Applications

Enviromental & Safety Gas Leak Détection

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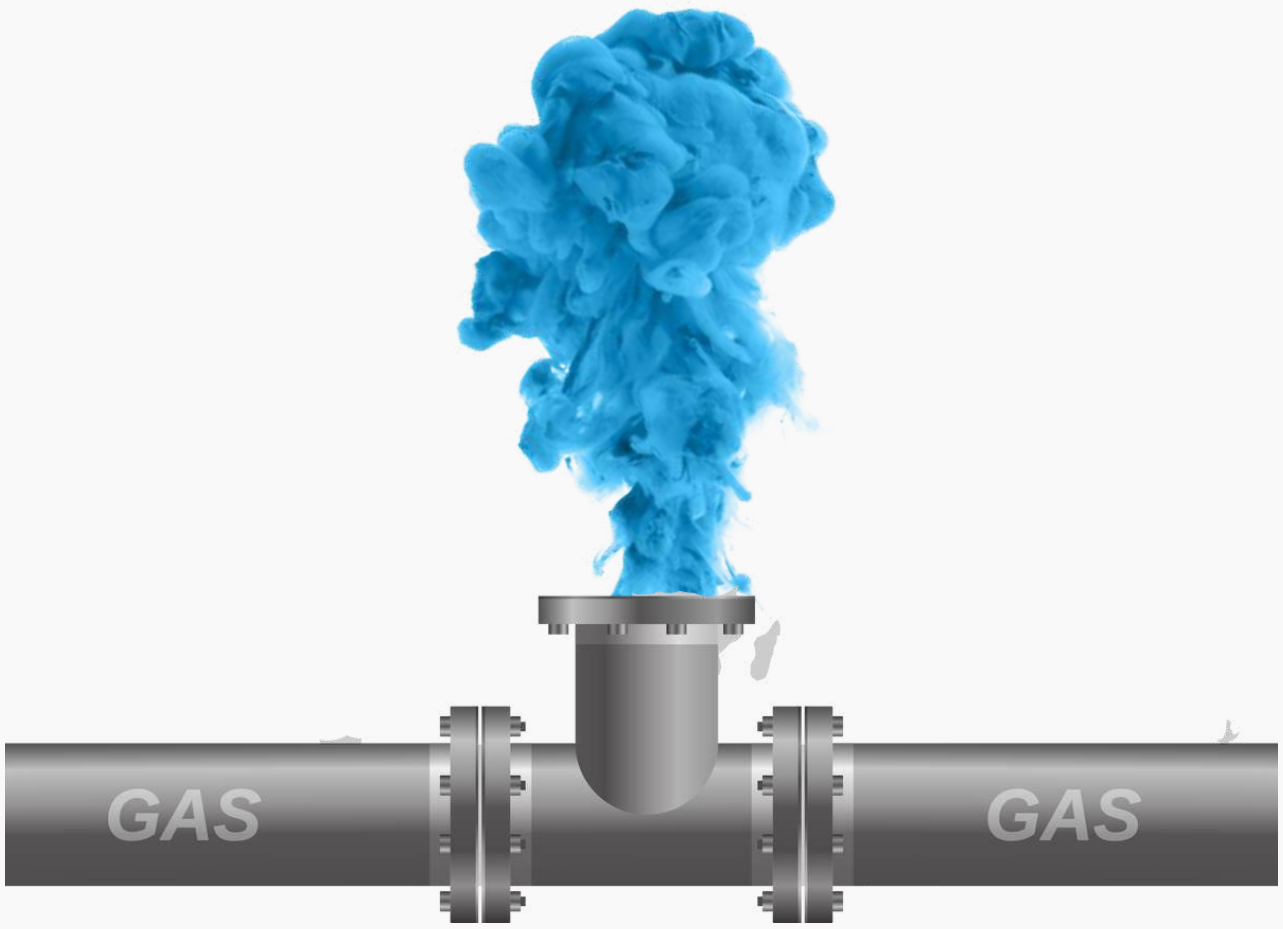


1 Why use Thermal Cameras

Thermal cameras are used for gas leak detection

- They can visualize the invisible energy emitted by leaking gases, which is not visible to the naked eye.
- Gas leaks, especially of hydrocarbons, are often odorless and invisible to the human eye.
- Thermal cameras, however, can detect the energy changes associated with the gas flow, providing a visual representation of the leak. Thermal imaging enables inspectors to identify leaks at a distance, reducing the need for close-range inspections and minimizing exposure to potentially hazardous gases.
- Thermal cameras can pinpoint the exact location of a leak, even when it's hidden behind walls or under floors. This allows for more efficient and targeted repairs, reducing downtime and costs.

