

# **FLIR Cx5**

# P/N: 89401-0203

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**Document identity** 

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

Website

http://www.flir.com

Customer support

http://support.flir.com

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#### **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<sup>™</sup> 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	<ul> <li>Thermal: 0.1 m (0.32 ft)</li> <li>MSX: 0.3 m (0.98 ft)</li> </ul>
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
Image presentation	
Display resolution	640 × 480 pixels
Screen size	3.5 in
Aspect ratio	4:3
Auto orientation	Yes
Touch screen	Yes, capacitive



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Image presentation	
Display technology	IPS
Image adjustment	<ul> <li>Automatic level and span</li> <li>Manual level and span</li> <li>1-Touch level and span</li> </ul>
Image modes	<ul> <li>Infrared image</li> <li>Visual image</li> <li>MSX</li> <li>Picture in picture (IR area on visual image)</li> </ul>
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 $35^{\circ}$ C (59 to $95^{\circ}$ F) and object temp. above $0^{\circ}$ C ( $32^{\circ}$ F)	<ul> <li>0 to 100°C (32 to 212°F): ±5°C (±9°F)</li> <li>100 to 400°C (212 to 752°F): ±5%</li> </ul>
Measurement analysis	
Measurement functions	<ul><li>Spot</li><li>Box with max./min.</li></ul>
Measurements correction	<ul> <li>Emissivity; matt/semi-matt/semi-glossy + custom value</li> <li>Reflected apparent temperature</li> <li>Atmospheric compensation</li> </ul>
Color palettes	<ul> <li>Iron</li> <li>Gray</li> <li>Rainbow</li> <li>Arctic</li> <li>Lava</li> <li>Rainbow HC</li> </ul>
Set-up	
Set-up commands	<ul> <li>Local adaptation of units, language, date and time formats</li> <li>Screen brightness (high, medium, low)</li> </ul>
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	<ul><li>Automatic over Wi-Fi</li><li>USB via computer</li></ul>
Storage of images	
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





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Non-radiometric video streaming	Yes; MSX, Thermal, Visual, Picture in Picture.
, and the second s	USB Video Class colorized uncompressed with overlay 9 Hz.
Digital camera	
Resolution	5 MP
Focus	Fixed
Field of view	71.5 $^{\circ}$ × 56 $^{\circ}$ (84 $^{\circ}$ 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	<ul> <li>Standard: 802.11 a/b/g/n (HT20)</li> <li>Frequency range:         <ul> <li>2401–2473 MHz</li> <li>5150–5250 MHz</li> </ul> </li> <li>Max. output power: 15 dBm</li> </ul>
Bluetooth + EDR	<ul> <li>Frequency range:</li> <li>2400–2484 MHz</li> <li>Max. output power: 10 dBm</li> </ul>
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
Charging system	USB-C (1 A)
Charging time	2 hours
Charging temperature	35°C (95°F)
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: <u>https://support.flir.com/resources/msds</u>
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	<ul> <li>EN 301 487-1</li> <li>EN 301 489-17</li> <li>FCC 47 CFR Part 15 Class B</li> </ul>



