LOG200 / LOG210 / LOG220

Datenlogger für Temperatur, Feuchte* und Druck**
Data logger for temperature, humidity* and pressure**

*nur / only LOG210/LOG220
**nur / only LOG220

LOG200

Bedienungsanleitung 4
Operating Instruction 18

Fig. A

1
2
3
9
4
8
7
5
6

%rH
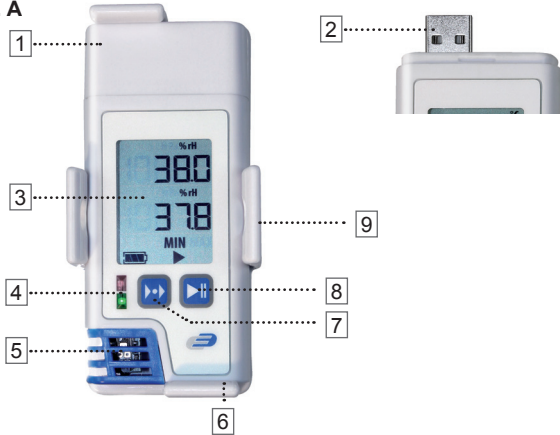38.0
%rH
37.8
MIN

Fig. B

1
2
3
4
5
6

CO₂ppmTdhPa%rH°CF
-18.8.8.8
CO₂ppmTdhPa%rH°CF
-18.8.8.8
AVGMINMAX
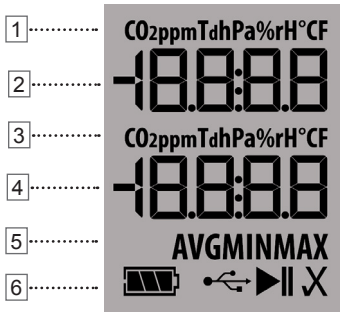
Fig. C

B **TEST LOG220**   H ✓

Test FW 4.00 Beta
20.10.2016

Konfiguration/Configuration

C

Benutzer/Operator	WD	
Intervall/Interval	00:00:30	
Start möglich durch/Start possible by	Taste/Button	
Startverzögerung/Start delay	00:00:00	
Stopp möglich durch/Stop possible by	USB Verbindung/USB connect	
Alarmverzögerung/Alarm delay	00:00:00	

		Alarm unten/Alarm low	Alarm oben/Alarm high
☑ Temperatur/Temperature		20.0 °C	30.0 °C
☑ Feuchtigkeit/Humidity		4.0 %rH	70.0 %rH
☑ Rel. Luftdruck/Rel. air pressure		990.0 hPa	1030.0 hPa

Zusammenfassung/Summary

D

Startzeit/Start time	**27.09.2016 10:31:27**	Start durch/Start by	Taste/Button
Stoppzeit/Stop time	**27.09.2016 12:43:27**	Stopp durch/Stop by	USB Verbindung/USB connect
Datensätze/Records	**265**	Dauer/Duration	**02:12:00**

	Min	Avg	Max	Höhe ü.NN/Altitude ASL
Taupunkt/Dew point	13.9 °C	14.1 °C	16.2 °C	
Temperatur/Temperature	23.6 °C	25.1 °C	26.3 °C	
Feuchtigkeit/Humidity	49.9 %rH	50.7 %rH	55.9 %rH	
Rel. Luftdruck/Rel. air pressure	1004.9 hPa	1005.0 hPa	1005.3 hPa	162 m
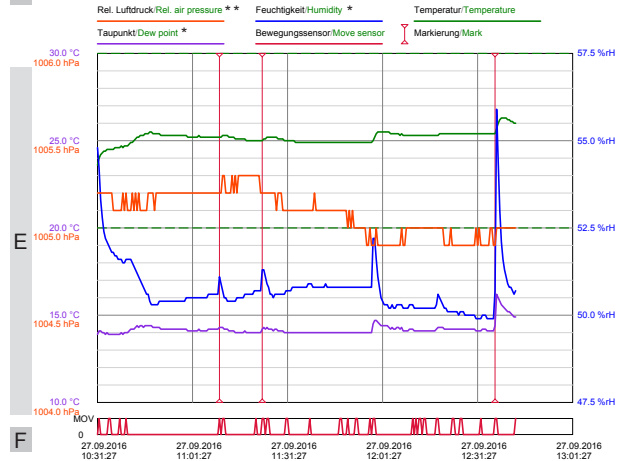
Anzahl/Count

Alarm/Alarm   0

Rel. Luftdruck/Rel. air pressure **   Feuchtigkeit/Humidity *   Temperatur/Temperature

Taupunkt/Dew point *   Bewegungssensor/Move sensor   Markierung/Mark

E

F

* nur LOG210/LOG220

** nur LOG220

Index

1. Introduction

Dear Sir or Madam,
Thank you very much for purchasing one of our products. Before operating the data logger please read this manual carefully. You will get useful information for understanding all functions.

