

# HONEYWELL REBELLION GAS CLOUD IMAGING (GCI) MINI CAMERA

Advanced Hyperspectral Infrared Imaging System

The compact gas cloud imaging system delivering safety, and emissions monitoring for congested areas, and smaller sites such as oil rigs, and drilling sites, power plants, and LNG facilities.

The Honeywell Rebellion Gas Cloud Imaging (GCI) cameras use advanced proprietary hyperspectral imaging technology to capture both infrared spectrum and visible video to monitor, quantify, and display explosive and toxic, harmful gas leaks as they occur. Our self-calibrating hardware operates 24/7 in all weather conditions, delivering precise imaging of gas clouds, gas speciation and concentration. For safety systems, where the standard mix of gas leak protection layer devices (open path, point and ultrasonic) quickly, and reliably alarm to a gas leak, the immediate questions are then "is it real?", "where is it?" and "how big is it?". The Honeywell Rebellion Mini GCI quickly, and clearly answers these with a visualization of the gas cloud.

The Honeywell Rebellion Mini Gas Cloud Imaging (Mini GCI) camera is a compact device designed for congested areas and small sites using advanced snapshot hyperspectral imaging for real time detection, identification, and quantification of gas leaks. Concentration and leak size and location are provided, and real time alerts create actionable alarms and display live videos of the leak while simultaneously issuing notifications via email or text. The clear visualization of the leak location, size, and wind drift verify the threat, and aid the fast and effective first response.

By identifying smaller leaks early, Honeywell Rebellion GCI drives targeted maintenance to further address potential growing safety issues, and to deliver durable emissions control. Explosion proof option available.



Capable of detecting gas leaks as far as 100 meters (325 ft) away.

## HONEYWELL REBELLION GAS CLOUD IMAGING SYSTEM

Designed for congested areas  
and smaller sites such as:

- Oil Rigs
- Drilling Sites
- Power Plants
- LNG Facilities

**Honeywell**

# Honeywell Rebellion Gas Cloud Imaging (GCI) Standard Camera

## Technical Specifications

### FEATURES AND BENEFITS



Automatically monitors, identifies, and quantifies gases, 24/7 in real-time.

Patented hyperspectral imaging technology.

Fast, accurate and clear verification of gas safety system alarms with location, and size of the event enabling rapid, efficient mitigation.

Early leak identification drives health based maintenance to reduce potential safety threats and to drive emissions management thereby reducing product loss.



Powerful edge computing in primary instrument.

Extraordinary storage capacity, and processing power.

Enables data and visualization sharing for rapid response, reporting, and post event analysis.



System can be customized for specific sites, applications and needs.

Alarm levels can be adjusted by chemical and field of view.

Comprehensive system including mapping, installation, commissioning, training, and maintenance.

Comprehensive system with the provision of product hardware and including mapping, installation, commissioning, training, and lifetime maintenance services.

