ADVANCED THERMAL IMAGING

REIMAGINED FROM THE HANDLE UP

FLIR Exx-Series™

E53 | E75 | E85 | E95

◆FLIR®

BRILLIANCE
AT WORK

FLIR redesigned the Exx-Series from the handle up to deliver the best performance, resolution, and sensitivity of any pistol-grip handheld thermal camera.

The new Exx-Series camera is packed with the features you need to detect the early signs of water intrusion, air leaks, and other building deficiencies before they cause serious damage.

FLIR Exx-Series cameras now offer:

- Up to 161,472 points of measurement
- UltraMax® processing for 4x pixel resolution*
- Our best MSX® enhancement
- Laser distance meter improves autofocus, provides distance and on-screen area measurement‡
- A larger, 4″ display that's 33% brighter
- A responsive new interface
- Improved organization and reporting options

*Not available for E53 model

‡ E85/E95 only

reddot award 2017
best of the best

UNPARALLELED PERFORMANCE

See Greater Detail

- Vibrant LCD is 33% brighter than earlier models
- Large 4″ display with 160° viewing angle
- Up to 464 x 348 true native IR resolution
- Improved FLIR MSX® image enhancement

Focus Fast & True*

- Laser-assisted autofocus improves accuracy for precise temperature measurements
- Continuous focus mode responds quickly, promotes safe one-hand use
- Autofocus and record functions separated to prevent accidental re-focusing

Quickly Discover Building Deficiencies

- Detects temperature differences down to 30 mK
- True 42° FOV for wide area surveys with a single lens*
- Measure area (m^2 or ft^2) of moisture intrusion or air leak on-screen‡

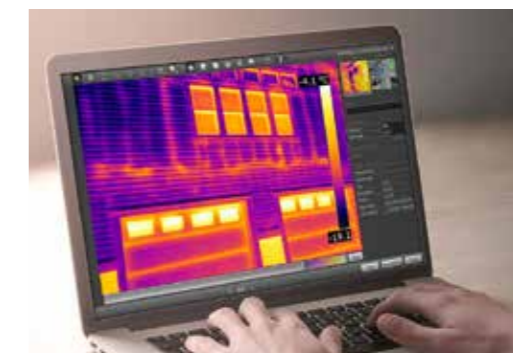*E75, E85, E95 only
‡E85, E95 only

The Exx-Series is packed with the high performance features you need to quickly detect and report hidden building deficiencies: superior temperature sensitivity; bright, bold on-screen imagery; razor-sharp focus; and a rapid-response user interface.

Navigate Screens Easier

- Quick response capacitive touchscreen
- Updated GUI with improved flow and feedback
- Logical navigation on screen and in menus

Document & Report Problems

- Embed moisture meter data through METERLiNK®
- Upload images and report critical issues over Wi-Fi
- Image annotation through voice, text, on-screen sketch, GPS tagging, and compass
- Enhanced image analysis and reporting through FLIR Tools+ software