2. Kindly note

• Check if the contents of the package are undamaged and complete.
• Remove the protection foil above the display.
• For cleaning the instrument please do not use an abrasive cleaner only a dry or moist piece of soft cloth. Do not allow any liquid into the interior of the device.
• Please store the measuring instrument in a dry and clean place.
• Avoid any force like shocks or pressure to the instrument.
• No responsibility is taken for irregular or incomplete measuring values and their results, the liability for subsequent damages is excluded!

3. Delivery contents

• Data logger
• Wall holder
• Battery 3,6 Volt (already inserted)
• USB protection cap
• 2x screws and dowels

4. Equipment and usage

LOG200/LOG210/LOG220 series logger are suitable for recording, alarm tracking and displaying of temperature, humidity*, dew point temperature* and barometric** (*only LOG210/220,** only LOG220) measurements. Areas of application include the monitoring of storage and transport conditions or other temperature, moisture and / or pressure-sensitive processes. The logger has a built-in USB port and can be connected without cables to all Windows PCs. The USB port is protected by a plastic cap. Beside the actual measurement result, the display shows
MIN- MAX- and AVG-measurements of each measurement channel.

The bottom status line shows battery capacity, logger mode and alarm status. The green LED flashes every 30 seconds during recording. The red LED is used to display limit alarms or status messages (battery change ...etc.). The logger also has an internal buzzer that supports the user interface.

This product is exclusively intended for the field of application described above.It should only be used as described within these instructions.Unauthorized repairs, modifications or changes to the product are prohibited and void any warranty!

5. How to use device

5.1 Device description

Fig. A (see page 2)
1. USB cover
2. USB-connector
3. LCD display see Fig. B
4. LED: green/red
5. Sensor compartment

   (position of the sensor)
6. Battery case
7. Mode button,
8. Start / Stop button
9. lockable wall holder

Fig. B (see page 2)
1. Units of measurement line 1
2. Measurement line 1
3. Units of measurement line 2
4. Measurement line 2
5. Line3 for indication and extrema measurements
   AVG = average value,
   Min = minimum value,
   Max = maximum value
6. Line4 status line (from left to right):

▨ Battery indication,
⇆ USB-connection indication,
▶ Data logger is recording,
‖ Data logger has been configured by LogConnect and is waiting for action,
✓ Data logger has been stopped and ✓ OK, (without ▶ Symbol)
X Data logger has been stopped and X NOT OK (e.g. Alarm level reached (without ▶ Symbol)

If the display has been deactivated (display off via Software LogConnect), the battery symbol and the symbol for recording (▶) or configuration (II) are still active in Line 4 (status line).

5.2 Start-up device
ATTENTION! Please observe our battery recommendation strictly. Use only the battery type LS 14250 3.6 volt of manufacturer SAFT, respectively only batteries authorized by the manufacturer.

For operation take out the instrument from the packaging, remove the display foil. The logger is already preset and ready for start. It can be used immediately without any software!
By pressing any button or moving the instrument before first operation the instrument displays FS (factory setting) for 2 seconds, afterwards measurements are displayed for 2 minutes. Then the instrument display switch off. Repeated key hit or movement reactivates the display.

5.2.1 Factory presets
Note the following default settings of the data logger before first use. By using the LogConnect* software, the setting parameter can easily be changed:

Recording Interval: 5 min. LOG210/ LOG220, 15 min. LOG200

Measuring interval: During recording the measurement interval and recording interval is the same! If the logger has been not started(NOT RECORDING) the measuring interval is every 6 seconds for 15 minutes, afterwards the measuring interval is every 15 minutes for 24 hours, afterwards the measuring interval is once per hour. If you press any button or move the device it will start again to measure each 6 seconds.

Start possible by: Key press
Stop possible by: USB connect
Alarm: off
Alarm delay: 0 s
Show measurements on display: on
Power-Save mode for display: on

5.2.1.1 Power-Save Mode for Display
The Power-Save Modes is activated as a standard. The display switches off when for 2 minutes no button has been pressed or the instrument has been not moved. The logger is still active, only the display is switched off. The internal clock runs.

5.2.2 Windows Software for Log200-Series
The instruments of series Log200 are already preset and ready for start. It can be used without any software! However, there is a Windows Application free for downloading.
Please note the free-to-use link:

5.2.2.1 Configuration Software Log Connect
By this software the user can change configuration parameter like measuring interval, start delay(or other start parameter), creating alarm levels or changing the internal clock time The Software Log Connect contains an online help.
Download via: http://download.dostmann-service.de,
select Downloads/Software/5005-0200_LOG200/Software/

5.3 First start / start recording

Press button for 2 seconds, beeper sounds for 1 second, the actual date and time will be displayed for 2 further seconds.
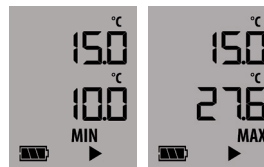
LED lights green for 2 sconds - logging has started!

