C.A 1510

Indoor air quality
CO₂ - Temperature – Humidity

CHAUVIN® ARNOUX
CHAUVIN ARNOUX GROUP

Monitor the air around you for a healthy environment

- CO₂, temperature and humidity logger (up to 1 million measurements)
- Compact and stand-alone: for fixed or portable use
- User-friendly: thanks to the comfort indicators based on the CO₂ level and hygrothermal criteria
- Accurate: complies with the latest standards concerning air quality monitoring
- Low gas consumption for verification with its in-situ calibration kit

Eco Conception

USB UNIVERSAL SERIAL BUS

Bluetooth™

ANDROID

INDOOR AIR QUALITY

REGULATIONS

Whether in places open to the public (transport, government offices, schools or hospitals), workplaces or private areas, our lifestyles mean we spend most of our time indoors.

Human activities and products used in construction, decoration and furniture (paint, floor and wall coverings, varnishes, etc.) are all sources of contamination emitting substances into the air.

Ensuring good indoor air quality means having an appropriately-sized ventilation system capable of reducing the levels of the pollutants emitted in the premises to a concentration considered acceptable. Outdoor air contains approximately 0.04 % (400 ppm) of CO_2. In indoor environments, human activity (breathing) can quickly raise this concentration to 1,500 ppm (in meeting rooms and classrooms, for example).

For this reason, the level of CO2 is an excellent indicator of the efficiency of air renewal systems.

Compliant with the latest standards for measuring CO_2 in order to assess ventilation systems and measure pollutants in the context of indoor air quality monitoring, the C.A 1510 is also an accurate preliminary diagnostic indicator thanks to its alerts set at 1,000 ppm or 1,700 ppm of CO_2 in the air.

Major advantages

Complies with the latest standards

Supplied with software for data processing and report generation with automatic calculation of the confinement index

Possibility of locking the display when recording (no value displayed)

Quick, simple recovery of the data (product recognized as a USB key)

Recording capacity of up to 1 million measurements

On-site calibration module with adapter, tube and software for adjusting the zero and the 1,700 ppm threshold

Multiple mounting systems

Large number of mounting options: magnetic, with padlockable wall support, with desktop stand or hung on wall hook.

COMFORT AND HEALTH

Carbon dioxide is a colourless, odourless gas. Although it is non-toxic, it may cause difficulty concentrating, headache and nausea at high concentrations. It is not the only indicator of good indoor air quality: the temperature and humidity parameters can also contribute to the development of mould which may release allergenic and irritant substances.

With its large two-colour backlit screen, the **C.A 1510** can be used to measure and display 3 parameters simultaneously (CO_2, temperature and RH). To make it simpler to use, integrated help is provided for interpretation of the level of comfort based on the CO_2 level and hygrothermal comfort criteria.
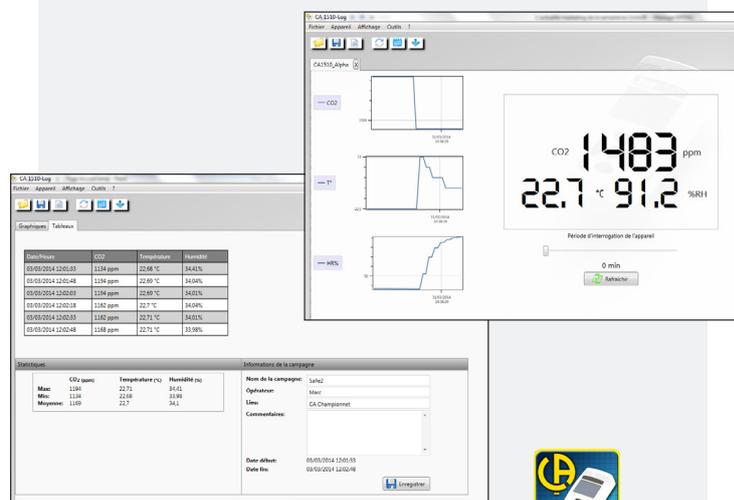
• **1D mode:** indication of CO_2 confinement
Visual (two-colour backlighting and pictograms) and/or audible indication of high confinement if the CO_2 concentration is between 1,000 ppm and the upper threshold of 1,700 ppm.

• **3D mode**: indication of optimum comfort zone on the basis of the hygrothermal criteria and the CO_2 concentration.

