sauermann®

DATA SHEET

CO 110

CO meter

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

Features

- CO maximum
- 2 configurable alarms
- Selection of temperature units
- Hold function
- Backlight
- Configurable auto shut-off
- Display of minimum and maximum values

Technical specifications

Parameters	Measuring units	Accuracy*	Measuring range	Resolution
CO	ppm	±3 ppm ±3% of reading	From 0 to 100 ppm From 100 to 500 ppm	0.1 ppm
Temperature	°C, °F	±0.4% of reading ±0.3 °C	From -20 to +80 °C	0.1 °C

*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.

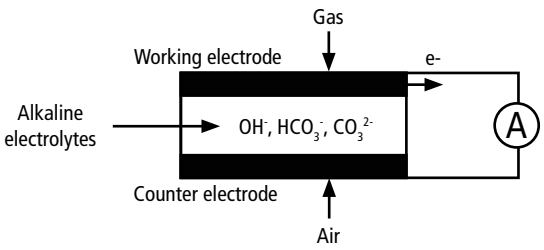
General features

Measuring element	C0: electrochemical sensor Temperature: NTC
Display	4 lines, LCD technology. Dimensions 50 x 36 mm 2 lines of 5 digits with 7 segments (value) 2 lines of 5 digits with 16 segments (unit)
Connector	Retractable, 0.45 m length, extension: 2.4 m
Housing	ABS, protection IP54
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	200 hours
Ambience	Neutral Gas
Conditions of use (°C,%HR, 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	310 g

Operating principle

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.



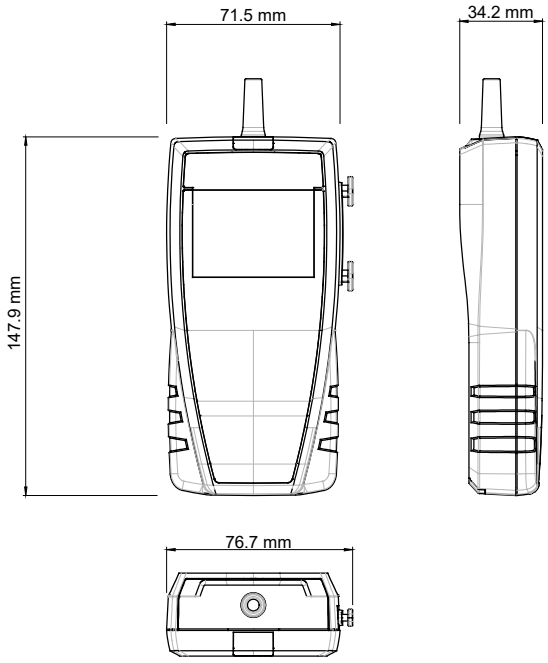
Thermometer: NTC probe

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
$R(T_0)$ = resistance sensor value at reference temperature T_0
T and T_0 in °C
α and T_0 sensor specific constants

Dimensions (in mm)



Kit content

- Calibration certificate
- Transport case (ref.: ST 110)

Accessories

Nom	Référence
Magnetic protective housing	CQ 15
Telescopic extension 1 m length, with index at ±90°	RTE
ABS transport case	MT 51

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.

Warranty

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