



TELEDYNE
FLIR



WHAT DO YOU NEED TO MEASURE?

People trust Teledyne FLIR's world-class solutions to provide the accuracy, reliability, and versatility needed to tackle their most challenging jobs.

WHAT DO YOU NEED TO MEASURE?

"Our FLIR camera has contributed significantly to better safety and increased production in our facility. It has become a major part of our condition monitoring program."

— **Scott Myers, Reliability Technician, Tate & Lyle**
Source: TechValidate TVID: BF7-504-768

"FLIR gave us the ability to be more marketable and to provide services for clients, who were at the time, using other less qualified contractors for their imaging needs."

— **Jeffrey Wayment, Electrician, Electric 1 West**
Source: TechValidate TVID: 3F5-D23-154

"With FLIR, the ability to show clients heating or cooling losses is an effective way to prove value."

— **Energy Auditor, Small Business Professional Services Company**
Source: TechValidate TVID: ADF-642-371

"FLIR products have helped us by providing some of the best diagnostic equipment to reduce our customers' down time and expensive repairs."

— **Electrician, Small Business Professional Services Company**
Source: TechValidate TVID: 480-62C-A7E



Our exclusive IGM technology is centered around the FLIR Lepton® thermal camera core. The compact, low-cost Lepton gives us the ability to develop new, highly-efficient test and measurement products that integrate powerful thermal imaging — a capability that helps you instantly see excessive heat, so you can pinpoint the location of potential problems, take measurements, and solve problems faster than ever.



FEATURED PRODUCTS



FLIR T865

The FLIR T865 thermal imaging camera is a high-performance non-contact inspection tool with 180° rotating optical block that allows users to safely and comfortably assess the condition of critical electrical and mechanical equipment in utility and manufacturing applications.



FLIR Si124

The FLIR Si124 acoustic imaging camera helps you locate pressurized leaks in compressed air systems or detect partial discharge from high-voltage electrical systems. This lightweight, one-handed solution can be used to identify issues up to 10x faster than traditional methods.



VS80 Kits

The FLIR VS80 is a versatile, professional videoscope that you can rely on when inspecting locations that are difficult or unsafe to access. Seven unique compatible probes* with waterproof (IP67) camera tips are available to give you flexibility for virtually any type of inspection.



EXTech VPC300

The VPC300 is a Video Particle Counter with built-in Camera. Measures up to 6 channels of particle sizes plus air temperature and relative humidity. Used for capturing videos and photos that are stored onto internal memory or a microSD™ card.



FLIR ONE® Pro-Series Thermal Imaging Camera Attachments

The FLIR ONE Pro-Series gives you the power to find invisible problems faster than ever. With robust features such as multiple temperature meters and level/span controls, the FLIR ONE Pro and FLIR ONE Pro LT work as hard as you do. The revolutionary VividIR™ image processing helps you see more details, FLIR MSX® adds sharpness and perspective, and the FLIR OneFit™ adjustable connector extends up to 4 mm to fit many popular protective cases. Whether you're inspecting electrical panels, looking for HVAC problems, or finding water damage, FLIR ONE Pro-Series camera are tools no serious professional should be without.

Key Features:

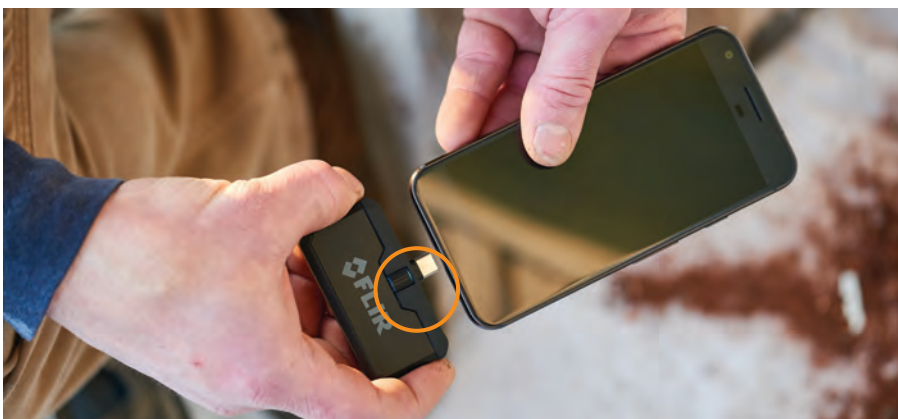
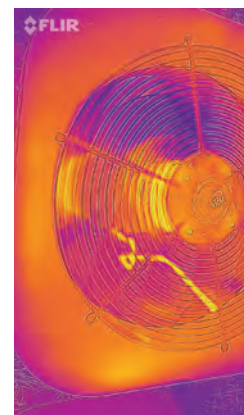
- Identify problem areas easier with the added detail and perspective from FLIR MSX
- Record stunningly crisp imagery and fine detail through VividIR advanced image processing
- Directly upload and store images to the FLIR Ignite™ cloud, where you can organize and back up files, instantly share images or create professional reports from a mobile device or computer
- Fits with most popular phone cases using OneFit adjustable connector
- Measure the temperature of any spot in a scene up to 400°C/752°F (FLIR ONE Pro only) and detect temperature differences as small as 0.07°C/0.13°F (FLIR ONE Pro only)



FLIR Ignite™ Cloud Services
Upload, Access and Edit Your
Images - Anywhere, Anytime



SPECIFICATIONS	FLIR ONE PRO LT	FLIR ONE PRO
IR resolution	80 x 60 (4,800 pixels)	160 x 120 (19,200 pixels)
Thermal sensitivity	100 mK	70 mK
Object temperature range	-20°C to 120°C (-4°F to 248°F)	-20°C to 400°C (-4°F to 752°F)
HFOV/VFOV	55° ±1° / 43° ±1°	
Accuracy	±3°C (±5.4°F) or ±5%, typical percent of the difference between ambient and scene temperature.	
Focus	Fixed 15 cm - Infinity	
Frame rate	8.7 Hz	
Battery life	1 hour	
Charging	Female micro USB-C (5 V 1 A)	
Interface	Lightning (iOS), USB-C, and micro USB (Android™)	



OneFit adapts your FLIR ONE Pro-Series camera to fit with almost any phone case.

FLIR C3-X and FLIR C5 Full-Featured, Pocket-Sized Thermal Cameras

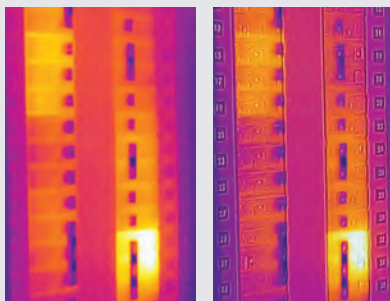
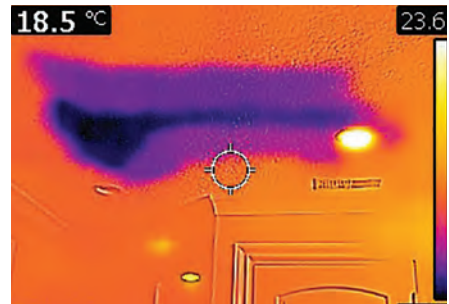
The FLIR C3-X and C5 are your go-to tools for building inspections, facilities maintenance, HVAC, or electrical repair. Both models include MSX® real-time image enhancement, picture-in-picture, area maximum or minimum temperature measurement, and Wi-Fi connectivity so you can quickly get to the job of finding and fixing hidden problems, sharing images, and documenting repairs. The C3-X and C5 also offer direct connectivity to the FLIR Ignite cloud, so you can upload, store, edit, and share images securely while still in the field. You can even sync files to your computer for analysis and reporting using FLIR Thermal Studio software.

Key Features:

- Capture thermal measurements from -20°C to 400°C/-4°F to 752°F (C5 model)
- Pocket Portable: keep it at your side, ready for immediate use so you don't miss an opportunity
- Easy viewing thanks to brilliant 3.5 in. intuitive touchscreen with auto-orientation
- Isolate temperature measurements on any pixel and create convincing reports using fully-radiometric thermal image JPEGs that are easy to adjust and analyze in FLIR Thermal Studio
- Identify problem areas faster using MSX-enhanced thermal images
- Share images with colleagues instantly with Wi-Fi peer-to-peer sharing
- Record picture-in-picture
- Determine hottest or coldest (max./min.) target in the scene with area measurement box
- Upload images directly to the FLIR Ignite cloud for secure sharing and storage



SPECIFICATIONS	FLIR C3-X	FLIR C5
IR resolution	128 × 96 pixels	160 × 120 pixels
Thermal sensitivity	<0.70°C @ 30°C	
Field of view	54° × 42°	
Object temperature range	-20°C to 300°C (-4°F to 572°F)	-20°C to 400°C (-4°F to 752°F)
Accuracy	—	IR area on visual image
Frame rate	9 Hz	
Focus	Focus-free	
Picture-in-picture	IR area on visual image	
Area	Box with max. or min.	
Wi-Fi	Standard 802.11 b/g/n	



Breaker Panel
without MSX

Breaker Panel
with MSX

What is MSX?

Patented MSX Technology Improves Clarity for Efficient Diagnosis

Multi-Spectral Dynamic Imaging (MSX) adds visible 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 to a visual image for detail.

FLIR Ex-Series with Wi-Fi and MSX® Enhancement

The newest additions to the FLIR Ex-Series offer the thermal resolution you need to troubleshoot abnormally-high temperatures in electrical systems, locate structural issues, find energy waste, and much more. The E5-XT, E6-XT, and E8-XT boast an expanded temperature range — up to 550°C (1022°F) — and improved resolution compared with earlier Ex-Series models. With MSX® technology for extraordinary detail and Wi-Fi connectivity to smartphones and tablets via the FLIR Tools® Mobile app, the Ex-Series cameras help you make critical decisions easily.

Key Features:

- Easy to use with simple button navigation
- Record radiometric JPGs that are easy to share with clients
- Upload thermal photos instantly over Wi-Fi via the FLIR Tools® Mobile app
- Diagnose faults faster with the help of stunning MSX images
- Rely on the temperature measurements accuracy of $\pm 2^{\circ}\text{C}$ ($\pm 3.6^{\circ}\text{F}$) or $\pm 2\%$ of reading
- Fully automatic and light weight — only 575 g (1.2 lbs)
- Work longer thanks to the swappable Li-ion battery with 4-hour life
- On-board 640 × 480 digital camera provides visual, MSX, and picture-in-picture images



SPECIFICATIONS	FLIR E4	FLIR E5-XT	FLIR E6-XT	FLIR E8-XT
IR resolution	80 × 60 (4,800 pixels)	160 × 120 (19,200 pixels)	240 × 180 (43,200 pixels)	320 × 240 (76,800 pixels)
Thermal sensitivity	<0.15°C (0.27°F) / <150 mK	<0.10°C (0.27°F) / <100 mK	<0.06°C (0.11°F) / <60 mK	<0.05°C (0.09°F) / <50 mK
Object temperature range	-20°C to 250°C (-4°F to 482°F)	-20°C to 400°C (-4°F to 752°F) in two ranges	-20°C to 550°C (-4°F to 1022°F) in two ranges	20°C to 550°C (-4°F to 1022°F) in two ranges
Image modes	Thermal MSX, thermal, picture-in-picture, thermal blending, digital camera			
Measurement modes	3 modes: center spot, 1 area box (min/max), isotherm (above/below)			
Frame rate	9 Hz			
Field of view	45° × 34°			
Focus	Focus free			

FLIR E54 Advanced Thermal Imaging Camera (320 × 240 IR Resolution)

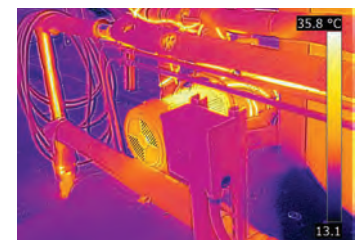
The FLIR E54 offers the resolution and sensitivity you need at the right price — making it the perfect entry into the Ex-Series. This camera provides more than 76,800 points of temperature measurement and detects temperature differences as small as $<0.04^{\circ}\text{C}$ for immediate identification of failing components.

Key Features:

- Take accurate readings on smaller targets at farther distances with superior spot-size performance
- Diagnose faster with improved detail and perspective from FLIR's patented MSX® image enhancement
- Measure temperatures up to 650°C (1202°F)
- Activate up to three spotmeters and one area box with max/min temperature display
- Directly upload images via Wi-Fi to the FLIR Ignite™ cloud, so you can organize, edit, and share images securely
- Maximize efficiency by enabling Inspection Route, which runs a predefined survey route you can build in FLIR Thermal Studio Pro using the FLIR Route Creator plugin
- Instantly improve contrast on your target with 1-Touch Level/Span
- Add voice, text, and sketch annotations
- Connect via METERLiNK® to Bluetooth-enabled FLIR Test & Measurement tools

SPECIFICATIONS	FLIR E54
IR resolution	320 × 240 (76,800 pixels)
Thermal sensitivity	<0.04°C @ 30°C
Object temperature range	-20°C to 650°C (-4°F to 1200°F)
Accuracy	$\pm 2^{\circ}\text{C}$ ($\pm 3.6^{\circ}\text{F}$) or $\pm 2\%$ of reading
Image frequency	30 Hz
Field of view (FOV)	24° × 18°
Focus	Manual
Image modes	Infrared, visual, MSX®, picture-in-picture
Measurement presets	No measurement, center spot, hot spot, cold spot, 3 spots, hot spot-spot*
Spotmeter	3 in live mode
Area box	1 in live mode
Compass, GPS	Yes; automatic GPS image tagging
Image file format	Standard radiometric JPEG, measurement data included
Video recording	Real-time radiometric recording (.csq); non-radiometric H.264 recording to memory card
Video streaming	Radiometric streaming over UVC or Wi-Fi; non-radiometric H.264 or MPEG-4 over Wi-Fi
Communication interfaces	USB 2.0, Bluetooth, Wi-Fi, DisplayPort

*Hot spot to center spot Delta measurement



FLIR Exx-Series Advanced Thermal Imaging Cameras

FLIR redesigned the Exx-Series from the handle up to deliver the best performance, resolution, and sensitivity of any pistol-grip handheld thermal camera. The E76, E86 and E96 cameras are packed with features you need for a wide range of electrical, mechanical, and building applications.

