

AIR QUALITY Monitor

CO₂, CO, Temp, RH In ONE TOOL!

CE



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

CO₂ / 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

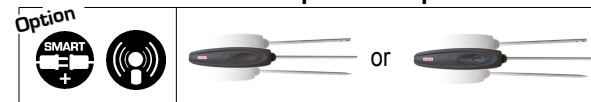


CO / temperature probe (AQ200 CO Kit - 19781)

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 :

CO₂ / 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

CO₂ : 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

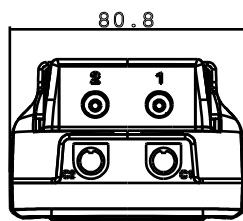
12 oz

Languages

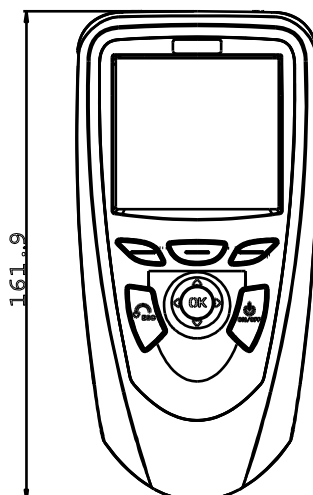
English, French, Dutch, German, Italian,
Spanish, Portuguese, Swedish, Norwegian, Finn, Danish

Dimensions (mm)

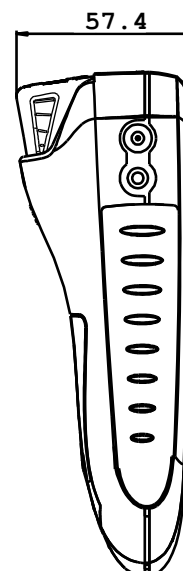
Top view









Front view



Side view



Specifications

	Measuring units	Measuring range	Accuracy*	Resolution	
CURRENT / VOLTAGE					
	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	
THERMOCOUPLE (See related datasheet)					
	°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	
Climatic conditions					
	Hygro.	%RH	from 5 to 95%RH	Accuracy** (Repeatability, linearity, hysteresis) : ±1.8%RH (from 15°C to 25°C) Factory calibration uncertainty: ±0.88 %RH Temperature dependence : ±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
CO / temperature (Optional – AQ200CO – Part #: 19781)					
	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
CO ₂ / temperature (optional)					
	Temp. CO ₂	°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
CO ₂ / temperature / Hygrometry (Standard KIT – AQ200P – Part #: 19780)					
	Temp. CO ₂ 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
Pt100 Smart-plus or wireless probes (See related datasheet)					
	°C, °F	from -58 to 482°F (Accoding to model)	±0.3% of reading ±0.25°F (Accoding 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.

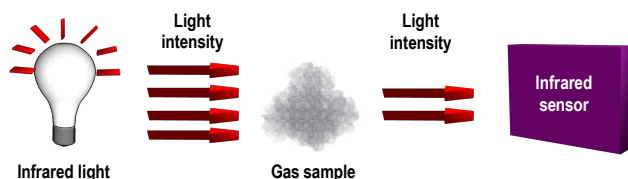
** As per NFX 15-113 and the Charter 2000/2001 HYGROMETERS, GAL (Guaranteed Accuracy Limit) which has been calculated with a coverage factor value of 2 is ±2.88%RH between 18 and 28°C on the measuring range from 5 to 95%RH. Sensor drift is less than 1%RH/year.

***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

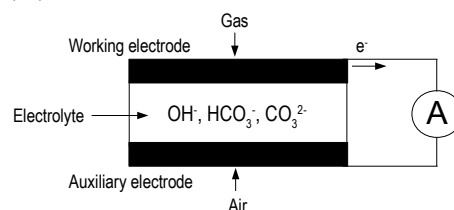
NDIR - Non dispersive infrared absorbance

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 CO₂ concentration.



Electrochemical sensor

Electrochemical cell consists of a container, 2 electrodes, connexion wires and an electrolyte. Carbon monoxide is oxidised at one electrode to CO₂ 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 ₂ / temperature probe	○
CO / temperature probe	○
CO ₂ / 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)

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

E Instruments International

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