CO meter
CO 110

KEY POINTS

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

TECHNICALS FEATURES

Measuring elements	**CO :** electrochemical sensor **Température :** 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, lenght. 0.45 m, extension : 2.4 m
Housing	ABS, protection IP54
Keypad	5 keys
Conformity	Directives CEM 2004/108/CE and NF EN 61010-1
Power supply	4 batteries AAA LR03 1.5 V
Battery life	200 hours
Ambience	Neutral Gas
Operating temperature	From 0 to +50 °C
Storage temperature	From -20 to +80 °C
Auto shut-off	Adjustable from 0 to 120 min
Weight	310 g

SPECIFICATIONS

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

[1]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

71.5 mm

34.2 mm

147.9 mm

76.7 mm
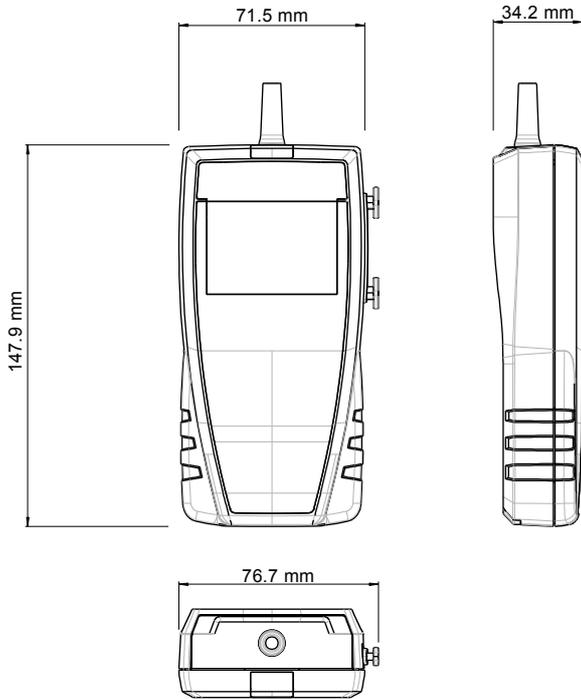
OPERATING PRINCIPLES

Electrochimical sensor

When CO goes through an alectrolyte 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.

Gas

Working electrode

e⁻

Alkaline Electrolytes

$\rightarrow$ OH^-, HCO_3^-, CO_3^{2-}

A

Backing electrode

Air
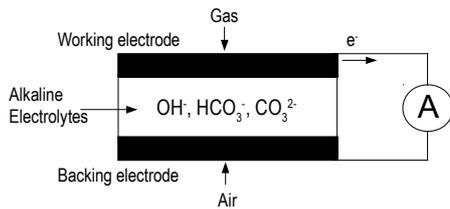
Thermometer : NTC probe

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

$$R_{(T)} = R_{(T0)} e^{\left(\frac{\alpha}{100} \times (T_0 + 273.15)^2 \times \left(\frac{1}{T + 273.5} - \frac{1}{T_0 + 273.5}\right)\right)}$$

RT= resistance sensor value at temperature T

$R(T0)$= resistance sensor value at reference temperature T_0

T and T_0 in °C

α et T_0 sensor specific constants

SUPPLIED WITH

Instruments are supplied with :
• Calibration certificate
• Transport case (ref : ST 110)

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 out a yearly checking.

GUARANTEE

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