The Exx-Series offers superior sensitivity, up to 307,200 pixel resolution, true 42° field of view, and a vibrant 4 in. LCD in a user-friendly, handheld platform that can detect even subtle indications of electrical faults, building deficiencies, and moisture intrusion.

Key Features:

- Save time and money with interchangeable, auto-calibrating lenses you can share between cameras
- Ensure accurate temperature measurements with laser-assisted autofocus
- Put more pixels on your target from a safe distance with up to 640 × 480 (307,200 pixels) IR resolution
- Add depth and detail to images with our best MSX[®] image enhancement
- Produce brilliant imagery at 4x the thermal pixel resolution with UltraMax[®] processing
- Instantly improve contrast for target with 1-Touch Level/Span
- See more clearly thanks to a vibrant 4 in. LCD with 160° viewing angle
- Share images and data quickly with streamlined reporting features
- Directly upload images viz Wi-Fi to the FLIR Ignite[™] cloud, so you can organize, edit, and share images securely
- Maximize efficiency by enabling Inspection Route, which runs a predefined survey route you can build in FLIR Thermal Studio Pro using the FLIR Route Creator plugin
- Connect to mobile devices via Wi-Fi or to FLIR clamps, multimeters and moisture meters via METERLiNK[®]
- On-screen area measurement
- Wide temperature ranges up to 1,500°C / 2,732°F (E96)



AutoCal[™] lenses



Select FLIR meters communicate with Exx cameras via Bluetooth



Mobile devices communicate with Exx cameras via Wi-Fi

SPECIFICATIONS	FLIR E76	FLIR E86	FLIR E96
IR resolution	320 × 240 (76,800 pixels)	464 × 348 (161,472 pixels)	640 × 480 (307,200 pixels)
UltraMax [®]	307,200 pixels	645,888 pixels	1.2 MPixels
Object temperature range	-20°C to 650°C / optional 1000°C (-4°F to 1202°F / 1832°F)	-20°C to 1500°C (-4°F to 2732°F)	-20°C to 1500°C (-4°F to 2732°F)
Laser area measurement (m ² or ft ²)	No	Yes	Yes
Thermal sensitivity		<0.03°C @ 30°C [†]	
Accuracy		±2°C (±3.6°F) or ±2% of reading	
Image frequency		30 Hz	
Field of view (FOV)		42° × 32° (10 mm lens), 24° × 18° (17 mm lens), 14° × 10° (29 mm lens)	
Lens identification		Automatic	
Focus		Continuous, one-shot laser distance meter (LDM), one-shot contrast, manual	
Image modes		Infrared, visual, MSX [®] , picture-in-picture	
Measurement presets		Center spot, hot spot, cold spot, User Preset 1, User Preset 2	
Area box		3 in live mode	
Spotmeters		3 in live mode	
Laser distance measurement		Yes, on-screen	
Compass, GPS		Yes; automatic GPS image tagging	
Image file format		Standard radiometric JPEG, measurement data included	
Video recording		Real-time radiometric recording (.csq); non-radiometric H.264 recording to memory card	
Video streaming		Radiometric streaming over UVC or Wi-Fi; non-radiometric H.264 or MPEG-4 over Wi-Fi	
Communication interfaces		USB 2.0, Bluetooth, Wi-Fi, DisplayPort	

[†] With wide-angle lens

FLIR T-Series Professional Thermal Imaging Cameras

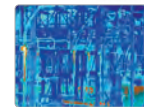
FLIR T-Series cameras, with T865, T840, T560, T540, and T530 models, simplify inspections through a broad range of professional features—from dual-FOV lenses to on-board inspection routing. Crisp 640 × 480 thermal imagery (T865, T560) ensures accurate temperature measurements up to 2000°C (3632°F), while the 180° rotating optical block reduces strain from all-day use.

Key Features:

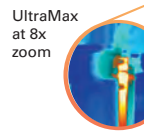
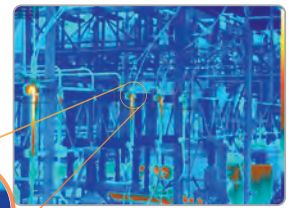
- Add the FLIR FlexView™ dual-FOV lens so you can instantly switch from wide angle to telephoto with the press of a button instead of exchanging lenses
- Connect via Wi-Fi to the FLIR Ignite™ cloud where you can organize, edit, and share images securely
- Maximize efficiency by enabling Inspection Route, which runs a pre-defined survey route you can build in FLIR Thermal Studio Pro with the Route Creator plugin
- Add depth and brilliant detail to images with FLIR MSX® enhancement and FLIR UltraMax® super resolution
- Simplify manual contrast adjustments with 1-Touch Level/Span
- Scan low or high angles without strain thanks to the ergonomic design and 180° lens rotation
- Analyze, edit, and process images then output professional reports with free 3-month subscription to FLIR Thermal Studio Pro software
- Quickly access measurement tools, parameters, image modes, and more through easy-to-use touchscreen interface



T840



Without UltraMax


UltraMax
at 8x
zoom


With UltraMax

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	FLIR T530	FLIR T540	T560	FLIR T840	FLIR T865
IR resolution	320 × 240	464 × 348	640 × 480	464 × 348	640 × 480
Object temperature range	-20°C to 650°C / opt. 1200°C (-4°F to 1202°F / 2192°F)	-20°C to 1500°C (-4°F to 2732°F)	-20°C to 1500°C (-4°F to 2732°F)	-20°C to 1500°C (-4°F to 2732°F)	-40°C to 2000°C (-40°F to 3632°F)
Accuracy	±2°C (±3.6°F) or ±2% of reading	±2°C (±3.6°F) or ±2% of reading	±2°C (±3.6°F) or ±2% of reading	±2°C (±3.6°F) or ±2% of reading	±2°C (±3.6°F) or ±2% of reading
Thermal sensitivity	<30 mK @ 30°C (42° lens)	<30 mK @ 30°C (42° lens)	<30 mK @ 30°C (42° lens)	<30 mK @ 30°C (42° lens)	<30 mK @ 30°C (42° lens)
Focus	Continuous LDM, One-shot LDM, One-shot contrast, Manual	Continuous LDM, One-shot LDM, One-shot contrast, Manual	Continuous LDM, One-shot LDM, One-shot contrast, Manual	Continuous LDM, One-shot LDM, One-shot contrast, Manual	Continuous LDM, One-shot LDM, One-shot contrast, Manual
Display size	4 in. (10.16 cm) LCD	4 in. (10.16 cm) LCD	4 in. (10.16 cm) LCD	4 in. (10.16 cm) LCD	4.3 in. (10.92 cm) LCD
Viewfinder	No	No	No	Yes	Yes

FLIR Optics

FLIR produces a range of optional lenses for each family of T-Series cameras. From the T-Series' new FLIR FlexView™ dual-FOV lens to the OSX™ Precision HDIR optics—engineered specifically for the T1K—these optics were designed to be tough, accurate, and precise.



AutoCal lenses
(T500-Series, T800-Series, Exx-Series)



6° Telephoto lens
(T500-Series and T800-Series)



FLIR FlexView DFOV lens
(T500-Series and T800-Series)



T1K lenses

FLIR T1K HD Thermal Imaging Cameras

FLIR T1K (T1010/T1020) infrared cameras are designed for thermography experts who need the highest quality without compromise. With full HD resolution, outstanding thermal sensitivity, and FLIR-exclusive optics designed specifically for HDIR detectors, T1K cameras raise the bar when it comes to performance.

Key Features:

- Records high-quality images at 786,432 pixel (1024 × 768) native IR resolution
- Delivers superior image clarity and detail thanks to MSX®, UltraMax®, and FLIR proprietary adaptive filtering algorithms
- Ergonomic design provides all-day comfort, so you can scan from tough angles while keeping the display in view
- FLIR OSX™ Precision HDIR optical system provides the highest fidelity imagery so you can pin-point the smallest anomalies from farther away
- Now featuring an agile new GUI and live image enhancements such as 1-Touch Level/Span
- Maximize efficiency by enabling Inspection Route, which runs a predefined survey route you can build in FLIR Thermal Studio Pro with the Route Creator plugin



SPECIFICATIONS	FLIR T1010	FLIR T1020
IR resolution	1024 × 768	1024 × 768
Thermal sensitivity	<25 mK @ 30°C	<20 mK @ 30°C
Accuracy	±2°C (±3.6°F) or ±2 % of reading	±1°C (±1.8°F) or ±1% for temperatures 5°C to 150°C (41°F to 302°F) ±2°C (±3.6°F) or ±2 % of reading for temperatures up to 1200°C (2192°F)
Viewfinder	No	Yes
Object temperature range	-40°C to 2000°C (-40°F to 3632°F)	
Focus	One shot or manual	
Display size	4.3 in. (10.92 cm) wide screen LCD	



The Infrared Training Center

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

• Classes covering many topics

Popular ITC courses include: Indoor Electrical Surveys Using IR Thermography, Outdoor Electrical Surveys Using IR Thermography, Building Inspection, and Condition Monitoring

• Brush up your skills

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.

Come to classes at our training center or at one of our many regional locations. On-site training at your facility is 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





Specifications	Mobile		Compact		Industrial				Point & Shoot			
Model	FLIR ONE Pro LT	FLIR ONE Pro	C3-X	C5	TG165-X	TG275	TG267	TG297	E4	E5-XT	E6-XT	E8-XT
IR resolution	80 × 60 (4,800 pixels)	160 × 120 (19,200 pixels)	128 × 96 (12,288 pixels)	160 × 120 (19,200 pixels)	80 × 60 (4,800 pixels)	160 × 120 (19,200 pixels)			80 × 60 (4,800 pixels)	160 × 120 (19,200 pixels)	240 × 180 (43,200 pixels)	320 × 240 (76,800 pixels)
UltraMax® resolution	-		-		-				-			
MSX® image enhancement	Yes		Yes		Yes				Yes			
Color viewfinder	-		-		-				-			
Thermal sensitivity	<0.1°C	<0.07°C	<0.07°C		<0.07°C				<0.15°C	<0.10°C	<0.06°C	<0.05°C
Accuracy	±3°C (5.4°F) or ±5%, typical percent of the difference between ambient and scene temperature. Applicable 60 sec after start-up when the unit is within 15°C to 35°C (59°F to 95°F) and the scene is within 5°C to 120°C (41°F to 248°F)		±3°C (±5.5°F) or ±3% of reading for ambient temperature 15°C to 35°C (59°F to 95°F) and object temperature above 0°C (32°F)	±3°C (±5.5°F) or ±3% of reading for ambient temperature 15°C to 35°C (59°F to 95°F) and object temperature above 0°C (32°F)	±2.5°C (±5°F) or ±2.5% of reading for ambient temperature 15°C to 35°C (59°F to 95°F) and object temperature 0°C to 300°C (32°F to 572°F)	±2.5°C (±5°F) or ±2.5% of reading for ambient temperature 15°C to 35°C (59°F to 95°F) and object temperature 0°C to 500°C (32°F to 932°F)	±2.5°C (±5°F) or ±2.5% of reading for ambient temperature 15°C to 35°C (59°F to 95°F) and object temperatures 0°C to 380°C (32°F to 716°F)	±2.5°C (±5°F) or ±2.5% of reading for ambient temperature 15°C to 35°C (59°F to 95°F) and object temperatures 0°C to 500°C (32°F to 932°F); accuracy ±3% for temperatures 500°C to 1030°C (932°F to 1886°F)	±2°C (±3.6°F) or ±2% of reading for ambient temperature 10°C to 35°C (50°F to 95°F) and object temperature above 0°C (32°F)			
Temperature range	-20°C to 120°C (-4°F to 248°F)	-20°C to 400°C (-4°F to 752°F)	-20°C to 300°C (-4°F to 572°F)	-20°C to 400°C (-4°F to 752°F)	-25°C to 300°C (-13°F to 572°F)	-25°C to 550°C (-13°F to 1022°F)	-25°C to 380°C (-13°F to 716°F)	-25°C to 1030°C (-13°F to 1886°F)	-20°C to 250°C (-4°F to 482°F)	-20°C to 400°C (-4°F to 752°F)	-20°C to 550°C (-4°F to 1022°F)	
Focus modes	Focus free		Focus free		Focus free				Focus free			
Field of view	50° × 38°	55° × 43°	54° × 42°		51° × 66°	57° × 44°			45° × 34°			
Available lenses	-		-		-				-			
Measurement tools	Spotmeter		Spotmeter (center spot), area box (max/min)		Center spot on/off				Spotmeter (center spot)	Spotmeter (center spot), area box (max/min)		Spotmeter (center spot), area box (max/min), isotherm (above/below/interval)
Communication modes	USB-C, micro-USB and Lightning		USB, Wi-Fi, Bluetooth, FLIR Ignite™ Cloud Service		USB Type-C: data transfer/power, USB 2.0	USB Type-C: data transfer/power, USB 2.0, Bluetooth® BLE			USB, Wi-Fi			
Touchscreen	-		3.5 in (8.9 cm)		-				-			
On-screen text, image sketch	-		Touch keyboard for text only		-				-			
Voice annotation	-		-		-				-			
Laser pointer	-		-		Center spot and circular area				-			
METERLINK®	-		-		-	-	Yes	-	-			
Radiometric JPEG	Yes		Yes		JPEG w/ spot temp data				Yes			
IR video storage	Yes		-		-				-			
Built-in GPS/Compass	-		-		-				-			
FLIR Inspection Route	Not available		Not available		Not available				Not available			
1-touch Level/Span	Not available		Not available		Not available				Not available			