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Environmental data	
Radio spectrum	
	<ul> <li>ETSI EN 300 328</li> <li>EN 301 489</li> </ul>
	<ul> <li>FCC Title 47 CFR Part 15</li> <li>BSS-247 Issue 2</li> </ul>
Detterry requilations	RSS-247 Issue 2
Battery regulations	<ul><li>UL 1642</li><li>EN 62133 ed 2</li></ul>
Battery charging efficiency	<ul><li>BC Title 20</li><li>10 CFR Section 430.23 (aa)</li></ul>
Drop	Designed for 2 m (6.56 ft)
Humidity (operating and storage)	ATEX Directive 2014/34/EU
Relative humidity	
Encapsulation	
Shock	-
Vibration	
Safety	
Environmental safety	
Certifications	EN IEC 60079-0:2018
	• EN IEC 60079-15:2019
	<ul> <li>EN 60079-31:2014</li> <li>IEC 60079-0:2017</li> </ul>
	• IEC 60079-15:2017
	• IEC 60079-31:2013
Certificates and declarations of conformity	See: https://support.flir.com/resources/cx/
Physical data	
Weight	<ul> <li>ExN case: 0.49 kg (1.08 lb)</li> <li>ExN case + FLIR C5 camera: 0.69 kg (1.52 lb)</li> </ul>
Size $(L \times W \times H)$	$168 \times 112 \times 42 \text{ mm} (6.6 \times 4.4 \times 1.7 \text{ in})$
Tripod mounting	UNC 1/4"-20
Housing material	Aluminum
Color	Black
Warranty and service	
Warranty	http://www.flir.com/warranty/
Shipping information	
Packaging, type	Cardboard box
Packaging, contents	- Cv5
	<ul><li>Cx5</li><li>FLIR Thermal Studio Starter</li></ul>
	Wrist strap lanyard
	USB cable
	<ul><li>Restricted breathing test port</li><li>Pouch</li></ul>
	Printed documentation
Packaging, weight	0.825 kg (including Cx5) (1.82 lb)
Packaging, size	$205\times61\times155$ mm (8.1 $\times2.4\times6.1$ in)
EAN-13	4743254006119
UPC-12	845188026998
Country of origin	ExN case: United Kingdom



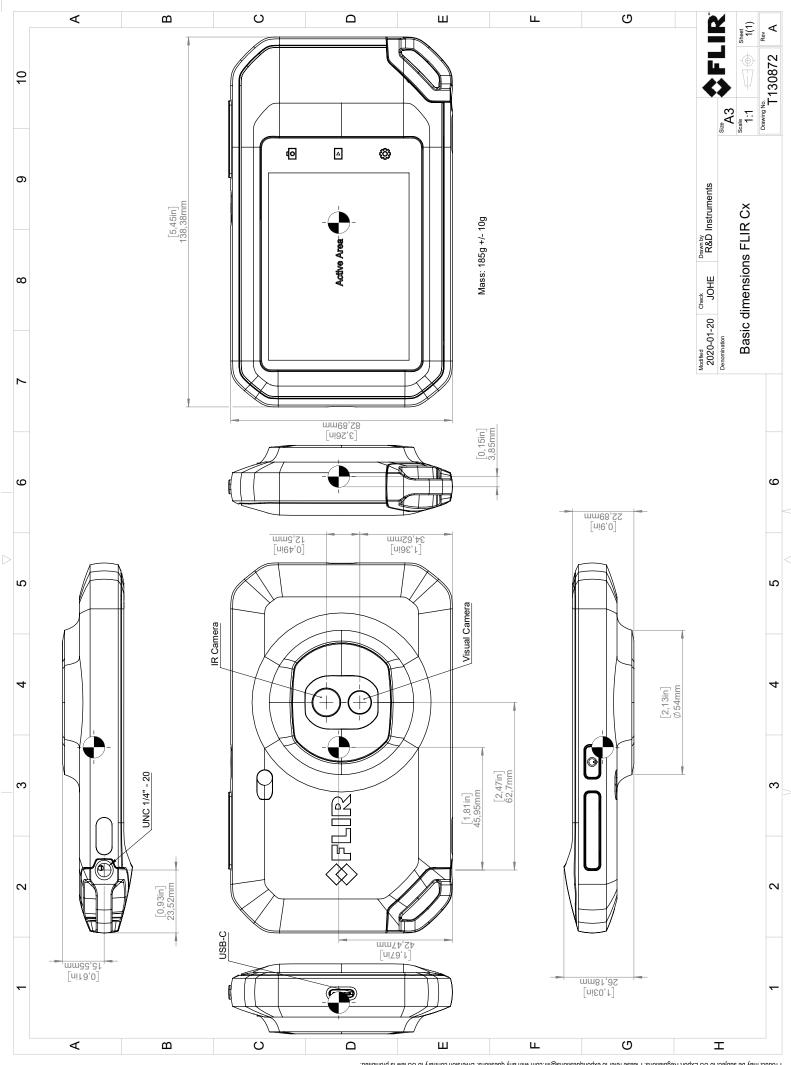


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## Supplies & accessories:

- 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



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