

# EyeCGas<sup>®</sup>

FUGITIVE EMISSIONS DETECTION CAMERA



Gas leak detection equipment is vital to keeping your employees, environment and product safe. Quickly find methane and volatile organic compound (VOC) leaks. Save time searching for fugitive gas leaks, and feel confident in the knowledge that your search was far more effective than ever before possible.



Visual Image



Normal Mode



Enhanced Mode

### EyeCGas®:

#### A design formed by the demands of the industry

- Specially designed for application in the natural gas, oil and petrochemical industries, taking into consideration the requirements of the users.
- Very sensitive and detects smaller leaks than the existing optical imagers' portable solutions.
- Certified for use in hazardous environments (Class 1, Div. 2 and ATEX II) allowing the inspection of hazardous locations in the plant.
- Implements an internal video and audio recording device.
- Features a large color LCD display for image and text display.
- Rugged and durable by design to be used as a tool in the field.
- Complies with EPA'S OOOOa regulation requirements.

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

Even from a distance, a user will easily see the exact location of a leak.



### Field productivity

Robust, ruggedized and hazardous environment certified, EyeCGas simplifies and broadens opportunities for use inside the facility limits without the need of a hot work permit.



### No more guesswork

The EyeCGas® includes a digital CCD camera for fast recognition of the components being inspected or leaking, and GPS coordinates overlay for location assurance.



### Powerful but simple

The EyeCGas® allows the inspection of vast areas in a plant with an automated and simple user interface, visualizing the infrared image on a large color LCD.



### Specialized

EyeCGas® is an infrared camera specially designed for the Petrochemical and Gas & Oil market requirements for gas detection and Smart LDAR and EPA 0000a compliance.



### Safety

- UL1604, Electrical Equipment for Use in Class I and II, Division 2, and Class III (Classified) Locations.
- CSA C22.2 No. 213-M1987, Non Incendive Electrical Equipment for Use in Class I, Division 2 Hazardous Locations.
- ANSI/ISA-12.12.01 - Non-incendive Electrical Equipment for Use in Class I and II, Division 2 and Class III Hazardous (Classified) Locations.
- ATEX II 3G Ex nL IIC T6.



### OPGAL:

### Seeing beyond the visible for a clean global environment

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

# EyeCGas - Gas Imaging Camera - Specifications

Imaging Performance	
<b>Thermal Imager</b>	
Thermal Sensitivity	< 12mK@ 25°C
F#	1.1
Field of View	18° with 30mm lens
Focus near	< 0.5m
Focusing	Manual
Digital Zoom	x2, x4
<b>Digital Video Camera</b>	
Embedded Digital Camera	VGA, fixed focus, for situational awareness
<b>Detector</b>	
Type	Cooled High Sensitivity , 320 x 240 pixels
Spectral Range	3 to 4µm
<b>Power Input</b>	
Voltage	12 VDC
Power Consumption	14.4 W
Battery Life	4 hours continuous
<b>Physical Characteristics</b>	
Weight (with battery and lens)	2.5kg (5.5 lbs)
Color	Grey and Black
Size in (LxHxW)	9" x 4.3" x 5.1" (230 x 110 x 130)mm
Interface	Tripod mounting UNC 1/4", rotation safe
<b>Display</b>	
Display Unit	3.5" Color LCD 640X480
<b>Environmental Conditions</b>	
Operating Temperature Range	-20°C to + 50°C
Storage Temperature Range	-40°C 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	IP65 - Blowing Dust test IP65 - Jetting Water
HALT - High Accelerated Life Test	Vibration level: Max temp: 55°C, Min temp: -20°C
Safety	EN60950-1:2006
Safety	UL1604, Electrical Equipment for Use in Class I and II, Division 2, and Class III (Classified) Locations. CSA C22.2 No. 213-M1987, Non Incendive Electrical Equipment for Use in Class I, Division 2 Hazardous Locations. ANSI/ISA-12.12.01 - Non-incendive Electrical Equipment for Use in Class I and II, Division 2, and Class III Hazardous (Classified) Locations. 2011 edition. ATEX II 3G Ex nL IIC T6
<b>Environmental Conditions when Packed in Carrying Case</b>	
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
<b>Gas Leak Detection Performance</b>	
Operation Features	Auto and Enhanced Modes including Background selection for standard very hot background temperatures.
Includes a spectral filter of 3.2µm to 3.4µm designed for detection of	Ethylene, 1-Hexane, Propanol, Propanal, 1,3-Butadiene, 1-Butene, Methane, 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
<b>Digital Video and Audio Recording</b>	
Video, Snapshot, and Audio Recording	Digital recorder build-in with connection to PC via USB 2.
Snapshot Capabilities	On every video a Snap shot of the first frame will be recorded to a JPG file with identical video name.
<b>Other Features</b>	
Connectivity	Bluetooth, USB 2
GPS	Low power, external device, Bluetooth com. to camera, accuracy <3m, 66 satellites, sensitivity up to -165dBm
<b>Supplied Accessories</b>	
	Batteries (3), Tri Battery Charger, USB Cable, Headset, Neck strap, Glare Shield, Carrying Case, GPS
<b>Optional Accessories</b>	
	75mm f#1.2 Lens - FOV 7.3°x 5.5° - P/N 8G9T7500A



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