HAFFMANS
CO_2 / O_2 GEHALTEMETER, TYPE c-DGM

PORTABLE AND VERSATILE MEASUREMENT

The Pentair Haffmans CO_2/O_2 Gehaltemeter, type c-DGM measures dissolved CO_2 content and dissolved O_2 content in liquid, O_2 in gases, CO_2 purity in gases, and the Total Package Oxygen measurement in a beverage package.

The CO_2/O_2 Gehaltemeter, type c-DGM, combines the internationally accepted determination of the dissolved CO_2 content based on Henry's Law with a highly accurate dissolved O_2 measurement. This state-of-the-art optical O_2 measurement technology is greatly improved compared to the traditional O_2 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.

How it works

When the CO_2 measurement is started, the O_2 content is stored. Automatically, equilibrium is created, followed by the measurement of pressure and temperature. The dissolved CO_2 content is then electronically calculated and displayed. The data can be securely transferred to a PC by using the interface cable. Data analysis can be done via Pentair Haffmans Navigator software. Besides the combined CO_2/O_2 measurement, the c-DGM is suitable for single O_2, continuous O_2 and single CO_2 measurements.

Also the Total Package Oxygen (TPO) value, based on the Uhlig method, is calculated in the CO_2 / TPO measuring mode and the single TPO measurement.

CUSTOMER BENEFITS

- **Durable design can be used in both laboratory and in the production process environment**
- **Suitable for both the brewing and soft drink industries due to its ability to handle high product pressure**
- **Reproducible results ensure accuracy**
- **Ability to measure the purity of CO_2 gas**

APPLICATIONS

- **At-line, sampled directly during the production process**
- **Laboratory, after the filling sampling from bottles or cans by using the sampling device Pentair Haffmans ISD 2.0**
- **TPO calculation from bottles or cans using the sampling device Pentair Haffmans ISD 2.0**

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TECHNICAL DATA

O_2 Content

Measuring Range	0.0 to 2,000 ppb w/w (DO) 0 to 41,800 ppm vol/vol (gas)
Accuracy	± 1 ppb w/w + 2 % of m.v. (DO)* ± (20 ppm vol/vol + 2% of the m.v. (gas)*
Measuring Units	ppb w/w, µg/l, ppm w/w, mg/l, % a.s., % O_2, ppm vol/vol

CO_2 Content

Measuring Range	2.0 - 10.0 g/l
Accuracy	± 0.05 g/l
Measuring Units	g/l, Vol., % b.w., kPa, kg/cm^2

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

- CO_2 /O_2 Gehaltemeter, type c-DGM
- Bumper
- Service set with power supply (Euro or US plug)
- Software set (USB stick with Navigator software & interface cable to connect RS232 to USB)
- Set of two sample hoses
- Instruction manual

OPTIONS

- Certificate of measurement
- Quick charger
- Sampling device Pentair Haffmans ISD 2.0

Color Display

Bumper

PENTAIR

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