FLIR®

WHAT DO YOU NEED TO MEASURE?

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

OFFERING YOU **SOLUTIONS**
FOR INSPECTING, TROUBLESHOOTING, MONITORING, AND REPORTING

IMAGING CAMERAS

❯ FLIR Si2-Series | page 12

Si2-Series acoustic imaging cameras are your perfect solution for locating pressurized leaks in compressed air systems, detecting bearing and mechanical faults, or identifying partial discharge problems in high-voltage electrical systems. These lightweight, one-handed cameras employ 124 microphones to detect quiet sounds and distinguish them from background noise. Cloud data integration, fleet management features, and supporting software ensure you'll have an effective acoustic imaging program.

❯ FLIR ONE® Edge Series | page 4

Troubleshoot building, equipment, and automotive issues conveniently with the FLIR ONE Edge Series. These thermal cameras connect wirelessly to the FLIR ONE App on your mobile device, where you can display and capture crisp images with FLIR-patented MSX® technology. Clip the camera to your mobile device or enjoy the flexibility of the Wi-Fi connection to scan out-of-reach targets. The FLIR ONE App offers inspection guides and seamless connection to reporting software.

❯ Ex Pro-Series | page 6

Locate equipment faults and troubleshoot failures quickly with vibrant, easy-to-interpret thermal imagery from the Ex Pro-Series. With the ability to accurately measure up to 550°C (1022°F), up to 320 × 240 thermal resolution, and the clarity of FLIR-patented MSX®, you'll resolve problems before they need expensive repairs. Upload images directly to the FLIR Ignite cloud for editing, sharing, and creating quick reports.

TEST & MEASUREMENT

❯ FLIR CM276 | page 16

Combining the power of thermal imaging with accurate electrical measurement, the FLIR CM276 clamp meter is the perfect tool for inspecting and troubleshooting electrical systems, solar panels, pumps, and motors. The CM276's thermal camera provides a reliable way to identify hot spots and overloaded circuits from a safe distance. Capture readings and images, then upload them to the METERLiNK® app for analysis, trending, and sharing.

❯ Extech HDV700 Series | page 37

This lightweight videoscope with eight optional probes is designed for inspections in locations that are difficult or unsafe to access, whether your application is manufacturing, HVAC/R, plumbing, building, or automotive. Easily maneuver one of the narrow probes into small openings without disassembling equipment, then transfer recorded images and videos to your device for easy reporting from your job site

SOFTWARE SOLUTIONS

❯ FLIR Ignite™ | page 9

Upload images wirelessly to this cloud-based service, where you can securely edit, organize, store, and share images and videos from a wide range of FLIR thermal imaging cameras, as well as create and share reports.

❯ FLIR Thermal Studio Suite | page 9

Help clients or repair teams make critical decisions on asset upkeep and repairs with detailed reporting from FLIR Thermal Studio. This analysis and reporting software offers batch processing, thermal image analysis, and even leak-rate and cost analysis data mined from acoustic images.

❯ FLIR Route Creator with Reference Imaging | page 9

Improve inspection efficiency by building a survey road-map within Thermal Studio Pro. The Route Creator feature organizes inspections and can include reference images at each inspection point to ensure you collect comparable, historical data of each asset.

FLIR ONE® Series Thermal Imaging for Mobile Devices

FLIR ONE Series cameras give you the power to find invisible problems faster than ever, with brilliant imagery that is easy for even the casual user to interpret. Choose the FLIR ONE Edge or Edge Pro for wireless connection to your smart device, so you can inspect targets in spaces that are small or difficult to reach. Compatibility with iOS and Android devices ensures your FLIR ONE Edge-Series camera won't be limited by operating systems, port styles, or device upgrades.

All FLIR ONE thermal camera attachments offer FLIR MSX® (Multi-Spectral Dynamic) for enhanced image quality. FLIR ONE Pro models offer additional image processing through FLIR VividIR™ technology, which combines a series of images to produce even more crisp thermal images. The FLIR ONE App is integrated with FLIR Ignite™ for instant uploads and cloud backup, and includes a range of in-app inspection guides to make your job easier. You can also explore an expanded range of third-party apps or create your own with the FLIR Mobile SDK.

FLIR ONE Edge

Key Features:

• Identify problem areas easier with the added detail and perspective from FLIR MSX

• 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

• FLIR ONE Pro: fit most popular phone cases thanks to OneFit™ adjustable connection

• FLIR ONE Pro and Edge Pro: Measure the temperature of any spot in a scene up to 400°C/752°F

FLIR ONE Pro

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

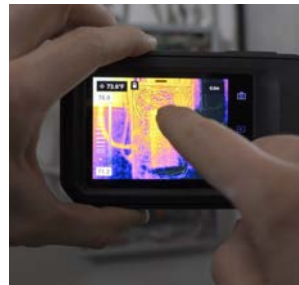| SPECIFICATIONS	FLIR ONE PRO	FLIR ONE EDGE	FLIR ONE EDGE PRO
IR resolution	160 × 120 (19,200 pixels)	80 × 60 thermal resolution (4,800 pixels)	160 × 120 (19,200 pixels)
Thermal sensitivity	<0.07°C @ 30°C		
Object temperature range	-20°C to 120°C (-4°F to 248°F) and 0°C to 400°C (32°F to 752°F)	-20°C to 120°C (-4°F to 248°F)	-20°C to 120°C (-4°F to 248°F) and 0°C to 400°C (32°F to 752°F)
HFOV/VFOV	55° ±1° / 43° ±1°	54° ±1° / 42° ±1°	54° ±1° / 42° ±1°
Accuracy	±3°C (±5.4°F) or ±5%, typical percent of the difference between ambient and scene temperature.		
Focus	Fixed 15 cm - infinity	Fixed 30 cm - infinity	Fixed 30 cm - Infinity
VividIR	Yes	No	Yes
Frame rate	8.7 Hz		
Battery life	1 hour	2.5 hours	2.5 hours
Charging	Female Micro USB-C (5 V/1 A)	Female USB-C (5 V/1 A)	Female USB-C (5 V/1 A)
Interface	Lightning (iOS), USB-C	Wi-Fi	Wi-Fi
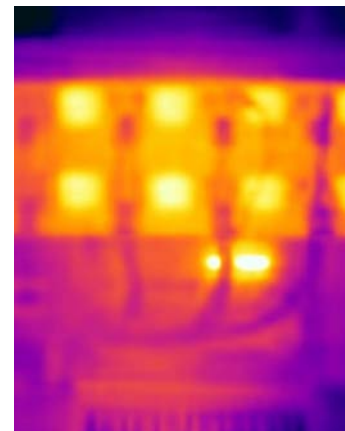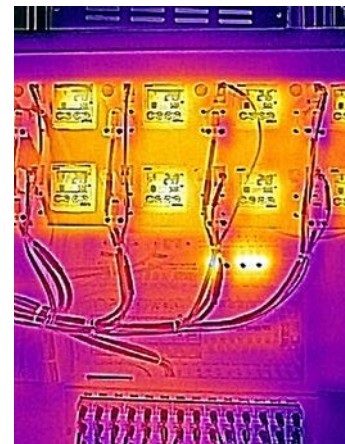
Without MSX
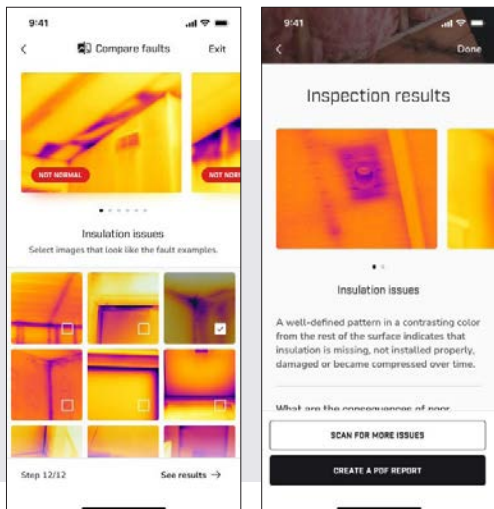
Learn to confidently identify air leaks, insulation voids, and moisture using the FLIR ONE app inspection guides, which offer example thermal images and helpful inspection tips and insights. You can also find tailored solutions to your inspection needs through a range of compatible, third-party apps, or develop your own with the FLIR Mobile SDK.

