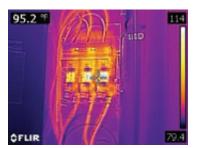


FLIR delivers world-class thermal cameras and test & measurement tools with the accuracy, reliability, and versatility you need to tackle your most challenging jobs.



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

Lisa Phillips, Electrical Engineer, Altorfer Power Systems
 Source: TechValidate. TVID: 3F4-318-733



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

Facilities Manager, Fortune 500
Telecommunications Services Company
Source: TechValidate. TVID: C94-758-D4E



IGM technology, driven by a FLIR Lepton® thermal camera core, allows FLIR to develop unique products that help you to visually pinpoint potential issues — instantly and efficiently — before, during, and after work is performed.



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.





**PRODUCTS** 

### OUR LATEST INNOVATIONS

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



## MORE NEW PRODUCTS



#### FLIR T500-SERIES

Professional Thermal Imaging Cameras





#### FLIR DM285

Industrial Thermal Imaging Multimeter with Datalogging, Wireless Connectivity, and IGM

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#### FLIR DM91

TRMS Multimeter with Type-K Temperature

p.20



#### FLIR DM166

Imaging TRMS Multimeter

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#### FLIR DM6x

TRMS Digital Multimeters

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## FLIR ONE PRO Thermal Imaging Camera Attachment

The all new FLIR ONE Pro is a must-have for any inspector or contractor's toolbox. Combining enhanced high-resolution  $MSX^{\otimes}$  imagery with powerful measurement tools and report generation capability, the FLIR ONE Pro works almost as hard as you do. With our exclusive VividIR $^{\text{TM}}$  image processing, the FLIR ONE Pro gives you the sharpest mobile thermal image you've ever seen. One size fits all with our brand new adjustable connector, ensuring that your FLIR ONE Pro will fit your phone or tablet — even with its rugged case still in place — so you don't have to choose between protecting your phone and thermal vision.

#### Key Features:

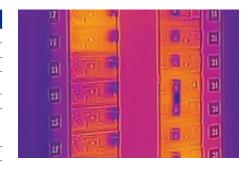
- MSX-enhanced thermal images provide stunning detail to help you identify problem areas easier
- VividIR advanced image processing delivers true super-resolution image enhancement for stunningly crisp imagery and fine detail
- Ruggedized design that can withstand a 1.8-meter (70 in.) drop
- OneFit™ adjustable connector adapts your FLIR ONE Pro to fit with almost any phone case
- Measure the temperature of any spot in a scene between -20°C to 400°C (-4°F and 752°F), and detect temperature differences as small as 0.1°C (0.18°F)
- One-touch reporting lets you share thermal images and videos to the social media platform of your choice
- Explore additional features such as FLIR ONE Panorama<sup>TM</sup>, FLIR ONE TimeLapse<sup>TM</sup>, and FLIR ONE CloseUp<sup>TM</sup> functions





SPECIFICATIONS	
IR resolution	160 x 120 (19,200 pixels)
VividIR™ resolution	1,555,200 pixels
Thermal sensitivity	150 mK
HF0V/VF0V	55° ±1° / 43° ±1°
Object temperature range	-20°C to 400°C (-4°F to 752°F)
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).
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™)







Use FLIR ONE to check overheating breakers or missing insulation behind walls.

OneFit adapts your FLIR ONE to fit with almost any phone case.

### FLIR C2 and FLIR C3 Full-featured, Pocket-sized Thermal Cameras

The FLIR C2 and C3 are your go-to tools for building inspections, facilities maintenance, HVAC, or electrical repair. The C2 includes MSX real-time image enhancement, high sensitivity, a wide field of view, and fully radiometric imagery to clearly show where problems are and verify the completion of repairs. The C3 includes all the features of the C2 plus picture-in-picture, area maximum or minimum temperature measurement, and Wi-Fi connectivity so you can quickly get to the job of finding hidden problems, sharing images, and documenting repairs. No matter which one you choose, you'll be ready anytime to find hot fuses, cold air leaks, plumbing issues, and more.

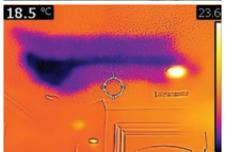
#### **Key Features:**

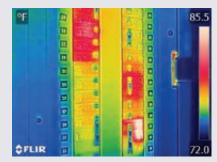
- Captures thermal measurements from -10°C to 150°C (14°F to 302°F)
- Pocket Portable: keep it on you and at your side, ready for immediate use so you don't miss an opportunity
- . Brilliant 3 in. intuitive touch screen with auto-orientation for easy viewing
- Fully Radiometric: save thermal image JPEGs instantly, then conveniently adjust and analyze them later with FLIR Tools to isolate temperature measurements on any pixel and create convincing reports
- MSX-enhanced thermal images provide stunning detail to help you identify problem areas easier
- · Wi-Fi enabled for instant peer-to-peer image sharing (C3 only)
- Picture-in-Picture (C3 only)
- Area measurement box indicates hottest or coldest (max./min.) spot (C3 only)

SPECIFICATIONS	FLIR C2	FLIR C3
IR resolution	80 × 60	) (4,800 pixels)
Thermal sensitivity		<0.10°C
Field of view	4	11° × 31°
Object temperature range	-10°C to 15	0°C (14°F to 302°F)
Accuracy	· ·	F) or 2%, whichever 25°C (77°F) nominal
Frame rate		9 Hz
Focus	F	ocus free
Picture-in-picture	N/A	IR area on visual image
Area	N/A	Box with max. or min.
Wi-Fi	N/A	Standard 802.11 b/g/n









Breaker Panel

## What is MSX?

## Exclusive MSX\* Thermal Imaging Technology Made Affordable for Everyday Use

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 back to a visual image for detail.

flir.com/c2 • flir.com/c3

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

Now you can afford the ultimate inspection tool and gain a competitive advantage. The E4, E5, E6, and E8 infrared cameras are powerful and extremely cost-effective troubleshooting tools. Blow customers away with dramatic MSX thermal images that clearly reveal problems.

