

## AUTOMATIC CO<sub>2</sub> TESTER CDA-MK6



The CDA-MK6 measures pressure and temperature simultaneously, calculates the CO<sub>2</sub> content and transfers the measuring results via data interface to the base unit. A dynamic sample preparation, low maintenance requirements and easiest calibration complement the high-precision measurement.

### CO<sub>2</sub> monitoring in packaged beverages

The content of CO<sub>2</sub> is one of the most important influencing quality parameters affecting taste and shelf life of beverages. A continuous monitoring of the carbon dioxide content is therefore essential to ensure a consistent quality. Essential requirements on industrial CO<sub>2</sub> measurement in bottled beverages are the optimal sample preparation and measuring procedure, repeatable results and consideration of all package influences to the beverage quality.

The continuous dynamic trend to newer and if possible less expensive packaging and package materials is especially important to be considered in modern CO<sub>2</sub> testing equipment. Other significant requirements according to the customer needs are easy operation, low maintenance requirements, efficient workflow management and easy integration in already existing quality control systems.

The only instruments in the market most optimally fulfilling these requirements are the Steinfurth CO<sub>2</sub> testers. Where for other technology providers fulfilling of all these essential requirements in one instrument solution is not possible, the Steinfurth CO<sub>2</sub> tester additionally to its unique combination of dynamic sample preparation and direct in-package measurement also complementarily simulates the beverage tasting situation by the consumer. Its high precise and repeatable measuring results support very efficiently the most optimal monitoring and adjustment of the beverage quality in bottling process.

Customized and medium optimal measuring procedures are ex-factory programmed and executed fully automatic. The flexibly programmable control unit transfers all parameters as test protocol to the internal memory, containing in detail CO<sub>2</sub> content, pressure, temperature, date, time, current test number, and the serial number of the instrument with the specific test sample code.

The base unit's integrated color touch screen shows all essential test results as perfectly visualized quality parameters for the operator. In combination with the barcode scanner and customized configured data interface the CDA can be very fast and automatic setup for changing samples and operators - essential for most optimal process efficiency and safety. Pre-setup for the Steinfurth CPA-concept is complementarily available in every new instrument.

### Operation

The Steinfurth CDA works based on the physical law of Henry & Dalton. The packaged beverage is placed in the sample container and with closing of the measuring head automatically pierced. Measurement with integrated dynamic sample preparation are initiated by pressing the START button. The harmonic overhead tumbling of the sample delivers optimal physical equilibrium of the sample and assures perfect repeatability and accuracy of the measuring results.

Just after the state of equilibrium is reached the CO<sub>2</sub> content is automatically calculated and stored in the memory (available as digital fingerprint of the test with all recorded parameters for transfer to the PC or directly into the network).

## Specifications

- » Application: Beverages industry, Packaging Industry
- » Measuring results: CO<sub>2</sub>, Pressure, Temperature
- » Package type: Bottles (PET & Glass), Cans
- » Usage: Quality control, packaging testing
- » Extension into CPA: Yes (ex-works on board)
- » Sample preparation: Integrated & dynamic
- » Duration of measuring: 60–120 sec
- » Data output: LCD, RS 232, USB, LAN
- » Power supply: 115–230V/50–60Hz
- » Accuracy (pressure):  $\pm 0.02\text{bar}$  ( $\pm 0.29\text{psi}$ )
- » Accuracy (temperature):  $\pm 0.3\text{bar}$  ( $\pm 0.54^\circ\text{F}$ )
- » CO<sub>2</sub> repeatability:  $\pm 0.05\text{g/l}$  ( $\pm 0.03\text{vol}$ )
- » Max. pressure: 10bar (145PSI)
- » Measurement: 610x500x640mm
- » Weight: ca. 20kg (44lbs)

