

P/N: 72201-0106

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Document identity

Publ. No.: 72201-0106

Release:

Commit: 26732

Language: en-US

Modified: 2015-06-12

Formatted: 2015-06-13

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General description

The FLIR K45 is a robust and reliable infrared camera designed to perform under extremely severe conditions. The FLIR K45 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:

- **Robust and reliable:** The FLIR K45 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.
- **Clear and crisp thermal images:** 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.
- **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.

Imaging and optical data

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

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Imaging and optical data	
Image frequency	60 Hz
Focus	Fixed
Zoom	2× digital zoom
Detector data	
Detector type	Focal plane array (FPA), uncooled microbolometer
Spectral range	7.5–13 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	<ul style="list-style-type: none"> • IR image <ul style="list-style-type: none"> • TI Basic fire-fighting mode • Black-and-white fire-fighting mode • Fire mode • Search-and-rescue mode • Heat detection mode • Thumbnail gallery
Measurement	
Object temperature range	<ul style="list-style-type: none"> • -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
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 images
Image storage mode	IR only
File formats	Standard JPEG

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Image annotations	
Report generation	Separate software (FLIR Tools)
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	<ul style="list-style-type: none"> 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
Charging system	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> -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
Directives	Designed to meet NFPA 1801:2013 specification: <ul style="list-style-type: none"> Vibration Impact acceleration resistance Corrosion Viewing surface abrasion Heat resistance Heat and flame Product label durability

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Environmental data	
EMC	<ul style="list-style-type: none"> 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

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	<ul style="list-style-type: none"> PPSU Silicon rubber Aluminium, cast Flame-resistant magnesium alloy

Shipping information	
List of contents	<ul style="list-style-type: none"> Infrared camera Battery (2 ea.) Battery charger Hard transport case Lanyard strap Neck strap Power supply Printed documentation Retractable lanyard Tripod adapter 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	4743254002005
UPC-12	845188010898
Country of origin	Estonia

Supplies and 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)
- T198322; In-truck charger
- T198310ACC; Li-Ion Battery pack 3.6 V 16 Wh
- T127724ACC; Neck strap
- T127722ACC; Retractable lanyard
- T198416ACC; Strap lanyard



