Carbonate analyzer CO-202

CO-202 *is a new totally automatic and compact instrument able to realise a carbonate analysis in less than three minutes, being eliminated the uncertainties, improving the reliability and increasing the facility and comfort in the execution of the analysis according to norm**

Based on the principle of decomposition by acid attack, CO-202 transforms carbonates and bicarbonates of the sample in CO2 quantifying them later with an infrared cell.

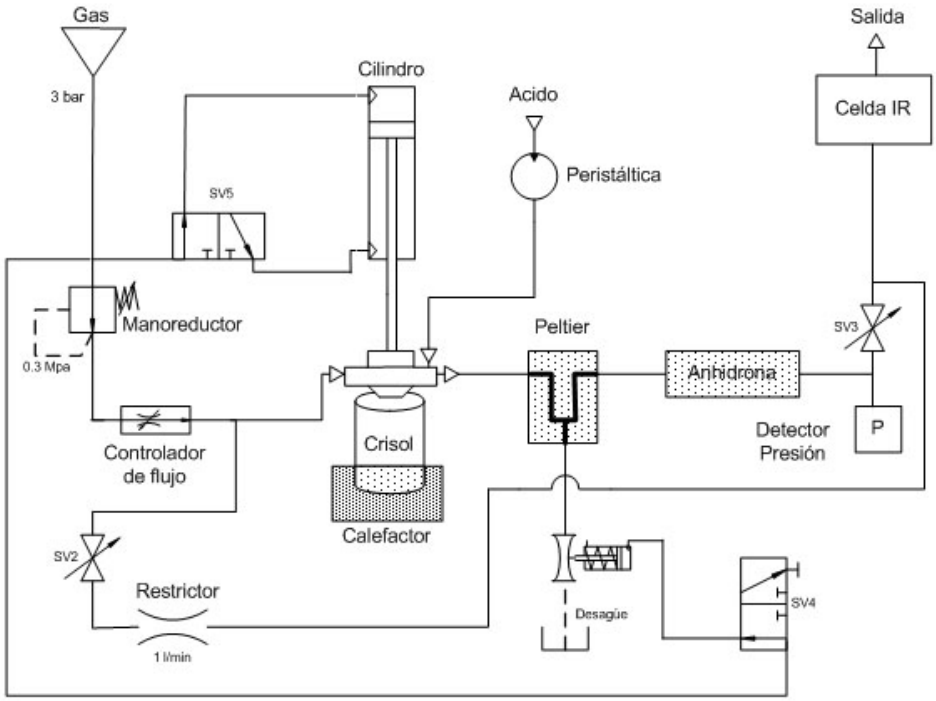
Triple rank of measurement controlled by the computer and the mass flow controller that allows us the accomplishment of samples from very low contents (Slurrys), until limestone samples.

Analysis of solid and liquid samples without any previous preparation of the sample.

The Analyzer can be provided - according to the customer's order -:

- Controlled by an industrial PC with touch sreen fullcolor of 8", inserted in the frontal panel.
- Controlled by an external PC.

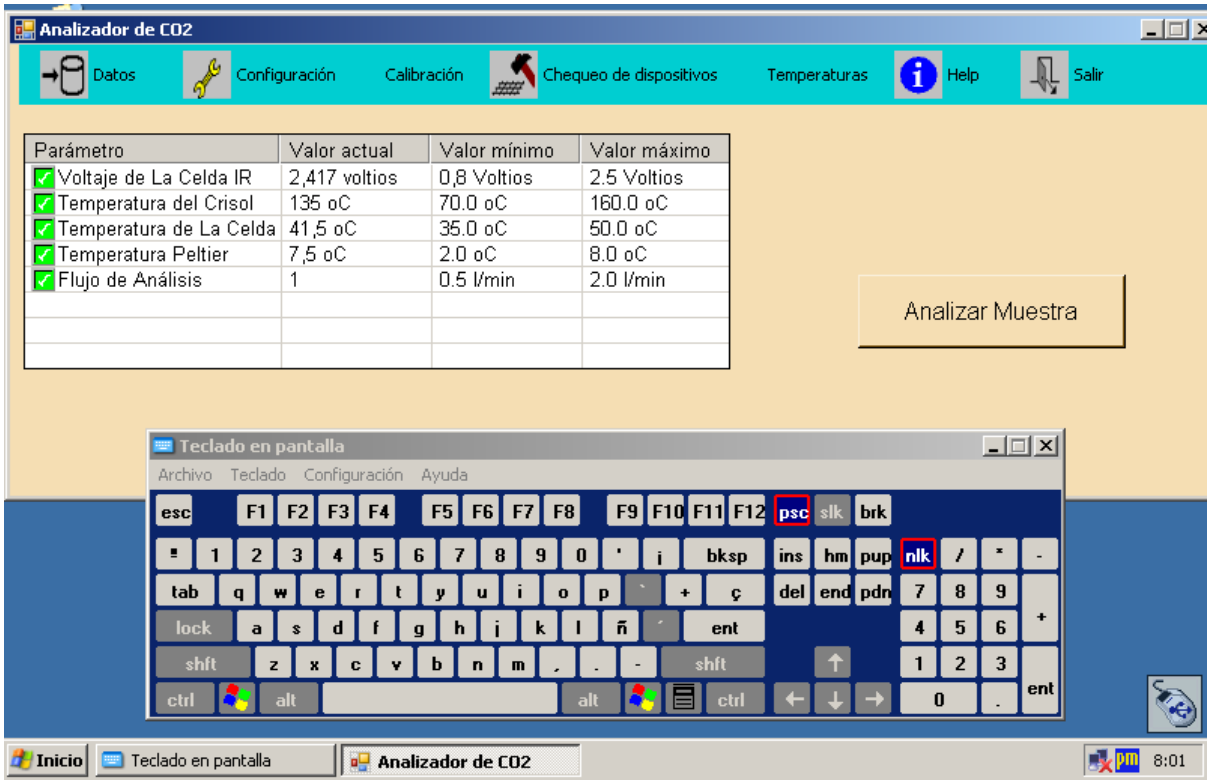
Simplified diagram of the CO-202 analyzer