#### **Key Features:**

- Fully automatic, lightweight and easy to use, weighing only 545 gr. (1.2 lbs)
- Wi-Fi connectivity to mobile devices via FLIR Tools Mobile app
- Simple button navigation
- On-board 640 x 480 digital camera
- Accuracy of ±2°C (±3.6°F) or ±2% of reading

- · Records radiometric JPEGs
- · Swapable Li-ion battery with 4-hour life
- · Simultaneous storage of IR/Visual/MSX images
- Picture-in-picture image
- FLIR's world-class 2-5-10 warranty offers 2-year coverage on parts/labor, 5-year battery protection, and a 10-year warranty on the IR detector



SPECIFICATIONS	FLIR E4	FLIR E5	FLIR E6	FLIR E8
IR resolution	80 x 60 (4,800 pixels)	120 x 90 (10,800 pixels)	160 x 120 (19,200 pixels)	320 x 240 (76,800 pixels)
Thermal sensitivity	<0.15°C	<0.10°C	<0.06°C	<0.06°C
Digital camera resolution		640	x 480	
Temperature range		-20°C to 250°C	C (-4°F to 482°F)	
Measurement modes		3 modes: 1 spot (center); 1 area box	x (min/max); isotherm (above/below)	
Frame rate		9	Hz	
Field of view		45°	x 34°	
Focus		Focu	s free	

## FLIR Infrared Camera Software and Mobile Apps

FLIR helps you work more efficiently and boost productivity through the FLIR Tools software suite and the FLIR Tools mobile app for Android and iOS devices.

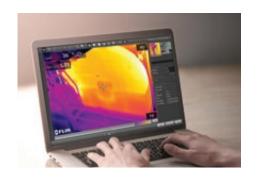
FLIR Tools software for PC or Mac OS is designed to provide an easy way to create inspection reports on your computer. With FLIR Tools, you can change image settings, add new temperature points, and create standardized reports. This free software is available for download from flir.com.

FLIR Tools+ offers the addition of cutting-edge controls for grouping images, building radiometric panoramas, recording video, and instantly generating comprehensive thermal inspection reports. Go to flir.com to register for a free 30-day trial.

The FLIR Tools mobile app for Android and iOS offer the same great options as the desktop software, optimized for your smartphone or tablet. The app is available for download from the Apple App and Google Play stores.

#### With FLIR Tools you can:

- Analyze images, add temperature measurements
- Change color palettes, emissivity settings, and more
- Convert UltraMax-enabled images to higher resolution
- Build easy-to-use reporting templates (FLIR Tools+)
- Connect camera directly to mobile app via Wi-Fi
- Generate and email detailed reports





## 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 new E75, E85, and E95 cameras are packed with features you need for a wide range of electrical, mechanical, and building applications.

The new Exx-Series offers superior sensitivity, up to 161,472 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 electical faults, building deficiencies, and moisture intrusion.

#### **Key Features:**

- Interchangeable, auto-calibrating lenses
- Up to 464 x 348 (161,472 pixels) IR resolution
- Our best MSX\* image enhancement adds depth and detail to images
- UltraMax® processing for 4x pixel resolution
- Vibrant 4 in. LCD with 160° viewing angle
- True 42° field of view
- · Laser-assisted autofocus
- Streamlined reporting features
- Rapid-response touchscreen with intuitive new user interface
- Convenient menu buttons allow for one-handed operation

- New folder and naming structure that makes finding images easier
- 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 (E95)



AutoCal™ lenses





SPECIFICATIONS	FLIR E75	FLIR E85	FLIR E95
IR resolution	320 x 240 (76,800 pixels)	384 x 288 (110,592 pixels)	464 x 348 (161,472 pixels)
UltraMax*	307,200 pixels	442,368 pixels	645,888 pixels
Thermal sensitivity		< 0.03°C @ 30°C	
Object temperature range	-20°C to 650°C	-20°C to 120°C (-4°F to 248°F)	-20°C to 120°C (-4°F to 248°F)
	(-4°F to 1200°F)	0°C to 650°C (32°F to 1200°F)	0°C to 650°C (32°F to 1200°F)
	Optional 300°C to 1000°C	300°C to 1200°C	300°C to 1500°C (572°F to 2732°F
	(572°F to 1830°F)	(572°F to 2192°F)	
Image frequency		30 Hz	
Field of view (FOV)	24° x 18° (18 r	mm lens), 42°x 32° (10 mm lens), 14	4° x 10° (29 mm lens)
Lens identification		Automatic	
Focus	Continuous, one-	shot laser distance meter (LDM), or	ne-shot contrast, manual
Image modes		Infrared, visual, MSX®, Picture-in-F	Picture
Laser distance measurement		Yes, on-screen	
Laser area measurement (m² or ft²)	No	Yes	Yes
Measurement presets	No measurement,	center spot, hot spot, cold spot, Us	er Preset 1, User Preset 2
Spotmeter	1 in live mode	3 in live mode	3 in live mode
Area box	1 in live mode	3 in live mode	3 in live mode
Compass, GPS		Yes; automatic GPS image tagg	ing
Image file format	Standa	rd radiometric JPEG, measurement	data included
Video recording	Real-time radiometric i	recording (.csq); non-radiometric H.	264 recording to memory card
Video streaming	Radiometric streaming	over UVC or Wi-Fi; non-radiometri	c H.264 or MPEG-4 over Wi-Fi
Communication interfaces		USB 2.0, Bluetooth, Wi-Fi	



Select FLIR meters communicate with Exx cameras via Bluetooth



Mobile devices communicate with Exx cameras via Wi-Fi

## **FLIR T-Series Professional Thermal Imaging Cameras**

FLIR T-Series thermal imaging cameras offer outstanding range, resolution, and image clarity paired with the ergonomics professional thermographers need for a full day of inspections. These professional-level cameras offer features such as crisp 640 x 480 thermal imagery (T620/T640/T660) or a 180° rotating optical block (T530/T540). All offer superior sensitivity and state-of-the-art connectivity, so you can find hot spots or potential faults, and report them guickly for immediate repairs.

#### **Key Features:**

- Up to 307,200 pixel (640 × 480) IR resolution for the best detection, pictures, and temperature measurements
- Interchangeable AutoCal<sup>TM</sup> optics can be shared between T500-Series cameras or new Exx-Series models without the need for secondary pairing or factory recalibration
- MSX image enhancement adds depth and detail to images
- Ergonomic design provides all-day comfort, so you can scan from tough angles while keeping the display in view
- 1-Touch Level/Span simplifies manual level and span adjustments (T530/T540)

- Laser-assisted autofocus improves focus and measurement accuracy, provides data for laser distance measurement, and on-screen area measurement (T530/T540)
- Vibrant touchscreen and updated interface provides quick access to measurement tools, parameters, image modes, and more
- Send images and collect data via Wi-Fi to the FLIR Tools app
- Add FLIR clamp or multimeter data to images via Bluetooth with METERLiNK® technology











