

## P/N: 72203-0411

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### Document identity

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### 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](mailto:exportquestions@flir.com) with any questions.



<b>General description</b>	
The FLIR K33 is a robust and reliable infrared camera designed to perform under extremely severe conditions. The FLIR K33 has an intuitive interface with a design that makes it easy to control even with a gloved hand. The crisp and clear image helps you to navigate through smoke and to make quick and accurate decisions.	
Benefits:	
<ul style="list-style-type: none"> <li>• <b>Robust and reliable:</b> The FLIR K33 is designed to meet tough operating conditions. It can withstand a drop from 2 m (6.5 ft.) onto a concrete floor, is water resistant to IP67, and is fully operational up to +85°C (+185°F), or +260°C (+500°F) for 5 min.</li> <li>• <b>Clear and crisp thermal images:</b> The maintenance-free uncooled microbolometer sensor produces clear and detail-rich images of 240 × 180 pixels which have been further improved with FSX, a digital image processing enhancement technique. Thermal images are presented on a large, bright 4" display, helping you to navigate and to make quick and accurate decisions.</li> <li>• <b>Easy-to-use—also in a gloved firefighter's hand:</b> An intuitive and simple user interface allows you to focus on the job. The FLIR K33 can be controlled by just one large button on top of the unit. Ideal for a gloved firefighter's hand.</li> </ul>	
<b>Imaging and optical data</b>	
IR resolution	240 × 180 pixels
Thermal sensitivity/NETD	< 40 mK @ +30°C (+86°F)
Field of view (FOV)	51° × 38°
Depth of field	0.84 m to infinity (33 in. to infinity)
Focal length	9 mm (0.35 in.)
Spatial resolution (IFOV)	3.6 mrad
F-number	1.25
Image frequency	60 Hz
Focus	Fixed
<b>Detector data</b>	
Detector type	Focal plane array (FPA), uncooled microbolometer
Spectral range	7.5–13 μm
Pitch	25 μm

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<b>Image presentation</b>	
Display	4 in. LCD, 320 × 240 pixels, backlit
Auto range	Yes, selectable on/off using FLIR Tools
Contrast optimization	Digital image enhancement using FSX
<b>Image presentation modes</b>	
Image modes	T1 Basic fire-fighting mode
<b>Measurement</b>	
Object temperature range	<ul style="list-style-type: none"> <li>-20°C to +150°C (-4°F to +302°F)</li> <li>0°C to +650°C (+32°F to +1202°F)</li> </ul>
Accuracy	±4°C (±7.2°F) or ±4% of reading, for ambient temperature 10°C to 35°C (+50°F to 95°F)
<b>Measurement analysis</b>	
Spotmeter	1
Isotherm	Yes
<b>Set-up</b>	
Set-up commands	Local adaptation of units, date and time formats
Languages	English
<b>Video streaming</b>	
Non-radiometric IR video streaming	Uncompressed colorized video using USB
<b>USB</b>	
USB	USB Mini-B
<b>Compatibility</b>	
Compatible with FLIR software	FLIR Tools
<b>Data communication interfaces</b>	
Interfaces	<ul style="list-style-type: none"> <li>Update from PC devices</li> <li>Data transfer to and from PC</li> </ul>
<b>Power system</b>	
Battery type	Li Ion
Battery voltage	3.6 V
Battery capacity	4.4 Ah, at +20°C to +25°C (+68°F to +77°F)
Battery operating time	Approx. 4 hours at +25°C (+77°F) ambient temperature and typical use
Charging system	<ul style="list-style-type: none"> <li>Battery is charged inside the camera</li> <li>2-bay charger</li> <li>Optional In-truck charger</li> </ul>
Charging time	2 h to 85% capacity, charging status indicated by LEDs
Charging temperature	0°C to +45°C (+32°F to +113°F)
Power management	Automatic shutdown and sleep mode
Start-up time from sleep mode	< 4 s.
Start-up time	< 17 s. (IR image, no GUI)

