

Air quality
AQ 110



KEY POINTS

- Easy to use
- Hold-min-max functions
- Selection of units
- Adjustable backlight

TECHNICAL FEATURES

Measuring elements	CO₂ : infrared sensor Temperature : NTC
Display	4 lines, LCD technology. Sizes 50 x 36 mm 2 lines of 5 digits with 7 segments (value) 2 lines of 5 digits with 16 segments (unit)
Cable	Retractable, 0.45 m length, extension: 2.4 m
Housing	ABS, IP54 protection
Keypad	5 keys
European directives	2014/30/EU EMC; 2014/35/EU Low Voltage; 2011/65/EU RoHS II; 2012/19/EU WEEE
Power supply	4 batteries AAA LR03 1.5 V
Battery life	20 hours
Ambience	Neutral gas
Conditions of use (°C, %RH, m)	From 0 to +50°C. In non condensing conditions. From 0 to 2000 m.
Storage temperature	From -20 to +80°C
Auto shut-off	Adjustable from 0 to 120 min
Weight	340 g

SPECIFICATIONS

Measuring units	Measuring range	Accuracy**	Resolution
CO₂			
ppm	From 0 to 5000 ppm	±3% of reading ±50 ppm	1 ppm
Temperature			
°C, °F	From -20 to +80°C	±0.4% of reading ±0.3°C	0.1°C

* Except class 110 S

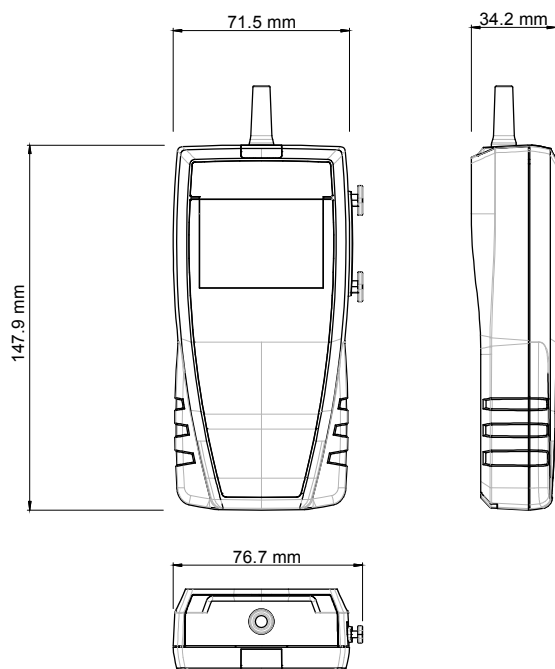
** All the accuracies indicated in this technical datasheet were stated in laboratory conditions, and can be guaranteed for measurements carried out in the same conditions, or carried out with calibration compensation



FUNCTIONS

- Selection of temperature units
- Hold function
- Display of minimum and maximum values
- Configurable Auto shut-off
- Backlight

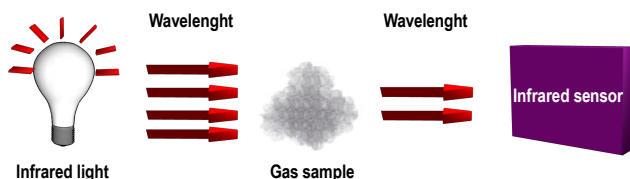
DIMENSIONS



OPERATING PRINCIPLES

Non dispersive infrared absorbance

All the gases absorbs the light at a specific wavelength, a part of the light emitted by the infra-red source is absorbed by the gas sample. The quantity of light read by the infrared sensor is inversely proportional to the CO₂ concentration.



Thermometer: NTC Probe

Negative temperature coefficient probes are thermistors with a resistance that decreases with temperature according to the equation below:

$$R_{(T)} = R_{(T_0)} e^{\left(\frac{\alpha}{100} \times (T_0 + 273.15)^2 \times \left(\frac{1}{T + 273.5} - \frac{1}{T_0 + 273.5} \right) \right)}$$

R_T = resistance sensor value at temperature T

$R(T_0)$ = resistance sensor value at reference temperature T_0

T and T_0 in °C

α and T_0 sensor specific constants

SUPPLIED WITH

Instruments are supplied with:

- Calibration certificate*
- Transport case



*Except class 110 S

ACCESSORIES

CQ 15: Magnetic protective housing



RTE: Telescopic extension, length 1m, with index at $\pm 90^\circ$

MT 51: ABS Transport case



MAINTENANCE

We carry out calibration, adjustment and maintenance of your instruments to guarantee a constant level of quality of your measurements. As part of Quality Assurance Standards, we recommend you to carry a yearly checking.

WARRANTY

Instruments have 1-year guarantee for any manufacturing defect (return to our After-Sales Service required for appraisal).

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Tel : + 33. 1. 60. 06. 69. 25 - Fax : + 33. 1. 60. 06. 69. 29

e-mail : export@kimo.fr