Datalogger DLU

Short – Instructions for use
First Steps – Start Up

9.1711.10.010

THE WORLD OF WEATHER DATA

Safety Instructions

- Before operating with or at the device/product, read through the operating instructions.
  This manual contains instructions which should be followed on mounting, start-up, and operation.
  A non-observance might cause:
  - failure of important functions
  - endangerment of persons by electrical or mechanical effect
  - damage to objects

- Mounting, electrical connection and wiring of the device/product must be carried out only by a qualified technician who is familiar with and observes the engineering regulations, provisions and standards applicable in each case.

- Repairs and maintenance may only be carried out by trained staff or **Adolf Thies GmbH & Co. KG**. Only components and spare parts supplied and/or recommended by **Adolf Thies GmbH & Co. KG** should be used for repairs.

- Electrical devices/products must be mounted and wired only in a voltage-free state.

- **Adolf Thies GmbH & Co KG** guarantees proper functioning of the device/products provided that no modifications have been made to the mechanics, electronics or software, and that the following points are observed:

- All information, warnings and instructions for use included in these operating instructions must be taken into account and observed as this is essential to ensure trouble-free operation and a safe condition of the measuring system / device / product.

- The device / product is designed for a specific application as described in these operating instructions.

- The device / product should be operated with the accessories and consumables supplied and/or recommended by **Adolf Thies GmbH & Co KG** .

- Recommendation: As it is possible that each measuring system / device / product may, under certain conditions, and in rare cases, may also output erroneous measuring values, it is recommended using redundant systems with plausibility checks for **security-relevant applications**.

Environment

- As a longstanding manufacturer of sensors Adolf Thies GmbH & Co KG is committed to the objectives of environmental protection and is therefore willing to take back all supplied products governed by the provisions of "*ElektroG*" (German Electrical and Electronic Equipment Act) and to perform environmentally compatible disposal and recycling. We are prepared to take back all Thies products concerned free of charge if returned to Thies by our customers carriage-paid.

- Make sure you retain packaging for storage or transport of products. Should packaging however no longer be required, please arrange for recycling as the packaging materials are designed to be recycled.

Documentation

- © Copyright **Adolf Thies GmbH & Co KG**, Göttingen / Germany

- Although these operating instructions have been drawn up with due care, **Adolf Thies GmbH & Co KG** can accept no liability whatsoever for any technical and typographical errors or omissions in this document that might remain.

- We can accept no liability whatsoever for any losses arising from the information contained in this document.

- Subject to modification in terms of content.

- The device / product should not be passed on without the/these operating instructions.

Contents

Figures

You have the option of operating the DLU E data logger in different ways. The following illustration is intended to provide an overview, you can find further information in the operating instructions.
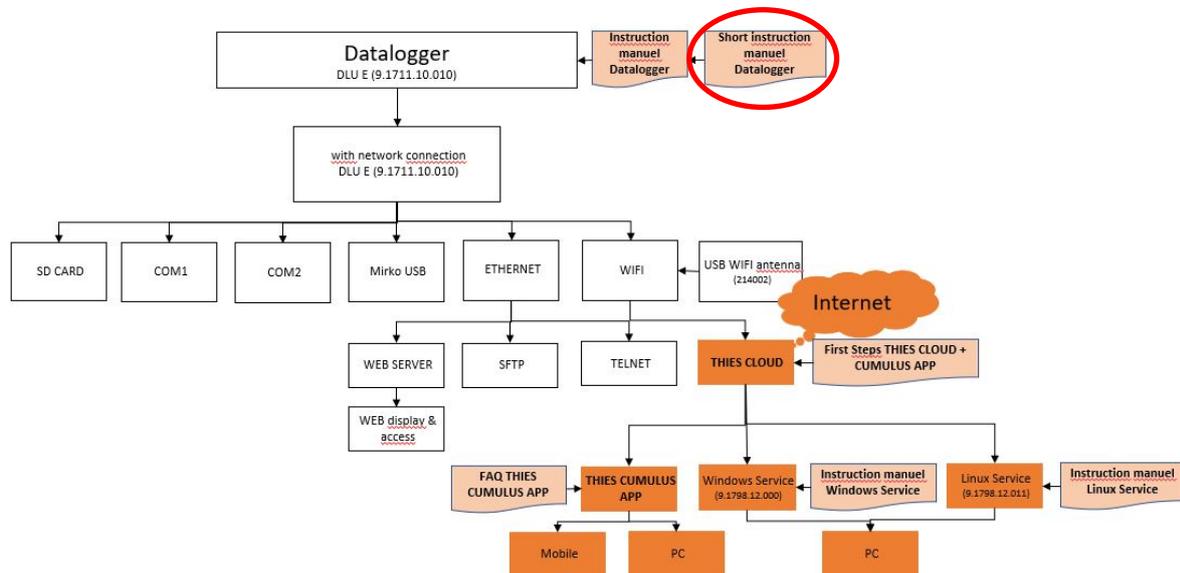

