

Check out the
NEW FLIR Test
and Thermal Cameras!

What do you need to Measure?

Delivering world-class test & measurement tools
with the accuracy, reliability, and versatility
you need to tackle your most challenging jobs



The World's Sixth Sense™

50 Years of FLIR



Pioneers in the commercial infrared camera industry, FLIR has been supplying thermography and night vision equipment to science, industry, law enforcement and the military for over 50 years. From predictive maintenance, condition monitoring, non-destructive testing, R&D, medical science, temperature measurement and thermal testing to law enforcement, surveillance, security and manufacturing process control, FLIR offers the widest selection of infrared cameras for everyone, from beginners to professionals.



Introducing FLIR's New Exclusive Infrared Guided Measurement (IGM™) technology

IGM technology driven by a FLIR Lepton® thermal camera core allows FLIR the unique ability to develop products with the ability to instantly and efficiently pinpoint potential issue visually before, during, and after work is performed. With the addition of this capability, FLIR can uniquely offer new solutions across multiple applications and industries allowing you the ability to find problems faster, recognize additional areas of concern, and verify when completed.

"With FLIR, we located several electrical hot spots that could have shut buildings or areas down and were able to repair ahead of time on our schedule with no failure. We also located two roof leaks that the roofers could not find and repair on their own."

- Facilities Manager, Fortune 500 Telecommunications Services Company

292 organizations saved their customer or organization an average of **\$774,250** with their FLIR product.

-TechValidate survey of FLIR users

"The FLIR cameras are used weekly at our customers' facilities to verify energized electrical connections are not overheating. There are other instances where we have used the FLIR cameras in the truck repair shop to identify blockages in cooling systems. The FLIR camera has also been used to pinpoint roof leaks in our old admin building. Very valuable!"

-Lisa Phillips, Electrical Engineer,
Altorfer Power Systems

Our Latest innovations



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FLIR C2

The world's first full-featured, pocket-sized thermal camera

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Leveraging our 50 year history as the world's largest supplier of thermal imaging technology to military, government, and commercial customers, FLIR introduces a new line of test & measurement instruments built upon our commitment to innovation, quality, and reliability.



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FLIR CM174
Visually identify electrical issues with the first thermal imaging clamp meter



FLIR TA72 & TA74
Add current measurements to your existing DMM regardless of brand



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FLIR CM55 & CM57
Flexible Current clamp with Bluetooth



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FLIR TG165
Find an unseen world of problems ordinary meters miss



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FLIR MR176 & MR160
Because moisture doesn't tell you where it's hiding

Introducing the FLIR C2 Powerful, Compact Thermal Imaging System

The FLIR C2 is the world's first full-featured, pocket-sized thermal camera designed for building industry experts and contractors. Keep it on you so you're ready anytime to find hidden heat patterns that signal energy waste, structural defects, plumbing issues and more. The C2's must-have features include MSX® real time image enhancement, high sensitivity, a wide field of view, and fully radiometric imagery to clearly show where problems are and verify the completion of repairs.

Key Features:

- Captures Thermal Measurements from -10°C to 150°C (14 to 302°F)
- Pocket Portable - keep it on you and at your side, ready for immediate use so you don't miss an opportunity
- Brilliant 3" intuitive touch screen with auto orientation for easy viewing
- Fully Radiometric - save thermal image JPEGs instantly, then conveniently adjust and analyze them later with FLIR Tools to isolate temperature measurements on any pixel and create convincing reports
- MSX-enhanced thermal images provide stunning detail to help you identify problem areas easier
- FLIR's 2-10 warranty covers parts and labor for two years and the detector for ten



FLIR ONE Personal Thermal Imager for Android / iOS

FLIR ONE™ is a compact thermal imager that detects invisible heat energy, allowing users to "see" and measure subtle changes in temperature. With separate models for Android and iOS devices, FLIR ONE attaches to smartphones and tablets via micro-USB (Android) or a lightning connector (iOS) and displays thermal images on the device's screen. Powered by Lepton—FLIR's smallest thermal camera module—FLIR ONE offers valuable solutions, like spotting energy leaks at home, locating a missing pet at night, or seeing in complete darkness. The device also includes a visible CMOS camera, which enables the use of FLIR's patented MSX® technology.

Key Features:

- Connects to Android and iOS smartphones and tablets equipped with micro USB ports (Android) or lightning connectors (iOS)
- Generates 160 x 120 thermal video resolution
- Advanced spot measurement detects temperature differences as small as 0.18°F (0.1°C)
- Multi-Spectral Dynamic Imaging (MSX®) enhances thermal image detail
- Auto shutter eliminates need to manually reset thermal sensor
- Includes nine different color palettes
- Record video and still images with common touchscreen gestures
- Improve energy efficiency by pinpointing heat loss and water leaks
- Create artistic thermal images using FLIR ONE Panorama™, FLIR ONE TimeLapse™, and FLIR ONE CloseUp™



Available Q1 2016

FLIR E4, E5, E6, E8 with MSX Enhancement

Now you can afford the ultimate inspection tool. Gain the competitive advantage and take care of more customers. Blow them away with dramatic MSX thermal images that clearly reveal problems from sources of energy loss, moisture intrusion and structural issues to overheating electrical and mechanical equipment.



