



## DATA SHEET

# KISTOCK DATA LOGGER KCC 320 / KPA 320

**Temperature / Humidity  
Atmospheric pressure / CO<sub>2</sub>**



## Features

- Software for configuration and data visualisation freely downloadable
- Software for configuration and data processing available in option
- Safety lock wall mount with inviolability system
- Storage capacity of 2,000,000 points
- Fast data downloading: 18,000 points/s
- Up to 4 recordable parameters simultaneously
- 2 configurable setpoint alarms for each channel
- 2 lines LCD screen
- Wireless connection for smartphones and tablets (Android and iOS)
- Magnetic mounting

## References

| Reference | Display | Internal sensor                                                 | External sensor | Parameters                                                   |
|-----------|---------|-----------------------------------------------------------------|-----------------|--------------------------------------------------------------|
| KCC 320   | Yes     | 4: Temperature, humidity, atmospheric pressure, CO <sub>2</sub> | -               | Temperature, humidity, atmospheric pressure, CO <sub>2</sub> |
| KPA 320   | Yes     | 3: Temperature, humidity, atmospheric pressure                  | -               | Temperature, humidity, atmospheric pressure                  |

## General features

|                                 |                                                                                                                     |
|---------------------------------|---------------------------------------------------------------------------------------------------------------------|
| Display                         | 2 lines LCD screen<br>Dimensions of screen: 49.5 x 45 mm / 1 61/64" x 1 49/64"<br>2 indication LEDs (red and green) |
| PC communication                | 1 micro-USB input                                                                                                   |
| Power supply                    | 2 x lithium AA 3.6 V batteries                                                                                      |
| Protection                      | IP40                                                                                                                |
| Material                        | Compatible with food industry environment<br>ABS housing                                                            |
| Dimensions                      | 110.2 x 79 x 35.4 mm / 4 22/64" x 3 7/64" x 1 25/64"                                                                |
| Weight (with batteries)         | KCC 320: 206 g / 7.27 oz<br>KPA 320: 200 g / 7.05 oz                                                                |
| Environmental conditions of use | Air and neutral gases<br>Hygrometry: in non condensing condition<br>Maximum altitude: 2000 m / 2188 yd              |

## Technical specifications

|                                      | KCC 320                                                                                                                                                                                                                                                                                                          | KPA 320                                                                                                                                                                                                                                                           |
|--------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Units displayed                      | °C, °F, % RH, hPa, ppm                                                                                                                                                                                                                                                                                           | °C, °F, % RH, hPa                                                                                                                                                                                                                                                 |
| Resolution                           | 0.1 °C, 0.1 °F, 1 ppm, 0.1% RH, 1 hPa                                                                                                                                                                                                                                                                            | 0.1 °C, 0.1 °F, 0.1% RH, 1 hPa                                                                                                                                                                                                                                    |
| External input                       | Female micro-USB connector                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                   |
| Input for probe                      | -                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                   |
| Internal sensor                      | Humidity, temperature, atmospheric pressure, CO <sub>2</sub>                                                                                                                                                                                                                                                     | Humidity, temperature, atmospheric pressure                                                                                                                                                                                                                       |
| Tolerated overpressure               | -                                                                                                                                                                                                                                                                                                                | 1260 hPa                                                                                                                                                                                                                                                          |
| Type of sensor                       | Temperature and humidity: capacitive<br>Atmospheric pressure: piezoresistive<br>CO <sub>2</sub> : NDIR                                                                                                                                                                                                           | Temperature and humidity: capacitive<br>Atmospheric pressure: piezoresistive                                                                                                                                                                                      |
| Measuring range                      | Temperature: from -20 to 70 °C / -4 to 158 °F<br>Humidity: from 0 to 100 %RH<br>Atmospheric pressure: from 800 to 1100 hPa<br>CO <sub>2</sub> : from 0 to 5000 ppm                                                                                                                                               | Temperature: from -20 to 70 °C / -4 to 158 °F<br>Humidity: from 5 to 95 %RH<br>Atmospheric pressure: from 800 to 1100 hPa                                                                                                                                         |
| Accuracies <sup>(1)</sup>            | Temperature: ±0.4 °C from 0 to 50 °C<br>±0.8 °C below 0 °C or above 50 °C<br>±0.8 °F from 32 to 122 °F<br>±1.5 °F below 32 °F or above 122 °F<br>Humidity <sup>(2)</sup> : ±2 %RH from 5 to 95 %RH,<br>15 to 25 °C / 59 to 77 °F<br>Atmospheric pressure: ±3 hPa<br>CO <sub>2</sub> : ±50 ppm ±3% of the reading | Temperature: ±0.4 °C from 0 to 50 °C<br>±0.8 °C below 0 °C or above 50 °C<br>±0.8 °F from 32 to 122 °F<br>±1.5 °F below 32 °F or above 122 °F<br>Humidity <sup>(2)*</sup> : ±2 %RH from 5 to 95 %RH,<br>15 to 25 °C / 59 to 77 °F<br>Atmospheric pressure: ±3 hPa |
| Setpoints alarm                      | 2 setpoints alarms on each channel                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                   |
| Frequency of measurement             | From 1 minute to 24 hours (15 seconds in on-line mode)                                                                                                                                                                                                                                                           | From 1 second to 24 hours                                                                                                                                                                                                                                         |
| Operating temperature <sup>(3)</sup> | From 0 to +50 °C / 32 to 122 °F                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                   |
| Storage temperature                  | From -20 to +50 °C / -4 to +122 °F                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                   |
| Battery life                         | 2 years <sup>(4)</sup>                                                                                                                                                                                                                                                                                           | 5 years <sup>(4)</sup>                                                                                                                                                                                                                                            |
| Directives                           | 2011/65/EU RoHS II (EU)2015/863; 2012/19/UE WEEE; 2014/30/EU EMC; 2014/35/UE; FCC part 15; UL 61010                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                   |

