GENERAL PRODUCT INFORMATION

In the beer and beverage industries both oxygen \( (O_2) \) and carbon dioxide \( (CO_2) \) are important gases. When it comes to product life and flavor stability, oxygen is detrimental. Preventing \( O_2 \) pick-ups during the entire production and packaging process is of paramount importance. As a result, beer and beverages are produced with very low dissolved oxygen (DO) levels, to achieve consistent quality and high flavor stability during the product’s shelf life. The content of dissolved \( CO_2 \) is decisive to the quality and taste of beer and carbonated beverages. Therefore, brewers and beverage manufacturers continuously control and measure the \( CO_2 \) content in bottled and canned beverages.

The automatic Inpack TPO/\( CO_2 \) Meter, type c-TPO meets the demands. The differentiated measurement of headspace \( O_2 \) and DO provides immediate insight in the performance of the filling operation. The multiple routine determinations of TPO and \( CO_2 \) are fully automated. Up to 150 different product types/packages can be programmed and easily selected. The instrument is suited for the most common sizes of bottles and cans.

Beyond traditional TPO measurement methods and instruments, the c-TPO measures the headspace \( O_2 \) and DO by the filler, while at the same time the liquid remains in the package and is not consumed by the instrument. Sample preparation time is skipped and lab space is minimized. The c-TPO also supports the well-known z-factor method according to Uhlig. The \( CO_2 \) content is measured according to Henry’s Law.

CUSTOMER BENEFITS

- High quality beer and beverages in every package
- prevent inferior product entering the market
- save time and money and maximize the ROI
- no sample preparation
- fully automated measurement
- All-in-one measurement: HSO, DO, TPO
- reduce process downtime
- prevent product losses
- low maintenance

APPLICATIONS

- Laboratory, applicable in breweries and soft drink industries
- Filling department, applicable in breweries and soft drink industries
TECHNICAL DATA

Measuring range
TPO, HSO, DO, Headspace Volume, CO₂, Temperature, Pressure

Measuring range
- Oxygen content: 0.00 - 4.18%
- DO value: 0.000 - 2.000 mg/l
- CO₂ value: 2.0 - 15.0 g/l
- HS volume: 0.0 - 500 ml
- Temperature: -5.0 - 40.0 °C
- Pressure: 0.00 - 5.00 barg

Accuracy
- DO value: ± (1 ppb + 2% m.v.)*
- CO₂ value: ± 0.1 g/l
- Temperature: ± 0.2 °C
- Pressure: ± 0.02 bar

Memory capacity
Up to 250 measurements

Bottle dimensions
- Height: min. 90 mm - max. 440 mm
- Diameter: min. 55 mm - max. 200 mm

Can dimensions
- Height: min. 80 mm - max. 195 mm
- Diameter: min. 50 mm - max. 73 mm

Voltage
80-240 V / AC 50-60 Hz

Interface
USB, barcode reader

Dimensions
- max. 550 x 330 x 1120 (LxWxH mm)
- min. 550 x 330 x 680 (LxWxH mm)

Weight
40 kg

* at 20 °C

SCOPE OF SUPPLY

- Inpack TPO/CO₂ Meter, type c-TPO
- Mains cable (Euro, US, UK or AUS plug)
- Service set with piercers and sealing rubbers
- Software set (CD + Interface cable)
- Instruction manual

OPTIONS

- Certificate of measurement
- PET bottle holder
- Barcode reader

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