With MSX

www.flir.com/flirone

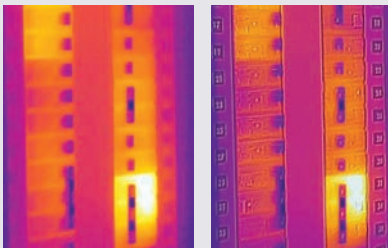# FLIR Cx-Series Full-Featured, Pocket-Sized Thermal Cameras

The FLIR Cx-Series cameras are your go-to tools for facilities maintenance, electrical repair, and electro/mechanical inspections. With the addition of the intrinsically safe FLIR Cx5 Hazardous Location-Rated Thermal Camera, the Cx-Series is your go-to choice for quick performance checks on industrial equipment. The C3-X, C5, and Cx5 all offer 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. Connect directly 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:

- Certified for use in many explosive vapor and dust atmospheres, potentially eliminating the need for hot work permits (Cx5 only)

- Capture thermal measurements from -20°C to 400°C/-4°F to 752°F (C5, Cx5 only)

- 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

- 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	FLIR CX5
IR resolution	128 × 96 pixels	160 × 120 pixels	
Thermal sensitivity	<0.07°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	At ambient temp. 15°C to 35°C (59°F to 95°F) and object temp. above 0°C (32°F), 0°C to 100°C (32°F to 212°F): ±3°C (±5.5°F); 100°C to 300°C (212°F to 572°F): ±3%	At ambient temp. 15°C to 35°C (59°F to 95°F) and object temp. above 0°C (32°F), 0°C to 100°C (32°F to 212°F): ±3°C (±5.5°F), 100°C to 400°C (212°F to 752°F): ±3%	
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		
Certifications	IP54 (IEC 60529)	EN EIC 60079-0: 2018, IEC 60079-15: 2017 EN EIC 60079-31: 2014, IEC 60079-0: 2017 EN EIC 60079-15: 2019, IEC 60079-31: 2013	

What is MSX®?

Patented FLIR 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.

Breaker Panel without MSX

Breaker Panel with MSX

flir.com/c3-x • flir.com/c5 • flir.com/cx5

FLIR Ex Pro-Series Infrared Cameras with Ignite™ Cloud

FLIR Ex Pro cameras are essential tools designed for pinpointing and diagnosing electrical, mechanical, and building issues. With vibrant thermal imagery enhanced by FLIR's patented MSX®, you can quickly identify hot spots and problem areas. The E5, E6, and E8 Pro models offer an expanded temperature range of up to 550°C (1022°F), along with professional features accessible via the touchscreen. Plus, the Ex Pro-Series includes Wi-Fi connectivity for instant uploads to FLIR Ignite, making critical decisions easier than ever.

Key Features:

- Diagnose faults faster with the help of stunning MSX images
- Edit, analyze, and share images from FLIR Ignite and create quick reports to validate repairs
- Navigate features, add text notes, and organize files through the simplifed touchscreen
- Rely on the temperature measurement accuracy of ±2°C (±3.6°F) or ±2% of reading
- Work longer thanks to the swappable Li-ion battery with 4-hour life

SPECIFICATIONS	FLIR E5 PRO	FLIR E6 PRO	FLIR E8 PRO
IR resolution	160 × 120 (19,200 pixels)	240 x 180 (43,200 pixels)	320 × 240 (76,800 pixels)
Thermal sensitivity	<0.07°C (0.13°F) / <60 mK	<0.06°C (0.11°F) / <50 mK	<0.04°C (0.07°F) / 40 mK
Object temperature range	-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	Center spot, box with min./max.		
Frame rate	9 Hz		
Field of view	33° × 25°		
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 Exx-Series. This camera provides more than 76,800 points of temperature measurement and detects temperature differences as small as <0.04°C for immediate identification of failing components.

Key Features:

- Diagnose faster with improved detail and perspective from FLIR's patented MSX® image enhancement
- Maximize efficiency by enabling Inspection Route, which runs a predefined survey route you can build with the Route Creator feature in FLIR Thermal Studio Pro
- Directly upload images via Wi-Fi to the FLIR Ignite™ cloud, so you can organize, edit, and share images securely
- Instantly improve contrast on your target with 1-Touch Level/Span
- Take accurate readings on smaller targets at farther distances with superior spot-size performance
- Activate up to three spotmeters and one area box with max/min temperature display
- Measure temperatures up to 650°C (1202°F)
- 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	±2°C (±3.6°F) or ±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

- Put more pixels on your target from a safe distance with up to 640 × 480 (307,200 pixels) IR resolution

- Maximize efficiency through FLIR Route Creator with Reference Imaging: a downloadable inspection plan you build in FLIR Thermal Studio Pro that runs from the camera and allows you to align new images with an initial baseline shot.

- Add depth and detail to images with our best MSX® image enhancement

- Ensure accurate temperature measurements with laser-assisted autofocus

- Produce brilliant imagery at 4x the thermal pixel resolution with UltraMax® processing

- Directly upload images via Wi-Fi to the FLIR Ignite™ cloud, so you can organize, edit, and share images securely

- Connect to mobile devices via Wi-Fi or to FLIR clamps, multimeters and moisture meters via METERLiNK®

- Instantly improve contrast for target with 1-Touch Level/Span

- Connecting over Wi-Fi automatically prompts Over-the-Air updates, ensuring your camera has the latest features and firmware updates

- Share images and data quickly with streamlined reporting features

- On-screen area measurement

- Wide temperature ranges up to 1,500°C / 2,732°F (E96)

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 (m² or ft²)	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), 80° × 63° (5 mm lens), 24° × 18°/14° × 10° (17/29 mm DFOV lens)		
Lens identification	Automatic		
Available lenses	14°, 24°, 42°, 80°, and DFOV (24°/14°)		
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
*Not available with 80° lens

AutoCal™ lenses

Dual Field of View lens

80° lens

FLIR T-Series Professional Thermal Imaging Cameras

FLIR T-Series cameras, with T8xx and T5xx 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.

T840

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 with the Route Creator feature in FLIR Thermal Studio Pro

- 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

- Ensure you always have the latest features and firmware with over-the-air updates any time you connect to Wi-Fi

Without UltraMax
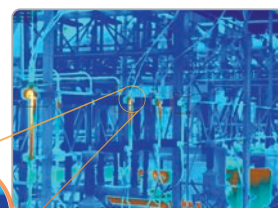
UltraMax at 8x zoom

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 top 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 ±1°C for temps. between 5°C and 100°C
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				
Display size	4 in. (10.16 cm) LCD				
Image modes	Infrared, visual, MSX*, picture-in-picture				
Available lenses	6°, 14°, 24°, 42°, 80°, DFOV (24°/14°), and 2x Macro				
Viewfinder	No	No	No	Yes	Yes

*not available with 80° lens

FLIR FlexView™ Dual Field-of-View Lens

Save time and work more efficiently with the FlexView lens for Exx, T5xx & T8xx series cameras. Capture the entire target using FlexView's wide-angle 24° field of view, then with the push of a button, zero in on your target with the 14° telephoto FOV. By offering two FOVs, you won't need to carry an extra lens and risk dropping it or contaminating sensitive camera parts by switching lenses in the field. Get more pixels on your target more efficiently for high-quality, decision-making data.