Figure 1: Option of operating

1 Startup

The customer's communication technology must allow the DLU access to the following URLs / addresses / ports and clarify whether the local network supports DHCP or not in order to ensure smooth commissioning and use:

- http://deb.debian.org/
- http://repos.rcn-ee.com/
- https://www.thiescloud.com
  Port 443
- Sending ping on www.thiescloud.com must be allowed
  Access to NTP time synchronization must be allowed,
  address: de.pool.ntp.org or at.pool.ntp.org at Port 123

If DHCP is supported, the IP address is automatically assigned to the data logger. DHCP is the standard setting of the data logger. You can find out from your administrator whether your local network supports the DHCP service.

Note:

The data logger DLU E should not be operated in parallel with Ethernet and WIFI, this can lead to communication problems.

Connect the datalogger to your local network (Ethernet via RJ45), and to supply voltage 24V.
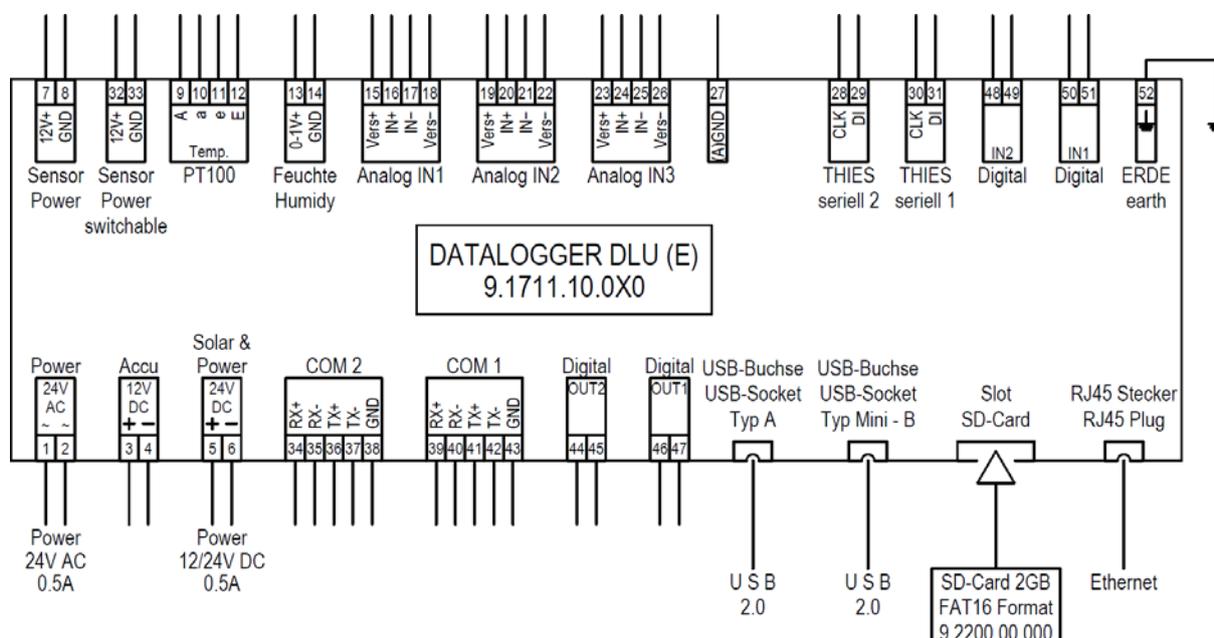

Figure 2: Connect the datalogger

There are various options for operating the data logger in a network, commissioning it and integrating it into the THIES CLOUD. The following illustration is intended to provide an overview and illustrate the individual steps.

