





# The most reliable solution for monitoring your processes





# Data loggers Kistock

Temperature / Humidity / Pressure / Air quality / Light Current / Voltage / Pulse / Water pressure



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P. 20 Find out about our wireless solutions





# MULTI-FUNCTION Class 220

Temperature, Humidity, Water pressure, Light, Current, Voltage, Pulse

- 2-line display or no display
- KILOG software
- 1,000,000 points
- Interchangeable probes



2 programmable alarm thresholds





Temperature, Humidity, Pressure, Air quality Atmospheric pressure, Current, Voltage, Pulse

- 2-lines display
- Smart interchangeable probes
- KILOG software
- 2,000,000 points



3

# Operating software

Kilog / Kilog-Lite / Kistock mobile





#### KILOG-Lite Configuration / Visualisation

Kilog-Lite is compatible with the entire Kistock range with the exception of class 120. Simply configure and visualise the data from the loggers.

Download the software from our website: www.kimo.fr/kilog





Free application developed for smartphones and tablets\*. Allows configuration of data loggers, data visualisation and exportation.



Télécharger dans l'App Store

\*Compatible with class 320



#### Data processing

The comprehensive Kilog data processing software helps configure, download and process data from your Kistocks.

- Data printing and export
- Graphic tools
- Calculated channels
- Management of Customers & Operators





#### Configuration

3-stage configuration of:

- Your device
- Your channels
- Your thresholds and alarms
- Your recording



#### Downloading

In 1 click, quickly download data from the Kistock or station.

- Automatic backup
- Campaign archiving



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#### Processing

- Creation of tables and graphics
- Automatic calculations
- Addition of advanced calculation features
- Data export to a spreadsheet

#### **KILOG CFR: Data security**

The KILOG CFR software is the indispensable user application, with traceability subject to the strict requirements of the 21 CFR part11 regulation. The security and integrity of your data are protected against any manipulation or falsification.



# Key benefits

## of the Kistock range















With the new range of Kistock stand-alone dataloggers and KILOG software, you can collect and analyse all the metrics of industrial climate control engineering processes, monitor the climatic environment of a chamber and respond to the traceability requirements of agri-food and pharmaceutical industries during transport.

To respond to this broad application scope, the range comes in 4 device classes, from the most compact to the most advanced, the objective being to provide a specific, reliable and effective solution to the constraints of every business.



### Smart Plug technology

In addition to the measuring element, the new measuring sensors for class 320 (see page 14) are equipped with an electronic card so they can be identified by the datalogger as soon as they are connected, with no need for prior intervention or configuration.

This card also includes calibration data, which avoids having to return your entire configuration (sensor + logger) to the KIMO laboratories for recalibration or sensor replacement: your process remains under 24/7 surveillance.





The new class 120 Kistock devices provide data logging, on-board configuration and measurement reports.

Equipped with a USB connector, these portable dataloggers are quickly connected to a computer to directly download the data and publish it in a graphic report in PDF format. The integrated interface,

exclusively available in this class, also enables the rapid and simple configuration of your devices.

### **Mobile application**



Available for iOS or Android smartphones and tablets, the mobile Kistock helps configure, generate the measurement report and visualise data from the logger in real time (class 320 only, see page 14).

With a range of 10m via Bluetooth Low Energy connection, access to data is facilitated and avoids any breakdown in process control.



application





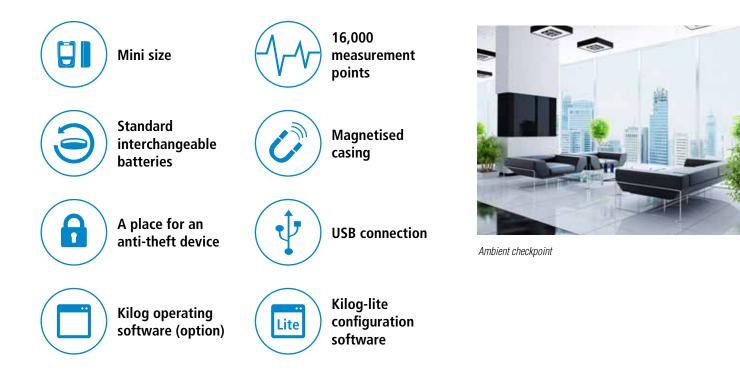
# Compact Class 20 and 50

**Temperature / Humidity** 



With its compactness and 500-day battery life\*, class 50 fits perfectly into chambers, cold storage rooms or refrigerated trucks for temperature and/or humidity measurement controls.

