THE NEXT GENERATION CO₂ analyzer for beverages

The carbonation analyzer UC09 is a 100% in line optical sensor able to measure accurately CO₂ content of any carbonated beverage, beer, wine or mineral water: the installation can be easily made by means of 1 single Varivent fitting with no need of any bypass or pump.

The equipment is using optical ATR infrared technology specifically developed by Maselli for this application: the new innovative design of the analysis section allows now to withstand both standard and High Temperature applications where the temperature of the CIP exceeds 90°C.

The analyzer does not have any drift in the time so that it does not need any adjustment vs the laboratory: after the initial configuration during start up, the operators in the plant do not have to touch the system anymore.

The measurement is very fast (3 seconds) and it helps the plant operators to control the process.

Due to the optical technology, no moving parts, the equipment is virtually no maintenance reducing drastically the ownership costs in comparison with the traditional pressure / temperature construction.
CO2/O2 combined measurement
The carbonation analyzer UC09 may be delivered in combination with the fluorescence quenching based oxygen analyzer UG01: the 2 analyzers may be controlled by the Maselli touch screen field panel MP01 capable to handle PLC connection for process alarm and control. The 2 sensors may be installed in 1 single standard Varivent fitting: being a modular construction, it is possible to start with 1 element adding the second one at a later stage.

OPERATING SPECIFICATION

CO2 Measurement
Measurement limits: 0...6 v/v (0...12 g/l)
Accuracy: +/- 0.025 v/v (+/- 0.05 g/l)
Measurement scale: “v/v (Gas/vo)” o “g/l”
Response time: 3 sec

Oxygen Measurement (option)
Low Range
Measurement limits: 0.0..2,000 ppb
Accuracy: +/- 1 ppb
Measurement Scale: ppb, ppm, %
High Range
Measurement limits: 4 ppb..25 ppm
Accuracy: +/- 7 ppb
Measurement Scale: ppb, ppm, %

TECHNICAL FEATURES
Measurement Temp: -5...+35 °C [23...95 °F]
Max. sterilization temp. (Hot Water): 100° C (4 hours) in the ST configuration - CO2 analyzer 130° C (45 min.) in the HT configuration - CO2 Analyzer 100° C (4 hours) - O2 analyzer
Line pressure: 10 bar max.
Degree of protection: IP67 from EN60529
Power supply: AC 24V ±10% 50...60Hz, 300mA.
DC 24V ±10%, 300mA.
Digital interface: RS485 for connection to MP01/O2 receivers.
Field bus available from MP01: Profibus / Modbus TCP / Ethernet IP
Field bus available from MP02: Profibus / Modbus TCP / Ethernet IP
Line connection: Tuchenhagen Varivent N
CO2 unit weight: 3.3 kg
Dim. unit: 176x192.5x132.5