Datasheet | 1671

Opgal EyeCGas CO_2

Handheld optical gas imaging camera for carbon dioxide

The OPGAL™ EyeCGas™ CO_2 optical gas imaging (OGI) camera allows you to safely and easily locate very small leaks of carbon dioxide, whether you are using CO_2 as a tracer gas to find leaks during plant and Enhanced Oil Recovery (EOR) machinery inspections, or if you are simply verifying completed repairs. This OGI camera can save you time by enabling fast and accurate detection, cutting operating downtime to a minimum while avoiding potential fines and lost profits.

The EyeCGas CO_2 camera is among the select few certified for ATEX Zone 2 and UL Class I Div II, ensuring unprecedented performance even in the most challenging hazardous environments. Discover unparalleled safety and efficiency with the EyeCGas CO_2 camera, which remotely identifies and pinpoints carbon dioxide and other hazardous gas emissions.

Users can stream inspections live, share results via the app, and receive ongoing software upgrades for life, all backed by a solid 4-year warranty.

Features

- **Gas leak detection**
  Quick detection of CO_2
- **Thermographic imaging**
  Temperature measurement capabilities and color pallets for better versatility
- **Connectivity**
  Built-in Wi-Fi, GPS, hotspot, and Bluetooth capabilities
- **Regulatory compliance**
  Complies with the EPA's OOOOa/b/c regulations
- **Gas quantification**
  Built-in quantification or remotely operated quantification via EyeCSite software and other 3rd party devices
- **Streaming**
  Real-time video streaming and wireless images/videos sharing are possible with the official EyeCGas App.
- **LDAR-ready capabilities**
  Integrates with various software and analyzers
- **Free firmware upgrades**
  OGI camera receives upgrades and improvements free of charge
- **Intrinsically safe**
  IECEx intrinsically safe Zone II, ANSI, CSA Class I & Class II div.2
- **Rugged and sealed**
  Especially designed for detecting gas leaks in the harsh conditions of the oil and gas industry

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Specification	Description
IR resolution	320 x 240 pixels
Focus	Manual focus
Detector pitch	30 µm
Thermal sensitivity/ NETD	<10 mK at 30°C (86°F)
Gas sensitivity	9.0 ppm m, 0.07 g/h (ΔT = 10°C , 1 m/s wind speed, distance 2m (Methane)) Appendix K sensitivity 0.15 g/h (ΔT 5°C 1 m/s wind speed distance 1m (Methane))
Hazardous location compliance	CSA C22.2 No. 213-M1987, Non-Incentive Electrical Equipment for Use in Class I, Division 2, ANSI/ISA-12.12.01 – Class I and II, Division 2, and Class III, ATEX. Intrinsically safe for Zone 2 ratings as: Ex II 3 GD; Ex ic nA nC IIC T6 Gc; Ex ic tc IIIC T85°C DC
Gas leak detection capabilities	With spectral filter of 4.1µM to 4.4µM for CO_2 gas. Detection: CO_2 at < 3% concentration rate
Detector and optical data	
Detector type	Focal plane array (FPA), cooled MCT
Detector spectral	4.0 µm to 4.7 µm
Optical filters	Std. CO_2 4.1-4.4 µm; Optional CO 4.4-4.7 µm
Sensor cooling	Stirling microcooler
Digital image enhancement	High sensitivity mode (HSM), noise reduction filter
Available lenses	18° (30 mm); 7.5° (75 mm)
F-number	1.1
Image presentation	
Display	3.5" (10’ equivalent using glare shield), 640 × 480 pixel, LCD
Image presentation modes	IR image, visual image, normal, enhanced and thermography
Color palettes	6 color palettes (rainbow, iron, ISO red, ISO green, grey scale, and vivid)
Zoom	x2, x4, x8 and x16 (only for visible camera)
Measurement and analysis	
Measurement temperature range	-20°C to 350°C (-4°F to 662°F)
Accuracy	At least ± 1°C (0 – 100°C), ± 2% (> 100°C), ± 2°C (-20 – 0°C)
Gas emission quantification	Built-in real-time and offline Image processing VOC gas quantification for desktop or handheld application (offline/online operation)
Accessories and apps	
Head up display	Seamless integration including voice commands with Realware head up display
Mobile app	Android 10 /IOS 14 and up
Communication interface and data storage	
GPS	Included, can be added to any still or video recording
Storage media	Up to 20 hours and more of video storage over a 64GB solid state memory
Image file formats	JPG Format (on available modes)
Communication interfaces	USB: Data transfer, video streaming and video images file transfer Wi-Fi: 2.4 GHz for video streaming and file transfer Bluetooth: Bluetooth 4.2 with other devices: RMLD, TVA2020, LDAR software etc. GPS: Built in or external
Video out	Digital video recorder build-in generates a .ts format video on all modes
Video recording and streaming	
IR or visual video	Digital video recorder build-in generates a .ts format video on all
Radiometric IR video streaming	Over Wifi

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Specification	Description
Environmental and certifications	
Operating temperature range	-20°C to 50°C (-4°F to 122°F)
Storage temperature range	-40°C to 70°C (-40°F to 158°F)
Encapsulation	IP65 (Intrinsically safe)
Drop	ASTM-D 4169-06 Schedule A
Vibration	ASTM-D 4169-08 Schedule F Test method D999
HALT	Max temp: 55°C, Min temp: -20°C
Safety	EN60950-1:2006
Additional information	
Battery type	Rechargeable Li-ion battery; 7.4 V, charger included
Battery operating time	>4.5 hours continuous operation
Battery charging time	3 hours to 95% capacity, charging status indicated by LEDs
Camera size	9” x 4.3” x 5.1” (230 x 110 x 130) mm
Camera weight	2.6 kg (5.9 lb)
Mounting interfaces	UNC ¼"-20
Warranty	4 years (Detector & cooler – 2 years; Batteries 1 year)
Box contents	
Packaging	Infrared camera with lens, Batteries (2), Battery charger, USB Cable, neck strap, glare shield, carrying case, cleaning kit.

Learn more at **thermofisher.com/eyecgasco2**

For current certifications, visit thermofisher.com/certifications