

## KISTOCK DATALOGGER HVAC range : KTT310

Thermocouple temperature



### KEY POINTS

- 100 000 measurement points
- 2 recordable parameters
- LCD screen with displaying of measurement recordings
- 2 external inputs
- Fast data download (1000 values/second)
- 2 configurable setpoint alarms
- Magnetic mounting
- IP54 housing

### TECHNICAL FEATURES

Units displayed	°C, °F
Accuracy	0.1 °C, 0.1 °F
External inputs	2 male miniature connectors
Setpoint alarms	2 setpoint alarms on each channel
Frequency of the measurement	From 1 s to 24 h
Working temperature	From -20 to +70 °C
Storage temperature	From -40 to +85 °C
Battery life*	5 years

\* on the basis of 1 measurement each 15 minutes at 20°C

### APPLICATIONS



To prevent legionnaire's disease :  
check of hot water sanitary network



Selective controls of temperature

### FEATURES OF HOUSING

**Dimensions**  
98.7 x 67.8 x 34.7 mm

**Weight**  
113 g

**Display**  
2 lines LCD screen  
Dimension of screen : 45 x 28.5 mm

**Control**  
2 keys : Select and OK

**Material**  
Compatible with food industry environment  
ABS housing  
Sides and caps made of Elastomer

**Protection**  
IP54

**PC communication**  
1 digital input for male Jack connector 3.5

**Digital electronics**  
Lacquer protected circuit board  
Meets RoHS standards

**Battery power supply**  
Type lithium 3.6 V 1/2 AA

**Visual alarm**  
2 electroluminescent diodes (green and red)

**Environment**  
Air and neutral gases

## TECHNICAL FEATURES OF THERMOCOUPLE (PROBES)

Sensor type	K thermocouple (class 1)
Measuring range	From -200 to +1000 °C
Accuracy**	$\pm 1.1$ °C or $\pm 0.4\%$ of the reading value
Sensor type	J thermocouple (class 1)
Measuring range	From -100 to +750 °C
Accuracy**	$\pm 0.8$ °C or $\pm 0.4\%$ of the reading value
Sensor type	T thermocouple (class 1)
Measuring range	From -200 to +400 °C
Accuracy**	$\pm 0.5$ °C or $\pm 0.4\%$ of the reading value

See technical datasheet "Measuring probe and cable for class 310 Kistock dataloggers"

\*In accordance with CEI 584-1 standard, the accuracy is expressed either by a deviation in Celsius (°C), or by a percentage of the temperature concerned. Only the bigger value is considered.

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 calibration compensation.

## RECORDER FUNCTIONS

### 5 recording modes

KISTOCK can record in 5 different ways :

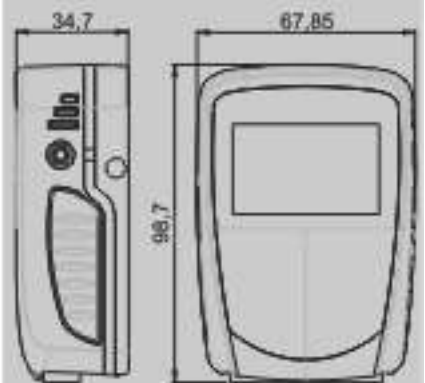
- **Immediate mode** records values according a predefined interval.
- **Minimum, Maximum and Average** record automatically the calculation of minimum, maximum or average of measured values during an interval of recording.
- **Monitoring** mode allows to get an accurate history report during error events to help troubleshooting, without stopping the measurement logging. To proceed this way, you just have to define :
  - a record interval to be used whilst the readings are beyond the setpoints.
  - a record interval for the values measured during each reading beyond the setpoints..Furthermore, you can also let your KISTOCK record **trip** (recording option).

### 4 types dataset start

Once your recording mode has been set, you can launch your dataset :

- With a delayed start (with predefined date and time)
- With the software
- With push-button
- With **Online** option. In this case, your datasets are directly sent, saved and displayed on your PC in real time.

## DIMENSIONS (mm)



## CONNECTIONS

### External input



Connectors for thermocouples

### Input for PC connection



Jack connector (3.5)  
Input for Kistock-PC software

## 6 types of dataset stop

You can stop your dataset :

- According to a date and time (if it was started the same way)
- According to a period
- According to a predefined number of recording points
- Once the storage capacity is full
- With "Stop" option of the software
- By holding "OK" key for at least 5s, if this function has been previously activated by the software.