FLIR THERMAL CAMERA MATRIX



Professional				High Performance						
E54	E76	E86	E96	T530	T540	T560	T840	T865	T1010	T1020
320 × 240 (76,800 pixels)	320 × 240 (76,800 pixels)	464 × 348 (161,472 pixels)	640 × 480 (307,200 pixels)	320 × 240 (76,800 pixels)	464 × 348 (161,472 pixels)	640 × 480 (307,200 pixels)	464 × 348 (161,472 pixels)	640 × 480 (307,200 pixels)	1024 × 768 (786,432 pixels)	
-	307,200 pixels	645,888 pixels	1.2 MP	307,200 pixels	645,888 pixels	1.2 MP	645,888 pixels	1.2 MP	3.1 MP	
Yes				Yes						
-				-	-	Yes	Yes	-	Yes	
<0.04°C	<0.03°C			<0.03°C				<0.025°C	<0.02°C	
±2°C (±3.6°F) or ±2% of reading for ambient temperature 15°C to 35°C (59°F to 95°F) and object temperature above -20°C (-4°F)				±2°C (±3.6°F) or ±2% of reading for ambient temperature 15°C to 35°C (59°F to 95°F) and object temperature above -20°C (-4°F)				±2°C (±3.6°F) or ±2% of reading for ambient temperature 15°C to 35°C (59°F to 95°F) and object temperature above -40°C (-40°F)	±2°C (±3.6°F) or ±2% of reading for ambient temperature 15°C to 35°C (59°F to 95°F) and object temperature above -40°C (-40°F)	±2°C (±3.6°F) or ±2% of reading for ambient temperature 15°C to 35°C (59°F to 95°F) and object temperature above -40°C (-40°F); accuracy of ±1°C (±1.8°F) or ±1% for temperatures 5°C to 150°C (41°F to 320°F)
-20°C to 650°C (-4°F to 1,202°F)	-20°C to 650°C (-4°F to 1,202°F)	-20°C to 1,500°C (-4°F to 2,732°F)		-20°C to 650°C (-4°F to 1,202°F)	-20°C to 1,500°C (-4°F to 2,732°F)			-40°C to 2,000°C (-40°F to 3,632°F)	-40°C to 650°C (-40°F to 1,202°F)	-40°C to 2000°C (-40°F to 3,632°F)
	Optional to 1,000°C (1,832°F)			Optional to 1,200°C (2,192°F)						
Manual	Continuous laser distance meter (LDM), one-shot LDM, one-shot contrast, manual			Continuous laser distance meter (LDM), one-shot LDM, one-shot contrast, manual						
24° × 18°	Lens dependent			Lens dependent						
-	14°, 24°, 42°, and 2x Macro lenses			6°, 14°, 24°, 42°, FlexView dual-FOV (14° and 24°), and 2x Macro lenses					7°, 12°, 28°, 45°, and 3x Macro lens	
No measurement, center spot, hot spot, cold spot, 3 spots, hot spot-spot*	3 spotmeters, 3 area boxes (max/min), hot spot, cold spot, User Presets (1 & 2), Delta T			3 spotmeters, 3 area boxes (max/min), hot spot, cold spot, User Presets (1 & 2), Delta T				3 spotmeters, 3 area boxes (max/min), hot spot, cold spot, User Presets (1 & 2), Delta T	10 spotmeters, 5 area boxes (max/min), hot spot, cold spot, User Presets (1 & 2), Delta T	10 spotmeters, 5+5 area boxes (max/min/avg.), profile (max/min), hot spot, cold spot, User Presets (1 & 2), Delta T
USB 2.0, Wi-Fi, Bluetooth, DisplayPort				USB 2.0, Wi-Fi, Bluetooth, DisplayPort					USB Micro-B, HDMI	USB Micro-B, Wi-Fi, Bluetooth, HDMI
4 in (10.16 cm)				4 in (10.16 cm)					4.3 in (10.92 cm)	
Yes				Yes					-	Yes
Yes				Yes					-	Yes
Yes				Yes						
Yes				Yes					-	Yes
Yes				Yes						
Yes				Yes					-	Yes
Yes				Yes					-	Yes
Yes				Yes						
Yes				Yes						

*Hot spot to center spot Delta measurement

FLIR Si124 Acoustic Imaging Camera

See electrical partial discharge, compressed air leaks, and vacuum system leaks with ultrasonic imaging from the FLIR Si124 cameras. This lightweight, one-handed camera is packed with 124 sensitive microphones that form a precise acoustic image of your target that's transposed in real-time on top of a digital camera picture. Up to ten times faster than traditional sound-location methods, the Si124 can help you identify efficiency loss and potential failures in utility, manufacturing, or engineering applications.

Key Features:

- Pinpoint the source of costly compressed air leaks even in noisy environments (Si124, Si124-LD)
- Instantly view leak rate (l/min or CFM) and estimate yearly energy loss (Si124, Si124-LD)
- Classify partial discharge type including negative and positive corona (Si124, Si124-PD)
- Identify corona discharge 24/7, allowing quick replacement of defective components (Si124, Si124-PD)
- Automatically upload, store, and backup acoustic images
- Evaluate images using Si124 plugin for FLIR Thermal Studio Pro, including yearly costs, severity, and classification

SPECIFICATIONS	Si124	Si124-PD	Si124-LD
Leak localization	Yes	No	Yes
Leak rate	>0.032 l/min @ 3 bar from 3 m (9.8 ft) >0.05 l/min @ 3 bar from 10 m (32.8 ft)	NA	>0.032 l/min @ 3 bar from 3 m (9.8 ft) >0.05 l/min @ 3 bar from 10 m (32.8 ft)
Discharge detection	Yes	Yes	No
Discharge classification	Negative corona Positive and negative corona Floating discharge Surface or internal discharge	Negative corona Positive and negative corona Floating discharge Surface or internal discharge	NA
Acoustic measurement	124 low-noise MEMS microphones, real-time sound visualization		
Dynamic range	<-15 to >120 dB (frequency dependent)		
Bandwidth	2 kHz to 65 kHz, adjustable		
Data transfer	Over Wi-Fi or USB memory stick		
Video recording	Yes, up to 5 minutes		
Image storage	1000 images (typical), 32 GB SD card		



FLIR VS290 Thermal Videoscope Kit

The FLIR VS290 is an industrial-grade thermal videoscope enhanced with FLIR MSX® to help you accurately target potential issues in electrical, mechanical, or building applications. Choose one of three field-replaceable probes designed for inspecting hard to reach areas, so you can find problems quickly and take corrective action. A bright LED worklight (VS290-32 & VS290-33) helps navigate dark environments such as attics, crawlspaces, and underground utility vaults.

Key Features:

- Identify problems faster with the 160 × 120 thermal imager and 2 MP visual camera
- Easily maneuver 2 m or 1 m probes into small spaces where thermal cameras can't reach
- Use color alarms (Isotherms) to quickly identify areas of concern
- Improve workflow by analyzing images and creating reports in FLIR Thermal Studio Pro
- IP67 camera tips, IP54 videoscope unit help protect against dust and water
- CAT IV 600 V rated probes help make electrical inspections safer

SPECIFICATIONS	VS290
IR resolution	160 × 120
Thermal sensitivity	<1.0°C
Field of view	57° × 44°
MSX®	Yes (VS290-32 & VS290-33)
Temperature range	-10°C to 400°C (14°F to 752°F)
Accuracy	±3°C (±5.5°F) or ±3% of reading for ambient temperature 15°C to 35°C (59°F to 95°F) and object temperatures 0°C
Spotmeter	Center, hot spot, cold spot
Image recording	Radiometric JPEG, saved to 16 GB SD card
Video recording	MPEG4, saved to SD card



Probe options:

- VS290-21: 1-meter probe, 19 mm rounded, forward-viewing thermal camera
- VS290-32: 2-meter probe, 11 mm rectangular, side-viewing thermal + visual camera
- VS290-33: 2-meter probe, 19 mm rounded, side-viewing thermal + visual camera

FLIR TG-Series Spot Thermal Cameras

Bridging the gap between single spot IR thermometers and FLIR's legendary infrared cameras, FLIR TG-Series cameras—the TG165-X, TG267, TG275, and TG297—give you the advantage of thermal imaging to help you discover temperature issues you can't see with typical spot radiometers. Equipped with FLIR's Lepton® thermal imaging sensor, these spot thermal cameras use the power of Infrared Guided Measurement (IGM™) to show you heat patterns across your target, guiding you to the precise location of potential problems so you can take more reliable temperature readings. Patented FLIR MSX® enhancement improves image clarity, while the laser-projected bullseye target aids in pinpointing areas of concern.

Key Features:

- True thermal detection – best-in-class image quality
- Wide field-of-view provides a comprehensive view for faster, easier inspections
- Simple to operate, with pull-trigger to activate lasers or freeze images
- Rugged and reliable – withstands a 2-meter drop
- Multi-point laser with circle and center spot ("bullseye") for easier subject targeting
- Micro SD card & mini-USB port for downloading images and charging



SPECIFICATIONS	TG165-X	TG267	TG275	TG297
Temperature range	-25°C to 300°C (-13°F to 572°F)	-25°C to 380°C (-13°F to 716°F)	-25°C to 550°C (-13°F to 1022°F)	-25°C to 1030°C (-13°F to 1886°F)
IR resolution	80 × 60 pixels	160 × 120 pixels	160 × 120 pixels	160 × 120 pixels
Accuracy	±2.5°C (±5°F) or ±2.5% of reading	±2.5°C (±5°F) or ±2.5% of reading	±2.5°C (±5°F) or ±2.5% of reading	±2.5°C (±5°F) or ±2.5% of reading; accuracy ±3% for temperatures 500°C to 1030°C (932°F to 1886°F)
Temperature sensitivity	<0.07°C	<0.07°C	<0.07°C	<0.07°C
Field of View	51° × 66°	57° × 44°	57° × 44°	57° × 44°
Focus	Focus free	Focus free	Focus free	Focus free
Measurement tools	Center spot on/off	Center spot on/off	Center spot on/off	Center spot on/off
Laser pointer	Bulls-eye target	Bulls-eye target	Bulls-eye target	Bulls-eye target

FLIR TG54/TG56 Spot IR Thermometers

The TG54 and TG56 spot 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:

- Non-contact surface temperature measurement
- 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
- Rugged, industrial design that can withstand a 3-meter drop
- Bright LED worklight to help you see your target in poor lighting conditions



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 ms	
Spectral response	5 to 14 μm	

FLIR IRW-xC/xS Round IR Windows

FLIR IR Windows add a protective barrier between you and energized equipment, so you can perform inspections more efficiently and reduce the threat of arc flash injury. FLIR IRW-Series windows feature a permanent hinged cover that flips open easily, so there's nothing to drop, mix up, or lose. If there are mixed-metal concerns, choose the stainless-steel model to prevent galvanic corrosion.

Key Benefits:

- 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
- Maintain integrity of cabinet environmental ratings, even after installation
- Install easily using standard knockout punches, no screws
- Avoid contact between dissimilar metals by choosing stainless steel models



SPECIFICATIONS	IRW-2C	IRW-3C	IRW-4C	IRW-2S	IRW-3S	IRW-4S
Optic diameter	50 mm (1.97 in)	75 mm (2.95 in)	95 mm (3.74 in)	50 mm (1.97 in)	75 mm (2.95 in)	95 mm (3.74 in)
NEMA environment type	Type 4/12 (outdoor/indoor)					
Automatically grounded	Yes					
Maximum operating temperature	260°C (500°F)					
Body material	Anodized aluminum			AISI-grade 316 stainless steel		
Greenlee punch	76BB	739BB	742BB	76BB	739BB	742BB

FLIR IRW-xPC/xPS Large Format IR Windows

FLIR IRW-xPC and IRW-xPS large format infrared inspection windows offer the field of view you need to image inaccessible components, improving inspection efficiency and helping to prevent unplanned downtime. The rectangular polymer windows provide the largest viewing area available to monitor completely undisturbed assets inside energized electrical equipment. Durable and stable in harsh environments, these IR windows are suitable for most industrial settings as well as for shipboard use.

Key Benefits:

- Meet IP2x standard for safe maximum hole size and fail-safe design
- Tested and certified to the highest industry standards
- Use IRW-xPC windows for indoor applications and IRW-xPS windows for outdoor applications
- Maintain fixed and stable transmission to ensure temperature data is accurate and reliable
- Proven compatibility with acids, alkalis, UV, moisture, humidity, vibration, and high frequency noise
- Protect viewing panes from flying debris, dust, or impact with the lockable window covers



SPECIFICATIONS	IRW-6PC	IRW-12PC	IRW-24PC	IRW-6PS	IRW-12PS	IRW-24PS
Overall height	21.8 cm (8.6 in)	20.6 cm (8.1 in)	21.8 cm (8.6 in)	21.8 cm (8.6 in)	20.6 cm (8.1 in)	21.8 cm (8.6 in)
Overall width	16 cm (6.3 in)	30.5 cm (12.0 in)	61 cm (24.0 in)	16 cm (6.3 in)	30.5 cm (12.0 in)	61 cm (24.0 in)
Aperture overall height	15 cm (5.9 in)	12.7 cm (5.0 in)	15 cm (5.9 in)	15 cm (5.9 in)	12.7 cm (5.0 in)	15 cm (5.9 in)
Aperture overall width	9.1 cm (3.6 in)	23.6 cm (9.3 in)	53 cm (20.9 in)	9.1 cm (3.6 in)	23.6 cm (9.3 in)	53 cm (20.9 in)
Optic temperature range	-40°C to 325°C (-40°F to 617°F)					
IP/NEMA environment type	IP65 / NEMA 4x			IP67 / NEMA 6		
Maximum operating temperature	-40°C to 200°C (-40°F to 392°F)			-40°C to 273°C (-40°F to 523°F)		
Body material	Aluminum			Powder-coated stainless steel		
Optic reinforced grill material	Aluminum reinforcing grill (IP22/ IP2x standard)			Stainless steel reinforcing grill (IP22/ IP2x standard)		

FLIR CM275 Industrial Imaging Clamp Meter with Datalogging, Wireless Connectivity and IGM™

FLIR CM275 clamp meters combine Infrared Guided Measurement (IGM) thermal imaging with electrical measurement in one powerful inspection, troubleshooting, and diagnostic tool. Confirm your findings with the clamp meter's wide range of functions plus temperature readings. The FLIR CM275 also provides wireless connectivity for direct connection to the FLIR Tools® app.

