

# Technical Data

## FLIR E40 (incl. Wi-Fi)

**Part number:**

**49001-2001**

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**Legal disclaimer**

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**Imaging and optical data**

|  |                                     |
|--|-------------------------------------|
| IR resolution                                | 160 × 120 pixels                    |
| Thermal sensitivity/NETD                     | < 0.07°C @ +30°C (+86°F) / 70 mK    |
| Field of view (FOV) / Minimum focus distance | 25° × 19° / 0.4 m (1.31 ft.)        |
| Spatial resolution (IFOV)                    | 2.72 mrad                           |
| Image frequency                              | 60 Hz                               |
| Focus  | Manual                              |
| Zoom   | 2× digital zoom, including panning  |
| Focal Plane Array (FPA) / Spectral range     | Uncooled microbolometer / 7.5–13 μm |

**Image presentation**

|                    |   |
|--------------------|---|
| Display            | Touch screen, 3.5 in. LCD, 320 × 240 pixels                   |
| Image modes        | IR image, visual image, picture in picture, thumbnail gallery |
| Picture in Picture | IR area on visual image                                       |

**Measurement**

|                          |  |
|--------------------------|--|
| Object temperature range | -20°C to +120°C (-4°F to +248°F)<br>0°C to +650°C (+32°F to +1202°F)                     |
| Accuracy                 | ±2°C (±3.6°F) or ±2% of reading, for ambient temperature<br>10°C to 35°C (+50°F to 95°F) |

**Measurement analysis**

|                                    |  |
|------------------------------------|--|
| Spotmeter                          | 3  |
| Area                               | 3 boxes with max./min./average   |
| Automatic hot/cold detection       | Auto hot or cold spotmeter markers within area                           |
| Isotherm                           | Detect high/low temperature/interval                                     |
| Difference temperature             | Delta temperature between measurement functions or reference temperature |
| Emissivity correction              | Variable from 0.01 to 1.0 or selected from materials list                |
| External optics/windows correction | Automatic, based on inputs of optics/window transmission and temperature |
| Measurement corrections            | Reflected temperature, optics transmission and atmospheric transmission  |

**Set-up**

|                 |  |
|-----------------|--|
| Color palettes  | Arctic, Gray, Iron, Lava, Rainbow and Rainbow HC           |
| Set-up commands | Local adaptation of units, language, date and time formats |
| Languages       | 21   |



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### Storage of images

|                    |  |
|--------------------|--|
| Image storage      | Standard JPEG, including measurement data, on memory card      |
| Image storage mode | IR/visual images; simultaneous storage of IR and visual images |

### Image annotations

|                   |   |
|-------------------|---|
| Voice             | 60 seconds (via Bluetooth)  |
| Text              | Text from predefined list or soft keyboard on touch screen  |
| Meterlink         | Wireless connection (Bluetooth®) to:<br>Extech Moisture Meter MO297<br>Extech Clamp Meter EX845         |
| Report generation | <ul style="list-style-type: none"> <li>Separate PC software with extensive report generation</li> </ul> |

### Video recording in camera

|                                    |                       |
|------------------------------------|-----------------------|
| Non-radiometric IR-video recording | MPEG-4 to memory card |
|------------------------------------|-----------------------|

### Video streaming

|                                    |  |
|------------------------------------|--|
| Radiometric IR-video streaming     | Full dynamic to PC using USB           |
| Non-radiometric IR-video streaming | Uncompressed colorized video using USB |

### Digital camera

|                            |  |
|----------------------------|--|
| Built-in digital camera    | 3.1 Mpixel (2048 × 1536 pixels), and one LED light |
| Built-in digital lens data | FOV 53° × 41°                                      |

### Laser pointer

|                 |   |
|-----------------|---|
| Laser           | Activated by dedicated button                   |
| Laser alignment | Position is automatic displayed on the IR image |

### Data communication interfaces

|            |   |
|------------|---|
| Interfaces | USB-mini, USB-A, Bluetooth, Wi-Fi, composite video  |
| Bluetooth  | Communication with headset and external sensors   |
| Wi-Fi      | Peer to peer (ad-hoc) or infrastructure (network)   |
| USB        | <ul style="list-style-type: none"> <li>USB-A: Connect external USB device</li> <li>USB Mini-B: Data transfer to and from PC / Uncompressed colorized video</li> </ul> |
| Video out  | Composite   |

### Radio

|           |  |
|-----------|--|
| Wi-Fi     | Standard: 802.11 b/g<br>Frequency range: 2412–2462 MHz<br>Max output power: 15 dBm |
| Bluetooth | Frequency range: 2402–2480 MHz   |
| Antenna   | Internal   |

### Power system

|                      |  |
|----------------------|--|
| Battery              | Li Ion, 4 hours operating time                                 |
| Charging system      | In camera (AC adapter or 12 V from a vehicle) or 2-bay charger |
| Charging temperature | 0°C to +45°C (+32°F to +113°F)                                 |
| Power management     | Automatic shutdown and sleep mode (user selectable)            |

### Environmental data

|                                  |   |
|----------------------------------|---|
| Operating temperature range      | –15°C to +50°C (+5°F to +122°F)   |
| Storage temperature range        | –40°C to +70°C (–40°F to +158°F)  |
| Humidity (operating and storage) | IEC 60068-2-30/24 h 95% relative humidity +25°C to +40°C (+77°F to +104°F) / 2 cycles |

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### Environmental data

|                |   |
|----------------|---|
| EMC            | <ul style="list-style-type: none"><li>• ETSI EN 301 489-1 (radio)</li><li>• ETSI EN 301 489-17</li><li>• EN 61000-6-2 (Immunity)</li><li>• EN 61000-6-3 (Emission)</li><li>• FCC 47 CFR Part 15 B (Emission)</li><li>• ICES-003</li></ul> |
| Radio spectrum | <ul style="list-style-type: none"><li>• ETSI EN 300 328</li><li>• FCC Part 15.247</li><li>• RSS-210</li></ul>   |
| Encapsulation  | IP 54 (IEC 60529)   |
| Bump           | 25 g (IEC 60068-2-29)   |
| Vibration      | 2 g (IEC 60068-2-6)   |
| Drop           | 2 m (6.6 ft.)   |
| Safety         | EN/UL/CSA/PSE 60950-1   |

