## WolkenThermometer User Manual

17.4.2015

## Connectors



## **Alpha Version**

Until now, it is not possible, to configure the WiFi settings via the Android app. The user has to configure it with a serial adapter cable (UART, 3.3V or 5V).

## Configuration with UART adapter

- Connect the serial dapter cable to the WolkenThermometers "Arduino Programming Port" P4 Important: do not connect Pin 4 (reset), because then the push button is disabled I'm using the FTDI UM230XB. You can also use another Arduino board (e.g. Arduino Nano), when you shorten the RST of that board to GND, and connect Rx with P4.3 and Tx of that board with P4.2.
- 2. Connect a battery
- Open a serial terminal application on the computer
   I use cutecom on linux. For Windows I recommend hterm
- 4. Terminal Settings:
  - 1. Baudrate: 9600 baud/s
  - 2. 8 data bits
  - 3. no parity bit
  - 4. 1 stop bit
  - 5. line break: LF only
- Check connection by pressing the reset button. You shoud see a message like this

Project: WolkenThermometer V1.0

6. Then press and hold the reset button, until the counter is between 3 and 5. This is the way how you enter the configuration mode. The terminal shows now something like this

```
Project: WolkenThermometer V1.0
Built on Apr 17 2015
1234
Welcome to the configuration of the WolkenThermometer
For Help, please visit www.zeilhofer.co.at/wolke
Info: Line terminations are with LF (\n).
This WolkenSensor has been configured already.
ID = 3
Reconfigure it? (yes/no):
```

7. Follow the instructions of the configuration dialog. Here a full demo configuration:

```
Project: WolkenThermometer V1.0
Built on Apr 17 2015
1234
Welcome to the configuration of the WolkenThermometer
  For Help, please visit www.zeilhofer.co.at/wolke
  Info: Line terminations are with LF (\n).
This WolkenSensor has been configured already.
  ID = 3
Reconfigure it? (yes/no): yes
Please Enter ID: 3
Please Enter Secret-Key (10 characters): abcde12345
Please Enter Public-Key (10 characters): a1b2c3d4e5
Do you want to set SSID and WiFi-Password now (yes/no)?
yes
Please Enter WiFi-SSID (max. 30 characters): home-wifi
Please Enter WiFi password (0...30 characters): asdfjkloe
The configuration is finished. Please go on with the smart phone app
```

- 8. Unplug the UART-cable
- 9. Restart the firmware by pressing the reset button shortly
- 10. After about 20s the first measurement data should be sent to the server
- 11. Check this with this url:

```
http://me.zeilhofer.co.at/wt-test/datafetch.php?maxlen=1000&history=24&key[1]=YOUR_PUBLI C_KEY&web
```

where you have to replace the **YOUR\_PUBLIC\_KEY** with your key.

Permanent link: http://www.zeilhofer.co.at/wiki/doku.php?id=wolkenthermometer\_user\_manual&rev=1429286594

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