

1. GV-F-3234 / GV-F-714 OPTICAL GAS IMAGING FIXED CAMERAS

1A – FIXED OGI CAMERA

GV-F-3234 / GV-F-714 Fixed OGI camera for 24/7 on site monitoring



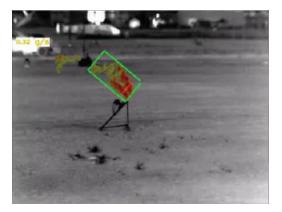


Shown here with case Atex /IECEx certifié Ex d for 1 and 2 areas (The final case delivered can vary according to availabilities)

VOC gas cloud colorization and quantification in real time

1B – DETECTION RANGE

Following images show how the gas cloud is visualized on the screen, in your control room



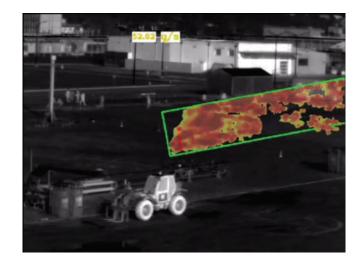
Leak flow rate: 0,32 gr/sec (1,15 kg/h) of CH4 at 50m

Our software also gives you an estimation of the leak flow rate on the screen, in real time



Leak flow rate : 0,45 gr/sec CH4 at 100m

Fixed cameras for 24/7 on site monitoring

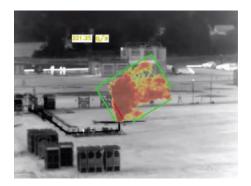


Leak flow rate 50 gr/sec (180 kg/h) of CH4 at 100m

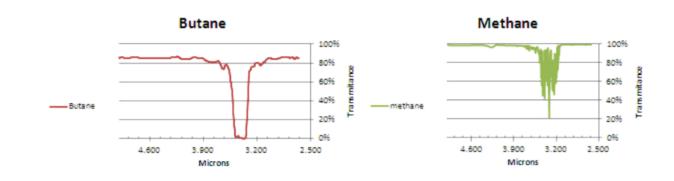
Fixed cameras for 24/7 on site monitoring

Leak flow rate 100 gr/sec (360kg/h) of CH4 at 100m

Fixed cameras for 24/7 on site monitoring



Leak flow rate : 200 gr/sec (720 kg/h) of CH4 at 100m

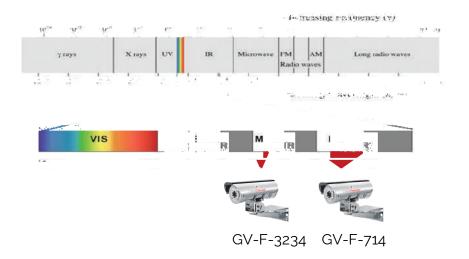


1C - OPERATION

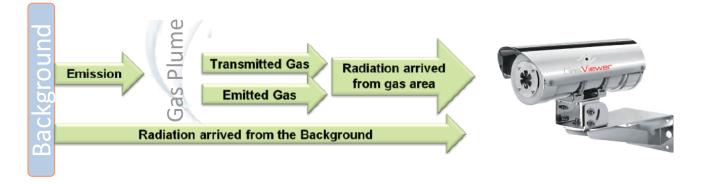
Our camera detects gases absorption of electromagnetic waves from any background Each gas has a specific absorption signature in the IR range.

Our cameras are calibrated to see gases with absorption wave lengths between :

- **GV-F-3234** : 3,2 and 3, 4 µm, for VOC
- GV-F-714 : 7,5 and 14 μm , for some VOC + NH3V+ SF6



Actually, the gas acts like a curtain between the camera and the background.



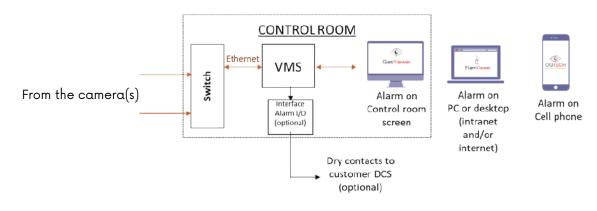
1D - ALARMS

• Through OG-Tech Video Management System (VMS), we can send you the alarms from the camera to a : -PC in your control room

-A laptop connected to your intranet or internet

-A mobile phone (for the person on call)

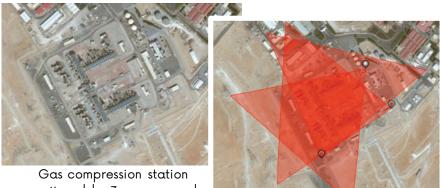
• In addition, our VMS can supply dry contacts to connect to your DCS in order to trigger automatic actions.



