

INTRINSICALLY  
SAFE

# FLIR GFx320™

*Infrared Camera for Methane,  
Hydrocarbon, and VOC Detection*



The FLIR GFx320 represents groundbreaking optical gas imaging technology for detecting methane, other hydrocarbons, and volatile organic compound (VOC) emissions in areas such as well sites and offshore platforms.

## Hazardous-Location Certified

The GFx320 is independently certified as Intrinsically Safe and third-party approved for use in hazardous locations. The oil and gas market has long awaited this gas detection solution, as its Intrinsically Safe designation allows the user to work quickly and confidently, and scan for fugitive emissions in more areas than ever before.

## Greater Emission Reductions – Increased Profits

The GFx320 visualizes incredibly small hydrocarbon gas leaks with the sensitivity needed to comply with the US EPA's OOOOa methane rule. Surveyors can use the GFx320 to scan large areas and check thousands of components over the course of one inspection. The digital camera and automatic GPS tagging ensure you'll meet reporting requirements without the need for extra equipment. By fixing gas leaks quickly, you can save your company thousands in lost gas and lost profits while improving regulatory compliance and protecting the environment.

## Superior Gas Visualization

The FLIR GFx320 is unbeatable at visualizing gas leaks, so you can pinpoint the exact source of fugitive emissions. The High Sensitivity Mode uses proprietary video processing techniques to accentuate plume movement for a fivefold increase in leak detectability. In addition, the GFx320 is capable of measuring temperatures up to 350°C with an accuracy of  $\pm 1^\circ\text{C}$ . This is critical for assessing thermal contrast between the gas compound and the background scene.

## Innovative Ergonomic Design

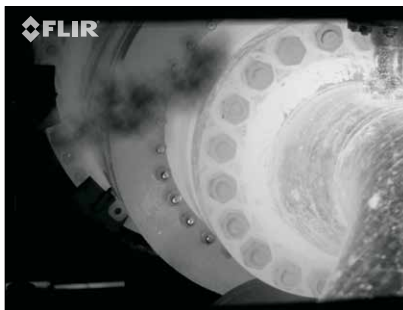
The GFx320 is ergonomically designed with the operator in mind, with a tiltable viewfinder, articulating LCD screen, and rotating handgrip. The camcorder-style construction allows the user to maintain three points of contact during operations, taking the strain out of a full day of surveys.

## The GFx320 can detect more than 400 gas compounds, including:

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



Venting pressure relief valve on storage tank



Natural gas leak on compressor valve



Methane leak at natural gas production site



## Specifications

<b>Model</b>		<b>6Fx320</b>
Detector Type	FLIR Indium Antimonide (InSb)	
Spectral Range	3.2 – 3.4 $\mu\text{m}$	
IR Resolution	320 x 240 pixels	
Detector Pitch	30 $\mu\text{m}$	
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	
<b>Electronics / Imaging</b>		
Image Modes	IR image, visual image, High Sensitivity Mode (HSM)	
Frame Rate (Full Window)	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	
<b>Measurement</b>		
Standard Temperature Range	-20°C to 350°C (-4°F to 662°F)	
Accuracy	$\pm 1^\circ\text{C}$ ( $\pm 1.8^\circ\text{F}$ ) 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)	
<b>Optics</b>		
Camera f/number	f/1.5	
Available Fixed Lenses	14.5° (38 mm), 24° (23 mm)	
Focus	Manual	
<b>Image Presentation</b>		
On-Camera Displays	Widescreen 800 x 480 pixel LCD Tilttable 800 x 480 pixel OLED viewfinder	
Automatic Image Adjustment	Continuous/manual, linear, histogram	
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	
<b>General</b>		
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)	
External Power Operation	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	

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