FLIR GFx320™
for Hazardous Locations

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

FLIR® 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 an optical gas imaging 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 GFx320 carries third-party certifications for use in hazardous locations, meaning inspectors can work with confidence. 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-Locaton Certified**
With third-party certification for use in hazardous locations, the 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 AT 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.

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 igniteing 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 certifications allow 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
- CSA 22.2 No. 213, Class 1 Division 2
- ANSI/ISA-12.12.01-2013, Class I Division 2
- ATEX/IECEx, Ex nC II 3 G
- Ex d II 3 G
- Gc II 3 G
- Class I Division 2
- T4

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## Specifications

<table>
<thead>
<tr>
<th>Model</th>
<th>Detector Type</th>
<th>Indium Antimonide (InSb)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Spectral Range</td>
<td>3.2 – 3.4 μm</td>
</tr>
<tr>
<td></td>
<td>IR Resolution</td>
<td>320 x 240 pixels</td>
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<tr>
<td></td>
<td>Detector Pitch</td>
<td>30 μm</td>
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<tr>
<td></td>
<td>NETD/Thermal Sensitivity</td>
<td>&lt;15 mK @ 30°C (86°F)</td>
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<td></td>
<td>Sensor Cooling</td>
<td>Stirling Microcooler (FLIR MC-3)</td>
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<tr>
<td>Hazardous Location Compliance</td>
<td>ATEX/IECEx, Ex ic nC op is II2 Tb3 G ANSI/ISA-12.12.01-2013, Class I Div 2 CSA 22.2 No. 1, 219, Class I Div 2</td>
<td></td>
</tr>
</tbody>
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### 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**: ±1°C (±1.8°F) for temperature range (0°C to 100°C, 32°F to 212°F) or ±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
- **Tiltable OLED viewfinder**: 800 × 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, ¼”-20

For the most up-to-date specifications, visit www.support.flir.com