Key Features:

- Switch FOV with the press of a button instead of exchanging lenses in the field
- Save time and space with one lens offering two FOVs
- Run efficient, accurate inspections in the field with less risk of missing anomalies
- Put 2.8x pixels on your target with the accuracy advantage of optical zoom
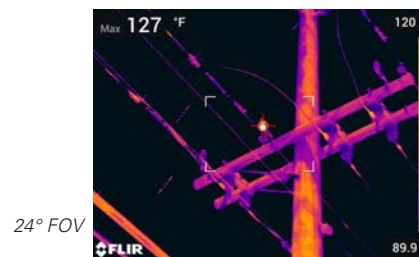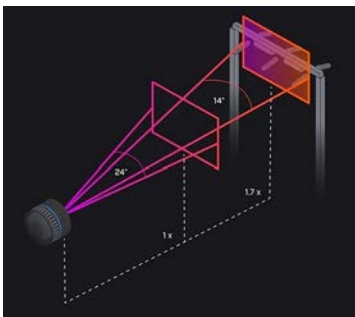
24° FOV

14° FOV

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)	
Image modes	Infrared, visual, MSX, picture-in-picture	
Available lenses	7°, 12°, 28°, 45°, and 3x Macro	
Focus	One shot or manual	
Display size	4.3 in. (10.92 cm) wide screen LCD	

FLIR Ignite™

FLIR Ignite provides a seamless uploading, editing, and sharing experience for FLIR handheld thermal camera users. This cloud storage system automatically uploads images so you can access them anywhere. Edit thermal images while in the field, organize files, and produce inspection reports you can share with co-workers and clients using a password-protected link.

FLIR Thermal Studio Suite

FLIR Thermal Studio Suite empowers users to analyze inspection data as well as manage extensive collections of the thermal images and videos needed for efficient reporting. This subscription software offers batch processing, thermal image analysis, and even leak-rate and cost analysis data mined from acoustic images—all critical for programs aimed at predictive maintenance, troubleshooting, and enhanced productivity.

FLIR Route Creator with Reference Imaging

For even more functionality, consider upgrading to Thermal Studio Pro for access to FLIR Route Creator: a powerful feature for creating inspection maps that can be downloaded directly to select FLIR thermal cameras. As users follow the guided inspection points, the camera automatically aligns new images with an initial baseline shot, ensuring accurate data collection. This proactive approach helps thermographers identify heating trends before they escalate into critical issues.

Specifications	Mobile — FLIR ONE® Edge	Mobile — FLIR ONE Pro	Mobile — FLIR ONE Edge Pro	Compact — C3-X	Compact — C5/Cx5*	Industrial — TG165-X	Industrial — TG267	Industrial — TG297	Professional — E5 Pro	Professional — E6 Pro	Professional — E8 Pro	Professional — E54	Professional — E76	Professional — E86	Professional — E96	High-Performance — T530	T540	T560	T840	T865	T1010	T1020
Model	FLIR ONE® Edge	FLIR ONE Pro	FLIR ONE Edge Pro	C3-X	C5/Cx5*	TG165-X	TG267	TG297	E5 Pro	E6 Pro	E8 Pro	E54	E76	E86	E96	T530	T540	T560	T840	T865	T1010	T1020
IR resolution	80 × 60 (4,800 pixels)	160 × 120 (19,200 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)	160 × 120 (19,200 pixels)	160 × 120 (19,200 pixels)	240 × 180 (43,200 pixels)	320 × 240 (76,800 pixels)	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)	× 1024 × 768 (786,432 pixels)
UltraMax® resolution	-	-	-	-	-	-	-	-	-	-	-	-	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	3.1 MP
MSX® image enhancement	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes*	Yes*	Yes*	Yes*	Yes*	Yes*	Yes*	Yes*	Yes*	Yes*	Yes*
Color viewfinder	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Yes	Yes	Yes	-	Yes
Thermal sensitivity	<0.07°C	<0.07°C	<0.07°C	<0.07°C	<0.07°C	<0.07°C	<0.07°C	<0.07°C	<0.07°C	<0.06°C	<0.04°C	<0.04°C	<0.03°C	<0.03°C	<0.03°C	<0.03°C	<0.03°C	<0.03°C	<0.03°C	<0.03°C	<0.025°C	<0.02°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).	(same as FLIR ONE Edge)	(same as FLIR ONE Edge)	At ambient temp. 15°C to 35°C (59°F to 95°F) and object temp. above 0°C (32°F): 0°C to 100°C (32°F to 212°F): ±3°C (±5.5°F); 100°C to 300°C (212°F to 572°F): ±3%	At ambient temp. 15°C to 35°C (59°F to 95°F) and object temp. above 0°C (32°F): 0°C to 100°C (32°F to 212°F): ±3°C (±5.5°F); 100°C to 400°C (212°F to 752°F): ±3%	50°C to 100°C (122°F to 212°F): acc. of ±1.5°C (±3°F); 0°C to 50°C (32°F to 122°F), 100°C to 300°C (212°F to 572°F): acc. of ±2.5°C (±6°F); -25°C to 0°C (-13°F to 32°F): acc. of ±3°C (±7°F)	-25°C to 50°C (-13°F to 122°F): acc. up to ±3°C (±7°F); 50 to 100°C (122°F to 212°F): acc. of ±1.5°C (±3°F) or ± 1.5% whichever is greater; 100°C to 380°C (212°F to 716°F): acc. of ±2.5°C (±6°F) or ± 2.5% whichever is greater	-25°C to 50°C (-13°F to 122°F): acc. up to ±3°C (±7°F); 50 to 100°C (122°F to 212°F): acc. of ±1.5°C (±3°F) or ±1.5%, whichever is greater; 100°C to 500°C (212°F to 932°F): acc. of ±2.5°C (±6°F) or ± 2.5%, whichever is greater; 500°C to 1030°C (932°F to 1886°F): acc. of ±3°C (±7°F) or ± 3%, whichever is greater	Range -20 to 200°C (-4 to 392°F): ±2°C (±3.6°F) or ±2%; Range 10 to 400°C (50 to 752°F): ±4°C (±7.2°F) or ±4%	Range -20 to 200°C (-4 to 392°F): ±2°C (±3.6°F) or ±2%; Range 10 to 550°C (50 to 1022°F): ±4°C (±7.2°F) or ±4%	Range -20 to 200°C (-4 to 392°F): ±2°C (±3.6°F) or ±2%; Range 10 to 550°C (50 to 1022°F): ±2°C (±7.2°F) or ±2%	±2°C (±3.6°F) or ±2% of the reading	±2°C (±3.6°F) or ±2% of the reading	±2°C (±3.6°F) or ±2% of the reading	±2°C (±3.6°F) or ±2% of the reading	±2°C (±3.6°F) or ±2% - within entire operating temperature range, with all lenses	±2°C (±3.6°F) or ±2% - within entire operating temperature range, with all lenses	±2°C (±3.6°F) or ±2% - within entire operating temperature range, with all lenses	±2°C (±3.6°F) or ±2% - within entire operating temperature range, with all lenses	5°C to 100°C (41°F to 212°F): acc. of ±1°C (±1.8°F); 100°C to 120°C (212°F to 248°F): acc. of ±1%; -40°C to 100°C (-40°F to 212°F): acc. of ±2°C (±3.6°F); 100°C to 650°C (212°F to 1202°F) and 300°C to 2000°C (572°F to 3632°F): acc. of ±2%; 1800°C to 2000°C (3272°F to 3632°F) with 42° lens: acc. of ±3%	±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)	-40°C to 5°C (-40°F to 302°F): acc. of ±2°C (±3.6°F); 5°C to 100°C (41°F to 212°F): acc. of ±1°C (±1.8°F); 100°C to 150°C (212°F to 302°F): acc. of ±1%; 0°C to 100°C (32°F to 212°F): acc. of ±2°C (±3.6°F); 100°C to 650°C (212°F to 1202°F): ±2%; 300 to 2000°C (572°F to 3632°F): acc. of ±2%
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 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 380°C (-13°F to 716°F)	-25°C to 1030°C (-13°F to 1886°F)	-20°C to 400°C (-4°F to 752°F)	-20°C to 550°C (-4°F to 1022°F) in 2 ranges	-20°C to 550°C (-4°F to 1022°F) in 2 ranges	-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 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)	-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 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)					
Focus modes	Focus free	Focus free	Focus free	Focus free	Focus free	Focus free	Focus free	Focus free	Fixed focus	Fixed focus	Fixed focus	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	Continuous laser distance meter (LDM), one-shot LDM, one-shot contrast, 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	Continuous laser distance meter (LDM), one-shot LDM, one-shot contrast, 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	Continuous laser distance meter (LDM), one-shot LDM, one-shot contrast, manual	Continuous laser distance meter (LDM), one-shot LDM, one-shot contrast, manual
Field of view	54° × 42°	55° × 43°	54° × 42°	54° × 42°	54° × 42°	51° × 66°	57° × 44°	57° × 44°	33° × 25°	33° × 25°	33° × 25°	24° × 18°	Lens dependent	Lens dependent	Lens dependent	Lens dependent	Lens dependent	Lens dependent	Lens dependent	Lens dependent	Lens dependent	Lens dependent
Available lenses	-	-	-	-	-	-	-	-	-	-	-	-	14°, 24°, 42°, 80°, DFOV (24°/14°)	14°, 24°, 42°, 80°, DFOV (24°/14°)	14°, 24°, 42°, 80°, DFOV (24°/14°)	6°, 14°, 24°, 42°, 80°, DFOV (24°/14°), and 2x Macro	6°, 14°, 24°, 42°, 80°, DFOV (24°/14°), and 2x Macro	6°, 14°, 24°, 42°, 80°, DFOV (24°/14°), and 2x Macro	6°, 14°, 24°, 42°, 80°, DFOV (24°/14°), and 2x Macro	6°, 14°, 24°, 42°, 80°, DFOV (24°/14°), and 2x Macro	7°, 12°, 28°, 45°, and 3x Macro lens	7°, 12°, 28°, 45°, and 3x Macro lens
Measurement tools	Center spot	Spotmeter (hottest, coldest, 3-spot measurement).	Spotmeter (hottest, coldest, 3-spot measurement).	Spotmeter (center spot), area box (max/min)	Spotmeter (center spot), area box (max/min)	Center spot on/off	Center spot on/off	Center spot on/off	Center spot, box with min./max.	Center spot, box with min./max.	Center spot, box with min./max.	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	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 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
Communication modes	Wi-Fi, Bluetooth®	USB-C and Lightning	Wi-Fi, Bluetooth®	USB Type-C, Wi-Fi, Bluetooth, FLIR Ignite™ Cloud Service	USB Type-C, 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 Type-C: data transfer/power, USB 2.0, Bluetooth® BLE	Wi-Fi	Wi-Fi	Wi-Fi	USB 2.0, Wi-Fi, Bluetooth, DisplayPort	USB 2.0, Wi-Fi, Bluetooth, DisplayPort	USB 2.0, Wi-Fi, Bluetooth, DisplayPort	USB 2.0, Wi-Fi, Bluetooth, DisplayPort	USB 2.0, Wi-Fi, Bluetooth, DisplayPort	USB 2.0, Wi-Fi, Bluetooth, DisplayPort	USB 2.0, Wi-Fi, Bluetooth, DisplayPort	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
Over-the-Air updates	-	-	-	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	-	-
Touchscreen	-	-	-	3.5 in (8.9 cm)	3.5 in (8.9 cm)	-	-	-	3.5 in (8.9 cm)	3.5 in (8.9 cm)	3.5 in (8.9 cm)	4 in (10.16 cm)	4 in (10.16 cm)	4 in (10.16 cm)	4 in (10.16 cm)	4 in (10.16 cm)	4 in (10.16 cm)	4 in (10.16 cm)	4 in (10.16 cm)	4 in (10.16 cm)	4.3 in (10.92 cm)	4.3 in (10.92 cm)
Text, image sketch	-	-	-	Touch keyboard for text only	Touch keyboard for text only	-	-	-	Touch keyboard for text only	Touch keyboard for text only	Touch keyboard for text only	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	-	Yes
Voice annotation	-	-	-	-	-	-	-	-	-	-	-	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	-	Yes
Laser pointer	-	-	-	-	-	Center spot and circular area	Center spot and circular area	Center spot and circular area	-	-	-	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Radiometric JPEG	Yes	Yes	Yes	Yes	Yes	JPEG w/ spot temp data	JPEG w/ spot temp data	JPEG w/ spot temp data	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
IR video storage	Yes	Yes	Yes	-	-	-	-	-	-	-	-	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	-	Yes
Built-in GPS/Compass	-	-	-	-	-	-	-	-	-	-	-	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	-	Yes
FLIR Inspection Route	-	-	-	-	-	-	-	-	-	-	-	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	-	-
1-touch Level/Span	-	-	-	-	Yes	-	-	-	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

