Detect and protect

The GS3000 Sensor Series – advanced gas detection solutions from Johnson Controls

The power behind **your mission**

Johnson Controls

GS3000 Outdoor CO and NO2 Gas Detection Sensors

The GS3000 Outdoor Gas Detection Sensors Series monitors levels of carbon monoxide (CO) or nitrogen dioxide (NO2) to provide early warnings of elevated concentrations.

Available as a standalone CO or NO2 sensor, or as a dual CO and NO2 sensor*, the GS3000 series is engineered to provide installation flexibility and real cost savings.

- Sensors are held in field-replaceable sensor pods to reduce installation costs.
- The pod design provides a greater area of gas sampling than that of devices that use a single vent hole.
- Replacement pods are pre-calibrated to make swapping sensors quick and easy.
- IP65 polycarbonate sensor enclosures with a hinged and gasketed cover provide ease of installation and access for setup and configuration.

Other features include:

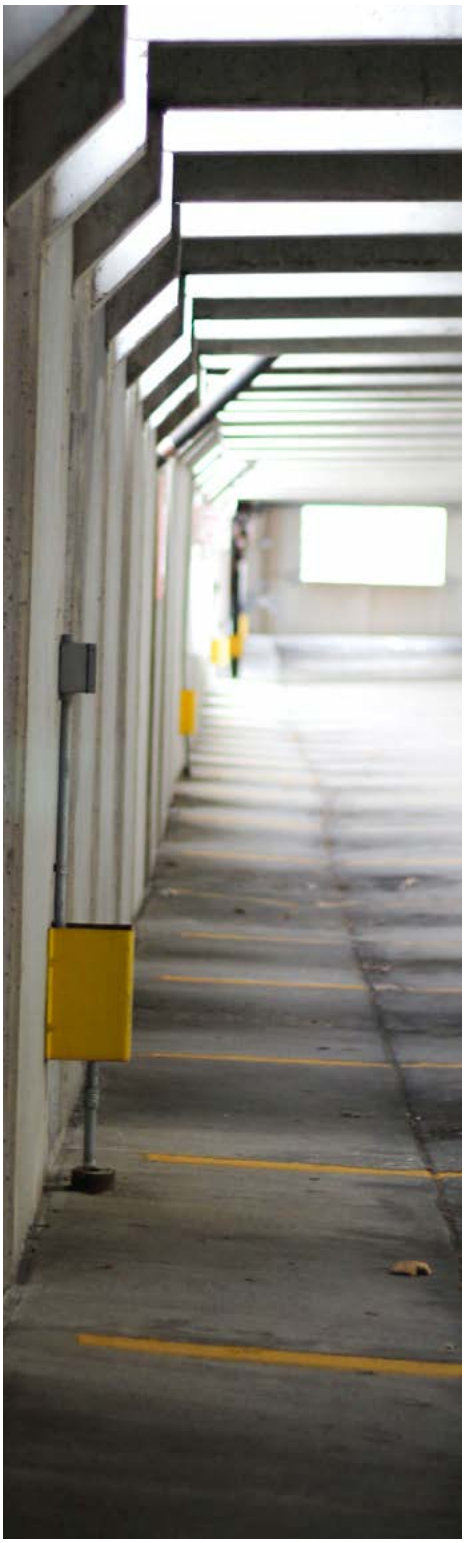
- Analog or Binary output options
- BACnet network compatible to communicate wiith BAS
- LCD display for configuration
- Status LEDs
- Two adjustable controls or alarm relays
- Adjustable audible (buzzer) alarm
- Visual strobe alarm
- Temperature sensor variations

A single calibration kit – available as an accessory – works for both CO and NO2 models.

*The dual sensor device is available in two configurations: CO and NO2 housed in an enclosure or as CO with remote NO2 sensor that you can mount at a higher location.

Technical specifications

Specification	Description
Carbon monoxide	**Measurement:** Electrochemical
	Accuracy: ±5 ppm or ±5% of reading, whichever is greater
	Measurement range: 0 ppm to 100 ppm, 0ppm to 150 ppm, 0 ppm to 300 ppm, 0 ppm to 400 ppm, or 0 ppm to 500 ppm, field-selectable
	Response time: <30 seconds
	Reproducibility: ±2%, same day
	Long term drift: <5% per year
	Expected lifespan: 5 to 7 years in air
Nitrogen dioxide	**Measurement:** Electrochemical
	Accuracy: ±0.2 ppm or ±5% of reading, whichever is greater
	Measurement range: 0 ppm to 10 ppm
	Response time: <30 seconds
	Reproducibility: ±2%, same day
	Long term drift: Zero: < ±2 ppm per year Span: < 2% signal per month
	Expected lifespan: >2 years
Temperature sensor	**Sensor:** 1K ohm Platinum, 1K ohm Nickel, Analog, or BACnet **Range:** -4°F to 122°F (-20°C to 50°C) , -32°F to 122°F (0°C to 50°C)
Relay outputs	**Contact ratings:** Form C (NO + NC), 5 A at 140 VAC, 5 A at 30 VDC **Relay setpoint + hysteresis:** programmable through the menu **Relay time delay:** programmable through the menu
LCD	**Size (H x W):** 0.6 in. x 1.4 in. (1.5 cm x 3.5 cm), alpha-numeric 2-line x 8 characters **Backlight:** enable or disable through the menu
LED indicators	Red or green status Red alarm
Power supply	24 VDC ±20% or 24 VAC ±10%, non-isolated half-wave rectified
Output signals	4 mA to 20 mA active (sourcing) or 0 VDC to 5 VDC, 0 VDC to 10 VDC, BACnet
Output drive capability	**Current:** 550 ohm maximum **Voltage:** 10K ohm minimum
Protection circuitry	Reverse voltage-protected, overvoltage protected
Wiring connections	Screw terminal block, 14 AWG to 22 AWG
Ambient operating range	-4°F to 122°F (-20°C to 50°C), 15% RH to 90 % RH noncondensing, 0.9 atm to 1.1 atm
Storage conditions	-22°F to 140°F (-30°C to 60°C)
Enclosure	IP65, UL94-V0
Dimensions (H x W x D)	**Main enclosure:** 8 in. x 7.24 in. x 2.15 in. (202.3mm x 184mm x 54.3mm) **Remote NO2 enclosure:** 4.31 in. x 3.28 in. x 2.05 in. (109.5mm x 83.3mm x 52mm)
Country of origin	Canada
Compliance	Manufactured in an ISO 9001 Registered Quality System
CE	**Europe:** CE Mark - Johnson Controls declares that this product is in Compliance with the essential requirements and other relevant provisions of the EMC Directive.