<sup>(1)</sup> All accuracies indicated in this document were stated in laboratory conditions and can be guaranteed for measurement carried out in the same conditions, or carried out with calibration compensation.

<sup>(2)</sup> Factory calibration uncertainty: ±0.88 %RH. Temperature dependence: ±0.04 x (T-20) % RH (if T < 15 °C or T > 25 °C) / ±0.04 x [(T °F - 32) x 5/9] - 20] %RH (if T ≤ 59 °F or T ≥ 77 °F)

<sup>(3)</sup> The screen can be hard to read, and its display speed often slows down at temperatures lower than 0 °C / 32 °F. This has no effect on the accuracy of measurements.

<sup>(4)</sup> Non-contractual value. Based on 1 measurement each 15 minutes at 25 °C. A correct operation of the device and the storage conditions must be respected.

## Recorder function

### Five recording modes

KISTOCK can record in 5 different ways:

- **"Immediate"** mode records values according to 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 non-stop (**"loop"** recording option).

### Four types of dataset start

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

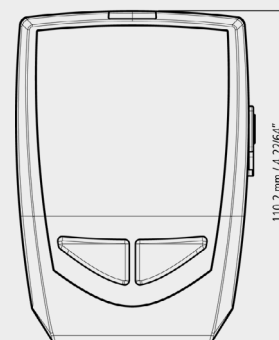
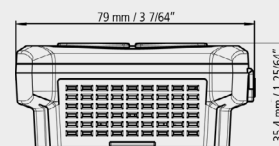
- With a delayed start (with predefined date and time)
- With the software
- With push-button
- With **"Online"** option. In this case, your datasets are directly sent, saved and displayed on your PC in real time.

### Six 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 during 5 seconds, if this function has been previously activated by the software

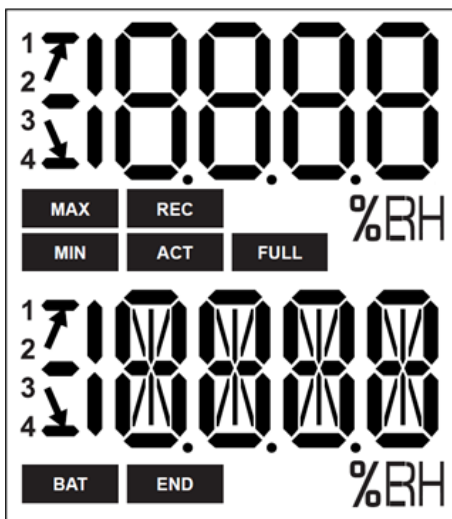
## Dimensions



## PC connection



## Display



°C: Temperature in °Celsius.

°F: Temperature in °Fahrenheit

%RH: Relative humidity

**END** DATASET is finished.

**REC** Indicates that one value is being recorded.  
It flashes: the DATASET did not start already.

**FULL** Flashing slowly: DATASET is between 80 and 90% of the storage capacity.  
Flashing quickly: DATASET is between 90 and 100% of the storage capacity.  
Constant: storage capacity full.