Key Features:

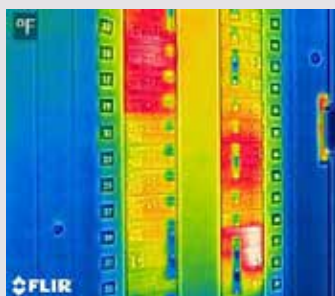
- Display: 3" color LCD
- On-board 640 x 480 Digital Camera
- Easy-to-use, weighs only 1.2lbs
- 2% accuracy
- File format: Radiometric jpg
- Swappable Li-ion Battery with 4 hour life
- Spot Measurement mode
- Simultaneous storage of IR/Visual/MSX images
- Picture in Picture image (E5, E6 and E8)
- Area Box Measurement mode (E5, E6 and E8)
- Each includes power supply/charger with four plugs, rechargeable battery, FLIR Tools software, USB cable, and hard transport case. E8 also includes extra battery and external battery charger
- 10-5-2 Protection
- FLIR IR Camera Warranty
- FLIR's 10-5-2 warranty provides a 10-year warranty on the IR detector, 5-year protection on field-replaceable batteries, and 2 year coverage on parts and labor

Specifications				
Model	FLIR E4	FLIR E5	FLIR E6	FLIR E8
IR Pixel Resolution	4,800 (80 x 60)	10,800 (120 x 90)	19,200 (160 x 120)	76,800 (320 x 240)
Thermal Sensitivity	<0.15°C	<0.10°C	<0.06°C	<0.06°C
MSX Resolution	320 x 240			
Temperature Range	-4 to 482°F (-20 to 250°C)			
Measurement Modes	Spot (center) mode	2 modes: 1 Spot (center); 1 Area Box (Min/Max)	3 modes: 1 Spot (center); 1 Area Box (Min/Max); Isotherm (above/below)	
Frame Rate	9Hz			
Field of View	45° x 34°			
Focus	Focus free			

What is MSX®?

NEW Exclusive MSX® Thermal Imaging Technology Made Affordable for Everyday Use

Multi-Spectral Dynamic Imaging (MSX) for easier interpretation of an image - adds visible spectrum definition to IR images by detecting the edges of objects and including that detail in the thermal image. Text becomes clearly visible so that you can read a label or identifier within the IR image. This exclusive function provides extraordinary thermal detail that instantly highlights and orients problem locations and eliminates the need to refer back to a visual image for detail.



Breaker Panel



Missing Insulation



Warm Drain Pipe in Wall

FLIR E-Series Compact Thermal Imaging Infrared Cameras with MSX Enhancement and Wi-Fi

Advanced Thermal Imaging Camera Performance that Keeps Getting Better

- **FLIR Tools Mobile Communication** Connect an E-Series camera to smartphones and tablets with our Wi-Fi app. Stream live video so others can watch along. Import radiometric JPEGs, adjust levels, add measurement tools, then send images off in simple reports via email to expedite repair decisions.
- **Superior Thermal Imaging** Up to 76,800 pixels (320 x 240) for better long-range accuracy and the highest level of point & shoot camera IR resolution.
- **MSX Thermal Image Enhancement** See numbers, labels and other key visual details not normally apparent in a regular thermal image with an all-in-one thermal picture that instantly orients you to right where heat issues are.
- **Onboard Digital Camera** 3.1MP resolution for clear visible light reference pictures; includes built-in LED lamp plus a laser pointer to mark locations.



FLIR Exx
Thermal Imaging
Cameras
STARTING AT
\$3,995



Large 3.5" Touchscreen



3.1MP Digital Camera,
LED Lamp, Laser Pointer



Large Buttons



Auto-Orientation

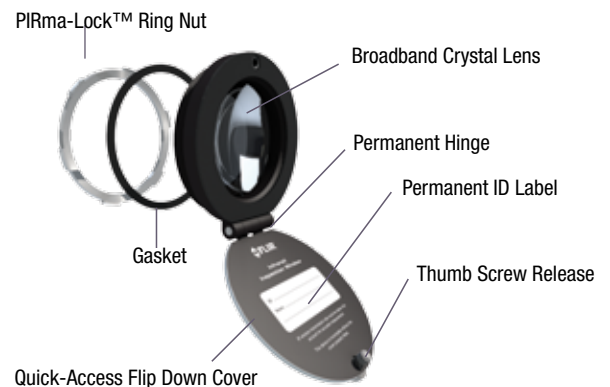


Specifications			
Model	FLIR E40	FLIR E50	FLIR E60
Temperature Range	-4° to 1202°F (-20° to 650°C)		
Thermal Sensitivity	70 mK	50 mK	50 mK
IR Detector Resolution	160 x 120 (19,200) Pixels	240 x 180 (43,200) Pixels	320 x 240 (76,800) Pixels
Picture In Picture	Yes		
Laser Sighting	Yes		
Temperature Accuracy	±2%		

FLIR IR Windows

Faster and Safer Thermal Surveys

- Minimize time/cost of complying with NFPA 70E for electrical inspections
- Decrease the risk of arc flash incidents and resultant injuries
- Perform both Visual and Thermal inspections through the crystal window
- Integrity and environmental ratings of cabinets are intact even after installation
- Windows are sized to match dimensions of standard knockout punches
- Easy to install with no screws involved

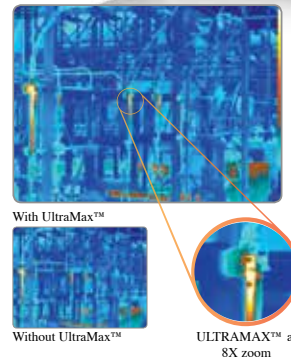


Available Models			
Model	IRW-2C (2" IR Window)	IRW-3C (3" IR Window)	IRW-4C (4" IR Window)
Model	IRW-2S (2" Stainless Steel IR Window)	IRW-2S (2" Stainless Steel IR Window)	IRW-2S (2" Stainless Steel IR Window)

FLIR T-Series High Performance Thermal Imaging Cameras

Highest Resolution Highest Sensitivity & Widest Temperature Range

- Accurate, Reliable Readings** Maximum flexibility and efficiency for accuracy from farther away. Crisp thermal images with up to 307,200 pixels (640 x 480) for the best detection, pictures and temperature measurements from long range and up to 1.2 million pixels with ULTRAMAX™.
- ULTRAMAX Technology** - Enhances thermal resolution to create a higher definition radiometric JPEG with up to four times as many pixels and better distance accuracy than the native image.
- MSX Thermal Image Enhancement** Etches detail from the visible light camera onto the thermal image to help you see exactly where problems are without compromising the thermal image or temperature data.
- Flex Ergonomics** Scan targets up high, down low (like MCC's), and from tough angles while keeping the display in view. Rotating optical block lens moves 120° up or down.
- Wi-Fi Connectivity** Send images and data via iOS/Android devices to share images and critical information quickly using the FLIR Tools Mobile app.
- Bright 4.3" Touchscreen** Tap the screen or buttons to quickly access temperature measurement tools, parameters, image modes and more.
- METERLINK™ Technology** Wirelessly transmits extra diagnostic data from FLIR clamps, Multimeters and moisture meters directly to the camera for annotating thermal images to support further diagnostic testing.