Key Features:

- Safely check for live connections using non-contact temperature measurement
- Use advanced electrical features including Variable Frequency Drive (VFD) mode, True RMS, and Low Impedance (LoZ) mode
- Pinpoint exact hot spot locations with laser or crosshairs
- Store electrical measurements and thermal images internally, for later review
- Rely on the protection of CAT IV-600V, CAT III-1000V safety ratings

THERMAL IMAGING CM275		
IR resolution	160 × 120 (19,200 pixels)	
Object temperature range	-10°C to 150°C (14°F to 302°F)	
Field of view	50° × 38°	
Temperature sensitivity	150 mK	
Focus	Fixed	
MEASUREMENTS	RANGE	BASIC ACCURACY
AC / DC Voltage	1000 V	±1.0%
VFD AC Voltage	1000 V	±1.0%
AC / DC LoZ V	1000 V	±1.0%
AC / DC Current	600.0 A	±2.0%
VFD AC Current	600.0 A	±2.0%
AC inrush	600.0 A	±3.0%
Resistance	6.000 kΩ	±1.0%
Capacitance	1000 μF	±1.0%
Diode test	1.5 V	±1.5%



FLIR CM174 Industrial Thermal Imaging Clamp Meter with IGM™

The FLIR CM174 is equipped with a built-in thermal imaging camera that can quickly lead you to problems you can't see with a standard clamp meter. Using 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:

- 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
- 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, and Smart Diode with Disable

THERMAL IMAGING CM174		
IR resolution	80 × 60 (4,800 pixels)	
Object temperature range	-25°C to 150°C (-13°F to 302°F)	
Field of view	50° × 38.6°	
Temperature sensitivity	150 mK	
Focus	Fixed	
MEASUREMENTS	RANGE	BASIC ACCURACY
AC / DC Voltage	1000 V	±1.0%
VFD AC Voltage	1000 V	±1.0%
AC / DC LoZ V	1000 V	±1.0%
AC / DC Current	600.0 A	±2.0%
VFD AC Current	600.0 A	±2.0%
AC inrush	600.0 A	±3.0%
Resistance	6.000 kΩ	±1.0%
Capacitance	1000 μF	±1.0%
Diode test	1.5V	±1.5%



FLIR CM82/CM83/CM85 Industrial 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
- True RMS voltage and current, power factor, bright white LED backlit display, analog bar graph, integrated non-contact voltage detector, min/max/average, auto power off, data hold, peak hold, relative, DCA zero, and battery status

CM82

- 600 A True RMS AC/DC current measurements

CM83 and CM85

- True RMS AC/DC current measurements (CM83: 600 A) (CM85: 1000 A)
- Bluetooth connection to FLIR Tools® Mobile for remote viewing and sharing
- Embed clamp meter readings via METERLINK® in radiometric images captured with compatible FLIR thermal cameras



SPECIFICATIONS	CM82	CM83	CM85	BASIC ACCURACY
AC/DC current	600 A	600 A	1000 A	±2.0%
AC/DC voltage	1000 V	1000 V	1000 V	±1.0% / 0.7%
AC VFD voltage	1000 V	1000 V	1000 V	±1.0%
Harmonics	1st to 25th order	1st to 25th order	1st to 25th order	±5.0%
Total harmonics distortion	0.0 to 99.9%	0.0 to 99.9 %	0.0 to 99.9 %	±3.0%
Inrush current	600 ACA (Integration time 100 ms)	600 ACA (Integration time 100 ms)	(Integration time 100 ms)	±3.0%
Active power	10 kW to 600 kW (10 V, 5 A min)	10 kW to 600 kW (10 V, 5 A min)	10 kW to 1000 kW (10 V, 5 A min)	±3.0%
Diode test	0.4 to 0.8 V	0.4 to 0.8 V	0.4 to 0.8 V	±0.1 V
Capacitance	3.999 mF	3.999 mF	3.999 mF	±1.9%
Resistance	99.99 kΩ	99.99 kΩ	99.99 kΩ	±1.0%
Continuity threshold	30 Ω	30 Ω	30 Ω	±1.0%
Frequency	20.00 Hz to 9.999 kHz	20.00 Hz to 9.999 kHz	20.00 Hz to 9.999 kHz	±0.5%
Bluetooth range max	—	10 m (32 ft)	10 m (32 ft)	—
Jaw opening	37 mm (1.45 in, 1000 MCM)	37 mm (1.45 in, 1000 MCM)	45 mm (1.77 in)	—
Category rating	CAT IV-600 V, CAT III-1000 V			
Battery type	6 x AAA			

* When registered within 60 days of purchase.

FLIR CM65 True RMS 600A Solar Clamp Meter

The FLIR CM65 is a True RMS clamp meter designed for installation and maintenance professionals who need to quickly test and troubleshoot photovoltaic panels. Take DC voltage measurements on solar panel strings or validate AC output and inverter efficiency.

SPECIFICATIONS	CM78	BASIC ACCURACY
AC/DC current	60.00, 600.0 A	±1.5%
AC/DC voltage	60.00, 600.0, 1000 V	±0.7%
Frequency	50.00 Hz to 400.0 Hz (ACA)	±1%
	10.00 Hz to 400.0 Hz (ACV)	±1%
	10.00 Hz to 500.0 Hz (ACV mV)	±1%
Resistance	600.0 k, 6.000 kΩ	±1.0%
Diode test	3000 V	±0.9%
Temperature	-40°C to 400°C -40°F to 752°F	±1%
Continuity	<30 Ω, 2 kHz buzzer	

Key Features:

- Trust AC voltage and current measurements from inverters and mains are accurate with True RMS
- Eliminate errors from residual ghost voltage using LoZ (low impedance) mode
- Get sharp ±1.5% accuracy when taking AC and DC current readings
- Capture the smallest voltage fluctuations when calibrating equipment using the CM65's millivolt function
- Easily clamp around wires with the generous jaw (30 mm) and ergonomic design



FLIR CM78 1000A Clamp Meter with IR Thermometer

The FLIR CM78 is a True RMS industrial clamp meter for the electrician who works on high-powered equipment and temperature systems and needs a safe, capable combination tool. An integrated IR thermometer provides fast non-contact measurements on panels, conduits, and motors.

SPECIFICATIONS	CM78	BASIC ACCURACY
AC/DC current	1000 A	±2.5%
AC/DC voltage	1000 V	±1.5%
Resistance	40 MΩ	±1.5%
Capacitance	4 mF	±3.0%
Frequency	4000 Hz	±1.5%
Temperature (IR)	-29 to 270°C, -20 to 518°F	±2.0%
IR distance to target ratio	8 inches away : 1 inch spot size	
Type K temperature (optional probe)	-20 to 760°C, -4 to 1400°F	±3.0%

Key Features:

- Integrated IR thermometer provides fast non-contact measurements on panels, conduits, and motors
- Powerful worklights not only assist with clamping but are bright enough to serve as a primary worklight
- FLIR Tools Mobile connects the FLIR CM78 to your compatible smartphones and tablets via Bluetooth
- METERLiNK® technology wirelessly integrates electrical readings on your infrared image with METERLiNK-enabled FLIR thermal cameras
- Features: Voltage and current, min/max/average, auto power off, data hold, relative, peak hold, battery status indicator, bright white LED backlight



FLIR CM72/CM74 Commercial 600A Clamp Meters

The FLIR CM72 600A AC Clamp Meter and the CM74 600A AC/DC Clamp Meter give you better access to wiring in hard-to-reach places. With advanced electrical features including Auto Range, True RMS, Inrush (CM74 only), and VFD Mode (CM74 only), the clamp meters have all the measurement functions you need to stay competitive and ensure accurate readings.

SPECIFICATIONS	CM72	CM74	BASIC ACCURACY
AC/DC voltage	600 V	1000 V	±1.0%
VFD AC voltage	—	1000 V	±1.0%
LoZ Mode AC/DC voltage	600 V	1000 V	±1.0%
DC current	—	600 A	±2.0%
AC current	600 A	600 A	±2.0%
VFD AC current	600 A	600 A	±2.0%
Inrush AC current	—	600 A	±3.0%
Frequency	60 kHz	60 kHz	±0.1%
Resistance	6000 Ω	6000 Ω	±1.0%
Continuity	600 Ω	600 Ω	±1.0%
Capacitance	1000 μF	1000 μF	±1.0%
Diode	1.5 V	1.5 V	±1.5%

Key Features:

- Portable and slim, with a narrow jaw for easy access to crowded panels
- High-powered LED worklights guide you to your target in low light
- Advanced measurement features including True RMS, LoZ, smart diode with Disable, and MIN/MAX/HOLD
- Rubberized, double-molded hand grips and bright, backlit LCD display
- Premium gold-tipped silicone test lead included
- Expandable to 3000 A AC with TA72 and TA74 Flex Clamp accessories (sold separately)



FLIR CM42/CM44/CM46 Professional 400A True RMS Clamp Meters with Accu-Tip™

FLIR CM4X clamp meters are affordable True RMS meters designed for commercial and residential electricians. The CM42 and CM44 feature AC clamp measurement, and the CM46 offers both AC/DC measurement to meet your unique needs. Each meter is equipped with a bright back-lit display for ease of use inside electrical panels. Made with an over-molded, easy-to-grip design, CM4X clamp meters are durable enough to withstand a two-meter drop, and the slim form factor is convenient to carry in your tool bag anywhere you go.



Key Features:

- Accu-Tip technology delivers more accurate amperage readings on smaller-gauged wires, to a tenth of a digit
- MAX/MIN/AVG recording plus frequency and diode measurement
- Data hold, zero function, and low-pass filter (VFD) for voltage measurement
- Large, bright backlit display for easy-to-see readings
- Operates at -10°C to 50°C (14°F to 122°F) and accepts up to 30 mm max conductor
- Electrical field detection (NCV) determines if voltage is present, strength of the field

SPECIFICATIONS	CM42	CM44	CM46	BASIC ACCURACY
AC / DC voltage	600 V	600 V	600 V	±1.0%
AC + DC voltage (digital low-pass filter/VFD)	—	—	600 V	±1.2%
Clamp-On AC current (50-100 Hz) (100-400 Hz)	400 A	400 A	400 A	±1.8% ±2.0%
Clamp-On DC current	—	—	400 A	±2.0%
Accu-Tip Clamp-On DC current	—	—	60 A	±2.0%
Frequency	50 to 400 Hz	50 to 400 Hz	50 to 400 Hz	±1.0%
Resistance	60 kΩ	60 kΩ	60 kΩ	±1.0%
Capacitance	—	2500 μF	2500 μF	±2.0%
Diode	2.0 V	2.0 V	2.0 V	±1.5%
Temperature	—	-40°C to 400°C (-40°F to 752°F)	-40°C to 400°C (-40°F to 752°F)	±1.0%

FLIR CM55/CM57 Flexible Clamp Meters

FLIR CM55 and CM57 flexible clamp meters are ergonomic tools designed to simplify your workday. The narrow, flexible coil clamp allows you to measure currents in tight or awkward spots. The clamps are Bluetooth-enabled for direct connection with the FLIR Tools® app on iOS and Android devices, so you can transfer data, then analyze and share it — right from the job-site.

Key Features:

- Measures current up to 3,000 Amps for multiple conductor measurements
- Convenient 10 in. or 18 in. (25.4 cm or 45.7 cm) flexible clamp
- Inrush current for equipment start-up spikes
- Bluetooth to mobile devices for remote viewing
- Data recording for trend analysis transferable via Bluetooth
- Bright LED worklights for easy inspection and navigation

SPECIFICATIONS	CM55	CM57
Flexible Conductor Length	10 in (25.4 cm)	18 in. (45.7 cm)
Maximum AC current	3000 A AC	3000 A AC
AC response	True RMS	True RMS
AC current ranges & resolution	30.00 A, 300.0 A, 3000 A	30.00 A, 300.0 A, 3000 A
Basic AC current accuracy	±3.0% + 5 digits	±3.0% + 5 digits
Maximum resolution	0.01 A	0.01 A
AC Current bandwidth	45 Hz – 500 Hz (sine wave)	45 Hz – 500 Hz (sine wave)
Inrush current	Min 0.5 A, 100 mS	Min 0.5 A, 100 mS
Data record mode	20,000 points, 1 min. sample rate	20,000 points, 1 min. sample rate
Positional error (Distance from optimum)	15 mm (0.6 in) 2.0% 25 mm (1.0 in) 2.5% 35 mm (1.4 in) 3.0%	35 mm (1.4 in) 1.0% 50 mm (2.0 in) 1.5% 60 mm (2.4 in) 2.0%



FLIR VT8-600/VT8-1000 Voltage, Continuity, and Current Testers

High-quality voltage, continuity, and current tester, ideal for electricians and service technicians who troubleshoot and verify electrical installations or systems within commercial and light industrial facilities. The FLIR VT8's optimized and open-jaw design allows it to fit into tight spaces and reliably measure large-diameter cables. Extensive measurement features make the FLIR VT8 a versatile tool – just one meter can get the job done. Carry the compact tester in your pocket to be ready at any moment for easy troubleshooting.

Key Features:

- Take measurements in tight spaces with the optimized jaw design, and measure large-diameter cables with the wide jaw opening
- Measure True RMS AC/DC voltage and current, continuity, resistance, and capacitance
- Improve accuracy of readings with True RMS measurements
- Detect live AC voltages with the built-in non-contact voltage (NCV) detector
- Work efficiently in dimly lit areas using the bright LED worklight and backlit display
- Safely store test leads when not in use with the built-in test lead holder

VT8-600

- Measures up to 100 A/600 V with CAT III-600 V /CAT IV-300 V safety rating

VT8-1000

- Measures up to 200 A/1000 V with the CAT III-1000 V/CAT IV-600 V safety rating



SPECIFICATIONS	VT8-600	VT8-1000
AC/DC Current Range	100A	200A
AC/DC Current Resolution		0.1A
AC (50 to 60 Hz) / DC Current Accuracy		±2.5%
AC/DC Voltage Range	600 V	1000 V
AC/DC Voltage Resolution		0.1 V
AC (45 to 66 Hz) / DC Voltage Accuracy		± 1.5%, ±1.0%
Resistance		60.00 MΩ ± (1.5%)
Continuity Check Threshold		10 Ω to 100 Ω
Capacitance		600 μF ±4.0%, 6000 μF ±10.0%
Non-Contact Voltage Detector (NCV)		≥100 Vrms; ≤10 mm distance (LED/buzzer alerts)
Additional Measurement Functions	DCA zero, relative mode (AC/DC voltage, AC current, and capacitance), data hold	

FLIR TA72/TA74 Flexible Clamp Adaptors

Designed to add capabilities and simplify challenges, the FLIR TA72 and TA74 Universal Flex Current Probes let you easily take measurements in tight or awkward spots — a difficult task with a traditional hard jaw clamp meter. The connection is a standard banana plug and the output is a voltage signal, so it's compatible with most DMMs and clamp meters, regardless of brand.