**BAT** Constant: indicates that the batteries have to be replaced.

**1 2**  
**3 4** Indicates the channel number which is measuring.

**ACT** Screen actualisation of measured values.

**MIN** The displayed values are the maximum/minimum values recorded for the channels displayed.

**MAX** Indication of the direction of exceeding the threshold in the recorded measurement

## Mounting

The KISTOCK class 320 have a magnetic mounting, so you can fix it easily.

### Replace the battery



With a battery life of 2 to 5 years\*, the KISTOCK devices guarantee long-term measurements.

To replace the battery:

- Unscrew the 4 screws on the back side of the device with a screwdriver.
- Remove the back side and the old batteries.
- Insert the new battery and respect the polarity.
- Replace the back side and the 4 screws

\*Non-contractual value. Based on 1 measurement each 15 minutes at 25 °C / 77 °F. A correct operation of the device and the storage conditions must be respected.

### Safety lock wall mount with padlock



Mount the safety lock support on the required place.

1. Present the KISTOCK data logger on the support starting with the inferior part
2. Clip the KISTOCK on the support by falling back the superior part
3. Insert the padlock to ensure the safety lock function



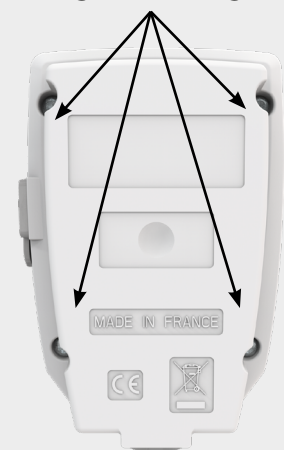
The padlock can be replaced by a fail-safe sealed.



The data logger can be placed on the screw-mount without the safety lock function.

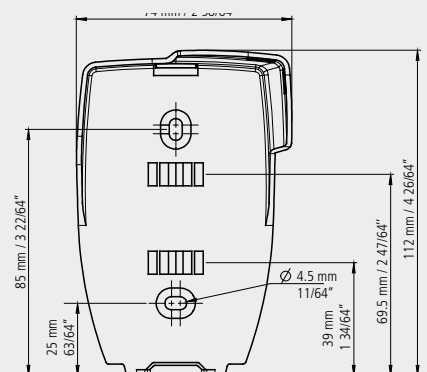
- To remove the data logger from the support, proceed on reverse order.

### Magnetic mounting

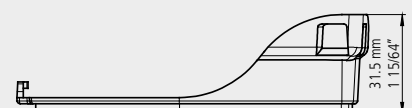


### Dimensions of the wall mount

#### Front view



#### Side view



## Software

**Kilog Lite:** free software to download on [sauermanngroup.com](http://sauermanngroup.com)

Allows the data download (graphics and points statement) and the data logger configuration.

### Configuration and data processing software

KILOG software allows to configure, save and process your data in a very simple way.

- **Software only:** Ref. KILOG-3-N
- **Complete set:** software + 1 USB cable, Ref. KIC-3-N

## Accessories

| Accessories                                                                                                                                                                                                          | Reference |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| 1 AA lithium 3.6 V battery<br> 2 batteries are required for class 320 data loggers                                                  | KBL-AA    |
| Safety lock wall mount with padlock                                                                                                                                                                                  | KAV-320   |
| Wired extension for class 320 KISTOCK probes<br>In polyurethane, 5 m / 16' length with male and female mini-DIN connectors<br>Note: several extensions can be wired in order to obtain up to 25 m / 82' cable length | KRB-320   |
| Data collector<br>Collects up to 20,000,000 points from one or several KISTOCK directly on-site.<br>Results restitution on PC of realised datasets                                                                   | KNT-320   |
| USB micro-USB cable which allows to plug your KISTOCK data logger to your PC                                                                                                                                         | CK-50     |



Only the accessories supplied with the device must be used.

## Maintenance

Please avoid any aggressive solvent.

Please protect the device and probes from any cleaning produce containing formalin, that may be used for cleaning rooms and ducts.

## Calibration

A calibration certificate is available as option in paper format.

We recommend to carry out a yearly checking.

## Precautions for use

Please always use the device in accordance with its intended use and within parameters described in the technical features in order not to compromise the protection ensured by the device.



BE CAREFUL! Material damages can happen, so please apply the precautionary measures indicated.