ULTRAMAX™
UNMATCHED PERFORMANCE AT FOUR TIMES THE RESOLUTION
 A unique image processing technique that allows you to generate reports with images that have four times as many pixels

Specifications				
Model	T420	T440	T620	T640
Temperature Range	-4°F to 1,202°F (-20°C to 650°C)	-4°F to 2,192°F (-20°C to 1,200°C)	-40°F to 1,202°F (-40°C to 650°C) Optional: to 3,632°F (2,000°C)	-40°F to 3,632°F (-40°C to 2,000°C)
Thermal Sensitivity	<0.04°C @ 30°C		<0.03°C @ 30°C	
Thermal Resolution	76,800 (320 x 240)		307,200 (640 x 480)	
Display Size	3.5"		4.3"	
Auto Focus	Manual & Automatic			Manual/Automatic/Continuous
Viewfinder	No			Yes

The Infrared Training Center

The ITC offers classes for practically every application, from free online courses to advanced training that can certify you as a thermography expert



- FREE Online Courses**
 User-friendly, on-demand courses designed to show you how to use your camera and get started on electrical surveys, energy audits and more
- Thermography Certification Training:**
 Level I certifies that you know how a thermal imager works and how to use it. Level II cranks your credibility up a notch with more in-depth concepts and intensive labs
- Popular ITC courses:** Indoor Electrical Surveys using IR Thermography, Outdoor Electrical Surveys using IR Thermography, Building Inspection, Condition Monitoring
- Come to classes at our training center or at one of our many regional locations On-site training at your facility available if you would like to certify a group of 10 or more. For a complete list and schedule of courses and more information, visit www.infraredtraining.com or call 1.866.872.4647
- New to thermography?
 Need a quick refresher on the basics of infrared? ITC's FREE live and on-demand webcasts are just for you!
- Available on your desktop, laptop, tablet or smartphone: www.infraredtraining.com/ webinars



FLIR TG165 Spot Thermal Camera

Find an unseen world of problems ordinary meters miss

Bridging the gap between single spot IR thermometers and FLIR’s legendary infrared cameras, the TG165 gives you the advantage of thermal imaging to help you discover temperature issues you can’t see with typical spot radiometers. You’ll work more quickly and have confidence you won’t miss anything vital. Equipped with FLIR’s exclusive Lepton® micro thermal camera, the TG165 helps you identify heat patterns, reliably measure temperature, and store images and data for reports. And with a spot ratio of 24 to 1, you can take accurate readings from safer distances. The TG165 is simple to operate, featuring intuitive menu icons and dual laser pointers. Built by the world leader in thermal technology, the durable TG165 will quickly become your “go to” temperature tool.

Key Features:

- Captures Thermal Measurements from -25°C to 380°C (13 to 716°F)
- True Thermal Detection: FLIR Lepton® delivers best image quality in its class
- Portable, Ergonomic Design – Balanced, contoured grip
- Tripod Mount / Lanyard Connection
- Simple to Operate – Intuitive buttons and menu icons
- Rugged and Reliable– Withstands a 2-meter drop
- Dual Pointer Lasers – Frame your area of interest
- Convenient Pull Trigger – Activates lasers and freezes images
- Store Images and Data – Removable micro SD card, mini USB port for downloading images and charging internal battery



FLIR TG54/TG56 Spot IR Thermometers

Easily take measurements in hard-to-reach spots from farther away

The TG54 and TG56 Spot IR (Infrared) Thermometers provide non-contact surface temperature readings so you can quickly and easily take measurements in places that are out of reach. Providing a distance-to-spot ratio of up to 30:1, the TG54 and TG56 can measure smaller targets from a safer distance. New mode options give you control to view your current reading and last two temperature readings simultaneously. The TG54 and TG56 are built with a color screen that makes it easy to navigate and select settings, plus adds visibility and efficiency to the advanced feature set. The TG54 and TG56 are your go-to, pocket-sized devices for efficient temperature measurement.

Key Features:

- Take non-contact surface temperature measurements with IR (infrared) sensor
- 24:1 or 30:1 spot ratio to measure smaller targets from a safer distance
- Laser pointer helps you identify what is hot or cold
- Graphical menu structure allows easy access to settings
- Easy emissivity selection with predetermined levels and custom adjustment
- Stunning visual high and low alarms
- Rugged, industrial design that can withstand a three meter drop
- Bright LED worklight to help you see your target in poor lighting conditions
- Tool-less battery compartment



Spot IR Specifications	TG54	TG56
Distance to Spot Ratio (D:S)	24:1	30:1
Range	-30°C to 650°C (-22°F to 1202°F)	
Basic Accuracy	±1°C/1.8°F or 1% of Reading	
Emissivity	Adjustable with 4 presets and custom option	
Resolution	0.1°C / 0.1°F	
Response	≤150 Milliseconds	
Spectral Response	5 to 14 microns	

FLIR VP50 Non-Contact Voltage (NCV) Detector + Flashlight

Reliably detects voltages on the latest tamperproof outlets and electrical systems

Key Features:

- Safe CAT IV-1000V rating and toolbox tough with rubber reinforced case and buttons, and a low-profile detection tip
- Vibration and red LED alarms alert users to the presence of voltage in noisy areas
- Versatile High/Low sensitivity modes detect voltage on industrial equipment and low-voltage installations
- Powerful LED worklight always at the ready to illuminate poorly lit locations
- Inspection light at the probe tip facilitates testing in dark areas
- Long run time capable with power saving Low Battery Indication and Auto Power Off
- Rugged double molded design
- Includes 2 AAA batteries, user manual and limited lifetime warranty