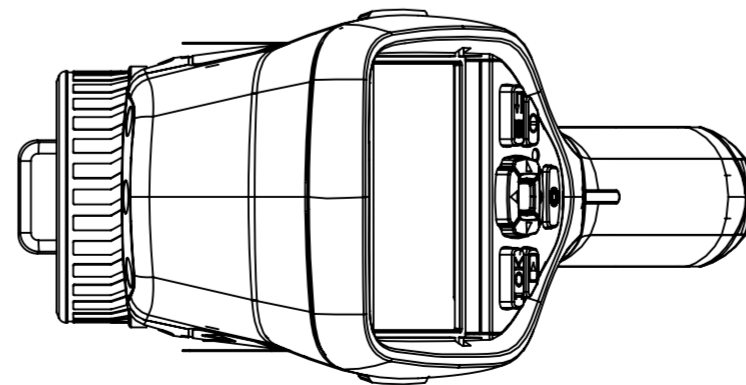
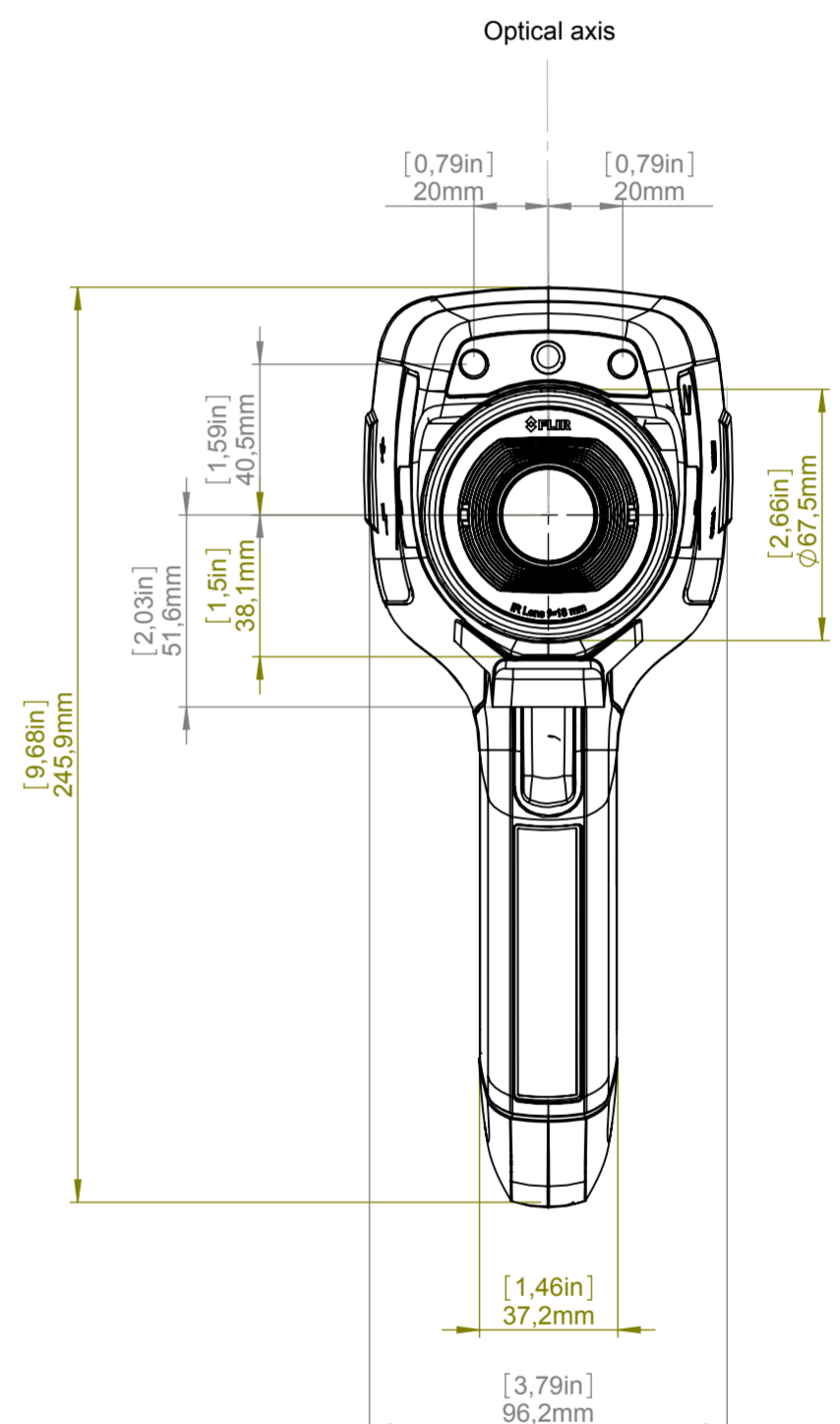
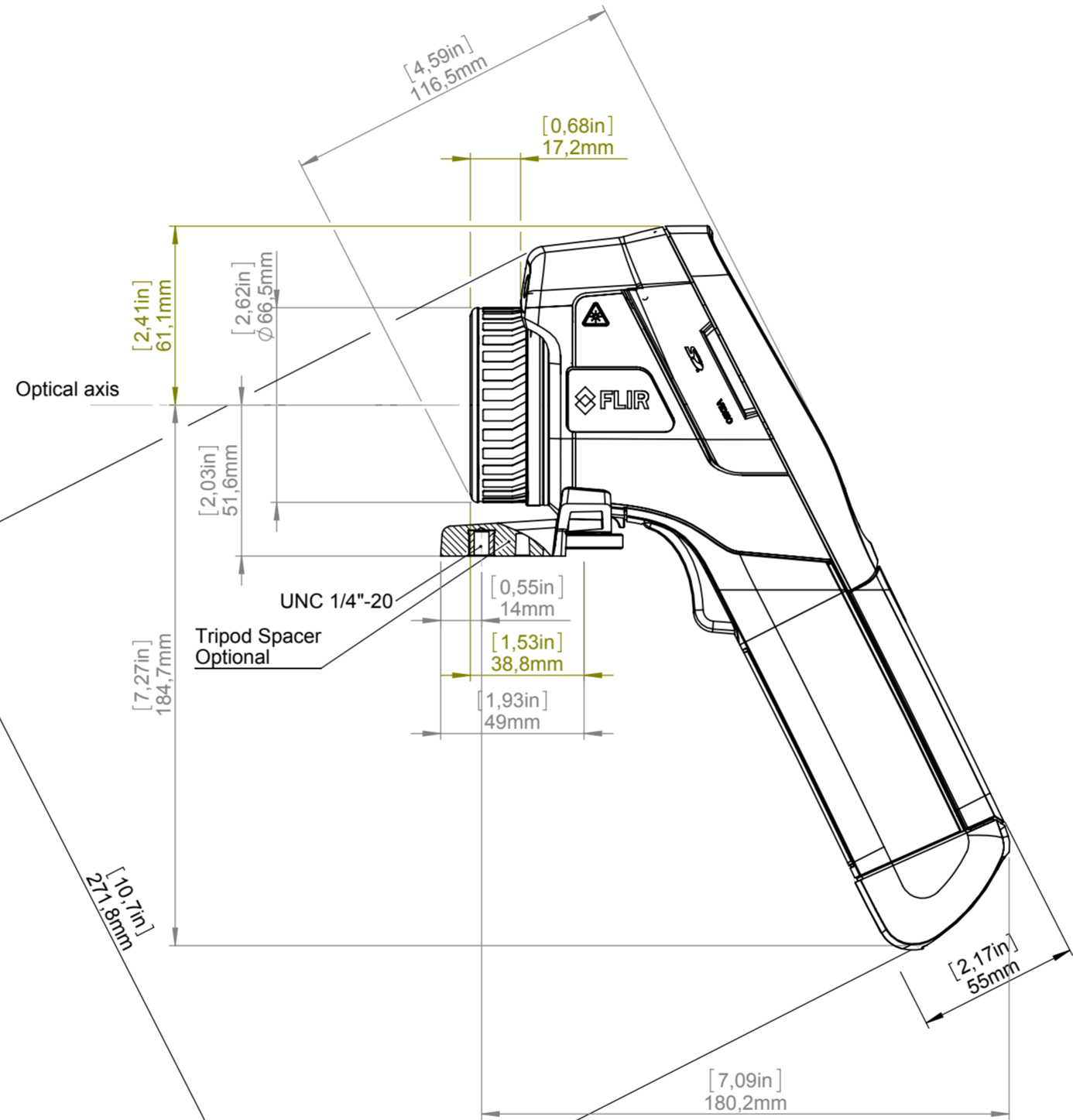
