



TECHNICAL-NORMATIVE SPECIFICATIONS

Environmental features

Temperature Limits:

Environment: +5°C...+45°C (23°F...113°F).

Storage: -20°C...+50°C (-4°F...122°F).

Humidity Limits:

Environment: +5%...+95% (R.H. without condensate).

Storage: +5%...+95% (R.H. without condensate).

Altitude Limits: <2000 m b.s.l.

Protection Degree: IP64 in accordance with EN60529.

Conformity to Directives and Standards

LVD: CEE 73/23, 93/68 and subsequent modifications;
EN 61010-1 (1994)

EMC: CEE 89/336, 93/68 and subsequent modifications;
EN 50081-2 (1994-Generic Emission)
EN 50082-2 (1994-Generic Immunity)
EN 61000-3-2 (2001-Harmonic Emission)
EN 61000-3-3 (2001-Voltage Fluctuations)
EN 61000-4-2 (1996-Electrostatic Discharges)
EN 61000-4-3 (1997-Electromagnetic fields RF)
EN 61000-4-4 (1996-Fast Transitors)
EN 61000-4-5 (1997- High Volt. Impulse Immunity)
EN 61000-4-6 (1997- Conducted RF Disturb. Immunity)
EN 61000-4-11 (1997-Immunity to Voltage variation)

* CE marking of conformity to EU Directives and listed Standards.

OPERATING SPECIFICATIONS

Application: Measurement of sugared or diet carbonated beverages and mineral waters, in process lines.

Type of Measurement: Measurement, on the basis of the relation between the Saturation Pressure and its temperature (Henry's Law), of the continuous cycle carbonation and display of the dissolved CO₂ value in the selected "g/l" or "V/V (Gas/Vol)" scale.

Measurement Limits: 0...5 V/V (0...10g/l).

Accuracy: ±0,05 V/V (±0.1g/l).

Measurement scale: "V/V (Gas/Vol)" or "g/l".

Product Temperature: 0°C...+45°C equivalent to 32°F...113°F (0°C...+90°C/32°F...194°F as out of standard) with automatic compensation by means of Temperature sensor Pt1000 in AISI 316 stainless steel 3/8", Class "A" in accordance with IEC751.

Line pressure: 0...10bar (0...145psi) at 20°C (68°F).

GENERAL SPECIFICATIONS

Power supplies

Electric: AC 18V (12...24V), 50...60Hz, 20VA.
DC 24V (18...36V), 20W.

Connection box without Transformer (optional):
Power supply according to UC05 specifications.

Connection box with Transformer (optional):
AC 115/230V ±10%, 50...60Hz, 35VA.

Interfaces

Analog: 0...20mA or 4...20mA on 470Ω.

Digital: RS422/485 for connection to the "CM00" remote Control Unit, to PC with RS422 Interface and "Labtech" or similar data acquisition Software Package, to PC with RS485 Interface (Optomux Protocol).

A "Multidrop" connection can be used to interface up to 32 "UC05 Measurement Systems.

Inputs: N°1 input for the acquisition of the "Line Stop CO₂" status and consequent blocking of the measurement.

Outputs: N°1 relay output for alarm condition signalling or for activating the production line block, with 2A/24V DC/AC contact.

All the interfaces are optoinsulated from the power supply (VDE0160). Connections to the equipment are made using two pre-assembled circular, multipolar connectors each supplied with 5m of cable; a special polycarbonate "Interconnection box" (IP55), with pre-wired connecting cables to the Unit, is provided for the connection. All external connections must be made by means of connections to the terminal inside the box.

CONSTRUCTIONAL FEATURES

Execution: Enbloc equipment with main components in AISI 304/316 stainless steel; installation on the process line by means of a mounting fitting with 1" Tri-Clamp® fittings.

Measuring section: - Relative pressure Sensor in AISI 316 stainless steel & Hastelloy C276.

- "Mechanical shock" degassing system with high extraction potential obtained by means of magnetic drive Rotor and polar expansion Stator.

- Continuous cyclic analysis, activation of cam/connecting rod and consequent valves and depression membrane, by means of Brushless drive motor with low power absorption.

Electronic Section: - "CPU" control unit with microprocessor with management software on interchangeable EPROM.

- Scratchproof polyester keyboard with dome-shaped keys and preforming.

- Indication of measurement and display, by means of a 128x64 points backlit graphic LCD with "LCD Saving" function, of the software and diagnostics menus, of the error messages and operating status indicator icons.

- 3-level programming software with password protection, check menu.

- A choice of five languages (Italian, English, German, Spanish, French) for the display of menus and messages.

- Process temperature expressed in "°C" or in "°F" and pressure in "kg/cm²" or "psi".

Materials in contact with the product:

- Pt1000, mounting fitting's pipes and measurement cell in AISI 316 stainless steel.

- Pressure sensor in AISI 316 and HASTELLOY C276.

- ORING and Gaskets in Viton.

- Extravolume diaphragm membrane in food-compatible EPDM.

- TEFLON-coated magnetic rotor with PEEK ring.

Dimensions and weight:

Equipment with mounting fitting: 458 (b) x 428 (h) x 205 (p), ~20kg

Connection Box: 170 (b) x 220 (h) x 106 (p), ~1kg