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<b>Environmental data</b>	
Operating temperature range	<ul style="list-style-type: none"> <li>-20°C to +85°C (-4°F to +185°F)</li> <li>+150°C (+302°F): 15 min.</li> <li>+260°C (+500°F): 5 min.</li> </ul>
Storage temperature range	-40°C to +85°C (-40°F to +185°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
Relative humidity	95% relative humidity +25°C to +40°C (+77°F to +104°F) non-condensing
Directives	Designed to meet NFPA 1801:2013 specification: <ul style="list-style-type: none"> <li>Vibration</li> <li>Impact acceleration resistance</li> <li>Corrosion</li> <li>Viewing surface abrasion</li> <li>Heat resistance</li> <li>Heat and flame</li> <li>Product label durability</li> </ul>
EMC	<ul style="list-style-type: none"> <li>EN 61000-6-2:2005 (Immunity)</li> <li>EN 61000-6-3: 2011 (Emission)</li> <li>FCC 47 CFR Part 15 B (Emission)</li> </ul>
Magnetic fields	EN 61 000-4-8, Test level 5 for continuous field (severe industrial environment)
Encapsulation	IP 67 (IEC 60529)
Shock	25 g (IEC 60068-2-27)
Vibration	2 g (IEC 60068-2-6)
Drop	2 m (6.6 ft.) on concrete floor (IEC 60068-2-31)
Safety (power supply)	CE/EN/UL/CSA/PSE 60950-1
<b>Physical data</b>	
Camera weight, incl. battery	1.1 ±0.05 kg (2.4 ±0.1 lb.)
Battery weight	0.152 kg (0.3 lb.)
Camera size (L × W × H)	120 × 125 × 280 mm (4.7 × 4.9 × 11 in.)
Tripod mounting	UNC ¼"-20 (adapter needed)
Material	<ul style="list-style-type: none"> <li>PPSU</li> <li>Silicon rubber</li> <li>Aluminium, cast</li> <li>Flame-resistant magnesium alloy</li> </ul>
<b>Shipping information</b>	
List of contents	<ul style="list-style-type: none"> <li>Infrared camera</li> <li>Battery (2 ea.)</li> <li>Battery charger</li> <li>Hard transport case</li> <li>Lanyard strap</li> <li>Neck strap</li> <li>Power supply</li> <li>Printed documentation</li> <li>Retractable lanyard</li> <li>USB cable</li> </ul>
Packaging, weight	5.7 kg (12.6 lb.)
Packaging, size	500 × 190 × 370 mm (19.7 × 7.5 × 14.6 in.)
EAN-13	7332558011515
UPC-12	845188012465
Country of origin	Estonia



## FLIR K33

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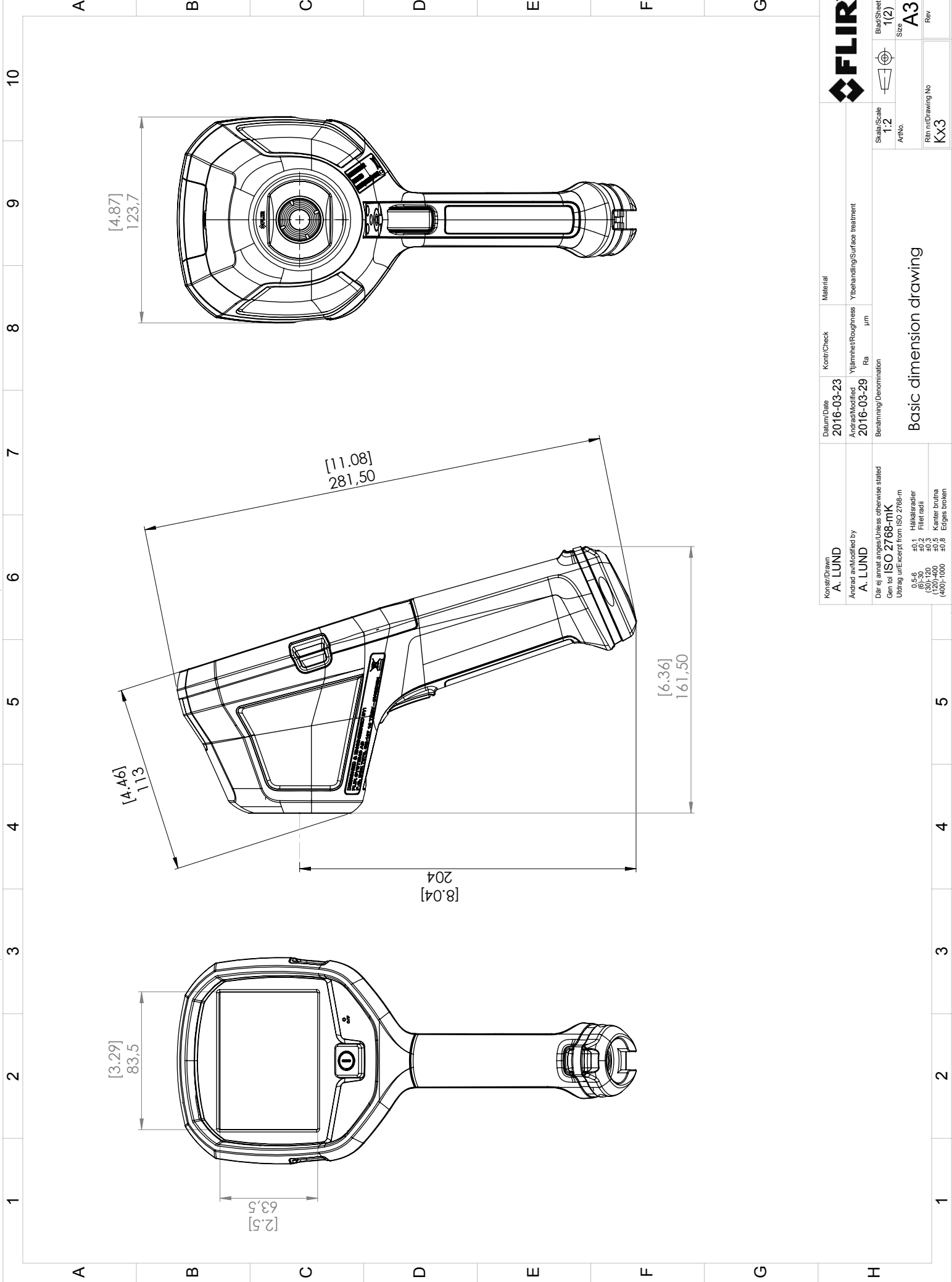
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### **Supplies & accessories:**

