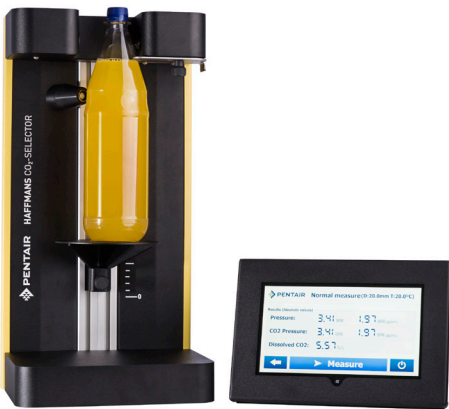


HAFFMANS CO₂-SELECTOR

NON-INVASIVE CO₂ MEASUREMENT

PRODUCT LEAFLET



GENERAL PRODUCT INFORMATION

In the production of beer, carbonated soft drinks and wine, the carbon dioxide (CO₂) content is a key quality parameter and decisive to the product's taste. Therefore, manufacturers continuously measure and control the CO₂ content during production.

Haffmans CO₂-Selector provides an advanced solution for non-invasive CO₂ measurement in the filled package. Using an innovative laser technology, the Haffmans CO₂-Selector measures the headspace CO₂ content and internal pressure, and accurately determines the dissolved CO₂ content in the package. Piercing is not required to perform the measurement. The bottle is not destructed and no product is lost.

How this works

The Haffmans CO₂-Selector's laser transmitter sends a beam through the headspace of the package to a receiver. At a particular frequency, the CO₂ molecules in the headspace absorb the infrared light of the laser. Based on the width of the absorption lines and the intensity, the total pressure and the CO₂ concentration in the package is determined. Other gases present in the headspace – such as oxygen (O₂), nitrogen (N₂) or hydrogen (H₂) – do not have an impact on the measurement results. In addition, the measurement is independent of the color or material of the bottle.

Only a few minutes are required to perform the measurement. The procedure is simple and repeatable, which allows for an unlimited number of tests to be conducted on the same package.

BENEFITS

- High-precision laser technology
- Non-invasive CO₂ measurement
- Selective measurement
- Safe, non-contact procedure
- No product loss
- Fast, repeatable measurement
- Temperature compensated results
- No consumables or wear parts
- Multi-lingual operator interface
- Maintenance-free

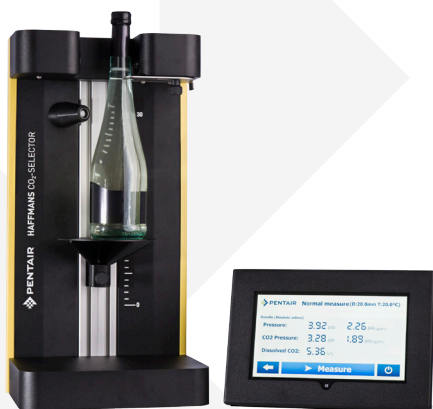
APPLICATIONS

- Laboratory
- Filling department

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NON-INVASIVE CO₂ MEASUREMENT

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TECHNICAL DATA

Parameters

Total pressure, CO₂ fraction, Partial CO₂ pressure, Dissolved CO₂, Temperature

Measuring range

Beer & Soft drink execution

Total pressure	0.5-8.0 bar
CO ₂ fraction	50-100%
Partial CO ₂ pressure	0.25-8.0 bar
CO ₂ at 20 °C	0.5-13.0 g/l

Wine execution

Total pressure	0.5-8.0 bar
CO ₂ fraction	15-100%
Partial CO ₂ pressure	0.08-8.0 bar
CO ₂ at 20 °C	0.2-13.0 g/l

Temperature

Working Temperature +5 to 35 °C

Measuring cycle

ca. 5 sec.

Laser

Type IR, <1 mW
Class 1

Dimensions

Haffmans CO ₂ -Selector	555 x 280 x 250 mm (H x W x D)
Interface	210 x 305 x 100 mm (H x W x D)

Weight

Haffmans CO ₂ -Selector	11 kg
Interface	3.5 kg

SCOPE OF SUPPLY

- Haffmans CO₂-Selector
- Haffmans CO₂-Selector Interface
- Mains Supply Cable
- Instruction Manual



HAFFMANS BV

P.O. BOX 3150 NL-5902 RD VENLO, NETHERLANDS INFO@HAFFMANS.NL WWW.HAFFMANS.NL

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