

## Technical Data Sheet

Pressure • Temperature • Humidity • Air Velocity • Airflow • Sound level

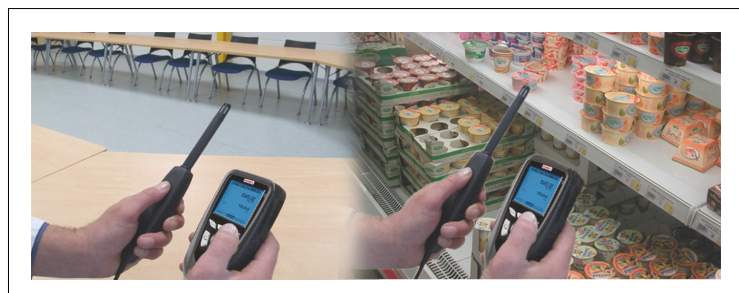


Supplied  
with  
Calibration  
certificate

# HD 200 Thermo-hygrometer

New

CE



### Advantages

- Interchangeable measurement modules
- User-friendly (Joystick navigation)
- Large graphic display
- Blue backlight
- Up to 8,000 measurement points
- Up to 6 measurements simultaneously
- Instrument/PC wireless communication
- Wireless probes

### Connection



- Interchangeable 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 thermo-hygrometers

HD 200 STD - Current/voltage module - Standard Smart-plus probe  
HD 200 HT - Current/voltage module - High temperature Smart-plus probe



Thermocouple temperature module - 4 channels



Wireless hygrometry probe - Large choice



Wired temperature probe - Large choice



Wireless temperature probe - Large choice



[Kimo HD 200 Thermo](#)

[Kimo HD 200 STD Thermo Hygrometer](#)

[Kimo HD 200 HT Thermo Hygrometer](#)

[Kimo HD 200 HRS Thermo Hygrometer](#)

## Functions



### Thermo-hygrometer

#### HYGROMETER

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

#### PSYCHROMETER

- Dew point, wet temperature, enthalpy, absolute temperature
- Minimum / maximum values and hold function
- Storage

#### SURFACE DEW POINT

- With contact temperature probe
- Minimum / maximum values and hold function
  - Storage

#### WBGT index

- For hygrometry probe with black ball.
- Calculation of comfort index inside / outside
  - Storage



### Thermometer

#### THERMOCOUPLE MODULE

- Dynamic delta T
- Selection of units
- Minimum / maximum values and hold function
- 4-channel storage of thermocouple K, J and T
- Calculation of U-value

#### TEMPERATURE PROBES

- Dynamic delta T
- 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

Hygrometry : capacitive sensor  
Temperature : Pt100 1/3 DIN

### HD200 connection

**On the top :**  
2 secured mini-DIN connectors for SMART-Plus probes  
**Left side :**  
1 USB port for KIMO cable only  
1 power supply plug

### Interchangeable measurement modules

#### Thermocouple module :

**Connection :** 4 inputs for compensated miniature male 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 alkaline batteries 1,5V LR6

