350 Series AC/DC Clamp Meters

FLUKE®

Fluke 353

Fluke 355

New

True-RMS, 2000 A Clamp Meters for industrial and utility applications

Confidently take reliable readings with the true-rms, Fluke 353/355 Clamp Meters; the tools of choice for high current measurement up to 2000 A. The extra-wide jaw easily clamps around large conductors, typically found in high current applications. The rugged design and CAT IV 600 V, CAT III 1000 V ratings add an extra element of protection when taking high-powered measurements.

Accurate peak measurements can be taken using the in-rush current mode – ideal for motors and inductive loads. The 355 also measures voltage and resistance, making this the most versatile tool for utilities, electrical contractors and industrial service technicians.

Features

	353	355
True-RMS measurements	●	●
Display backlight	●	●
Motor start-up current	●	●
Min/Max/Average	●	●
Voltage AC/DC		●
Resistance measurement		●
Continuity measurement with beeper		●

Specifications

(Check the Fluke web for detailed specifications)

Functions	Range	353	355
Current AC/DC	0-40.00 A	1.5% ± 15 counts	1.5% ± 15 counts
	0-400.0 A	1.5% ± 5 counts	1.5% ± 5 counts
	0-2000 A; 1400 AC rms		
Crest Factor	???	???	???
Voltage AC/DC	0-4.000 V		1% ± 10 counts
	0-40.00 V		1% ± 5 counts
	0-400.0 V		
	0-600 V AC rms		
	0-1000 V DC		
Resistance	0-400.0 Ω		1.5% ± 5 counts
	0-4.000 kΩ		
	0-40.00 kΩ		
	0-400.0 kΩ		
Continuity beeper	Appr. ≤ 30 Ω		
Frequency	5.0Hz to 100.0Hz		0.2% ± 2 counts
	100.1Hz to 999Hz		0.5% ± 5 counts

Power Supply: 6V to 1.5V AA NEDA 15A or IEC LR6
Battery Life: 100 hours
Size (HxWxD): 300 mm x 98 mm x 52 mm

Jaw opening: 58 mm
Weight: 0.814 kg
Two year warranty

600V CAT IV
1000V CAT III
LISTED UL
TÜV PRODUCT SERVICE GS
True RMS

Included Accessories

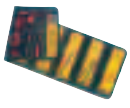
Fluke 353: C43 Soft Meter Case, 6 AA batteries, users manual
Fluke 355: C43 Soft Meter Case, 6 AA batteries, TL224 SureGrip® Silicone Test Lead Set, TP2 Slim Reach Test Probe Set (2 mm), AC285 SureGrip® Alligator Clip Set, users manual

Ordering information

Fluke 353	AC/DC Clamp Meter
Fluke 355	AC/DC Clamp Meter

Recommended Accessories

TL223 (Fluke 355)



L215 (Fluke 355)

FLUKE®

Ti20 Thermal Imager

Breakthrough performance for industrial maintenance applications

- **Instantly provides non contact temperature images to quickly determine hot spots**
- **Fully radiometric for detailed temperature analysis and tracking of critical components**
- **Measures up to 350°C to cover a broad range of industrial applications**
- **Complete solution with InsideIR software for analysis, reporting and routing**
- **Large color LCD displays uncluttered image with data and routing instructions**

High performance, designed for industrial use

- Uses revolutionary detector technology to provide a clear thermal image with accurate temperature measurements up to 350°C
- Protected against dust and moisture (IP54 rated) to withstand harsh industrial environments
- Provides 3 hours continuous operation per battery charge

Easy to use

- Fits comfortably in the hand thanks to weight-balanced design
- Facilitates one-handed point-, shoot- and image capture operation
- Assists fast inspections with clear on-screen step-by-step routing instructions

Complete solution offering lowest cost of ownership

- Includes InsideIR software for unlimited use by every member of the maintenance team without additional license fees
- Comes complete with all necessary accessories and professional application training material to ensure a fast return on investment

Cooling pump running at operating temperature.

Temperature difference between phases indicates an unbalanced load.

