

P/N: 72202-0308

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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 with any questions.



General description

The FLIR K65 is a robust and reliable infrared camera designed to perform under extremely severe conditions. The FLIR K65 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:

- Compliance with NFPA 1801-2013.
- Robust and reliable: The FLIR K65 is designed to meet tough operating conditions. It can withstand a drop from 2 m (6.5') onto a concrete floor, is water resistant to IP67, and is fully operational up to 85°C (185°F), and operational up to +150°C (+302°F) for 15 minutes, and +260°C (+500°F) for 5 minutes.
- Clear and crisp thermal images: The maintenance-free uncooled microbolometer sensor produces clear and detail-rich images of 320 × 240 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.
- Easy-to-use—also in a gloved firefighter's hand: An intuitive and simple user interface allows you to focus on the job. The FLIR K series can be controlled by just three large buttons on top of the unit. Ideal for a gloved firefighter's hand.
- Recording.

Imaging and optical data

IR resolution	320 × 240 pixels
Thermal sensitivity/NETD	< 30 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)	2.8 mrad
F-number	1.25
Image frequency	60 Hz

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Imaging and optical data	
Focus	Fixed
Zoom	2x digital zoom
Detector data	
Detector type	Focal plane array (FPA), uncooled microbolometer (VOx)
Spectral range	8–14 µm
Pitch	25 µm
Image presentation	
Display	4 in. LCD, 320 × 240 pixels, backlit
Auto range	Yes, selectable on/off using FLIR Tools
Contrast optimization	Digital image enhancement using FSX
Image presentation modes	
Image modes	- IR image - TI Basic NFPA fire-fighting mode - Black-and-white fire-fighting mode - Fire mode - Search-and-rescue mode - Heat detection mode - Thumbnail gallery
Measurement	
Object temperature range	–20°C to +150°C (–4°F to +302°F) 0°C to +650°C (+32°F to +1202°F)
Accuracy	±4°C (±7.2°F) or ±4% of reading, for ambient temperature 10°C to 35°C (+50°F to 95°F)
Measurement analysis	
Spotmeter	1
Automatic hot detection	Heat detection mode (the hottest 20% of the of scene is colorized)
Isotherm	Yes, according to NFPA
Set-up	
Set-up commands	Local adaptation of units, date and time formats
Languages	English
Storage of images	
Image storage	Standard JPEG
Storage media	Internal flash memory
Image storage capacity	200 files in total  NOTE The number of files is co-dependent on the number of saved video clips.
Image storage mode	IR only
File formats	Standard JPEG
Image annotations	
Report generation	Separate software (FLIR Tools)

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Video recording in camera	
Non-radiometric IR video recording	MPEG-4 to internal flash memory
Storage capacity	200 files in total, with a maximum duration of 5 minutes each.
	 NOTE The total number of files is co-dependent on the number of saved images.
Video streaming	
Non-radiometric IR video streaming	Uncompressed colorized video using USB
USB	
USB	USB Mini-B
Compatibility	
Compatible with FLIR software	FLIR Tools
Data communication interfaces	
Interfaces	- Update from PC and Mac devices - Data transfer to and from PC
Power system	
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.
	 NOTE This operating time is independent of camera mode.
Charging system	- Battery is charged inside the camera 2-bay charger - Optional In-truck charger
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)
Environmental data	
Operating temperature range	-20°C to +85°C (-4°F to +185°F) +150°C (+302°F): 15 min. +260°C (+500°F): 5 min.
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