Speaker plays back
voice annotation

Laser provides distance measurement
and precise autofocus*

Laser pointer provides
visual guidance

Mic for voice annotation

Vibrant, 4" optically-bonded
PCAP touchscreen

True 42° FOV for wide
area surveys with a
single lens*

Bright LED work lights improve
image clarity in dim areas

Scratch-resistant
Dragontrail™ cover glass

5 MP digital camera now closer
to thermal detector for superior
MSX® enhancements

Ergonomic new design for
our most comfortable grip

Separate Autofocus and
Image Recording buttons*

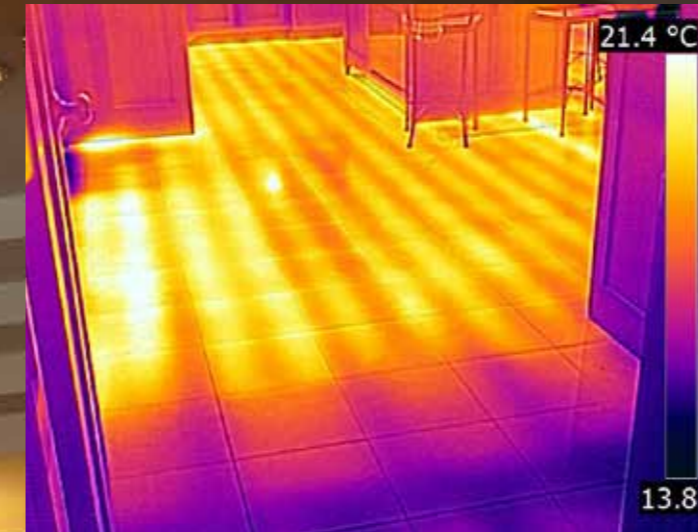Li-ion battery for
extended use times

HARD-WORKING DESIGN,
FOR HARD-WORKING PROS

This sleek new design isn't just window-dressing. From
the rubberized, water-tight chassis to the scratch-resistant
Dragontrail™ cover glass LCD, the new Exx-Series is made
to work hard all day long.

FLIR *Exx-Series*™

E53 | E75 | E85 | E95

*E75, E85, E95 only

DESIGNED WITH YOU IN MIND

The Best Lenses Need the Best Autofocus*

FLIR took its cue from the digital camera industry when re-engineering the Exx-Series focus system. Whether you choose autofocus or continuous focus, the camera's precise laser-assisted focus and FLIR's innovative lenses ensure you get crisp results, for the most accurate temperature readings.

*E75, E85, E95 only

Work Safer

Your job can take you up ladders and into crawl-spaces, so you need tools that can be used one-handed and worry-free. FLIR designed its new Exx-Series cameras to be tough enough to use every day, with simplified buttons and intuitive screens that allow you to focus on your work – instead of on the camera controls.

Work Smarter

The new Exx-Series cameras produce standard radiometric JPEGs that can be opened and viewed without proprietary software. Image files produced by Exx-Series cameras are supported by FLIR's Software Development Kit (ATLAS SDK), so companies can use their own software and still support read-out of thermal measurements, METERLiNK® data, and other important parameters embedded within the image. Current and voltage measurements embedded in image files are also accessible.

Features By Camera	E53	E75	E85	E95
IR Resolution	240 × 180 (43,200 pixels)	320 × 240 (76,800 pixels)	384 × 288 (110,592 pixels)	464 × 348 (161,472 pixels)
UltraMax®	—	307,200 pixels	442,368 pixels	645,888 pixels
Object Temperature Range	-20°C to 120°C (-4°F to 248°F) 0°C to 650°C (32°F to 1200°F)	-20°C to 120°C (-4°F to 248°F) 0°C to 650°C (32°F to 1200°F) Optional 300°C to 1000°C (572°F to 1830°F)	-20°C to 120°C (-4°F to 248°F) 0°C to 650°C (32°F to 1200°F) 300°C to 1200°C (572°F to 2192°F)	-20°C to 120°C (-4°F to 248°F) 0°C to 650°C (32°F to 1200°F) 300°C to 1500°C (572°F to 2732°F)
Focus	Manual	Continuous, one-shot laser distance meter (LDM), one-shot contrast, manual	Continuous, one-shot laser distance meter (LDM), one-shot contrast, manual	Continuous, one-shot laser distance meter (LDM), one-shot contrast, manual
Field of View (FOV)	24° × 18°	42° × 32° (10 mm lens), 24° × 18° (18 mm lens), 14° × 10° (29 mm lens)	42° × 32° (10 mm lens), 24° × 18° (18 mm lens), 14° × 10° (29 mm lens)	42° × 32° (10 mm lens), 24° × 18° (18 mm lens), 14° × 10° (29 mm lens)
Lens Identification	—	Automatic	Automatic	Automatic
Time-lapse (Infrared)	—	—	—	10 sec to 24 hours
Laser Area Measurement	—	—	Yes	Yes
Laser Distance Measurement	—	Yes, on-screen	Yes, on-screen	Yes, on-screen
Measurement Presets	No measurement, center spot, hot spot, cold spot, 3 spots, hot spot-spot*	No measurement, center spot, hot spot, cold spot, User Preset 1, User Preset 2	No measurement, center spot, hot spot, cold spot, User Preset 1, User Preset 2	No measurement, center spot, hot spot, cold spot, User Preset 1, User Preset 2
Spotmeter	3 in live mode	1 in live mode	3 in live mode	3 in live mode
Area	1 in live mode	1 in live mode	3 in live mode	3 in live mode
Picture-in-Picture	Centered infrared area on the visual image	Resizable and movable	Resizable and movable	Resizable and movable

