



FLIR GF343 24° Fixed lens

P/N: 65702-0102

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<http://www.flir.com>

Customer support

<http://support.flir.com>

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General description

The new FLIR GF343 is an optical gas camera for visualizing carbon dioxide (CO₂). With this camera you can quickly and easily find gas leaks where CO₂ is the main component.

Key features:

- Visualizes gas leaks in real time.
- Inspects without interruption of process.
- Traces leaks to their source.

Carbon capture and storage—stop the escalation of global warming:

- A global transition to a sustainable low-carbon economy is a necessity.
- Global energy demand is still dominated by fossil fuels being combusted in quantities incompatible with levels required to stabilize greenhouse gases concentrations at safe levels in the atmosphere.

CO₂ (R744)—the new environmental friendly refrigerant:

- Air-conditioning for cars—replaces R134a.
- CO₂-based heat pumps.
- Electrical power—replaces sulfur hexafluoride.

CO₂—a harmless tracer gas:

- Use CO₂ to trace leaks.

Note

The CO₂ background level in the atmosphere varies between about 400 ppm (e.g., outdoors) to 5000 ppm (e.g., very high levels indoors), and the ability to see a CO₂ leak using the FLIR GF343 depends on this gas concentration and also on the distance to the target. For example, an outdoor leak at a distance of 10 m (33') adds 4000 ppm × m to the gas concentration length.

Imaging and optical data

IR resolution	320 × 240 pixels
Thermal sensitivity/NETD	<15 mK @ +30°C (+86°F)
Gas sensitivity (NECL)	CO ₂ : < 5.6 ppm × m (ΔT = 10°C, Distance = 1 m)
Field of view (FOV)	24° × 18°
Minimum focus distance	0.3 m (1.0 ft.)
Focal length	23 mm (0.89 in.)
Lens identification	Automatic
F-number	1.5
Focus	Automatic (one touch) or manual (electric or on the lens)
Zoom	1–8× continuous, digital zoom
Digital image enhancement	Noise reduction filter, high sensitivity mode (HSM)



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Detector data	
Detector type	Focal plane array (FPA), cooled InSb
Spectral range	Built-in cold band pass filter 4.2–4.4 μm
Detector pitch	30 μm
Sensor cooling	Stirling Microcooler (FLIR MC-3)
Detects following gases	Carbon dioxide
Electronics and data rate	
Full frame rate	60 Hz
Image presentation	
Display	Built-in widescreen, 4.3 in. LCD, 800 × 480 pixels
Viewfinder	Built-in, tiltable OLED, 800 × 480 pixels
Automatic image adjustment	Continuous/manual; linear or histogram based
Manual image adjustment	Level/span
Image presentation modes	
Image modes	IR image, visual image, high sensitivity mode (HSM)
Set-up	
Menu commands	Level, span Auto adjust continuous/manual/semi-automatic Zoom Palette Start/stop recording Store image Playback/recall image
Color palettes	Iron, Gray, Rainbow, Arctic, Lava, Rainbow HC
Set-up commands	1 programmable button, overlay recording mode, local adaptation of units, language, date and time formats
Storage of images	
Storage media	Removable SD or SDHC memory card , two card slots
Image storage capacity	> 1200 images (JPEG) with post process capability per GB on memory card
Image storage mode	IR/visual images Visual image can automatically be associated with corresponding IR image
Periodic image storage	Every 10 seconds up to 24 hours
File formats	Standard JPEG, 14 bit measurement data included
Geographic Information System	
GPS	Location data automatically added to every image and video from built-in GPS
GPS logging	Log file (csv) of GPS data in 10 second or 1 minute increments with date, time, latitude, longitude, altitude, state, DOP.