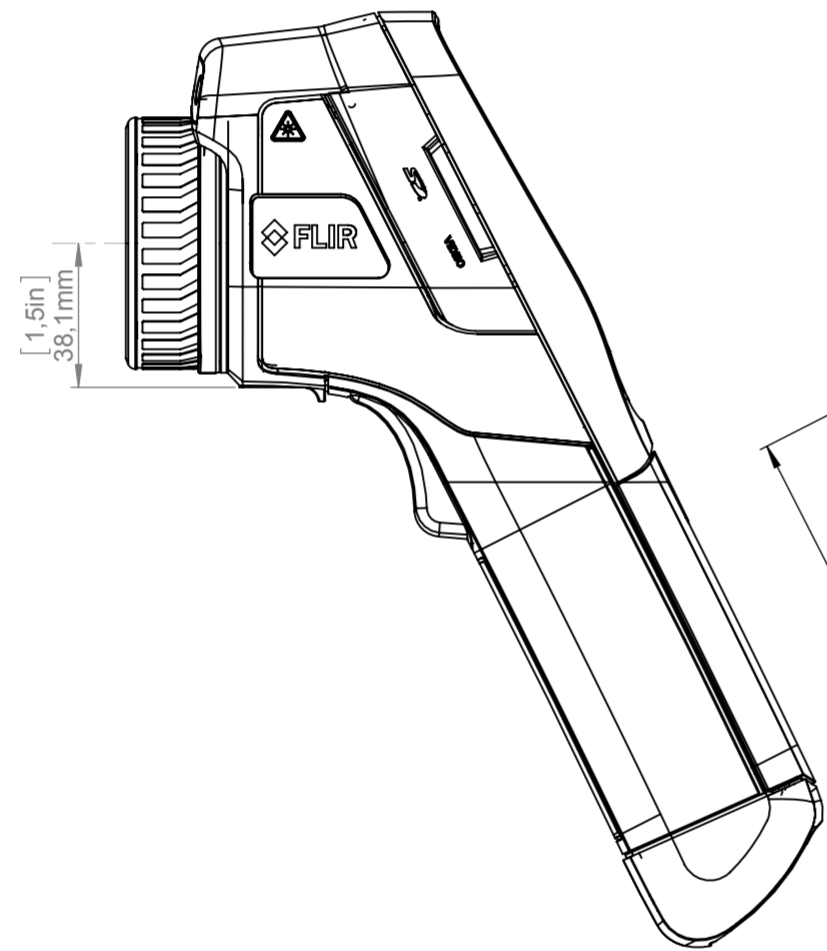
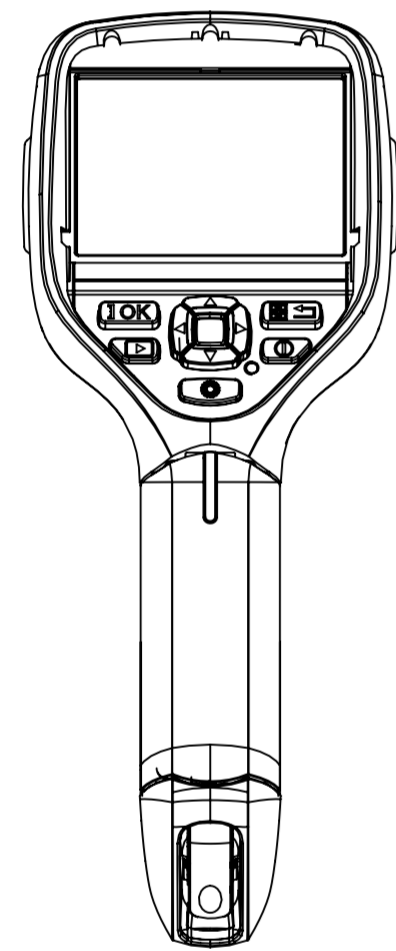
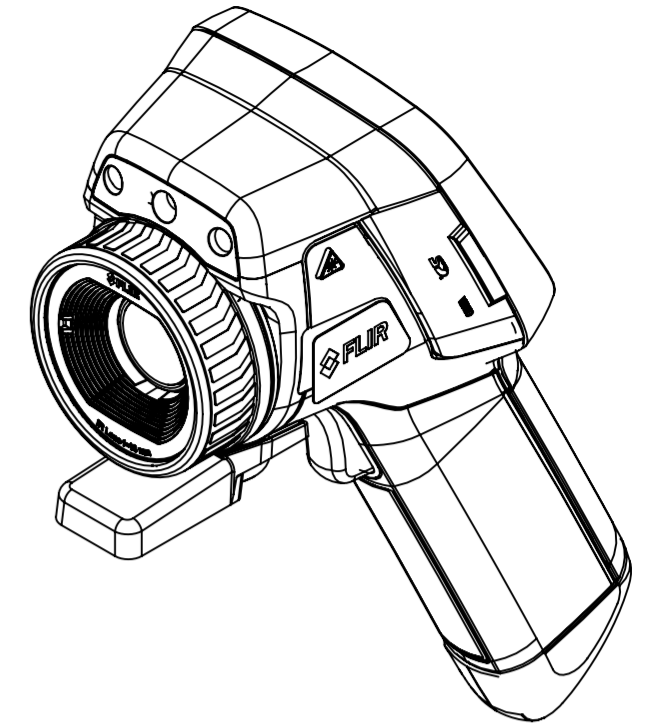