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Environmental data	
Directives	Certified according to NFPA1801:2013 specification: • Vibration • Impact acceleration resistance • Corrosion • Viewing surface abrasion • Heat resistance • Heat and flame • Product label durability
EMC	• EN 61000-6-2:2005 (Immunity) • EN 61000-6-3: 2011 (Emission) • FCC 47 CFR Part 15 B (Emission)
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
Certifications	
Compliance	NFPA1801:2013 Ex-certified according to ANSI/ISA 12.12.01-2013 and meets Class I Division 2 Gas Groups C and D T4.
Physical data	
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	• PPSU • Silicon rubber • Aluminium, cast • Flame-resistant magnesium alloy
Shipping information	
List of contents	• Infrared camera • Battery (2 ea.) • Battery charger • Hard transport case • Power supply • Printed documentation • Torx screwdriver (T20) • USB cable • User documentation CD-ROM
Packaging, weight	5.7 kg (12.6 lb.)
Packaging, size	500 × 190 × 370 mm (19.7 × 7.5 × 14.6 in.)
EAN-13	4743254002234
UPC-12	845188011826
Country of origin	Estonia

Supplies & accessories:

- 1910423; USB cable Std A <-> Mini-B



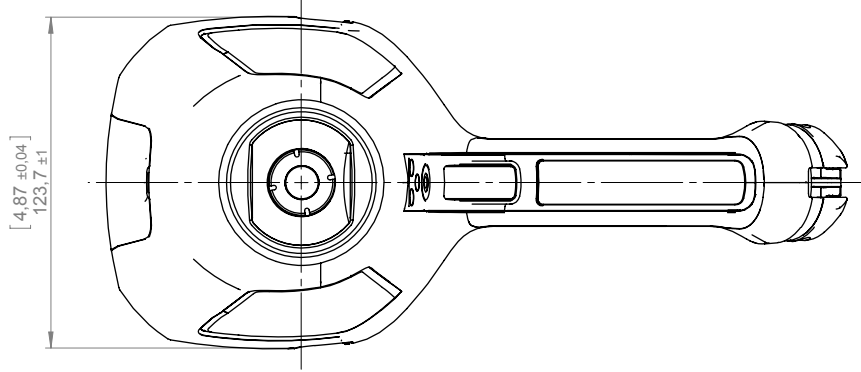
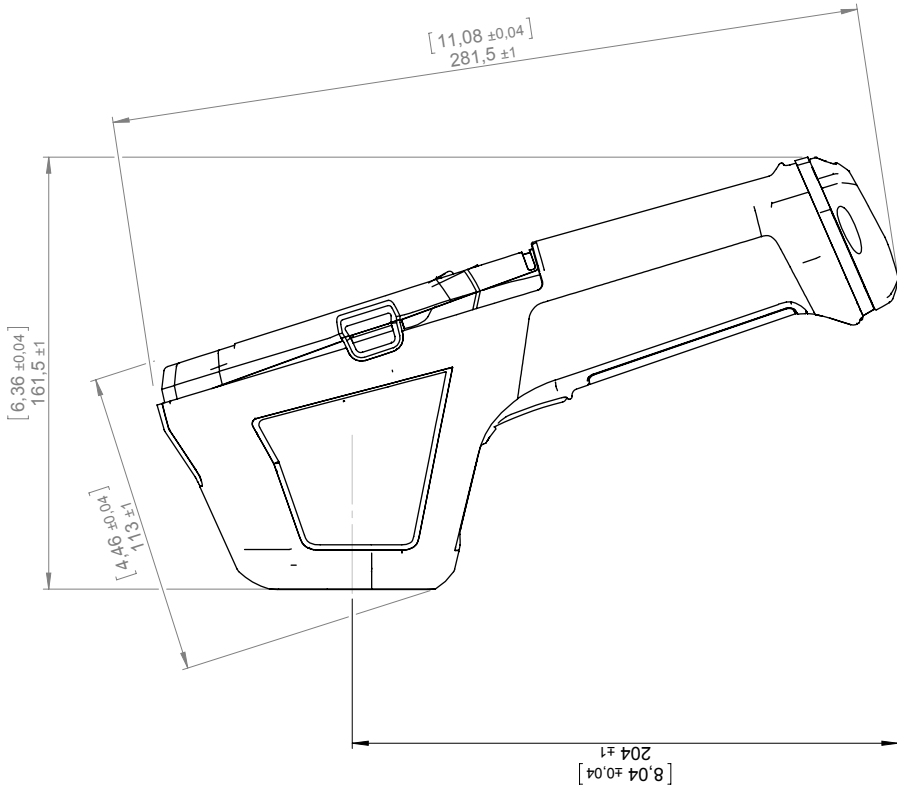
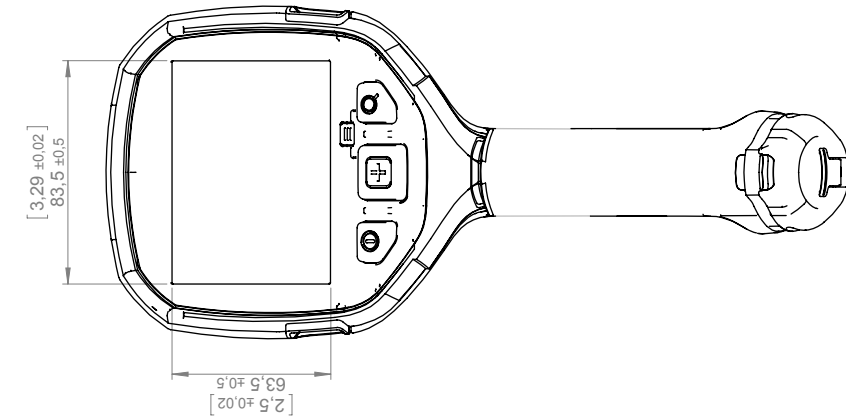
FLIR K65