Fluke Ti20
Specifications

Detector	
Detector Type:	128 x 96 uncooled focal plane array
NETD (Thermal Sensitivity):	200 mK
Thermal	
Temperature Range:	-10 to 350 °C (14 to 662 °F)
Accuracy:	± 2 °C or 2% (whichever is greater)
Optical	
Field of View (FOV)	20° horizontal by 15° vertical
Optical resolution (D:S)	75:1 or better
Target Sighting	Single laser (IEC & FDA Class II)
Controls and Adjustments	
Focus	61 cm (24 in.) to infinity
Temperature Scale	°C or °F selectable
Palettes	Grayscale, reverse grayscale, rainbow, ironbow
Measurement Modes	Auto and manual level and span adjustment
LCD Backlight	Bright, dim selectable
Adjustable Emissivity	0.10 to 1.00 in 0.01 increments
Adjustable reflected background temperature	-50 to 460 °C
Environmental	
Ambient Operating Temperature	0 to 50 °C
Relative Humidity	10 to 95% non-condensing
Storage Temperature	-25 to 70 °C
Water and dust resistant	IP 54
Other	
Display	Large color LCD
Storage capacity	50 images stored internally
Power	Rechargeable battery pack
Battery life	Three hours continuous use
Image frame rate	9 Hz
Thermal analysis software	InsideIR (included) full featured analysis and reporting software (unlimited use; no per user license fees)
Size (HxWxD)	254 x 102 x 178 mm
Weight	1.2 kg
Warranty:	1 year

The Fluke Ti20 comes as a complete package

Included accessories

- Unlimited use InsideIR PC software for data storage, analysis and reporting
- AC power adapter
- USB communication cable
- Hard carrying case
- Soft-sided carrying case
- Wrist strap
- 2 Rechargeable battery packs
- 1 AA battery case
- Interactive CD with training materials
- Getting Started Guide
- Software and Manual CD

Ordering information

Ti20 Thermal Imager

Fluke. *Keeping your world up and running.*

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www.fluke.com

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FLUKE®

Fluke InsideIR™ Software

For Fluke Ti Series Thermal Imagers

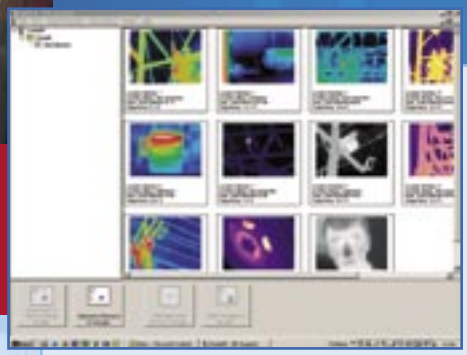

Figure 1: Image gallery

Fluke InsideIR software is included with each Fluke thermal imager. This powerful software package allows the user to store and analyze thermal images and associated data, create inspection routes, adjust key measurement parameters, and report findings.

Image and data storage

Thermal images taken in the field are easily uploaded and stored into the InsideIR software. An image gallery (see figure1) gives a quick overview of the measurements taken in a given session. All images are date and time stamped, contain location information, and are stored with associated data such as temperatures for every pixel in the thermal scene and imager settings for that location.

Detailed analysis

Just double-click an image to perform a detailed analysis (Figure 2a and 2b). See temperature readings at any point in the scene, or select an area of interest. The maximum, average and minimum temperatures of the selected area are immediately displayed.

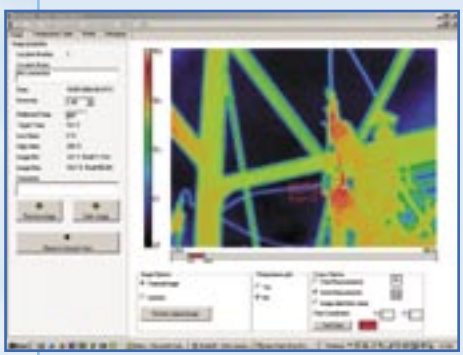

Figure 2a: Stored image using rainbow palette with temperature range set from 3 to 19.2° C. Temperatures for individual points and for larger areas are displayed.