The casings are equipped with a large LCD display and a unique function button for intuitive use. The campaigns are conducted via the Kilog-Lite software which can be downloaded from kimo.fr.



#### Mini temperature data loggers

#### KT 20 G

- -40 to +85°C
- 2048 points

#### KT 20 L

- -40 to +85°C
- 8192 points

#### KT 20 T

- 0 to +125°C
- 8192 points



#### **Temperature / Humidity**



#### KH 50

- 1-line display
- Internal sensor
- Battery life: 365 days\*

#### Measuring range

- 5 to 95 %RH





#### **KT 50**

- 1-line display
- Internal sensor
- Battery life: 500 days\*

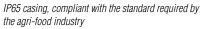
Measuring range -40 to +70°C





A 50% level of relative humidity preserves works of art, archives







#### Compatible with KNT 320

Data collector, storage and recovery p. 18





- 1. A place for an anti-theft collar or lanyard
- 2. Battery compartment
- 3. Battery compartment locking indicator Invisible magnetic fastening
- 4. Invisible magnetic fastening
- 5. PC connection via 1-metre long USB cable (optional)

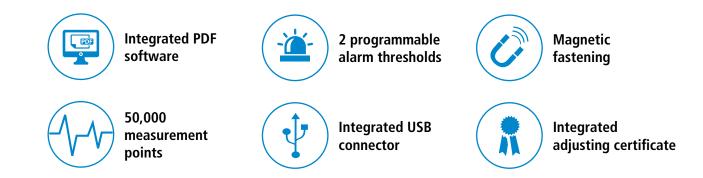


#### **Temperature / Humidity**

Dedicated to transport, class 120 helps control the measurements inherent in the health regulations applicable to fresh produce and foodstuff (hot and cold) retail, warehousing and transport activities to preserve the quality of the products and guarantee safety for consumers.

The integrated software helps configure the devices and extract data directly in pdf format.

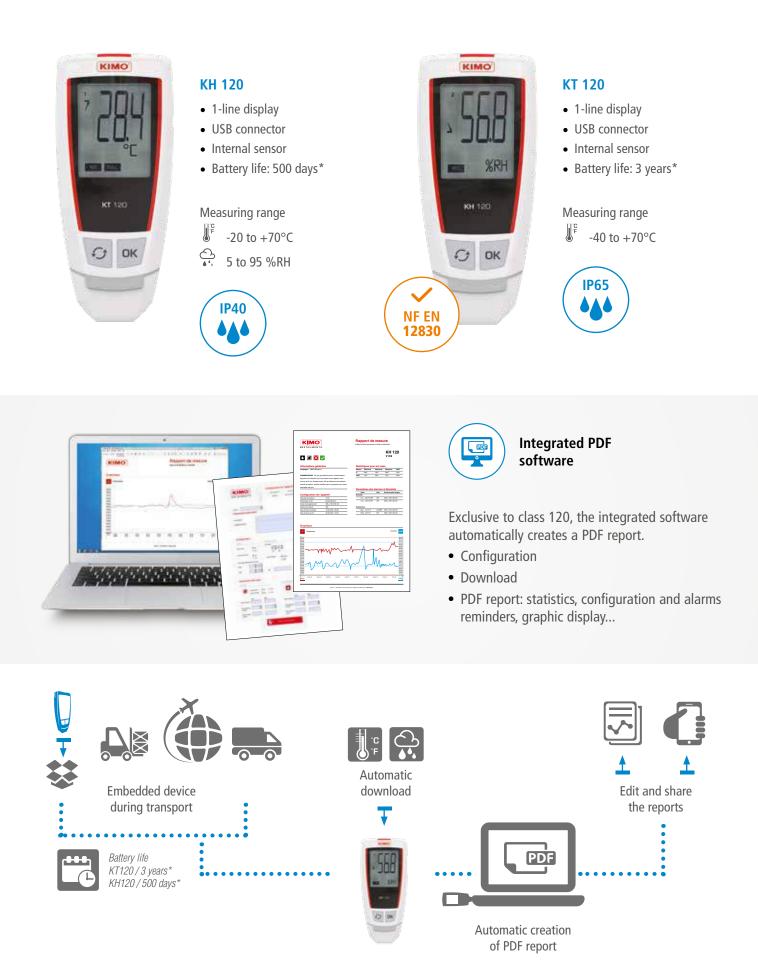






The stakeholders of the different food chains must comply with the manufacturing, storage, transport and distribution temperatures determined by regulations or, in the absence of any regulation, with those determined by the packager, under their responsibility, specified during production, storage, transport and distribution. The use-by date of a product, determined by the manufacturer, takes these temperatures into account.

