# **Excellent Integrated System Limited**

Stocking Distributor

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Fluke Electronics FLK-TI200 60HZ

For any questions, you can email us directly: <a href="mailto:sales@integrated-circuit.com">sales@integrated-circuit.com</a>

Contact us: sales@integrated-circuit.com Website: www.integrated-circuit.com



Datasheet of FLK-TI200 60HZ - THERMAL IMAGER 60HZ



## Ti400, Ti300 and Ti200 Infrared Cameras with LaserSharp® Auto Focus

Get accurate readings and consistently in-focus images

### **Technical Data**



### SUPERIOR IMAGE QUALITY

### **SPATIAL RESOLUTION**

Ti400 1.31 mRad

Ti300 1.75 mRad

Ti200 2.09 mRad

### **RESOLUTION**

Ti400 320x240 (76,800 pixels)

Ti300 240x180 (43,200 pixels)

200x150 (30,000 pixels)

**FIELD OF VIEW** Ti400, Ti300, Ti200 24 °H x 17 °V



## Now compatible with Fluke Connect<sup>™</sup> Mobile App

### **Fluke Infrared Cameras Experience. Performance. Confidence.**

Quickly capture an in-focus image with the pull of a trigger and wirelessly share measurements with your team anytime, anywhere with the Fluke Connect™ ShareLive™ video call.

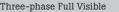
- Quickly get accurate readings and in-focus images with LaserSharp® Auto Focus
- Save Reporting Time. Make better decisions faster than before. Organize your measurements by asset in one location with EquipmentLog™ history.
- Brilliantly detailed quality images. Pixel for pixel the best spatial resolution available.1
- Precisely blended visual and infrared images with crucial details to assist in identifying potential problems—IR-Fusion® technology with AutoBlend™ mode
- Standard and radiometric video recording and video streaming<sup>2</sup>
- Text and voice recording/annotation allows you to save additional details to image files
- Extensive memory options—Removable micro SD memory card, on-board flash memory, save-to-USB capability, direct download via USB-to-PC connection

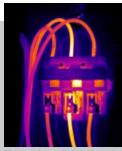
### **IR-Fusion® Technology with** AutoBlend™ Mode



Precisely blended visual and infrared images with crucial details to assist in identifying potential problems.







Three-phase Full Infrared



Three-phase AutoBlend Mode

 $<sup>^1</sup>$  Comparison is based on competitive cameras with the same detector resolution.  $^2$  Firmware updates for these features are not available yet in all countries. Users notified via SmartView.



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## **Detailed specifications**



