

FLIR G300 a

Optical Gas Imaging Cameras For Continuous Gas Leak Detection



Optical gas imaging cameras from FLIR can visualize and pinpoint gas leaks that are invisible to the naked eye. With an optical gas imaging camera it is easy to continuously scan installations that are in remote areas or in zones that are difficult to access.

Continuous monitoring means that you will immediately see when a dangerous or costly gas leak appears so that immediate action can be taken. Optical gas imaging (OGI) cameras are widely used in industrial settings, such as oil refineries, natural gas processing plants, offshore platforms, chemical/ petrochemical complexes, and biogas and power generation plants.

OGI cameras like the FLIR G300 a can detect harmful VOC's (volatile organic compounds) that can seriously harm the environment.

FLIR G300 a optical gas imaging camera can be easily integrated in housings with application specific requirements.

COOLED DETECTOR MAKES THE SMALLEST TEMPERATURE DIFFERENCES VISIBLE

FLIR G300 a contains a cooled Indium Antimonide (InSb) detector that produces thermal images of 320 x 240 pixels. With its low F-number and high sensitivity, G300 a detects the smallest of leaks.

The high sensitivity mode further enhances the detection level of the camera so that the smallest gas leaks can be detected.

EASY TO CONTROL

All models are easy to control from a safe distance. They can be fully controlled over Ethernet. They can easily be integrated in a TCP/ IP network.

AVAILABLE LENSES

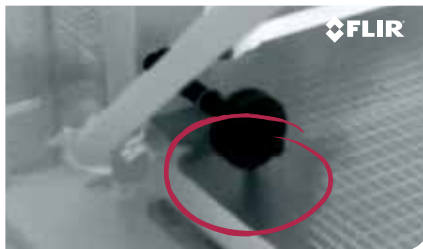
The FLIR G300 a is available with a 23 mm (FOV: 24° x 18°) or 38 mm (14.5 x 10.8) lens. Longer lenses give you a narrower field of view so that you can detect gas leaks from further away.

FLIR G300 A DETECTS THE FOLLOWING GASES:

Benzene, Ethanol, Ethylbenzene, Heptane, Hexane, Isoprene, Methanol, MEK, MIBK, Octane, Pentane, 1-Pentene, Toluene, m-xylene, Butane, Methane, Propane, Ethylene and Propylene.



Captured gas leak from production site.



Captured gas leak.

Technical specifications FLIR G300 a

Imaging & Optical Data	
IR resolution	320 × 240 pixels
Thermal sensitivity/NETD	<15 mK @ +30°C (+86°F)
Field of view (FOV)	24° × 18° with 23 mm lens; 14.5 × 10.8 with 38 mm lens
Minimum focus distance	0.3 m (1.0 ft.) for 23 mm lens; 0.5 m (1.64 ft.) for 38 mm lens
F-number	1.5
Focus	Automatic using FLIR SDK, or manual
Zoom	1–8× continuous, digital zoom
Digital image enhancement	Noise reduction filter, High Sensitivity Mode (HSM)
Detector data	
Detector type	Focal Plane Array (FPA), cooled InSb
Spectral range	3.2–3.4 μm
Image presentation	
Automatic image adjustment	Continuous/manual; linear or histogram based
Manual image adjustment	Level/span
Image presentation modes	
Image modes	IR-image, High Sensitivity Mode (HSM)
Electronics and data rate	
Full frame rate	60 Hz
Temperature ranges	
Temperature range	–20°C to +350°C (–4°F to +662°F)
Video streaming	
Non-radiometric IR-video streaming	RTP/MPEG4
USB	
USB	Control and image
USB, standard	2.0 High Speed
USB, connector type	USB micro
USB, communication	TCP/IP socket-based, Microsoft RNDIS and/or USB video class
USB, video streaming	640 × 480 pixels at 30 Hz
USB, image streaming	16-bit 320 × 240 at 30 Hz
USB, protocols	TCP, UDP, RTSP, RTP, HTTP, ICMP, IGMP, ftp, DHCP
Ethernet	
Ethernet	Control, result and image
Ethernet, type	100 Mbps
Ethernet, standard	IEEE 802.3
Ethernet, connector type	RJ-45
Ethernet, communication	TCP/IP socket-based FLIR proprietary
Ethernet, video streaming	640 × 480 pixels at up to 15 Hz, MPEG-4, ISO/IEC 14496-1 MPEG-4 ASP@L5
Ethernet, image streaming	16-bit 320 × 240 pixels at up to 10 Hz
Ethernet, protocols	TCP, UDP, RTSP, RTP, HTTP, ICMP, IGMP, ftp, DHCP, MDNS (Bonjour), SMB/CIFS

Data communication interfaces	
Interfaces	Ethernet / HDMI
Composite video	
Video out	Digital Video Output (image)
Power system	
DC operation	10–28 V DC, polarity protected
Start-up time	Typically 7 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)
Directives	Low voltage directive: 2006/95/EC, EMC: 2004/108/EC, RoHS: 2002/95/EC, WEEE: 2002/96/EC
EMC	EN61000-6-4 (Emission) / EN61000-6-2 (Immunity) / FCC 47 CFR Part 15 class A (Emission) / EN 61 000-4-8, L5
Shock	25 g (IEC 60068-2-27)
Vibration	2 g (IEC 60068-2-6)
Physical data	
Weight	1.4 kg (3.1 lb.), incl. 14.5° lens
Cameras size, incl. lens (L × W × H)	242×80×105mm (9.5×3.1×4.1 in.) incl. 14.5° lens
Housing material	Aluminum

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