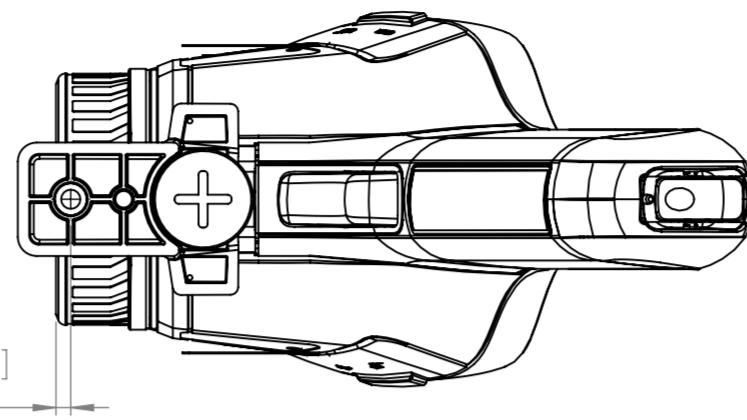
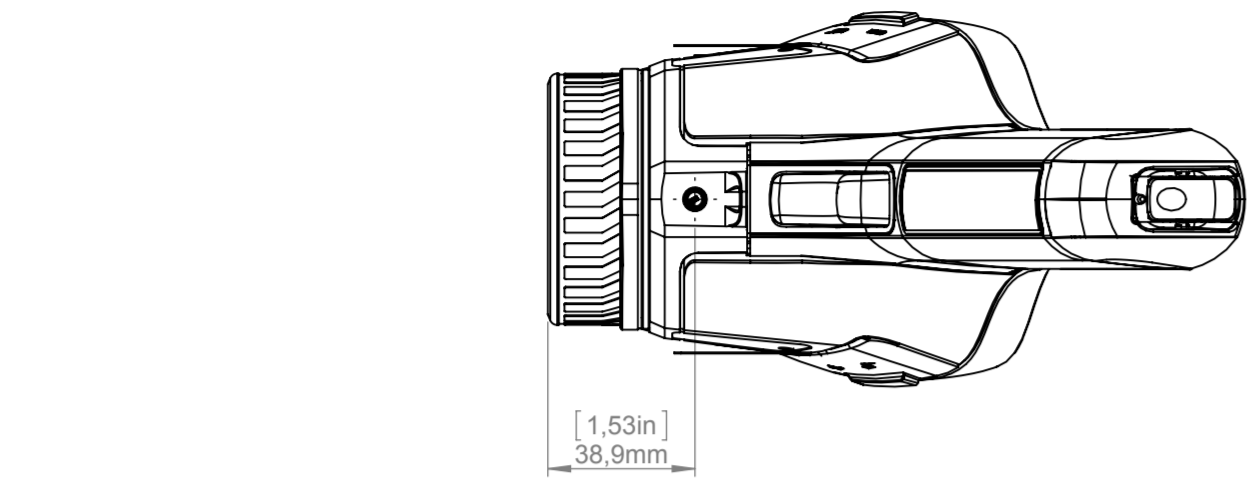
### Physical data

