

# HAFFMANS OGM IN-LINE O<sub>2</sub> GEHALTEMETER - ULTRAPURE GAS APPLICATION

PRODUCT LEAFLET



## GENERAL PRODUCT INFORMATION

In the production of beer and other carbonated beverages the quantity of oxygen (O<sub>2</sub>) in gases such as carbon dioxide (CO<sub>2</sub>) and/or nitrogen (N<sub>2</sub>) that are in contact with the beverage is a decisive factor to the product's final quality and overall taste. A low O<sub>2</sub> content is crucial to avoid O<sub>2</sub> pick-up throughout the production process.

When CO<sub>2</sub> is recovered from the fermentation process, the gas is liquefied so that non-condensable gases – O<sub>2</sub> and N<sub>2</sub> – can be removed. During N<sub>2</sub> generation the residual quantity of O<sub>2</sub> is continuously monitored to assure that the N<sub>2</sub> produced has a consistent high purity. During both of these processes the in-line O<sub>2</sub> Gehaltemeter, type OGM, measures the O<sub>2</sub> content of ultrapure gases and provides a key parameter for an efficient and economical operation of CO<sub>2</sub> recovery.

The OGM uses optical technology that is not sensitive to organic substances and humidity to measure O<sub>2</sub>. It provides greatly improved response times compared to traditional O<sub>2</sub> measuring devices and doesn't require frequent calibration which reduces downtime and labor cost.

The user-friendly control unit can be supplied in either field or panel mounted versions and a maximum of two O<sub>2</sub> probes can be connected to each control unit.

## BENEFITS

- Cost saving
  - efficient and economical operation of CO<sub>2</sub> recovery or N<sub>2</sub> generation plants
  - reduces gas loss
  - low maintenance

## APPLICATIONS

- In-line, for the determination of the O<sub>2</sub> content of ultrapure gas, typically CO<sub>2</sub> gas from fermentation, preferably installed after the activated carbon filter/drier of a CO<sub>2</sub> recovery system or a nitrogen generation plant.

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### TECHNICAL DATA

#### CONTROL UNIT

##### Power supply

85-264 V / 50-60 Hz (optional 24 VDC)

##### Dimensions

200 x 200 x 80 mm/8 x 8 x 3.25 in (LxWxH)

##### Mounting

Field (e.g. wall/pipe) or panel mounting

#### O<sub>2</sub> PROBE

##### 25 mm connection

Dimensions 280 x 100 mm/11 x 4 in (LxD)

#### O<sub>2</sub> SENSOR LHG

##### Measuring range

|                            |  |
|----------------------------|--|
| O <sub>2</sub> measurement | 0 - 200 ppm (vol/vol)                        |
| Temperature                | -5.0 - 40.0 °C (23 - 104 °F)                 |
| Pressure compensation      | adjustable from 0.0 - 2.000 bar (0 - 29 psi) |

##### Accuracy

|                            |                      |
|----------------------------|----------------------|
| O <sub>2</sub> measurement | 2 ppm + 5 % of m.v.* |
| Temperature                | ± 0.1 °C/°F          |

#### O<sub>2</sub> UNITS

##### Process temperature

Max. 50 °C (122 °F)

##### Measuring interval

30 sec. (adjustable from 3 - 999 sec.)

##### Memory capacity

Up to 500 measurements

##### Protection class

IP-67

\* at 20 °C

### SCOPE OF SUPPLY

- Control unit
- Probe communication cable
- Wall mounting set
- I/O cable for analog output
- O<sub>2</sub> probe
- Set of pressure reduction accessories
- Calibration beaker with spare O-ring 60 x 3 mm
- Power supply cable
- Instruction manual

### OPTIONS

- Pipe/probe mounting set (- DN 125)
- Control unit with Profibus DP
- O<sub>2</sub> calibration set
- Certificate of measurement



25 mm probe



#### HAFFMANS BV

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