

LP20 Portable Applications

In the portable applications, the LP20 series is using the same technology of the TP10 analyzer to measure CO2/O2. The sensors are packed in a IP67 case equipped with a local touch screen control panel, batteries flow cell, tubing and all the accessories needed for the measurement line. Both in the single channel configuration and in the dual channel one, the LP20 is light but very robust and easy to operate for quick connection to a tank or a piping.



OPERATING SPECIFICATIONS

TPO Measurement

Gas Phase range: LOW RANGE: 0 % O2 to 4 % O2 (0-39 hPa) partial pressure
HIGH RANGE: 0 % O2 to 40 % O2 (0-395 hPa) partial pressure

Liquid Phase range: LR: 0 ppb to 2000 ppb
HR: 0 ppm to 22.5 ppm

Repeatability: LR: ±5 ppb or ±5 % whichever is the greater
HR: ±0.10 ppm or ±5 % whichever is the greater

CO₂ Measurement*

Range: 0...5 v/v (0...10 g/l)
Repeatability: +/- 0.025 v/v (+/- 0.05 g/l)

Head Space Measurement

Repeatability: ±0.5 ml
Analysis Cycle time: ~7 minutes

**Sample must be gently shaken before measurement*

TECHNICAL FEATURES

Measurement Temp.: from 0 to 40°C
Pressure: max 6.5 bar absolute
Package dimensions: diameter from 30 to 125 mm
height from 30 to 370 mm
volume > 200 ml (with CO2 measurement)

Gas consumpt. / analysis: Vn=6L

Required oxygen-free gases: N2 or CO2 class5 if TP10 is used without CO2 measurement
Additional gases: Compressed air
Cleaning: pressurized Chlorine free water or Process water
Communication interfaces: 2xUSB, Ethernet
Display: 10" LCD Panel with capacitive touchscreen
Data storage: Up to 5000 measurement data sets

Please refer to the technical datasheet for further data.

More products for the Beverage Industry

BA06
Beer Analyzer



In line - Alcohol, Plato, Extract, CO2

IB08
Soft Drink Analyzer



In line - Bx, Fresh Bx, Diet, CO2

LP10
Laboratory Beverage Analyzer



Lab – Brix, Diet / Alcohol, Extract, Plato + CO2 and O2

ZZ2001583B



TP10

TOTAL PACKAGE ANALYZER

TOTAL PACKAGED OXYGEN, TRUE CO₂ AND HEADSPACE VOLUME FOR THE BEVERAGE INDUSTRY



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TP10

BENEFITS, APPLICATIONS AND FAQ

- Optical technology
- All in one TPO and CO₂ analyzer
- Fast Measurement
- Web Based Software
- Robust Construction
- Easy to operate
- Low Maintenance



EQUIPMENT CONFIGURATIONS

The Maselli TP10 is an innovative Total Package Analyzer designed for the beverage industry. The analyzer can be used with a wide variety of package shapes and sizes. Once the package is placed in the TP10 the analyzer automatically pierces the container and measures the headspace volume, CO₂, and O₂ concentration of both the liquid and headspace of the package. The TP10 user interface operates on a web-based software platform making data analysis quick and easy from anywhere.

Parameters

Oxygen: Total Packaged O₂, Head Space O₂, Dissolved O₂
CO₂: CO₂ P/T, True CO₂
Head Space: HS Volume

1. Why are beverage manufacturers concerned about Oxygen levels?

- Flavor Stability
- Shelf-life Stability

2. What is Total Packaged Oxygen (TPO)?

- Liquid O₂ + Headspace O₂

3. Why is it important to measure TPO?

- It accounts for all the Oxygen in the package both dissolved and, in the headspace of the container

4. How can the TPO data be used to control your process?

- Establish a limit of sale ability
- Characterize the performance of your filler
- Establish O₂ specification for your filler
- Determine filler valve maintenance needs

5. What can the TP10 TPO analyzer tell you about your process?

- Discover the source of oxygen intrusion
- Headspace pickup
- Liquid transfers

6. Which are potential sources of O₂ pickup?

- Poor purging of the air from the lines
- Leaking valves, seals, or pumps
- Bad container purging
- Air contaminated purge gas

DESIGN

Web based control panel

The Maselli TP10 is operated by means of an intuitive control panel that operates on a web-based software platform. The TP10 has a local display and can be networked to communicate with existing data collection systems. The analyzer can also be remotely accessed through user password protected software interface to extract data for statistical analysis or troubleshooting.

Universal sampling capability

The Maselli TP10 has the capability to sample from a wide variety of package shapes and sizes including glass bottles, PET bottles or cans. A container can be easily placed in a universal package holder, which operates together with a robust piercer that is designed for continuous use.

Robust Construction

The Maselli TP10 was designed to operate at line in a production environment or in a central laboratory. The sensors are enclosed in a water-proof housing designed for easy access for system validations and sensor maintenance.

Innovative measurement method

The Maselli TP10 contains 2 separate gas and liquid sample cells. The measurement cycle begins by extracting the headspace gases into the gas sampling cell where it measures both the CO₂ and O₂ from the headspace. A sampling tube is then lowered into the container to draw the liquid into the liquid sampling cell. The CO₂ and O₂ is measured as the sample flows to drain. All data parameters are determined in less than 6 minutes per cycle and displayed on the control panel.

“To truly understand the oxygen shelf-life impact of your beverage, you need to measure TPO.”