To perform accurate in-depth analysis and to pin-point hot spots, InsideIR software allows adjustment of image parameters without the need to re-scan equipment. The user can adjust:

- Temperature level and span
- Palette settings
- Emissivity
- Reflected temperature correction values

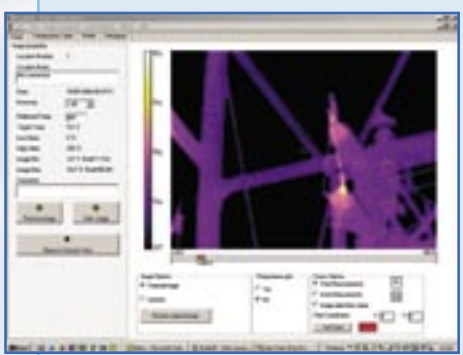

Figure 2b: Same image using the Ironbow palette with optimized temperature range (12 to 19.2° C)

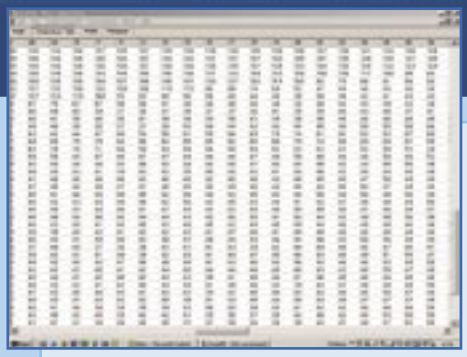

Figure 3: Table containing the thousands of individual temperature readings that can be uploaded to popular spread programs.

Fluke thermal images are fully radiometric, and a temperature table containing temperature readings for every pixel in the scene (see figure 3) can be downloaded and imported to popular spreadsheet programs like Microsoft Excel.

Creating inspection routes

Predictive maintenance programs are designed to identify potential problems before they caus catestrophique failure and rely on periodic inspections of critical plant equipment. The InsideIR software supports the development of a regular inspection program by defining the sequential route of critical equipment to be inspected (see figure 4). By assigning unique location names, inspection notes and key infrared parameters, a routing sequence can be defined and uploaded to the thermal imager. On-camera instructions prompt the user to the exact location where to take the next images. New images and associated location data are easily compared to previous scans, helping to identify potential problems before they cause failure.

Creating reports

With the click of a mouse, a professional thermographic report will be created (see figure 5). The user can insert a description of the problem and the action to be taken. The report includes the thermal image, as well as a place for a digital photograph, if available.

Minimum System Requirements

- Personal computer with a Pentium® III processor, 700 MHz or higher. (Pentium® 4 processor at 2.80GHz recommended)
- 512 megabytes (MB) of RAM (higher recommended)
- 500 MB of free hard disk space
- SuperVGA monitor with the screen resolution set at 1024 x 768 or greater; small fonts setting; and true color (32 bits)
- CD ROM drive
- USB rev. 2.0 port
- Mouse or pointing device
- One of the following operating systems, updated with the latest packages
  - Microsoft® Windows® XP SP 1 with Internet Explorer version 6.0 or greater
  - Microsoft® Windows® 2000 SP 4 with Internet Explorer version 5.01 or greater

  *Note: the latest version of Internet Explorer can be found on Microsoft's Web site at **http://www.microsoft.com/downloads/details.aspx?FamilyID=1e1550cb-5e5d-48f5-b02b-20b602228de6&displaylang=en**
- Microsoft .NET Framework 1.1 (is included on InsideIR installation Package)
- Microsoft MSDE 2.0 (is included on InsideIR installation Package)
- Printer, optional for printing reports
- Pentium is a registered trademark of Intel Corporation. Microsoft and Windows are registered trademarks of Microsoft Corporation.

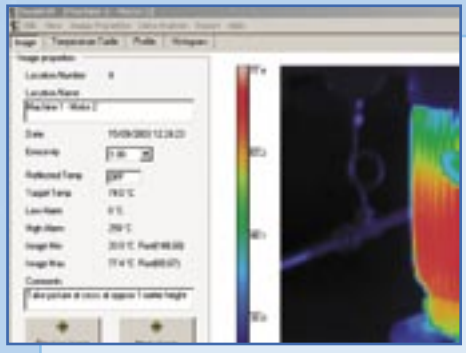

Figure 4: Creating an inspection is easy through location name and number. A field for comments allows for detailed instruction to the operator.

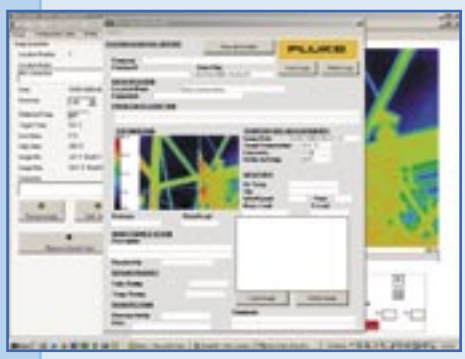

Figure 5: Quickly and easily create professional reports

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