### TECHNICAL SPECIFICATIONS

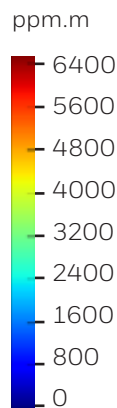
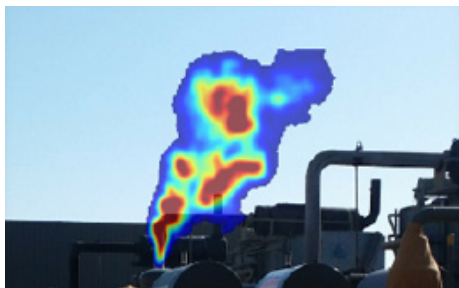
	Sensor Type	Snapshot Hyperspectral Infrared Imaging
	Target Gas (up to 3 simultaneously; max 7 with enhanced analyzer)	1,1 - Difluoroethane, 1,2 - Dichloroethane, Acetic Acid, Ammonia, Benzene, Boron TriFluoride, Butadiene, Ethane, Ethane/Ethylene/Propane Mix, Ethanol, Ethylene, Ethylene/Propane Mix, Gasoline, HVN, Hydrogen Chloride, Hydrogen Sulfide, Iso-Butane, Iso-Butylene, Iso-Pentane, Jet Fuel, LCN, LPG, Methane, Methanol, m-Xylene, N-Butane, N-Pentane, Propane, Propylene, p-Xylene, R22, Sulfur Dioxide, Toluene, Vinyl Chloride
	Range of Detection (optical)	Lowest Detectable Level (LDL) to FSD (100%) (LDL varies depending on target gas)
	Alert/Alarm	Fully automatic alarm with live visual display, audible alert, email, and/or text message
	Detector Range (area of coverage)	Up to 100 m [328 ft]
	Field of View	42.0° x 42.0°
	Speed of Response	Less than 1 second (Scan path and number of stops dependent)
	Position Control	Pan +/-180° (360° full rotation), tilt ±45°
Detector Specifications	False Alarm Rate	≤ 1%
	Operating Temperature	-40°C to +55°C [-40°F to +131°F]
	Operating Humidity	0-99% (non condensing)
	Power Supply and Consumption	Camera: 24 VDC, 17W, 1A (peak), 0.5A, (continuous) Pan/Tilt: 24 VDC, 6A (peak), 4A (continuous), 0.5A (idle) Mini-GCI Analyzer: 120/240 VAC (750W)
	Output Signal	Modbus TCP/IP to DCS system
	Video Output	160 pixels x 160 pixels (IR) / 640 pixels x 640 pixels (Visible) at 15 Hz (7.5Hz for export)
	Network Connections	1 Serial RS-422 + 1 CAT 6 - pan/tilt 2 CAT6 - camera
	Analog Thresholds	N/A
	Hazardous Area/Performance Approvals	N/A
	SIL Certification	N/A
Analyzer	Each system comes with its own analyzer	
Size	133 cm x 36.8 cm x 36.6 cm [44.5 in x 14.5 in x 14.4 in]	
Weight	Camera: 8.2 kg [18 lbs]      Junction box: 5.9 kg [13 lbs] Pan/Tilt: 16.8 kg [37 lbs]      Total: 34 kg [75 lbs] Pole: 3.2 kg [7 lbs]	
Analyzer	Included Items	Mini GCI camera, pan/tilt unit, umbilical post, and camera interface box
DVR	DVR (video storage)	Stores up to 5 million detection events with custom auto-erase settings

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## Technical Specifications

### NOTES/OPTIONS:

1. **Self calibration:** Yes
2. No regular maintenance (except exterior cleaning).
3. **Options include:** PTZ, short mount (PTZ-001), PTZ long mount (PTZ-002), generic control panel (requires further definition), generic work station (requires further definition).
4. Thermal plus visual monitoring.
5. **Software:** Honeywell Rebellion utilizes custom-built software to run the analytics, and to display the result through its own user interface. Fully automated, there is no need for the camera feeds to be continuously monitored by an operator as alert levels are programmed directly into the software. Alarm levels can be adjusted by chemical, and field of view, allowing the entire system to be specialized for your specific site, and needs.



A release of hydrocarbon gas and its concentration is clearly shown with a CGI camera.

### POPULAR GAS SPECIES:

- Acetic acid
- Ammonia
- Benzene
- Butadiene
- Butane
- Ethane
- Ethanol
- Ethylene
- Iso-Butylene
- Iso-Pentane
- Methane
- Methanol
- N-Pentane
- Propane
- Propylene
- Sulfur Dioxide
- Toluene
- Vinyl Chloride
- p- or m-Xylene

Please consult with Sales Representative for a complete gas list.

### For more information

[www.safety.honeywell.com](http://www.safety.honeywell.com)

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FUTURE  
IS  
WHAT  
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MAKE IT

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