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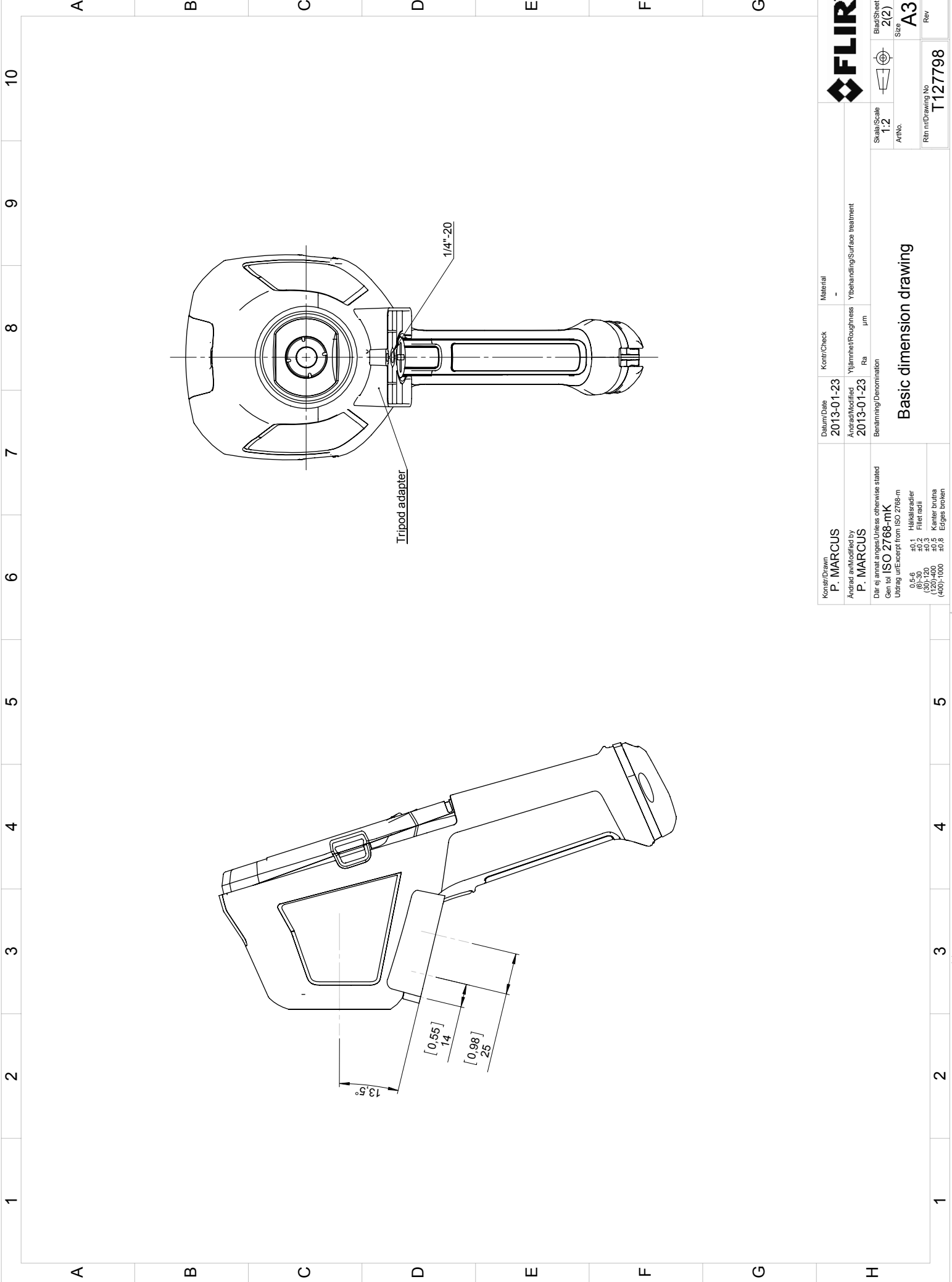
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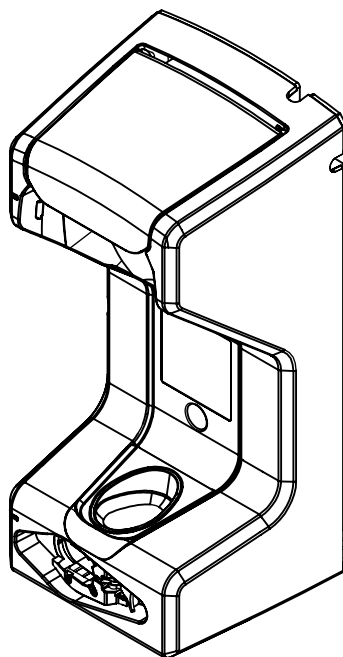
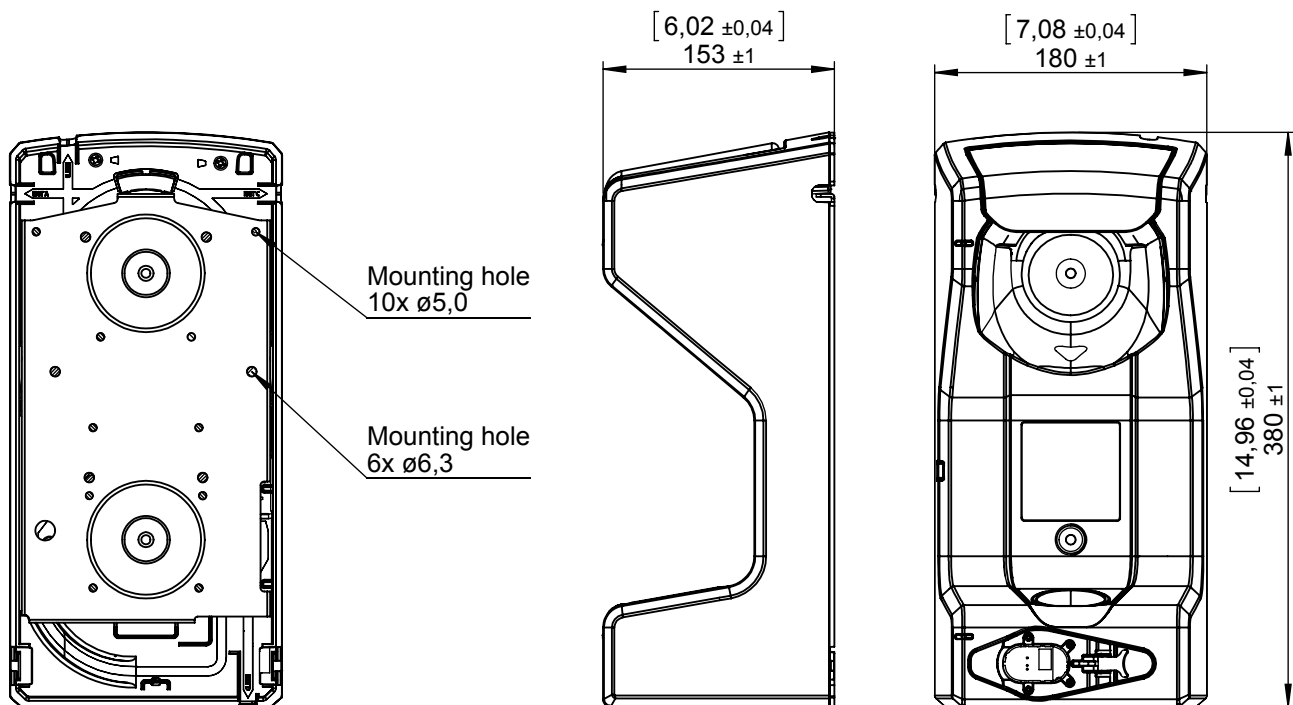
- T198509; Cigarette lighter adapter kit, 12 VDC, 1.2 m/3.9 ft.
- T198125; Battery charger, incl. power supply with multi plugs (Exx, Kxx)
- T198310ACC; Li-Ion Battery pack 3.6 V 16 Wh
- T127724ACC; Neck strap
- T127722ACC; Retractable lanyard
- T198416ACC; Strap lanyard
- T198457ACC; Tripod Adapter,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



