

BRASCH



Gas Detectors - Transmitters



The Brasch gas transmitter is a combination sensor and signal transmitter. Concentration of a targeted gas is monitored and a digital signal is produced that is proportional to the concentration of the target gas. The signal is used by the Brasch remote control panel, or Brasch stand alone detectors, to properly operate the ventilating equipment. Since ventilating equipment runs only when required, energy costs for heating and operating fans are greatly reduced. Transmitters are available to monitor carbon monoxide (CO), nitrogen dioxide (NO₂) and oxygen (O₂), or a combination of any two of these gases. Standard analog outputs are included that allow the transmitter to connect directly to existing building management systems.

Key Features

- Microprocessor Controlled
- Accurate Electrochemical Sensor
- Factory Calibrated
- Available for 24 VAC Power
- Direct Connection to BMS or DDCS
- Transmitter Supplied With External Power Leads for Easy Installation
- Sensors Available for Carbon Monoxide, Oxygen And Nitrogen Dioxide Gas

Standard Outputs

- 4-20 mA Current Loop
- 0-1 VDC Output
- 0-5 VDC Output
- 0-10 VDC Output

Typical Applications

- Commercial Parking Garages
- Condominium and Apartment Garages
- Warehouses and Factories
- Car and Bus Maintenance Garages
- Tunnels
- Auto Service Centers
- Small Engine Repair Shops
- Incineration Facilities
- Steel Mills
- Bottling Plants
- Cryogenic Laboratories
- Wastewater Treatment Plants

Ratings

- Input Voltage
 24 VAC, 50/60 Hz., 5 VA
 +/- 25 VDC (supplied from Brasch control Panel)
- Ambient Temperature Rating
 Storage
 -50°C to 50°C (-58°F to 122°F)
 Operating
 -15°C to 40°C (5°F to 104°F)
- Humidity
 10% to 90% (non-condensing)

Enclosure

- NEMA 1
- Polycarbonate Plastic
- Grey High Gloss Finish

Dimensions

4 3/4" H. x 4 13/16" W x 2 3/16" D

Weight

1 lb.

Recognition

ETL Listed per (UL 3111-1, CSA C22.2)

Mounting

This unit can only be mounted indoors and should be in a dry location at a height of 5 to 7 feet above floor level. This location will sense the concentration of the target gas at approximately breathing height. The transmitter should also be mounted in a location to sense the average gas concentration in the area. This transmitter will monitor 7000 to 9000 square feet of floor space.

Unit Operation

The Brasch gas transmitter uses state of the art analog and digital components, including a microprocessor. This is essential to meet the ever-growing demand for reliable detection of potentially dangerous gases. This unit continuously monitors the ambient concentration of the target gas. A linear signal, representing the concentration of gas, is sent to the ventilation controller and used to operate the ventilating equipment.

Standard analog output signals are available and field selectable for 4-20 mADC, 0-1 VDC, 0-5 VDC or 0-10 VDC. This proportional signal can be used to control variable speed drives, damper actuators, remote indicators/controllers and energy management systems.

The transmitter requires very little power. When replacing older units, operating power, in most cases, can be obtained from existing supplies and wiring.

Typical Uses

Many localities require that operators of underground parking garages provide ventilation to preclude the buildup of dangerous carbon monoxide gas. Brasch transmitters, designed to sense carbon monoxide and operate the ventilation system only when necessary, are ideal for this type of application. In areas where diesel powered equipment is operating, the Brasch carbon monoxide/nitrogen dioxide combination transmitter provides for automatic ventilation control of both gases using one unit. This combination detector is ideal for use in fire department and truck maintenance garages.

OSHA defines an oxygen-deficient environment as one that contains 19.5 % or less oxygen. The Brasch oxygen transmitter safeguards workers against dangers of oxygen deficiency in facilities such as wastewater treatment plants, steel mills, cryogenic laboratories and incineration rooms. When the oxygen level drops below an adjustable threshold, an alarm will sound and ventilation equipment will operate bringing in fresh air to restore the level to normal.

Factory Default Settings

Transmitters are set at the factory to supply a linear output signal up to a full scale value that depends upon the type of gas being sensed. Field movable jumpers allow the choice of either a current or voltage output. The factory default settings are as stated in the table below.

GAS	FULL SCALE VALUE	PROP. OUTPUT
Carbon Monoxide	200 PPM	4-20 mA DC
Nitrogen Dioxide	10.0 PPM	4-20 mA DC
Oxygen	25.0 %	4-20 mA DC

Color coded wires exiting factory installed conduit fittings allow most installations without opening the housing.

Sensor Technology

The Brasch transmitters offer the latest in up to date sensor technology. The carbon monoxide, nitrogen dioxide and oxygen transmitters are available with electrochemical sensors.

Electrochemical Sensor

Available in transmitters for carbon monoxide, nitrogen dioxide, and oxygen. This sensor provides long-term accuracy and repeatability within +/- 5 % of the calibrated value. The sensor is not affected by changes in humidity in the operating area. The sensor's response to the target gas is also inherently linear.

Ordering Information

Brasch gas transmitters are available to meet almost any ventilation requirement in conjunction with Brasch Remote Control Panels, Brasch Stand-Alone Detectors, or Building Management Systems. Single or dual sensor models give the user a large degree of system design flexibility. When ordering, refer to the information below to determine the correct transmitter model designation to meet your requirements.

Electrochemical

MODEL	GAS DETECTED
GSE-CM-TRNS	Carbon Monoxide (CO)
GSE-ND-TRNS	Nitrogen Dioxide (NO ₂)
GSE-OX-TRNS	Oxygen (O ₂)
GSE-NCM-TRNS	Nitrogen Dioxide / Carbon Monoxide
GSE-OCM-TRNS	Oxygen / Carbon Monoxide
GSE-OND-TRNS	Oxygen / Nitrogen Dioxide

Brasch also produces Refrigerant Leak Detectors, Carbon Dioxide Detectors, and Control Panel Systems. Visit our web site for technical and application literature for all Brasch products.

BRASCH

Brasch Manufacturing Co., Inc.
2310 Millpark Drive, Maryland Heights, Missouri 63043
314-291-0440 FAX 314-291-0646
e-mail: braschmfg@braschmfg.com
Website: www.braschmfg.com