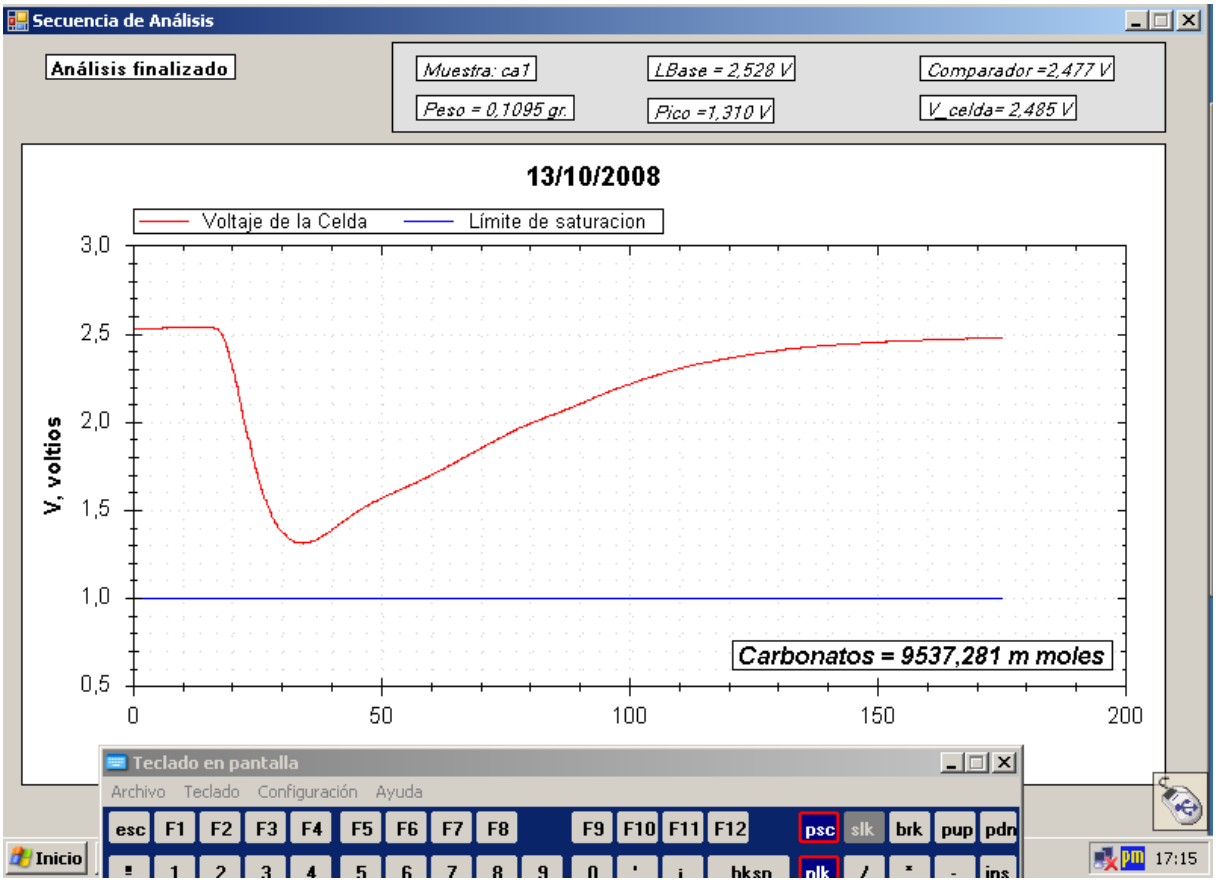
Control, with great comfort, all the operations of the CO-202 from its software: Execution of the anlysis sequence, data introduction, calibration, linealización of the cell, management of all results, control in real time from your monitor all process parameters and a general state of the analyzer in hi-resolution graphs, wich facilitates the tasks of diagnosis and repair.