*ATEX approved

*not available with 80° lens
‡Hot spot to center spot Delta measurement

FLIR Si-Series Acoustic Imaging Cameras

Cut energy costs, prevent downtime, and identify issues with bearings, compressed air systems, industrial gas systems, or electric utility transmission lines with the FLIR Si-Series industrial acoustic imaging cameras. This series includes three lightweight, handheld models: the Si2-PD, which detects, classifies, and determine the severity of partial electrical discharge; the Si2-LD, for detecting and quantifying compressed air leaks, pinpointing specialized gas leaks, and finding mechanical faults; and the Si2-Pro, an efficient tool that can be used across both applications.

Key Features:

- Pinpoint the source of compressed air or industrial gas leaks, even in noisy environments
- Quantify leak rates and estimated yearly energy loss, so you can prioritize repair and calculate savings
- Detect and measure bearing and other mechanical faults to avoid production disruptions
- Asses the severity and type of partial discharge issues through on-camera and in-software

- Manage tool use and maintenance across large-scale operations with fleet management functionality
- Automatically upload, store, and backup acoustic images to the FLIR Acoustic Camera Viewer (cloud service)
- Evaluate images in FLIR Thermal Studio Pro and determine costs, severity, and classifications
- Featuring automatic frequency tuning, 8x zoom, 12 MP digital camera, IP54 rating, and a QR code reader

SPECIFICATIONS	SI2-PRO	SI2-LD	SI2-PD
Leak localization	Yes	Yes	No
Leak rate detection threshold	0.0032 l/min from 2.5 m 0.0044 l/min from 6 m	0.0032 l/min from 2.5 m 0.0044 l/min from 6 m	NA
Discharge detection	Yes	No	Yes
Severity assessment	Automatic AI-based severity assessment including recommended actions onboard camera	NA	Automatic AI-based severity assessment including recommended actions onboard camera
Acoustic measurement	124 low-noise MEMS microphones, real-time sound visualization		
Detection threshold	20 kHz to 100 kHz range: -7 dB to 51 dB SPL		
Bandwidth	2 kHz to 130 kHz		
Data transfer	Over Wi-Fi or USB memory stick		
Video recording	Yes, up to 5 minutes		
Image storage	Internal: 128 GB SD card; external: USB 8 GB. Cloud storage capacity is unlimited.		

FLIR Acoustic Camera Viewer and FLIR Thermal Studio Pro

The Acoustic Camera Viewer is a cloud system that offers not only image storage but the ability to easily compile reports. Once you've set up a cloud profile you can connect and upload data in real-time through Wi-Fi or a hot spot.

A key advantage of the Acoustic Camera Viewer is its Organization feature: a simplified solution for following up on reporting from several separate locations, such as factories and production units, by different cameras and users. The Organization feature lets you share snapshots, reports, and other information from the camera to an assigned group, so you can centralize and execute management tasks from within Acoustic Camera Viewer.

For companies whose IT policies don't allow Wi-Fi uploads and cloud sharing, then FLIR Thermal Studio Suite is the solution. This fully customizable reporting and analytics software can be accessed completely offline. Once you download data from your acoustic camera to your computer via USB stick, you can drag and drop them into your FLIR Thermal Studio library for viewing, sharing, and analysis. The software offers acoustic-specific tools such as leak analysis including cost estimates, categorization of partial discharge, severity assessment, and predefined acoustic reporting templates featuring the correct tools for your application.