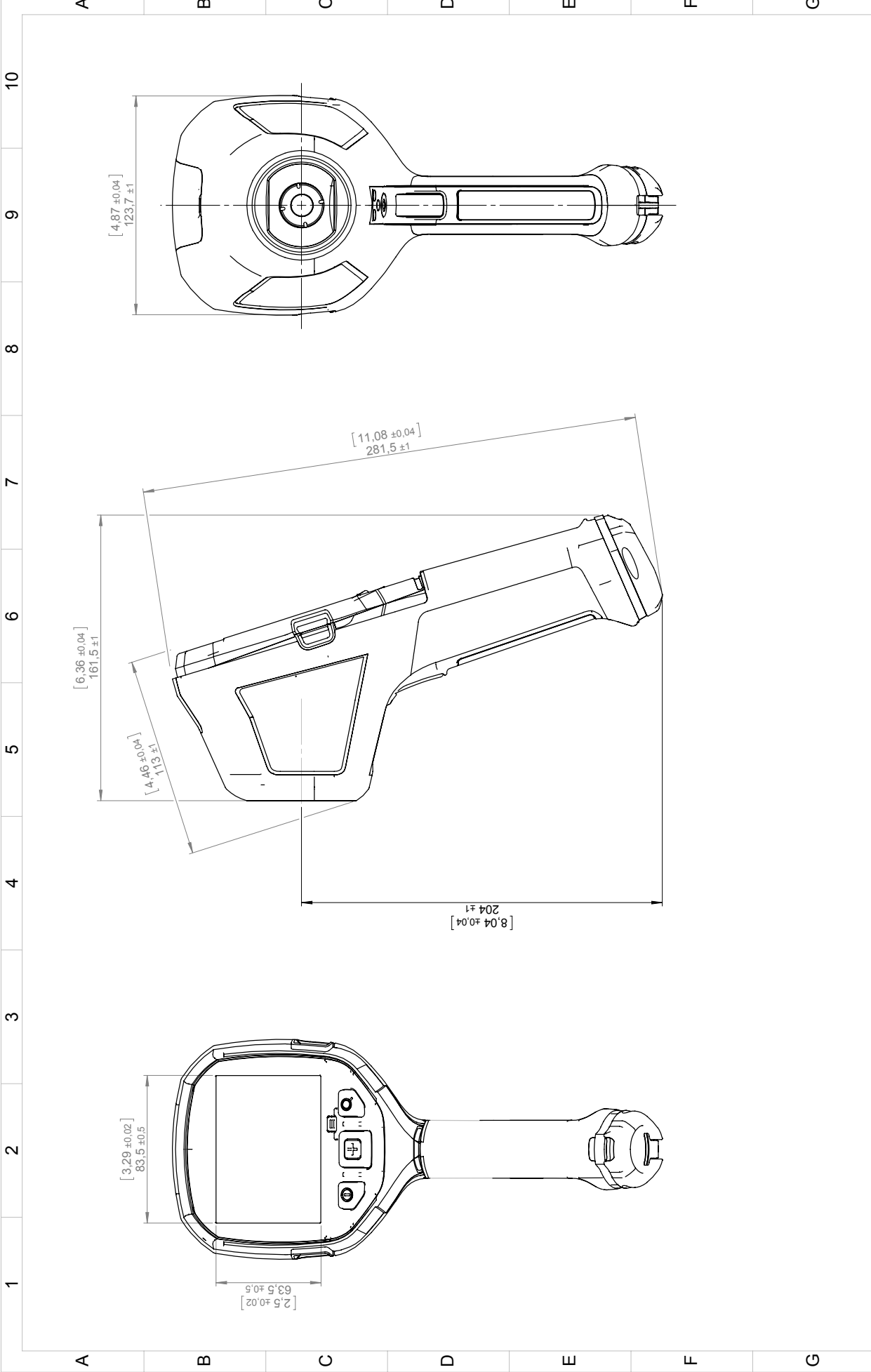
FLIR K45

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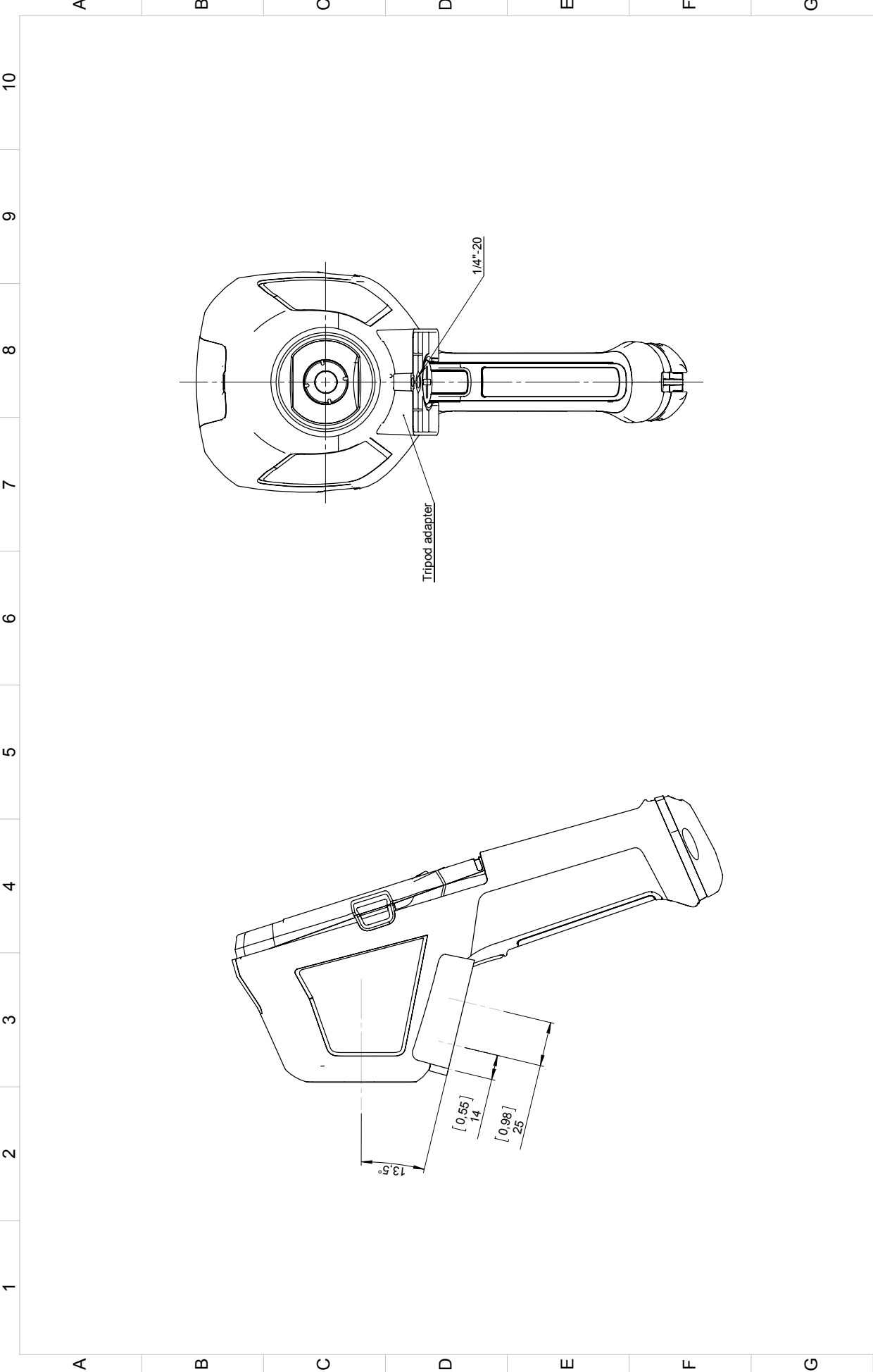
- T198457ACC; Tripod Adapter, Kxx
- T198441ACC; Transport case Kxx



