FLIR GF320

Infrared camera for gas leak detection and electrical inspections

The new FLIR GF320 is a revolutionary infrared camera capable of finding Methane emissions or other Volatile Organic Compounds (VOC). It is unbeatable for detecting even the smallest gas leaks.

- *Real-time visualization of even very small gas leaks thanks to the Excellent High Sensitivity Mode (<25mK)*
- *Measures temperatures from -40 °C to +350 °C with ±1 °C accuracy*
- *Built-in Video Recording, Digital Camera, Laser pointer*
- *Embedded GPS Data helps to identify the precise locations of non-compliance*

- *High performance LCD & Tiltable high resolution viewfinder delivers bright and vivid image in poor lighting environment or under sunlight*
- *Lightweight (2,4 kg) and robust design*
- *User-Inspired Ergonomics: Rotating Handle, Direct Access Buttons*
- *Dual use, detects gas leaks and carries out electrical inspections (radiometric image data)*

Visualizes gas leaks in real time
FLIR GF320 can scan large areas rapidly and pinpoint leaks in real time. It is ideal for monitoring plants that is difficult to reach with contact measurement tools. Literally thousands of components can be scanned per shift without the need to interrupt the process. It reduces repair downtime and provides verification of the process. And above all it is exceptionally safe, allowing potentially dangerous leaks to be monitored from several meters away.

Protect the environment
FLIR GF320 will significantly improve your work safety, environmental and regulatory compliance, not to mention helping to improve the bottom line by finding leaks that essentially decrease profits.

Detects the following gases:

• Benzene	• MEK	• Butane
• Ethanol	• MIBK	• Ethane
• Ethylbenzene	• Octane	• Methane
• Heptane	• Pentane	• Propane
• Hexane	• 1-Pentene	• Ethylene
• Isoprene	• Toluene	• Propylene
• Methanol	• Xylene	

The sniffer is detecting gas but is unable to trace its source, whereas this thermal image shows the leak source clearly on the left.

Tiltable, flip-out 4.3" High Contrast Color LCD allows you to view targets more safely from any angle.

Applications:
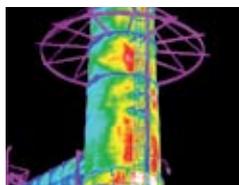
Oil refineries

Natural gas
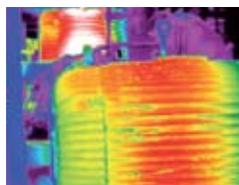
Power generation

Petrochemical & chemical industries

Automatic (one Touch) and Manual Focus w/ 8 to 1 Continuous Digital Zoom helps you to deliver the perfect picture at ease.

FLIR GF32O Technical Specifications

Imaging and optical data	
Field of view (FOV) / Minimum focus distance	24° x 18° / 0.3 m
Lens identification	Automatic
F-number	1.5
Thermal sensitivity/NETD	<25 mK @ +30°C
Focus	Automatic (one touch) or manual (electric or on the lens)
Zoom	1–8× continuous, digital zoom
Digital image enhancement	Noise reduction filter, scene based NUC, High Sensitivity Mode (HSM)
Focal Plane Array (FPA) / Spectral range	Cooled InSb / 3–5 µm
IR resolution	320 × 240 pixels
Detector pitch	30 µm
Sensor cooling	Stirling Microcooler (FLIR MC-3)

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 modes	IR-image, visual image, High Sensitivity Mode (HSM)

Measurement	
Temperature range	–40 to +350°C
Accuracy	±1°C for temperature range (0-100 °C) or ±2% of reading for temperature range (> +100 °C)

Measurement analysis	
Spotmeter	10
Area	5 boxes with max/min/average
Profile	1 live line (horizontal or vertical)
Difference temperature	Delta temperature between measurement functions or reference temperature
Reference temperature	Manually set or captured from any measurement function
Emissivity correction	Variable from 0.01 to 1.0 or selected from editable materials list
Reflected apparent temperature correction	Automatic, based on input of reflected temperature
Measurement corrections	Reflected temperature, distance, atmospheric transmission, humidity, external optics

Set-up	
Menu commands	Level, span
	Auto adjust continuous/manual/semi-automatic
	Zoom
	Palette
	Start/stop recording
	Store image
	Playback/recall image
Set-up commands	1 programmable button, local adaptation of units, language, date and time formats
Web interface	Admin camera setup and viewing IR images

Storage of images	
Image storage type	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 is automatically associated with corresponding IR image.
File formats	Standard JPEG, 14 bit measurement data included
GPS	Location data automatically added to every image from built-in GPS

Video recording and streaming	
Non radiometric IR-video recording	MPEG4/H.264 (60 minutes/clip) to memory card. Visual image can automatically be associated with corresponding recording of non radiometric IR-video.
Digital camera video recording	MPEG4/H.264 (25 minutes/clip) to memory card
Non radiometric IR-video streaming	RTP/H.264

Digital camera	
Built-in digital camera	3.2 Mpixel, auto focus, and two video lamps

Laser pointer	
Laser	Activated by dedicated button

Data communication interfaces	
USB	USB-A: Connect external USB device (e.g. memory stick) USB Mini-B: Data transfer to and from PC
USB, standard	USB Mini-B: 2.0 High Speed
Video	HDMI

Power system	
Battery type	Rechargeable Li Ion battery
Battery voltage	7.2 V
Battery operating time	> 3 hours at 25°C and typical use
Charging system	In camera (AC adapter or 12 V from a vehicle) or 2 bay charger
Start-up time	< 5 min. @ 25°C

Environmental data	
Operating temperature range	–20°C to +50°C
Storage temperature range	–30°C to +60°C
Humidity (operating and storage)	IEC 68-2-30/24 h 95% relative humidity +25°C to +40°C (2 cycl)
Directives	73/23EEC, 89/336/EEC, 2002/95/EC, 2002/96/EC
EMC	EN61000-6-3 (Emission) EN61000-6-2 (Immunity) FCC 47 CFR Part 15 class B (Emission) EN 61 000-4-8, L5 EN/UL/CSA 60950-1
Encapsulation	IP 54 (IEC 60529)
Bump	25 g (IEC 60068-2-29)
Vibration	2 g (IEC 60068-2-6)

Physical data	
Camera weight, incl. lens and battery	2,48 kg
Battery weight	0,24 kg
Cameras size, incl. lens (L × W × H)	305 × 169 × 161 mm
Tripod mounting	Standard, 1/4"-20
Housing material	Aluminium, Magnesium
Grip material	TPE Thermoplastic Elastomers

Scope of delivery
Packaging, contents
Infrared camera
Standard Lens, 24° (Si)
Shipping case
Lens cap (mounted on lens)
Lens cap (2 ea.,backside of lens and opening on camera body)
Lens cap strap, 2 ea.
Shoulder strap
Batteries 2 ea. (1 of the batteries inside camera)
Charger
Power supply
Power supply cord
HDMI-DVI + HDMI-HDMI cable
USB cable
SD card
SD card adapter (connects via USB to PC)
Getting Started Guide (printed)
Manual for GF-series on CD
FLIR Quick report on CD
Video Report 1.0 with manual on CD
System Calibration Certificate

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