

HAFFMANS c-DGM CO₂/O₂ GEHALTEMETER

PRODUCT LEAFLET

GENERAL PRODUCT INFORMATION

In the beer and beverage industries, the content of dissolved carbon dioxide (CO₂) and oxygen (O₂) are determining factors in the quality, taste and flavor stability of beer and carbonated beverages. Particularly, O₂ is an important parameter as it causes a rapid decline of the flavor stability and shelf life. Breweries as well as soft drink manufacturers continuously control and measure the concentrations of CO₂ and O₂ during production.

The CO₂/O₂ Gehaltemeter, type c-DGM, combines the internationally accepted determination of the dissolved CO₂ content based on Henry's Law with a highly accurate dissolved O₂ measurement. This state-of-the-art optical O₂ measurement technology is greatly improved compared to the traditional O₂ measuring instruments and doesn't require frequent calibration. Its design allows for higher product pressure, making it suitable for the soft drink industry. Up to 10 different product types can be programmed into the device. The bumper protects the c-DGM against physical impact in harsh environments.

When the CO₂ measurement is started, the O₂ content is stored. Automatically, equilibrium is created, followed by the measurement of pressure and temperature. The dissolved CO₂ content is then electronically calculated and displayed. The data can be securely transferred to a PC using the interface cable.

Besides the combined CO₂/O₂ measurement, the c-DGM is suitable for single O₂, continuous O₂ and single CO₂ measurements.

Also the Total Package Oxygen (TPO) value, based on the Uhlig method, is calculated in the CO₂/TPO measuring mode and the single TPO measurement.

BENEFITS

- Accurate product control
 - reproducible and operator independent results
- Cost saving
 - lower investment costs (one device for CO₂ and O₂ measurement and up to 10 product types)
 - less labor intensive
 - reduction of beer loss
 - low maintenance

APPLICATIONS

- At-line, sampled directly during the production process
- Laboratory, after the production, sampled from a variety of bottles or cans
- TPO calculation from bottles or cans using sampling device ISD-special



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TECHNICAL DATA

O₂ content

Measuring range 0.0 - 2,000 ppb
Accuracy ± 1 ppb + 2% of m.v.*
Measuring Units ppb, µg/l, ppm, mg/l, %

CO₂ content

Measuring range 2.0 - 10.0 g/l
Accuracy ± 0.05 g/l
Measuring Units g/l, % b.w., Vol, kPa

Temperature

-5.0 - 40.0 °C, 23 - 104 °F, acc. ± 0.2 °F

Pressure

0.0 - 10.0 barg, acc. ± 0.01 bar

Measuring time incl sampling

Approx. 120 sec.

Number of measurements per charge

Approx. 120

Interface

RS-232

Dimensions

210 x 130 x 260 (LxWxH mm)

Weight

ca. 3.2 kg

* at 20 °C

SCOPE OF SUPPLY

- CO₂/O₂ Gehaltemeter, type c-DGM
- Bumper
- Service set with power supply (Euro or US plug)
- Software set (CD + Interface cable)
- Set of two sample hoses
- Instruction manual

OPTIONS

- Certificate of measurement
- Quick charger
- Inpack 2000 Sampling Device "special"



Bumper