The integration into the THIES CLOUD and the first steps with the THIES CUMLUS APP are described in the BA First Steps THIES CLOUD + CUMULUS APP.
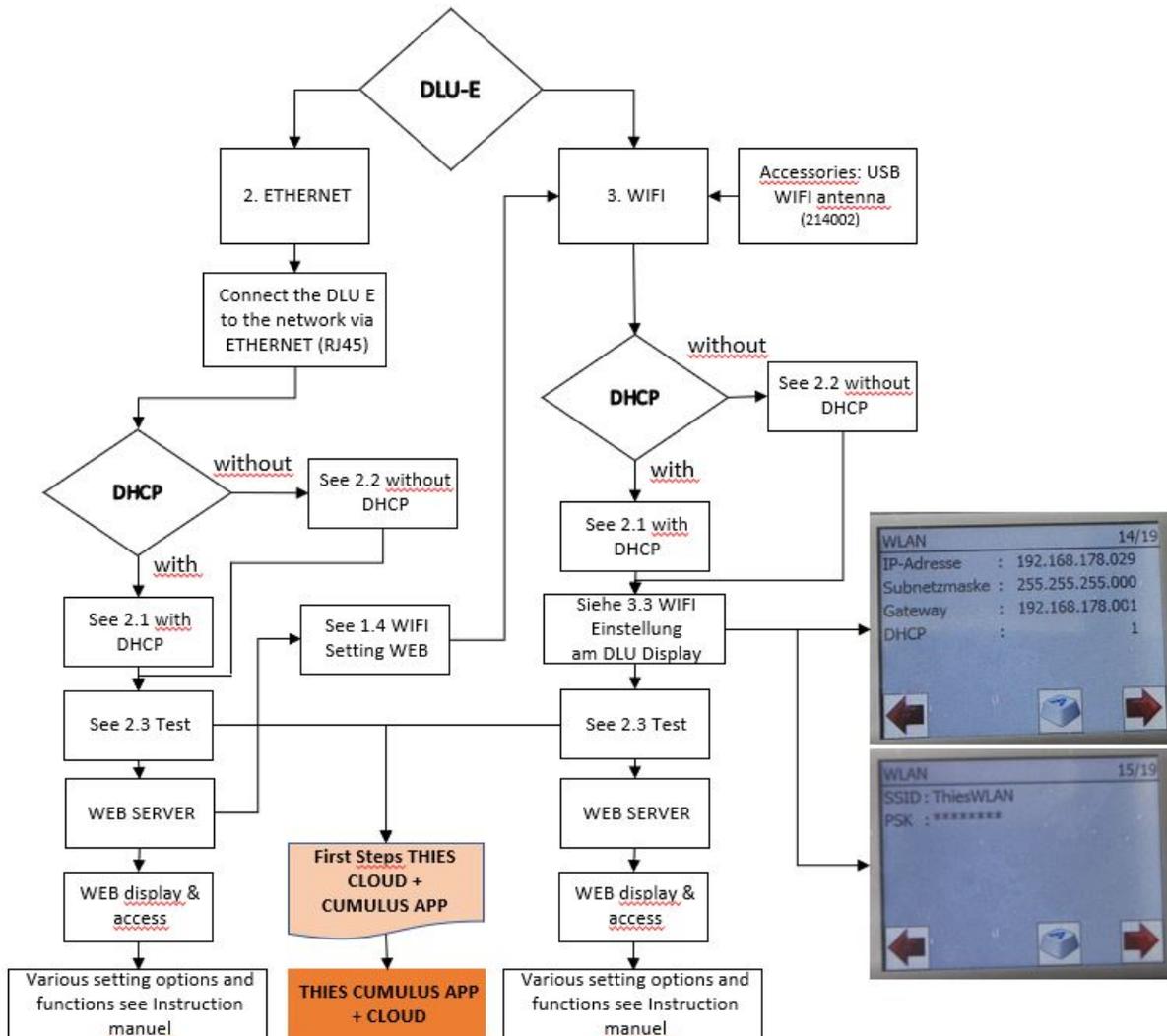

Figure 3: Network applications

2 DLU-E network installation with Ethernet

2.1 Starting with Network and DHCP Support

After the start of the datalogger, please scroll into the dialogue for the display of the IP-settings by means of the display keys.

```
                           1/14
IP-Adresse :      192.168.002.027
Subnetz :         255.255.252.000
Gateway  :        192.168.004.027
DHCP :                          1
```
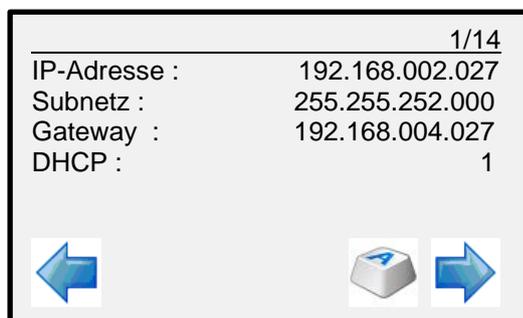
Figure 4: Dialogue for display of IP-settings