FLIR		Blatt/Sheet 1/2		Blatt/Sheet Size A3	
Konstr/Drawing P. MARCUS		Kontroll/Check -	Material -		Skala/Scale 1:2
Ändrad av/Modified by P. MARCUS		Ytbehandling/Roughness Ytbehandling/Surface treatment			
Datum/Date 2013-01-23		Ra		ArtNo. T127798	
Ändrad av/Modified by 2013-01-23		Benämning/Denomination		Ritning/Drawing No. T127798	
Dir ej är med ansvar/Notness otherwise stated Genet ISO 2768-mK		Basic dimension drawing			
Utmått enligt ISO 2768-m					
0,5-6 ±0,1 Hållradier					
80-120 ±0,2 Fillet radi					
(120)-400 ±0,5 Kanter brutna					
(400)-1000 ±0,8 Edges broken					

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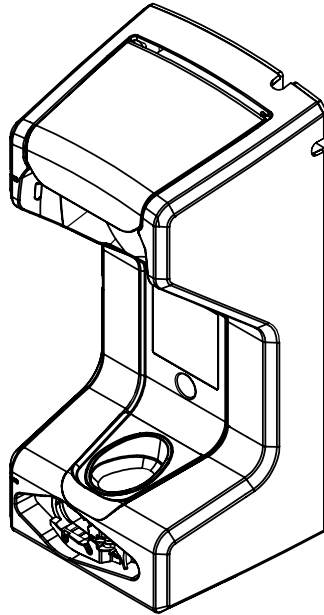
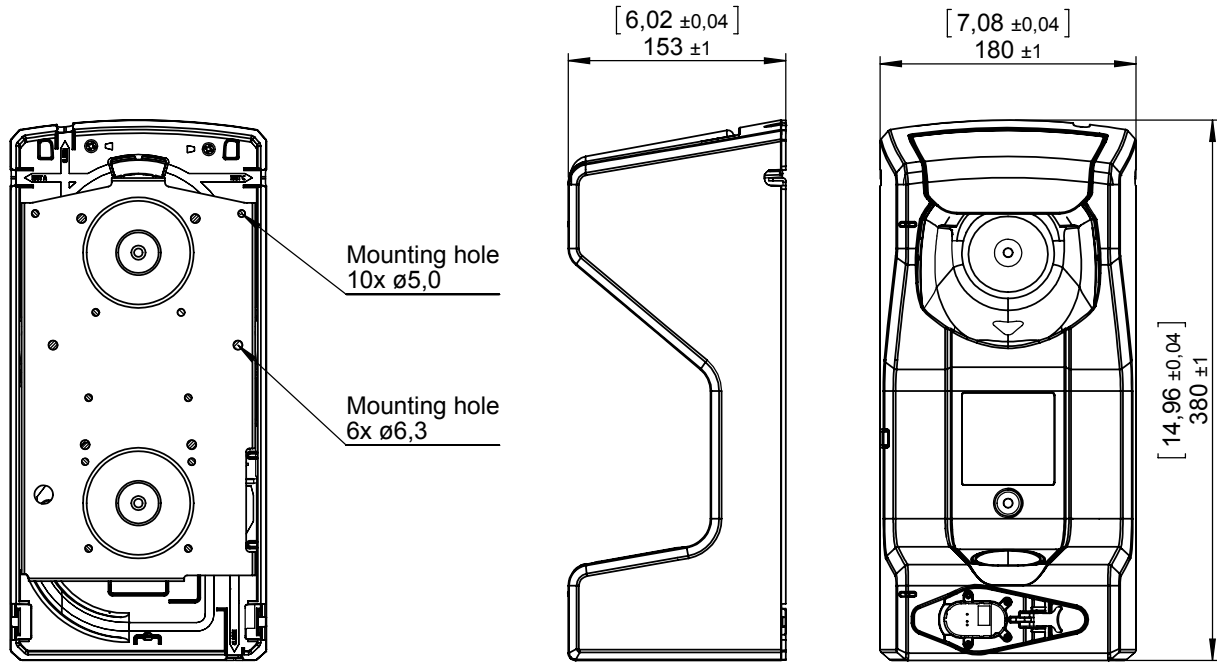
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Konstr/Drawn P. MARCUS	Datum/Date 2013-01-23	Kontroll/Check -	Material -
Ändrad av/Modified by P. MARCUS	Ändrad/Modified 2013-01-23	Ytjämnhet/Roughness Ra	Ytbehandling/Surface treatment
Den ej annat anges/Unless otherwise stated Genetiskt ISO 2768-mK UTräge ut/Except from ISO 2768-m	Benämning/Denomination Basic dimension drawing	Skala/Scale 1:2	Blad/Sheet 2(2)
0,50 (30)-120 (40)-400 (60)-700	40,1 Fläkt rad Kontur brutna ±0,5 ±0,5	Blad/Sheet Size A3	Blad/Sheet Size A3
		Rev Ritn nr/Drawing No T127798	

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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 μ 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 Basic dimensions In-truck charger			Skala/Scale 1:5		Blad/Sheet 1(1)
0.5-6 $\pm 0,1$ Hälkålsradier (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 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