### Operating environment

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

340g

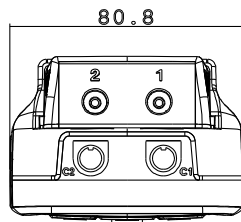
### Languages

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

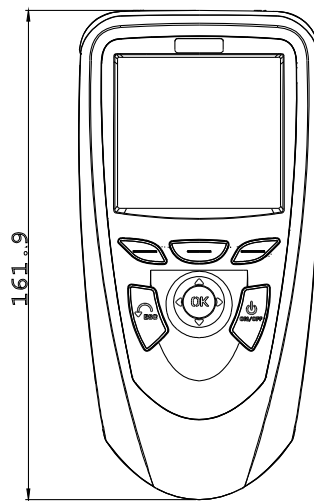


## Dimensions

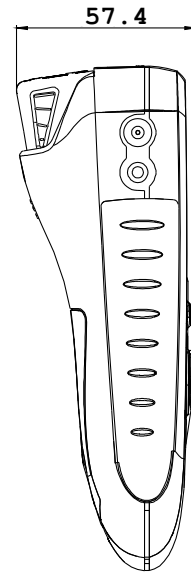
• On the top








• Front view



• Side view



## Specifications

	Measuring units	Measuring range	Accuracy*	Resolutions
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)				
	°C, °F	K : from -200 to 1,300°C J : from -100 to 750°C T : from -200 to 400°C	±1,1°C or ±0,4% of reading*** ±0,8°C or ±0,4% of reading*** ±0,5°C or ±0,4% of reading***	0.1 °C 0.1 °C 0.1 °C
HYGROMETRY PROBES				
STD 	Relative humidity	%RH	Accuracy** (Repeatability, linearity, hysteresis) : ±1,5%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
	Absolute humidity	g/Kg		0.1 g/Kg
	Dew point	°C <sub>td</sub> , °F <sub>td</sub>		0.1 °C <sub>td</sub>
	Ambient temperature	°C, °F		0.1 °C
H.T 	Relative humidity	%RH	Accuracy** (Repeatability, linearity, hysteresis) : ±1,5%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
	Absolute humidity	g/Kg		0.1 g/Kg
	Dew point	°C <sub>td</sub> , °F <sub>td</sub>		0.1 °C <sub>td</sub>
	Ambient temperature	°C, °F		0.1 °C
WIRED OR WIRELESS Pt100 PROBES (See related datasheet)				
	°C, °F	From -50 to 250°C (According to model)	±0,3% of reading ±0.25°C (According to model)	0.01 °C

\* 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.

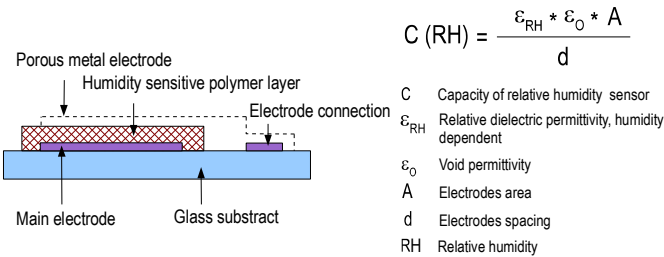
\*\*\*The accuracy is expressed either by a deviation in °C, or by a percentage of the value concerned. Only the bigger value is considered.



## Working principle

### Capacitive sensing element for relative humidity measurement

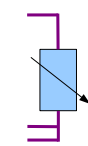
Inside the probes, a capacitive polymer layer reacts with the humidity present between two metal layers which cover a glass substract. Water absorption is a function of relative humidity of the surrounding environment, and modifies the dielectric constant. The measured signal is directly proportionnal to the relative humidity and is dependent on the atmospheric pressure.



### Thermometer : Pt100 probe

Pt100 is a resistance with a positive temperature coefficient which varies according to the temperature. The higher the temperature is, the more the value of the resistance increases. ie : for 0°C ≈ 100 Ω - for 100°C ≈ 138,5 Ω.

Platinum resistance



### WGBT index (Wet bulbe globe temperature)

For hygrometry probe with black ball.

The wet bulbe globe temperature (ISO 7243 norm) is a composite temperature used to estimate the effect of temperature, humidity and solar radiation on humans.

## Supplied with...

● Supplied with

○ Option

DESCRIPTION	HD 200 STD	HD 200 HT	HD 200
Current / voltage module	●	●	●
Thermocouple temperature module	○	○	○
Standard hygrometry probe	●	○	○
Wireless standard hygrometry probe	○	○	○
High temperature hygrometry probe	○	●	○
Wireless high temperature hygrometry probe	○	○	○
Thermocouple K, J and T probe	○	○	○
SMART-Plus Pt100 probe	○	○	○
Wireless Pt100 probe	○	○	○
8 rechargeable batteries with charger	○	○	○
Input current /voltage cable	●	●	●
Calibration certificate	●	●	●
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	CTC-P
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.	Input current/voltage cable
CE 200	GST	ADS	BNF
Hands-free protective cover	Silicone heat conductive grease for temperature probes	Adaptor for power supply 230 Vac	Aerosol cleaning hot wire
BN	JAC	CHA	
Black ball Ø 150mm with junction for temperature probe Ø 4,5mm. Further dimensions available.	Set of 4 LR6 batteries	4 batteries charger	

## Warranty period

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

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