COMPLIANCE SOLUTIONS

PARKSENSE™ PARKING GARAGE GAS DETECTION

PURPOSE-BUILT TO COMPLY WITH PARKING GARAGE REQUIREMENTS

CET's ParkSense™ gas detection solution complies with codes and standards for vehicle exhaust monitoring in parking garages, including detecting CO and NO_2 gases and proper ventilation protocols.

Stay compliant, reduce risk, and safeguard parking facilities. Trust the gas detection experts to keep your critical environment safe and secure.

ParkSense, the complete solution

COMPLIANT, COMPLETE, SAFE

- **FCS**: Multi Channel Controller with Modbus® RS-485 or BACnet® WAN output to BAS
- **CGAS-D-CO:** Digital Transmitter with CO sensor
- **CGAS-D-NO2:** Digital Transmitter with NO_2 sensor
- **RSH-24V-R:** Remote Strobe/Horn Combo

Talk to one of our gas detection experts today to learn about compliant gas detection solutions.

Critical Environment Technologies

THE GAS DETECTION EXPERTS.

WWW.CETCI.COM
(877) 940 8741
SALES@CETCI.COM

PARKSENSE: MEETING SPEC

- Mechanical ventilation systems must be capable of adjusting airflow based on CO & NO_2 gas concentrations.
- Sensors are positioned in areas where emissions accumulate or where airflow is limited.
- Audio/visual alarms are required and enhance safety.

FCS Multi Channel System Controller

- Four 5A relays, audible alarm, touch LCD display with menu, zoning, logic control, and data logging
- Modbus® RS-485 or BACnet® MS/TP output for BAS integration
- 90–240V AC power supply
- Options: 4-20mA or 0-10 voltage outputs for VFD control, Strobe, Door Lock, Internal Heater

cGas Detector Digital Transmitter (CO)

- 0-200 ppm sensor range
- Modbus® RS-485 or BACnet® MS/TP output, 4-wire VAC/VDC
- Options: Relay, Low Temp Operation, Splash Guard

cGas Detector Digital Transmitter (NO_2)

- 0-10 ppm sensor range
- Modbus® RS-485 or BACnet® MS/TP output, 4-wire VAC/VDC
- Options: Relay, Low Temp Operation, Splash Guard

Remote Strobe / Horn Combo

- Multiple alarm features in one device
- Independent settings for horn, strobe or horn and strobe together
- Three lens colours to choose from

CRITICAL ENVIRONMENT TECHNOLOGIES

Flexible Control System (FCS)

cGas Detector (CO)

cGas Detector (NO_2)

Strobe/Horn (RSH-24V-R)

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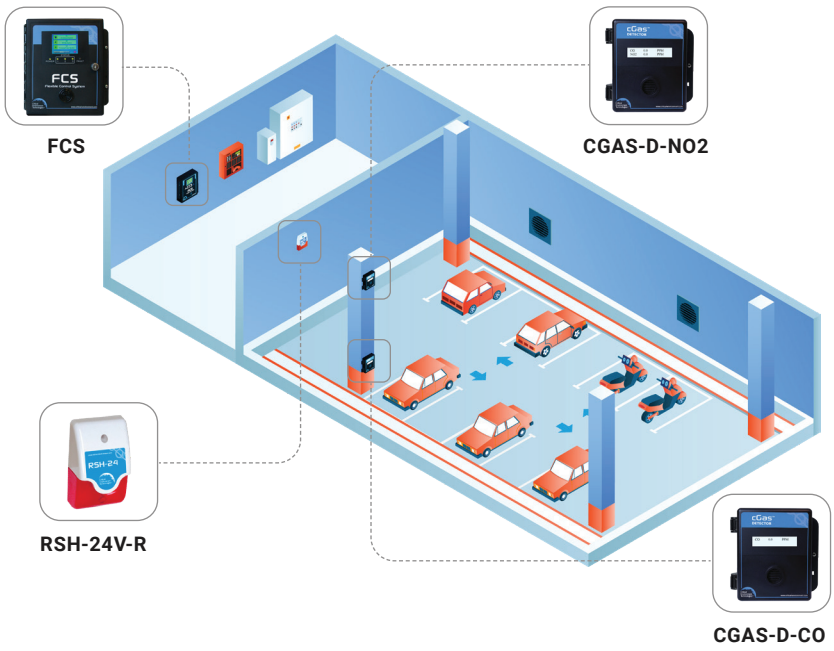
COMPLETE SYSTEM INTEGRATION BUILT TO MEET SPEC

- **FCS** Controller
- **CGAS-D-CO** Digital Transmitter
- **CGAS-D-NO2** Digital Transmitter
- **RSH-24V-R** Remote Strobe & Horn



PARKING GARAGE GAS DETECTION – GENERAL SUMMARY

Enclosed parking garages are expected to use gas detection systems that monitor vehicle exhaust, mainly carbon monoxide (CO) from gasoline engines and nitrogen dioxide (NO_2) from diesel engines.

The detectors are installed at breathing height and control the ventilation system to adjust airflow automatically based on gas levels. Ventilation usually operates in stages such as low-speed “standby” mode and high-speed “full” ventilation—to keep air quality safe.

Some requirements also call for minimum airflow during occupied times and fan modulation as gas concentrations increase.

Audible and visual alarms must be provided.

Modern systems often use demand-controlled ventilation (DCV), where real-time readings from CO and NO_2 sensors determine how much ventilation is needed. This allows the system to run fans only when gas levels increase, reducing energy use while maintaining safety.

Garages must also maintain proper pressure so exhaust does not enter nearby occupied spaces. In some smaller or lightly used garages, simpler ventilation controls may be allowed as long as ventilation operates whenever the space is in use.

PARKING GARAGE MULTI-STATE COMPLIANCE GUIDE

	STANDARDS	GASES REQUIRED	SENSOR PLACEMENT	VENTILATION REQUIREMENTS	CONTROL REQUIREMENTS
CALIFORNIA	TITLE 24	CO monitoring; occupancy-based ventilation control	At least one CO sensor per 5,000 ft²; minimum two sensors per zone	Fan modulation down to ≤50% design airflow; must maintain ≤25 ppm CO	Automatic failure detection; annual calibration; pressure control to keep garage neutral or negative
FLORIDA	2023 FBC Mechanical, 8th Ed, S404.01	CO + NO_2 detection required for automatic ventilation	CO: 3–5 ft above floor; NO NO_2: 1 ft below ceiling	Ventilation cycles between full-on and standby based on detector input	Automatic full-on at ≥0.75 cfm/ft²; standby at ≥0.05 cfm/ft²
VANCOUVER	Vancouver Building Bylaw12511, S6.3.1.3	CO + NO_2 detection required (dual channel supported)	CO+ NO_2 installed 3–5 ft above floor (dual sensor)	Maintain CO ≤100 ppm; NO_2 ≤3 ppm or meet airflow supply rate	Monitoring devices must control mechanical ventilation; pressure kept lower than adjacent spaces

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