FLIR G300 pt 24° PAL

P/N: 65501-0102

Copyright

Document identity

Website

http://www.flir.com

Customer support

http://support.flir.com

Disclaimer

General description

The FLIR G300pt is a pan/tilt infrared camera for optical gas imaging (OGI) that visualizes and pinpoints leaks of volatile organic compounds (VOCs) without the need to shut down the operation. The FLIR G300pt is used in industrial settings such as oil refineries, natural gas processing plants, offshore platforms, chemical/petrochemical industries, and biogas and power generation plants.

The FLIR G300pt precision pan/tilt mechanism gives operators accurate directional control while providing fully programmable scan patterns, radar slew-to-cue, and slew-to-alarm functionality.

Key features

- H.264, MPEG-4, and MJPEG streaming.
- Built-in web server.
- 100 Mbps Ethernet (100 m cable, wireless, fiber, etc.).
- Composite video output.
- Precise pan/tilt mechanism.
- Daylight camera.
- IP66 encapsulation.
- IP control: The FLIR G300pt camera can be integrated into any existing TCP/IP network and controlled with a PC.
- Serial control interface: Pelco D or Bosch commands can be used over RS-232, RS-422, or RS-485 to remotely control a FLIR G300pt camera.
- Multi-camera software: FLIR Sensors Manager allows users to manage and control a FLIR G300pt camera in a TCP/IP network.

Benefits

- Improved efficiency: The FLIR G300pt reduces revenue loss by pinpointing even small gas leaks quickly and efficiently, and from a distance. It also reduces the inspection time by allowing a broad area to be scanned rapidly and without the need to interrupt the industrial process.
- Increased worker safety: OGI allows gas leaks to be detected in a non-contact mode and from a safe distance. This reduces the risk of the user being exposed to invisible and potentially harmful or explosive chemicals. With a FLIR G300pt gas imaging camera it is easy to scan areas of interest that are difficult to reach with conventional methods.
- Protecting the environment: Several VOCs are dangerous to human health or cause harm to the environment, and are usually governed by regulations. Even small leaks can be detected and documented using the FLIR G300pt.

Detects the following gases: benzene, ethanol, ethylbenzene, heptane, hexane, isoprene, methanol, methyl ethyl ketone, MIBK, octane, pentane, 1-pentene, toluene, *m*-xylene, ethane, butane, methane, propane, ethylene, propylene.

Imaging and optical data

IR resolution	320 × 240 pixels
Thermal sensitivity/NETD	<15 mK @ +30°C (+86°F)

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#; r. /35207; en-US

Imaging and optical data	
Field of view (FOV)	24° × 18°
Minimum focus distance	0.3 m (1.0 ft.)
Focal length	23 mm (0.89 in.)
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
Sensor cooling	Stirling Microcooler (FLIR MC-3)
MTBF	2 years or 15,000 hours (whichever is greatest), for a camera running 24/7 @ +20°C (+68°F)
Detects following gases	Benzene, ethanol, ethylbenzene, heptane, hexane, isoprene, methanol, methyl ethyl ketone, MIBK, octane, pentane, 1-pentene, toluene, m-xylene, ethane, butane, methane, propane, ethylene, propylene

Imaging and optical data (visual camera)	
Field of view (FOV)	57.8° (H) to 1.7° (H)
Focal length	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)	1/4" Exview HAD CCD
Effective pixels	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	Clears window from ice. Switched on at +4°C (39°F). Switched off at +15°C (59°F).

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

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

Composite video	
Video out	Composite video output, PAL compatible
Video, standard	CVBS (ITU-R-BT.470 PAL)

Power system	
Power	24 VAC (21-30 VAC; 24 VAC: 215 VA max. with heater) or 24 VDC (21-30 VDC; 24 VDC: 195 W max. with heater).

Environmental data	
Operating temperature range	–40°C to +50°C (–-40°F to +122°F)
Storage temperature range	–40°C to +60°C (–40°F to +140°F)
Humidity (operating and storage)	IEC 60068-2-30/24 h 95% relative humidity +25°C to +40°C (+77°F to +104°F)
Directives	• Low voltage directive: 2006/95/EC • EMC: 2004/108/EC • RoHS: 2002/95/EC • WEEE: 2002/96/EC
EMC	• EN 61000-6-2 (Immunity) • EN 61000-6-3 (Emission) • FCC 47 CFR Part 15 Class B (Emission) • EN 61 000-4-8, L5
Encapsulation	IP 66 (IEC 60529)
Bump	5 g, 11 ms (IEC 60068-2-27)
Vibration	2 g (IEC 60068-2-6)

Physical data	
Weight	18.7 kg (41.2 lb.)
Size (L × W × H)	460 × 467 × 326 mm (18.1 × 18.4 × 12.8 in.)
Housing material	Aluminum

Shipping information	
List of contents	• Infrared camera • Printed documentation • Small parts accessory kit • ThermoVision System Tools & Utilities CD-ROM
EAN-13	7332558008447
UPC-12	845188008796
Country of origin	Sweden

Supplies & accessories:

• T911288ACC; Pole mount adapter for wall mount kit

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Ø260mm
[10,2in]

100mm
[3,94in]

81mm
[3,19in]

A

DETAIL A
SCALE 2 : 5

186mm
[7,32in]

162mm
[6,38in]

4X Ø9mm
[0,35in]

162mm
[6,38in]

138mm
[5,43in]

Ø514mm
[20,24in]

460,3mm
[18,12in]

100mm
[3,94in]

252mm
[9,92in]

FLIR

326mm
[12,83in]

467,1mm
[18,39in]

327,1mm
[12,88in]

252mm
[9,92in]

All dimensions are valid for FOV 14,5° and 24°

Konstr/Drawn C. HARJU	Datum/Date 2014-05-16	Kontr/Check MEER
Ändrad av/Modified by M. MOOIJ	Ändrad/Modified 2014-06-27	Ytjämnhet/Roughness Ra
Där ej annat anges/Unless otherwise stated		Material -
Gen tol ISO 2768-mK		Ytbehandling/Surface treatment
Uttrag ur/Except from ISO 2768-m		µm

0.5-6	±0,1	Hålkälsradier
(6)-30	±0,2	Fillet radii
(30)-120	±0,3	
(120)-400	±0,5	Kanter brutna
(400)-1000	±0,8	Edges broken

Benämning/Denomination
G300pt basic dimensions

FLIR

Skala/Scale 1:5
ArtNo.
Ritn nr/Drawing No T128314

Blad/Sheet 1(1)
Size A3
Rev A

CE Declaration of Conformity

This is to certify that the System listed below have been designed and manufactured to meet the requirements, as applicable, of the following EU-Directives and corresponding harmonising standards. The systems consequently meet the requirements for the CE-mark.

Directives:

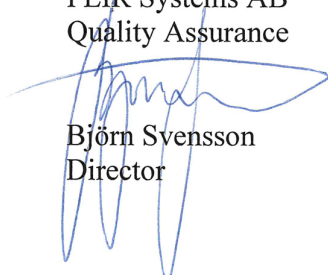**Directive 2004/108/EC;   Electromagnetic Compatibility**

Standards:

Emission: **EN 61000-6-4;   Electro magnetic Compatibility Generic standards - Emission**

Immunity: **EN 61000-6-2;   Electro magnetic Compatibility; Generic standards - Immunity**

System: **FLIR G300pt series**

FLIR Systems AB
Quality Assurance

Björn Svensson
Director