|                              |   |
|------------------------------|---|
| Camera weight, incl. battery | 0.865 kg (1.91 lb.)                     |
| Camera size (L x W x H)      | 246 x 97 x 184 mm (9.7 x 3.8 x 7.2 in.) |
| Tripod mounting              | UNC ¼"-20 (adapter needed)              |

### Shipping information

- Hard transport case
- Infrared camera with lens
- Battery
- Calibration certificate
- Camera lens cap
- Downloads brochure
- FLIR Tools software
- Handstrap
- Memory card
- Power supply, incl. multi-plugs
- Printed Getting Started Guide
- Printed Important Information Guide
- Service & training brochure
- USB cable
- User documentation CD-ROM
- Video cable
- Warranty extension card

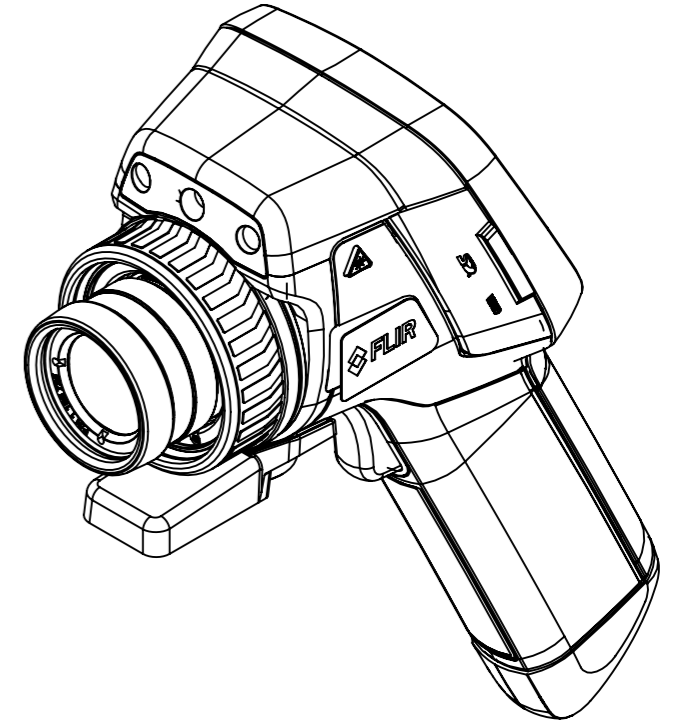
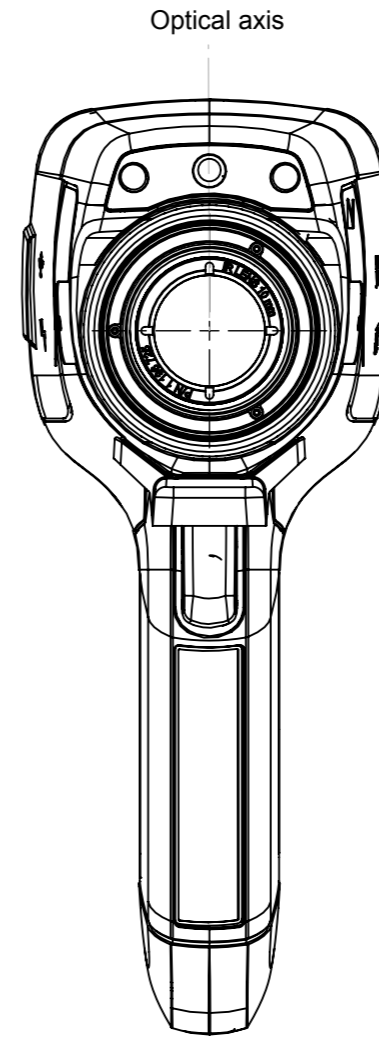
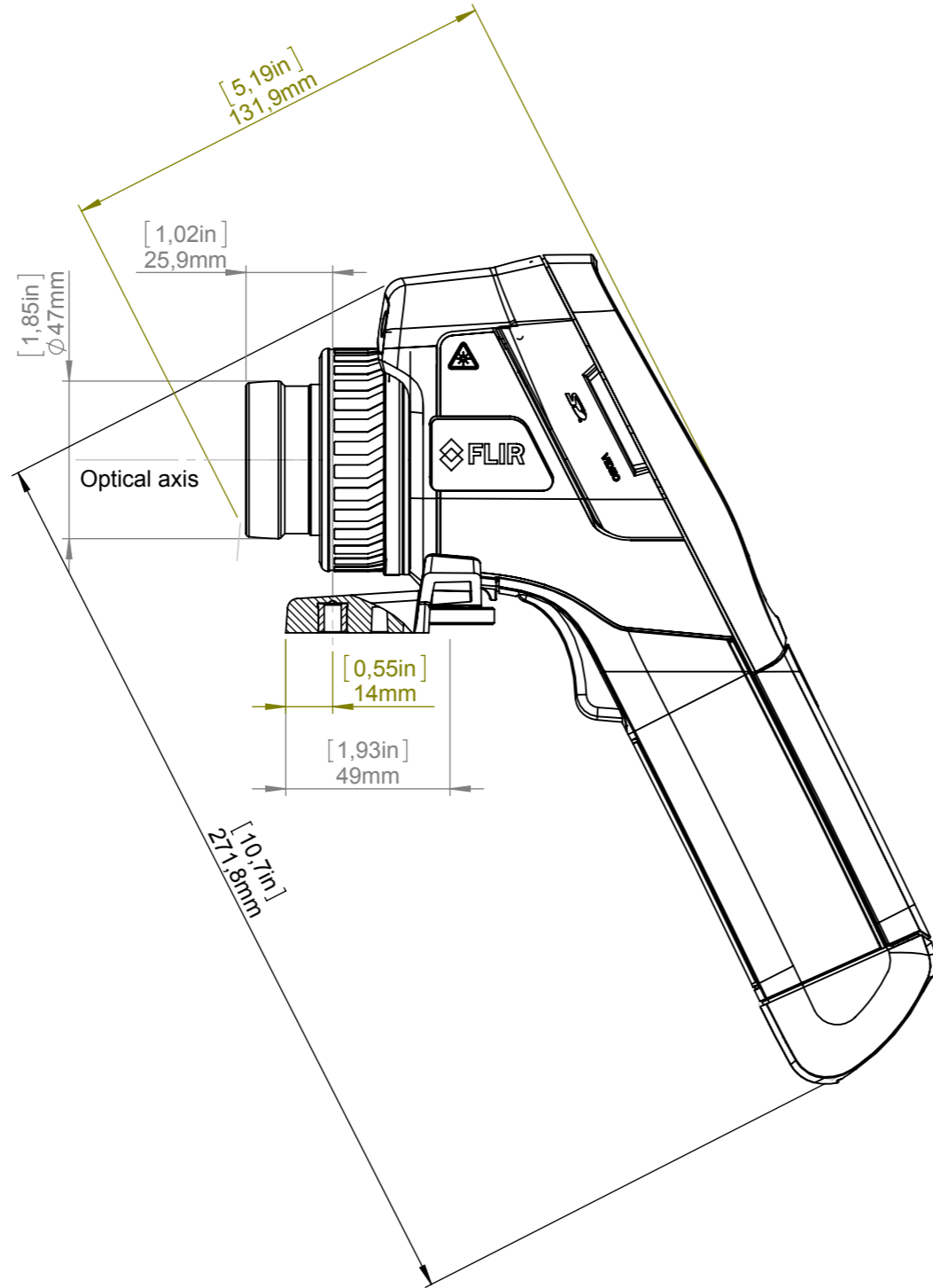
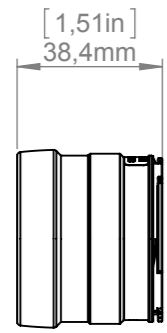
# Camera with built-in IR lens f=18 mm (25°)



