SENSOR PARTNERS

GAS FIND IR SERIES

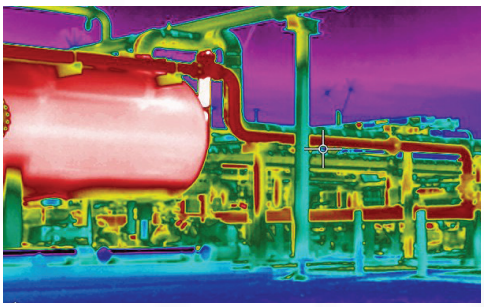
FLIR GF77™

The FLIR GF77 is a groundbreaking uncooled optical gas imaging camera with interchangeable lens options that detect methane (CH_4), sulfur hexafluoride (SF_6), ethylene (C_2H_4), ammonia (NH_3), and other gas emissions. Capable of both gas detection and radiometric temperature measurement, the GF77 is an ideal inspection tool for electric power utilities, oil and natural gas operations, chemical/manufacturing facilities, the food and agriculture industry, and first responders. This camera offers unmatched versatility as well as improved visualization of gas emissions and thermal inspections. Based on the award-winning design of the FLIR T-Series platform, the GF77 offers a vibrant, 4-inch touchscreen LCD, 180° rotating optical block, and eyepiece for convenience in direct sunlight. This affordable solution offers the benefit of built-in thermographic calibrations and the flexibility to detect a wide range of gases by simply changing lenses.

MAXIMIZE EFFICIENCY

Locate gas leaks and perform thermal inspections with one camera

- Visualize CH_4, SF_6, NH_3, and C_2H_4 in different wavelengths with a versatile lens solution, and inspect critical components using the built-in thermal imager
- Scan for emissions from a safe distance and track them to the source to begin repairs immediately
- Take accurate temperature measurements in all environments from -20°C to 500°C with ±3°C or 3% temperature accuracy
- Switch to viewfinder in bright, sunlit conditions to ensure optimal viewing



AFFORDABLE OPTICAL GAS IMAGING

Provide every site with one or more GF77 cameras with industry-leading features

- Improve gas-detection contrast with 1-Touch Level/Span auto-adjustment feature
- Increase leak detectability by activating FLIR patented High Sensitivity Mode (HSM)
- Precisely resolve target area with laser-assisted autofocus
- Use data from the built-in area measurement tool to calculate tank level and volume

STREAMLINE INSPECTIONS AND REPORTING

Work easier with the ergonomic design, rapid-reporting features, and tools to organize findings in the field

- Define routes and improve inspection flow with the optional add-on of FLIR Thermal Studio Pro and FLIR Route Creator*
- Automatically tag each image file with GPS geolocation data for easy identification
- Connect instantly over Wi-Fi to mobile devices for data transfer and reporting

* Please see compatible software section on back for full details

SPECIFICATIONS

	Low-Range (LR) Lens	High-Range (HR) Lens
Image and Optical Data		
Primary gases detected	Methane, nitrous oxide, propane, sulfur dioxide, R-134a and R-152a	Sulfur hexafluoride, ammonia, ethylene
Lens spectral range	7 to 8.5 µm	9.5 to 12 µm
Gas sensitivity (NECL)	CH_4: <100 ppm × m N_2O: <75 ppm × m C_3H_8: <400 ppm × m SO_2: <30 ppm × m R-134a: <20 ppm × m R-152a: <100 ppm × m (ΔT = 10°C, Distance = 1 m)	SF_6: <1 ppm × m C_2H_4: <20 ppm × m NH_3: <20 ppm × m (ΔT = 10°C, Distance = 1 m)
Infrared resolution	320 × 240 (76,800 pixels)	
Thermal sensitivity (NETD)	25° lens: <25 mK at 30°C (86°F) 6° lens: <40 mK at 30°C (86°F)	
UltraMax® (super-resolution)	Yes	
Field of view (FOV)	25° lens: 25° × 19° 6° lens: 6.4° × 4.9°	
Focal length	25° lens: 18 mm (0.71 in) 6° lens: 74 mm (2.9 in)	
f/number	25° lens: 1.04 6° lens: 1.35	
Focus modes	Continuous LDM, One-shot LDM, One-shot contrast, Manual	
Minimum focus distance	25° lens: 0.3 m (0.98 ft) 6° lens: 5 m (16.4 ft)	
Minimum focus distance with MSX®	25° lens: 0.65 m (2.1 ft) 6° lens: N/A	
Spatial resolution (IFOV)	25° lens: 1.4 mrad/pixel 6° lens: 0.36 mrad/pixel	
Lens identification	Automatic	
Digital zoom	1–6× continuous	
Detector type and pitch	Uncooled microbolometer, 25 µm	
Measurement and Analysis		
Temperature ranges and accuracy	Range -20 to 70°C (-4 to 158°F): ±3°C (±5.4°F)	Range -20 to 70°C (-4 to 158°F): ±2°C (±3.6°F)
	Range 0 to 250°C (32 to 482°F): • 0 to 100°C (32 to 212°F): ±3°C (±5.4°F) • 100 to 250°C (212 to 482°F): ±3% Range 100 to 500°C (212 to 932°F): ±3% For ambient temperature 15 to 35°C (59 to 95°F)	
Spotmeter and area	3 each in live mode	
Measurement presets	No measurement, Center spot, Hot spot, Cold spot, User preset 1, and User preset 2	
Image Presentation and Frame Rate		
Image frequency	30 Hz	
Display	4", 640 × 480 pixels (VGA) touchscreen LCD with auto-rotation	
Digital camera	5 MP with built-in LED photo/video lamp	
Color palettes	Iron, Gray, Rainbow, Arctic, Lava, Rainbow HC	
Image modes	Infrared, visual, MSX, picture-in-picture, gallery	

