

# CO<sub>2</sub> High Precision Calibration Kit



## ORBISPHERE 3231X

- Traceable and trustworthy results; each reagent kit contains a certificate of analysis
- Calibration using CO<sub>2</sub> in the liquid phase, directly reflects actual working conditions to improve accuracy
- Suitable for ORBISPHERE instruments employing Thermal Conductivity sensors
- Eliminates the handling of aggressive chemicals by laboratory personnel or other operators
- Quick and easy to use; saves time and simplifies the calibration process

The High Precision Calibration Kit\* is a unique solution that calibrates and verifies the ORBISPHERE carbon dioxide analyzers.

Effective calibration is critical to the performance of any analytical instrument and the ORBISPHERE 3231X is designed to give a traceable and trustworthy calibration standard with defined carbon dioxide content to +/- 0.5 %.

Regular calibration of sensors not only confirms the performance of the instrument but directly contributes to the quality of the results obtained and hence of the final product quality.

The calibration solution is prepared in a precision calibration bottle. A known and precise amount of sodium bicarbonate powder is combined with a ready-made dilute citric acid solution to provide a defined, accurate carbon dioxide concentration in the liquid. This solution can then be circulated through the flow chamber of the Thermal Conductivity sensor to enable calibration.

Calibration is undertaken using CO<sub>2</sub> in the liquid phase to directly reflect the actual working conditions of the sensor and to provide high accuracy.

The solution is quick and easy to prepare. There is no contact with any hazardous chemicals and calibration can be undertaken in less than three minutes.

A total volume of 500 ml is sufficient for accurate calibration or rapid verification of the ORBISPHERE instruments employing a Thermal Conductivity sensor for selective CO<sub>2</sub> measurement.

\*Patent Pending

## Performance specifications

The High Precision Calibration Kit is available for 2 concentration levels

- **High level range from 3 g/kg to 8 g/kg** for calibration of CO<sub>2</sub> analyzers measuring high carbonation levels, for example in beer, soft drinks or sparkling wine.
- **Low level range from 0 g/kg to 3 g/kg** for instruments measuring low carbonation levels in still wines.

## Specifications

- Accuracy: +/- 0.5 %
- Volume of the bottle: 600 ml
- Shelf-life: 24 months
- Preparation time less than 3 minutes
- Replication of a real package closed with an aluminium cap compatible with ORBISPHERE piercers



## Ordering information

| Model | Description            | Content  |
|-------|------------------------|--|
| 32313 | Starter Kit High level | -1 reusable PET precision calibration bottle<br>-1 cap adapter with rubber gasket<br>-1 calibration table displaying solution CO <sub>2</sub> content versus temperature and analyzer configuration<br>-Instructions<br>-Reagents from model 32314 |
| 32314 | Refill Kit High level  | Reagents to prepare the calibration solution<br>-10 tubes of sodium bicarbonate powder<br>-10 flasks of dilute citric acid<br>-10 metal caps, for single use   |
| 32315 | Starter Kit Low level  | -1 reusable PET precision calibration bottle<br>-1 cap adapter with rubber gasket<br>-1 calibration table displaying solution CO <sub>2</sub> content versus temperature and analyzer configuration<br>-Instructions<br>-Reagents from model 32316 |
| 32316 | Refill Kit Low level   | Reagents to prepare the calibration solution<br>-10 tubes of sodium bicarbonate powder<br>-10 flasks of dilute citric acid<br>-10 metal caps, for single use   |