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|                           |               |                              |   |
|---------------------------|---------------|------------------------------|---|
| Modified<br>2012-04-18    | Check<br>CAHA | Drawn by<br>R&D Thermography |   |
| Denomination              |               |                              |   |
| Basic dimensions FLIR Exx |               |                              | Size<br>A3<br>Scale<br>1:2<br>Sheet<br>1(4) |
| Drawing No.<br>T126960    |               |                              | Size<br>A                                   |

# Camera with Lens IR f=10 mm (45°)

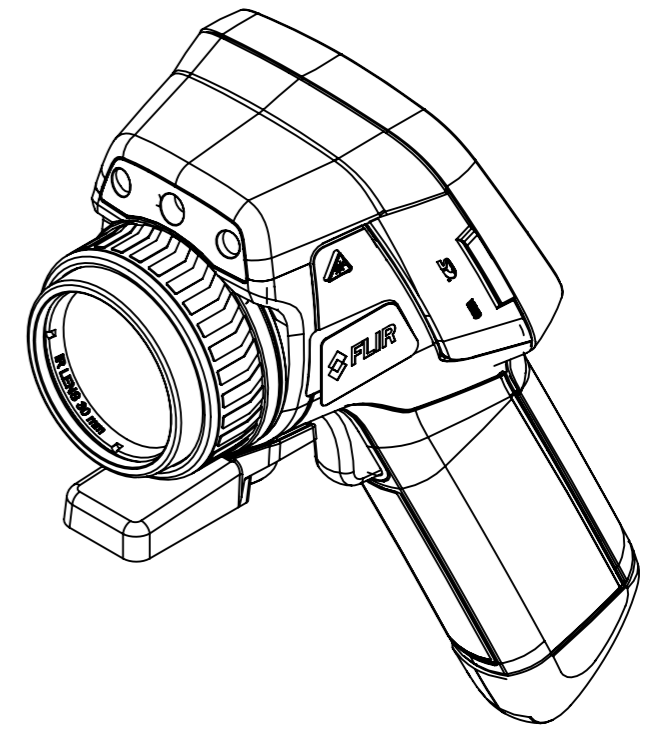
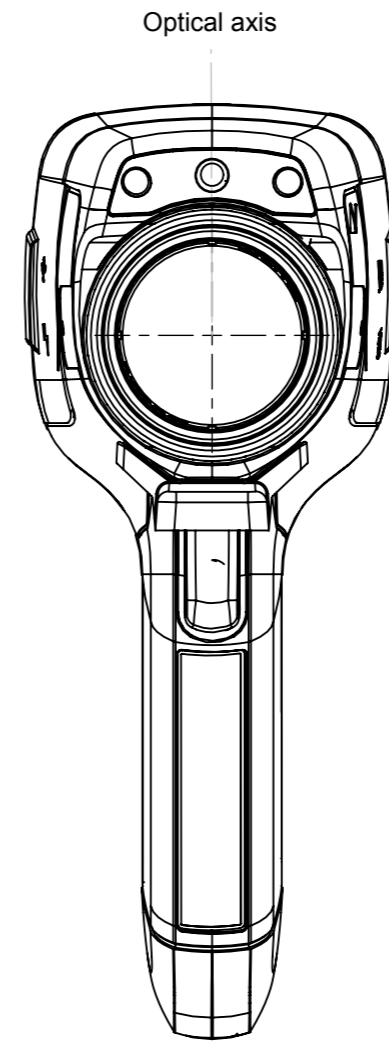
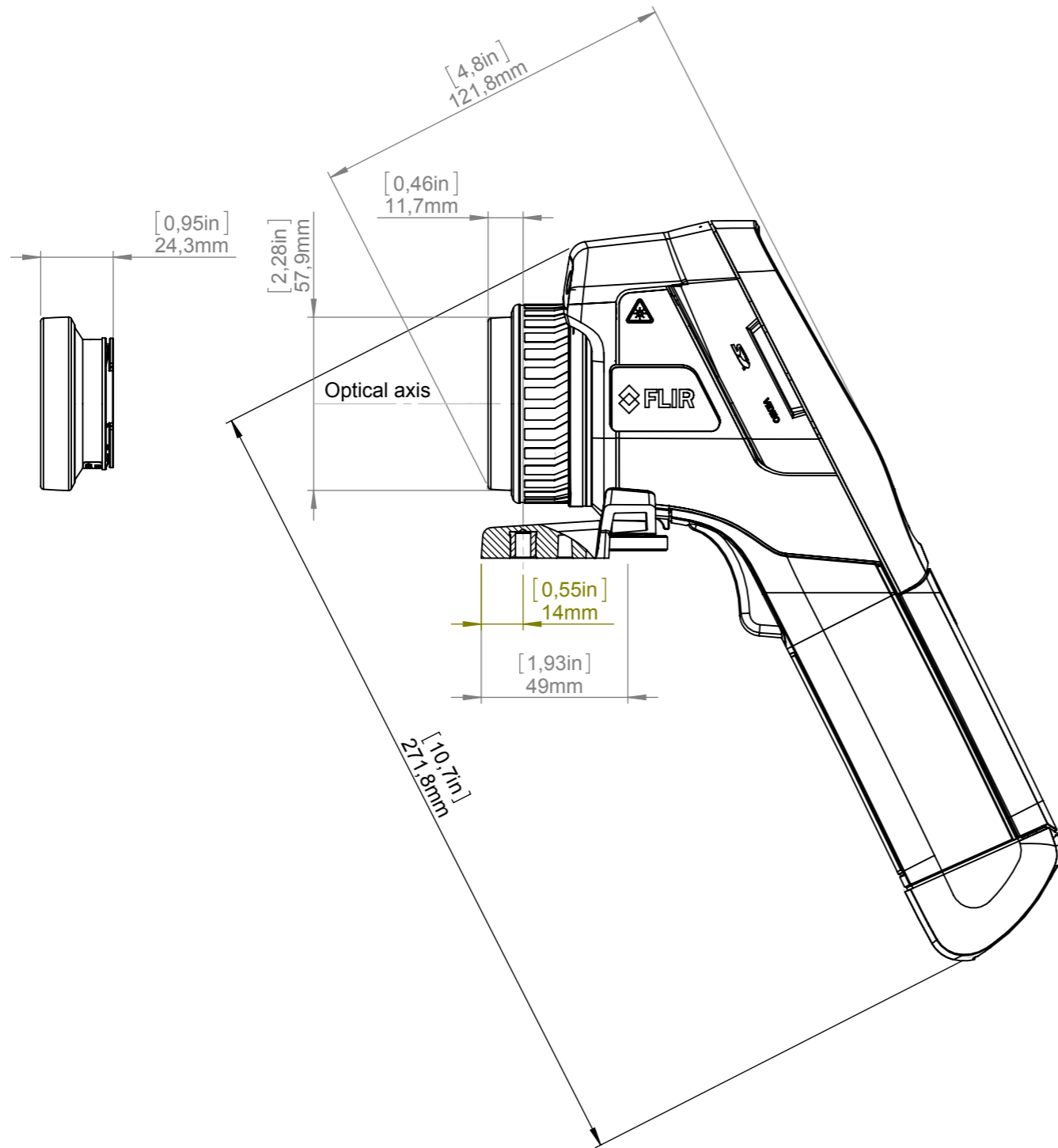