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:

- Streaming live-video output

- Automated alarming at pre-set temperature thresholds

- Ethernet/IP and Modbus TP compliant for easy sharing of alarm and analysis results to a PLC

- Image masking function allows for analysis of just the target

- MSX® image enhancement for improved visual details

- Compact design for easy installation in spaceconstrained areas

- Ability to stream live video via Ethernet
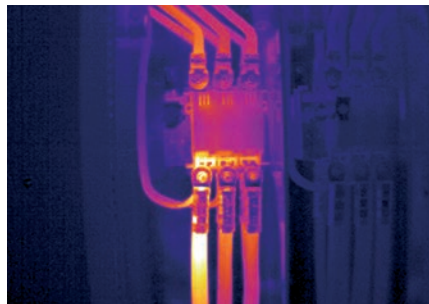
SPECIFICATIONS	AX8
IR resolution	80 × 60 (4,800 pixels)
Thermal sensitivity/NETD	<0.10°C @ 30°C (86°F)/100 mK
Field of view	48° × 37°
Built-in digital camera	640 × 480
Object temperature range	-10°C to 150°C (14°F to 302°F)
Accuracy	±2°C (±3.6°F) or ±2% of reading
Spotmeters	6
Area	6 boxes with max./min./average
Automatic hot/cold detection	Max/Min temp. value and position shown within box
Alarm functions	Set up to 5 alarms on any selected measurement function
Alarm output	Digital Out, store image, file sending (ftp), email (SMTP), notification
Storage media	Built-in memory for image storage
Ethernet, protocols	Ethernet/IP, Modbus TCP, TCP, UDP, SNTP, RTSP, RTP, HTTP, ICMP, IGMP, sftp, SMTP, SMB (CIFS), DHCP, MDNS (Bonjour)
Image modes	Thermal, visual, MSX

AX8 Accessory Starter Kit (Part number 71200-0002): includes an M12 to RJ45 Ethernet cable, front mounting-plate kit, rear mounting-plate kit, Gigabit PoE injector 15 W, M12 to pigtail cable

The Infrared Training Center

ITC offers a range of free, on-line, and in-person courses for virtually every thermal application.

- **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.

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 infraredtraining.com

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-12PS	IRW-24PS
Overall height	21.8 cm (8.6 in)	20.6 cm (8.1 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)	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)	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)	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 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

- USB-C 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 TG54-2/TG56-2 Spot IR Thermometers

The TG54-2 and TG56-2 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 TG54-2 and TG56-2 can measure smaller targets from a safer distance. Achieve pinpoint precision with infrared technology, Class II laser sighting, and a maximum IR temperature of 1300°C (2372°F). These spot IR thermometers are built to withstand a drop of 3 m (9.8 ft) and IP65 rated for reliable performance in demanding industrial applications. The TG54-2 and TG56-2 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

- Intuitive menu structure allows easy access to settings

- Easy emissivity selection with predetermined levels and custom adjustment

- Rugged, industrial design that can withstand up to a 3-meter drop (TG54-2)

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

- TG56-2 includes a Type-K thermocouple for contact temperature readings

SPECIFICATIONS	TG54-2	TG56-2
Distance-to-spot ratio (D:S)	20:1	30:1
Range	-30°C to 850°C (-22°F to 1562°F)	-30°C to 1300°C (-22°F to 2372°F)
Basic accuracy	±1°C (±1.8°F) or 1% of reading	
Emissivity	0.01 to 1.00 with 5 presets	
Resolution	0.1°C / 0.1°F	
Response	≤250 ms	
Spectral response	8 to 14 µm	

FLIR CM276 Clamp Meter and Thermal Imaging Camera with METERLiNK®

The FLIR CM276 clamp meter guides you to the source of electrical issues in facilities, pumps, motors, and solar panels. An on-board thermal camera powers IGM™ (Infrared Guided Measurement), helping you quickly identify the hot spots that indicated overloaded circuits, and reducing inspection and troubleshooting time on solar photovoltaic (PV) systems. Compatibility with the METERLiNK® app provides quick and efficient capture of readings, images, and videos for analysis, trending, and sharing.

Key Features:

- Safer, non-contact thermal inspections with IGM™.

- Easily interpret thermal scene with image-enhancing FLIR MSX® (Multi-Spectral Dynamic Imaging)

- Faster troubleshooting, repair, and reporting with advanced connectivity to the METERLiNK app.

- Streamlined inspections and efficient analysis of PV cell issues.

- Ensure accurate measurement of AC/DC voltage up to 1000 V (1500 V with optional TA85/TA86 test leads).

- Ideal for electrical service providers who incorporate thermal imaging and visual documentation into their services, aligning with NFPA 70B requirements.

SPECIFICATIONS	CM276	BASIC ACCURACY
IR resolution:	160 × 120 (19,200 pixels)	
Thermal sensitivity/NETD:	150 mK	
Image modes:	Thermal, MSX, digital	
Field of view:	44° × 57°	
IR temperature measurement:	-10°C to 300°C (14°F to 572°F)	
IR temperature accuracy:	±3°C (5.4°F) or ±3% of the reading; whichever is greater	
AC/DC current:	Range 600.0 A	±2.0%
AC/DC voltage:	Range 1000 V	±1.0%
VFD AC current:	Range 600.0 A	±2.0%
VFD AC voltage:	Range 1000 V	±1.0%
Capacitance:	Range 1000 µF	±1.0%
Diode:	1.5 V	±1.5%
PV DC voltage:	(with TA85/TA86): Range 1500 V	±2.0%
PV DC power:	Range 900 kVA	±2.0%
Jaw opening:	35 mm (1.37 in)	

FLIR TA85 Solar Photovoltaic Test Leads for FLIR CM276 Clamp Meter

Safely measure DC power for solar PV system troubleshooting and maintenance with these CAT III PV test leads. The leads are two test tips (male) to 4 mm (0.15 in) sheathed banana plug on 127 cm (5 in) test leads.

FLIR TA86 MC4 Solar Photovoltaic Test Plugs for FLIR CM276 Clamp Meter

Safely measure DC power along MC4 connections on solar PV systems for fast and efficient troubleshooting and maintenance. The lead is a MC4 (male) to 4 mm (0.15 in) sheathed banana plug on 152 cm (60 in) test leads.

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

The FLIR CM46 is an affordable True RMS AC/DC meter that is designed for commercial and residential electricians. Its bright, backlit display makes it easy to read measurements, even inside electrical panels. Made with an over-molded, easy-to-grip design, the CM46 is durable enough to withstand a two-meter drop but slim enough 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

- 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	CM46	BASIC ACCURACY
AC/DC voltage	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	±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	±1.0%
Resistance	60 kΩ	±1.0%
Capacitance	2500 µF	±2.0%
Diode	2.0 V	±1.5%
Temperature	-40°C to 400°C (-40°F to 752°F)	±1.0%

FLIR CM57-2 Flexible Clamp Meter

Take current measurements in cramped areas with ease with the FLIR CM57-2 Flexible Clamp Meter. Its 18-inch (45.72 cm) flexible coil clamp allows you to take measurements in tight spots, making it ideal for multiple-conductor measurements and double-wrap requirements. Stream live data to the METERLiNK® app on your mobile device so you can compare log files, customize alarm thresholds, create reports, and share readings with team members.

Key Features:

- Operates at temperatures as low as 32°F or as high as 122°F.

- Easy to grip but strong enough to handle a 2-meter drop.

- Provides critical features including AC 3000A maximum measurement and True RMS.

- Accepts up to a 12 cm (4.7 in) max conductor.

SPECIFICATIONS	CM57-2
AC/DC voltage (digital low-pass filter/VFD)	600 V/Basic accuracy ±1.0%
AC voltage (digital low-pass filter/VFD)	600 V/Basic accuracy ±1.2%
Frequency	50-400 Hz/Basic accuracy ±1.0%nominal
Resistance	60 kΩ/Basic accuracy ±1.0%
Capacitance	2500 µF/Basic accuracy ±2.0%
Diode	2.0 V/Basic accuracy ±1.5%nominal
Jaw opening	30 mm max

FLIR TA74 Flexible Clamp Adaptor

Designed to add capabilities and simplify challenges, FLIR 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 18 in. (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	TA74
Flexible Conductor Length	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)	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

These high-quality voltage, continuity, and current testers are 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 that can easily get the job done.

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

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	100 A	200 A
AC/DC current resolution	0.1 A	
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 CM85-2 True RMS Power Clamp Meter (Wireless)

The FLIR CM85-2 offers the advanced power analysis and variable frequency drive (VFD) filtering functions you need to troubleshoot electrical/mechanical equipment easily. Analyze voltage in complex machinery by including harmonics, inrush, current, and phase rotation testing with a wide AC/DC voltage range. Stream live data to the METERLiNK® app on your mobile device so you can compare log files, customize alarm thresholds, create reports, and share readings with team members.