After **approx. 5 … 15 minutes**, the IP-address should adjust to the address which has been assigned by the local network. Further steps for startup, see from 1.3

2.2 Start with Network without DHCP Support

After the start of the datalogger, please scroll into the dialogue for the display of the IP-settings by means of the display keys.

```
                           1/14
IP-Adresse :      192.168.002.027
Subnetz :         255.255.252.000
Gateway  :        192.168.004.027
DHCP :                          1
```
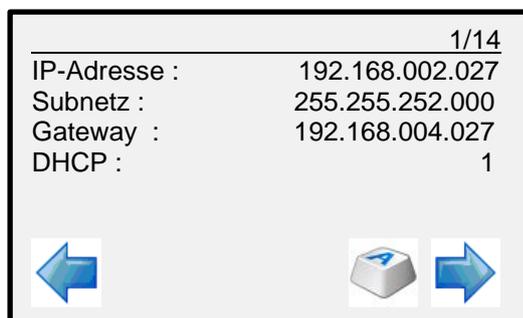
Figure 5: Dialogue for Display of IP-settings

The IP-settings must be carried out manually in the following step.

1. Please press the button
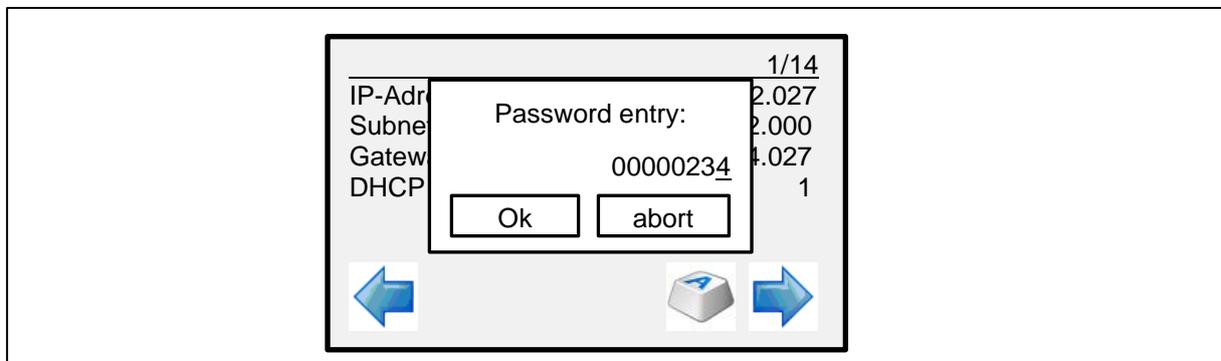2. Enter the password 00000234, and press OK

Figure 6: Password entry

3. Please press again button afterwards, and select entry DHCP
4. Reset entry DHCP to 0
5. Afterwards, adjust the IP-address, the subnet mask, and the gateway to your network. You will receive the respective data from your network administrator
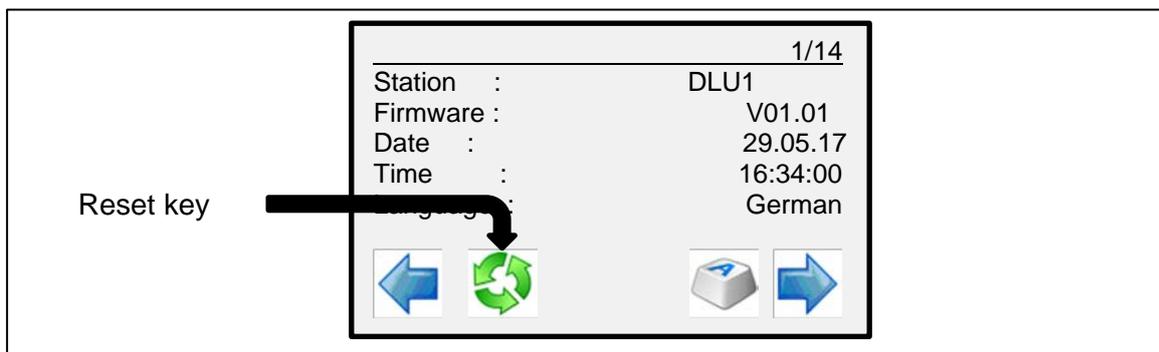6. Now, restart the DLU