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## THERMOMETER FUNCTION

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Once "thermometer" function is activated, KISTOCK allows you to display information as below :

- Difference of temperature between 2 external "Delta 3"
- Minimum temperature
- Maximum temperature
- Hold the temperature measurement

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## SCREEN

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°C...Temperature in degrees Celsius

°F...Temperature in degrees Fahrenheit

<b>END</b>	DATASET is finished	<b>ACT</b>	Refresh of displayed measurements
<b>REC</b>	One value is being recorded	<b>TIME</b>	Display of measurement and recording intervals
<b>LOG</b>	Flashing: dataset has not started yet Constant: data set is in progress		Status of battery life : 5 levels (4 blocks + empty battery) Flashes when only one block is remaining
<b>FULL</b>	Slow flashing: dataset is taking 80-90% of storage capacity Fast flashing: dataset is taking 90-100% of storage capacity Constant: storage capacity filled up	<b>MIN</b> <b>MAX</b>	Displayed values correspond to maximum and minimum values of the channels
<b>12</b>	Channel No. which is measuring		Alarm action type : rising or falling action
<b>0</b>	K thermocouple	<b>dt</b>	Displaying of the difference of temperature measured between 2 sensors
<b>1</b>	T thermocouple	<b>unit</b>	Displaying of the selected measurement unit
<b>2</b>	J thermocouple		

**bAt** flashing on the screen + flashing of LEDs ; means that battery must be changed

**Err** + flashing of the green LED : detection of communication error → Press "Select" and "OK" keys to reset the instrument

**Err** + flashing of the red LED : detection of measurement error → Press "Select" and "OK" keys to reset the instrument

## SOFTWARE



### • Configuration and data processing software

KILOG software enables you to configure, save and print data in a very simple way.

- Software.....Ref. KILOG-N
- USB interface.....Ref. J-KIC2
- Complete set software + 1 interface.....Ref. KIC2 KILOG



### • KILOG CFR software

KILOG CFR software is the key tool for users who requires traceability, in accordance with 21CFR-Part11 standards. Security and integrity of data are guaranteed : it is not possible to modify or tamper with the data.



### • KISTOCK PC interface

This USB cable enables you to connect your KISTOCK to your PC.  
Ref. I-KIC2

- Interface.....Ref. I-KIC2
- Complete set KILOG 1CFR software + 1 interface.....Ref. KIC2-CFR-N



Software is compatible with the former range of Kistock.

## ACCESSORIES



### • KNT data collector.

KNT data collector allows you to collect measurements from one or several KISTOCK directly on-site (up to 500,000 values stored). Data can be displayed and printed from the KNT or download to your PC.  
Ref. KNT 300



### • Printer for KNT 300 data collector

Ref. ITP



### • Secured wall-mounting bracket

KIMO has designed a new proprietary anti-theft system with no padlock. Your system cannot be unlocked or damaged. Installation is fully secured.  
Ref. KAV-N



Once your KISTOCK is set on the mounting plate, insert the key to lock the mounting system.



To unlock : insert the key inside the metallic axis, and make 1/4 turn.



Remove the key, release the metallic axis. Your KISTOCK is now unlocked.

### • Wire extensions for NTC temperature probe.

Made of PVC HT, 5m long, with Jack connectors (male and female)  
Ref. KRC 5

Note : you can connect several extensions together (maximum length 25m)

### • Lace Ref. KDC

### • Lithium 1/2 AA battery Ref. KBL

## MOUNTING

KISTOCK can be mounted in different ways. You can also move it or install it very easily. Magnetic mounting or wallmounting (see photos). Secured mounting (optional, see accessories).



Wallmount and lace eyelet

Magnetic mounting

## HOW TO CHANGE THE BATTERY

With 5-year battery life\*, KISTOCK guarantees long-term measurements.

To change battery :

- Remove the screw located at the back, with a screw driver
- Remove the front part, along with the old battery.
- Insert the new battery observing the proper polarity
- Replace the front.
- Tighten the screw
- Press "SELECT" and "OK" keys for 2 seconds to refresh battery level.

\* on the basis of 1 measurement each 15 minutes at 20°C

## WARRANTY PERIOD

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

## CALIBRATION (Optional)

KISTOCK dataloggers can be supplied with calibration certificate as an option.

[www.kimo.fr](http://www.kimo.fr)

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