- 1910423; USB cable Std A <-> Mini-B
- T198509; Cigarette lighter adapter kit, 12 VDC, 1.2 m/3.9 ft.
- T198125; Battery charger, incl. power supply with multi plugs (Exx, Kxx)
- T198310ACC; Li-Ion Battery pack 3.6 V 16 Wh
- T127724ACC; Neck strap
- T127722ACC; Retractable lanyard
- T198416ACC; Strap lanyard
- T198457ACC; Tripod Adapter, Kxx
- T198441ACC; Transport case Kxx
- T198322ACC; In-truck charger



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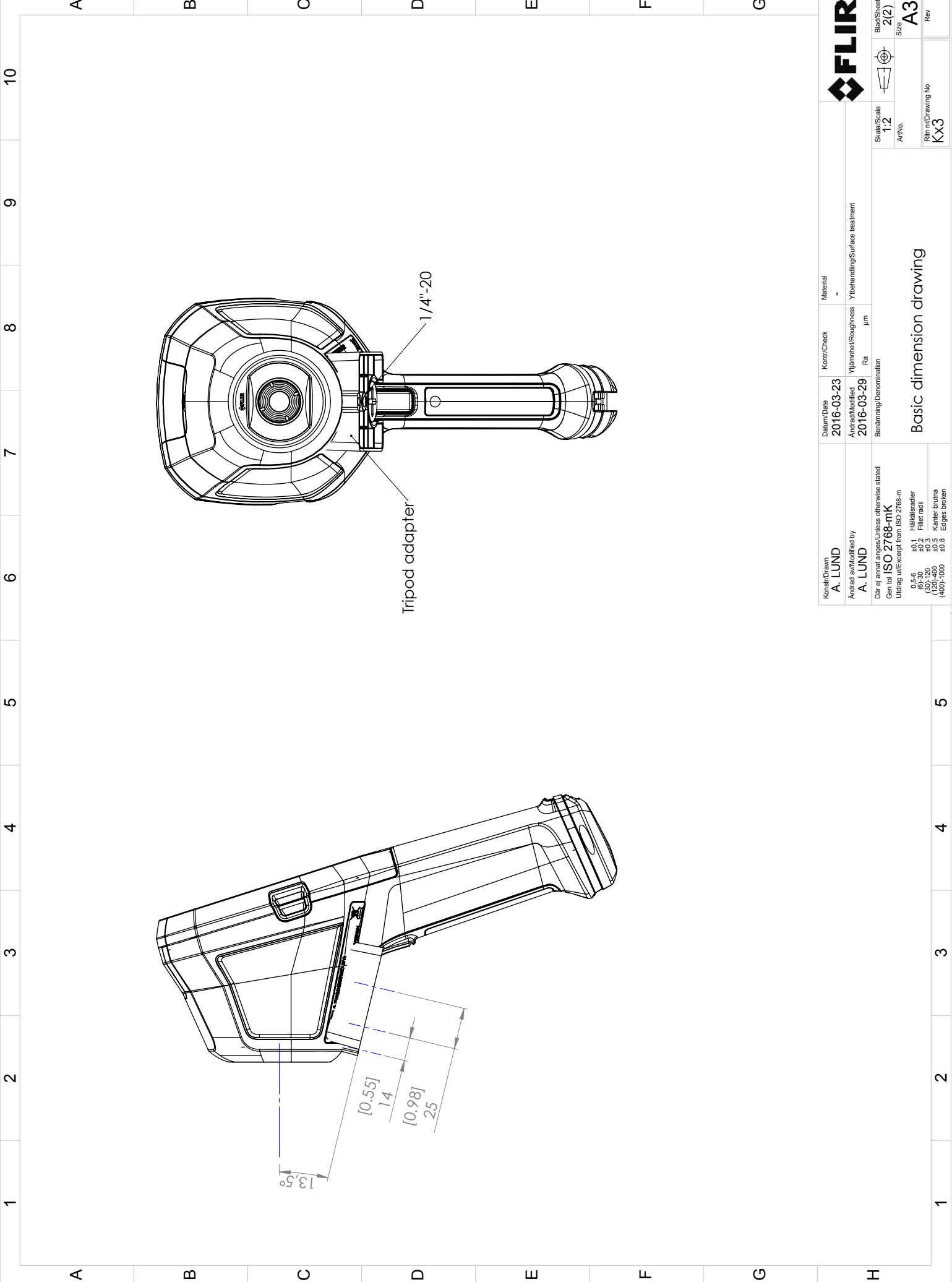
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Size  
A3