Dual Voltage Range

Technical Summary/ Features	
Voltage Ranges	90 to 1000V 24 to 1000V
Category Rating	CAT IV-1000V
Frequency Range	45 - 65Hz
Built-in Flashlight	60 LED Lumens
Vibrating Indication	Yes
On/Off Switch	Yes
Warranty	Limited Lifetime*



FLIR Test Accessories



TA12 General Purpose Accessory Case



TA80 CAT IV Silicone Test Probes



TA70 CAT IV Insulated Alligator Test Probe Clips



TA14 Belt Holster for TG165



TA60 Thermocouple probe with adapter



TA55 AC Current Line splitter



TA50 Magnetic Hanging Strap for DM9x Series

FLIR CM174 Imaging 600A AC/DC Clamp Meter with IGM™

The FLIR CM174 is the first clamp meter equipped with a built-in thermal imager that can quickly lead you to problems you can't see with a standard clamp meter. Featuring Infrared Guided Measurement (IGM) technology, the CM174 visually guides you to the precise location of a potential electrical problem, identifying dangerous and unknown problem areas safely. Confirm your findings with accurate amperage and voltage measurements, and center-point temperature readings.

Key Features:

- Conquer cluttered wires and cables – IGM can quickly guide you in the right direction
- All-in-one tool – carry just one device and always have access to thermal imaging
- Work safely – scan a panel or cabinet for hazards using IGM without direct contact
- Center-point temperature to confirm hot spot
- Amperage and voltage measurements
- Laser and crosshair pinpoint the location of the problem found in thermal image
- Narrow jaw and built-in worklights help you access difficult locations with lighting issues
- Advanced electrical features: True RMS, LoZ, VFD Mode, Inrush, Smart Diode with Disable

Specifications	Range	Basic Accuracy
AC/DC Voltage	1000V	±1.0%
VFD AC Voltage	1000V	±1.0%
LoZ Mode AC Voltage	1000V	±1.0%
LoZ Mode DC Voltage	1000V	±1.0%
DC Current	600.0A	±2.0%
AC Current	600.0A	±2.0%
VFD AC Current	600.0A	±2.0%
Inrush AC Current	600.0A	±3.0%
Inrush AC Current Threshold	Min 0.5A , Integration Time 100ms	
Frequency	60.00kHz	±0.1%
Resistance	6000Ω	±1.0%
Continuity	600.0Ω	±1.0%
Capacitance	1000μF	±1.0%
Diode	1.5V	±1.5%



FLIR CM72/CM74 Commercial Clamp Meters

Key Features:

- Made with a narrow jaw for easy access to wiring in crowded panels and cabinets
- Slim clamp design makes it convenient to carry in your back pocket
- Dual bright high-powered LED worklights guide you to your target in poor lighting conditions
- Advanced electrical features including: True RMS, LoZ, VFD Mode (CM74 only), Inrush (CM74 only), Smart Diode with Disable
- Expandable to 3000A AC with TA72 & TA74 Flex Clamp Accessories (sold separately)
- Min / Max, Hold and Auto Power Off with Disable
- Premium gold-tipped silicone test lead accessories included
- Large digit LCD display with bright backlight
- Rubberized double molded hand grips reduce slippage

Electrical Measurements	CM72 Max Range	CM74 Max Range	Basic Accuracy
AC/DC Voltage	600.0V	1000V	±1.0%
VFD AC Voltage	-	1000V	±1.0%
LoZ Mode AC/DC Voltage	600.0V	1000V	±1.0%
DC Current	-	600.0A	±2.0%
AC Current	600.0A	600.0A	±2.0%
VFD AC Current	600.0A	600.0A	±2.0%
Inrush AC Current	-	600.0A	±3.0%
Frequency	60.00kHz	60.00kHz	±0.1%
Resistance	6000Ω	6000Ω	±1.0%
Continuity	600.0Ω	600.0Ω	±1.0%
Capacitance	1000μF	1000μF	±1.0%
Diode	1.5V	1.5V	±1.5%



FLIR CM82/CM83/CM85 True RMS Power Clamps

FLIR offers an excellent choice of industrial-grade Power Clamp Meters engineered with advanced power analysis and variable frequency drive filtering functions required by electrical troubleshooters.

Key Features:

- VFD Mode provides superior accuracy for working on VFD-controlled equipment
- Advanced power efficiency and harmonics measurements for system level performance analysis
- Inrush mode captures fast AC Current spikes during appliance start-up
- Phase Rotation testing ensures the motor and power source are aligned
- True RMS DMM functionality features reliable performance and expansive ranges
- Powerful LED lamps not only assist with clamping but are bright enough to serve as a primary work light
- Key Features:
- TRMS Voltage and Current, Power Factor, Bright White LED Backlit Display, Analog Bargraph, Integrated Non-Contact Voltage Detector, Min/Max/Average, Auto Power Off, Data Hold, Peak Hold, Relative, DCA Zero, and Battery Status

Model CM82

- 600A True RMS AC/DC Current Measurement
- Model CM83 (600A) / CM85 (1000A)
- True RMS AC/DC Current Measurement
- FLIR Tools Mobile connects the FLIR CM83 to compatible smartphones and tablets via Bluetooth for remote viewing and sharing
- METERLiNK technology wirelessly embeds electrical clamp meter readings into radiometric infrared images captured with compatible FLIR Thermal Cameras
- Includes: CAT IV Silicone Test Leads, 6 AAA Batteries, User Manual/CD, and Limited Lifetime Warranty



