

TG Series

Dual Toxic Gas CO/NO2 Sensor/Controller

Higher Reliability, Faster Installation, Superior Accuracy



TG UL CO & NO2
Rugged ABS or Metal Enclosure options

Operates as sensor in GCS Garage Exhaust System or as stand-alone gas detector.
Individual CO, NO2, or dual sensing elements in one enclosure.
Native BACnet MS/TP or Analog output models.
Standard LCD with intuitive set up menu.

FEATURES

- Native BACnet MS/TP protocol.
- Integrated display, LED indicators, audible alarm.
- Analog menu selectable 0-5/10V, 1-5V and 4-20mA outputs (0-10V default).
- Analog version supports daisy chain wiring to cost-effectively sense and control large areas.
- Sensor self-test feature for added safety and reliability.
- Temperature compensated elements for maximum accuracy.
- UL listed and LADBS Approved (City of LA).
- NEW! UL2075 Listed CO and NO2 elements.
- Warning indicators alert occupants when element's lifecycle is near end for replacement.
- Field replaceable sensing elements; 7 year life expectancy on CO and NO2 elements.

DESCRIPTION

UL Listed TG Series sensors can be ordered as individual CO or NO2 sensors or as a combination of CO&NO2 sensors in a shared enclosure. CO and NO2 sensor components are listed to UL2075. The analog output model features 2 outputs that support daisy chain wiring - multiple sensors may be used in a parallel sequence (0-10V) for cost effective coverage of large areas. The unit can also act as a stand alone controller, utilizing the relay for exhaust fan operation or the output for direct control of a VFD. The BACnet model provides native BACnet MS/TP network communication with no adapter required. Standard features include network auto-configuration, a programmable fan relay, LED indicators, integrated display and audible alarm.

APPLICATIONS

- Parking Garages.
- Mechanical Rooms.
- Alert occupants of elevated gas levels.
- Direct control of exhaust fans.

SPECIFICATIONS

Power Supply: 15-30VDC/24VAC, 4W max, 160mA max.
Analog Outputs: 2 programmable outputs 0-10V (default), 0-5V, 1-5V and 4-20mA (menu selectable)
CO output scaling: 0-200ppm (default), 0-1000ppm (menu selectable)
NO2 output scaling: 0-10ppm (default), 0-30ppm (menu selectable)
BACnet Protocol: RS-485 BACnet MS/TP, Baud Rates 9600, 19200, 38400, 57600, 76800, 115200
Fan Relay: N.C. 1A@24/30VDC (50/60Hz) (no mains connection)
CO fan relay setpoint: 25ppm (default), 0-1000 ppm (menu selectable)
NO2 fan relay setpoint: 1ppm (default), 0-30ppm (menu selectable)
Alarm Relay: N.C. 1A@24/30VDC (50/60Hz) (no mains connection)
CO alarm relay setpoint: 100ppm (default), 0-1000 ppm (menu selectable)
NO2 alarm relay setpoint: 3ppm (default), 0-30ppm (menu selectable)
Display: 3-1/2 digit LCD Indicates CO ppm, NO2 ppm (menu selectable)
LEDs: Green, Yellow, Red Green = Normal, Yellow = Warning/Fan Relay, Red = Alarm/Alarm Relay
Audible Alarm: 85dB Piezo transducer 30 minutes above alarm setpoint per UL2075 (menu selectable)

CO Sensor Performance: Type Electrochemical
Accuracy $\pm 5\%$ of default range (1) $\pm 5\%$ of reading above 200ppm
Resolution 1ppm
Certifications UL2075 Recognized Component
Life expectancy >7 years
Coverage Area 5000-7500 square feet (Click for details)

NO2 Sensor Performance: Type Electrochemical
Accuracy $\pm 5\%$ of default range (2) $\pm 5\%$ of reading above 20ppm
Resolution 0.1ppm
Certifications UL2075 Recognized Component
Life expectancy >7 years
Coverage Area 5000-7500 square feet (Click for details)

Operating Environment : Temperature continuous -20 to 50C, -4 to 1220F
Humidity 15-95% continuous, 0-95% intermittent
Max Elevation 2000m

ABS Enclosure: Material ABS/Polycarbonate
Dimensions 4.0”h x 4.4”w x 2.1”d (+6.8” probe for duct version)
Conduit Opening Tapped 1/2” NPT
Rating IP43 or NEMA 3R

Metal Enclosure: Material & Enclosure Rating Powder-coated steel
Dimensions 5.0”h x 4.3”w x 2.25”d
Opening Dual air vents on front lid of enclosure
Mounting Pre-drilled for 2x4” electrical box
Rating IP41 or NEMA 3R

Agency Compliance: UL61010-1 Listed UL, cUL, CE, UL2075 Recognized CO and NO2 elements

(1) Carbon Monoxide full scale is 1000ppm.

(2) Nitrogen Dioxide full scale is 30ppm.

* Product improvement is a continual process at GCS and product features and specification may change without prior notice.

Refer to instructions that accompany the product for installation and wiring.