Scale  
1:2

Rev  
KX3

Konstr/Drawn <b>A. LUND</b>	Datum/Date <b>2016-03-23</b>	Kontr/Check	Material
Ändrad av/Modified by <b>A. LUND</b>	Ändrad/Modified <b>2016-03-29</b>	Ytjämnhet/Roughness Ra	Ytbehandling/Surface treatment
Benämning/Denomination			
Där ej annat anges, Likaså, uteslutas, uteslutas Gen tol ISO 2768-mk Utdrag ur: except from ISO 2768-m 0.5-6 ±0.1 Hållradier (6)-30 ±0.2 Fillet radii (120)-400 ±0.5 Kanter brutna (-400)-1000 ±0.8 Edges broken			

Basic dimension drawing



Blad/Sheet  
2(2)



SES  
A3

Rev

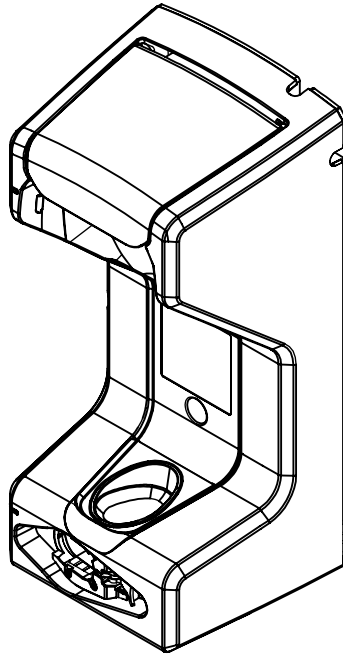
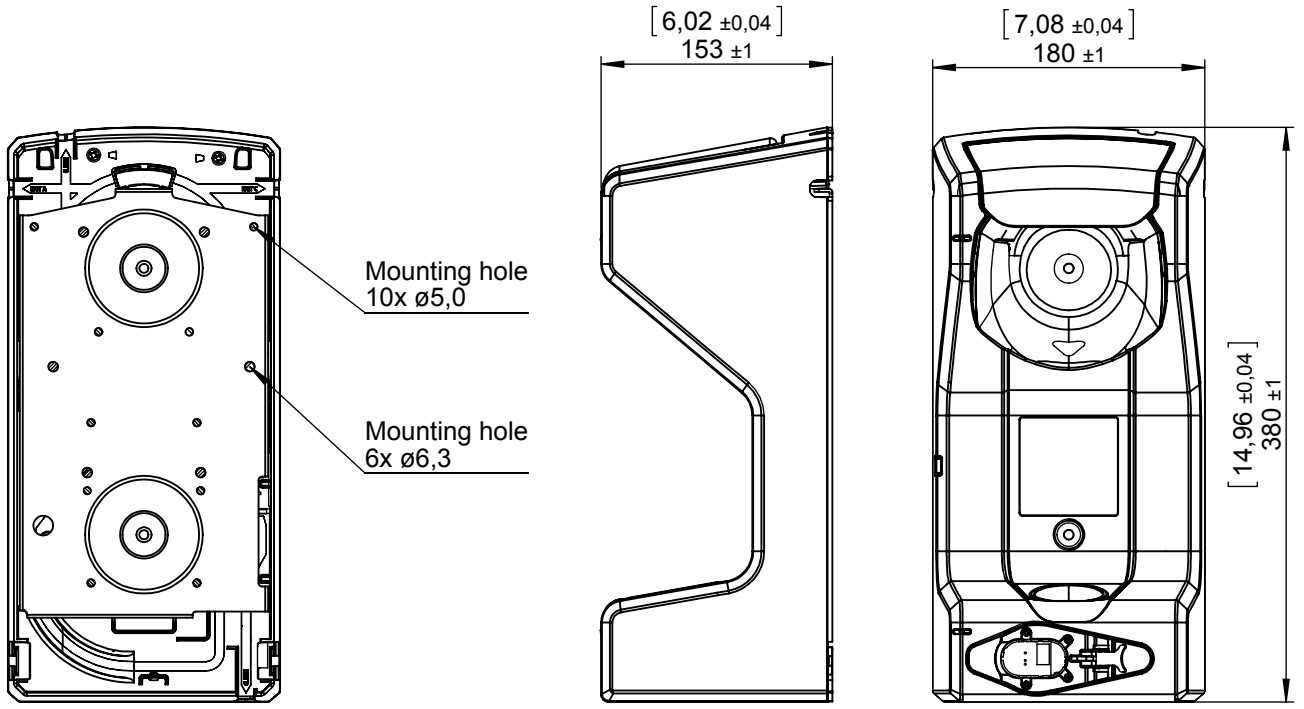
Scale/Scale  
1:2