Specifications	CM82	CM83	CM85	Basic Accuracy
AC/DC Current	600A	600A	1000A	±2%
AC/DC Voltage	1000V	1000V	1000V	±1% / 0.7%
AC VFD Voltage	1000V	1000V	1000V	±1%
Harmonics	1st-25th Order	1st-25th Order	1st-25th Order	±5%
Total Harmonic Distortion	0.0 to 99.9%	0.0 to 99.9%	0.0 to 99.9%	±3%
Inrush Current	600ACA (Integration Time 100ms)	600ACA (Integration Time 100ms)	1000ACA (Integration Time 100ms)	±3%
Active Power	10kW to 600kW (10V, 5A min)	10kW to 600kW (10V, 5A min)	10kW to 1000kW (10V, 5A min)	±3%
Diode Test	0.4 to 0.8V	0.4 to 0.8V	0.4 to 0.8V	±0.1V
Capacitance	3.999mF	3.999mF	3.999mF	±1.9%
Resistance	99.99kΩ	99.99kΩ	99.99kΩ	±1%
Continuity Threshold	30Ω	30Ω	30Ω	±1%
Frequency	20.00Hz to 9.999kHz	20.00Hz to 9.999kHz	20.00Hz to 9.999kHz	±0.5%
Bluetooth Range Max	—	32ft (10m)	32ft (10m)	—
Jaw Opening	1.45in (37mm, 1000MCM)	1.45in (37mm, 1000MCM)	1.77in (45mm)	—
Category Rating	CAT IV-600V, CAT III-1000V			
Battery Type	6 x AAA			
Warranty	Limited Lifetime*			

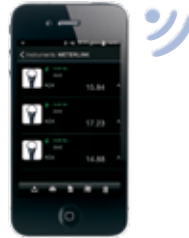
* When registered within 60 days of purchase.

FLIR CM55/CM57 Flexible Clamp Meters

The FLIR Flexible Clamp Meters with Bluetooth® are ergonomic tools designed to simplify your work every day.

Key Features:

- 3000A AC True RMS current measurements
- Convenient 10" or 18" flexible clamp with locking mechanism
- Inrush current for equipment start up spikes
- Bluetooth to mobile devices for remote viewing
- Data recording for trend analysis transferable via Bluetooth®
- Bright LED work lights for easy inspection and navigation
- Limited Lifetime Warranty with Registration



Specifications	CM55	CM57
Maximum AC Current	3000A AC	3000A AC
AC Response	True RMS	True RMS
AC Current Ranges & Resolution	30.00A, 300.0A, 3000A	30.00A, 300.0A, 3000A
Basic AC Current Accuracy	± 3.0% + 5 digits	± 3.0% + 5 digits
Maximum Resolution	0.01A	0.01A
AC Current Bandwidth	45Hz – 500Hz (sine wave)	45Hz – 500Hz (sine wave)
Inrush Current	Min 0.5A, 100mS	Min 0.5A, 100mS
Data Record Mode	20000 points, 1 min Sample Rate	20000 points, 1 min Sample Rate
Detailed Accuracy	30.00 A ±(3.0% + 5 digits)	30.00 A ±(3.0% + 5 digits)
	300.0 A ±(3.0% + 5 digits)	300.0 A ±(3.0% + 5 digits)
	3000 A ±(3.0% + 5 digits)	3000 A ±(3.0% + 5 digits)
	30.00 A ±(3.0% + 5 digits)	3000 A ±(3.0% + 5 digits)
	300.0 A ±(3.0% + 5 digits)	30.00 A ±(3.0% + 5 digits)
Positional Error (Distance from optimum)	0.6" (15mm) 2.0%	1.4" (35mm) 1.0%
	1.0" (25mm) 2.5%	2.0" (50mm) 1.5%
	1.4" (35mm) 3.0%	2.4" (60mm) 2.0%

FLIR TA72/TA74 Flexible Clamp Adaptors

Designed to add capabilities, simplify challenges and get the best readings with your existing meter

Key Features:

- Adds 3000A AC current measurements to existing meters
- Convenient 10" or 18" flexible clamp with locking mechanism
- AC voltage probe output for universal compatibility
- Banana plug connections fit most meters
- Switchable AC current range: 30A, 300A, 3000A
- Bright LED work lights for easy inspection
- Limited lifetime warranty with registration

Specifications	TA72/TA74
Maximum AC Current	3000A AC
AC Current Ranges & Resolution	30.00A, 300.0A, 3000A
Basic AC Current Accuracy (full scale)	± 3.0% + 5 digits
Measurement Rate	1.5 samples per second, nominal
AC Current Bandwidth	45Hz – 500Hz (sine wave)
Detailed Accuracy	30.00 A ±(3.0% + 5 digits)
	300.0 A ±(3.0% + 5 digits)
	3000 A ±(3.0% + 5 digits)
Positional Error (Distance from optimum)	1.4" (35mm) 1.0%
	2.0" (50mm) 1.5%
	2.4" (60mm) 2.0%



FLIR DM93/DM92 True RMS Industrial Multimeters

Our world-class Digital Multimeters offer variable frequency drive filtering to help you accurately analyze non-traditional sine waves and noisy signals.

Key Features:

- LoZ eliminates ghost voltage readings caused by long wires that share a conduit
- Powerful LED worklights for performing tests in dim lighting
- Manually store and recall up to 99 readings
- Durable double molded construction (IP54, 2m Drop Test)
- TRMS Voltage and Current, Bright White LED Backlight, Analog Bargraph, Auto AC/DC Voltage, Min, Max, Average Recording, Auto Power Off, Data Hold, Relative, Peak Hold

Technical Summary	Max Range	Basic Accuracy
DC Voltage	1000.0V	±0.05%
AC Voltage	1000.0V	±0.5%
VFD Voltage	1000.0V	±0.5%
DC Current	10.000A	±0.2%
AC Current	10.000A	±1.0%
Resistance	40.00MΩ	±0.2%
Continuity Threshold	30Ω	±0.2%
Frequency	100.00kHz	±5 Digits
Capacitance	40.00mF	±0.9%
Temperature	-328 to 2192°F, -200 to 1200°C	±1.0%
Diode Test	2V	±1.5%



DM93 Additional Features:

- Data Record captures electrical measurements and provides wireless data transfer
- Integrated Bluetooth technology connects the FLIR DM93 to the FLIR Tools Mobile app on compatible mobile device for remote viewing and sharing
- METERLINK technology wirelessly sends the electrical readings to compatible FLIR infrared cameras, embedding the data into live and saved thermal images

FLIR IM75 Insulation & DMM Combo with METERLINK

An advanced multifunction digital Multimeter and premier handheld insulation tester for installation, troubleshooting and maintenance professionals.