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For additional dimensions see page 1

|                               |               |                              |                  |
|-------------------------------|---------------|------------------------------|------------------|
| Modified<br>2012-04-18        | Check<br>CAHA | Drawn by<br>R&D Thermography |                  |
| Denomination                  |               |                              |                  |
| Basic dimensions FLIR Exx     |               |                              | Sheet<br>2(4)    |
| Drawing No.<br><b>T126960</b> |               |                              | Size<br><b>A</b> |

# Camera with Lens IR f=30 mm (15°)

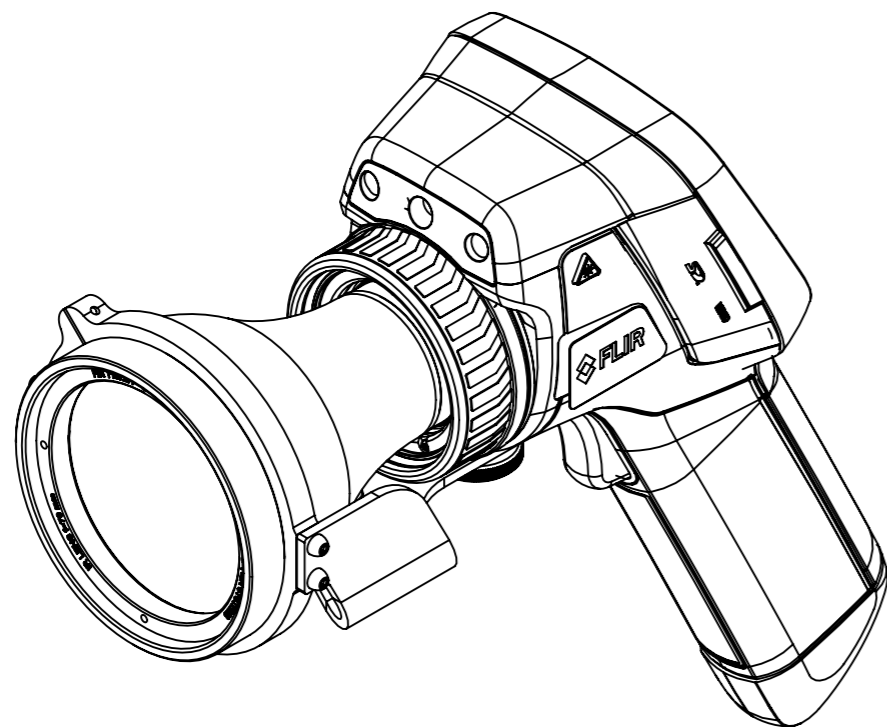
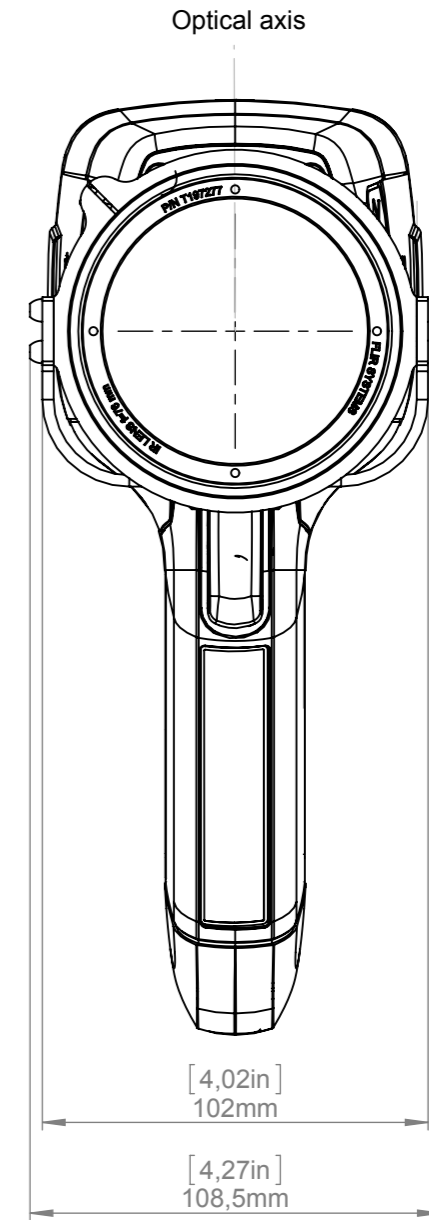
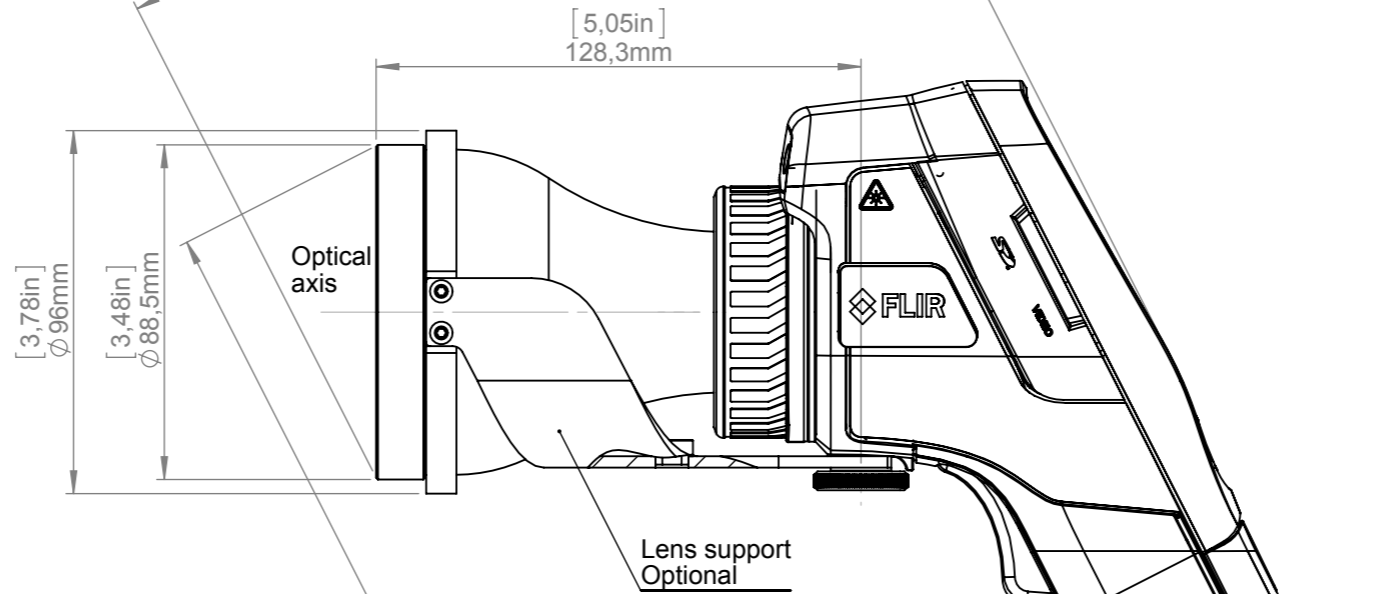
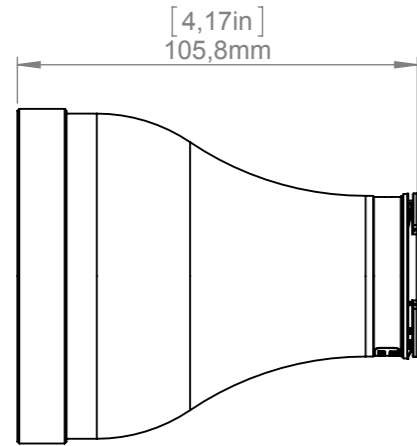


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For additional dimensions see page 1

|  |                  |                              |  |
|--|------------------|------------------------------|--|
| Modified<br>2012-04-18                           | Check<br>CAHA    | Drawn by<br>R&D Thermography |  |
| Denomination<br><b>Basic dimensions FLIR Exx</b> |                  |                              |  |
| Size<br><b>A3</b>                                | Scale<br>1:2     | Sheet<br>3(4)                |  |
| Drawing No.<br><b>T126960</b>                    | Size<br><b>A</b> |                              |  |

# Camera with Lens IR f=76 mm (6°) incl support



[12,42in]  
315,5mm

For additional dimensions see page 1

|                           |               |                              |               |
|---------------------------|---------------|------------------------------|---------------|
| Modified<br>2012-04-18    | Check<br>CAHA | Drawn by<br>R&D Thermography |               |
| Denomination              |               |                              |               |
| Basic dimensions FLIR Exx |               |                              | Scale<br>1:2  |
| Drawing No.<br>T126960    |               |                              | Sheet<br>4(4) |
|                           |               |                              | Size<br>A     |

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