#### **ULTRAMAX**<sup>®</sup>

**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	FLIR T620	FLIR T640	FLIR T660
IR resolution	320 x 240	464 x 348	640 x 480	640 x 480	640 x 480
Temperature range	-20°C to 120°C (-4°F to 248°F) 0°C to 650°C (32°F to 1202°F) Optional Calibration: 300°C to 1500°C (572°F to 2732°F)	-20°C to 120°C (-4°F to 248°F) 0°C to 650°C (32°F to 1202°F) Optional Calibration: 300°C to 1200°C (572°F to 2192°F)	-40°C to 150°C (-40°F to 302°F) 100°C to 650°C (212°F to 1202°F)	-40°C to 150°C (-40°F to 302°F) 100°C to 650°C (212°F to 1202°F) 300°C to 2000°C (-572°F to 3632°F)	-40°C to 150°C (-40°F to 302°F) 100°C to 650°C (212°F to 1202°F) 300°C to 2000°C (-572°F to 3632°F)
Accuracy	+/-2°	C (+/-3.6°F) or +/-2% of reading, wh	ichever is greater, at 25°C (77°F) no	ominal	+/-1°C (+/-1.8°F) or +/-1% of reading for lir ited temperature range; ±2°C (±3.6°F) or 29 whichever is greater, at 25°C (77°F) nomina
Thermal sensitivity	<30 mK @ 30°C (42° lens)	<30 mK @ 30°C (42° lens)	<40 mK at 30° C	<30 mK at 30°C	<20 mK @ 30°C
Focus	Continuous LDM, One-shot LDM, One-shot contrast, Manual	Continuous LDM, One-shot LDM, One-shot contrast, Manual	One-shot automatic, Manual	Continuous, One-shot, Manual	Continuous, One-shot, Manual
Display size	4 in. (10.16 cm) LCD	4 in. (10.16 cm) LCD	4.3 in. (10.92 cm) LCD	4.3 in. (10.92 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 OSX™ Precision HDIR optics for the T1K, to the T500-Series' compact AutoCal™ lenses, these optics were designed to be tough, accurate, and precise.



T500-Series lenses





## FLIR T1K HD Thermal Imaging Cameras

FLIR T1K (T1020) infrared cameras are designed for thermography experts who need the highest quality without compromise. With full HD resolution, outstanding thermal sensitivity, and FLIRexclusive optics designed specifically for HDIR detectors, the T1K raises the bar on performance.

#### Key Features:

- Up to 786,432 pixel (1024  $\times$  768) IR resolution for the best detection, pictures, and temperature
- FLIR Vision Processing™ delivers the best, most detailed, and smoothest images with the least amount of noise, thanks to MSX", UltraMax\*, and our 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
- · Vibrant touchscreen provides quick access to measurement tools, parameters, image modes, and more
- · Four programmable buttons, two programmable measurement functions
- · Wireless connectivity allows you to upload images and collect data via Wi-Fi to the FLIR Tools app









SPECIFICATIONS	FLIR T1K (T1020)
IR resolution	1024×768
Thermal sensitivity	<20 mK @ 30°C
	-40°C to 150°C (-40°F to 302°F)
Temperature range	0°C to 650°C (32°F to 1202°F)
,	300°C to 2000°C (-572°F to 3632°F)
Accuracy	±1°C (±1.8°F) or ±1% at 25°C (77°F) for temperatures between 5°C to 150°C (41°F to 302°F)
Accuracy	$\pm 2^{\circ}\text{C}~(\pm 3.6^{\circ}\text{F})~\text{or}~\pm 2~\%$ of reading at 25°C (77°F) for temperatures up to 1200°C (2192°F)
Focus	One shot or manual
Display size	4.3 in. (10.92 cm) wide screen LCD
Viewfinder	Yes





## The Infrared Training Center

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

#### • FREE online courses

User-friendly, on-demand courses designed to show you how to use your camera and get started on electrical surveys, energy audits and more

 Thermography certification training Level I certifies that you know how a thermal imager works and how to use it. Level II cranks your credibility up a notch with more in-depth concepts and intensive labs

. Classes covering many topics Popular ITC courses include: Indoor Electrical Surveys Using IR Thermography, Outdoor Electrical Surveys Using IR Thermography,

Outdoor Electrical Surveys Using IR Thermography, **Building Inspection, Condition Monitoring** 

**FI)** METERLÎNK

#### · 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: www.infraredtraining.com/webinars

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	Com	pact		Point	& Shoot	
Model	FLIR ONE Pro	C2	C3	E4	E5	E6	E8
IR resolution	160 x 120 (19,200 pixels)	80 > (4,800		80 × 60 (4,800 pixels)	120 × 90 (10,800 pixels)	160 × 120 (19,200 pixels)	320 × 240 (76,800 pixels)
UltraMax® resolution	-	-	-	-	-	-	-
MSX® image enhancement	Yes	Yes	Yes		`	⁄es	
Color viewfinder	-	-	-			-	
Thermal sensitivity	<0.15°C	<0.10°C	<0.10°C	<0.15°C	<0.10°C	<0.06°C	<0.06°C
Temperature range	-20°C to 400°C (-4°F to 752°F)	-10°C to 150°C (14°F to 302°F)	-10°C to 150°C (14°F to 302°F)			to 250°C o 482°F)	
Field of view	55° × 43°	41° × 31°	41° × 31°		45°	× 34°	
Spot size ratio	147:1	90:1	90:1	97:1	145:1	192:1	385:1
Measurement tools	Spotmeter	Spotmeter	Spotmeter, area box (max/min)	Spotmeter (center spot)	Spotmeter ( area box (	center spot), (max/min)	Spotmeter (center spot), area box (max/min), isotherm (above/ below/interval)
Communication modes	USB-C, microUSB and Lightning	USB	USB, Wi-Fi		USB	, Wi-Fi	
Touchscreen	-	3 in (7.62 cm)	3 in (7.62 cm)			-	
On-screen text, image sketch	-	-	-			-	
Voice annotation	-	-	-			-	
Laser pointer	-	-	-			-	
METERLINK®	-	-	-			-	
Radiometric JPEG	Yes	Yes	Yes		`	/es	
IR video storage	Yes	-	-			-	
Built-in GPS/Compass	-	-	-			-	
Available lenses	-	-	-			-	