Key Features:

- Advanced Insulation Modes
- Multiple resistance insulation test level ranges
- LED indicator with Compare Mode
- Remote viewing of real time readings on Android™ and iOS™ smartphones and tablets with METERLINK connectivity and free FLIR Tools Mobile app
- Transmit readings to METERLINK™-enabled FLIR thermal imaging cameras to document and analyze thermal changes during insulation measurements
- Extremely bright LED worklights in a flood pattern to illuminate test areas and targets
- Durable double-molded construction (IP54, 2m Drop Test)

Technical Summary	MAX Range	Basic Accuracy
Insulation Resistance	4M to 20GΩ	±1.5%
Insulation Test Voltages	50, 100, 250, 500 and 1000V	±3.0%
DC Voltage	1000.0V	±0.1%
AC Voltage	1000.0V	±1.5%
VFD AC Voltage	1000.0V	±1.5%
Earth Bond Resistance	40Ω to 40KΩ	±1.5%
Capacitance	10 mF	±1.2%
Frequency (ACV)	40kHz	+/- 5 digits
Diode Test	2V	±1.5%
Continuity	400.0Ω	±0.5%



FLIR MR176 Imaging Moisture Meter with IGM™ Infrared Guided Measurement

Featuring Infrared Guided Measurement (IGM) technology powered by a built-in FLIR Lepton® thermal imaging sensor, MR176 visually guides you to the precise spot that moisture may be hiding for further testing and investigation. Use the integrated laser and crosshair to help pinpoint the surface location of the issue found with IGM.

NEW



Key Features:

- Infrared Guided Measurement (IGM) powered by a 80X60 4800 pixel Lepton thermal imager guides you to potential moisture areas
- Customize thermal images: select which measurements are integrated (moisture, temperature, relative humidity, dew point, vapor pressure, mixing ratio), and choose from one of four color palettes (Iron, Rainbow, Ice, Greyscale); a lock-image setting prevents extreme hot and cold temperatures from interfering with images while scanning for issues
- Equipped with a laser and cross hair to easily reference the location of the potential moisture issue seen in the thermal image
- Field-replaceable temperature/relative humidity sensor
- Progressive Environmental Stability informs you when the relative humidity readings have reached a steady state
- Integrated pinless moisture measurements for fast detection, and external pin probe included with expandable probe options
- Rugged, portable design with intuitive menu system
- Document readings and images to share via USB cable
- Free FLIR Tools PC software quickly generates reports

FLIR MR160 Imaging Moisture Meter

The FLIR MR160 is the only moisture meter with the power to show you where to measure the problem. Featuring Infrared Guided Measurement (IGM) technology powered by a FLIR Lepton thermal imaging sensor, MR160 helps you quickly see temperature patterns that point to potential hidden moisture so you know right where to place the meter probe to capture accurate readings.

Key Features:

- IGM: 80 x 60 Lepton® thermal imager
- Document thermal images and moisture readings on one screen
- Pinless technology for fast non-contact measurements
- External pin probe included for contact moisture measurements
- Easy targeting with laser pointer and display cross-hairs
- Industry-leading warranty - 2 years on the product, 10 years on the imaging detector
- Convenient small form factor
- Internal rechargeable battery via USB



FLIR MR77 Moisture Meter

Rugged, feature-packed moisture meter incorporating a pinless sensor and a wired pin probe to capture moisture readings up to 0.75" below the surface of various wood types and building materials. The unit also incorporates a laser-spot IR thermometer, a field-replaceable temperature/humidity sensor, and High/Low moisture and humidity alarms.

Key Features:

- Field replaceable temperature and relative humidity sensor
- 2 Meter Drop-Tested rubber overmolded pocket-sized design
- Industry-leading limited lifetime warranty with registration
- Features pinless moisture sensor, temperature and RH sensor, and IR thermometer for fast non-contact measurements
- Remote pin-type probe for contact moisture readings
- Bluetooth® METERLINK™ technology wirelessly integrates moisture readings on your image with FLIR Thermal Cameras





MR08 Hammer/Wall Probe Combo complete with pins and case

Upgrade your Moisture meter

FLIR Moisture probe accessories

FLIR offers a quality line of probe accessories to upgrade your FLIR moisture meter to meet advanced measurement challenges. Use our optional external pin probes on hard woods and dense materials, in deep wall cavities, or to get through an obstruction like sub floor through hardwood flooring. Designed for everyday job site use, we focused on durability of the system (probe, pins and cord), ease of use, and versatility.

Part Number	MR05 Impact Probe	MR06 Wall Cavity Probe	MR07 Hammer Probe	MR08 Hammer/Wall Probe Combo
Impact Plate (to use your own hammer)	✓	✓	–	✓
Integrated Slide Hammer	–	–	✓	✓
Insulated Pins (included)	–	4" & 6"	2x2"	2x2", 4" & 6"
Extension Pins	–	✓	–	✓
Shoulder Case (included)	–	–	✓	✓
Works with MR77, MR160, MR176	✓	✓	✓	✓
No Slip Rubber Grips	✓	✓	✓	✓
Replaceable Pins	✓	✓	✓	✓
Detachable Cord with Durable Connection	✓	✓	✓	✓
2 Year Warranty	✓	✓	✓	✓

MA430 Series 400A Clamp Meters + NCV

Compact size allows measurements in tight locations and built-in non-contact Voltage detector with LED alert.