Figure 7: Reset the datalogger

The shutting down lasts approx. 15s, then a dialogue appears with the possibility of carrying out a restart of the datalogger. In this state, the datalogger can be separated from the supply.
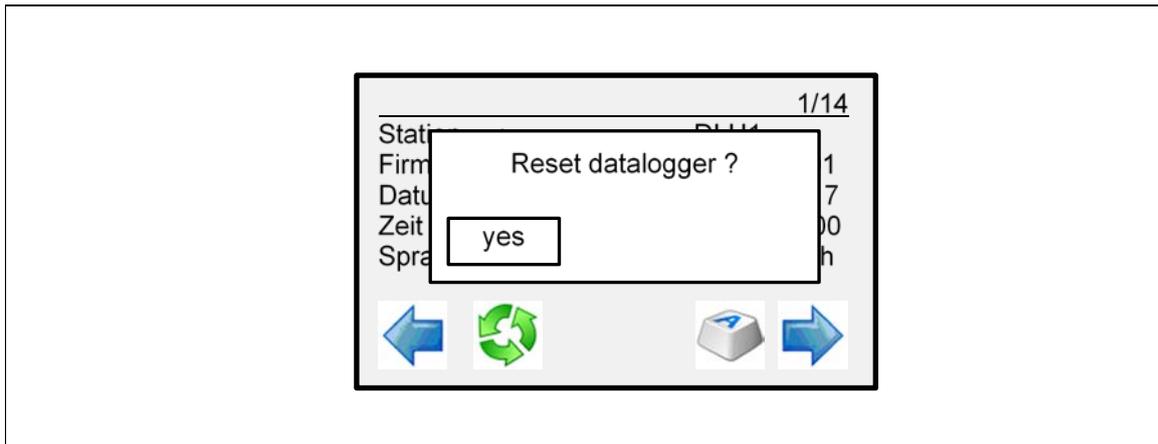
Figure 8: Reset datalogger confirm

Pressing the key "yes" carries out a restart of the datalogger.

Continue with step 2.3.

2.3 Test of Connection

For testing the connection please start your internet explorer

Enter the IP-address of the DLU into the headline of the explorer. It is the address which you have entered, or the address which was assigned by DHCP server.
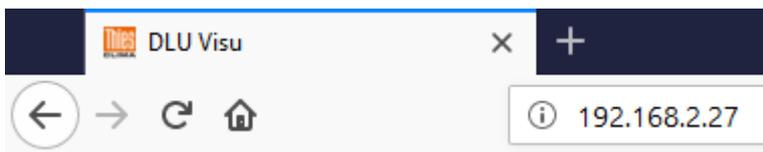
Example:

Figure 9: Address entry into an internet explorer
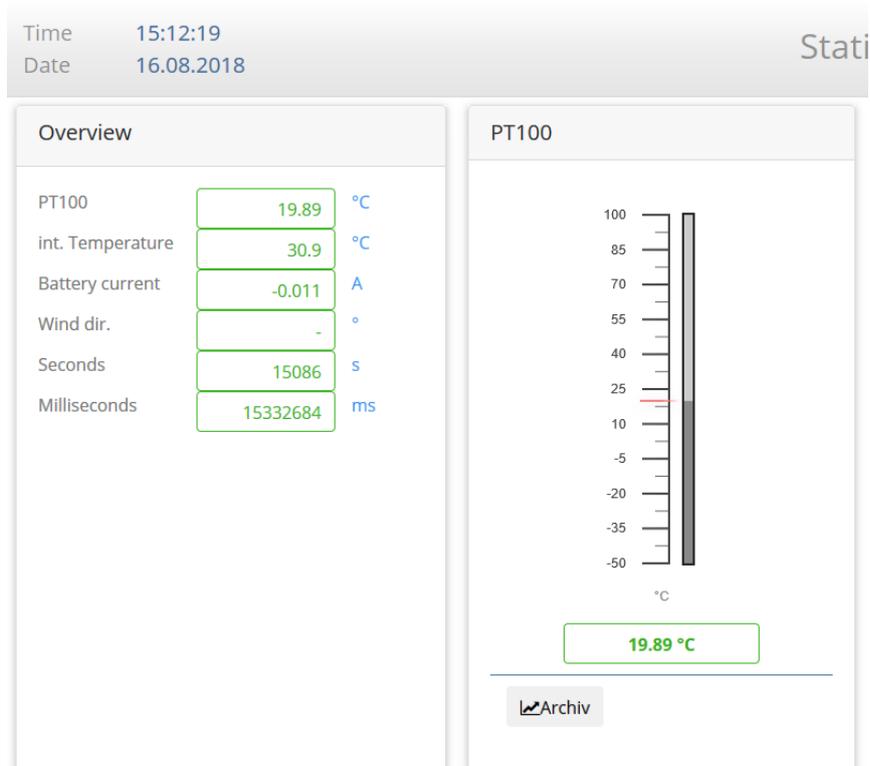
Now, the WEB page of the DLU is displayed:

Figure 10: Display of WEB page

Remark:

When using a DHCP service it is recommended to change over to a standard IP-address

after startup. This can be carried out by means of the button [wrench icon] and the IP-settings.