Konstr/Drawing		Datum/Date	Kontr./Check	Material	
P. MARCUS	2013-01-23		-		
Ändrad/will modified by	Årskontrollerad/Notified	Ytbehandling/Surface treatment			
P. MARCUS	2013-01-23				
	Benämning/Denomination				
Där ej annat anges/Unless otherwise stated					
Gen töl ISO 2768-mK					
Utdrag ur/Excerpt from ISO 2768-m					
0,5-6 Hållfärdigast					
0,5-6 Hållfärdigast					
0,5-6 Hållfärdigast					
(30)-120 Filter radi					
(120)-400 Kanter brutna					
(400)-1000 Kanter brutna					



Konstr/Drawn P. MARCUS		Datum/Date 2013-01-23	Kontroll/Check -	Material -
Ändrad av/Modified by P. MARCUS		Ändrad/Modified 2013-01-23	Ytjämnhet/Roughness Ra	Ytbehandling/Surface treatment µm
Där ej annat anges/Unless otherwise stated Gen töl ISO 2768-mK Utdrag ur/Excerpt from ISO 2768-m		Benämning/Denomination Basic dimension drawing		
0,5-6 (60)-30 (120)-400 (400)-1000		±0,1 Hållarsradier ±0,2 Fillet radii ±0,5 Kanter brutna ±0,8 Edges broken		
FLIR SYSTEMS AB		Skala/Scale 1:2		
FLIR SYSTEMS AB		Blad/Sheet 2(2)		
FLIR SYSTEMS AB		Aritet A3		
FLIR SYSTEMS AB		Ritning/Drawing No T127798		
FLIR SYSTEMS AB		Rev		



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

May 13, 2013

AQ320028

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:

Directive 2004/108/EC;	Electromagnetic Compatibility
Directive 2006/95/EC;	"Low voltage Directive" (Power Supply)
Directive 2002/96/EC	Waste electrical and electronic equipment; WEEE (As applicable)

Standards:

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

System: **FLIR KXX series**

FLIR Systems AB
Quality Assurance



Björn Svensson
Director