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Video recording in camera	
Radiometric IR video recording	*.seq video clips to memory card (3.7 and 15 Hz).
Non-radiometric IR video recording	MPEG4 (up to 60 minutes/clip) to memory card. Visual image can automatically be associated with corresponding recording of non-radiometric IR video.
Visual video recording	MPEG4 (25 minutes/clip) to memory card
Video streaming	
Radiometric IR video streaming	Full dynamic to PC using USB cable or to mobile devices using Wi-Fi. PC software capable of displaying the video stream include the following: • FLIR IR Camera Player • FLIR ResearchIR
Non-radiometric IR video streaming	RTP/MPEG4
Digital camera	
Built-in digital camera	3.2 Mpixels, auto focus, and two video lamps
Laser pointer	
Laser	Activated by dedicated button
Laser classification	Class 2
Laser type	Semiconductor AlGaInP diode laser, 1 mW, 635 nm (red)
USB	
USB	• USB-A: Connect external USB device • USB Mini-B: Data transfer to and from PC
USB, standard	USB Mini-B: 2.0 high speed
Composite video	
Video out	Digital video output (image)
Power system	
Battery type	Rechargeable Li ion battery
Battery voltage	7.2 V
Battery capacity	4.4 Ah
Battery operating time	> 3 hours at 25°C (+77°F) and typical use
Charging system	In camera (AC adapter or 12 V from a vehicle) or 2-bay charger
Charging time	2.5 h to 95% capacity, charging status indicated by LED's
External power operation	AC adapter 90–260 VAC, 50/60 Hz or 12 V from a vehicle (cable with standard plug, optional)
DC operation	10.8 to 16 V DC, polarity protected (proprietary protected)
Power	8.5 W typically
Start-up time	Typically 7 min. @ 25°C (+77°F)
Battery documents	For documents like MSDS and UN38.3 test reports/summaries, see: https://support.flir.com/resources/msds

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Environmental data	
Operating temperature range	–20°C to +50°C (–4°F to +122°F)
Storage temperature range	–30°C to +60°C (–22°F to +140°F)
Humidity (operating and storage)	IEC 68-2-30/24 h 95% relative humidity +25°C to +40°C (+77°F to +104°F) (2 cycles)
Directives	• 73/23EEC • 2004/108/EC • 2002/95/EC • 2002/96/EC
EMC	• EN61000-6-4 (Emission) • EN61000-6-2 (Immunity) • FCC 47 CFR Part 15 class A (Emission) • EN 61 000-4-8, L5
Encapsulation	IP 54 (IEC 60529)
Shock	25 g (IEC 60068-2-27)
Vibration	2 g (IEC 60068-2-6)
Safety	Power supply: EN/UL/IEC 60950-1
Declaration of conformity	See: https://support.flir.com/resources/DoC

Physical data	
Camera weight, excl. lens and battery	1.94 kg (4.27 lb.)
Camera weight, incl. lens and excl. battery	2.24 kg (4.94 lb.)
Camera weight, incl. lens and battery	2.48 kg (5.47 lb.)
Battery weight	0.24 kg (0.52 lb.)
Camera size, excl. lens (L × W × H)	284 × 169 × 161 mm (11.2 × 6.7 × 6.3 in.)
Cameras size, incl. lens (L × W × H)	306 × 169 × 161 mm (12.0 × 6.7 × 6.3 in.)
Battery size (L × W × H)	141 × 47 × 28 mm (5.5 × 1.8 × 1.1 in.)
Battery charger size (L × W × H)	158 × 122 × 25 mm (6.2 × 4.8 × 1.0 in.)
Tripod mounting	UNC ¼"-20
Housing material	Aluminum, magnesium
Grip material	TPE thermoplastic elastomers

Shipping information	
Packaging, type	Cardboard box
List of contents	• Infrared camera with lens • Battery charger • Battery, 2 ea. • Hard transport case • HDMI-DVI cable • HDMI-HDMI cable • Lens cap (mounted on lens) • Memory card • Power supply, incl. multi-plugs • Printed documentation • Shoulder strap • USB cable • Wi-Fi USB micro adapter (depending on CE and FCC regulations regarding wireless equipment for your country)
Packaging, weight	
Packaging, size	400 × 190 × 510 mm (15.7 × 7.5 × 20.1 in.)
EAN-13	7332558008485



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Shipping information	
UPC-12	845188008840
Country of origin	Sweden

Supplies & accessories:

- T911881ACC; Camera bag and harness, G series
- T199367ACC; Battery Li-ion 7.2 V, 4.4 Ah, 32 Wh
- T199183ACC; Battery Li-ion 7.2 V, 4.4 Ah, 32 Wh
- T130007; Extended Calibration Certificate
- T199233; FLIR Atlas SDK for .NET

Camera with Lens IR f=23 mm (24°)
Camera with Lens IR f=38 mm (14,5°)