## FLIR THERMAL CAMERA MATRIX









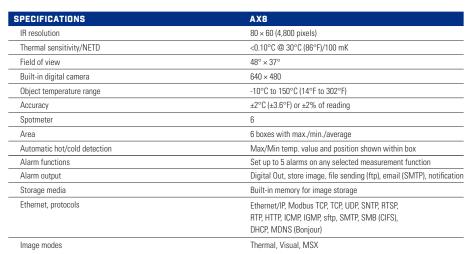
	Professional				High-Performance			
E75	E85	E95	T530	T540	T620	T640	T1020	
320 x 240 (76,800 pixels)	384 × 288 (110,592 pixels)	464 × 348 (161,472 pixels)	320 × 240 (76,800 pixels)	464 × 348 (161,472 pixels)	640 > (307,200		1024 x 768 (786,432 pixels)	
307,200 pixels	442,368 pixels	645,888 pixels	307,200 pixels	645,888 pixels	1.2	MP	3.1 MP	
	Yes		Ye	es	Ye	9S	Yes	
				-	1		Yes	
	<0.03°C		<0.0	)3°C	<0.04°C	<0.03°C	<0.02°C	
-20°C to 650°C (-4°F to 1,200°F)	-20°C to 1,200°C (-4°F to 2,192°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 650°C (-40°F to 1,202°F)	-40°C to 2,000°C (-40°F to 3,632°F)	-40°C to 2000°C (-40°F to 3,632°F)	
Optional to 1,000°C (1,830°F)			Optional to 1,200°C (2,192°F)		Optional to 2,000°C (3,632°F)			
	24° x 18°		24° >	× 18°	25° >	< 19°	28° × 21°	
763:1	917:1	1111:1	763:1	1111:1	147	1:1	2128:1	
1 spotmeter, 1 area boxes (max/min), hot spot, cold spot, User Presets (1 & 2), Delta T	(max/min), hot	, 3 area boxes spot, cold spot, 1 & 2), Delta T	hot spot, cold sp	ea boxes (max/min), oot, User Presets Delta T	10 spotmeters, 5+5 area boxes, hot spot, cold spot, User Presets (1 & 2), Delta T	10 spotmeters, 5+5 area boxes, profile (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, W	'i-Fi, Bluetooth, Disp	lay Port	USB, Wi-Fi, Bluet	ooth, Display Port	USB, Wi-Fi, Bluet	ooth, mini-HDMI	USB Micro-B, Wi-Fi, Bluetooth, HDMI	
	4 in (10.16 cm)		4 in (10	.16 cm)	4.3 in (10	0.92 cm)	4.3 in (10.92 cm)	
	Yes		Ye	es	Ye	es	Yes	
	Yes		Ye	es	Ye	es .	Yes	
	Yes		Ye	es	Y€	es .	Yes	
	Yes		Ye	es	Ye	es .	Yes	
	Yes		Ye	es	Ye	9S	Yes	
	Yes		Ye	es	Ye	es	Yes	
	Yes		Ye	es	Υe	es	Yes	
14°, 24	° and 42° AutoCal™	lenses	14°, 24° and 42°	AutoCal™ lenses	7°, 15°, 25°,	45° and 80°	12°, 28° and 45°	

## FLIR AX8 Thermal Imaging Temperature Sensor

FLIR AX8 is a thermal sensor with imaging capabilities. Combining thermal and visual cameras in a small, affordable package, the AX8 provides continuous temperature monitoring and automated alarms for critical electrical and mechanical equipment. Compact and easy to install, AX8 provides continuous monitoring of electrical cabinets, manufacturing areas, data centers, energy distribution, mass transit, refrigeration warehouses, and much more.

#### **Key Features:**

- Automated alarming at pre-set temperature thresholds
- Ethernet/IP and Modbus TP compliance
- Image masking function allows for analysis of just the target
- MSX® image enhancement for improved visual details
- · Compact design, easy installation
- · Ability to stream live video via Ethernet







Also available as a kit that includes the sensor and accessories (Model # 71201-0101-KIT)

### **FLIR 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)			Type 4/12 (outdoor/indoor)	
Automatically grounded		Yes			Yes	
Maximum operating temperature		260°C/500°F			260°C/500°F	
Body material		Anodized aluminum			AISI-grade 316 stainless ste	el
Greelee punch	76BB	739BB	742BB	76BB	739BB	742BB

## FLIR TG165/TG167 Spot Thermal Cameras

Bridging the gap between single spot IR thermometers and FLIR's legendary infrared cameras, the TG165 and TG167 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, the TG165 and TG167 use the power of Infrared Guided Measurement (IGM™) to show you heat patterns across your target, quiding you to the precise location of potential problems so you can take more reliable temperature readings. They also store images and data for reports. And with a spot ratio of 24:1, you can capture measurements from a safer distance.

#### **Kev Features:**

- True thermal detection best-in-class image quality
- · Tripod mount and lanyard connection
- Simple to operate with null-trigger to
- Rugged and reliable withstands a 2-meter drop
- . Dual laser pointers to frame area of interest
- · Micro SD card & mini-USB port for downloading images and charging

Simple to operate, with pull-trigger to activate lasers, freeze images	downloading inlag	oo ana onarging
SPECIFICATIONS	TG165	TG167
IR resolution	60 x 80 (4,800 pixels)	60 x 80 (4,800 pixels)
Distance-to-spot ratio	24:1	24:1
Range	-25°C to 380°C (-13°F to 716°F)	-25°C to 380°C (-13°F to 716°F)
Basic accuracy	±1.5°C (2.7°F) or 1.5%	±1.5°C (2.7°F) or 1.5%
Measurement resolution	0.1°C / 0.1°F	0.1°C / 0.1°F
Temperature sensitivity	<150 mK	<150 mK
Field of view	38.6° x 50.0°	19.6° x 25.0°
Focus	Fixed	Fixed
Thermal imaging palette	Hot-iron, grayscale	Hot-iron, rainbow, grayscale

Dual diverging lasers, trigger-activated







TG165 makes it easy to frame an entire wall in a single image





TG167 gives you quality image detail on even small connectors and wires.

## FLIR TG54/TG56 Spot IR Thermometers

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

#### **Key Features:**

Laser pointer

- · 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 three-meter drop

Dual diverging lasers, trigger-activated

· Bright LED worklight to help you see your target in poor lighting conditions

PECIFICATIONS	TG54	TG56	
Distance-to-spot ratio (D:S)	24:1	30:1	
ange	-30°C to 650°C	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	5.0-14.0 μm		



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

The FLIR VP50 is a CAT IV-rated, non-contact voltage detector designed to reliably detect voltages on the latest tamper-proof outlets and electrical systems. Toolbox-tough, with a rubber-reinforced case and buttons, the VP50 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
- Bright LED flashlight on the back plus light on the tip for detection
- . Includes two AAA batteries
- Industry-leading lifetime warranty with registration

SPECIFICATIONS	VP50
Voltage ranges	90 to 1000 V 24 to 1000 V
Category rating	CAT IV-1000 V
Frequency range	45 to 65 Hz
Built-in flashlight	LED (60 Lumens)
Vibrating indication	Yes
On/Off switch	Yes
Warranty	Limited Lifetime*









### **FLIR Test Accessories**



TA12 General Purpose Accessory Case



TA80 CAT IV Silicone Test Probes



TA50 Magnetic Hanging Strap for DM9x Series



TA14 Belt Holster for TG165/TG167



TA60 Thermocouple Probe with Adapter



TA55 AC Current Line Splitter



TA03-KIT, AAA Universa Rechargeable Battery



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

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

FLIR CM275 clamp meters combine 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 and FLIR InSite<sup>TM</sup> professional workflow management app.