	Ti400	Ti300	Ti200	
Key features				
IFOV with standard lens (spatial resolution)	1.31 mRad	1.75 mRad	2.09 mRad	
Resolution	320x240 (76,800 pixels)	240X180 (43,200 pixels)	200X150 (30,000 pixels)	
Field of view	24 °H x 17 °V			
Minimum focus distance	15 cm (approx. 6 in)			
IFOV with optional telephoto lens	0.65 mRad	0.87 mRad	1.05 mRad	
Field of view	12 °H x 9 °V			
Minimum focus distance	45 cm (approx. 18 in)			
IFOV with optional wide-angle lens	2.62 mRad	3.49 mRad	4.19 mRad	
Field of view	46 °H x 34 °V			
Minimum focus distance	15 cm (approx. 6 in)			
LaserSharp* Auto Focus	Yes, for consistently in-focus images. Every. Single. Time.			
Advanced manual focus	Yes			
Wireless connectivity	Yes, to PC, iPhone* and iPad* (iOS 4s and later), Android™ 4.3 and up, and WiFi to LAN*			
Fluke Connect™ App compatible*	Yes* (where available)			
CNX™ Wireless System*	Yes* (where available)			
IR-Fusion technology		Yes		
$AutoBlend^{TM}$ mode		Yes		
Picture-In-Picture (PIP)		Yes		
Ruggedized touchscreen display (Capacitive)	8.9 cm (3.5 in) diagonal landscape color VGA (640 x 480) LCD with backlight			
Rugged, ergonomic design for one-handed use	Yes			
Thermal sensitivity (NETD)	≤ 0.05 °C at 30 °C t	target temp (50 mK)	≤ 0.075 °C at 30 °C target temp (75 mK)	
Temperature measurement range (not calibrated below -10 °C)	-20 °C to +1200 °C (-4 °F to +2192 °F)	-20 °C to +650 °C	(-4 °F to +1202 °F)	
Level and span	Smooth auto and manual scaling			
Fast auto toggle between manual and auto modes	Yes			
Fast auto-rescale in manual mode	Yes			
Minimum span (in manual mode)	2.0 °C (3.6 °F)			
Minimum span (in auto mode)	3.0 °C (5.4 °F)			
Built-in digital camera (visible light)	5 megapixel industrial performance			
Frame rate	9 Hz or 60 Hz versions			
Laser pointer	Yes			
Torch	Yes			
Data storage and image capture				
Extensive memory options	Removable micro SD memory card, on-board flash memory, save-to-USB capability, direct download via USB-to-PC connection			
Image capture, review, save mechanism	One-handed image capture, review, and save capability			
File formats	Non-radiometric (.bmp) or (.jpeg) or fully-radiometric (.is2); No analysis software required for non-radiometric (.bmp, .jpg and .avi*) files			
Memory review	Thur	Thumbnail view navigation and review selection		
Software	SmartView* software, Fluke Connect**, and SmartView* Mobile App—full analysis and reporting software			
Export file formats with SmartView*software	BMP, DIB, GIF, JPE, JFIF, JPEG, JPG, PNG, TIF, and TIFF			
Voice annotation	60 seconds maximus	m recording time per image; reviewable	e playback on camera	
IR-PhotoNotes™		Yes		
Text annotation*	Yes			
Video recording*	Standard and Radiometric			
Streaming video	Via USB to PC and HDMI to HDMI compatible screen			
File formats video*	Non-radiometric (MPEG - encoded .AVI) and fully-radiometric (.IS3)*			
Auto capture (temperature and interval)*	Yes*			
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## **Detailed specifications**



	Ti400	Ti300	Ti200	
Battery				
Batteries (field-replaceable, rechargeable)	Two lithium ion smart battery packs with five-segment LED display to show charge level			
Battery life	Four+ hours continuous use per battery pack (assumes 50% brightness of LCD and average usage)			
Battery charge time	2.5 hours to full charge			
AC battery charging system	Two-bay AC battery charger (110 V AC to 220 V AC, 50/60 Hz) (included), or in-imager charging.  AC mains adapters included in 9 Hz versions. Optional 12 V automotive charging adapter.			
AC operation	AC operation with included power supply (110 V AC to 220 V AC, 50/60 Hz). AC mains adapters included.			
Power saving	User selectable sleep and power off modes			
Temperature measurement				
Accuracy	± 2 °C or 2 % (at 25 °C nominal, whichever is greater)			
On-screen emissivity correction	Yes (both number and table)			
On-screen reflected background temperature compensation	Yes			
On-screen transmission correction	Yes			
Color Palettes				
Standard Palettes	8: Ironbow, Blue-Red, High Contrast, Amber, Amber Inverted, Hot Metal, Grayscale, Grayscale Inverted			
Ultra Contrast™ Palettes	8: Ironbow Ultra, Blue-Red Ultra, High Contrast Ultra, Amber Ultra, Amber Inverted Ultra, Hot Metal Ultra, Grayscale Ultra, Grayscale Inverted Ultra			
General specifications				
Color alarms (temperature alarms)	High-temperature , low-temperature, and isotherm			
Infrared spectral band		7.5 μm to 14 μm (long wave)		
Operating temperature	-10 °C to +50 °C (14 °F to 122 °F)			
Storage temperature	-20 °C to +50 °C (-4 °F to 122 °F) without batteries			
Relative humidity	10 % to 95 % non-condensing			
Center-point temperature measurement	Yes			
Spot markers	User selectable hot spot and cold spot markers, 3 user definable spot markers on camera and in Smartview* software			
Center box (MIN-MAX-AVG)	Expandable-contractable measurement box with MIN-MAX-AVG temp			
Safety standards	UL 61010-1:2012 CAN/CSA-C22.2 No.61010-1-12 IEC 61010-1 3rd Edition (2010)			
Electromagnetic compatibility	EN 61326-1:2006 IEC 61326-1:2005			
C Tick	IEC/EN 61326-1			
US FCC	CFR 47, Part 15 Subpart B Class B			
Vibration	0.03 g2/Hz (3.8 grms), 2.5g IEC 68-2-6			
Shock	25 g, IEC 68-2-29			
Drop	Engineered to withstand 2 meter (6.5 feet) drop with standard lens			
Size (H x W x L)	27.7 cm x 12.2 cm x 16.7 cm (10.9 in x 4.8 in x 6.5 in)			
Weight (battery included)	1.04 Kg (2.3 lb)			
Enclosure rating	IP54 (protected against dust, limited ingress; protection against water spray from all directions)			
Warranty	Two-years (standard), extended warranties are available.			
Recommended calibration cycle	Two-years (assumes normal operation and normal aging)			
Supported languages	Czech, Dutch, English, Finnish, French, German, Hungarian, Italian, Japanese, Korean, Polish, Portuguese, Russian, Simplified Chinese, Spanish, Swedish, Traditional Chinese, and Turkish			
* Firmware updates for these features are not available yet in all countries. Users notified via SmartView* software when available.				