Key Features:

- Adds 3000 A AC current measurements to existing meters
- Convenient 10 in. or 18 in. (25.4 cm or 45.7 cm) flexible clamp with locking mechanism
- AC voltage probe output for universal compatibility
- Banana plug connections fit most meters
- Switchable AC current range: 30 A, 300 A, 3000 A
- Bright LED worklight for easy inspection

SPECIFICATIONS	TA72	TA74
Flexible Conductor Length	10 in (25.4 cm)	18 in (45.7 cm)
Maximum AC current		3000 A AC
AC current ranges & resolution		30.00 A, 300.0 A, 3000 A
Basic AC current accuracy (full scale)		±3.0% + 5 digits
Measurement rate		1.5 samples per second, nominal
AC current bandwidth		45 Hz to 500 Hz (sine wave)
Positional error (distance from optimum)	15 mm (0.6 in.)	35 mm (1.4 in.) 1.0%
	25 mm (1.0 in.)	50 mm (2.0 in.) 1.5%
	35 mm (1.4 in.)	60 mm (2.4 in.) 2.0%



FLIR DM285 Industrial Thermal Imaging Multimeter with Datalogging, Wireless Connectivity and IGM™

The FLIR DM285 is an industrial, True RMS digital multimeter with Infrared Guided Measurement (IGM) to guide you directly to hot spots and temperature anomalies. The built-in 160 × 120 thermal imager will help you pinpoint issues faster, so you can get to repairs safely and efficiently. The DM285 features on-board data storage and Bluetooth® connection to the FLIR Tools® Mobile app, for data sharing and reporting.

Key Features:

- 19,200 pixel thermal camera visually guides you to an electrical problem
- Includes high-quality test probes and a Type-K thermocouple
- Performs 18 measurement functions including LoZ and non-contact voltage (NCV) detection
- Saves electrical parameter data and thermal images with onboard data storage
- Drop-tested and IP rated for greater durability
- Fast and easy battery swaps with the 'no tool' battery compartment

Specifications

THERMAL IMAGING		
IR Resolution	160 × 120 (19,200 pixels)	
Temperature sensitivity	≤150 mK	
Emissivity	4 presets with custom adjustment	
Temperature accuracy	3°C or 3.5%	
Object temperature range	-10°C to 150°C (14°F to 302°F)	
FOV (w x h)	46° × 25° (DM284), 50° × 38° (DM285)	
Laser pointer	Yes	
Focus	Fixed	
MEASUREMENTS	RANGE	ACCURACY
AC / DC Voltage	1000 V	±1.0% / 0.09%
AC / DC Voltage (mV)	600.0 mV	±1.0% / 0.5%
VFD AC Voltage	1000 V	±1.0%
AC / DC LoZ V	1000 V	±1.5%
AC / DC Current	10.00 A	±1.5%
AC / DC mAmps	400.0 mA	±1.5%
AC / DC μ Amps	4,000 μ A	±1.0%
Resistance	6.000 M Ω 50.00 M Ω	±0.9% ±3.0%
Continuity	Yes	Yes
Capacitance	10.00 mF	±1.9%
Diode	Yes	Yes
Min/Max/Avg	Yes	Yes
Flex clamp range	3000 A AC (Optional TA72/74)	±3.0% + 5 digits
Frequency range	99.99 kHz	±0.1%
Type-K thermocouple range	-40°C to 400°C (-40°F to 752°F)	±1.0% + 3°C (DMM) / ±1.0% + 5°C (IGM)



The Original
IGM™
INFRARED GUIDED
MEASUREMENT



Bluetooth®



Also available as a kit
(DM285-FLEX-KIT) that includes
3000 A flex clamp, carrying case and
rechargeable battery

FLIR DM92/DM93 True RMS Industrial Multimeters

The FLIR DM92 and DM93 digital multimeters offer variable frequency drive filtering to help you accurately analyze non-traditional sine waves and noisy signals. The DM93 also offers Bluetooth connectivity, so you can upload and share data through the FLIR Tools® mobile app. No matter the electrical challenge, the DM92/DM93 have the features and flexibility to make the job simple.

FEATURES BY METER	DM92	DM93
Connectivity	—	Bluetooth®, max. range 10 m (32 ft)
Data recording	—	20,000 Pts (125 days max)
MEASUREMENTS - BOTH MODELS	RANGE	BASIC ACCURACY
DC voltage	1000 V	±0.05%
AC voltage	1000 V	±0.5%
VFD voltage	1000 V	±0.5%
DC current	10.00 A	±0.2%
AC current	10.00 A	±1.0%
Resistance	40.00 MΩ	±0.2%
Continuity threshold	30.00 Ω	±0.2%
Frequency	100.0 kHz	±5 digits
Capacitance	40.00 mF	±0.9%
Diode	2.000 V	±1.5%
Temperature range	-200°C to 1200°C (-328°F to 2192°F)	±1.0%

Key Features:

- Powerful LED worklight for performing tests in dim lighting
- Drop-tested, durable construction with an IP54 rating
- Multiple measurements including True RMS voltage and current, LoZ, MIN/MAX/AVG
- Manually stores and recalls up to 99 readings
- Integrated Bluetooth technology connects DM93 to FLIR Tools app
- Connect DM93 to compatible FLIR thermal cameras via METERLINK®



FLIR DM91 TRMS Multimeter with Type-K Temperature

The DM91 offers the comprehensive features professionals need to safely troubleshoot electrical, electronic, and HVAC/R systems. Equipped with LoZ, VFD Mode, and more, the DM91 multimeter gives you trusted results for the most accurate diagnosis of electrical problems. The DM91 is also enhanced with Bluetooth® technology, so you can connect to mobile devices running FLIR Tools® or the FLIR InSite™ workflow management system.

FEATURES	DM91	
Connectivity	Bluetooth®	
Data logging and storage	1 file of 40k scalar measurements	
Measuring rate	3 samples per second	
MEASUREMENTS	RANGE	BASIC ACCURACY
AC / DC Voltage	1000 V	±1.0% / 0.09%
AC / DC Voltage (mV)	600.0 mV	±1.0% / 0.5%
VFD AC Voltage	1000 V	±1.0%
AC / DC LoZ V	1000 V	±2.0%
AC / DC Current	10.00 A	±1.5% / 1.0%
AC / DC mAmps	400.0 mA	±1.5% / 1.0%
AC / DC μAmps	4,000 μA	±1.0%
Resistance	6.000 MΩ	±0.9%
	50.00 MΩ	±3.0%
Capacitance	10.00 mF	±1.9%
Diode	1.500 V	±0.9%
Frequency counter	100.00 kHz	±0.1%
Continuity check	600.0 Ω	±0.9%
	20.00 Ω	
	200.0 Ω	
Type-K thermocouple temperature range	-40°C to 400°C -40°F to 752°F	±1.0% + 3°C ±1.0% + 5.4°F

Key Features:

- Powerful LED worklight for performing tests in dim lighting
- Durable, drop-tested construction
- Multiple measurements including True RMS voltage and current, LoZ, MIN/MAX/AVG
- Stores and recalls up to 40k readings
- Integrated Bluetooth technology for connection to FLIR Tools app, FLIR InSite
- CAT IV-600V and CAT III-1000V safety rated



FLIR DM166 Imaging TRMS Multimeter

The FLIR DM166 is a must-have tool for commercial electricians and automation, electronic, and HVAC technicians. Featuring Infrared Guided Measurement (IGM™), the DM166 visually guides you to the precise location of potential problems. It also offers essential measurement features such as True RMS AC/DC voltage and current, non-contact voltage detection, VFD mode, and more.

Key Features:

- 4,800 pixel thermal camera visually guides you to an electrical problem
- Includes high-quality test probes and a Type-K thermocouple
- Removes high-frequency interference with reading through VFD mode
- Safely check for live connections using non-contact temperature measurement
- Offers CAT III-600V, CAT IV-300V safety rating
- Drop-tested and IP rated for greater durability

MEASUREMENTS	RANGE	ACCURACY
AC / DC Voltage	600 V	±0.7% / 0.5%
AC / DC Voltage (mV)	600.0 mV	±1.0% / 0.3%
VFD AC Voltage	600 V	±1.0%
AC / DC Current	10.00 A	±1.0% / 0.7%
AC / DC mAmps	600.0 mA	±1.0% / 0.7%
AC / DC μAmps	6,000 μA	±1.5% / 1.0%
Resistance	6,000 MΩ 60.00 MΩ	±0.9% ±1.5%
Continuity	Yes	
Capacitance	2,000 mF 10.00 mF	±2.0% ±5.0%
Diode	Yes	Yes
Min/Max/Avg	Yes	Yes
Flex clamp range	3000 A AC (optional TA72/74)	±3.0% + 5 digits
Frequency range	99.99 kHz	±0.1%
Type-K thermocouple range	-40°C to 400°C (-40°F to 752°F)	±1.0% + 3°C (DMM) ±1.0% + 5°C (IGM)



THERMAL IMAGING

IR Resolution	80 × 60 pixels (4,800 pixels)
Temperature Sensitivity	≤150 mK
Emissivity	4 presets with custom adjustment
Temperature Accuracy	3°C or 3%
Object temperature Range	-10°C to 150°C (14°F to 302°F)
Field of View	38° × 50°
Laser Pointer	Yes
Focus	Fixed

FLIR IM75 Insulation & DMM Combo with METERLiNK®

The FLIR IM75 is an all-in-one multi-function digital multimeter and insulation tester for installation, troubleshooting, and maintenance professionals. It features a handheld insulation tester and multiple resistance ranges for insulation test levels, as well as METERLiNK compatibility and Bluetooth connectivity to transmit and share data.

Key Features:

- Advanced insulation modes
- True RMS measurements with 1000 V range
- Multiple resistance insulation test level ranges
- LED display with Compare Mode for fast pass/fail determination
- Communicates with METERLiNK-enabled FLIR thermal imaging cameras, FLIR Tools® mobile app
- Durable double-molded construction (IP54, 2 m drop test)

MEASUREMENTS	MAX RANGE	BASIC ACCURACY
Insulation resistance	4 M to 20 GΩ	±1.5%
Insulation test voltages	50, 100, 250, 500 and 1000 V	±3.0%
AC / DC voltage	1000 V	±0.1% / ±1.5%
VFD AC voltage	1000 V	±1.5%
Earth bond resistance	40.00 Ω to 40.00 kΩ	±1.5%
Capacitance	10.00 mF	±1.2%
Frequency (ACV)	40.00 kHz	±5 digits
Diode test	2,000 V	±1.5%
Continuity	400.0 Ω	±0.5%



FLIR DM62/DM66 True RMS Digital Multimeters

The FLIR DM62 and DM66 digital multimeters combine rich feature sets, precise measurement, and quality construction into tools of exceptional value. The meters are easy to use and built to last — whether you want the DM62 for DIY projects or need the pro-level measurement features of the DM66. Whichever multimeter you choose, you'll get the job done fast and efficiently.

FEATURES BY METER	DM62	DM66
Capacitance	—	200.0 nF (±1.5%) 10.00 mF (±4.5%)
AC / DC LoZ V	—	600.0 V (±2.0%)
Frequency	—	50.00 kHz (±0.1%)
MEASUREMENTS - BOTH MODELS	RANGE	BASIC ACCURACY
AC / DC Voltage	600.0 V	±1.0% / 0.4%
AC / DC Voltage (mV)	600.0 mV	±1.0% / 0.4%
VFD AC Voltage	600.0 V	±1.0%
AC / DC Current	10.00 A	±1.5% / 1.0%
AC / DC mAmps	600.0 mA	±1.0% / 0.7%
AC / DC μ Amps	6,000 μ A	±1.5% / 1.0%
Resistance	6,000 M Ω	±0.9%
Diode	3,000 V	±0.9%

Key Features:

- Flashing backlight and audible indicators
- Broad DMM test functions including VFD mode, MIN-MAX-AVG, and relative mode
- High and low voltage measurement capabilities
- Compact and ergonomic design with easy-to-access buttons
- Durable and drop-tested, with CAT IV-300V and CAT III-600V safety ratings



FLIR DM64 HVAC TRMS Digital Multimeter

The FLIR DM64 is an affordable True RMS digital multimeter with temperature (Type-K thermocouple) and Microamp measurement to test flame sensors. This coupled with a rich feature set for both high- and low-voltage applications makes it the ideal tool for HVAC professionals.

Key Features:

- Flashing backlight and audible indicators
- Test functions include VFD mode, LoZ, capacity, resistance, and more
- High- and low-voltage measurement capabilities
- Includes Type-K thermocouple to measure temperatures up to 400°C (752°F)
- Test flame sensors with microamps feature
- Durable, drop-tested design with no-tool battery compartment

MEASUREMENTS	RANGE	BASIC ACCURACY
AC / DC Voltage	600.0 V	±1.0% / 0.4%
AC / DC Voltage (mV)	600.0 mV	±1.0% / 0.4%
VFD AC Voltage	600.0 V	±1.0%
AC / DC LoZ V	600.0 V	±2.0%
AC / DC Current	10.00 A	±1.5% / 1.0%
AC / DC mAmps	600.0 mA	±1.0% / 0.7%
AC / DC μ Amps	6,000 μ A	±1.5% / 1.0%
Resistance	6,000 M Ω	±0.9%
Capacitance	2000 μ F	±1.5%
Frequency	5,000 kHz	±0.1%
Diode	3,000 V	±0.9%
Type-K thermocouple temperature range	-40°C to 400°C -40°F to 752.0°F	±1.0% + 1°C ±1.0% + 2°F



FLIR VP40 and VP50-2 Non-Contact Voltage (NCV) Detector + Flashlight

The FLIR VP40 and VP50-2 are CAT IV-rated, non-contact voltage detectors designed to reliably detect voltages on the latest tamper-proof outlets and electrical systems. Toolbox-tough, with a rubber-reinforced case and buttons, the VP40 has vibration and red LED alarms to help alert users to the presence of voltage, even in noisy areas. Plus, versatile high/low-sensitivity modes help detect voltage in industrial equipment and low-voltage installations.

Key Features:

- 3 m drop-tested and CAT IV-1000V rated
- Vibration and multi-color flashing LED alarms for voltage indication
- Long run-time with power-saving Low Battery indication and Auto Power-off
- Includes two AAA batteries

SPECIFICATIONS	VP40	VP50-2
Voltage ranges	90 to 1000 V 24 to 1000 V	90 to 1000 V AC (default, solid green light)
Category rating	CAT IV-1000 V	CAT IV-1000 V
Frequency range	45 to 65 Hz	45 to 65 Hz
Vibrating indication	Yes	Yes
On/Off switch	Yes	Yes



FLIR RT50 Receptacle Tester with GFCI Check

The RT50 is a reliable GFCI receptacle tester designed for electricians, home or building inspectors, and do-it-yourselfers who need to verify or troubleshoot operation of 3-wire receptacle circuits within residential and commercial buildings. It is durable, easy, and safe to use, and offers the quality you have come to expect from FLIR test and measurement products.

