FLIR G300 pt

Multi-Sensor Optical Gas Imaging Cameras for Continuous Gas Leak Detection

Optical gas imaging cameras from FLIR can visualize and pinpoint gas leaks. 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 industries, and biogas and power generation plants.

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

COOLED DETECTOR MAKES THE SMALLEST TEMPERATURE DIFFERENCES VISIBLE

FLIR G300 pt contains a cooled Indium Antimonide (InSb) detector that produces thermal images of 320 x 240 pixels. With its low F-number and low gas sensitivity G300 pt detects the smallest of leaks. The high sensitivity mode further enhances the sensitivity of the cameras so that the smallest gas leaks can be detected.

EASY TO CONTROL

FLIR G300 pt is easy to control from a safe distance. It can be fully controlled over Ethernet and easily integrated in a TCP/ IP network.

AVAILABLE LENSES

The FLIR G300 pt is available with 23 mm or 38 mm lens. Longer lenses give you a narrower field of view so that you can detect gas leaks from farther away.

COMPLETE SOLUTION MOUNTED ON A PRECISE PAN/TILT MECHANISM

The FLIR G300 pt is integrated in a robust housing that is mounted on a pan/tilt mechanism. It allows the user to rotate the camera 360° continuously and to tilt it +45° or -45°. It allows monitoring different areas with the same system. Ideal if you want to monitor both gas leaks and use the system for predictive maintenance applications at the same time.

The pan/tilt has 128 preset positions, perfect for when you want to scan different areas continuously. The G300 pt is also equipped with a long-range daylight/low light camera. The video output of the thermal imaging and daylight/low light camera are simultaneously available. The daylight camera offers a 36x optical zoom.

FLIR G300 PT DETECTS THE FOLLOWING GASES:

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

Captured gas leak from production site.

A leaking LPG treater.

◆FLIR | The World's Sixth Sense™

Technical specifications FLIR G300 pt

Imaging & Optical Data	FLIR G300 pt
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° x10.8° 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

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	Two independent channels for each camera: MPEG-4, H.264 or M-JPEG
Ethernet, image streaming	NA
Ethernet, protocols	TCP, UDP, RTSP, RTP, HTTP, ICMP, IGMP, ftp, MDNS (Bonjour), SMB/CIFS, SNTP,SMTP, DHCP, uPnP

Composite video	
Video out	Composite video out, PAL/NTSC compatible

Imaging and optical data (visual camera)	
Field of view (FOV) / Focal lenghts	57.8° (H) to 1.7° (H) / 3.4 mm (wide) to 122.4 mm (tele)
F-number	1.6 to 4.5
Focus	Automatic or manual (built in motor)
Optical Zoom	36× continuous
Electronic Zoom	12× continuous, digital, interpolating

Detector data (visual camera)	
Focal Plane Array (FPA) / Effective pixels	1/4" Exview HAD CCD / 380,000

Technical specification (pan & tilt)	
Azimuth Range Az velocity	360° continuous, 0.1 to 60°/sec max
Elevation Range El velocity	+/- 45°, 0.1 to 30°/sec. max
Programmable presets	128
Automatic heaters	Prevent window to ice up. Switched on at +4°C (39°F). Switched off at +15°C (59°F).

Power system	
DC operation	24 VAC (21-30 VAC; 24 VAC: 215 VA max with heather) or 24 VDC (21-30- VDC; 24 VDC: 200 W max. with heather)

Environmental data	
Operating temperature range	–25°C to +50°C (–13°F to +122°F)
Storage temperature range	–30°C to +60°C (–22°F to +140°F)
Humidity (operating and storage)	IEC60068-2-30/24 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	EN61000-6-2 (immunity) / EN61000-6-3 (emission) / FCC 47CFR Part 15 Class B (emission) / EN 61000-4-8, L5
Encapsulation	IP 66
Bump	5g, 11 ms (IEC 60068-2-27)
Vibration	2g (IEC 60068-2-6)

Physical data	
Weight	18.7 kg (41.2 lb.)
Camera size, excl. lens (L × W × H)	460 x 467 x 326 mm (18.1 x18.4 x 12.8 in.)
Housing material	Aluminum

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