

# **FLIR Cx5**

# P/N: 89401-0203

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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 $95^{\circ}$<br>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,<br>French, German, Greek, Hungarian, Italian,<br>Japanese, Korean, Norwegian, Polish,<br>Portuguese, Russian, simplified Chinese,<br>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<br>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<br>reports/summaries, see:<br><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  |



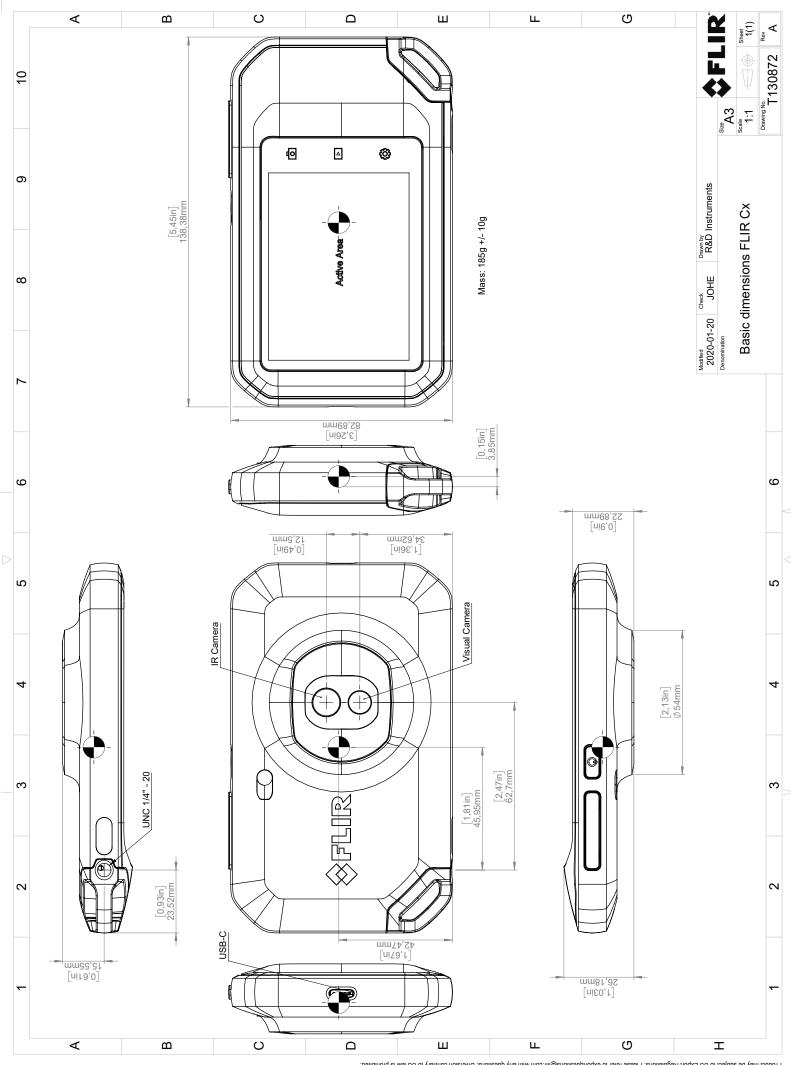


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## Supplies & accessories:

- 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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