

# Air quality AQ 110

## KEY POINTS

- Easy to use
- Selection of units
- hold-min-max Function
- Adjustable backlight

## TECHNICAL FEATURES

<b>Measuring elements</b>	CO <sub>2</sub> : infrared sensor Temperature : NTC
<b>Display</b>	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)
<b>Cable</b>	Retractable, length. 0.45 m, extension : 2.4 m
<b>Housing</b>	ABS, protection IP54
<b>Keypad</b>	5 keys
<b>Conformity</b>	Directives EMC 2004/108/CE and EN 61010-1
<b>Power supply</b>	4 batteries AAA LR03 1.5 V
<b>Battery life</b>	20 hours
<b>Ambience</b>	Neutral gas
<b>Operating temperature</b>	From 0 to +50 °C
<b>Storage temperature</b>	From -20 to +80 °C
<b>Auto shut-off</b>	Adjustable from 0 to 120 min
<b>Weight</b>	340 g

## SPECIFICATIONS

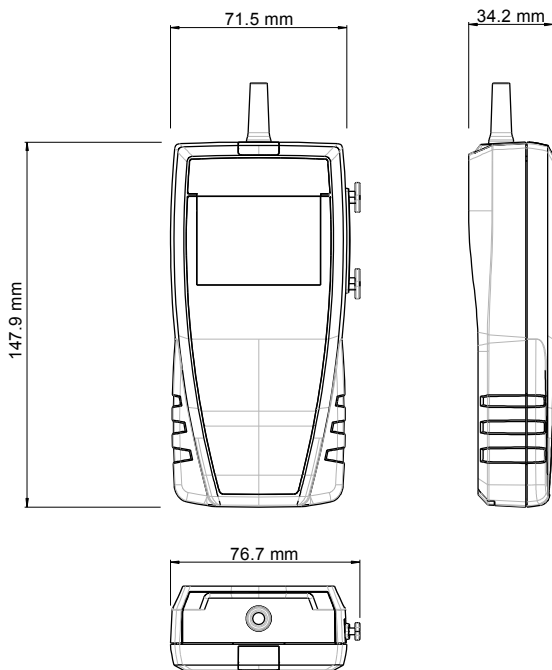
Measuring units	Measuring range	Accuracy <sup>1</sup>	Resolution
<b>CO<sub>2</sub></b>			
ppm	From 0 to 5000 ppm	±3 % of reading ±50 ppm	1 ppm
<b>Temperature</b>			
°C, °F	From - 20 to +80 °C	±0.4% of reading ±0.3°C	0.1°C



## FUNCTIONS

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

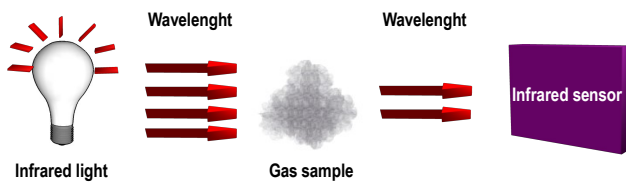
## DIMENSIONS



## OPERATING PRINCIPLES

### Non dispersive infrared absorbance

All the gases absorb 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 CO<sub>2</sub> concentration.



### Thermometer : CTN Probe

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

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

RT= resistance sensor value at temperature T  
 R(T<sub>0</sub>)= resistance sensor value at reference temperature T<sub>0</sub>  
 T and T<sub>0</sub> in °C  
 α and T<sub>0</sub> 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 ±90°

**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.

## GUARANTEE

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

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