



EyeCGas®

OGI ACADEMY – LONG RANGE OGI DETECTION

Although range in Optical Gas Imaging technology is a common question. This topic is the most relevant for 24/7 fixed OGI solutions, such as the EyeCGas 24/7 series of products, where the camera is expected to automatically alert leaks for a distance.

There are 2 types of OGI cameras. Cooled and Uncooled. Uncooled OGI cameras detect in the LWIR (Long Wave) and are typically less sensitive than the cooled OGI cameras, which detect in the MWIR (Medium Wave). For long range detection, the cooled OGI cameras are more suitable.



OGI Sensitivity decreasing with range

OGI cameras are offered with different lenses. The size of the lens will magnify the view of the area of interest. However, the contrast decreases with the range. Primarily due to water vapors in the atmosphere. For long distance detection, changing the lens to 75MM lens will improve the detection capability.



The ability to replace filter to a heavy hydrocarbon filter

By having the ability to change spectral filters and placing a heavy hydrocarbon filter in the camera, you can improve the ability to VOCs at longer distances.



Weather conditions

Weather conditions play a role in gas detection using OGI cameras. When conducting long range inspections during hot and humid conditions, water vapors influence the detection sensitivity. Use the heavy Alkane filter to reduce the effect of water vapors, and improve the image quality and detection sensitivity of the OGI camera.

SUMMARY

For short distance methane detection, uncooled OGI cameras (like the EyeCGas Mini or EyeCGas 24/7) may be suitable.

However, for long range detection, with the flexibility of filter and lens choice, cooled OGI cameras (like the EyeCGas 2.0 and EyeCGas 24/7 PRO) will achieve unprecedented sensitivity and result