#### **Key Features:**

- Safely check for live connections using noncontact temperature measurement
- Use advanced electrical features including VFD mode, True RMS, and LoZ
- 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

SPECIFICATIONS	CM275	
IR resolution	120 x 160 (	19,200 pixels)
Temperature range	-10°C to 15	50°C (14°F to 302°F)
Field of view	38° x 50.0°	
Temperature sensitivity	150 mK	
Focus	Fixed	
MEASUREMENTS	RANGE	BASIC ACCURACY
AC / DC Volts	1000 V	±1.0%
VFD AC Volts	1000 V	±1.0%
AC / DC LoZ V	1000 V	±1.0%
AC / DC Amps	600.0 A	±2.0%
VFD AC Amps	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 Infrared Guided Measurement (IGM™) technology, the CM174 visually guides you to the precise location of a potential electrical problem, identifying dangerous and unknown problem areas safely. Confirm your findings with accurate amperage and voltage measurements, and centerpoint 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, Smart Diode with Disable

SPECIFICATIONS	CM174	
IR resolution	60 x 80 (4	,800 pixels)
Temperature range	-25°C to 1	150°C (-13°F to 302°F)
Field of view	38.6° x 50	).0°
Temperature sensitivity	150 mK	
Focus	Fixed	
MEASUREMENTS	RANGE	BASIC ACCURACY
AC / DC Volts	1000 V	±1.0%
VFD AC Volts	1000 V	±1.0%
AC / DC LoZ V	1000 V	±1.0%
AC / DC Amps	600.0 A	±2.0%
VFD AC Amps	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 bargraph, 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	_	32 ft (10 m)	32 ft (10 m)	_
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	
Warranty		1	imited Lifetime*	

\* When registered within 60 days of purchase.

Limited Lifetime\*

## 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 Autoranging, 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.

#### **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)

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SPECIFICATIONS	CM72	CM74	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%



## 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 toolbag anywhere you go.

#### Key Features:

Temperature

- · Accu-Tip technology delivers more accurate amperage readings on smallergauged wires, to a tenth of a digit
- · MAX/MIN/AVG recording plus frequency and diode measurement
- Data hold, zero function, and low pass
- · 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

+1.0%

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)	400 A	400 A	400 A	±1.8%
(100-400 Hz)				±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%
Tomporatura		-40°C to 400°C	-40°C to 400°C	.1.00/

(-40°F to 752°F) (-40°F to 752°F)





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## 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
- Limited lifetime warranty with registration

SPECIFICATIONS	CM55	CM57
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
Detailed accuracy	30.00 A ±(3.0% + 5 digits) 300.0 A ±(3.0% + 5 digits) 3000 A ±(3.0% + 5 digits) 30.00 A ±(3.0% + 5 digits) 30.00 A ±(3.0% + 5 digits) 3000 A ±(3.0% + 5 digits)	30.00 A ±(3.0% + 5 digits) 300.0 A ±(3.0% + 5 digits) 3000 A ±(3.0% + 5 digits) 30.00 A ±(3.0% + 5 digits)
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 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
- · Limited lifetime warranty with registration

SPECIFICATIONS	TA72/TA74	
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)	
	30.00 A ±(3.0% + 5 digits)	
Detailed accuracy	300.0 A ±(3.0% + 5 digits)	
	3000 A ±(3.0% + 5 digits)	
	35 mm (1.4 in) 1.0%	
Positional error (distance from optimum)	50 mm (2.0 in) 1.5%	
	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 anomolies. The built-in 160 x 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, NCV
- Saves electrical parameter data and thermal images with onboard data storage
- Drop-tested and IP rated for greater durability
- Protected by FLIR 10-year warranty









## FLIR DM284 Imaging Multimeter with IGM\*\*

The FLIR DM284 with IGM is a professional, all-in-one True RMS digital multimeter, featuring a built-in thermal imager. Speed up troubleshooting with Infrared Guided Measurement (IGM™) that visually shows you where hot spots are so you can pinpoint where to investigate further. IGM lets you work from a safer distance and more efficiently without direct contact. Once you're guided to the right spot, the DM284 can help verify findings with advanced contact measurement features.

#### **Key Features:**

- See exactly where to measure with the 160 x 120 resolution thermal imaging
- 18-function DMM including VFD mode, True RMS, LoZ, and NCV
- View simultaneous thermal and thermocouple measurements

- Built-in worklights and laser pointer plus thermocouple input
- Simple user interface with multiple thermal image color palettes
- Durable and drop tested with 10-year warranty







#### Specifications DM284 and DM285

THERMAL IMAGING	
IR Resolution	160 x 120 (19,200 pixels)
Temperature sensitivity	≤150 mK
Emissivity	4 presets with custom adjustment
Temperature accuracy	3°C or 3.5%
Temperature range	-10°C to 150°C (14°F to 302°F)
FOV (w x h)	46° x 35°
Laser pointer	Yes
Focus	Fixed

10000	17700	
MEASUREMENTS	RANGE	ACCURACY
AC / DC Volts	1000 V	±1.0% / 0.09%
AC / DC mVolt	600.0 mV	±1.0% / 0.5%
VFD AC Volts	1000 V	±1.0%
AC / DC LoZ V	1000 V	±1.5%
AC / DC Amps	10.00 A	±1.5%
AC / DC mAmps	400.0 mA	±1.5%
AC / DC μAmps	4,000 μΑ	±1.0%
Resistance	50 MΩ	±0.9%
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	±1.0% + 3°C (DMM)
rype-k mermocouple range	(-40°F to 752°F)	±1.0% + 5°C (IGM)



Also available as a kit (DM284-FLEX-KIT / DM285-FLEX-KIT) that includes 3000 A flex clamp, carrying case and rechargeable battery

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## 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.

EATURES BY METER	DM92	DM93
Connectivity	-	Bluetooth®, max. range 10 m (32 ft)
Data recording	-	20,000 Pts (125 days max)
IEASUREMENTS 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®



DM93

## FLIR DM90/DM91 TRMS Multimeter with Type-K Temperature

The FLIR DM90 and DM91 offer the comprehensive features professionals need to safely troubleshoot electrical, electronic, and HVAC/R systems. Equipped with LoZ, VFD Mode, and more, the DM90/DM91 multimeters give 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<sup>™</sup> or the FLIR InSite<sup>™</sup> workflow management system.

