

## AIR QUALITY Monitor

### CO<sub>2</sub>, CO, Temp, RH In ONE TOOL!



### Advantages

- Interchangeable measurement modules
- User-friendly (Joystick navigation)
- Large graphic display
- Large ICE BLUE backlight
- Up to 8,000 Data Memory Points
- Perform up to 6 measurements simultaneously
- Instrument/PC Communication
- Wireless probes Available

### Connection



**Interchangeables measurement modules**  
1 instrument = more than 1 range and 1 parameter available.



**Wireless connection**  
Instrument / PC  
Instrument / probe



**Smart-plus system**  
Wireless or wired probes automatically recognized when connected to the instrument.



### The instrument

#### CO<sub>2</sub> / Temperature / Hygrometry (Humidity) Probe (STANDARD KIT - 19780)

from 0 to 5,000 ppm / from -4°F to +176°F / from 5 to 95% RH



#### Thermocouple temperature module - 4 channels



#### Climatic conditions module - Hygro/Temp./Air pressure



#### CO / temperature probe (AQ200 CO Kit - 19781)

from 0 to 1,000 ppm / from -4°F to +176°F



#### Wired or wireless temperature probe



## Functions



### Air Quality

#### CLIMATIC CONDITIONS MODULE

- Selection of units
- Minimum / maximum values and hold function
- Storage



#### AIR QUALITY PROBES :

##### CO<sub>2</sub> / temperature / Hygrometry

(Standard Kit – 19780 – AQ200 P)

##### CO / temperature (Optional – 19781 - AQ200CO)

- Audible Alarm (2 setpoints)
- Selection of units
- Minimum / maximum values and hold function
- Storage



### Thermometer

#### THERMOCOUPLE MODULE

- Dynamic delta T
- Audible Alarm (lower and upper setpoints)
- Selection of units
- Minimum / maximum values and hold function
- 4-channel storage of thermocouple K, J and T

#### TEMPERATURE PROBES

- Dynamic delta T
- Audible Alarm (lower and upper setpoints)
- Selection of units
- Minimum / maximum values and hold function
- Storage

### Current / voltage module

- Adjustable ranges
- Minimum / maximum values and hold function
- Storage

### Datalogger-10

- Multi-parameters recording
- Manual and automatic storage
- Memory : up to 8,000 measurement points or 50 datasets
- User-friendly with printing of customized report
- Management of instruments pool, follow-up of calibration periods
- Intervention planning
- Wired or wireless interface



## Technical features

### Sensing elements

#### Air quality probe

**CO<sub>2</sub>** : NDIR infrared sensor (Non dispersive- infrared)

**CO** : Electrochemical sensor

**Temperature** : Pt100 class A

**Hygrometry** : capacitive hygrometry sensor

#### Climatic conditions module

**Hygrometry** : capacitive hygrometry sensor

**Temperature** : semiconductor temperature sensor

**Air pressure** : capacitive sensor

**Thermocouple probes** : type K, J and T class 1

**Pt100 Smart-plus probes** : Pt100 class 1/3 Din

### AQ200 connection

#### On the top :

2 secured mini-DIN connectors for SMART-Plus probes

#### Left side :

1 USB port for EIG cable only

1 power supply plug

### Interchangeable measurement modules

#### Thermocouple module :

**Connection** : 4 inputs for compensated miniature plug of thermocouple type K, J or T Class 1 (as per IEC 584-3 norm)

#### Current / voltage module :

**Connection** : 2 stereo jacks

### Display

Graphic display 128x128 pixels

Dim. 50 x 54 mm

Blue backlight

Display of 6 measurements (including 4 simultaneously)

### Housing

ABS shock-proof

IP54

### Keypad

Metal-coated,

5 keys

1 joystick

### Conformity

Electromagnetical compatibility

(NF EN 61326-1 norm)

### Power supply

4-AA alkaline batteries 1.5V LR6 Included

### Operating environment

Neutral gas

### Operating temperature

from 0 to +122°F

### Storage temperature

from -4 to +176°F

### Auto shut-off

adjustable from 0 to 120 min

### Weight

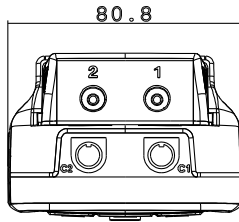
12 oz

### Languages

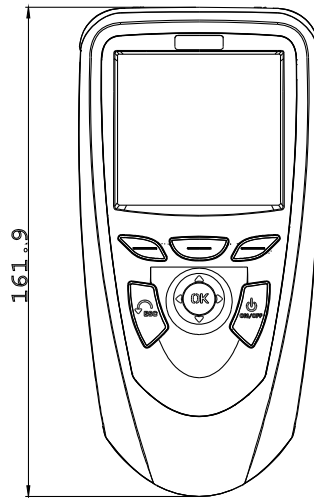
English, French, Dutch, German, Italian, Spanish, Portuguese, Swedish, Norwegian, Finn, Danish

