

### P/N: 65502-0102

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#### **Document identity**

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#### Website

http://www.flir.com

Customer support

http://support.flir.com

#### Disclaimer

Specifications subject to change without further notice. Camera models and accessories subject to regional market considerations. License procedures may apply. Products described herein may be subject to US Export Regulations. Please refer to exportquestions@flir.com with any questions.



#### **General description**

The FLIR G300 pt 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 G300 pt 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 G300 pt 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 G300 pt 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 G300 pt camera.
- Multi-camera software: FLIR Sensors Manager allows users to manage and control a FLIR G300 pt in a TCP/IP network.

#### Benefits

- Improved efficiency: The FLIR G300 pt 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 G300 pt gas imaging camera unit 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 G300 pt.

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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| <b>-</b>                                 |   |  |  |  |  |
|--|---|--|--|--|--|
| 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),<br>for a camera running 24/7 @ +20°C (+68°F)   |  |  |  |  |
| Detects following gases                  | Benzene, ethanol, ethylbenzene, heptane,<br>hexane, isoprene, methanol, methyl ethyl ketone,<br>MIBK, octane, pentane, 1-pentene, toluene, m-<br>xylene, ethane, butane, methane, propane,<br>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<br>ftp, SMTP, SMB (CIFS), DHCP, MDNS (Bonjour)<br>uPnP  |  |  |
| Composite video                  |   |  |  |
| Video out                        | Composite video output, NTSC compatible   |  |  |
| Video, standard                  | CVBS (SMPTE 170M NTSC)  |  |  |
| Power system                     |   |  |  |
| Power                            | 24 VAC (21–30 VAC; 24 VAC: 215 VA max. with<br>heater) or 24 VDC (21–30 VDC; 24 VDC: 200 W<br>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%<br>C to +40°C (+77°F to +104°F)  |  |  |
| Directives                       | <ul> <li>Low voltage directive: 2006/95/EC</li> <li>EMC: 2004/108/EC</li> <li>RoHS: 2002/95/EC</li> <li>WEEE: 2002/96/EC</li> </ul>                             |  |  |
| EMC                              | <ul> <li>EN 61000-6-2 (Immunity)</li> <li>EN 61000-6-3 (Emission)</li> <li>FCC 47 CFR Part 15 Class B (Emission)</li> <li>EN 61 000-4-8, L5</li> </ul>          |  |  |
| 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 $(L \times W \times H)$     | 460 × 467 × 326 mm (18.1 × 18.4 × 12.8 in.)   |  |  |
| Housing material                 | Aluminum  |  |  |
| Shipping information             |   |  |  |
| Packaging, type                  | Cardboard box   |  |  |
| List of contents                 | <ul> <li>Infrared camera</li> <li>Printed documentation</li> <li>Small parts accessory kit</li> <li>ThermoVision System Tools &amp; Utilities CD-ROM</li> </ul> |  |  |
| Packaging, weight                | 23.4 kg (51.6 lb.)  |  |  |
| Packaging, size                  | $670 \times 570 \times 490 \text{ mm} (26.4 \times 22.4 \times 19.3 \text{ in.})$   |  |  |
| EAN-13                           | 7332558008454   |  |  |



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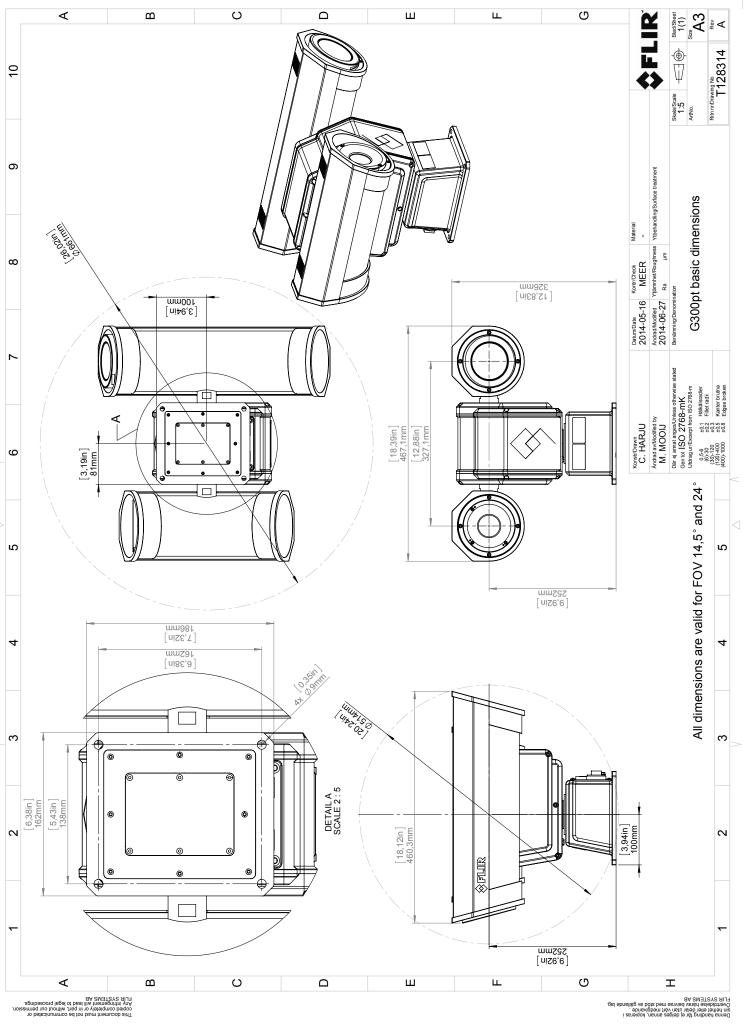
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#### Shipping information

| UPC-12            | 845188008802 |  |
|-------------------|--------------|--|
| Country of origin | Sweden       |  |

#### Supplies & accessories:

- T911263ACC; Wall mount kit
- T911288ACC; Pole mount adapter for wall mount kit





October 29, 2014 AQ320094

### **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<br>Generic standards - Emission  |
| Immunity:  | EN 61000-6-2; | Electro magnetic Compatibility;<br>Generic standards - Immunity |

System:

FLIR G300pt series

FLIR Systems AB Quality Assurance

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