#### **Temperature / Humidity**



# Multi-function Class 220

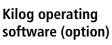
#### Temperature / Humidity / Water pressure / Light Current / Voltage / Pulse

The versatility of class 220 comes from the extension of the measurement parameters offering a broad range of applications. Thanks to the additional input for the connection of interchangeable sensors, the devices can simultaneously record up to 5 measuring channels.

Functional and adapted to the assessment of goods control and operating systems in warehouses, the range is easily mounted onto a wall and secured with a padlock or directly magnetically attached onto rack frames and other metal storage mounts. Once in place, the dataloggers can monitor the process for 4 years\* without interruption or a battery change.



A place for an anti-theft device





1,000,000 measurement points



Kilog-lite configuration software



KIMO

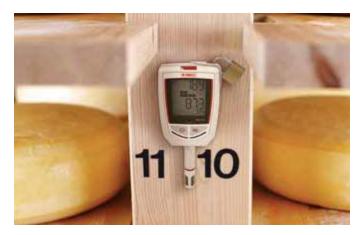
2m long cable



Interchangeable probes



Magnetised KH 220 in the air conditioning room of an industrial facility



Relative humidity and temperature control in a maturing cellar using a KH 220 mounted onto a plate and secured with a padlock as part of a mapping process

#### Temperature / Humidity / Water pressure / Light Current / Voltage / Pulse



#### KH 220

- 2-line display or no display
- Impermeability: IP65





KIMO

#### . .. .. .

- 2-line display or no display
- Impermeability: IP65

Femperature -40 to +70°C

- Water pressure 0 to 20 bar
- 수 Humidity \* 5 to 95 %RH
- Current : 0/4 to 20 mA Voltage : 0 to 10 V Pulse : max 5 V



#### KTT 220

- 2-line display or no display
- 2 K, J, T, N and S thermocouple inputs

#### External

F	Thermocouple						
0	temperature						

- K -200 to +1300°C
- J -100 to +750°C
- T -200 to +400°C
- N -200 to +1300°C
- S 0 to +1760°C





KTT 220 equipped with two clipped thermocouple sensors to control the domestic hot water network (DHW), mounted onto a wall plate



# Expert Class 320

Temperature / Humidity / Pressure / Air quality / Atmospheric pressure Current / Voltage / Pulse

U * KTT 320 - Temperature	26.5
	· Proceders Substit ·

Kimo has developed a new range of dataloggers specifically adapted to the needs of the industry and laboratories. Class 320 stands out with its connected object. Two features make your life easier: the smart-plug technology of the sensors and the mobile application.

The multi-parameter class 320 seamlessly fits into any process which requires the collection of several types of data on the same device. For example, the KCC 320 can record up to 4 parameters simultaneously: temperature, moisture level, CO2 level and atmospheric pressure.

Made to last, class 320 has a battery life of up to 7 years and has a memory of 2,000,000 points.



All sensors for the KISTOCK KT 320 devices are equipped with the SMART PLUG technology.

Automatic recognition and storage of adjustment parameters means that they are 100% interchangeable.