FEATURES BY METER	DM90	DM91
Connectivity	_	Bluetooth®
Data logging & storage	_	1 file of 40k scalar measurements
Measuring Rate	3 samples per second	3 samples per second
MEASUREMENTS BOTH MODELS	RANGE	BASIC ACCURACY
AC / DC Volts	1000 V	±1.0% / 0.09%
AC / DC mVolt	600.0 mV	±1.0% / 0.5%
VFD AC Volts	1000 V	±1.0%
AC / DC LoZ V	1000 V	±2.0%
AC / DC Amps	10.00 A	±1.5% / 1.0%
AC / DC mAmps	400.0 mA	±1.5% / 1.0%
AC / DC µAmps	4,000 μΑ	±1.0%
Resistance	6.000 MΩ 50.00 MΩ	±0.9% ±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 20.00 Ω 200.0 Ω	±0.9%
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 (DM91)
- Integrated Bluetooth technology for connection to FLIR Tools app, FLIR InSite™ (DM91)
- CAT IV-600V and CAT III-1000V safety rated



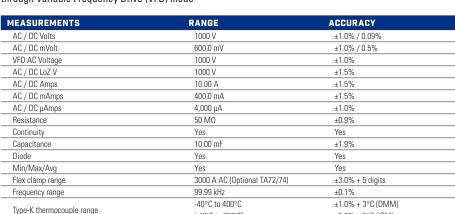
DM91

## FLIR DM166 Imaging TRMS Multimeter

The FLIR DM166 is a must-have tool for commercial electricians, automation, electronics, 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 Variable Frequency Drive (VFD) mode
- Offers CAT III-600V, CAT IV-300V safety rating
- Drop-tested and IP rated for greater durability
- Protected by FLIR 10-year warranty



(-40°F to 752°F)



THERMAL IMAGING	
IR Resolution	80 x 60 pixels (4,800 pixels)
Temperature Sensitivity	≤ 150 mK
Emissivity	4 presets with custom adjustment
Temperature Accuracy	3°C or 3%
Temperature Range	-10°C to 150°C (14°F to 302°F)
Field of View	38° x 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

±1.0% + 5°C (IGM)

• Durable double-molded construction (IP54, 2 m drop test)

MEASUREMENTS	MAX RANGE	BASIC ACCURACY
Insulation resistance	4 M to 20 G $\Omega$	±1.5%
Insulation test voltages	50, 100, 250, 500 and 1000 V	±3.0%
AC / DC Volts	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%



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## 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 Volts	600.0 V	±1.0% / 0.4%
AC / DC mVolt	600.0 mV	±1.0% / 0.4%
VFD AC Volts	600.0 V	±1.0%
AC / DC Amps	10.00 A	±1.5% / 1.0%
AC / DC mAmps	600.0 mA	±1.0% / 0.7%
AC / DC µAmps	6,000 µA	±1.5% / 1.0%
Resistance	6.000 MΩ	±0.9%
Diode	3.000 V	±0.9%

#### **Key Features:**

- Flashing backlight and audible indicators
- Broad DMM test functions including variable-frequency drive (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 variable-frequency drive (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 Volts	600.0 V	±1.0% / 0.4%
AC / DC mVolt	600.0 mV	±1.0% / 0.4%
VFD AC Volts	600.0 V	±1.0%
AC / DC LoZ V	600.0 V	±2.0%
AC / DC Amps	10.00 A	±1.5% / 1.0%
AC / DC mAmps	600.0 mA	±1.0% / 0.7%
AC / DC μAmps	6,000 μΑ	±1.5% / 1.0%
Resistance	6.000 MΩ	±0.9%
Capacitance	2000 μF	±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 VS70 Videoscope

The rugged, waterproof FLIR VS70 videoscope is the perfect solution for bringing hidden problems into view. It features intuitive handset controls for maneuvering the narrow camera probe into tight spaces, and a vivid 5.7 in. color LCD display so you can easily identify problems. Record videos and grab stills so you can document your findings.







#### **Key Features:**

- Intuitive handset controls for selecting angle of view
- Drop-tested and IP rated for splash and water resistance
- · Long battery life plus car-charging option for all-day use
- Includes headset for recording voice annotations
- Multiple articulation options including two-way and four-way wireless controls
- Expansion cameras and add-on accessories available

SPECIFICATIONS	VS70
Display resolution	640 x 480 pixels
Display size	135 mm (5.7 in)
Battery life (continuous)	6 to 8 hours (integrated)
Frame rate	30 fps (NTSC & PAL)
Video/image transfer	SD card or USB
Camera diameter range*	3.9 mm to 28 mm
Camera focal length options*	Long view or short view macro
Camera length range*	0.3 m to 30 m (0.98 ft to 98.4 ft)
Certifications	CE, FCC
Warranty	2 years



#### Best-Selling Videoscope Kits:

- VS70-1 General purpose (wired) with 8 mm long-focus camera
- VS70-3 2-way articulation (wired) with 6 mm long-focus camera
- VS70-3W 2-way articulation (wireless) with 6 mm long-focus camera
- VS70-KIT Bundle with wired 2-way articulation 6 mm long-focus camera and 8 mm long focus camera
- VS70-KIT-W Bundle with wireless 2-way articulation 6 mm long-focus camera and 8 mm long-focus camera

More complete kits and a-la-carte options available. Contact us to find the right solution for your application.

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## 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 x 60 (4,800 pixels) Lepton thermal imager guides you to potential moisture areas
- Document readings and images to share via USB cable
- 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
- · Rugged, portable design with intuitive menu system

#### MR176 only

- Customize thermal images: select which measurements are integrated (moisture, temperature, relative humidity, dew point, vapor pressure, mixing ratio)
- A lock image setting prevents extreme hot and cold temperatures from interfering with images while scanning for issues
- Field-replaceable temperature/relative humidity sensor
- Progressive Environmental Stability informs you when the relative humidity readings have reached a steady state



MR08 Hammer/Wall Probe Combo complete with pins and case

## Upgrade your Moisture Meter

#### FLIR Moisture probe accessories

FLIR offers a quality line of probe accessories to upgrade your FLIR moisture meter to meet advanced measurement challenges. Use our optional external pin probes on hard woods and dense materials, in deep wall cavities, or to get through 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.

