SEEING IS BELIEVING
NEW GF SERIES infrared cameras
Gas can leak, but it can't hide.

See how it works: go.flir.com/see

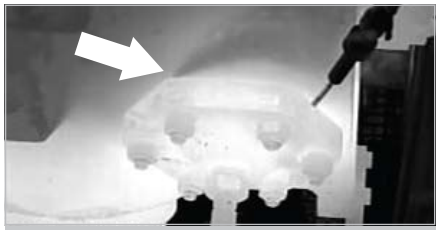
FLIR GF320

- *Real-time Infrared Gas Detection: Improved High Sensitivity Mode*
- *Built-in Video Recording, Digital Camera, Safety Laser*
- *Embedded GPS Data*
- *Fully Calibrated for Temperature Measurement Applications*
- *Automatic (One-Touch) and Manual Thermal Focus w/ 8 to 1 Continuous Digital Zoom*
- *High Resolution (800 x 480), Tiltable Viewfinder*
- *User-inspired Ergonomics: Rotating Handle, Direct Access Buttons*
- *High Contrast Color LCD*

Real-time Infrared Gas Detection: Improved High Sensitivity Mode
Show gas leaks to co-workers, supervisors, or safety officers quickly and easily. Scan large, hard-to-reach, or dangerous areas rapidly and from safe distances. The improved High Sensitivity Mode (HSM) and noise reduction filter, plus new user-selectable color palettes produce sharp thermal images, downloadable video and reports!

Built-in video recording, digital camera, safety laser — Store thermal and/or visible video to MPEG4/H.264 standard SD memory cards, making it easy to share output or download to a PC. Use the new playback feature to view in the field – or plug into a TV or monitor back in the shop. The 3.2 mega pixel visible camera features auto focus and two high performance video lamps for illuminating dark areas, while the button-activated laser pointer helps you point out problematic leaks safely and easily.

Onscreen Temperature Measurement and GPS Data — A wide temperature range (-40 to +350°C or -40 to +662°F) and improved thermal sensitivity (<25mK), the new GF 320 gives you the power to dial-in your "scene temperature" with the new user-inspired, direct-access "temperature range" button. This sharpens thermal image clarity, but also helps you see flare temperatures or record "hot spots" (i.e. potential failures) in all types of electro-mechanical equipment. Embedded GPS data allow you to "mimic the set-up" of precise locations where portably environmental monitors detect non-compliance. Work smarter, work safer.



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

Automatic (One-Touch) and Manual Thermal Focus w/ 8 to 1 Continuous Digital Zoom — A sharp thermal image – or video – pinpointing the source of a gas leak is the ideal output for repair crews. Whether you prefer one-touch automatic focusing or turning the lens with your fingers, the new GF320 helps you deliver the perfect picture. A powerful 8 to 1 digital zoom also lets you zero-in on far-away or dangerous targets without compromising worker safety.

Tiltable, Flip-out 4.3" High Contrast Color LCD — Based on extensive end-user feedback, the new color LCD delivers a bright and vivid image in a widescreen format. It "flips-out" of the camera housing and then swivels and tilts to help you view targets more safely from any angle – helping to avoid eye strain when using the camera for extended periods of time.

High Resolution (800 x 480), Tiltable Viewfinder — Use of a viewfinder is sometimes preferred, such as in extreme daylight. When needed, the GF 320's new viewfinder is high quality, high resolution and highly ergonomic – improving your safety and performance.

User-inspired Ergonomics: Rotating Handle, Direct Access Buttons
Designed from the end-user's perspective, the new FLIR GF320 offers advanced ergonomics to improve worker safety and individual performance, not to mention reducing back and arm strain. The user interface is both smart and intuitive: it even allows you to customize your own direct access buttons to the features you use most!

FLIR GF320 Specifications

Imaging and Optical Data	
Field of view/min focus distance	24° x 18° / 0.3 m (1.0 ft.)
Lens identification	Automatic
F-number	1.5
Thermal sensitivity/NETD	<25 mK @ +30°C (+86°F)
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 / 3.2 -3.4 µm
IR resolution	320 × 240 pixels
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 (–40 to +662°F)
Accuracy	±1°C (±1.8°F) for temperature range (0 to +100°C, +32 to +212°F) or ±2% of reading for temperature range (>+100°C, >+212°F)
Measurement Analysis	
Spotmeter	3
Area	1 box
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 & 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 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
GPS	Location data automatically added to every image from built-in GPS
Video Recording and Streaming	
Non radiometric IR-video recording	MPEG/H.264 (60 minutes/clip) to memory card Visual image can automatically be associated with corresponding recording of non-radiometric IR video
Non radiometric IR-video streaming	RTP/H.264
Digital Camera	
Built-in digital camera	3.2 Mpixel, auto focus, and two video lamps
Digital camera video recording	MPEG4/H.264 (25 minutes/clip) to memory card
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 (image)
Power System	
Battery type / voltage	Rechargeable Li Ion battery / 7.2 V
Battery capacity	4.4Ah
Battery operating time	> 3 hours at 25°C (+68°F) and typical use
Charging system	In camera (AC adapter or 12 V from a vehicle) or 2 bay charger
External power operation	AC adapter 90–260 VAC, 50/60 Hz or 12 V from a vehicle (cable with standard plug, optional)
Power	8 W typically
Start-up time	< 5 min. @ 25°C (+77°F)

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 cycl)
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 (5.47 lb.)
Cameras size, incl. lens (L × W × H)	306 × 169 × 161 mm (12.0 × 6.7 × 6.3 in.)
Tripod mounting	Standard, 1/4"-20

Scope of Delivery
Packaging / Contents
Batteries 2 ea. (1 of the batteries inside camera)
Battery charger
FLIR QuickReport™ PC software CD-ROM
FLIR VideoReport™ PC software CD-ROM
Hard transport case
HDMI-DVI cable
HDMI-HDMI cable
Infrared camera with Lens
Lens cap (2 ea.)
Lens cap (mounted on lens)
Memory card
Memory card adapter
Power supply
Power supply cable
Printed Getting Started Guide
Shoulder strap
Strap for lens cap, 2 ea.
System Calibration Certificate
USB cable
User documentation CD-ROM
Warranty extension card or Registration card

Accessory Optics
Lens MWB 24°, f=23mm
Lens MWB 14.5°, f=38mm
Lens MWB 6°, f=92mm

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1 978 901 8000

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