#### 

# Expert

Class 320





- Impermeability: IP65

#### Internal

Temperature <del>ا</del>ې ۲ -40 to +70°C

#### External

- Humidity ¢, 0 to 100 %RH
  - Current : 0/4 to 20 mA Voltage : 0 to 10 V 5 Pulse : max 5 V



#### **KTT 320**

- 2-line display
- 4 K, J, T, N and S thermocouple inputs
- Impermeability: IP54
- Battery life: 7 years\*

#### External

- Thermocouple E.F
- temperature
- -200 to +1300°C Κ
- -100 to +750°C J
- -200 to +400°C Т
- -200 to +1300°C Ν
- 0 to +1760°C S



The KT 320 helps control the contamination of clean rooms



2m long cable



You can fit all types of class A 3-wire Pt 100 sensors onto your KT 320 thanks to the KICA-320

#### Temperature / Humidity / Pressure / Air quality / Atmospheric pressure Current / Voltage / Pulse



#### **KCC 320**

- 2-line display
- Impermeability: IP40
- Battery life: 3 years\*
- Confinement index in accordance with decree 2012-14

#### Internal

- Temperature -20 to +70°C
- Humidity 0 to 100 %RH
- ☆ Atmospheric pressure 800 to 1100 hPa
- Air quality 0 to 5000 ppm



#### KPA 320

- 2-line display
- Impermeability: IP40
- Battery life: 7 years\*

#### Internal

- Temperature -20 to +70°C
- Humidity 0 to 100 %RH
- Atmospheric pressure 800 to 1100 hPa



#### KP 320/321

- 2-line display
- Impermeability: IP65
- Battery life: 7 years\*

#### Internal

Pressure
KP 320 : ±1000 Pa
KP 321 : ±10 000 Pa



Control of climatic data from a data centre using the smartphone application



Industrial furnace temperature control



#### **Temperature probes**

- NTC / Pt 100 and K, J, T, N and S Thermocouple
- General use / Environment
- Contact / Strip
- Pricking / Corkscrew
- Velcro / Piping



The KICA 320 is a Smart-Plug adapter for connecting any type of class A 3-wire Pt 100 sensor onto your KT 320.



#### **Electricity / Water measurement**

- Clamp-on ammeter: 0 to 600 A
- Voltage: 0-10 V
- Current: 0-20 mA
- Water pressure: 0 to 20 bar



#### **Hygrometry probes**

- 0 to 100 %RH
- Smart Plug technology
- ABS or Stainless steel sensor
- With or without the connection cable
- Cable length 2m

#### KNT 320 recovery and transport station

Compatible with the entire new Kistock range (with the exception of class 120), the KNT 320 station helps record measurements without having to move the instruments

Data can be processed via the Kilog software.

Memory: 20,000,000 points





DEVICES / CHARACTERISTICS	КТ50	KH50	KT120	KH120	KT220	KH220	KTT220	KT320	KP320/321	КСС320	KPA320	KTT320	
Storage capacity number of points	16,000		50,000		1,000,000					2,000,000			
Internal	1	2	1	2	1	3	-	1	1	4	3	-	
External input	-	-	-	-	1	1	2	2	-	-	-	4	
Impermeability	IP65	IP40	IP65	IP40	IP65	IP40	IP54		P65	IP	40	IP54	
Internal sensor	yes					no	yes				no		
Max no. of channels	1	2	1	2	3	5	2	5	1	4	3	4	
Temperature	C.F.F.	C.F.	<b>C</b> F	C F	C F	C.F.	C.F.F.	<b>C</b> F		<b>C</b> F	<b>C</b> F	<b>C</b> F	
Humidity		<u>م</u> ،		<u>م</u> ،	 ♠*.	<u>م</u> ،		<u>م</u>		<u>ک</u>	<u>م</u>		
Air quality							2 inputs					4 inputs	
Pressure							К		-3-			К	
Light						Ŷ	J					J	
Current / Voltage Pulse					5	5	T N	*				T N	
Water pressure					L'I	Ling.	S					S	
Atmospheric pressure										<u>Ø</u>	<u>Ø</u>		
Remote probes		no C Interchangeable prob					ole probes	Smart plug   smart probes					
Battery life	500 d*	365 d*	3 years*	500 d*		4 years*		7 years* 3 years*		7 ує	7 years*		
Anti-theft device	6	6	-	-	6	6	6	6	6	6	6	6	
Magnetic fastening							yes						
🕐 Kilog-lite	free												
Kilog-PDF	r	no yes no											
🔊 Kilog				(	Comprehen	isive Kilog (	data process	ing software	(Optional)				
Data Logger app Bluetooth®	no yes												
Station Compatibility	у	es	n	0	yes								

**R** Certificates

Class 120 adjustment certificate integrated into the data logger's memory in pdf format

Calibration certificate available for the entire range upon request

# Kistock RF

### **Radio data loggers**

Temperature / Humidity / Pressure / Current Voltage / Pulse



The advantage of the range of wireless data loggers is the remote and real-time control of your process or storage area and guaranteed traceability via the KILOG RF software

Capable of storing 12,000 to 20,000 temperature, humidity, pressure, current, voltage and pulse measurement points, the KISTOCK-RF devices

guarantee precise monitoring of the process for the users, over a predefined or continuous period.