Key Features :

- Durable and safe, designed with an impact-resistant case
- Meets UL safety standards in the US and Canada
- Test for correct wiring of 3-wire receptacles in 110-125 V AC, 50/60 Hz circuits
- Check for circuit breaker operation and verification that it is wired for protection
- Receive positive indication that the circuit has tripped with the GFCI test annunciator LED
- Detect common wiring problems immediately with the bright and easy-to-read indicator lights
- Conveniently verify both 'ground bottom' and 'ground top' style sockets with test code light legend on both sides
- Securely plug into outlets with the ergonomic, easy-grip design



FLIR Test Accessories



TA12 General Purpose Accessory Case



TA80 CAT IV Silicone Test Probes



TA50 Magnetic Hanging Strap for Multimeters



T130976ACC Retractable Lanyard for TG-Series



TA60 Thermocouple Probe with Adapter



TA55 AC Current Line Splitter



TA03-KIT, AAA Universal Rechargeable Battery



TA04-KIT, Lithium-Polymer Rechargeable Battery for DM28x, CM27x, and DM166

FLIR VS80 High-Performance Videoscope Kits

The rugged, versatile VS80 Videoscope is the perfect solution for inspecting difficult to reach or unsafe locations. With one or more of the VS80 videoscope probes, you can inspect everything from industrial equipment to HVAC/R systems or vehicle engines. Easily maneuver the narrow camera probes into small openings and tight spaces, and view sharp, vivid images and videos from the large, 7-inch touchscreen display. Record videos or still images to document your finding for reports or to share with repair technicians.

Key Features:

- View detailed imagery with visual depth of field extending from 10 mm to infinity
- Drop-tested and IP rated for splash and water resistance
- Work for 8+ hours on one battery charge

- Choose from 7 small-diameter probe options to respond to any inspection requirement, including HD and thermal camera probes
- Capture up to 1280 × 720 HD resolution still images and video with audio
- View live video on an external monitor or screen using the HDMI output



Choose from seven kit options:

- **VS80-KIT-1:** General purpose, 5.5 mm × 1 m camera probe
- **VS80-KIT-2:** 2-way articulating, 4.5 mm × 1 m camera probe
- **VS80-KIT-3:** Dual HD, 4.9 mm × 1 m camera probe
- **VS80-KIT-4:** 4-way articulating, 6.0 mm × 2 m camera probe
- **VS80-KIT-5:** Kit with plumbing spool and 10 mm × 25 m camera probe
- **VS80-KIT-6:** HD 5.5 mm × 1 m camera probe
- **VS80-IR21:** IR thermal, 19 mm × 1 m camera probe

SPECIFICATIONS	VS80
Display resolution	1024 × 600 pixels
Display size	178 mm (7 in)
Battery life (continuous)	8 hours (integrated)
Video file format	MPEG-4
Video/image transfer	SD card or USB
Camera diameter range	4.5 mm to 19 mm
Camera focal length options	Long view or short view macro
Camera length range	1 m to 25 m (3.28 ft to 82 ft)
Certifications	CE, FCC



VS80-KIT-5

FLIR EM54 Environmental Meter

Designed for HVAC/R professionals inspecting and troubleshooting ducting systems within residential, commercial, and industrial facilities. Features air flow/velocity, humidity, temperature, wet bulb, and dew point functions

Key Features:

- Get accurate duct inlet and outlet air speed measurements with the external wide range, high-resolution anemometer
- User selectable units for air velocity: ft/min, m/sec, km/h, MPH, and knots
- Calculates duct airflow (CFM/CMM), wet bulb and dew point in addition to air temperature and relative humidity measurements
- Type K temperature probe included
- View readings clearly on the backlit multi-function display

ENVIRONMENTAL MEASUREMENTS	RANGE	ACCURACY
Air Velocity, Vane Anemometer Probe	0.4 to 30 m/s	±3% +0.2 m/s
	79 to 5906 ft/min	±3% +40 ft/min
	1.4 to 108.0 km/h	±3% +0.8 km/h
	0.9 to 67.2 mph	±3% +0.4 mph
	0.8 to 58.3 knots	±3% +0.4 knots
Air Flow	0 to 999900 CMM (0 to 999900 CFM)	
Air Temperature	10 to 30°C (50 to 86°F)	±1°C (1.8°F)
	-30 to 9.9°C (-22 to 50°F) and 31 to 60°C (88 to 140°F)	±2°C (3.6°F)
Air Relative Humidity	5% to 98%	±3.5%
Dew Point (Calculated)	-30 to 60°C (-22 to 140°F)	±3°C (4.8°F)
Wet Bulb (Calculated)	-30 to 50°C (-22 to 122°F)	±3°C (4.8°F)
Contact Temperature, Type K Thermocouple	-99.9 to 99.9°C (-148 to 212°F)	±1.5% +1°C (1.8°F)
	100 to 1372°C (212 to 2502°F)	±1.5% +2°C (3.6°F)



FLIR MR277/MR265 Imaging Moisture Meters with MSX®

Step up to advanced moisture imaging with the FLIR MR277 and MR265, our first FLIR building inspection systems combining the advantages of Infrared Guided Measurement (IGM) and FLIR MSX enhancement with advanced moisture detection. These moisture meters can help you quickly scan and target problem areas, visually guiding you to the spot where you can confidently take moisture measurements, analyze readings, and ensure problems are fixed. Import your findings into FLIR Thermal Studio software to create and share professional reports.

Common Features of the MR277 & MR265

- Crisp 19,200 pixels (160 × 120) thermal imagery helps you quickly identify moisture in walls, ceilings, and floors
- Patented FLIR MSX image enhancement adds details and perspective to images
- Included pin probe measures 11 material groups
- Target the exact source of problems with the integrated laser pointer

MR277 Only

- Take comprehensive readings with pinless meter, pin probe, and field-replaceable humidity/temperature sensor
- Calculate parameters based on multi-sensor input, including grains per pound, vapor pressure, and dew point



FLIR MR176/MR160 Imaging Moisture Meters with IGM™

Featuring Infrared Guided Measurement (IGM™) powered by a FLIR Lepton® thermal imaging sensor, MR176 and MR160 help you quickly see temperature patterns that point to potential hidden moisture, so you know where to place the meter probe to capture accurate readings.



Common Features MR176 and MR160

- 80 × 60 (4,800 pixels) Lepton imager guides you to potential moisture areas
- Integrated pinless moisture measurements for fast detection, and external pin probe included with expandable probe options
- Equipped with a laser and crosshair to easily reference the location of the potential moisture issue seen in the thermal image

MR176 only

- Customize thermal images: select which measurements are integrated (including moisture, temperature, and dew point)
- A lock image setting prevents extreme hot and cold temperatures from interfering with images while scanning for issues
- Field-replaceable temperature/relative humidity sensor



FLIR MR77 Moisture Meter and Hygrometer

Rugged, feature-packed moisture meter incorporating a pinless sensor and a wired pin probe to capture moisture readings up to 1.9 cm (0.75 in) below the surface of various wood types and building materials. The MR77 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 images from compatible FLIR thermal cameras

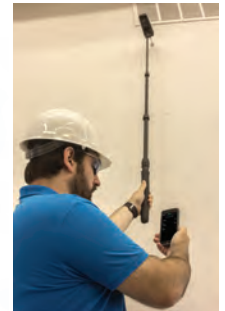


FLIR MR59 Ball Probe Moisture Meter with Bluetooth®

The FLIR MR59 is a pinless meter with wireless connectivity, which offers the convenience to view live readings from a mobile device via the FLIR Tools® Mobile app. Thanks to the ball-shaped sensor, users can cover a large area in a short time without making a mark; measure into corners and around baseboards easily; and detect problems below the surface.

Key Features:

- Run the meter over and around objects on the measuring surface with the ball-probe sensor
- Identify potential moisture problems up to 100 mm (4 in) below the surface
- Wirelessly connect the meter to FLIR Tools Mobile to view readings on a mobile device
- Detect moisture in a wide range of common building materials
- Receive stable, repeatable readings
- Clear, easy-to-read display
- Work in dim conditions with the backlit display and bright worklight
- Use with the MR04 extension pole to reduce the need for a ladder, or to optimize ergonomics for 'high' and 'low' measuring targets (accessory not included)



FLIR MR60 Combination Pin/Pinless Moisture Meter

The FLIR MR60 is an advanced pin and pinless moisture meter offering the flexibility of destructive and non-destructive measurements. Select one of the 11 material groups for pin moisture or set a reference point for pinless moisture scanning. Then conveniently save screenshots of your measurements as a CSV file with the date, time, and settings.

Key Features:

- Save up to 10,000 screenshots to transfer and view on a PC
- Programmable high-moisture alarm with audible and color/visual alerts
- Bright, easy-to-read display
- Includes FLIR Tools® professional reporting software
- Rugged design that can withstand a 3-meter drop



FLIR MR55 Pin Moisture Meter with Bluetooth®

The FLIR MR55 is a pin-based meter with wireless connectivity, which offers the convenience to view readings from a mobile device via the FLIR Tools® Mobile app. Thanks to a built-in library of 11 material groups, users can tune the meter to the appropriate test material to improve measurement accuracy. This library is easy to access on the FLIR.com website by scanning a QR code on the back of the meter with a mobile device.

Key Features:

- Automatically compensates for ambient temperature
- Can be tuned to the appropriate test material via built-in library of 11 material groups
- Easy-to-read LCD display with data hold feature
- Avoid prolonged work delays thanks to easily-replaceable electrode pins
- Work in dim lighting with the backlit display and bright worklight
- Rugged design, drop-tested to 2 meters
- Lanyard cap retention



FLIR MR40 Moisture Pen + Flashlight

The FLIR MR40 is a rugged, 2-pin single scale moisture meter with an integrated flashlight for wood and common building materials. It provides builders, remodelers, residential roofing and flooring contractors, and pest control professionals a quick and reliable means to check for and quantify moisture content. With a pen-like form factor the MR40 can be carried in your pocket, ready to work when you are.

Key Features:

- Small enough to carry in your pocket
- Sleek design for getting into corners
- 3-meter drop-tested and IP54 splash-proof rated
- Clear LCD display
- Replaceable pins, 2nd set included
- Integrated calibration/pin check in the cap
- Audible indication of measured range (5-12%, 13-60%, +60%)
- Measurement 'Hold' function
- Simple on-off button with 'Auto Power Off'



Pocket-sized with trim design for getting into corners



FLIR MR 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 obstructions such as sub-floors and hardwood flooring. Designed for everyday job site use, we focused on durability of the system (probe, pins, and cord), ease of use, and versatility.



MR01 Replaceable Temperature/Relative Humidity Sensor
Compatible with the MR77 or MR176, the MR01 takes accurate temperature and humidity measurements. A metallic screw secures the probe in place.



MR01-EXT Temperature/Relative Humidity Sensor and Extension Assembly
Use to extend the reach of the MR77 or MR176, or for acclimation in dryer/dehumidifier exhaust vents.



MR11 Handheld Temperature/Humidity Sensor
Pre-deploy in dehumidifier exhaust vents for instantaneous readings, or use in locations where access is restricted.



MR04 Extension Pole
Probe large and out-of-reach areas easily with this telescoping pole that extends up to 132 cm (52 in.).



MR05 Impact Probe
Easily test for moisture in challenging spots — uneven surfaces, corners, hard woods, high-density materials, and in areas without a dry reference.



MR06 Wall Cavity Probe
Penetrate into wall cavities and the inside face of exterior walls to measure insulation moisture levels.



MR07 Hammer Probe
Take measurements in subfloor through carpet, hardwood flooring, and hard materials that are difficult to penetrate with a standard pin probe.



MR08 Hammer and Wall Probe
Comfortably hammer probe into vertical, angled, or inverted surfaces, and get down below carpet pads and subfloor.



MR09 Baseboard Probe
Probe behind baseboards, wall trim, crown molding, and other inaccessible areas without removal.



MR10-2 Protective Case
Safeguard your FLIR Test and Measurement instruments with this durable EVA protective case.



MR12 Ball Probe Moisture Sensor
Take non-invasive readings up to 100 mm (4 in.) below most surfaces.

FLIR MR Kits

Moisture Meter kits provide a complete solution for fast and accurate troubleshooting.