Image adjustment	Automatic, Automatic maximum, Automatic minimum, High Sensitivity Mode (HSM), Manual, 1-Touch Level/Span
Image annotations	Voice, Text, Image sketch (IR only), Sketch (from touchscreen), GPS Automatic image tagging
Image Storage	
Storage media	Removable SD card
Image file format	Standard JPEG, measurement data included. Infrared-only mode
Time lapse (Infrared)	10 seconds to 24 hours (infrared)
Remote control operation	Via USB or over Wi-Fi connected to FLIR Thermal Studio
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	Compressed, over UVC
Non-radiometric IR video streaming	H.264, MPEG-4 over Wi-Fi; MJPEG over UVC or Wi-Fi
Communication interfaces	USB 2.0, Bluetooth, Wi-Fi, DisplayPort
Additional Specifications	
Battery	Rechargeable Li-ion battery, >4 hours at 25°C (68°F) with typical use
Operating temperature range	-15°C to 50°C (5°F to 122°F)
Storage temperature range	-40°C to 70°C (-40 to 158°F)
Shock/Vibration/ Encapsulation	25 g (IEC 60068-2-27) / 2 g (IEC 60068-2-6) / IP54
Camera weight with lens (including battery)	1.54 kg (3.4 lb) w/ 25° lens 1.77 kg (3.9 lb) w/ 6° lens
Camera size (L × W × H)	Camera with 25° lens: • Lens vertical: 150.5 × 201.3 × 84.1 mm (5.9 × 7.9 × 3.3 in) • Lens horizontal: 150.5 × 201.3 × 167.3 mm (5.9 × 7.9 × 6.6 in) Camera with 6° lens: • Lens vertical: 204.6 × 201.3 × 84.1 mm (8.1 × 7.9 × 3.3 in) • Lens horizontal: 150.5 × 201.3 × 167.3 mm (5.9 × 7.9 × 6.6 in)

Package Contents

Infrared camera with lens, power supply for battery charger, power supply 15 W/3 A, printed documentation, SD card (8 GB), USB 2.0 A to USB Type-C cable, USB Type-C to HDMI and PD adapter, USB Type-C to USB Type-C cable (USB 2.0 standard), lens cap strap, lens cleaning cloth, neck strap, small eyecup, battery (2x), battery charger, hard transport case, lens cap front, lens cap front and rear (only for extra lenses)

Optional Compatible Software

FLIR Thermal Studio Pro	Advanced analysis and reporting software—12-Month Subscription
FLIR Route Creator*	The FLIR Route Creator Plugin for FLIR Thermal Studio Pro allows you to create and export inspection routes - 12-Month Subscription
FLIR Inspection Route	Required to generate inspections routes into FLIR Thermal Studio Pro - One time purchase The FLIR Inspection Route can also be used independently to generate routes in .xml file format for upload into users existing routing software.

*Need to purchase FLIR Thermal Studio Pro and FLIR Inspection Route