



INTRINSICALLY SAFE

FLIR **GfX320**™

*Handheld Optical Gas Imaging  
Camera for Detecting Methane,  
Hydrocarbons, and VOCs*



The World's **Sixth Sense**®



# INTRODUCING THE FLIR GFx320

With increasing natural gas regulation globally, oil and gas producers are looking for ways to quickly detect fugitive emissions and to stop those leaks before they grow into huge fines.

Armed with a certified Intrinsically Safe camera that visualizes even the smallest concentrations of methane, hydrocarbons, and volatile organic compounds (VOCs), surveyors can get right to work and find leaks up to nine-times faster than with traditional gas sniffer methods. The third-party safety certification allows inspectors to work with confidence, knowing that once they scan a hazardous area and deem it safe, they can enter with the camera in hand. By finding leaks and fixing them quickly, your company can protect the environment while avoiding product losses and the cost of regulatory fines.



## Key Features

### Hazardous-Location Certified

With third-party certification for use in hazardous locations, the Intrinsically Safe GFx320 represents groundbreaking technology for surveying critical zones that were created to keep workers safe.

### Proven Gas Detection Technology

The GFx320 is specifically tuned to visualize fugitive emissions that are impossible to see with the human eye, so surveyors don't waste time inspecting safe, leak-free components.

### Meets Sensitivity Standards

With the potential to detect gases leaking at just 0.4 g/hr, the GFx320 is verified to meet sensitivity standards defined in the US EPA's OOOOa methane rule.

### Accentuates Plume Movement

FLIR's unique High Sensitivity Mode (HSM) employs proprietary video processing techniques, for a 5x increase in leak detectability.

### Temperature Calibrated for Better Contrast

The GFx320 is calibrated for temperature measurement, so users can ensure optimal  $\Delta T$  between the gas compound and the background scene.

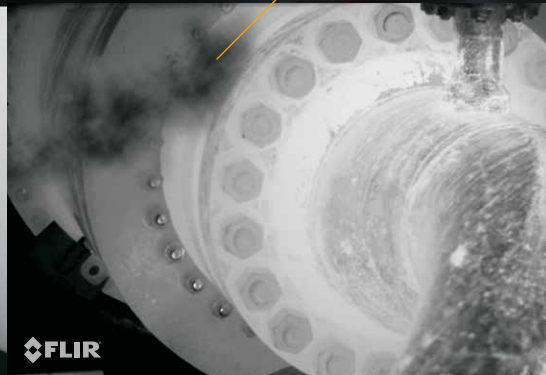
### Innovative Ergonomic Design

The GFx320 is designed with workers in mind, with features such as a tiltable eyepiece, articulating LCD screen, and rotating hand grip.

### Rugged and Reliable

The GFx320's rubberized optics and rugged camera housing were designed specifically for your tough work environment.

Natural gas leak on compressor valve



Methane leak at natural gas production site

The GFx320 is ideal for:

- Offshore platforms
- Liquid natural gas shipping terminals
- Oil refineries
- Natural gas wellheads
- Compressor stations
- Natural gas processing plants
- Bio-gas and power generation plants

The GFx320 visualizes more than 400 gases, including:

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

### Safety Zone Compliant

At offshore rigs, well sites, and production plants, there's often a risk of gas collecting and igniting with a stray spark or hot surface. Working in these areas requires special clothing and equipment – if it's possible at all.

The oil and gas industry has long awaited a gas detection solution such as the GFx320, because its Intrinsically Safe designation allows the user to work confidently and focus on the job at hand. The GFx320 streamlines access for inspectors, potentially eliminating the need for hot work permits in Zone 2/Class I, Div II areas, depending upon company protocols.

### The GFx320 has the following certifications:

ATEX/IECEX, Ex ic nC op is IIC T4 Gc II 3 G  
ANSI/ISA-12.12.01-2013, Class I Division 2  
CSA 22.2 No. 213, Class 1 Division 2



FLIR GFx320™

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Venting pressure relief valve on storage tank

INTRINSICALLY  
SAFE



## FLIR GFx320

The Fastest, Safest  
Way to Detect Invisible  
Methane, Hydrocarbon,  
and VOC Leaks

## Specifications

Model	
Detector Type	Indium Antimonide (InSb)
Spectral Range	3.2 – 3.4 $\mu$ m
IR Resolution	320 x 240 pixels
Detector Pitch	30 $\mu$ m
NETD/Thermal Sensitivity	<15 mK @ 30°C (86°F)
Sensor Cooling	Stirling Microcooler (FLIR MC-3)
Hazardous Location Compliance	ATEX/IECEx, Ex ic nC op is IIC T4 Gc II 3 G ANSI/ISA-12.12.01-2013, Class I Div 2 CSA 22.2 No. 213, Class I Div 2
Electronics/Imaging	
Image Modes	IR image, visual image, High Sensitivity Mode (HSM)
Frame Rate	60 Hz
Dynamic Range	14-bit
Radiometric IR Video	15 Hz direct to memory card
Non-Radiometric IR Video	MPEG4 (up to 60 min./clip) to memory card
Visual Video	MPEG4 (25 min./clip) to memory card
Visual Image	3.2 MP from integrated visible camera Can be automatically associated with corresponding non-radiometric IR video
GPS	Location data stored with every image
Measurement	
Standard Temperature Range	-20°C to 350°C (-4°F to 662°F)
Accuracy	$\pm$ 1°C ( $\pm$ 1.8°F) for temperature range (0°C to 100°C, 32°F to 212°F) or $\pm$ 2% of reading for temperature range (>100°C, >212°F)
Optics	
Camera F-number	f/1.5
Available Fixed Lenses	14.5° (38 mm), 24° (23 mm)
Focus	Manual
Image Presentation	
On-Camera Displays	Widescreen 800 x 480 pixel LCD Tilttable 800 x 480 pixel OLED viewfinder
Automatic Image Adjustment	Continuous/manual; linear or histogram-based
Image Analysis	10 spotmeters, 5 boxes with max./min./average, profile, delta temperatures, emissivity & measurement corrections
Color Palettes	Iron, Gray, Rainbow, Arctic, Lava, Rainbow HC
Zoom	1-8x continuous, digital zoom
General	
Operating Temperature Range	-20°C to 50°C (-4°F to 122°F)
Ambient Temperature Range	-20°C to 40°C (-4°F to 104°F) (Certification range for explosive atmospheres)
Storage Temperature Range	-30°C to 60°C (-22°F to 140°F)
Encapsulation	IP 54 (IEC 60529)
Shock / Vibration	25 g (IEC 60068-2-27) / 2 g (IEC 60068-2-6)
Power	AC adapter 90-260 VAC, 50/60 Hz or 12 VDC from a vehicle
Battery Type	Rechargeable Li-ion battery
Mounting	Standard, 1/4"-20

For the most up-to-date specifications, visit [www.support.flir.com](http://www.support.flir.com)



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