- 1.2" (30mm) jaw size for conductors up to 350MCM
- True RMS models for MA430T/MA435T and Multimeter functions included on all clamp meters
- MA410T 400A AC True RMS Clamp Meter + NCV
- Integrated Non-Contact Voltage Detector to quickly check for the presence of live wires before testing plus 40A and 400A current ranges
- 4000 count, backlit LCD display
- 1.2" (30mm) jaw size for conductors up to 350MCM

MA600 Series 600A True RMS Clamp Meters + NCV

Integrated Non-Contact Voltage Detector to quickly check for the presence of live wires before testing plus True RMS and 60A and 600A current range

- True RMS for accurate readings of non-sinusoidal waveforms
- Built-in non-contact Voltage detector with LED alert
- 1.5" (40mm) jaw size for conductors up to 500MCM
- 6000 count, backlit LCD display
- Includes Multimeter functions
- Model MA640 measures DC Current
- Relative Mode for Capacitance Zero and Offset Adjustment
- Data Hold, MIN/MAX, and Auto Power Off

EX600 Series 400A Dual Input Clamp Meters + IR Thermometer + NCV

True RMS measurements for accurate AC Voltage and Current measurements

- Dual type K thermocouple input with Differential Temperature function (T1, T2, T1-T2)
- Built-in non-contact Voltage detector with LED alert
- DC μ A multimeter function for HVAC flame rod Current measurements
- EX623 features built-in non-contact IR Thermometer with laser pointer for locating hot spots



Specifications						
Model	MA430T	MA435T	MA620 / MA640	MA410T	EX613	EX623
True RMS	TRMS	TRMS	TRMS	TRMS	TRMS	TRMS
Display Counts	2,000	4,000	6,000	4,000	4,000	4,000
AC Current	400A	400A	600A	400.0A	400.0A	400.0A
ACA Accuracy	±2.5%	±2.5%	±2.8%	±2.5%	±1.5%	±1.5%
DC Current	—	400A	— / 600A	—	400.0A	400.0A
AC/DC Voltage	600V	600V	600V	600V	400.0A	400.0A
Resistance	20M Ω	40M Ω	60M Ω	40M Ω	40M Ω	40M Ω
Capacitance	—	100 μ F	4000 μ F	100 μ F	40,000 μ F	40,000 μ F
Frequency	—	10kHz	10kHz	10kHz	40MHz	40MHz
Temperature (Type K)	—	-4 to 1400°F -20 to 760°C	-4 to 1400°F -20 to 760°C	-4.0 to 1400°F -20 to 760°C	-58 to 1832°F (-50 to 1000°C)	-58 to 1832°F (-50 to 1000°C)
Temperature (IR)	—	—	—	—	—	-58 to 518°F (-50 to 270°C)
Duty Cycle	—	—	Yes	Yes	Yes	Yes
NCV Detector	Yes	Yes	Yes	Yes	Yes	Yes
Safety Category	CAT III-600V	CAT III-600V	CAT III-600V	CAT III-600V	CAT III-600V	CAT III-600V

MN36 Digital Mini Multimeter

Compact autoranging Multimeter

- Measure AC and DC Voltage to 600V
- DC Current function to 10A
- Thermocouple Temperature measurements to 1400°F (750°C)

EX230 12 Function Mini Digital Multimeter with IR

Rugged design with built-in IR Thermometer

- Laser pointer for locating hot spots (6:1 Distance to Target Ratio)
- AC/DC Voltage, AC/DC Current, Resistance, Capacitance, Frequency, Temperature (Type K + IR), Duty Cycle, Continuity / Diode
- 4000 count large backlit dual LCD with easy-to read digits°

EX330 12-Function Mini Multimeter + Non-Contact Voltage Detector

Combination Multimeter with Built-in Non-Contact AC Voltage Detector

- Quickly check for the presence of AC Voltage before testing
- Red LED indicator and audible beeper
- Large-digit 4,000 count LCD display with 1" digits make it easy to read
- Type K temperature measurements, °F/°C switchable

EX505 11-Function Heavy Duty True RMS Industrial Multimeter

Waterproof (IP67) rugged design for heavy duty use with CAT IV-600V safety rating for industrial applications

- 1000V input protection
- Dual sensitivity frequency functions (electrical/electronic)
- Diode open circuit voltage of 2.8V DC
- Data hold, Relative, Auto power off
- 4,000 count large backlit LCD

EX530 Heavy Duty True RMS Industrial Multimeter

True RMS DMM with 40,000 count LCD display, temperature function and waterproof housing

- 1000V input protection
- Dual sensitivity frequency functions (electrical/electronic)
- Dual sensitivity frequency functions (electrical/electronic)
- MIN/MAX, Data hold, Relative



Specifications					
Model	MN36	EX230	EX330	EX505	EX530
True RMS	Averaging	Averaging	Averaging	TRMS	TRMS
Basic Accuracy	±0.5%	±0.5%	±0.5%	±0.5%	±0.06%
Display Counts	4,000	2,000	4,000	4,000	40,000
AC/DC Voltage	600V	600V	600V	1000V	1000V
AC/DC Current	10A	10A	10A	10A	20A
Resistance	20MΩ	40MΩ	40MΩ	40MΩ	40MΩ
Capacitance	100μF	100μF	200μF	100μF	40mF
Frequency	5MHz	10MHz	10MHz	1kHz (electrical) 10MHz (electronic)	400Hz (electrical) 100MHz (electronic)
Temperature (Type K)	-40 to 1400°F -20 to 750°C	-4 to 1400°F (-20 to 760°C)	-4 to 1382°F -20 to 750°C	-50 to 1382°F -45 to 750°C	-50 to 1382°F -45 to 750°C
Temperature (IR)	—	-5 to 446°F (-20 to 230°C)	—	—	—
Duty Cycle	—	Yes	Yes	Yes	Yes
NCV Detector	—	—	Yes	—	—
Waterproof	—	—	—	IP67	IP67
Drop proof	—	—	—	6.5ft	6.5ft
Safety Category	CAT II-600V	CAT III-600V	CAT III-600V	CAT IV-600V	CAT IV-600V

CB10 AC Circuit Breaker Finder/Receptacle Tester

3-in-1 Tester locates circuit breakers and tests receptacle wiring.