MR160-KIT2 Building Inspection Kit
Featuring a FLIR MR160 IGM™ Moisture Meter, FLIR C2 Compact Thermal Camera, and a FLIR MR06 Wall Cavity Probe



MR176-KIT5 Professional Imaging Moisture Kit
Featuring a FLIR MR176 IGM Moisture Meter with Replaceable Hygrometer, FLIR MR08 Hammer and Wall Cavity Probe, and FLIR MR01 Replaceable Temperature/Relative Humidity Sensor



MR160-KIT5 Professional Imaging Moisture Kit
Featuring a FLIR MR160 IGM Moisture Meter and FLIR MR08 Hammer and Wall Cavity Probe



MR176-KIT6 Professional Remediation Kit
Featuring a FLIR MR176 IGM Moisture Meter with Replaceable Hygrometer, FLIR E6 Infrared Camera with MSX®, and FLIR MR08 Hammer and Wall Cavity Probe

EX830 1000A True RMS AC/DC Clamp Meter

AC/DC clamp-on multimeter with built-in non-contact infrared thermometer

- 4.3 mm (1.7 in) jaw opening accommodates one 750 MCM conductor or two 500 MCM conductor
- Peak hold captures inrush currents and transients
- Multimeter functions include AC/DC Voltage and Current, Resistance, Capacitance, and Frequency
- Non-contact, Type-K thermometer helps you quickly locate hot spots on motors and electrical devices
- 4000-count backlit display and laser pointer improve visibility in dimly-lit areas
- Activate Autoranging with manual range button
- Features include Data Hold and Min/Max, DC Zero, Auto Power off
- Includes test leads, one 9 V battery, general purpose Type-K probe, and case

Specifications	Range	Basic Accuracy
IR temperature (IR)	-50°C to 270°C (-58°F to 518°F)	±2.0% rdg or ±4°F/±2°C
AC current	0.1 A to 1000 A	±2.5%
DC current	0.1 A to 1000 A	±2.5%
AC voltage	0.1mV to 600 V	±1.5%
DC voltage	0.1mV to 600 V	±1.5%
Resistance	0.1 MΩ to 40 MΩ	±1.5%
Capacitance	0.001 nF to 40,000 μF	±3.0%
Frequency	0.001 kHz to 4 kHz	±1.5%
Type-K temperature	-20°C to 760°C (-4°F to 1400°F)	±3% rdg+9°F/5°C
Continuity	Yes	
Inrush	Yes	
Diode	Yes	



UL LISTED CE EX830

MA440/MA443/MA445 400A Clamp Meters + NCV

Three models to choose from, with or without True RMS and AC or AC/DC Current functions, with built-in non-contact voltage detector

- 30 mm (1.2 in) jaw size accommodates conductors up to 500 MCM
- 4000-count backlit LCD display
- Built-in flashlight illuminates work area (MA443/MA445)
- CAT III-600V category rating
- Complete with test leads, three AAA batteries, general purpose Type-K temperature probe (MA443/MA445), and pouch

Specifications	MA440 (Max. Resolution)	MA443 (Max. Resolution)	MA445 (Max. Resolution)
AC Current	400.0 A (1 mA)	400.0 A (1 mA) True RMS	400.0 A (10 mA) True RMS
DC Current	—	—	400.0 A (10 mA)
DC Voltage	AC: ±2.0% 600 V (0.1 mV)	AC: ±1.8% 600 V (0.1 mV) True RMS	AC: ±2.5%, DC: ±2.0% 600 V (0.1 mV) True RMS
AC Voltage	600 V (1 mV) AC: ±1.2% DC: ±0.8%	600 V (1 mV) AC: ±1.2% DC: ±0.8%	600 V (1 mV) AC: ±1.2% DC: ±0.8%
Non-Contact Voltage (NCV)	100 to 600 V	100 to 600 V	100 to 600 V
Resistance	40 MΩ (0.1 Ω)	40 MΩ (0.1 Ω)	40 MΩ (0.1 Ω)
Capacitance	100 μF (0.01 nF)	40 mF (0.01 nF)	40 mF (0.01 nF)
Frequency	1 MHz (0.01 Hz)	1 MHz (0.01 Hz)	1 MHz (0.01 Hz)
Temperature (Type K - meter range)	—	-40°C to 1000°C/-40°F to 1832°F (1°)	-40°C to 1000°C/-40°F to 1832°F (1°)
Duty Cycle	Yes	Yes	Yes
Diode/Continuity	Yes	Yes	Yes



MA440

MA443

MA445

UL LISTED CE

EX350 Series True RMS Multimeters with LPF and LoZ

Professional meters loaded with advanced features, including LPF, LoZ, Resistance, Capacitance, Frequency, and Continuity

- LPF mode aids in accurate measurement of variable frequency drive signals
- LoZ prevents false readings caused by ghost voltages
- Built-in non-contact AC voltage (NCV) detector with LED indicator
- CAT III-600V rating
- Both models include test leads and two AA batteries
- EX355 includes general purpose Type-K bead wire temperature probe

Specifications	EX350	EX355
Display counts	4000	6000
Basic DCV accuracy	±0.5 %	±0.5 %
NCV detector	Yes	Yes
DC/AC voltage	0.01 mV to 600 V	0.01 mV to 600 V
DC/AC current	0.1 µA to 10.00 A	0.1 µA to 10.00 A
Resistance	0.1 Ω to 40.00 MΩ	0.1 Ω to 60.00 MΩ
Capacitance	1 pF to 60.00 mF	1 pF to 60.00 mF
Frequency	0.001 Hz to 10 MHz	0.001 Hz to 10 MHz
Temperature (Type-K)	—	-40°C to 1000°C (-40°F to 1832°F)
Duty cycle	0.1 to 99.9 %	0.1 to 99.9 %
Diode test	3.2 V	3.2 V
Continuity	Audible	Audible



EX350


 EX355
with Temperature

EX500 Series 11-Function Heavy Duty True RMS Industrial Multimeters

True RMS DMM with large LCD display, temperature function, and waterproof housing

- True RMS DMM with 11 functions and 0.5% basic accuracy
- Dual sensitivity frequency functions (electrical/electronic)
- 1000 V input protection on all functions, 10 A max current
- Key features: data hold, relative mode, AC/DC voltage & current, resistance, capacitance, frequency, temperature, duty cycle, and diode/continuity
- Up to 6,000 count backlit LCD; waterproof, double-molded housing
- Includes test leads, strap, Type-K bead wire temp probe, case, and 9 V battery

Specifications	EX505	EX520	EX530
Basic accuracy (DCV)	0.5 %	0.5 %	0.5 %
True RMS	Yes	Yes	Yes
DC/AC voltage	0.1 mV to 1000 V	0.1 mV to 1000 V	0.1 mV to 1000 V
DC/AC current	0.1 µA to 10 A	0.1 µA to 20 A	0.01 µA to 20 A
Resistance	0.1 Ω to 40 MΩ	0.1 Ω to 40 MΩ	0.1 Ω to 40 MΩ
Capacitance	0.01 nF to 100 µF	0.01 nF to 1000 µF	0.001 nF to 40 mF
Frequency	0.01 Hz to 100 kHz	0.01 Hz to 100 kHz	0.01 Hz to 100 kHz
Temperature (Type-K)	—	-40°C to 394°C (-40°F to 742°F)	—
Diode test/continuity	Yes	Yes	Yes



EX505

EX520

EX530



MG320 CAT IV Insulation Tester/ True RMS Multimeter

Combines a portable 20G Ω /1000V Insulation Tester with a True RMS Multimeter in a single, compact instrument. CAT IV safety rating ensures the highest level of protection

- Measure insulation test voltages to 1000 V and insulation resistance to 20 G Ω (autoranging)
- Manually store/recall up to 99 readings
- Polarization Index (PI) and Dielectric Absorption Ratio (DAR) measurements
- Programmable timer feature sets the duration of testing
- Backlit 6,000 count display with analog bargraph; low battery indicator.



380260 Digital Megohmmeter

Measure insulation resistance up to 2000 M Ω , with a choice of 250, 500, or 1000 VDC test voltages

- Low resistance, continuity, and AC/DC voltage measurement functions
- Lo Ω function for testing connections
- Lock Power On Function for hands-free operation
- Data hold to freeze displayed reading



GRT300 4-Wire Earth Ground Resistance Tester

Measure earth ground in four ranges from 2 to 2000 Ω . Two-, three-, and four-wire testing options

- Automatic I (current) and P (potential) spike check
- Test Hold function for easy operation
- Autoranging, automatic zero adjustment, data hold and auto power off
- Large dual-line LCD with overrange and low battery indication
- Includes test leads with alligator clips, 4 auxiliary earth bars, hard carrying case, 8 AA batteries



382357 Clamp-on Ground Resistance Tester

Enables non-contact measurements of ground conductors without the need for auxiliary ground spikes

- Simplifies ground resistance measurements on multiple point ground systems
- Electrical noise detection feature prevents inaccurate readings
- Autoranging ground resistance measurements from 0.025 to 1500 Ω , True RMS AC leakage current range of 1 mA and AC True RMS AC current range of 0.3 mA to 30.00 A
- Note: AC Leakage current is different from AC current
- Programmable datalogging with 116 data points, user-set Hi/Lo alarm



PRT200 Non-Contact Phase Sequence Tester

Featuring a 45 to 65 Hz frequency range and the ability to test up to 1000 VAC with visible/audible indicators

- LEDs indicate phase orientation and whether each phase is live
- Audible alarm when correct phase is detected and when phase is reversed
- Adjustable LED brightness for use in any lighting
- Durable housing with back cover magnet for attachment to an AC distribution panel
- CAT IV-600 V safety rating



480400/480403 Phase Sequence Testers

Check phase sequence and status of 3-phase power sources over a 15 to 400 Hz frequency range

- Testing range rated for 40 to 600 V
- 480400 displays graphical phase orientation on the large LCD and does not require battery
- 480403 LEDs display motor rotation and phase status and also indicates rotation direction of the motor
- Double-molded durable housing
- Cat III-600 V safety rating
- Includes cable and 3 large color-coded alligator clips and case (480803 also comes with 9 V battery)



RD300 Refrigerant Leak Detector

Ideal for detecting leaks from air conditioning units and cooling systems that use all standard refrigerants down to 0.25 oz/yr (7 g/yr)

- Detects all standard refrigerants using a heated diode sensor
- LED light at probe tip (with on/off switch for working in dimly lit areas)
- User-selectable high, medium, or low sensitivity levels, ranging from 0.25 oz (7 g) to 0.99 oz (28 g) per year
- Audible and visible alerts, with mute button
- Field-replaceable sensor (RD300-S)



SDL350 Hot Wire CFM Thermo-Anemometer/Datalogger

Measure Air Velocity/Air Flow meter with telescoping probe designed to fit into HVAC ducts and other small openings and records data on an SD card in Excel® format

- Datalogger date/time stamps and stores readings on an SD card for easy transfer to a PC
- Probe extends up to 215 cm (7.05 ft) maximum length with cable
- Adjustable data sampling rate: 1 to 3600 seconds
- User selectable units for air velocity: ft/min, m/sec, km/h, MPH, and knots
- Type K/J Thermocouple input for high temperature measurements
- Large backlit LCD displays Air Velocity or Flow and Temperature simultaneously



AN100/AN200 CFM/CMM Thermo-Anemometers

Simultaneous display of ambient temperature and air flow/air velocity

- Up to 8 easy-to-set area dimensions (m² or ft²) are stored in the meter's internal memory
- User selectable units for air velocity: ft/min, m/sec, km/h, MPH, and knots
- 20-point average function for air flow
- Extra-large LCD backlit display
- AN200 features built-in non-contact IR thermometer measuring remote surface temperatures up to 260°C (500°F) with an 8:1 distance-to-spot ratio and laser pointer



IRC130 Thermal Imager IR Thermometer with MSX®

80 × 60 true thermal imager with visual camera and coaxial distance-to-spot guidance laser helps you locate potential issues quickly

- Interpret thermal images easily with the added visual-light details from MSX image enhancement
- Accurately measure temperatures up to 650°C (1202°F)
- Coaxial laser makes it easy to pinpoint hot or cold spots
- 30:1 distance-to-spot (target) ratio
- Fast 150 ms response time for real-time temperature updates with continuous scanning
- Adjustable Auto Power Off (APO) timer



42545 High Temperature IR Thermometer

50:1 Wide-range infrared thermometer with laser pointer

- Wide temperature range, from -50°C to 1000°C (-58°F to 1832°F)
- 50-to-1 distance-to-target ratio
- Built-in laser pointer for easy targeting
- Large backlit LCD display
- Adjustable emissivity
- High resolution of 0.1° up to 199.9°
- High and low alarm set points with audible and visual alerts



IR320 Waterproof Dual Laser IR Thermometer with Alarm

Rugged design with Waterproof (IP65) and 9.8ft (3m) drop-proof protection, 12:1 Fast-response IR thermometer offers programmable hi/low alarms

- Accurate temperature measurements from -20 to 650°C (4 to 1202°F)
- Maximum resolution of 0.1°C/°F, basic accuracy of ±(1% of reading 1°C/2°F)
- Dual laser pointer identifies target area between the two points
- Adjustable emissivity
- Programmable high/low alarms with dual color LED indicators
- Lock function for continuous temperature measurement
- MAX/MIN/AVG/DIF functions



LT300 Light Meter

Digital and analog display of light in Foot-candles (Fc) or Lux

- Measure up to 40,000 Fc (400,000 Lux) helps ensure adequate illumination
- Max resolution to 0.01 Fc/Lux
- Large LCD display with analog bar graph for quick, reliable assessments
- Backlight for easy reading even at low light levels
- Relative mode indicates change in light levels
- Peak mode captures highest readings



LT40/LT45 LED Light Meters

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

- Model LT40 measures white LED lights
- Model LT45 measures white, red, yellow, green, and blue 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
- Manually store/recall up to 99 readings (LT45)



407732-KIT Type-2 Sound Meter Kit

Kit includes a digital sound level meter with high and low ranges, a 94dB/114dB sound level calibrator to verify meter operation, and a protective case

- High accuracy of ± 1.5 dB meeting Type 2 ANSI S1.4-1983, IEC 60651, EN60651
- Offers high and low measuring ranges, from 35 to 100 dB (low) and 65 to 130 dB (high)
- Data Hold and Max Hold functions
- Backlit LCD display makes it easy to view in dimly lit area
- Includes Sound Level Calibrator—1 kHz sine wave at 94 dB/114 dB is generated to an accuracy of 4% (frequency) and ± 0.5 dB



SL400 Personal Noise Dosimeter/Datalogger with USB Interface

Perform noise accumulation surveys to determine total sound exposure over an 8-hour period for compliance with OSHA, MSHA, DOD, ACGIH, and ISO standards

- Datalogs up to 999,999 readings when used as a sound level meter
- Measures sound level (A and C weighting), min/max, time-averaged sound level (Leq), Z peak, and sound exposure level (SEL)
- Adjustable Criterion Level, Exchange Rate, and Threshold, plus user-defined measurement setup
- Connects via USB to Windows®-compliant software for control and analysis



CO240 Indoor Air Quality, Carbon Dioxide (CO₂)

Measure CO₂, air temperature, humidity, and other environmental conditions in enclosed areas

- Dual display of CO₂ concentrations and Relative Humidity, Temperature, Dew Point, or Wet Bulb
- Maintenance-free non-dispersive infrared (NDIR) CO₂ sensor
- Alarm sounds when CO₂ concentrations exceed user set-point
- Automatic baseline calibration, data hold, auto power off, and low battery indicator
- Includes software and cable for real-time datalogging to a PC



VPC300 Video Particle Counter with Built-in Camera

Measure particle sizes, air temperature, relative humidity, and more while also capturing videos and photos

- Measure up to 6 channels of particle sizes (down to 0.3 μ m), and display Air Temperature, Humidity, Dew Point, or Wet Bulb
- Selectable sample time and count data, as well as programmable delay
- Controls include max/min, DIF, AVG record, date/time setup, auto power off
- Records 3 GP 320 \times 240 videos and JPEG images to internal memory
- Stores up to 5000 records and 20 minutes of video



Extech 250W-Series Environmental Meters

Whether you're solving HVAC problems, checking outdoor UV conditions, or measuring energy from electromagnetic/electrical fields of electrical appliances and power lines, Extech helps expand your problem-solving capabilities, giving you quick and accurate results. These environmental meters all communicate seamlessly with the new ExView® App over a Bluetooth® connection. This app can help you capture data, displays trends, sets alarms, and can create and send reports, allowing you to easily share important insights on equipment and building health.

