



CONSPEC®

INNOVATION THAT DIGS DEEPER.

OPTIO PGM



Optio PGM Parking Garage Monitor

CONSPEC's Parking Garage Monitor (PGM) is based on OSHA guidelines and various National, State, or Local Building Codes designating that areas where toxic gases may accumulate must be continually ventilated or have a gas monitoring device installed.

Before an unsafe level of Carbon Monoxide or Nitrogen Dioxide is reached, the detector will signal ventilation fans to cycle and operate until the atmosphere in the area has returned to normal. Multiple PGMs can be installed and easily connected with a PVC controller station with customizable user-defined logic, or as a standalone device without the need for a central controller. LED indicator lights clearly show the status of the monitor and a large LCD display continually shows the CO/NO₂ levels being monitored. In the event of a power loss or malfunction, the controller activates the ventilation system as a failsafe mechanism.

By only operating the ventilation fans when needed, electricity and heating expenses can be dramatically reduced.

Contact Conspec Controls to get a calculation of your potential energy savings.

BENEFITS

- Immediate energy savings
- Simple installation
- Adjustment-free
- One-person calibration procedure

APPLICATIONS

- Enclosed parking garages
- Vehicle maintenance facilities
- Factories and warehouses
- Bus terminals and depots
- Tunnels
- Car dealerships
- Fire and police stations
- Service bays

KEY FEATURES

- Up to 7-year sensor life for CO
- Up to 2-year sensor life for NO₂
- NO₂ sensor can be internal or remotely located up to 100ft
- Modbus RTU communications
- Two (2) onboard relay contacts
- Two (2) 4-20mA outputs (optional)
- Onboard buzzer capable of 85dB at 10cm distance
- Automatic reset after power loss
- Easy to use 2.1in graphical LCD menu interface with RGB backlight (e.g. Green =normal; red=alarm)
- User-selectable settings (default to industry standards) via IR remote interface
- Easy LED indication for power, fault, alarm1, and alarm2
- 1-year warranty
- Easy installation

MECHANICAL

Enclosure	Polycase WH-02
Dimensions	5.11" x 3.93" x 2.75"
Weight	0.60 lbs.
Mounting	Various Options

ENVIRONMENTAL

Operating Temperature	-20°C - 50°C (-4°F - 120°F)
Operating Humidity	10% to 90% RH Non-Condensing
Temperature Compensation	Full Temperature Range

ELECTRICAL

Operating Voltage	24VAC/24VDC
Current Consumption	@12V I _{max} =60mA, @24V I _{max} =32mA
Output Signals	Two Dry Contact DPDT Relays • 5A at 12VDC, 2A at 30VDC, or 60W • Two Optional 4-20mA Output (one for each sensor)

SYSTEM**CO**

Sensor Type	Electrochemical
Sensor Range	Carbon Monoxide 500 ppm
Sensor Life Expectancy	7 Years
Response Time	T90 <30 seconds
Repeatability	+/- 2% at 250 ppm calibration point
Linearity	Linear output in proportion to gas concentration

SYSTEM**NO₂**

Sensor Type	Electrochemical
Sensor Range	Nitrogen Dioxide 20 ppm
Sensor Life Expectancy	2 Years
Response Time	T90 <25 seconds
Repeatability	+/- 2% at 10 ppm calibration point
Linearity	Linear output in proportion to gas concentration

RELAY OPERATIONS (CONFIGURABLE)

Relay 1 Operation (factory default)	ON when: CO ≥ 25 ppm or NO ₂ ≥ 1 ppm OFF when: CO ≤ 15 ppm or NO ₂ ≤ 0.7 ppm (Relay 1 has a 5 minute minimum ON duration)
Relay 2 Operation (factory default)	ON when: CO ≥ 200 ppm or NO ₂ ≥ 3 ppm OFF when: CO ≤ 150 ppm or NO ₂ ≤ 2 ppm (Relay 2 has a 5 minute minimum ON duration)

STANDARDS & APPROVALS

- Compliant With California Title 24 (Pending)
- UL 61010-1 (Pending)
- UL 2075 (Pending)

AVAILABLE ACCESSORIES

- PVC Control Panel
- Horns and Strobes
- Calibration Kits
- Replacement Sensor CO
- Replacement Sensor NO₂
- Power Supply
- IR Remote

**INTERNATIONAL MECHANICAL CODE**

The International Mechanical Code® (IMC®) establishes minimum requirements for mechanical systems using prescriptive and performance-related provisions.

Subpart 1. Section 404.1.

IMC section 404.1 is amended to read as follows:

404.1 Enclosed parking garages. Mechanical ventilation systems for enclosed parking garages shall operate automatically upon detection of certain gas concentrations. Enclosed parking garages shall be equipped with a Carbon Monoxide (CO) detector and a Nitrogen Dioxide (NO₂) detector. The mechanical ventilation system shall activate upon detection of a CO level of 25 parts per million (ppm) or greater, a NO₂ level of 3 ppm or greater, or both. Such detectors shall be listed in accordance with UL 2075 and installed in accordance with their listing and manufacturer's instructions.