

HAFFMANS OGM IN-LINE O₂ GEHALTEMETER - GAS APPLICATION

PRODUCT LEAFLET

GENERAL PRODUCT INFORMATION

In the brewing and beverage industries, the quality of carbon dioxide (CO₂) is a decisive factor to the final quality and overall taste of the beverages produced. CO₂ with a low oxygen (O₂) content is crucial to avoid oxygen pick up in these beverages. Therefore CO₂ recovered from fermentation is liquefied in order to purify it from non-condensable gases – O₂ and nitrogen (N₂).

The in-line O₂ Gehaltemeter, type OGM, measures the O₂ content of CO₂ gas from fermentation and provides a key parameter in the efficient and economical operation of a CO₂ recovery system.

The in-line O₂ measurement is based on an optical technology that is not sensitive to organic substances, humidity and beer foam (as long as it is gas permeable). It provides greatly improved response times compared to traditional O₂ measuring devices and doesn't require frequent calibration.

It is recommended that the OGM will be installed in the CO₂ collection line, preferably after the foam separator. The O₂ sensor is hygienically designed and is easily removed for routine servicing.

It is available in two executions:

- 25 mm connection (that fits a 25 mm connection typically used with traditional O₂ measuring devices)
- Varivent® connection

The user-friendly control unit can be supplied in either field or panel mounted versions and a maximum of two O₂ sensor can be connected to each control unit.

BENEFITS

- Accurate process control
 - measurement data storage
- Cost saving
 - reduction of CO₂ losses
 - efficient operation of CO₂ recovery system
 - low maintenance

APPLICATIONS

- In-line, for the determination of the O₂ content of incoming CO₂ gas from the fermentation and recovered CO₂ from bright beer tanks, deaeration systems etc, preferably installed after the foam separator of a CO₂ recovery system.



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TECHNICAL DATA

CONTROL UNIT

Power supply

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

Dimensions

235 x 205 x 165 mm / 9.25 x 8.07 x 6.50 in
(LxWxH)

Mounting

Wall mounting

O₂ SENSOR

Varivent® connection

Dimensions 84 x 175 mm

25 mm connection

Dimensions 84 x 240 mm

O₂ SENSOR LHO

Measuring range

O ₂ measurement	0.000 - 4.180 % O ₂
Temperature	-5.0 - 40.0 °C (23 - 104 °F)
Pressure compensation	adjustable from 0.0 - 2.000 bar (0 - 29 psi)

Accuracy

O ₂ measurement	0.002 % O ₂ ± 2 % of m.v.*
Temperature	± 0.1 °C/°F

O₂ SENSOR WLO

O ₂ measurement	0.20 - 100.0 % O ₂
Temperature	-5.0 - 40.0 °C
Pressure compensation	adjustable from 0.0 - 2.000 bar (0 - 29 psi)

Accuracy

O ₂ measurement	< 5 % of m.v.*
Temperature	± 0.1 °C/°F

* at 20 °C

O₂ units

% O₂, ppm, % a.s.

Process temperature

max. 110 °C (230 °F)

Process pressure

max. 10 bar(g)/145 psi

Measuring interval

30 sec. (adjustable from 2 - 999 sec.)

Memory capacity

Up to 500 measurements

Protection class

IP-67

SCOPE OF SUPPLY

- Control unit
- O₂ sensor
- Sensor communication cable
- Control unit wall mounting set
- Power supply cable
- I/O cable for analog output
- Calibration beaker with spare O-ring
- Instruction manual

OPTIONS

- Profibus DP
- Control unit pipe/sensor mounting set (DN 40 - DN 125)
- Control unit panel mounting set
- Certificate of measurement
- Software set (CD + RS cable)
- Welding socket for 25 mm O₂ sensor
- In-line housing with Varivent® connection, inspection glasses and clamps for O₂ sensor with Varivent® connection (pipe dimensions to be specified at time of enquiry)
- O₂ calibration set



Varivent® sensor



25 mm sensor



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