Key Features:

- Ensure accurate measurements of both current and voltage on VFD-controlled equipment.

- Take multiple conductor measurements with True RMS AC Current up to 1000 Amps.

- Work easily in any conditions with dual LED lights and ergonomic, industrial design.

- Stream live readings in real time from the meter to the METERLiNK app over Bluetooth.

SPECIFICATIONS	CM85-2	BASIC ACCURACY
AC current	99.99 A 999.9 A	± (2%+5) ± (2%+5)
AC voltage	99.99 V 999.9 V	±(1.0%+5) ±(1.0%+5)
DC current	99.99 A 999.9 A	±(2%+0.5 A) ±(2%+5)
DC voltage	99.99 V 999.9 V	±(0.7%+2) ±(0.7%+2)
Frequency	20.00 to 9.999 kHz	±(0.5%+3)
AC watts	9.999 kW (10 V, 5 A min) 99.99 kW (10 V, 5 A min) 999.9 kW (10 V, 5 A min)	±(3% + 10 digits) ±(3% + 10 digits) ±(3% + 10 digits)
DC watts	9.999 kW (10 V, 5 A min) 99.99 kW (10 V, 5 A min) 999.9 kW (10 V, 5 A min)	±(3% + 0.05 kW) ±(3% + 0.5 kW) ±(3% + 10 digits)
Resistance	999.9 Ω to 99.99 kΩ	±(1.0%+5) to ±(1.0%+3)
Capacitance	3.999 µF to 3.999 mF	±(1.9%+8)
Diode	0.40 to 0.80 V	±0.1 V
Harmonics		
Total harmonic distortion ACA/ACV	99.9%	±(3.0% + 10 digits)
Harmonic distortion	H01–H12 99.9%	±(5% + 10 digits)
Harmonic distortion	H13–H25 99.9%	±(10% + 10 digits)
Jaw opening	45 mm (1.77 in)	

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FLIR DM286 Industrial Thermal Imaging Multimeter with IGM™

The FLIR DM286 is the ultimate tool for safe, accurate, and efficient electrical inspections. The on-board thermal camera with MSX® enhancement makes it easy to safely identify hot spots and potential electrical faults before any contact with equipment. Stream live data to the METERLiNK® app on your mobile device so you can compare log files, customize alarm thresholds, create reports, and share readings with team members.

Key Features:

- Find electrical faults easily with 19,200 pixel thermal camera.
- Safely check for live connections using non-contact temperature measurement.
- Removes high-frequency interference with reading through VFD mode.
- Includes high-quality test probes and a Type-K thermocouple.
- Offers CAT IV - 600 V, CAT III - 1000 V safety rating.
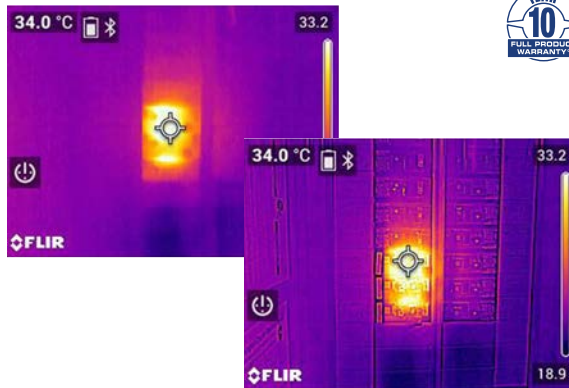
THERMAL IMAGING SPECIFICATIONS	
IR resolution	160 × 120 (19,200) pixels
Temperature sensitivity /NETD	≤150 mK
Temperature measurement range	-5°C to 300°C (23°F to 572°F)
Temperature measurement accuracy	3°C or 3%
Field of view	57° × 44°
Laser	Class I (red) laser pointer
Focus	Fixed

MEASUREMENT SPECIFICATIONS	
AC/DC voltage	1000 V RMS AC: ±(1.0%+3) DC: ±(0.09%+3)
AC/DC voltage (mV)	600 V AC: ±(1.0%+3) DC: ±(0.2%+3)
VFD AC voltage	1000 V AC RMS ±(1.3%+4) at 45–65 Hz
AC/DC amps	10A AC RMS ±(1.5%+3) 10A DC ±(1.0%+3)
Resistance	6.00 MΩ ±(0.9%+5) 60.00 MΩ ±(3.0%+5)
Continuity check threshold	10-100 Ω
Capacitance	10.00 mF ±(4.0%+5)

FLIR DM93-2 Industrial Digital Multimeter with METERLiNK®

The FLIR DM93-2 is a world-class digital multimeter that can help you accurately analyze non-traditional sine waves and noisy signals found in VFD-controlled equipment. Stream live data to the METERLiNK® app on your mobile device so you can compare log files, customize alarm thresholds, create reports, and share readings with team members. With its durable design and powerful worklight, the DM93-2 is up for your electrical challenge.

Key Features:

- Troubleshoot wide range of electrical problems quickly and efficiently.
- Clearly analyze non-traditional sine waves and noisy signals.
- Avoid ghost voltage error readings with low Impedance (LoZ) mode.
- Work in dim lighting with ease, using the powerful LED worklights.
- Capture readings, create reports and share them with your team via the METERLiNK app.

MEASUREMENTS	RANGE	BASIC ACCURACY
AC voltage	1000.0 V	±0.5%
VFD AC voltage	1000.0 V	±0.5%
DC voltage	1000.0 V	±0.05%
AC current	10.000 A	±1.0%
DC current	10.000 A	±0.2%
Resistance	40.00 MΩ	±0.2%
Continuity threshold	30 Ω	±0.2%
Capacitance	40.00 mF	±0.9%

FLIR IM75-2 Insulation Tester and Digital Multimeter with METERLiNK®

The FLIR IM75-2 is an all-in-one digital multimeter plus handheld insulation tester for installation, troubleshooting and maintenance for professionals. Gain in-depth understanding of insulation issues by performing tests instantly, continuously, and over a timed duration. Stream live data to the METERLiNK® app on your mobile device so you can compare log files, customize alarm thresholds, create reports, and share readings with team members.

Key Features:

- Constructed to make any electrical problem easier to troubleshoot.
- Powerful LED worklights eliminate the need for a flashlight in dim lighting.
- Allows for testing of insulation voltage up to 1 kV.

- Capture readings, create reports and easily share them with your team
- Check voltage and frequency at once with dual display.
- Set custom alarm thresholds to provide additional assurance of operating ranges while performing testing procedures.

MEASUREMENTS	MAX RANGE	BASIC ACCURACY
Insulation resistance	4 MΩ to 20 GΩ	±(1.5%+5) to ±(10.0%+3)
Insulation test voltages	50, 100, 250, 500 and 1000 V	±3.0%
AC/DC voltage	1000 V	±(1.5%+5)/±(0.1%+5)
VFD AC voltage	1000 V	±(1.5%+5)
Earth bond resistance	40.00 Ω to 40.00 kΩ	±(1.5%+5) to ±(1.5%+3)
Capacitance	1000 µF / 10.00 mF	± (1.2%+2) / ± (1.2%+20)
Frequency (ACV)	400.0 Hz to 40.00 kHz	±5 digits
Continuity	400.0 Ω	±(0.5%+2)

FLIR DM66 TRMS Multimeter with VFD Mode

The FLIR DM66 is the ideal digital multimeter for automation field service or electronics technicians, providing the comprehensive feature set technicians need to quickly troubleshoot electrical issues. Easy to use and built to last, the DM66 offers long-term stability for everyday use in electrical applications including AC/DC measurement, non-contact voltage detection, and temperature measurement (included Type K thermocouples). Drop-tested, IP40 rated, and offering a CAT IV-300V/CAT III-600V safety category rating, this multimeter can handle rugged environments for safe, accurate operation.