*Hot spot to center spot Delta measurement

Exx-Series cameras are backed by FLIR's industry-leading warranty

2 years: Full protection, parts, labor

10 years: Detector

FLIR Exx-Series™

Common Features	
Detector Type and Pitch	Uncooled microbolometer, 17 µm
Thermal Sensitivity/NETD	<0.04°C @ 30°C (86°F), 24° lens
Spectral Range	7.5 – 14.0 µm
Image Frequency	30 Hz
F-Number	f/1.3, 24° lens
Digital Zoom	1-4x continuous

Image Presentation and Modes	
Display	4", 640 × 480 pixel touch screen LCD with auto-rotation
Digital Camera	5 MP, 53° × 41° FOV
Color Palettes	Iron, Gray, Rainbow, Arctic, Lava, Rainbow HC
Image Modes	Infrared, visual, MSX®, Picture-in-Picture
MSX®	Embosses visual details on full resolution thermal image

Measurement and Analysis	
Accuracy	±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 0°C (32°F)
Alarms	Moisture, insulation, and measurement
Color Alarm (Isotherm)	Above/below/interval/condensation/insulation
Compass, GPS	Yes; automatic GPS image tagging
METERLiNK®	Yes; several readings
Laser Pointer	Yes; dedicated button

Image Storage	
Storage Media	Removable SD card (8 GB)
Image File Format	Standard JPEG with measurement data included

Video Recording and Streaming	
Radiometric IR Video Recording	Real-time radiometric recording (.csq)
Non-Radiometric IR or Visual Video	H.264 to memory card
Radiometric IR Video Streaming	Yes, over UVC or Wi-Fi
Non-Radiometric IR Video Streaming	H.264 or MPEG-4 over Wi-Fi; MJPEG over UVC or Wi-Fi
Communication Interfaces	USB 2.0, Bluetooth, Wi-Fi, DisplayPort
Video Out	DisplayPort over USB Type-C

Additional Data	
Battery Type	Li-ion battery, charged in camera or on separate charger
Battery Operating Time	Approx. 2.5 hours at 25°C (77°F) ambient temperature and typical use
Operating Temperature Range	-15°C to 50°C (5°F to 122°F)
Storage Temperature Range	-40°C to 70°C (-40°F to 158°F)
Shock/Vibration/ Encapsulation; Safety	25 g / IEC 60068-2-27, 2 g / IEC 60068-2-6, IP 54 /IEC 60529; EN/UL/CSA/PSE 60950-1
Weight/Dimensions	1 kg (2.2 lbs), 27.8 × 11.6 × 11.3 cm (11.0 × 4.6 × 4.4 in)

Box Contents	
	Infrared camera with lens, battery (2 ea), battery charger, front protection, straps (hand, wrist), hard transport case, lanyards, lens caps, lens cleaning cloth, power supplies, 8 GB SD card, Torx wrench, cables (USB 2.0 A to USB Type-C, USB Type-C to USB Type-C, USB Type-C to HDMI)

Specifications are subject to change without notice.
For the most up-to-date specs, go to www.flir.com

The Infrared Training Center

The greater your knowledge about thermal imaging, the greater the dividends you'll realize for your company and your career. That's why the Infrared Training Center (ITC) offers classes for practically every application, from free online courses to advanced training that can certify you as a thermography expert, qualifying you to take a leadership role in your internal IR program.
ITC classes include:
• Thermography Fundamentals Training
• IR Building Inspection
• IR Roofing Inspection

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. Level III asserts that you have knowledge and skills to administer your company's thermography program. These certifications offer strong validation to support the work you do as a thermographer.

Mobile Training Units and on-site training at your facility are encouraged if you would like to certify a group of 10 or more. For a complete list and schedule of courses and more information, visit www.infraredtraining.com.

FLIR® | The World's Sixth Sense®