SOFTWARE AND INTERFACE

Two communication modes are available: USB or Bluetooth. They can be used to configure the recordings, remote display on a PC or Android™ tablet and data display as a graph or as a table of values. They can also be used to export the data into Excel, to calculate the confinement index with selection of periods when people are present and to generate reports.

AQR (Air Quality Report) software
provided as a standard feature

Android-compatible application
available from Play Store

Technical specifications

CO$_2$ measurement

Measuring principle	Non-diffusive infrared (NDIR) technology
Type of sensor	Double-beam infrared cell sensor
Measurement range	0 to 5,000 ppm
Uncertainty	± 50 ppm ± 3 % of value measured
Response time, 63 %	< 200 seconds
Resolution	1 ppm

Temperature measurement

Type of sensor	CMOS
measurement range	-10 °C to +60 °C
Accuracy	± 0.5 °C
Resolution	0.1 °C

Humidity measurement

Type of sensor	Capacitive
Measurement range	5 to 95 % RH
Accuracy	± 2 % RH
Resolution	0.1 % RH

Types of use

Point measurement Monitoring	Quick measurement and display of the CO$_2$, temperature and relative humidity values
Monitoring	**1D mode**: indication of CO$_2$ confinement Visual (two-colour backlighting & pictograms) and/or audible indication of high confinement when the CO$_2$ concentration is between 1,000 ppm and a 1,700 ppm threshold. **3D mode**: indication of optimum comfort zone on the basis of the hygrothermal criteria and the CO$_2$ concentration.
	Energy-saving (ECO): for fixed use on battery power, the product performs measurements every 10 minutes over a programmable time range for a battery life of up to one year.
Logger	<u>Triggering of programmed recording (P_REC)</u> The start date, recording rate and end date can be customized with the PC software or the Android application. Possibility of locking the display in this mode (no values displayed). <u>Manual triggering (M_REC)</u> Manual start and stop controls on the product. Recording is performed at the rate of the mode currently selected.

Specifications

Recording interval	Customizable from 1 minute to 2 hours
Storage	More than 1 million measurements
Buzzer	Yes
Units	°C or °F
Backlighting Display Hold function Min-Max	Yes
Automatic power-off	Yes (in portable mode only)

General specifications

Product operating range	Temperature: -10 °C to +60 ° C – Humidity: 5 to 95 %RH
Dimensions / weight	125 x 65.5 x 32 mm / 190 g with batteries
Protection	IP40
Compliance	IEC 61010-1 for 50 V in Category II – IEC 61326-1 – Compliance with French decree no. 2012-14
Power supply	- Alkaline batteries: 2 x 1.5 V AA / LR6 or rechargeable battery - Connection to mains possible with mains / micro USB adapter supplied as standard
Interfaces	2 communication modes possible: - Bluetooth wireless communication - USB link; the product is then recognized as a USB key for easy file transfer
Mounting	C.A 1510 casing equipped with a magnet, a wall-suspension system and a slot for hanging the product. A wall support for use with a padlock (padlock not supplied) is available as an accessory, as is a desktop stand (supplied as standard with the C.A 1510W).
Functions of the AQR (Air Quality Report) software supplied as standard	Graphic representation or as table of values – Data export – Real-time mode Calculation of the confinement index with selection of presence periods – Report generation

To order

Indoor air quality tester
Charcoal-grey C.A 1510............**P01651010**

Delivered in a small-format metal case with:
- 2 x LR6 batteries
- USB mains adapter
- USB-micro USB cable 1.80 m long
- Quick start-up guide
- Mini-CD containing the AQR software and the user's guides (one file per language)
- Verification attestation

Indoor air quality tester
White C.A 1510..........................**P01651011**

Delivered in a cardboard box with:
- 2 x LR6 batteries
- USB mains adapter
- USB-micro USB cable 1.80 m long
- Desktop stand
- Wall support
- Quick start-up guide
- Mini-CD containing the AQR software and the user's guides (one file per language)
- Verification attestation

ACCESSORIES AND REPLACEMENT PARTS

- In-situ calibration kit (fits into in the metal case) P01651022
- Hard case P01298071
- Desktop stand P01651021
- Wall support P01651020
- USB mains adapter P01651023
- USB-Bluetooth adapter P01102112

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