Supplied as a standard feature, the KILOG-RF software facilitates the configuration of the data loggers (thresholds, alarms, smoothing, interval, periodicity, etc.) and the processing of the data collected in graphic or table mode.



### Monitoring your process

## 1

Communication base BK-RF

Communicate with your KISTOCK dataloggers over the airwaves





Control the temperature and

humidity of your storage

2

Temperature

data logger

KH 210-RF

areas



Range extender

KPR / KPE

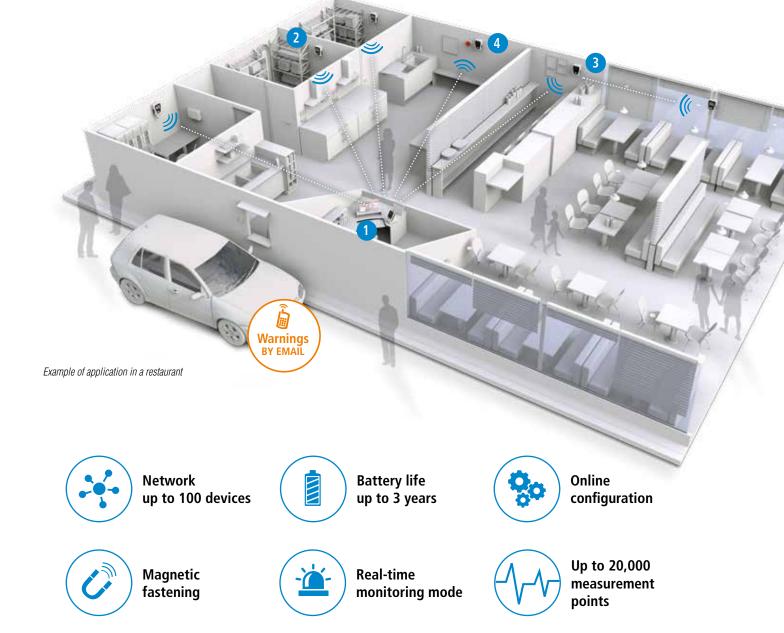
Extend the scope of your network with radio and Ethernet extenders



Alarm module with relay KAL

Be alerted every time a threshold is exceeded





# Kistock RF

### **Radio data loggers**







#### **KT 110-RF**

- 2-line display or no display
- Impermeability: IP65
- Memory 16,000 points
- Battery life 3 years\*

#### Internal

Temperature J.₽ -40 to +70°C

#### External



Current: 0/4 to 20 mA 5 Voltage : 0 to 10 V Pulse : max 5 V



- 1-line display or no display
- Impermeability: IP65
- Memory 12,000 points
- Battery life 3 years\*

#### Internal

**NF EN** 

12830

Temperature **I**I<sup>C</sup>F -40 to +70°C



#### **KP 110-RF**

- 1-line display or no display
- Impermeability: IP65
- Memory 12,000 points
- Battery life 3 years\*

#### Internal

- Pressure KP 110 : ±1,000 Pa KP 111 : ±10,000 Pa





#### Temperature / Humidity / Pressure / Current / Voltage / Pulse







#### **KTU 210-RF**

- 2-line display or no display
- Impermeability: IP65
- Memory 20,000 points
- Battery life 3 years\*

#### External

Current : 0/4 to 20 mA Voltage : 0 to 10 V Pulse : max 5 V

#### KH 210-RF

- 2-line display or no display
- Impermeability: IP65
- Memory 20,000 points
- Battery life 3 years\*

#### Internal

Temperature -20 to +70°C

Humidity 5 to 95 %RH

#### External

- Temperature -40 to +120°C
- Current : 0/4 to 20 mA Voltage : 0 to 10 V Pulse : max 5 V



\* For a recording rate of one point every 15 minutes at 20°C



# Kistock RF

## Radio data loggers





#### **KTR 310-RF**

- 2-line display
- Impermeability: IP65
- Memory 20,000 points
- Battery life 3 years\*

