

# EyeCGas<sup>®</sup> FX

OGI — FUGITIVE EMISSIONS DETECTION AUTOMATIC CAMERA



**OPGAL<sup>2</sup>**  
Beyond the Visible





Gas leak detection equipment is vital to keeping your employees, products and environment safe. EyeCGas® FX finds leaks from a safe distance and automatically alerts plant personnel.

## EyeCGas® FX

Building on the success of the handheld EyeCGas® FX camera, EyeCGas® FX is the next generation automatic camera for installation in factories, as well as offshore platforms and rigs. This highly reliable system responds to the demands of 24/7 monitoring. EyeCGas® FX is specially designed for the natural gas, oil and petrochemical industries.



### Automatic Leak Detection

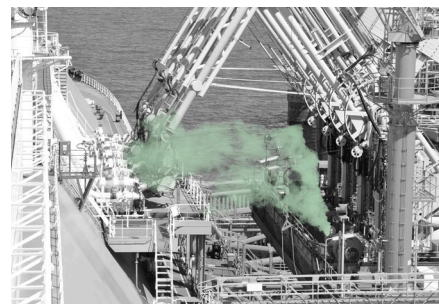
EyeCGas® FX includes a highly sensitive IR camera and an HD color camera for fast recognition of the areas being inspected. The camera allows safe and ongoing monitoring of all areas of the plant, including remote and inaccessible areas. Video can be saved locally (on the camera) or remotely (feed sent to control room).



Standard Color Image



Detection Mode



Gas Colorized Mode

### EyeCGas® FX Detects More Than 30 Gases

- |            |                           |                  |                   |               |
|------------|---------------------------|------------------|-------------------|---------------|
| • Ethylene | • 1,2-dimethyl-Benzene    | • Isobutylene    | • Methanol        | • Propane     |
| • 1-Hexane | • Propylene 1-pentene     | • Isoprene       | • Propylene oxide | • Butane      |
| • Propanal | • Ethyl Ketone 2-butanone | • Benzene        | • Propylene       | • Pentane     |
| • 1-Butene | • Isopropyl alcohol       | • Ethyl benzene  | • Ethane          | • Toluene     |
| • Methane  | • MEK Methyl              | • Ethylene oxide | • Octane          | • Acetic acid |
| • Styrene  | • 1,3-Butadiene           | • Hexane         | • Heptane         | • Xylene      |



High sensitivity to a spectrum invisible to the human eye makes EyeCGas® FX a critical tool in fugitive gas leak detection.



**EyeCGas® FX enables fast recognition of methane and Volatile Organic Compound (VOC) leaks and transmission of automatic alerts via a color display and warning message.**

#### 24/7 Monitoring of Designated Areas

High reliability system for hazardous, explosive and toxic gas leaks makes EyeCGas® FX a critical all year-round monitoring tool.

#### Smooth Integration

EyeCGas® FX GUI integrates with plant monitoring software, providing video feed in real time. The GUI enables control room operators to view the display in black hot/ white hot, NUC, digital zoom, and more.

#### Simple and Powerful

EyeCGas® FX allows the inspection of vast areas for gas leaks and can be adjusted to specific user requirements.

#### Safety

EyeCGas® FX is certified for: IECEx - ATEX Ex d II 2G T6 and NEC 500 Class I Division 1.



#### Why EyeCGas® FX ?




- **Reliable: Extremely low false alarm rate**
- **Tried and tested: Certified for use in hazardous environments**
- **Rugged: Durable design enables outdoor use all year round**

OPGAL. Seeing beyond the visible for a clean global environment.

Opgal Optronics Industries, a leading global manufacturer, leverages more than 30 years of field-proven thermal imaging experience and excellence in the design and development of IR engines & cameras. The EyeCGas® FX camera brings Opgal's cutting edge technology to the natural gas and petrochemical markets.



# EyeCGas® FX - Gas Imaging Camera - Specifications

Imaging Performance	
Thermal Imager Channel	
Thermal Sensitivity	20mK@ 25°C
F#	1.1
Field of View	18° with 30 mm lens or 7.3° with 75mm lens
Focus	Adjusted to infinity
Focusing	N/A
Digital Zoom	Continuous up to 8X
Detector	
Type	Cooled high sensitivity , 320x240 pixels
Spectral range	3-5µm
Digital Video Camera	
Color digital camera channel	Full HD
Digital zoom	Continuous up to x4
Power Input	
Voltage	12 VDC
Power consumption	16 W
Physical Characteristics	
Weight	24 kg with sun shield
Color	Natural silver natural, stainless steel
Size in (L x D)	310mm X 195mm (12.2" x 7.68") without sun shield
Interface	Four threaded UNC 1/4" and tripod mounting UNC 1/4", rotation safe
Environmental Conditions	
Operating temperature range	-33°C to + 50°C
Storage temperature range	-40° to + 70°C
Temperature and humidity	IEC 60068-2-30 Temp. +25°C / +40°C Humidity 95% RH
EMC/ EMI	FCC 47 CFR part 15 subpart B - Radiated Emissions EN 610000-6-4 : 2007 class A - Radiated Emissions EN 610000-6-2: 2005 class A - Immunity to Electrostatic Discharge (ESD) EN 610000-6-2: 2005 class A - Radiated Immunity to RFE EN 610000-6-2: 2005 class A - Radiated Immunity to Power Frequency magnetic field
Vibration	2.4 GRMS Random Vibration
Water and dust protection	IP66
HALT - High Accelerated Life Test	Vibration level: Max temp.: 55 deg, Min temp.: -20 deg
Safety	EN60950-1:2006
Safety   	NEC 500 for Class1 Division I IECEX ATEX Ex d II 2G T6
Lightening protection	On power and Ethernet lines
Environmental Conditions when Packed in Carrying Case	
Free fall (drop) test	ASTM-D 4169-06 Schedule A
Loose cargo vibration test	ASTM-D 4169-08 Schedule F Test method D999
Vibration	ASTM-D 4169-08 Schedule F Test method D999
Gas Leak Detection Performance	
Operation features	Enhanced and normal thermal modes and PIP with the color image Automatic detection of a gas leak allowing video streaming on a screen display of the colored leak in the control room for decision making, or dry contact for designated control or shut-down command. 24/7 continuous operation monitoring and alarm Video selection Thermal/Color over Ethernet.
Designed for detection of:	Methane, Ethylene, 1-Hexane, Propanol, 1,3-Butadiene, 1-Butene, Propylene 1-pentene, Styrene, Toluene, Acetic acid, Xylene, 1,2-dimethyl-Benzene, Isobutylene , Isoprene, Benzene, Ethyl benzene, Ethylene oxide, Hexane, Methanol, Propylene oxide, Propylene, Ethane, Octane, Heptane, Isopropyl alcohol, MEK Methyl Ethyl Ketone 2-butanone, Propane, Butane, Pentane.