AFINo.

Rin nr/Drawing No  
KX3

Material  
-

Konstr/Drawn A. LUND	Datum/Date 2016-03-23	Kontr/Check -	Material -
Ändrad av/Modified by A. LUND	Ändrad/Modified 2016-03-29	Ytjämnhet/Roughness Ra	Ytbehandling/Surface treatment µm
Där ej annat anges/Unless otherwise stated			
Conform to ISO 2768-mK			
Utdrag ur/Excerpt from ISO 2768-m			
0.5-6 ±0.1 Hållradier			
6-30 ±0.2 Fileradii			
120-400 ±0.5 Kanter brutna			
400-1000 ±0.8 Edgese broken			
Basic dimension drawing			



Konstr/Drawn <b>P. MARCUS</b>	Datum/Date 2013-04-08	Kontr/Check MABR	Material	
Ändrad av/Modified by <b>P. MARCUS</b>	Ändrad/Modified 2013-04-08	Ytjämnhet/Roughness Ra $\mu\text{m}$	Ytbehandling/Surface treatment	
Där ej annat anges/Unless otherwise stated Gen tol ISO 2768-mK Utdrag ur/Excerpt from ISO 2768-m	Benämning/Denomination <b>Basic dimensions In-truck charger</b>		Skala/Scale 1:5	Blad/Sheet 1(1)
0,5-6 $\pm 0,1$ Hålkälsradier (6)-30 $\pm 0,2$ Fillet radii (30)-120 $\pm 0,3$ (120)-400 $\pm 0,5$ Kanter brutna (400)-1000 $\pm 0,8$ Edges broken			Art.No.	Size <b>A4</b>
			Ritn nr/Drawing No <b>T127865</b>	Rev <b>A</b>

## CE Declaration of Conformity

This is to certify that the System listed below have been designed and manufactured to meet the requirements, as applicable, of the following EU-Directives and corresponding harmonising standards. The systems consequently meet the requirements for the CE-mark.

**Directives:**


- |                               |   |
|-------------------------------|---|
| <b>Directive 2004/108/EC;</b> | <b>Electromagnetic Compatibility</b>                                      |
| <b>Directive 2006/95/EC;</b>  | <b>“Low voltage Directive” (Power Supply)</b>                             |
| <b>Directive 2002/96/EC</b>   | <b>Waste electrical and electronic equipment; WEEE</b><br>(As applicable) |

**Standards:**

- |                               |  |
|-------------------------------|--|
| <b>Emission:</b>              | <b>EN 61000-6-3; Electromagnetic Compatibility</b><br><b>Generic standards - Emission</b>  |
| <b>Immunity:</b>              | <b>EN 61000-6-2; Electromagnetic Compatibility;</b><br><b>Generic standards - Immunity</b> |
| <b>Safety (Power Supply):</b> | <b>EN 60950; (or other) Safety of information technology</b><br><b>equipment</b>           |

**System: FLIR KXX series**

FLIR Systems AB  
Quality Assurance

  
Björn Svensson  
Director