- Quickly locate 110V to 125VAC circuit breakers and fuses
- Variable Sensitivity adjustment to pinpoint correct circuit breaker
- Bright Red and Green LED's indicate if receptacle is either correctly wired or one of six fault conditions
- Simply plug the GFCI Transmitter into an outlet and trace for the correct breaker at the electrical box



380260 Handheld Megohmmeter

1000V digital tester with large dual backlit display

- Double molded housing for added durability
- Dual display of Insulation Resistance and Test Voltage
- Backlit super large display
- 250V, 500V, and 1000V test voltages
- Insulation Resistance to 2000MΩ
- Auto power off
- Lo Ω function for testing connections



BR250 Video Borescope/Wireless Inspection Camera

Detachable wireless 3.5" color display can be viewed from a remote location up to 32ft

- Captured video and still images with date/time stamp can be played back on the wireless monitor or your PC
- Mini water-proof (IP67) 9mm camera head for high resolution viewing
- Two bright LED lamps with dimmer to illuminate viewed object
- SD memory card captures JPEG images or video for viewing on your PC



LT40 & LT45 LED Light Meters

Monitor and optimize environmental light levels in buildings, schools, and offices.

- Model LT40 measures light intensity of white LED lights
- LT45 measures both white and color LED lights
- Measure LED and Standard Lighting in Lux or Foot-Candle (Fc) units
- 4000 count display
- Min/Max Average
- Cosine and color corrected measurements
- Model LT40 Functions
 - Measures white LED lights
- Model LT45 Functions
 - Measures white, red, yellow, green, blue, and purple LED lights
- Manually store/recall up to 99 readings



CT70 AC Circuit Analyzer

Quickly checks for AC outlet load handling capabilities plus Outlet Tester functions

- AC Load Tester: Selectable loads of 12, 15 and 20 Amps, Measures loaded and unloaded AC Line Voltage, Calculates and displays % Voltage Drop and Line Impedance, Displays Peak Line Voltage and Frequency
- Outlet Tester functions: Neutral to Ground Voltage, Hot, Neutral and Ground Impedance, GFCI Trip Time, GFCI Trip Current, Open or Reversed wiring, ASCC (Available Short Circuit Current)



BR80 Video Borescope Inspection Camera

17mm camera diameter and 2.4" Color TFT LCD Monitor with lightweight, handheld design to easily find, diagnose, and solve problem

- 39" (1m) flexible gooseneck cable retains configured shape
- Mini water-proof (IP67) camera head and cable
- Four bright LED lamps with dimmer to illuminate viewed object
- Glare-free close-up field of view



RD300 Refrigerant Leakage Detector

Ideal for detecting leakages from air-conditioning units and cooling systems that use all standard refrigerants

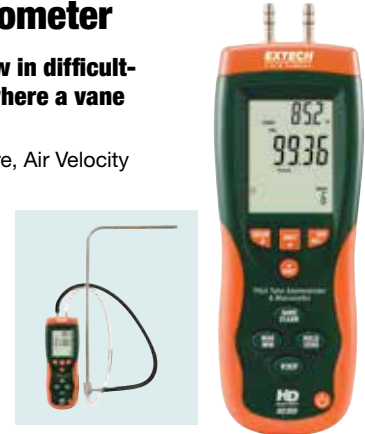
- Detects all standard refrigerants using a heated diode sensor
- LED light at probe tip (with on/off switch) for working in dimly lit areas
- LEDs display user-selectable High/Medium/Low levels with sensitivity of 0.25/0.50/0.99 oz per year
- Audible and Visual alert with mute button
- Field replaceable sensor (RD300-S) and LED light tip (RD300-L)



HD350 Pitot Tube Anemometer + Differential Manometer

Measures Air Velocity/Airflow in difficult-to-reach or tight locations where a vane anemometer won't fit

- Simultaneous display of Pressure, Air Velocity or Air Flow plus Temperature
- ±0.7252psi range
- 5 selectable units of pressure measurement
- Max/Min/Avg recording and Relative time stamp
- Data Hold and Auto power off function



AN100/AN200 CFM/CMM Thermo-Anemometer + IR Thermometers

Simultaneous display of Ambient Temperature and Air Flow/Air Velocity

- Up to 8 easy to set Area dimensions (ft² or cm²) are stored in the meter's internal memory
- 20 point average function for Air Flow
- Super large LCD Backlit Display
- AN200 features built-in non-contact IR Thermometer measuring remote surface temperatures to 500°F (260°C) with an 8:1 distance-to-spot ratio and Laser Pointer



45118/45158 Mini Thermo-Anemometers

Pocket Air Velocity meters measure Air Velocity and Temperature or Windchill

- Fold up protective housing extends to 9" for better reach
- Data Hold to freeze most recent display
- Auto shutoff 15 minutes after last key is pressed
- Water resistant housing floats and Drop tested to 6 feet
- 45158 measures Relative Humidity and Dew Point



RHT20/RHT10 Humidity and Temperature USB Dataloggers

Rugged CAT IV rated non-contact Voltage (NCV) Detector displays a Green LED light when it is powered on and ready for use

- Datalogs 16,000 Humidity and 16,000 Temperature readings with a user programmable sample rate
- Dew point indication via Windows® software (included)
- User-programmable alarm thresholds for RH and Temperature
- RHT10 features status indication via colored LEDs
- RHT20 features LCD display of current readings, Min/Max, and alarm status



42509 Compact IR Thermometer

Great for processes that require temperature control and monitoring

- Dual laser for accurate target
- Fast and accurate measurements at 12" where the two lasers converge with 12:1 field of view
- Blue backlit dual LCD display changes to Red backlit when reading exceeds High or Low set points
- Exclusive 150 millisecond instantaneous



Rebates & Promotions

Participate in FLIR's promotional programs to receive free products & accessories, popular gadgets, cash rebates and other exciting prizes!

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BONUS BUY

Purchase a New FLIR Benchtop Kit and



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Spend:	Choose Your Gift:
\$200 - \$799	<ul style="list-style-type: none"> FLIR Tactical LED Flashlight FLIR VPS0 Voltage Detector/Flashlight FLIR Meter Case
\$800 - \$3,999	<ul style="list-style-type: none"> Ettech 8R80 Video Binocularscope FLIR EX Camera Accessory Kit (FLIR Footbag, Car Charger for FLIR EX-Series, VPS0 Voltage Detector)
\$4,000 - \$9,999	<ul style="list-style-type: none"> FLIR ONE for iOS or Android FLIR CM57 Flexible Clamp Meter FLIR T985 Spot Thermal Camera

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