2.4 WIFI setting via WEB

With an existing RJ45 connection it is possible to configure the WIFI connection. To do this, the WIFI antenna must be plugged in and the DLU connected to Ethernet when the DLU is started. The connection via Ethernet is first set up. The connection is set up via WIFI. If the cloud connection is switched on, only one of the two connections should be active during operation, otherwise there may be problems with communication.

In submenu 🛜Wifi the settings for Wifi are configured. An accessory is available for WiFi operation **Wifi-Antenna** necessary in the USB slot of the data logger. Without an antenna, the checkmark for activation cannot be set. Orders with WIFI, WIFI is active upon delivery.
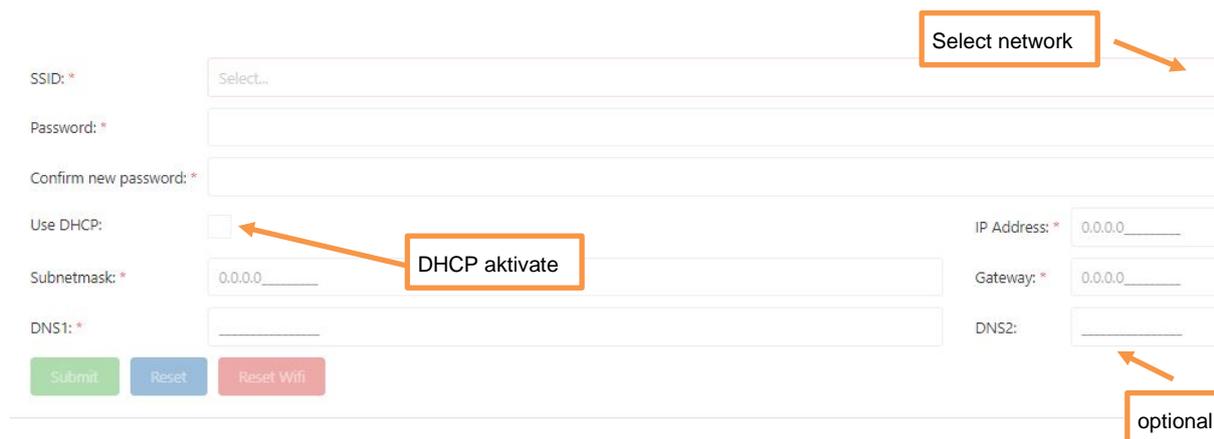

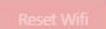Figure 11: WIFI configuration

*Required fields

With [Submit] the data is sent to the DLU and stored permanently. Before that, a window opens in which the uploading with [Yes] must be confirmed. Otherwise it is canceled.

A restart is required to activate new WiFi settings. After the restart, the start window appears again with the current values.

To check the settings, you have to **log in** again as **admin**. The user settings can only be reached with the user name **admin** and the password **1111** on delivery. In the settings, the password can be changed on the User tab.

As soon as the Wifi menu is opened, the current settings for Wifi are downloaded from the DLU and can be corrected and uploaded again if necessary.

The buttom [Reset] resets the settings in the window to the settings of the DLU.

The button [Reset Wifi] should only be used in an emergency if the DLU does not get an IP address from the DHCP server of the WiFi network and the settings are to be deleted.

3 DLU-E network installation with WIFI

There are three options for entering the WIFI parameters:

- Enter via the command line

- Enter via the WEB page with an existing Ethernet connection

- Enter via the DLU display

Entering the parameters via the command line is described in the operating instructions. The entry via the WEB page can be found in this document under 2.4 The input of the parameters via the display is explained in the following points.