GS3000 Indoor Gas Detection Sensors

The GS3000 Indoor Gas Detection Sensor Series offers two separate models to measure CO or NO2 levels.

Both units reflect the latest thinking in innovative sensor design and are engineered to maintain safe, healthy spaces for your occupants.

These models utilize an electrochemical sensor to monitor the CO or NO2 level and output a factory-calibrated signal for responsive alerts.

With its unobtrusive, discreet design, the GS3000 Indoor Sensors are well-suited to spaces – such as classrooms – where aesthetics and unobtrusive installation are important.

Key features include:

- Analog or Binary output options
- Modbus network compatible
- Optional alarm relay
- Life expectancy for CO sensor devices: 5-7 years
- Life expectancy for NO2 sensor devices: >2 years
- Coverage area: 7500 ft^2 (700 m^2) or 50 ft (15 m) radius

Technical specifications

Specification	Description
Carbon monoxide	**Measurement:** Electrochemical
	Sample method: Diffusion
	Measurement range: Analog: 0 ppm to 300 ppm Modbus: 0 ppm to 500 ppm
	Accuracy: ±5 ppm or ±5% of reading, whichever is greater 32°F to 122°F (0°C to 50°C), 15% RH to 95% RH
	Stability: <5% signal loss per year
	Response time: <35 seconds for 90% step change
	Expected lifespan: 5 to 7 years in air
	Output Signal: 4mA to 20 mA (non-relay version is loop-powered, relay version is sourcing), 0 VDC to 10 VDC, or Modbus, factory-calibrated
	Consumption: 20 mA maximum, non-relay model 40 mA maximum, relay model
	Optional alarm relay, not available with Modbus: Relay contacts: Form C contacts (N.O. and N.C.), 5 A at 250 VAC, 5 A at 30 VDC Relay trip point: 25 ppm, 60 ppm, or 150 ppm, jumper-selectable Relay hysteresis: 3% or 9 ppm
Nitrogen dioxide	**Measurement:** Electrochemical
	Sample method: Diffusion
	Measurement range: 0 ppm to 10 ppm
	Accuracy: ±0.2 ppm or ±5% of reading, whichever is greater
	Expected lifespan: >2 years in air
	Output signal: 4mA to 20 mA sourcing
	Consumption: 50 mA maximum
	Alarm Relay: Relay contacts: Form C contacts (N.O. and N.C.), 5 A at 30 VDC, p.f. = 1 Relay trip point: 1 ppm, 3 ppm, or 5 ppm, jumper-selectable Relay hysteresis: 3%
Operating conditions	1-4°F to 122°F (-20°C to 50°C), 15% RH to 90% RH, 0.9 atm to 1.1 atm
Coverage area	7500 ft2 (700 m2) or 50 ft (15 m) radius
Power supply	24 VDC ±20% or 24 VAC ±10%, non-isolated half-wave rectified
Wiring connections	Screw terminal block, 14 AWG to 22 AWG
Enclosure	ABS, UL94-V0, IP65, NEMA 4X
Enclosure dimensions (H x W x D)	4.1 in. x 2.8 in. x 1.9 in. (10.4 cm x 7.1cm x 4.8 cm)
Country of origin	Canada
Compliance CE	**Europe:** CE Mark – Johnson Controls declares that this product is in compliance with the essential requirements and other relevant provisions of the EMC and RoHS Directives.

About Johnson Controls

At Johnson Controls, we transform the environments where people live, work, learn and play. From optimizing building performance to improving safety and enhancing comfort, we drive the outcomes that matter most. We deliver our promise in industries such as healthcare, education, data centers and manufacturing. With a global team of 105,000 experts in more than 150 countries and over 130 years of innovation, we are the power behind our customers' mission. Our leading portfolio of building technology and solutions includes some of the most trusted names in the industry, such as Tyco®, York®, Metasys®, Ruskin®, Titus®, Frick®, Penn®, Sabroe®, Simplex®, Ansul® and Grinnell®.

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