Part Number	MR05 Impact Probe	MR06 Wall Cavity Probe	MR07 Hammer Probe	MR08 Hammer/Wall Probe Combo	MR09 Baseboard Probe
Impact plate (to use your own hammer)	✓	✓	_	✓	_
Integrated slide hammer	_	_	✓	✓	_
Insulated pins (included)	_	4 in, 6 in	2 x 2 in	2 x 2 in, 4 in, 6 in	_
Extension pins	_	✓	_	✓	_
Shoulder case (included)	_	_	✓	✓	_
Works with MR77, MR160, MR176	✓	✓	✓	✓	1
No-slip rubber grips	✓	✓	✓	✓	✓
Replaceable pins	<b>√</b>	✓	✓	✓	_
Detachable cord with durable connection	1	✓	✓	✓	1
2-year warranty	✓	✓	✓	✓	1

### **FLIR MR77 Moisture Meter**

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 MR60 Moisture Meter Pro

The FLIR MR60 is an advanced pin and pinless moisture meter offering the flexibility of destructive and non-destructive measurements. Select one of the eleven 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
- Protected by FLIR 2-10 warranty



## 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.



Pocket-sized with trim design for getting into corners

#### **Key Features:**

- Pocket-sized
- · Sleek design for getting into corners
- · 3-meter drop-tested
- · 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
- Auto Power Off
- · Lanyard cap retention
- · Limited lifetime warranty

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### **EX350** Series True RMS Multimeters with LPF and LoZ

Professional meters loaded with advanced features and functions including Low Pass Filter (LPF) and Low Impedance (LoZ)

- Low Pass Filter (LPF) for 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 also 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	0.1Ω 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



with Temperature

### **EX360 Series CAT IV TRMS Multimeters + NCV + LoZ**

Choose a CAT IV-600V multimeter designed for electrical, HVAC, or industrial applications with LoZ function for accurate voltage readings

- LoZ prevents false readings caused by ghost voltages
- Built-in Non-Contact AC Voltage (NCV) detector with LED indicator
- Smart Data Hold freezes the displayed reading and automatically updates the reading and alerts user (audibly and visually) if the measurement changes ±50 counts
- Large white LED backlit display with 60-segment analog bar graph for viewing trends

Specifications	EX360	EX363	EX365
Basic accuracy (DCV)	0.5 %	0.5 %	0.5 %
NCV detector	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	_	_	1 mA to 10 A
DC/AC μA current	_	600 μΑ	_
Resistance	0.1 $\Omega$ to 40 $M\Omega$	0.1 Ω to 40 MΩ	0.1 $\Omega$ to 40 M $\Omega$
Capacitance	1 nF to 10 mF	1 nF to 10 mF	1 nF to 10 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



EX365 Industrial DMM



Includes test leads, 9V battery, holster with tilt stand and built-in magnet, and general purpose bead wire temperature probe (Model EX363)



## **EX650 Series True RMS 600A Clamp Meters**

Professional clamps featuring Low Impedance (LoZ) mode and choice of advanced model with Low Pass Filter (LPF) and Inrush functions

- 30 mm (1.18 in) jaw size accommodates conductors up to 350 MCM
- LoZ prevents false readings caused by ghost voltages
- µA function for HVAC flame rod current measurements
- Built-in Non-Contact AC Voltage (NCV) detector with LED indicator

- 6000 count backlit LCD display
- · Min/Max captures highest and lowest readings
- Convenient LED worklight for viewing in dimly lit area
- CAT III-600V category rating

Specifications	EX650	EX655
AC current (Max res.)	6 A, 60 A, 600 A (0.001 A)	60 A, 600 A (0.01 A)
DC current	_	60 A, 600 A (0.01 A)
Basic accuracy	ACA: ±2.5 % of rdg	ACA: ±2.5 % of rdg;
		DCA: ±2.5 % of rdg
AC/DC μA current (max res.)	600 μΑ (0.1 μΑ)	600 μΑ (0.1 μΑ)
DC voltage (max res.)	1000 V (0.1 mV)	1000 V (0.1 mV)
AC voltage (max res.)	750 V (1 mV)	750 V (1 mV)
Basic accuracy	ACV: ±1.2 % of rdg;	ACV: ±1.2 % of rdg;
	DCV: ±0.8 % of rdg	DCV: ±0.8 % of rdg
Non-contact voltage (NCV)	100 V to 1000 V	100 V to 1000 V
Resistance (max res.)	60 ΜΩ (0.1 Ω)	60 ΜΩ (0.1 Ω)
Capacitance (max res.)	60 mF (0.01 nF)	60 mF (0.01 nF)
Frequency (max res.)	_	10 Hz to 1 MHz (0.01 Hz)
Temperature (max res.)	_	-40°C to 1000°C (1°C)
		-40°F to 1832°F (1°F)
Continuity beeper	Yes	Yes
Diode test	Yes	Yes

## MA443/MA445 True RMS 400A Clamp Meters + NCV

## Pocket-sized meter with built-in Non-Contact Voltage detector and choice of AC or AC/DC Current model

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

Specifications	MA443	MA445
AC current	4.000 A, 40.00 A, 400.0 A (1 mA)	40.00 A, 400.0 A (10 mA)
DC current	_	40.00 A, 400.0 A (10 mA)
Current accuracy	AC: ±1.8 %	AC: ±2.5 %, DC: ±2.0 %
DC voltage	400.0 mV, 4 V, 40 V, 400 V, 600 V (0.1 mV)	400.0 mV, 4 V, 40, 400 V, 600 V (0.1 mV)
AC voltage	4 V, 40 V, 400 V, 600 V (0.1 mV)	4 V, 40 V, 400 V, 600 V (0.1 mV)
Basic accuracy	AC: ±1.2 %, DC: ±0.8 %	AC: ±1.2 %, DC: ±0.8 %
Resistance (Ω)	400, 4 k, 40 k, 400 k, 4 M, 40 M (0.1 Ω)	400, 4 k, 40 k, 400 k, 4 M, 40 M (0.1Ω)
Capacitance	40 nF, 400 nF, 4 μF, 40 μF, 400 μF,	40 nF, 400 nF, 4 μF, 40 μF, 400 μF,
	4 mF, 40 mF (0.01 nF)	4 mF, 40 mF (0.01 nF)
Frequency	10 Hz to 1 MHz (0.01 Hz)	10 Hz to 1 MHz (0.01 Hz)
Temperature	-40°C to 1000°C / -40°C to 1832°F (1°C / °F)	-40°C to 1000°C / -40°F to 1832°F (1°C / °F)





## MA160 True RMS 200A AC/DC Open Jaw Clamp Meter

16 mm (0.6 in) open-jaw design provides quick AC/DC current measurements in tight locations without breaking the circuit

- Built-in Non-Contact Voltage (NCV) detector with audible alert and LED indicator
- · 2000 count, 2-level backlit LCD display
- Relative Mode for Capacitance Zero and offset adjustment
- . CAT III-600V category rating
- · Complete with test leads, two AA batteries and pouch



## MA260 CAT IV True RMS 200A AC Open Jaw Clamp Meter

Smart auto-sensing technology enables the meter to recognize the input and automatically switch to the correct mode of operation