3.1 Go to: 2.1 Starting with network and DHCP support

3.2 Go to: 2.2 Starting network without DHCP support

3.3 WIFI setting at DLU Display

After starting the data logger DLU, use the display buttons to scroll into the dialog for displaying the WLAN IP settings. You can only see this display with a WiFi antenna.
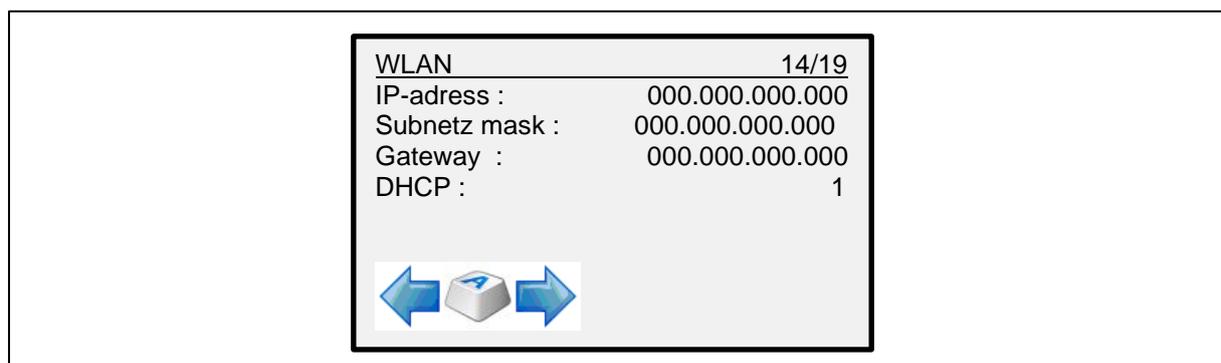


```
WLAN                        14/19
IP-adress :       000.000.000.000
Subnetz mask :    000.000.000.000
Gateway  :        000.000.000.000
DHCP :                           1
```

Figure 12: WLAN-settings at DLU

When used with DHCP, the IP settings are set automatically.
After **approx. 5 … 15 minutes**, the IP address must be set to the address assigned by the local network.

If DHCP is switched off, see 2.2 Starting with a network without DHCP support.
In the following step, the WLAN SSID and PSK must be entered manually:


```
WLAN                        15/19
SSID :  WLAN Name
PSK:    XXXXXXXXXX
```
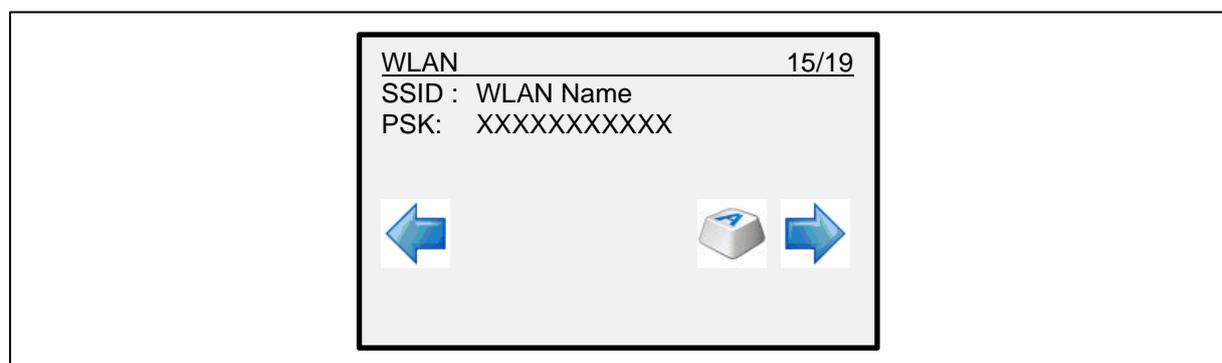
Figure 13: WLAN-setting at DLU