Environmental & Safety

2

Industrial Applications:

- In industries like oil and gas, thermal cameras are used to detect fugitive emissions, identify leaks in pipelines and equipment, and monitor ongoing operations to prevent accidents and improve safety.

Environmental Benefits:

- By detecting and minimizing gas leaks, thermal imaging helps reduce the environmental impact of industrial processes and comply with regulations.

3 The Solution

Thermal imaging can identify a leak with great precision and hone in on a leak faster, unlike sniffers which rely on scanning-based inspection methods and are unable to locate the gas that has escaped. Sniffers may feature an older and more precise technology, but they take longer to use and are less cost-effective, since more human resources are needed to scan the entire area. Using sniffers to survey a facility only provides a snapshot in time. Any leaks that happen after the survey will go undetected until the next survey, which explains why their effectiveness is limited.

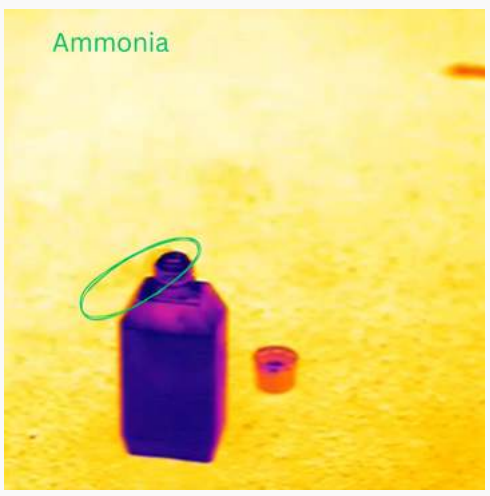
Fira Vision's handheld thermal with either GD10-VOC/GD20-SF6 320 x 256 cooled or GD88 640 x 512 uncooled IR detectors. They offer a full range of solutions from VOC to SF6 preventative maintenance, safety and environmental gas detection.

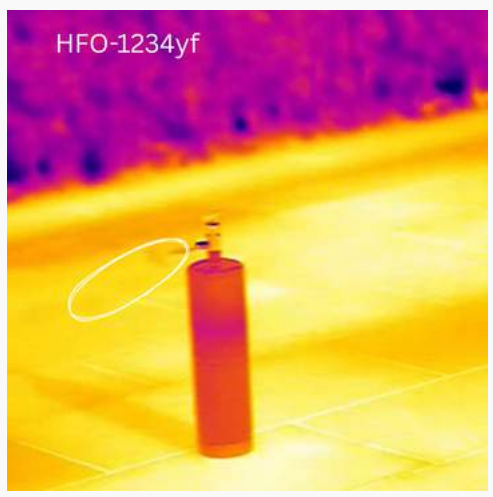
Inspecting equipment with a thermal camera, thermal can identify those gases by heightening and visualizing their ability to absorb specific wavelengths in the infrared band. Thermal cameras can detect the presence of a gas by picking up on the changes in light intensity that happen when gases absorb certain infrared wavelengths.

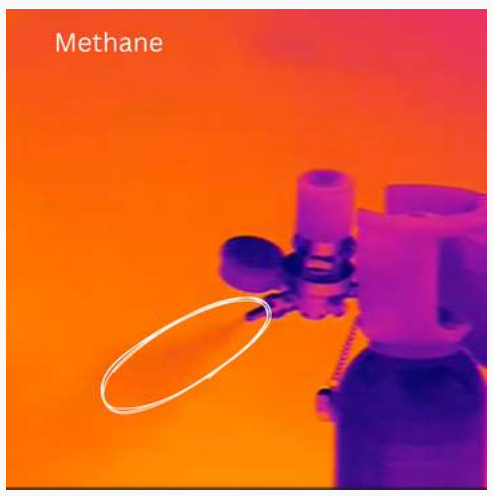
The Result 4

Fira Visions' range of handheld cameras allows the user to detect leaks that can cause failures and equipment downtime.

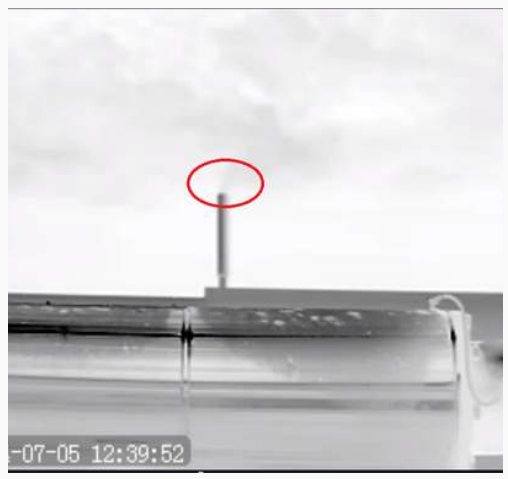
GD88







GD10/20



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