Key Features:

- Measure both AC/ DC voltage and current (A, mA, µA)
- Diagnose faults with broad DMM test functions including variable-frequency drive (VFD) mode

- Operate the meter with one hand, thanks to compact design and easy-to-access buttons
- Work efficiently using integrated non-contact voltage detector with a flashing backlight and audible indicator

MEASUREMENTS	MAX 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 Test	3.000 V	±0.9%
Frequency Counter	50.00 kHz	±0.1%
Temperature (Type-K Thermocouple)	-40°C to 400°C (-40°F to 752°F)	±1.0% + 2°F/1°C

FLIR VP5x-2 Non-Contact Voltage (NCV) Detector + Flashlight

The FLIR VP5x-2 is a CAT IV-rated, non-contact voltage detectors designed to reliably detect voltages on the latest tamper-proof outlets and electrical systems. Toolbox-tough, 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	VP50-2	VP52-2
Voltage ranges	90 to 1000 V AC (default, solid green light)	190 to 1000 V AC
Category rating	CAT IV-1000 V	
Frequency range	45 to 65 Hz	
Vibrating indication	Yes	
On/Off switch	Yes	
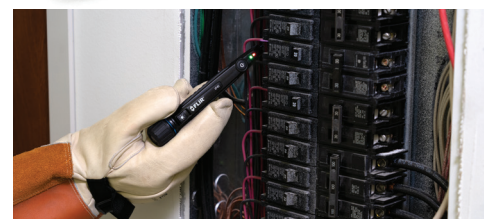
FLIR VS80 High-Performance Videoscope Kits

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

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

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

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	±2°C (3.6°F)
	31 to 60°C (88 to 140°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® and METERLiNK

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

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FLIR MR77 5-in-1 Moisture Meter with METERLiNK®

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, with compact, rubberized 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 METERLiNK®

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)
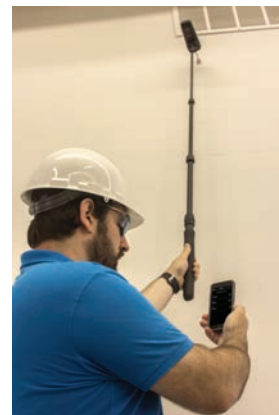
FLIR MR60 Combination Pin/Pinless Moisture Meter

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.

Pocket-sized with trim design for getting into corners

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'

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-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 C3-X 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 Pro Infrared Camera with Ignite™ Cloud, and FLIR MR08 Hammer and Wall Cavity Probe

EXTECH®
WHAT DO YOU NEED TO MEASURE? | ELECTRICAL

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 auto-ranging 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)	-50ºC to 270ºC (-58ºF to 518ºF)	±2.0% rdg or ±4ºF/±2ºC
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	

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)
	AC: ±2.0%	AC: ±1.8%	AC: ±2.5%, DC: ±2.0%
DC voltage	600 V (0.1 mV)	600 V (0.1 mV) True RMS	600 V (0.1 mV) True RMS
AC voltage	600 V (1 mV)	600 V (1 mV)	600 V (1 mV)
	AC: ±1.2% DC: ±0.8%	AC: ±1.2% DC: ±0.8%	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

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EX655 True RMS 600A Clamp Meter

Professional clamp 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 display

Specifications	EX655
AC current (max res.)	60 A, 600 A (0.01 A)
DC current (max res.)	60 A, 600 A (0.01 A)
Basic accuracy	ACA: ±2.5 % of rdg / DCA: ±2.5 % of rdg
AC/DC µA current (max res.)	600 µA (0.1 µA)
DC voltage (max res.)	1000 V (0.1 mV)
AC voltage (max res.)	750 V (1 mV)
Basic accuracy	ACV: ±1.2 % of rdg / DCV: ±0.8 % of rdg
NCV detection	100 V to 1000 V
Temperature (max res.)	-40°C to 1000°C (1°C) / -40°F to 1832°F (1°F)

380942 30A True RMS AC/DC Mini Clamp Meter

Mini AC/DC clamp meter offering a remarkable 0.1 mA resolution (AC) and very low-current sensitivity while being small enough to reach into tight areas easily. and Inrush functions

- One touch "Auto Zero" for DCA measurements eliminates the need to turn a knob to zero adjust
- Measures current draw when conducting energy usage audits
- 4000 count LCD display offers full function indication
- 23 mm (0.9 in) clamp jaw opening is sized for tight spaces
- Fast 40-segment analog bargraph

Specifications	380942
AC current	30 A (0.1 mA)
DC current	30 A (1 mA)
Basic accuracy	ACA: ±2.0% + 5d DCA: —
DC voltage	400 V (0.1 V)
AC voltage	400 V (0.1 V)
Basic accuracy	ACV: ±2.0% + 5d DCV: ±1.0% + 2d
Overload protection	to 400 A DC

MS420 20 MHz 2-Channel Digital Oscilloscope

Designed for effective troubleshooting of electronics and electronically-controlled systems, with complete DMM functions and the ability to display multiple waveforms.

Specifications	MS420
Bandwidth	20 MHz
Real time sample rate	100 MS/s
Risetime	17.5 ns
Glitch capture	50 ns
Vertical sensitivity	5 mV to 5 V/div
Timebase Range	5 ns to 5 s/div
Input impedance	1 MΩ/20 pF
Max Input Voltage	400 V (peak)
True RMS Multimeter Functions	
AC/DC voltage	400 mV, 4 V, 40 V, 400 V
AC/DC current	40 mA, 300 mA, 20 A

- Auto-set function optimizes the position, range, timebase, and triggering to assure a stable display of virtually any waveform
- Peak Detect function makes 50 ns glitch capture possible
- FFT function for viewing component frequencies
- Trigger Hold off function stabilizes complex waveforms

EX623A Dual Input Clamp Meter + NCV + IR Thermometer

TRMS AC/DC clamp meter with dual thermocouple inputs for T1, T2, T1-T2 differential temperature measurement plus a built-in infrared thermometer

Specifications	EX623A
AC current	600 A
DC current	600 A
Basic accuracy	±1.5% + 5d
DC voltage	600 V
AC voltage	600 V
µA current	600 µA
NCV detection	Yes
Resistance max.	60 MΩ
Capacitance max.	40 mF
Frequency (clamp)	400 Hz
Temperature	-50°C to 1000°C (-58°F to 1832°F)
Infrared temperature	-50°C to 270°C (-58°F to 1832°F)

- Accurately measure up to 600 A AC/DC current
- AC/DC µA multimeter function designed for HVAC flame rod current measurement
- 32 mm (1.25 in) clamp jaw opening designed for conductors up to 500 MCM
- Low pass filter (LPF) ensures accuracy in electrically-noisy environments

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

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

EX520

EX505

EX530

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

380580 Battery Powered Milliohm Meter

High-accuracy, high-resolution, portable milliohm meter with 4 terminal Kelvin measurements, designed for field use

- Offers over-temperature and over-voltage protection
- Measures 5 ranges with 100 µ max resolution
- Easy-to-read 2000 count LCD display includes Auto-Hold and Auto power off functions
- Invalid test indicators prevent inaccurate measurements
- Features built-in water resistant case with shoulder strap

380260 Digital Megohmmeter

Measure insulation resistance up to 2000 MΩ, 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
- Auto-ranging, 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
- Auto-ranging 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)

480400

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)

AN100/AN200 CFM/CMM Thermo-Anemometers

Simultaneous display of ambient temperature and air flow/air velocity

- Up to 8 easy-to-set area dimensions (m^2 or ft^2) 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

AN200

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

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 Air Flow and Temperature simultaneously

45158 Mini Thermo-Anemometer with Humidity

- Displays of air velocity and relative humidity simultaneously
- Measures temperatures from -18°C to 50°C (0°F to 122°F) and dew point from 0°C to 50°C (32°F to 122°F)
- Selectable averaging function offers 5, 10, or 13 second intervals
- Data Hold to freeze most recent display
- Water resistant housing floats and drop tested to 6 feet
- Replaceable non-corrosive plastic wind vane (impeller)

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)

LT40

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 (CO_2)

Measure CO_2, air temperature, humidity, and other environmental conditions in enclosed areas

- Dual display of CO_2 concentrations and Relative Humidity, Temperature, Dew Point, or Wet Bulb
- Maintenance-free non-dispersive infrared (NDIR) CO_2 sensor
- Alarm sounds when CO_2 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