*Normas: ASTM D1796 – ISO 925 – UNE 80-217-91.

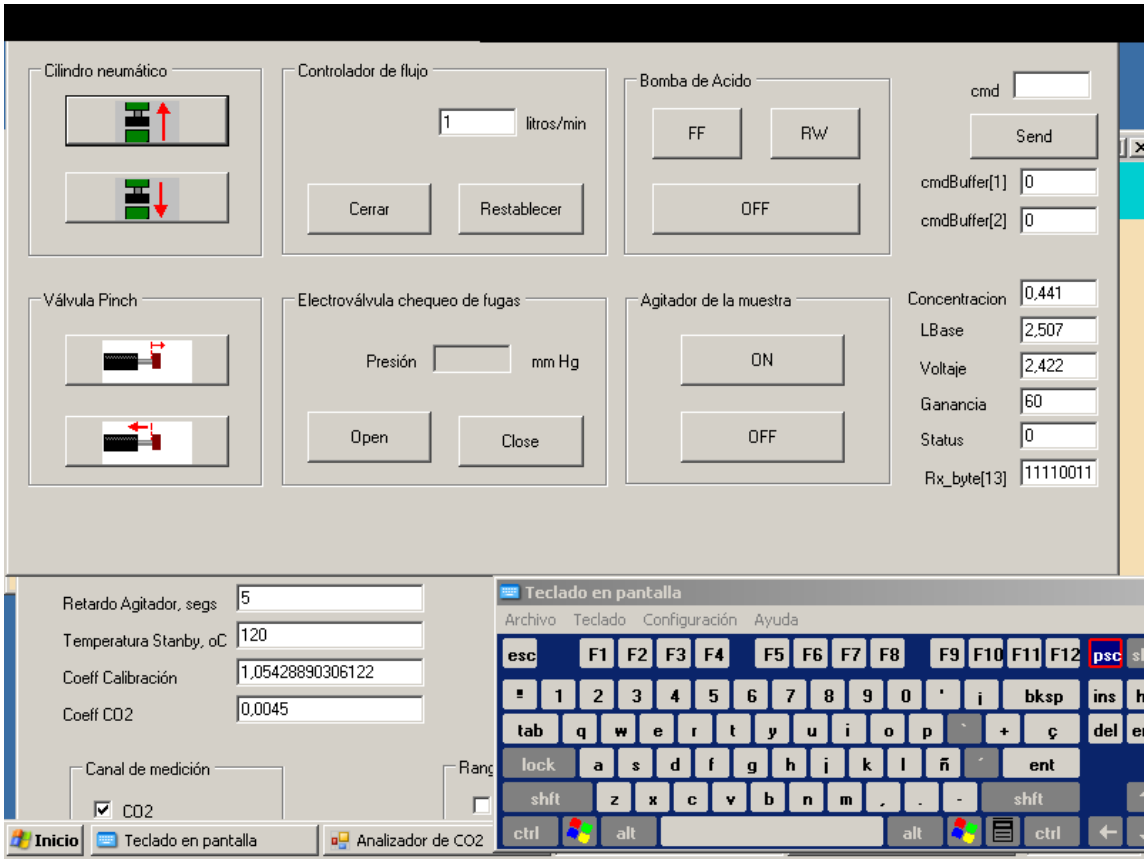
User’s screen of the CO-202 control program



Analysis results screen



Devices manual controls screen



Stages of the Analysis:

1 - Decomposition of the sample
1. Acid dosage.
2. Heating until boiling temperature..
3. Agitation.

2 - Acid steam condensation and elimination of humidity
1. Peltier cooler.
2. Anhidrona Filter.

3 - Drag and obtaining of results
1. Flow controller.
2. Infrared cell.

ENGINEERING SPECIFICATIONS OF THE CO-202 ANALYZER

Measurement rank:
From 0 to 44% (máx.150 mg of CO2)

Triple rank of measurement: From 0 to 0.5% of CO2
Fom 0.5% to 5% of CO2
From 5% to 44% of CO2

Precision:
0.1 % for concentrations < 1% of CO2
1.5 % for concentrations >= 1% de CO2

Sample weight:
From 0.1 to 5 gr.

Sensitivity: 0.01 %

Results: CO2, CO3Ca, mmol/L

Analysis time:
Programmable from 60 seconds.

Reagents:
Anhydrona, H_2SO_4

Work temperature:
From 10 ºC to 35 ºC

Power supply:
220 VAC, 50 Hz 1 kW

Drag gas:
Instrumentation air or Nitrogen 99.99 40 psi (2.8 kg)

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