1. Press the button
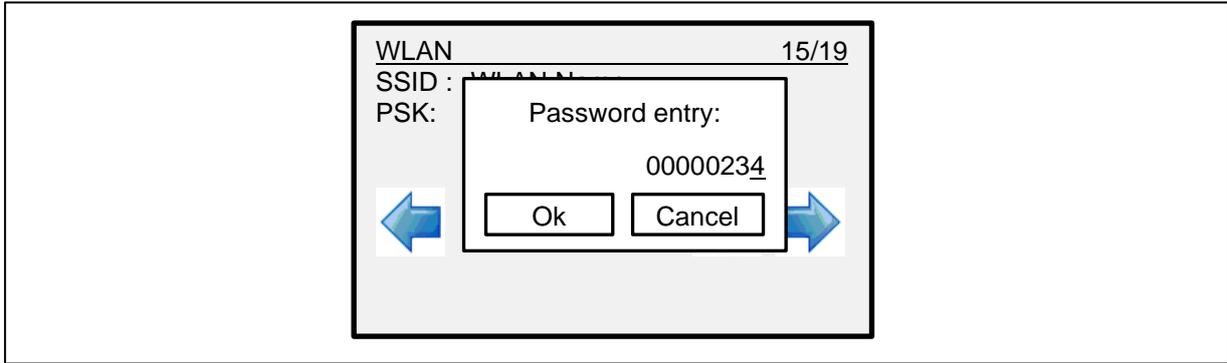2. Enter 00000234 as the password and press OK

Figure 14: Password entry

4. Press again the button and select the SSID entry
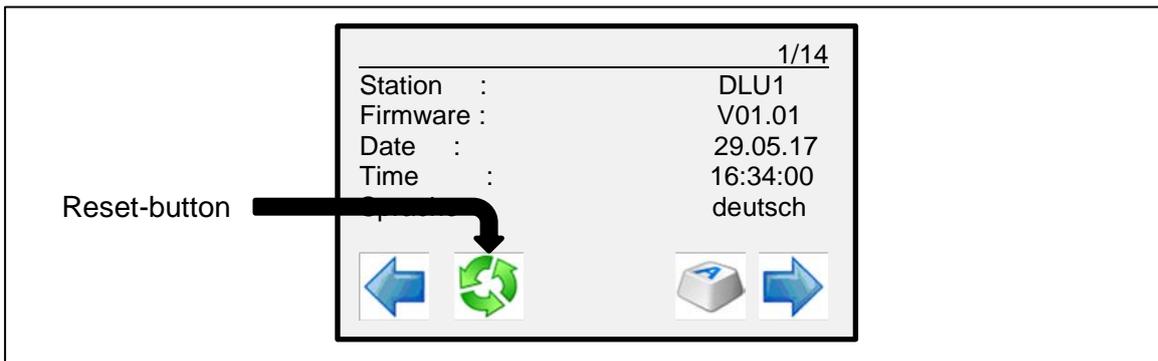5. Enter SSID
6. Enter PSK
7. Restart the DLU

Figure 15: Data logger restart

Shutting down takes approx. 15s, after which a dialog appears with the option of restarting the data logger. In this state, the data logger can be disconnected from the supply.
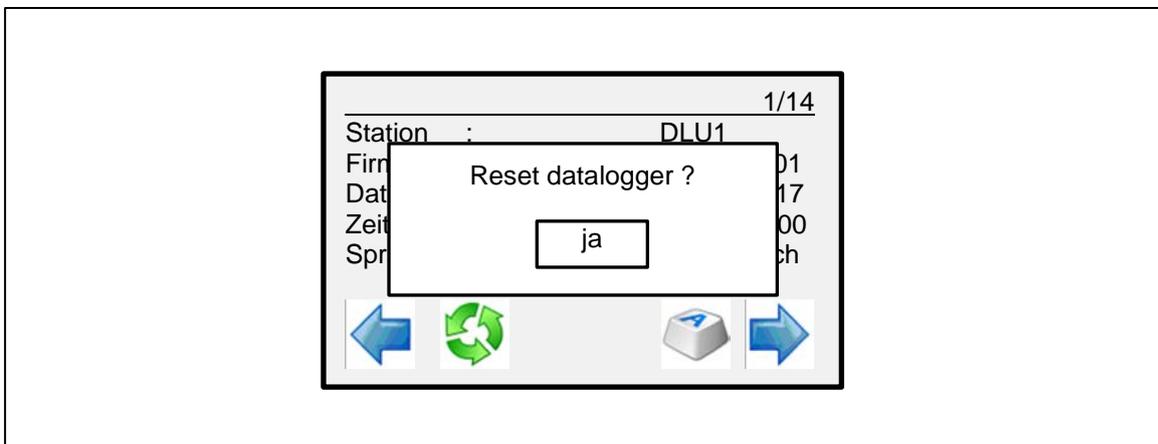

Figure 16: Confirm reset

Pressing the "yes" button restarts the data logger.

3.4 Go to: 2.3 Test of Connection

Further steps for install the DLU into the THIES CLOUD are described in the document First Steps THIES CLOUD application with CUMULUS APP.

First Steps THIES CLOUD + CUMULUS APP

https://www.thiesclima.com/db/dnl/9.1780.00.000_Thies_Cumulus_FirstSteps_en.pdf

Further information please see the FAQ THIES CUMULUS APP and Instruction for Use. These documents are available for download at the following link.

FAQ THIES CUMULUS APP

https://www.thiesclima.com/db/dnl/9.1780.00.000_Thies_Cumulus_App_FAQ_en.pdf

Instruction for Use

https://www.thiesclima.com/db/dnl/9.1711.10.0x0_Datalogger-DLU_eng.pdf

Please contact us for your system requirements.
We advise your gladly.

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