ADVANCED THERMAL IMAGING

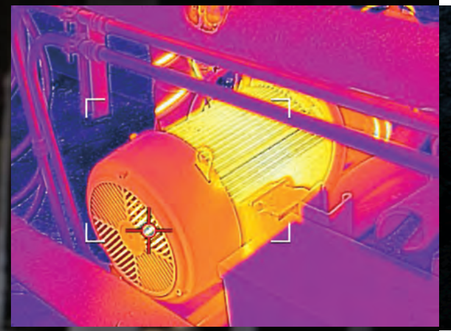
REIMAGINED FROM THE HANDLE UP

FLIR Exx-Series™

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 cameras are packed with the features you need to quickly troubleshoot electrical distribution and mechanical systems, so you can avoid equipment failures, increase plant safety, and maximize up-time.

FLIR Exx-Series cameras now offer:

- Interchangeable, auto-calibrating lenses
- Laser distance meter for measurement information and crisp, accurate focus
- Our best MSX® enhancement
- UltraMax® processing for 4x pixel resolution
- A larger, 4" display that's 33% brighter
- A responsive new interface
- Improved organization and reporting options

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

Quantify Potential Problems

- Accurate temperature readings on hot spots
- Wide temperature ranges, up to 1500°C
- Sensitivity to detect minute temperature differences

Focus Fast & True

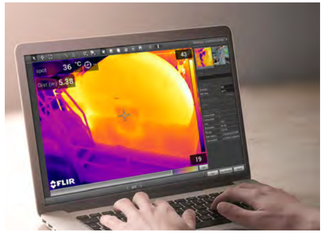
- Laser-assisted autofocus responds quickly, improves measurement accuracy
- Superior spot-size performance for measurement of small, distant targets
- Interchangeable lenses provide coverage for any target, any scene

UNPARALLELED PERFORMANCE

The new Exx-Series is packed with the high performance features you need to quickly find and report hidden hot spots: a bright, bold new screen, razor-sharp lenses, 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



Report Problems Quickly

- Wi-Fi connects camera to mobile devices or in-plant networks
- Image annotation through voice, text, on-screen sketch, GPS tagging, and compass
- New folder and naming structure makes finding images easier
- Enhanced image analysis and reporting through FLIR Tools+ software

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 for your tough work environment.

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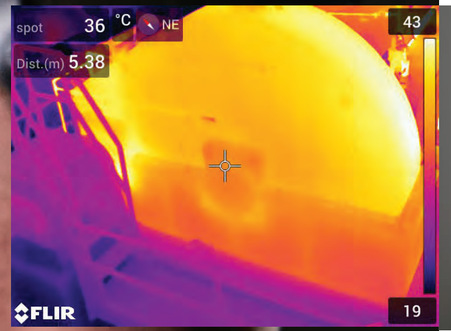
EXPANDABLE AND MODULAR



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.

Multiple Targets, One Solution

Not every target is large enough or close enough for proper measurement with a single lens. That's why FLIR designed the new Exx-Series with interchangeable 24°, 42°, and 14° lenses – so you can use the same camera for every target you survey. The camera auto-calibrates with each new lens to ensure it produces high-quality images and precise thermal measurements.

Tailored to Your Systems

The new Exx-Series cameras produce standard radiometric JPEGs that can be opened and viewed without proprietary software. These images can be viewed and edited in FLIR Tools, and are supported by FLIR's Software Development Kit (ATLAS SDK). This allows companies to use their own Computerized Maintenance Monitoring Systems (CMMS) and still support read-out of thermal measurements, METERLiNK® data, GPS, compass, and other important parameters embedded within the image.

TECHNICAL SPECIFICATIONS

Features by Camera	E75	E85	E95
IR Resolution	320 x 240 (76,800 pixels)	384 x 288 (110,592 pixels)	464 x 348 (161,472 pixels)
UltraMax® Resolution	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) 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)
Time-lapse (Infrared)	No	No	10 sec to 24 hours
Laser Area Measurement	No	Yes	Yes
Spotmeter	1 in live mode	3 in live mode	3 in live mode
Area	No	3 in live mode	3 in live mode
Common Features	**Exx-Series**		
Detector Type and Pitch	Uncooled microbolometer, 17 µm		
Thermal Sensitivity/NETD	< 0.03°C @ 30°C (86°F)		
Spectral Range	7.5 - 14.0 µm		
Image Frequency	30 Hz		
Field of View (FOV)	42° x 32° (10 mm lens), 24° x 18° (17 mm lens), 14° x 10° (29 mm lens)		
F-Number	f/1.3, f/1.1		
Lens Identification	Camera automatically identifies optional lenses without a factory calibration		
Focus	Continuous, one-shot laser distance meter (LDM), one-shot contrast, manual		
Digital Zoom	1-4x continuous		

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

2 years: Full protection, parts, labor

5 years: Battery

10 years: Detector

LEARN MORE ABOUT EXX-SERIES CAMERAS AT WWW.FLIR.COM/EXX-ELECTRICAL

FLIR Exx-Series™

Image Presentation and Modes	
Display	4", 640 x 480 pixel touchscreen LCD with auto-rotation
Digital Camera	5 MP, 53° x 41° FOV
Color Palettes	Iron, Gray, Rainbow, Arctic, Lava, Rainbow HC
Image Modes	Infrared, visual, MSX®, Picture-in-Picture
Picture-in-Picture	Resizable and movable
MSX®	Embosses visual details on full resolution thermal image
UltraMax®	Super-resolution process quadruples pixel count, activated in FLIR Tools+
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 alarm, insulation alarm, measurement alarms
Color Alarm (Isotherm)	Above/below/interval/condensation/insulation
Laser Distance Measurement	Yes, on-screen
Measurement Presets	No measurement, center spot, hot spot, cold spot, User Preset 1, User Preset 2
Image Storage	
Storage Media	Removable SD card (8 GB)
Image File Format	Standard radiometric JPEG, measurement data included
Image Annotations	
Voice	60 sec. via built-in mic or via Bluetooth
Text	Text from predefined list or touchscreen keyboard
Image Sketch	Yes, on infrared images only
Compass, GPS	Yes; automatic GPS image tagging
METERLiNK®	Yes; several readings
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
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 w/o Lens	1 kg (2.2 lbs), 27.8 x 11.6 x 11.3 cm (11.0 x 4.6 x 4.4 in)
Box Contents	Infrared camera with lens, battery (2 ea), battery charger with power supply, front lens and light protection, straps (hand and wrist), lanyards, lens caps (front and rear), lens cleaning cloth, 15 W3 A power supply, printed documentation, 8 GB SD card, Torx screwdriver, cables (USB 2.0 A to USB Type-C, USB Type-C to HDMI, USB Type-C to USB Type-C)

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 Electrical Inspection
- IR Mechanical 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 or call 1.866.872.4647.

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