CO15 Carbon Monoxide (CO) Meter

Checks CO levels up to 999 ppm, with audible and display alarms that begins at 25 ppm and continue until levels return to safe levels

- Audible alarm sounds when CO level reaches the warning set point level
- CO warning levels can be adjusted from 25 to 200 ppm (alarm is preset to 25 ppm)
- Extended-use electrochemical sensor
- Choose from 3 calibration points: 0 (preset), 100, and 500 ppm
- Backlit display feature for easy viewing in dimly lit areas
- Auto power off after 15 minutes

VPC300 Video Particle Counter with Built-in Camera

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

- Measure and display 6 channels of particle sizes (down to 0.3 µm), air temperature, humidity, dew point and wet bulb
- Controls include max/min, DIF, AVG record, date/time setup, auto power off
- Records 3 GP 320 × 240 videos and JPEG images to internal memory
- Selectable sample time and count data, as well as programmable delay
- Stores up to 5000 records and 20 minutes of video

VPC260 6-Channel Particle Counter

Monitor workplace environmental health and air quality, with up to 6 channels of particle sizes plus air temperature, relative humidity, dew point, and wet bulb

- Measure up to 6 channels of particle sizes (down to 0.3 µm)
- Display air temperature, humidity, dew point, or wet bulb
- Selectable sample time, count data, and programmable delay
- Disable Auto Power Off for continuous recording
- Export data in CSV format to a PC via USB cable for easy reporting and documentation

VFM200 VOC/Formaldehyde Meter

Measure concentrations of VOCs (Volatile Organic Compound), Formaldehyde, and more in real-time for improved indoor air quality

- Backlit LCD displays Total VOC and HCHO (formaldehyde) concentrations simultaneously
- Built-in fast response, high accuracy fuel cell Formaldehyde sensor
- Two selectable units of measure (ppm, mg/m3)
- Adjustable audible and visible high/low alarms
- Auto Power Off

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 Anemometer

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.

MO55 Combination Pin/Pinless Moisture Meter

Takes quick pin or pinless moisture measurements and displays easy-to-understand icons to indicate moisture levels

• Ideal for detecting moisture on floors, tiles, and under carpets

• Non-invasive pinless meter measures to a max depth of 25 mm (1 in)

• Direct pin moisture measurement uses 10 mm (~0.4 in) pins

• Programmable High/Low audible alert; beeps faster as moisture levels increase

• Display icons indicate low, medium, or high moisture content

• Compact and efficient, with a built-in battery level check and measurement verification test

MO290 Pinless Moisture Psychrometers + IR Thermometer

8-in-1 Meter measures for moisture in wood and other building materials with virtually no surface damage

• Designed with an IR circuit to measure non-contact surface temperature; 8:1 distance to spot ratio with 0.95 fixed emissivity

• Remote pin probe (MO290-P included) allows for contact moisture readings (cable length is 0.9 m/3 ft)

• Easy to read, large dual display with automatic backlight feature

• Simultaneously displays moisture value of wood or material being tested along with air temperature, IR temperature, or humidity

• Pinless measurement depth to 19 mm (0.75 in) below the surface

RHT30 USB Humidity/Temperature Datalogger

Easy-to-use datalogger stores thousands of humidity and temperature readings with date/time stamp

• Built-in NTC thermistor and capacitive humidity sensor

• 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

HT30 Heat Stress WBGT Meter

Wet bulb globe temperature meter for measuring heat stress index, temperature, humidity, and radiant heat

• Monitor effects of direct solar radiation (Black Globe Temperature, or TG)

• Measure Air Temperature (TA) plus Relative Humidity (RH)

• In/Out Function displays the WBGT value with or without direct sun exposure

• Built-in RS-232 interface with optional Windows® compatible software

RH390/RH490 Precision Psychrometers

Measure temperature and humidity simultaneously with high ±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

RH600 Dew Point Meter

Accurately measure and datalog dew point levels in compressed air systems

• Precisely measure dew point as low as -50°C (-58°F) under ambient pressure up to 20 bar

• Dry probe sensor quickly after contact with moisture using sensor purge/purification feature

• Measure low humidity (RH <5%) with high accuracy (±0.025%)

• Log and transfer up to 32,000 data sets to a computer (in CSV format) using USB cable

• Program high/low set points for temperature, relative humidity, and dew point with visual and audible alarms

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445580 Humidity/Temperature Pen

Compact, digital hygro-thermometer, intended for field use

- Dual LCD display shows temperature, humidity, and advanced function indication

- Built-in sensors simultaneously measure temperature (°C/°F) and relative humidity

- Max/Min memory functions

- Built-in self calibration utility with optional RH calibration bottles

- Data Hold for freezing the LCD display status

42280A Temperature and Humidity Datalogger

Continuously monitor temperature and humidity to obtain ideal storage conditions in laboratories or cleanrooms

- Easy-to-read LCD screen displays humidity, temperature, date, and time

- Stores up to 24,000 recorded data sets with date and time stamp

- Audible and visible alarms help maintain optimal environmental conditions

- Generates PDF reports with trending graphs, and exports data to Microsoft® Excel spreadsheets when plugged into a PC

- Add time-stamped markers, while logging to record events in your reports (max 8 markers)

445703/445715 Big Digit Hygro-Thermometers

Extra large LCD with 2.5 cm (1 in) numbers allows for easy humidity and temperature monitoring from anywhere in the room

- Memory with reset function stores max and min readings

- Accurately monitor temperatures to 60°C (140°F) and humidity from 10-99%

- Measure humidity and temperature with extendable probe on 45.7 cm (18 in) cable (445715)

- °C/°F switchable units of measure and low battery indication

445715

445814/445815 Hygro-Thermometer Humidity Alert with Dew Point

Featuring audible and visual alarms for humidity levels that exceed set limits, plus storage/recall for max and min measurements

- Large, easy-to-read triple LCD displays % Relative Humidity, Temperature and Dew Point

- %RH audible and visual alarms, with adjustable set points, alert when humidity exceeds set limit

- Probe clips onto meter or extends on 45.7 cm (18 in) cable (445815 only)

- Max/Min with Reset function

- Rear calibration adjustment pot for humidity and temperature

- (445815 only; available with NIST certification and optional Calibration Standards)

445815

RH550 Humidity/Temperature Chart Recorder with Touchscreen

Simultaneously track humidity, temperature, and dew point with numerical and graphical display

- View recorded alarm values by date sorting or by temperature and humidity values

- Record MIN/MAX measurement values and recall saved data files with History Mode

- Capture up to 20,000 data points and store on Internal 16 GB memory or export in CSV format

- Audible and visual alarm with Hi/Low set points

- Large 17.8 cm (7 in) color LCD with display zoom feature, touchscreen menu, and screen capture capability with finger swipe

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 ±(5% + 2 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

HDV700-Series High-Performance Videoscope Kits

5 probe options, from semi-rigid 4.9 mm probes to 4-way articulating 6 mm probes

- Gain access to difficult-to-see components without disassembling equipment

- Capture both still images and videos and view on bright 5-in touchscreen

- Immerse IP67-rated camera probes in water at a depth up to 1 m (3.2 ft) for 30 minutes max

HDV710

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
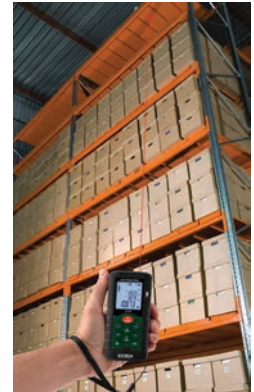
STW515 Stopwatch/ Clock with Backlit Display

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 bar graph to indicate sample trends

• Features Data hold, auto power off, low battery indication

• Units of measure include µS/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) neck strap. *Order Conductivity standards separately*

• IP57 rating

EC510 Waterproof ExStik® II Kit

Combination flat-surface pH electrode with auto-ranging high-accuracy conductivity cell

• Measures 5 parameters including conductivity, TDS, salinity, pH, and temperature using one electrode

• 9 units of measure: pH, µS/cm, mS/cm, ppm, ppt, mg/L, g/L, °C, °F

• Analog bar graph 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

DO600 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

DO700 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

FLIR

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