

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 | FLIR G300 a |
|------------------------------------|--|
| 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) | 242x80x105mm (9.5x3.1x4.1 in.) incl. 14.5° lens |
| Housing material | Aluminum |

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