In the beer and beverage industries both oxygen (O₂) and carbon dioxide (CO₂) are important gases. When it comes to product life and flavor stability, oxygen is detrimental. Preventing O₂ 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 CO₂ is decisive to the quality and taste of beer and carbonated beverages. Therefore, brewers and beverage manufacturers continuously control and measure the CO₂ content in bottled and canned beverages.

The automatic Inpack TPO/CO₂ Meter, type c-TPO meets the demands. The differentiated measurement of headspace O₂ and DO provides immediate insight in the performance of the filling operation. The multiple routine determinations of TPO and CO₂ 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 O₂ 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 CO₂ content is measured according to Henry’s Law.

**APPLICATIONS**

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

**GENERAL PRODUCT INFORMATION**

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**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 and CO₂
  - reduce process downtime
  - prevent product losses
  - low maintenance

**APPLICATIONS**

- Laboratory, applicable in breweries and soft drink industries
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**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

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**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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