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Datasheet of FLK-TI200 60HZ - THERMAL IMAGER 60HZ

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### **Ordering information**

FLK-Ti400 9Hz Thermal Imager, 9 Hz FLK-Ti400 60Hz Thermal Imager, 60 Hz FLK-Ti300 9Hz Thermal Imager, 9 Hz FLK-Ti300 60Hz Thermal Imager, 60 Hz FLK-Ti200 9Hz Thermal Imager, 9 Hz FLK-Ti200 60Hz Thermal Imager, 60 Hz

#### Included

Thermal imager with standard infrared lens; ac power supply and battery pack charger (including main adapters); two, rugged lithium ion smart battery packs; USB cable; HDMI video cable; SmartView\* software available via free download; rugged, hard carrying case; soft transport bag; adjustable hand strap; warranty registration card.

### **Optional accessories**

**FLK-LENS/TELE2** Infrared Telephoto Lens (2X magnification)

**FLK-LENS/WIDE2** Infrared Wide Angle Lens **TI-CAR-CHARGER** Car Charger

FLK-TI-VISOR3 Sun Visor

**BOOK-ITP** Introduction to Thermography Principles Book **TI-TRIPOD3** Tripod Mounting Accessory

FLK-Ti-SBP3 Additional Smart Battery

FLK-TI-SBC3 Additional Smart Battery Charger

#### Kits

FLK-T1400 60HZ/FCA\* Thermal Imager, 3000 FC DMM, a3001FC iFlex Module

FLK-TI300 60HZ/FCA\* Thermal Imager, 3000 FC DMM, a3001FC iFlex Module

FLK-T1200 60HZ/FCA\* Thermal Imager, 3000 FC DMM, a3001FC iFlex Module

FLK-TI400 60HZ/FCC\* Thermal Imager, 3-a3001FC iFlex Modules, 805 Vibration Tester

FLK-T1400 9HZ/FCA Thermal Imager, 3000 FC DMM, a3001FC iFlex Module

 $\begin{tabular}{ll} FLK-TI300 & 9HZ/FCA & Thermal Imager, 3000 FC DMM, a $3001FC iFlex Module \end{tabular}$ 

FLK-T1200 9HZ/FCA Thermal Imager, 3000 FC DMM, a3001FC iFlex Module

FLK-T1400 9HZ/FCC Thermal Imager, 3-a3001FC iFlex Modules, 805 Vibration Tester

Visit the Fluke website to get complete details on these products or kits or ask your local Fluke sales representative.

#### \*Only available in certain countries.

RF connection time (binding time) may take up to 1 minute.



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### Download the app at:





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# Fluke. Keeping your world up and running.®

Fluke Corporation PO Box 9090, Everett, WA 98206 U.S.A.

Fluke Europe B.V.

PO Box 1186, 5602 BD Eindhoven, The Netherlands

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### For more information call:

In the U.S.A. (800) 443-5853 or
Fax (425) 446-5116
In Europe/M-East/Africa +31 (0)40 267 5100 or
Fax +31 (0)40 267 5222
In Canada (800)-36-FLUKE or
Fax (905) 890-6866
From other countries +1 (425) 446-5500 or
Fax +1 (425) 446-5116
Web access: http://www.fluke.com

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