CGT

Combustible Gas Sensor/Transmitter

The Manning Systems CGT Combustible Gas Sensor provides continuous detection of combustible gases in virtually any industrial environment. The 4/20 mA output gives rapid warning of gas buildup or leakage.

The CGT measures a wide variety of combustible gases and vapors, including methane, propane, hydrogen, alcohols, benzene, etc. Systems are normally calibrated for 0-100% LEL (Lower Explosive Limit) using methane as the standard.

The poison resistant sensing element is housed in an explosion-proof 316 stainless steel sensor assembly for maximum corrosion resistance. Use of a sintered metal flame arrestor isolates the sensing elements from the ambient air. A 3/4″ NPT thread at the back of the sensor mates with the threaded entry on the explosion-proof transmitter enclosure.

Sensing elements are designed for long life in harsh industrial environments, typically two years or more in most applications.

Two matched sensing elements, one active and one passive, form a Wheatstone bridge measuring circuit. The active element catalyzes oxidation of the sensed gas, resulting in a change in the measuring bridge proportional to the gas concentration.

Manning Systems has a broad range of readout and alarm devices that are designed for use with the CGT. The standard 4/20 mA output may be used with other types of industry standard monitoring equipment, including direct input to a PLC.

Applications

Engine Rooms

Maintenance Garages

Boiler Rooms

Battery Charging Areas

Chemical Plants

Bakeries

Furnace Areas

Key Features

Three-wire 4/20 mA output (linear)

Sensors monitor numerous gases

Rugged galvanized cast iron explosion-proof transmitter enclosure

Allows wiring runs up to 1000' with #18/3 conductor shielded cable

Can be used with all Manning Systems Alarm Readout Units

Can also be used with customer equipment that accepts 4/20 mA signal

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Manning Systems, Inc. provides a complete line of industrial quality Gas Alarm Monitoring Systems for equipment rooms, refrigerated spaces, storage facilities, laboratories and process areas.

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Specifications

Method:
Catalytic Bead (diffusion)

Ranges:
0-100% LEL (Lower Explosive Limit)

Response Time (T90):
10 seconds

Measurable Gases:
Methane, Hydrogen, Propane, Butane, Alcohols, Benzene, etc.

Sensitivity:
1% LEL

Zero Drift:
< 2% / month

Power Requirement:
24 VDC regulated at 100 mA nominal

Output:
4/20 mA, maximum
700 ohm impedance

Operating Temperatures:
-40˚F to 150˚F

Weight:
3 lbs.

Dimensions:
6.07"H x 4.73"W x 2.88"D

Cable Requirements:
#18/3 shielded cable (Belden #8770 or equal) for runs up to 1000'

Sensor Material:
316 stainless steel

Transmitter Enclosure:
Galvanized cast iron

Enclosure Rating:
Class 1, Division 1, Groups B, C and D

NOTES:

Assembly is normally mounted directly to suitable explosion-proof conduit.

When transmitter is used in a classified area, an explosion-proof seal should be installed as required by local electrical code.

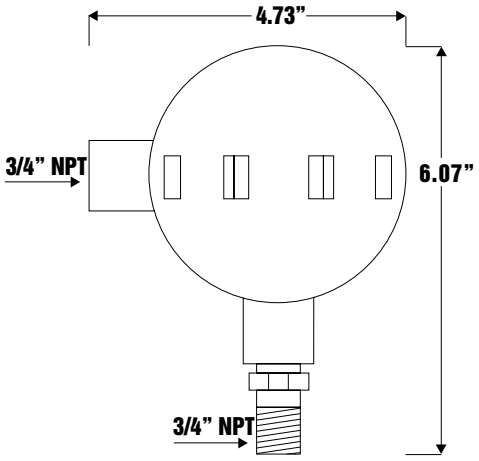
Warning: Failure to seal the conduit entries will result in water entering the enclosure causing damage or failure to the transmitter electronics.

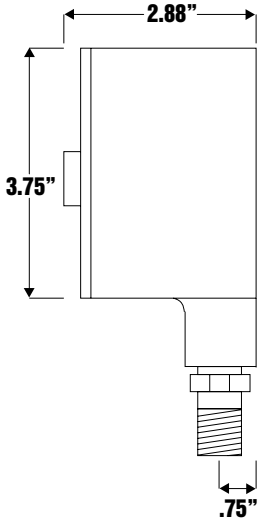
Ordering Information

Contact Manning Systems to discuss %LEL trip level(s), environment (including possible interference gases present), details of control scheme, etc.

Specifications subject to change without notice.
Sold per Manning Systems standard Limited Warranty.

Dimensions





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