- Built-in Non-Contact Voltage (NCV) detector with audible alert and LED indicator
- 16 mm (0.6 in) open-jaw design provides quick AC current measurements in tight locations without breaking the circuit
- 10,000 count backlit LCD display
- . CAT IV-600V category rating
- . Complete with test leads and two AAA batteries



## **CB10** AC Circuit Breaker Finder/Receptacle Tester

3-in-1 tester locates circuit breakers and tests receptacle wiring

- Quickly locate 110 V to 125 V AC circuit breakers and fuses
- Variable sensitivity adjustment to pinpoint correct circuit breaker
- Bright red and green LEDs indicate if receptacle is either correctly wired or one of six fault conditions
- Simply plug the GFCI transmitter into an outlet and trace for the correct breaker at the electrical box



## **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, blue, and purple 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)



## **BR250** Video Borescope/ Wireless Inspection Camera

Detachable wireless 89 mm (3.5 in) color display can be viewed from a remote location up to 9.75 m (32 ft)

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



## **BR80** Video Borescope Inspection Camera

17 mm camera diameter and 2.4 in color TFT LCD monitor with lightweight, handheld design to easily find, diagnose, and solve problems

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





## **RD300** Refrigerant Leakage Detector

Ideal for detecting leakages from airconditioning units and cooling systems that use all standard refrigerants

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



## **CO240** Handheld Indoor Air Quality CO<sub>2</sub> Meter

Dual display of  ${
m CO_2}$  level and Humidity, Temperature, Dew Point, or Wet Bulb

- $\bullet$  Maintenance free NDIR (non-dispersive infrared)  $\text{CO}_2$  sensor
- Audible CO<sub>2</sub> warning alarm when level exceeds user set point
- Min/Max CO, value recall function
- · Software for on-line (real-time) data streaming to a PC
- · Automatic Baseline Calibration function



#### AN100/AN200 CFM/CMM

## Thermo-Anemometer + IR Thermometer

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
- 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



AN200

## **HD780 Digital Manifold/ Pressure Gauge**

Dual-input heavy-duty Pressure/ Type-K temperature meter

- Dual differential inputs for pressure and temperature
- . Displays 5 types of pressure units
- For use with R22 and R410A refrigerants
- Standard 1/4 NPT male flare fittings
- Large backlit LCD displays P1, P2, P1-P2, T1, T2, T1-T2, Ambient Temperature, plus Min/Max/Avg
- Dual Type-K inputs with Electronic Offset adjustment to compensate for thermocouple differences



## RHT20/RHT10 Humidity and Temperature USB Dataloggers

USB interface for easy setup and data download to a PC

- Datalogs 16,000 humidity and 16,000 temperature readings with a user-programmable sample rate
- Dew point indication via Windows\* compatible software (included)
- User-programmable alarm thresholds for RH and temperature
- · Status indication via colored LEDs
- RHT20 features LCD display of current readings, Min/Max, and alarm status



RHT10

## **42509 Compact IR Thermometer**

Great for processes that require temperature control and monitoring

- Fast and accurate measurements at 0.30 m (12 in) where the two lasers converge with 12:1 field of view
- Blue backlit dual LCD display changes to red backlit when reading exceeds high or low set points
- Exclusive 150 millisecond instantaneous response for capturing spikes in temperature
- Lock function for continuous readings









## 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 1.5 m (1.6 ft)



## 461880 Vibration Meter + Laser Photo/Contact Tachometer

Measures Acceleration, Velocity and Displacement plus RPM and Linear Surface Speed

- Unique large LCD with characters on display reverse direction depending on contact, photo, or vibration mode
- Manual/Auto record up to 1000 readings
- Uses a laser for greater distance non-contact measurements up to 1.5 m (4.9 ft)
- Windows® XP compatible software (included) allows captured readings to be downloaded to your PC for further analysis



## **407730 Digital Sound Level Meter**

40-130 dB meter featuring large LCD Display with Analog Bar Graph

- ±2 dB accuracy with 0.1 dB resolution
- · A&C weighting
- · AC analog output
- · Record Max/Min values over time
- Auto power off and Max Hold functions
- Utilizes 12.7 mm (0.5 in) condenser microphone
- · Tripod mountable
- 40 to 130 dB measuring range
- Fast/slow response time
- Complete with 4 AAA batteries and microphone windscreen

### 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
- . Continous mode with min/max function
- Displays Sum (+) / Difference (-) of multiple readings
- . Memory automatically stores 20 data points
- Built-in bubble level





DT100M

## **HW30** HeatWatch<sup>™</sup> 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
- · Low battery indicator





### **Extech 510-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 problemsolving capabilities, giving you quick and accurate results. Monitor heat indices and track temperature changes during hot, humid days to prevent heat stroke during outdoor activities, sporting events, or in an indoor workplace. Monitor noise levels and perform workplace audits and measure indoor and outdoor light levels. Extech's compact multifunction environmental meters combine all-in-one versatility with accurate diagnostics.



## EN510 10-in-1 Environmental Meter

Measures Air Velocity, Air Flow, Air Temperature, Type-K Temperature, Heat Index, Humidity, Wet Bulb, Dew Point, Windchill, and Light Level

Includes low friction ball bearing mini vane wheel, a precision photo diode with cosine and color correction filter, and a capacitive humidity sensor for high accuracy. General purpose bead wire probe is included for measuring temperatures up to 250°C (482°F), while the meter can measure temperatures up to 1300°C (1592°F) if used with other probes.



## AN510 CMM/CFM Anemometer + Type-K

4-in-1 Anemometer measures Air Velocity, Air Flow, Air Temperature, and Type-K Temperature

Convenient 4-in-1 Anemometer is designed in rugged compact housing with built-in low friction ball bearing mini vane wheel for high accuracy in measuring Air Velocity/Flow. General purpose bead wire probe is included for measuring temperatures up to 250°C (482°F), while the meter can measure temperatures up to 1300°C (1592°F) if used with other probes.



### **EMF510 EMF/ELF Meter**

High-sensitivity EMF/ELF meter with built-in single-axis sensor

The Extech EMF510 measures energy from electromagnetic fields (EMF) and electrical signals and is sensitive to extremely low frequency levels (ELF). The built-in single-axis sensor is ideal for monitoring power lines, electrical appliances, fans and blowers, and electrical circuits in two ranges with milli-Gauss and micro-Tesla units.



## RHT510 Hygro-Thermometer Psychrometer

Measures Relative Humidity, Temperature, Dew Point, and Wet Bulb

Conveniently check the humidity and temperature in residential and professional settings to ensure comfort and safety. General purpose bead wire Type-K probe is included for measuring temperatures up to 250°C (482°F), while the meter can measure temperatures up to 1300°C (1592°F) if used with other probes.



### **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. Jandings. and hallways.

## **UV510 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.

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