RH250W Hygro-Thermometer

Simultaneously monitor relative humidity and temperature from a mobile device

This compact hygro-thermometer with Bluetooth® connectivity allows building and maintenance professionals to send air relative humidity and air temperature data directly to a mobile device running the ExView app. They can also use the app to program alarms, set data recording, share files, and create reports.



AN250W Aneometer

Monitor air velocity and temperature data from a mobile device

Measure air velocity and temperature simultaneously, then record Max/Avg readings with this compact airflow meter. A Bluetooth® connection allows you to set up data recording and program high/low audible alarms through the ExView app, then view and share results on a mobile device.



LT250W Light Meter

Monitor light intensity data from a mobile device

This meter can measure light intensity up to 100,000 Lux (10,000 Fc) with a measuring rate of 0.5 sec. A Bluetooth® connection allows building and maintenance professionals to set up data recording and program high/low audible alarms through the ExView app, then view and share results on a mobile device.



SL250W Sound Meter

Monitor sound level data from a mobile device

This compact sound meter allows building and maintenance professionals to measure sound levels from 30 to 130 dB with 'A' weighted frequency for human hearing, then record max/min readings. Transmit sound level data directly to the ExView app on a mobile device, for viewing, sharing, and reporting.



RPM250W Laser Tachometer

Monitor state of rotational equipment from a mobile device

This compact laser tachometer allows maintenance professionals to take revolutions per minute (RPM) measurements from up to 500 mm (1.64 ft) using its laser-guided non-contact measurement feature. View data on the bright, backlit LCD or view and share data directly from a mobile device using the free ExView app.



SL510 Sound Level Meter



High-accuracy sound level meter with A and C weighting, fast/slow response modes

Compact design with ± 1 dB high accuracy and a large backlit display provides quick and reliable sound level testing. It meets Class 2 standards (IEC 61672-2013 and ANSI/ASA S1.4/Part 1). Measure A & C weighting from 35 to 130 dB with fast and slow response time selectivity.

LT510 Light Meter



Compact Foot-candle/Lux light meter with backlit LCD

Measures light intensity up to 20,000 Lux (1860 Fc range) with resolution to 1 Lux (0.1 Fc). Ideal for indoor lighting tests and for checking security and safety illumination in parking garages, nighttime ATM areas, stairwells, landings, and hallways.

UV510 UV Light Meter



UV light meter for measuring UVA light radiation from natural and artificial sources

Built-in UV sensor with cosine correction measures irradiance from UVA light sources up to 20.00 mW/cm². The sensor wavelength range is 320 to 390 nm. It offers a backlit dual display for easy outdoor viewing, two selectable ranges, and zero function.

MO55W Wireless Datalogging Pin/Pinless Moisture Meter

Using the wireless feature, Bluetooth® Datalogging Module, and the free ExView® W-Series App, you can transmit readings in real-time to your iOS® and Android™ devices for remote viewing and store over 15K readings

- Displays moisture level in wood and building materials
- Non-invasive Pinless moisture measurement to a max. depth of 25 mm (1 in)
- Direct Pin moisture measurement uses 10 mm (~0.4 in) pins
- Programmable High/Low audible alarms
- Export data in Excel® format
- Take snapshots of the measurement area with your connected smart phone or tablet camera



RH200W 8-Channel Wireless Hygro-Thermometer

Measure indoor temperature and humidity from up to 30 m (98 ft) away through connection to wireless transmitters

- Base station LCD with Auto-Night Light displays local and up to 8 remote temperatures and humidity readings
- Displays comfort levels from “too cold” to “too hot/humid,” plus trend arrows to indicate temperature/humidity changes
- Records max/min readings for the duration of measurement session
- Ideal for multi-room monitoring in restaurants, greenhouses, storage buildings, and more
- Includes a base station and one transmitter. Additional remote Transmitters (RH200W-T) sold separately.



RHT30/RHT35 USB Humidity/Temperature Dataloggers

Easy-to-use dataloggers store thousands of humidity and temperature readings with date/time stamp

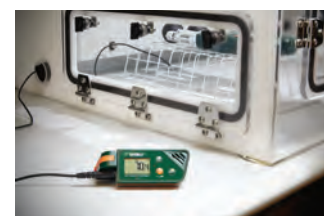
- Built-in NTC thermistor and capacitive humidity sensor
- Barometric pressure MEMS sensor (RHT35 only)
- User-programmable settings including sample rate and high/low alarm range
- Connect via USB to a PC after datalogging to download data and generate reports and trending graphs in PDF or spreadsheet format



TH30 USB Dual Temperature Datalogger

Record air temperature and external probe temperature with date/time stamp

- Compact device with built-in NTC thermistor and external temperature probe (included)
- Red and green status indicators on 5-digit LCD display
- Continuous datalogging records up to 48,000 readings (24,000 for each parameter)
- Generate PDF or Excel® reports with data and trending graphs



RH390/RH490 Precision Psychrometers

Measure temperature and humidity simultaneously with high $\pm 2\%$ accuracy

- Fast response time (<30 seconds)
- Dual backlit display
- Simultaneous display of: Humidity/Temperature, Humidity/Dew Point or Humidity/Wet Bulb
- Captures water vapor levels in grams/kilogram and grains per pound (RH490 only)
- Data hold and min/max functions



SDL500 Hygro-Thermometer/Datalogger

Date/time stamps and stores readings on an SD card in Excel® format for easy transfer to a PC

- Relative Humidity, Temperature, Dew Point, and Wet Bulb functions
- Adjustable data sampling rate: 1 to 3600 seconds
- Stores 99 readings manually and 20M readings via SD card
- Type K/J Thermocouple input for high temperature measurements
- Large backlit dual LCD display
- Record/Recall MIN, MAX readings



RPM10 Photo/Contact Tachometer with Built-In Infrared Thermometer

Combination tachometer provides contact and non-contact RPM measurements plus surface temperature

- Built-in IR thermometer with laser measures temperature remotely for motors and rotating parts
- Provides wide RPM (photo and contact) and linear surface speed (contact) measurements
- Laser allows non-contact photo tachometer to measure from greater distances, up to 2 m (6.5 ft)
- Rugged, double-molded housing



RPM33 Combination Contact/Laser Photo Tachometer

All-in-one tool quickly measures RPM, surface speed, and length

- Large 5-digit backlit LCD display
- Microprocessor based with quartz crystal oscillator to maintain high accuracy
- Store/recall 10 data sets in memory with 4 parameters (measurement, max, min and average)
- Provides wide RPM (photo and contact) and Linear Surface Speed/Length (contact) measurements
- Laser guided for greater distance non-contact measurements up to 0.5 m (1.6 ft)



SDL800 Vibration Meter + Datalogger

Records vibration using a remote sensor and save in Excel® format to SD card

- Remote vibration sensor with magnetic adapter on 1.2 m (47.2 in) cable
- Wide frequency range of 10 Hz to 1 kHz
- Basic accuracy of $\pm(5\% + 2 \text{ digits})$; meets ISO2954
- RMS, Peak Value or Max Hold measurement modes
- Adjustable data sampling rate
- Stores 99 readings manually and continuous datalogging via SD memory card



VB450 Vibration Meter

Measure vibration levels in industrial machinery to check for misalignment, poor balancing, and more

- Remote vibration sensor with magnetic adapter on 0.2 m (7.9 in) coiled cable
- Wide frequency range, from 10 Hz to 1500 Hz
- Measures velocity (RMS), acceleration (Peak), and displacement (Peak-to-Peak)
- Automatic data hold, auto power off, and low battery indicator



HDV540 High Definition Articulating Videoscope Kit

6 mm (.24 in) camera diameter, wired articulating handset, and 89 mm (3.5 in) TFT LCD monitor

- 1 m flexible probe with 6 mm macro-lens camera that adjusts up to a 240° viewing angle
- Waterproof (IP67) camera head has 4 built-in LED lamps with dimmer to illuminate target object
- Capture video with voice-over audio or still images on SD memory card, then transfer to a PC via USB



BR90 Borescope Inspection Camera

8 mm camera probe and a 109 mm (4.3 in) color TFT LCD monitor with lightweight, handheld design to easily find, diagnose, and solve problems

- 77 cm (2.5 ft) flexible goose-neck cable retains configured shape
- 640 × 480 pixel resolution camera with 1.5x or 2x digital zoom
- 180° image rotation and mirror flip feature
- Glare-free close-up field of view
- Video output for real-time viewing on a monitor (video cable not included)



DT40M/DT60M/DT100M Laser Distance Meters

Laser measurements up to 100 m (330 ft)

- Three models to choose from:
 - Model DT40M — 0.05 to 40 m (2 in to 131 ft)
 - Model DT60M — 0.05 to 60 m (2 in to 196 ft)
 - Model DT100M — 0.05 to 100 m (2 in to 330 ft)
- Automatically calculates Area and Volume
- Indirect measurement using Pythagorean theorem
- Continuous mode with min/max function
- Displays Sum (+) / Difference (-) of multiple readings
- Memory automatically stores 20 data points
- Built-in bubble level

DT100M



STW515 Stopwatch/Clock with Backlit Display

Digital LCD stopwatch offers calendar, elapsed timer, split-time, and two competitor timer

- 1/100th second resolution for 30 minutes.
1 second resolution up to 24 hours
- 12 or 24 hour clock format
- Timing capacity: 23 hrs, 59 mins, and 59.99 secs
- Basic accuracy: ± 3 seconds/day
- Backlight turns off after 5 seconds
- Water resistant housing and includes a snap-away neck strap



HW30 HeatWatch™ Humidity/Temperature Stopwatch

Digital UP/DOWN timer displays temperature, humidity, and heat index

- Programmable heat index alarm
- Calendar mode displays day, date and time
- Stopwatch/chronograph mode with 1/100 second resolution
- Fastest/slowest/average Lap recall
- 99-lap counter with 30-lap/split memory
- 10-hour countdown timer with audible beeper warning for the last 5 seconds



CG206 Coating Thickness Tester

Automatic recognition of ferrous and non-ferrous substrates

- Smart automatic substrate recognition
- Magnetic induction for ferrous substrates
- Eddy current measurement for non-ferrous substrates
- Easy-to-use menu system
- Two working modes: Direct and Group
- Memory stores 1500 readings (30 Group readings)
- Substrate Zeroing and one- or two-point calibration function
- 8-level adjustable backlight
- USB interface includes software



CG204 Coating Thickness Tester

Take non-invasive coating thickness measurements of ferrous and non-ferrous substrates

- Automatic recognition of ferrous materials through magnetic induction, or non-ferrous materials through eddy current measurement
- Easy-to-use menu system
- Single and Continuous measurement modes plus Direct and Group working modes
- Memory stores 400 readings (80 Direct, 320 Group)
- User-programmable high/low alarms
- Min/max/average, one or two point calibration
- Low battery indicator



PH90 Waterproof pH Meter

Rugged meter with a replaceable Flat Surface Electrode for measuring the pH of liquids, semi-solids, and solids

- Simultaneous display of pH and temperature
- 2 or 3 point calibration automatically recognizes buffer solutions (order pH buffers separately)
- Features include automatic temperature compensation, data hold, min/max, auto power off
- Waterproof design (IP57) floats in water and protects the meter in wet environment
- PTS (percent of slope) tells user when to replace the electrode



CL200 ExStik® Chlorine Meter

Take non-subjective, direct readings of Total Chlorine from 10 ppm down to 0.01 ppm

- Direct reading of Total Chlorine provides fast and easy measurements (less than 2 minutes)
- Unaffected by sample color or turbidity
- Memory stores, tags and recalls up to 15 readings
- US EPA-approved as an acceptable method for wastewater compliance monitoring of Total Chlorine
- Unique replaceable flat surface chlorine electrode eliminates clogged junctions or glass breakage



EC400 Waterproof ExStik® II Conductivity/TDS/Salinity Meter

Accurately measures conductivity, total dissolved solids (TDS), or salinity plus temperature

- Three ranges of measurements, from tap water to wastewater and any aqueous solution
- Large 2000-count digital display offers analog bargraph to indicate sample trends
- Features Data hold, auto power off, low battery indication
- Units of measure include $\mu\text{S}/\text{cm}$, mS/cm , ppm, ppt, mg/L, and g/L
- Includes meter and Conductivity cell, protective sensor cap, sample cup with cap, four CR2032 button batteries, and 1.2 m (48 in) neckstrap. *Order Conductivity standards separately*
- IP57 rating



EC510 Waterproof ExStik® II Kit

Combination flat-surface pH electrode with autoranging high-accuracy conductivity cell

- Measures 5 parameters including conductivity, TDS, salinity, pH, and temperature using one electrode
- 9 units of measure: pH, $\mu\text{S}/\text{cm}$, mS/cm , ppm, ppt, mg/L, g/L, $^{\circ}\text{C}$, $^{\circ}\text{F}$
- Analog bargraph indicates trends
- Memory stores up to 25 labeled readings
- Fixed salinity ratio (0.5) and adjustable conductivity-to-TDS ratio from 0.4 to 1.0
- RENEW feature alerts user when electrode needs replacement
- IP57 rating



D0600 Waterproof ExStik® II Dissolved Oxygen Meter

Detect and measure oxygen concentration or saturation while also compensating for altitude

- Memory stores up to 25 data sets with dissolved oxygen (DO) and temperature reading
- Oxygen level displayed as % Saturation or Concentration (mg/L [ppm])
- Adjustable altitude compensation (0 to 20,000 ft in 1,000 ft increments)
- Adjustable salinity compensation, from 0 to 50 ppt
- Analog bar graph indicates trends
- Easy to replace screw-on membrane cap with optional extension cables
- IP57 rating



D0700 Waterproof Portable Dissolved Oxygen Kit

9-in-1 meter measures dissolved oxygen concentration and saturation, as well as pH, temperature, and more

- Automatic salinity compensation and manual barometric pressure compensation for DO measurements
- One button pH calibration (4, 7, and 10 pH) with choice of 3-point calibration for better accuracy
- Measures DO concentration/saturation, pH, mV, conductivity, TDS, salinity, resistivity and temperature
- Large backlit dual LCD display, auto power off, and rugged, waterproof housing
- IP57 rating



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