LED blinks green every 30 sec.

Display in Auto-Mode (Display shows all measurement channel in a 3 seconds sequence)
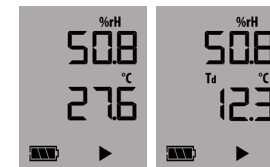
LOG 200   LOG 210
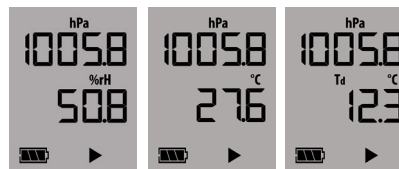
LOG 220

By using the Software LogConnect, the presets can easily be changed.

* LogConnect download link to access the software
http://download.dostmann-service.de , select Downloads/Software/5005-0200_LOG200/Software/ or: www.dostmann-electronic.de - Downloads - Software - 5005-0200_LOG200 Software (download LogConnect)

5.3.1 Restart recording
See 5.3. First start / start recording. The logger is started by default by button and stopped by USB port plug-in. The measured values are plotted automatically to the PDF file.
NOTE: When you restart the existing PDF file is overwritten. Important! Always save the generated PDF files to your PC.
If LogConnect is open when connecting the loggers the log results are copied to a backup location immediately by default.

5.3.2 Display used memory (%), date and time

After pressing shortly the start button while the logger is recording, in the first line shows (line 1) MEM appears and in the second line (line 2) displays the used memory will be display in percentage(%). Afterwards the logger displays date and time for 2 seconds.

5.4 Stop recording / create PDF

Connect logger to an USB port. Beeper sounds for 1 second. LED blinks green until result PDF is created (can take up to 40 seconds).
The symbol ► disappears in the status line. Now the logger is stopped.

The Logger is shown as removable drive LOG200/LOG210/ LOG220

View PDF and save. PDF will be overwritten with next log start!

Note: With the next recording the Extrema (Max- and Min-value), and the AVG-value will be reset.

5.4.1 Stop recording by button.
To stop the Logger via button it is necessary to change the configuration by Software LogConnect. If this setting is done the start button is also the stopp button.

5.5 Description of PDF result file (see Fig. C)
Filename: z.B.
LOG220_16099908_2016-09-27T103123.PDF

A   LOG220:   Device
     16099908:   Serial
     2016-09-27:   Start of recording (date)
     T103123:   time: HHMMSS

B   Description: Log run info, edit with LogConnect* software

C   Configuration: preset parameters

D   Summary: Overview of measurement results

E   Graphics: Diagram of measured values

F   MOV: Indicates whether instrument has been moved (with date and time)

G   Signature: Sign PDF if required.

H   ✔ : Measurement OK   ✗ : Measurement failed

5.6 USB-Connection
For configuration the instrument has to be connected to the USB-port of your Computer. For configuration please read the according to chapter and the use the online-direct help of the Software LogConnect.

5.7 Mode-Button: EXT, AVG, MIN, MAX

By pressing the Mode-button the respective Average (AVG)-, Minimum (MIN)- and Maximum (MAX) measurements of each measurement channel will be displayed.

Auto-Mode (automatic measurement switching of measurement line 2)
LOG200: By pressing the Mode-button until Auto appears in the measurement line 2 the Minimum (MIN)- and Maximum (MAX) measurements will be displayed and will switch every 3 seconds.
LOG210/220: By pressing the Mode-button until Auto appears in the measurement line 2 the display measurement size will change every 3 seconds.
For LOG210 it will change between temperature and dew point.
For LOG220 it will change between relative humidity, temperature and dew point.
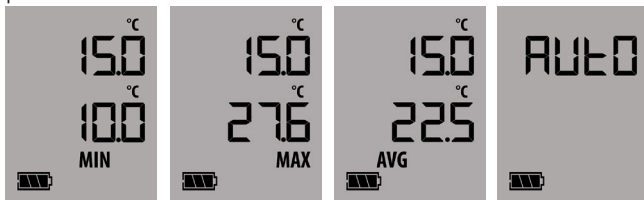
5.7.1 Special function of Mode-Button
(Markings / reset Max-Min-Avg results)

During recording it is possible to set marks on the recording report. Therefore hold down the Mode button for 2,5 seconds.
When marking was successful a short beep sounds. To reset the Max-Min-Avg measurements hold down the Mode button for 5 seconds. When resetting was successful a short melody sounds (During resetting Max-Min-Avg always a marking will be done).

