/
Physical data	
Weight	ExN case: 0.49 kg (1.08 lb) ExN case + FLIR C5 camera: 0.69 kg (1.52 lb)
Size $(L \times W \times H)$	168 × 112 × 42 mm (6.6 × 4.4 × 1.7 in)
Tripod mounting	UNC 1/4"-20
Housing material	Aluminum
riousing material	



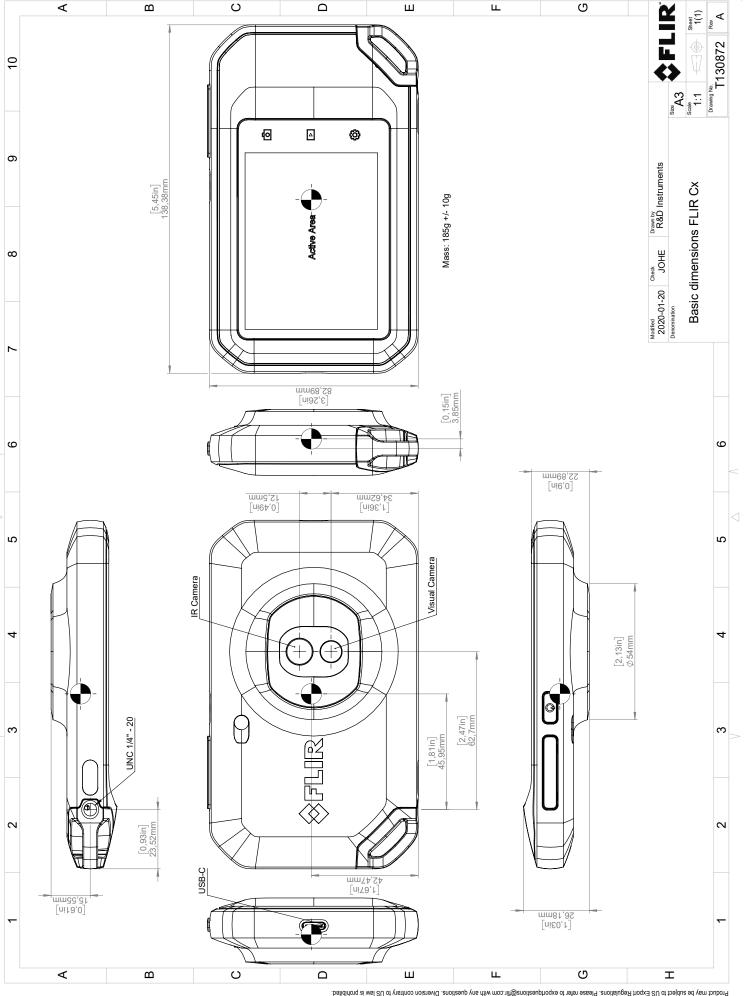
P/N: 89401-0203

© 2022, FLIR Systems, Inc. #89401-0203; r. 88895;

Warranty and service	
Warranty	http://www.flir.com/warranty/
Shipping information	
Packaging, type	Cardboard box
Packaging, contents	Cx5 FLIR Thermal Studio Starter Wrist strap lanyard USB cable Restricted breathing test port Pouch Printed documentation
Packaging, weight	0.825 kg (including Cx5) (1.82 lb)
Packaging, size	205 × 61 × 155 mm (8.1 × 2.4 × 6.1 in)
EAN-13	4743254006119
UPC-12	845188026998
Country of origin	ExN case: United Kingdom FLIR C5 camera: Estonia

Supplies & accessories:

- T911940ACC; USB 2.0 A to USB Type-C cable, 1.0 m
- T199871; Traceable Calibration for C5
- T300083; FLIR Thermal Studio Pro, Perpetual license
- T300341; FLIR Thermal Studio Standard, 1 Year Subscription
- T300258; FLIR Thermal Studio Standard, Perpetual license



© 2016, FLIR Systems, Inc. All rights reserved worldwide. No part of this drawing may be reproduced, stored in a retrieval system, or transmitted in any form, or by any means, electronic, mechanical, photocopying, recording, or otherwise, without written permission from FLIR Systems, Inc. Specifications subject to change without further notice. Dimensional data is based on nominal values. Products may be subject to regional market considerations. License procedures may apply.

Product may be subject to US Export Regulations. Please refer to exportquestions@in.com with any questions. Diversion contrary to US law is prohibited.