

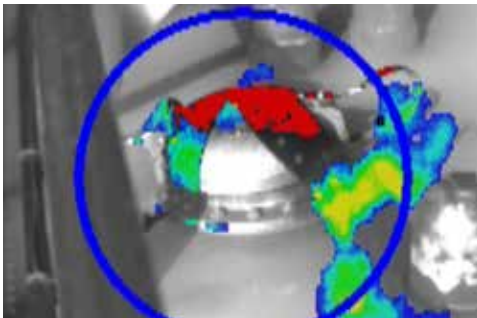


## Quantitative OGI System

# FLIR QL320™



The FLIR QL320 is a quantitative optical gas imaging (qOGI) system designed specifically for use with the FLIR GF620, GFx320, and GF320 OGI cameras. This system allows surveyors to measure the leak rates for methane and other hydrocarbons, eliminating the need for secondary sampling with a toxic vapor analyzer or similar tool. Unlike these traditional measurement systems, the QL320 does not require close contact with the gas in order to measure emission rates, making it a safer solution for quantifying gas leaks. The QL320 offers advanced features including Delta temperature screening, colorized gas concentration profiles, and a 10-second rolling average leak rate overlaid directly onto a static image snapshot.



### QUANTIFY GAS WITH IMMEDIATE RESULTS

Simplifies the visualization and measurement of gas emissions

- Determine the mass leak rates (g/h, lb/h, or MT/h), volumetric leak rates (cc/min, L/min, or SCFH), or concentration (ppm-m) for most hydrocarbon gases
- Measure the size of fugitive emissions from safe distances, as far as 100 feet
- Highlight gas plumes with a color concentration profile for improved visibility and easier detection



### ENSURE EFFECTIVE READINGS AND REPORTS

Built-in tools help you obtain quantifiable readings

- Validate leak surveys and determine the suitability of background conditions with the colorized Delta temperature screening tool
- Easily synchronize to multiple optics and temperature ranges
- In-field reporting includes archiving of measurements, colorized video and raw image data for analysis and post-processing



### BUILT TOUGH FOR INDUSTRIAL ENVIRONMENTS

Rugged tablet can be used in gas fields, refineries, and other industrial settings

- Included touchscreen tablet is dust- and water-tight (IP65 certified)
- Display provides high contrast for easy reading, even in bright conditions
- Live results can be obtained by tethering the FLIR QL320 directly to the OGI camera
- Post-analysis can be easily performed via Q-Mode (non-tethered mode)

## SPECIFICATIONS

System	
Compatible cameras	FLIR GF620, FLIR GFx320, FLIR GF320
Gases detected	Methane, most hydrocarbons*
Measurement modes	Mass leak rates (g/h, lb/h, MT/h), volumetric leak rates (cc/min, L/min, or SCFH), or concentration (ppm-m)
Measurement tools	$\Delta$ temperature screening, plume highlighting, colorized gas concentration profile, Q-Mode support for non-tethered quantification
Image modes	Single image snapshot with colorized plume and quantitative result
Hardware	
Tablet	Durabook R11
Display	11.6" FHD DynaVue® sunlight readable display, 500 nits
Touchscreen	Reinforced touchscreen; scratch and shatter resistant film
Input	On-screen keyboard; 6 buttons (1 user-definable)
Environment	<ul style="list-style-type: none"> <li>•ANSI/ISA 12.12.01-2000 (Class I, Division 2)</li> <li>•IP 65 ingress protection</li> </ul>
Durability	MIL-STD 810G certified, aluminum-magnesium alloy chassis. 1.22 m (4 ft) drop-rated
I/O interfaces	SD card reader (microSDXC), USB 3.0 (Type A) × 2
Communications	Bluetooth V 5.0, 4G LTE mobile broadband
Power	AC adapter 100-240 V, 50 Hz-60 Hz, 65 W
Battery	Li-ion battery, 11.1 V, 3950 mAh, 8 hours
Dimensions (L × W × H)	298.5 × 192.0 × 20.0 mm (11.75 × 7.56 × 0.79 in)
Weight	1238.3 grams (2.73 lbs)

### Key features

- Quantifies mass, volumetric, or concentration-based leak rates
- Designed specifically for use with FLIR OGI cameras
- Includes plume highlighting, Delta temperature screening
- Touchscreen tablet is rugged, sun-readable
- No camera modifications or added accessories needed
- Overlays a 10-second rolling average leak rate directly onto an image snapshot

### Response Factor Calculations

How well the QL320 quantifies a specific gas compound is a function of how sensitive the camera is to that gas. This can be measured relative to a reference compound, with the resulting value called Response Factor (RF). For example, say an RF value for benzene is 0.755 in reference to propane (propane value = 1.000). This means when a FLIR OGI camera visualizes benzene, the image is 75% as strong as an image of propane. An RF value below 1.0 would signify a potentially weaker image, while an RF value above 1.0 signifies a stronger image (e.g. an RF of 1.75 means the image is 75% stronger).



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