

## CO meter CO 110

### KEY POINTS

- CO max display
- Easy to use
- Two configurable alarm thresholds
- Adjustable backlight

### TECHNICALS FEATURES

<b>Measuring elements</b>	<b>CO</b> : electrochemical sensor <b>Température</b> : 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, lenght. 0.45 m, extension : 2.4 m
<b>Housing</b>	ABS, protection IP54
<b>Keypad</b>	5 keys
<b>European directives</b>	2004/108/EC EMC ; 2006/95/EC Low Voltage ; 2011/65/EU RoHS II ; 2012/19/EU WEEE
<b>Power supply</b>	4 batteries AAA LR03 1.5 V
<b>Battery life</b>	200 hours
<b>Ambience</b>	Neutral Gas
<b>Conditions of use</b> (°C, %RH, m)	From 0 to +50 °C. In non condensing conditions. From 0 to 2000 m.
<b>Storage temperature</b>	From -20 to +80 °C
<b>Auto shut-off</b>	Adjustable from 0 to 120 min
<b>Weight</b>	310 g

### SPECIFICATIONS

Measuring units	Measuring range	Accuracy <sup>1</sup>	Resolution
<b>CO</b>			
ppm	From 0 to 100 ppm	±3 ppm	0,1 ppm
	From 100 to 500 ppm	±3 % of reading	
<b>Ambient temperature</b>			
°C, °F	From - 20 to +80 °C	±0.4% of reading ±0.3 °C	0,1°C

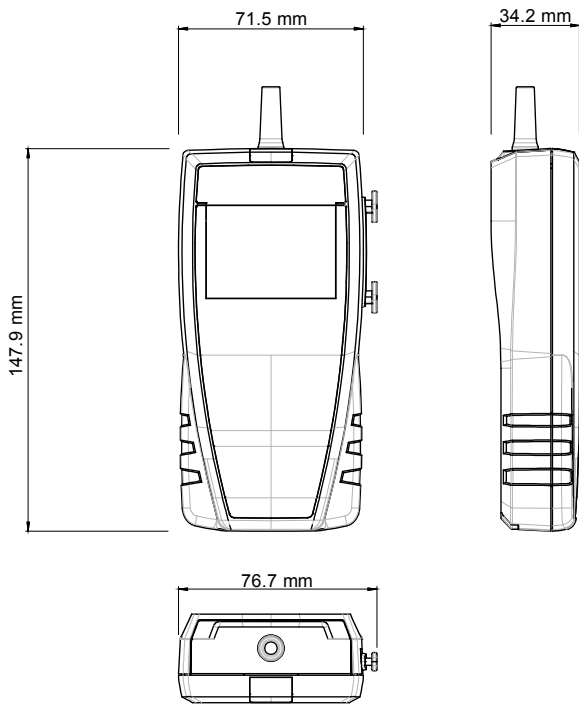
<sup>1</sup>All the accuracies indicated in this technical datasheet were stated in laboratory conditions, and can be guaranteed for measurements carried out in the same conditions, or carried out with calibration compensation



### FUNCTIONS

- CO maximum
- 2 configurable alarms
- Selection of temperature units
- Hold function
- Display of minimum and maximum values
- Adjustable and reseatable Auto shut-off
- Backlight

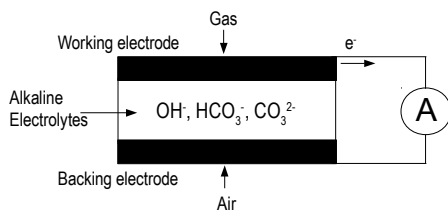
## DIMENSIONS



## OPERATING PRINCIPLES

### Electrochemical sensor

When CO goes through an electrolyte solution, it intercedes in the reactions of electrolyse and produces an increase of the quantity of produced electrons. The source electrons of a current which is around microampere are directly proportional to CO 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

$\alpha$  et  $T_0$  sensor specific constants

## SUPPLIED WITH

- Instruments are supplied with :
- Calibration certificate\*
  - Transport case (ref : ST 110)



\*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 out 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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