1E - BENEFITS

- Camera with cooled technology to increase the detection sensitivity or with uncooled technology to limit maintenance and reduce operational costs
- Colorization and quantification of the VOC cloud in real time, on the screen located in your control room
- « Sees » all gas cloud located in its field of view
- Automatic alarm in your control room (no need for an operator to monitor the screens)
- Each alarm and its corresponding video is recorded in a history and can be visualized again (by date, type of alarm)
- Dry contact or modbus for a connection to your DCS
- Multiples alarms (gas, fire....) with only one camera
- Evolving system
- IP camera IP, can be integrated to an already existing system

Different lenses can be attached to our camera to monitor different sizes areas, according to the configuration of your site, with a minimum of cameras.



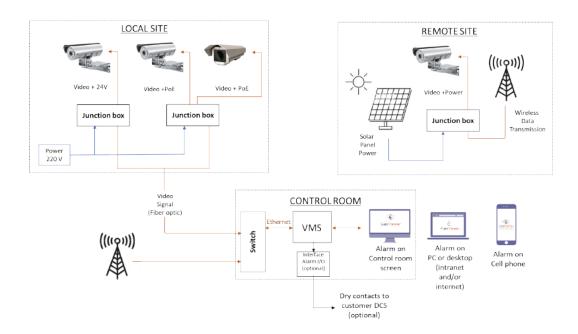
monitored by 3 cameras only

2. FULL TURNKEY SOLUTION

2 – FULL TURNKEY SOLUTION

To comply with your requirements, we can supply full turnkey solution, including:

- Camera power supply using solar panels
- Wireless data transmission (video + alarms)
- Integration of cameras from other suppliers thanks to our certification Onvir 9
- Full solution for control room (including our own VMS or any ONVIF compatible VMS)
- Alarms sent to control room, to PC on intranet or internet, and/or to your portable telephone



Our **solar panel** solution includes the solar panels, power regulator, POE switch, batteries and control cabinet. Multiples options are available depending on the required power and the location of the system



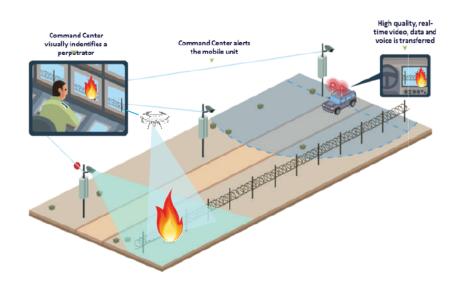


For our wireless solution we take security seriously.

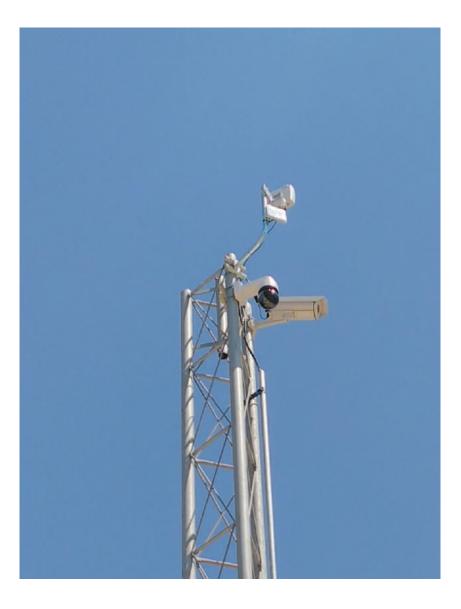
Our system includes :

- Military grade encryption algorithm,
- Possibility to tune our system to a very specific wavelength given by local government license,
- Nnarrow width transmission channel as point to point, to avoid a widespread signal transmission
- Self healing mesh network

Signal will be transmitted from the cameras to the control room, but also to the rescue vehicles equipped with antenna and screen, as long as they are in our wireless network coverage area



Our **CERTIFICATION** \bigcirc **NUF**^{*} \bigcirc allows us to integrate cameras from other manufacturers in our solution (color camera PTZ for removal of doubt for exemple) or to integrate our cameras in an existing CCTV network. In this case, the alarms will be sent directly to your VMS.



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