5.8 Battery replacement / Battery status indication
ATTENTION! Please observe our battery recommendation strictly. Use only the battery type LS 14250 3.6 volt from the manufacturer SAFT.

To replace the battery please open the battery cover on the rear side. Therefore you have to turn the battery cover 20° to the left. Use a coin to open/close the battery lid.

Remove empty battery and insert new battery like shown.

Battery change ok: both LEDs light for 1second, beep sounds.

- The Bat Symbol indicates that the battery needs to be exchanged. In case of [   ] the instrument will only work further 10 hour correct.
- The battery symbol indicates according to the battery status beween 0 and 3 segments.
- If the [   ] is flashing the battery is completely exhausted. The instrument does not operate!

Note! After exchanging the battery please check the correct time and date of the internal clock. For setting the time see chapter: See 5.2.2.1 Configuration software LogConnect or 5.8.1 Set Date and Time after battery replacement via button

5.8.1 Set Date and Time after battery replacement via button

After battery replacement or power interrupt the instrument automatically changes into the configuration mode to set date, time and interval. If no button will be pressed for 20 seconds the unit proceeds with the last date and time in memory:

Press N=
No changing of date and time, or Press Y=Yes for changing date and time

Press Mode-button to increase the value, press Start-button for jumping to the next value

Press N=
No to abort changings, or Press Y=Yes to confirm changings

5.9 Alerts

Beeper sounds once each 30 seconds for 1 second, red LED blinks each 3 seconds – measured values exceeds selected alarm settings(not with standard settings). Via Software LogConnect alarm levels can be set.

If an alarm level has been occurred a X will be displayed on the display bottom. On the corresponding PDF-report the alarm status will be indicated, too.
If the measurement channel is displayed where an alarm occurred the X on the right bottom of the display is blinking.
The X disappears when the instrument has been restarted for recording!

Red LED blinks once each 4 seconds. Replace battery.

blinks twice or more each 4 sconds. Hardware fault!

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* LogConnect download link to access the software http://download.dostmann-service.de , select Downloads/Software/5005-0200_LOG200/Software/

6. Technische Daten

Temperature
Measuring range: -40..+70°C
Resolution: 0.1°C

Rel. Humidity only LOG210/LOG220
Measuring range: 0..100%rF
Resolution: 0.1%rF

Pressure only LOG220
Measuring range: 300-1100hPa
Resolution: 0.1 hPa

Memory:
LOG200:   150.000 measurements (Temp.+ motion)
LOG210:   Approx. 100.000 data set (Temp., Humidity, dewpoint and motion)
LOG220:   Approx. 60.000 data set (Temp., Humidity, pressure, dewpoint and motion)

Interface: USB (integr.)

Dimensions: 91.5 x 42 x 20 mm

Weight: Approx. 83 g, Incl. Wall holder

Battery**:**   1 x 3,6 Volt Lithium ½ AA

7. Explanation of symbols

$C \epsilon$ This sign certifies that the product meets the requirements of the EEC directive and has been tested according to the specified test methods.

8. Waste disposal

This product has been manufactured using high-grade materials and components which can be recycled and reused

Never dispose of empty batteries and rechargeable batteries in household waste.
As a consumer, you are legally required to take them to your retail store or to an appropriate collection site depending on national or local regulations in order to protect the environment.
The symbols for the heavy metals contained are:
Cd=cadmium, Hg=mercury, Pb=lead

This instrument is labelled in accordance with the EU Waste Electrical and Electronic Equipment Directive (WEEE). Please do not dispose of this instrument in household waste. The user is obligated to take end-of-life devices to a designated collection point for the disposal of electrical and electronic equipment, in order to ensure environmentally-compatible disposal.

9. Marking only LOG200

CE-conformity, EN 12830, EN 13485, Suitability for storage (S) and transportation (T) for food storage and distribution (C), Accuracy classification 1 (-30..+70°C), according to EN 13486 we recommend a recalibration once per year.

10. Storage and cleaning

It should be stored at room temperature. For cleaning, use only a soft cotton cloth with water or medical alcohol. Do not submerge any part of the thermometer.

Schnellstart mit Standardeinstellungen

1. Aufnahme starten:
Start-Taste drücken, bis Signalton ertönt

2. LED leuchtet grün für 2 Sekunden - Aufnahme gestartet. RUN Symbol erscheint

3. Logger in USB port

4. warten

5. PDF anschauen und sichern

Quick Start with default settings

1. Start Recording:
Press until beep sounds

2. LED lit green for 2 seconds - recording started. RUN icon appears

3. Insert logger into USB port

4. wait

5. View and save PDF