#### External

Temperature

### Temperature

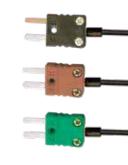
-100 to +400°C

#### **KTT 310-RF**

- 2-line display
- 2 K, J, T and S thermocouple inputs
- Impermeability: IP54

#### External

- Thermocouple temperature
- K -200 to +1,300°C
- J -100 to +750°C
- T -200 to +400°C
- **S** 0 to +1,760°C







 $^{\ast}$  For a recording rate of one point every 15 minutes at 20°C

# Kistock RF

### Software and accessories



**KILOG-RF** Logiciel pour Kistock-RF

The KILOG-RF data processing software is specifically designed for the KISTOCK wireless range. It enables the implementation of a network of wireless KISTOCK devices (up to 100) for real-time monitoring mode.

- Measurement correction
- Data printing and export
- Graphic tools
- Calculated channels
- Management of Customers & Operators





**Communication base** radiofrequency BK-RF-2



Wall mounting with an anti-theft system KAV-RF





**Data recovery** and transfer station KNT 310



Alarm module with relay KAL-RF



**Network extender** radio and Ethernet **KPE-RF** and **KPR-RF** 



**Communication** tester **KTC-RF** 

# Metrology & Laboratories

Verify / Adjust / Calibrate





#### Metrology

- For 100% reliable measurements
- All brands of instruments

For measurement instruments, calibration is a way to verify that the device is working correctly. To do this, standards are used and checked against national standards via COFRAC calibration certificates.

After every calibration service, you will be given a KIMO calibration certificate ensuring that our standards are checked against the national standards of accredited bodies such as COFRAC in France or DKD in Germany.



Calibration and adjustment

#### 1,500 m2 of laboratories

- Temperature
- Hygrometry
- Air velocity
- Air flow
- Pressure
- Gas analysis

- Acoustics
- Weighing
- Radiometry
- Tachometry
- Light measurement
- Electricity



Before returning any equipment, our telephone technical support service helps you save time by giving you a rapid and effective solution (start-up, installation, malfunction).

Our experienced technicians will deal with your request in a professional manner.



#### **Thermometry laboratory**

KIMO proposes COFRAC calibrations for all types of thermometer (chain, Pt100 and thermocouple), within a range of  $-70^{\circ}$ C to  $+200^{\circ}$ C in ovens or baths.



#### Hygrometry laboratory

KIMO proposes COFRAC calibrations for all types of moisture meters within a range of 5% to 95%RH for a dry-bulb temperature of  $\pm 10^{\circ}$ C to  $\pm 50^{\circ}$ C.



## TEMPERATURE MAPPING



Pharmaceutical warehouse

Climatic conditions +20°C ±5°C

100,000 m<sup>3</sup> characterisation volume



#### Equipment

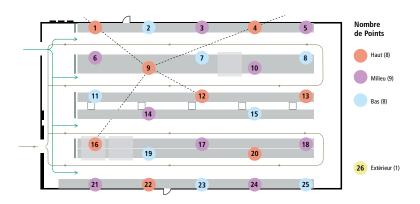
26 KT 320 data loggers , including 1 installed outside. KILOG software to configure and process data.

### Warehouse / Laboratory Pharmacy / Chamber / Transport

The NF EN 60068-3 standard\* ensure the sustainability of products sensitive to temperature and relative humidity.

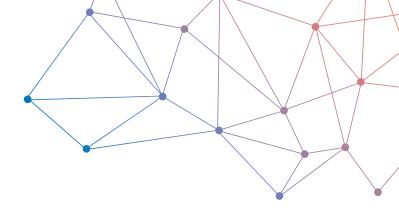
- \*NF EN 60068-3 standard
- Measurement of the temperature and relative humidity of the air
- Climatic and thermostatic chambers
- Characterisation and deviation from target

Mapping a drug warehouse in accordance with the NF EN 60068-3 standard under temperature and relative humidity conditions of  $20^{\circ} \pm 5^{\circ}$ C.



#### Report

A report should be issued featuring the gross values, calculated parameters (deviation from target, stability, homogeneity) and compliance of the chamber or building with the specified tolerances.







Kimo at your service in more than 150 countries