## Dimensions (mm)

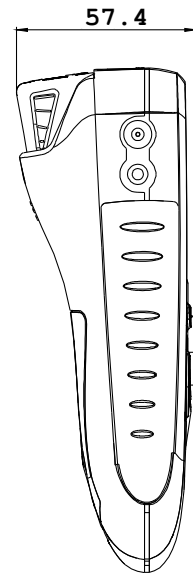
• Top view









• Front view



• Side view



## Specifications

	Measuring units	Measuring range	Accuracy*	Resolution	
<b>CURRENT / VOLTAGE</b>					
	V, mA	from 0 to 2.5 V from 0 to 10 V from 0 to 4/20 mA	±2mV ±10mV ±0.01mA	0.001 V 0.01 V 0.01 mA	
<b>THERMOCOUPLE (See related datasheet)</b>					
	°F, °C	K : from -328 to 2372°F J : from -148 to 1382°F T : from -328 to 752°F	±1.1°F or ±0.4% reading*** ±0.8°C or ±0.4% reading*** ±0.5°F or ±0.4% reading***	0.1 °F 0.1 °F 0.1 °F	
<b>Climatic conditions</b>					
	Hygro.	%RH	from 5 to 95%RH	<b>Accuracy** (Repeatability, linearity, hysteresis) :</b> ±1.8%RH (from 15°C to 25°C) <b>Factory calibration uncertainty: ±0.88 %RH</b> <b>Temperature dependence :</b> ±0.04 x (T-20) %RH (if T<15°C or T>25°C)	0.1 % RH
	Temp.	°C, °F	from -4 to +176°F	±0.4% of reading ±0.3°F	0.1 °F
	Air pressure	hPa	from 800 to 1,100 hPa	±3 hPa	1 hPa
<b>CO / temperature (Optional – AQ200CO – Part #: 19781)</b>					
	Temp. CO	°C, °F ppm	from -4 to +176°F from 0 to 100 ppm from 101 to 1,000 ppm	±0.4% of reading ±0.3°F ±5ppm ±3% of reading ±5ppm	0.1 °F 1 ppm
<b>CO<sub>2</sub> / temperature (optional)</b>					
	Temp. CO <sub>2</sub>	°C, °F ppm	from -4 to +176°F from 0 to 5,000 ppm	±0.4% of reading ±0.3°F ±3% of reading ±50ppm	0.1 °F 1 ppm
<b>CO<sub>2</sub> / temperature / Hygrometry (Standard KIT – AQ200P – Part #: 19780)</b>					
	Temp. CO <sub>2</sub> Hygro.	°C, °F ppm %RH	from -4 to +176°F from 0 to 5,000 ppm from 5 to 95%RH	±0.4% of reading ±0.3°F ±3% of reading ±50ppm See Climatic conditions module	0.1 °F 1 ppm 0.1 % RH
<b>Pt100 Smart-plus or wireless probes (See related datasheet)</b>					
		°C, °F	from -58 to 482°F (According to model)	±0.3% of reading ±0.25°F (According to model)	0.01 °F

\*All accuracies indicated in this document were stated in laboratory conditions and can be guaranteed for measurements carried out in the same conditions, or carried out with required compensation.

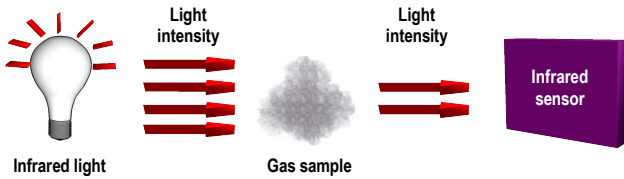
\*\* As per NFX 15-113 and the Charter 2000/2001 HYGROMETERS, GAL (Guaranteed Accuracy Limit) which has been calculated with a coverage factor value of 2 is ±2.88%RH between 18 and 28°C on the measuring range from 5 to 95%RH. Sensor drift is less than 1%RH/year.

\*\*\*The accuracy is expressed either by a deviation in °C, or by a percentage of the value concerned. Only the bigger value is considered.

## Working principle

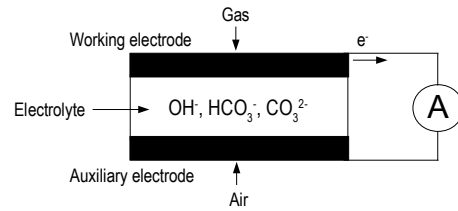
### NDIR - Non dispersive infrared absorbance

A gas absorbs light at a specific wavelength, some of the intensity emitted by the infrared source is absorbed by the gas sample. The amount of light read by the IR sensor is inversely proportional to CO<sub>2</sub> concentration.



### Electrochemical sensor

Electrochemical cell consists of a container, 2 electrodes, connexion wires and an electrolyte. Carbon monoxide is oxidised at one electrode to CO<sub>2</sub> whilst oxygen is consumed at the other electrode. The current produced is proportional to CO concentration.



## Supplied with ...

● Supplied with ○ Option

DESCRIPTION	AQ 200
Current / voltage	●
Thermocouple temperature module	○
Climatic condition module	○
CO <sub>2</sub> / temperature probe	○
CO / temperature probe	○
CO <sub>2</sub> / temperature / Hygrometry probe	●
Thermocouple K, J and T probe	○
SMART-Plus Pt100 probe	○
Wireless Pt100 probe	○
8 rechargeable batteries with charger	○
Current / voltage cable	●
Calibration certificate	●
Hard Aluminum Transport case	●

### Large choice of temperature probes (See related datasheet) :

- Ambient
- Contact
- Penetration
- Food industry penetration
- General use



## Accessories (See related datasheet)

<b>Datalogger-10</b> Datalogger-10 PC software for data recording and processing. Wired (LPCF) or wireless (LPCR) interface. 	<b>KPIJ 20 – 50 – 100 – 200 - 600</b> Ammeter clamp with PVC cable lg. 2m and jack connector. 	<b>RTS</b> Telescopic extension, length 1 m, bent at 90° for measuring probe. 
<b>CE 200</b> Hands-free protective cover 	<b>GST</b> Silicone heat conductive grease for temperature probes 	<b>ADS</b> Adaptor for power supply 120 V 
<b>JAC</b> Set of 4 LR6 batteries 	<b>CHA</b> 4 batteries charger 	<b>CTC-P</b> Input current or voltage input PVC cable lg 2 m and jack connector 

## Warranty Period

Instruments have 1-year guarantee for any manufacturing defect (return to our Service department for Repair/Evaluation/Calibration)



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