FLIR Exx-Series™

Advanced Thermal Imaging Cameras for Electrical and Mechanical Applications

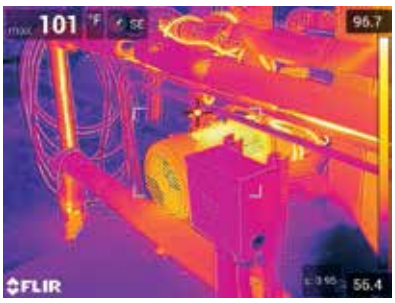
reddot award 2017
best of the best

FLIR E75, E85, and E95 cameras offer the superior resolution and range performance needed to quickly identify hot spots and discover potential points of failure in electrical distribution and mechanical systems. With up to 161,472 pixel resolution and a larger, more vibrant LCD screen than any other pistol-grip thermal camera, the Exx-Series makes it easier than ever to diagnose problems – even at a distance. Avoid costly shutdowns and lost production time through regular predictive maintenance routines with these rugged, intuitive cameras.

Improve Plant Reliability

Equipment failures are costly and can impact on-time delivery, so it's important to have the right tools to find potential problems before they happen.

- High-resolution infrared detectors, up to 464 x 348, for crisp, detailed images
- Wide temperature ranges: -40°C to 120°C, 0°C to 650°C, 300°C up to 1500°C (E95)
- Superior spot-size performance for accurate temperature measurements on smaller, more distant targets
- Laser-assisted autofocus for precise identification of hot spots, even in cluttered scenes



Find problems quickly and eliminate costly plant shutdowns

Increase Plant Safety

The Exx-Series improves plant safety by helping you diagnose and report electrical problems before they result in fire or damage.

- Detect temperature differences down to 30 mK for immediate identification of failing components
- Interchangeable lenses, from wide angle to telephoto, offer complete coverage of near and far targets
- Lenses auto-calibrate with camera for the most precise temperature readings
- MSX® image enhancement adds the depth and detail to image

Streamlined data collection and sharing speeds analysis and repairs

Designed to Make Your Work Easier

FLIR designed the E75, E85, and E95 to make your work faster, safer, and more efficient.

- Rapid-response touch screen with intuitive new user interface
- Convenient menu buttons allow for one-handed operation
- New folder and naming structure that makes finding images easier
- Connect over Wi-Fi to mobile devices or via METERLiNK® to FLIR clamps and multimeters

One-handed operation with convenient buttons helps maintain workplace safety

Key Features:

- 320 x 240 – 464 x 348 true native resolution
- Laser-assisted autofocus
- Wide temperature ranges, up to 1500°C
- Vibrant, 4" optically-bonded PCAP touchscreen with 160° viewing angle
- Wi-Fi, METERLiNK® connectivity
- Streamlined reporting features
- FLIR's industry-leading 2-5-10 warranty

Specifications

Features By Camera	E75	E85	E95
IR Resolution	320 x 240	384 x 288	464 x 348
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
Measurement Features by Camera			
Area Measurement Information	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)	24° x 18° (17 mm lens), 42° x 32° (10 mm lens), 14° x 10° (29 mm lens)		
F-Number	f/1.3, f/1.1		
Lens Identification	Automatic		
Focus	Continuous, one-shot laser distance meter (LDM), one-shot contrast, manual		
Digital Zoom	1-4x continuous		
Image Presentation and Modes			
Display	4", 640 x 480 optically-bonded PCAP touchscreen, with 400 cd/m² surface brightness		
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		
Compass, GPS	Yes; automatic GPS image tagging		
METERLiNK®	Yes; several readings		
Image Storage			
Storage Media	Removable SD card (8 GB)		
Image File Format	Standard radiometric JPEG, 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		
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			
Packaging	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)		

Specifications are subject to change without notice.

For the most up-to-date specs, go to www.support.flir.com

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