

Operating instructions

airleader

Analog measuring case touch

Version 1.0



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Commissioning:

Connect the measuring case to the power supply using the included power cable. The measuring case starts booting immediately. The display lights up briefly after approx. 3-4 seconds. Then the boot logo appears. The boot process takes approx. 2-3 minutes.

When the measuring case is fully booted, you will see the following screen. The measuring case is now ready for use.



You can now install and connect your measuring devices and sensors. Don't forget to make notes about the channel assignment.

Attention: Check the date and time before each measurement. The measuring case is equipped with a backup battery, which maintains the date and time settings even when not in use. Despite all this, the battery can run down after a long period of standstill and may not maintain the settings.

The main screen:



The main screen is the central functional view of the measuring case. From here you can perform the following actions:

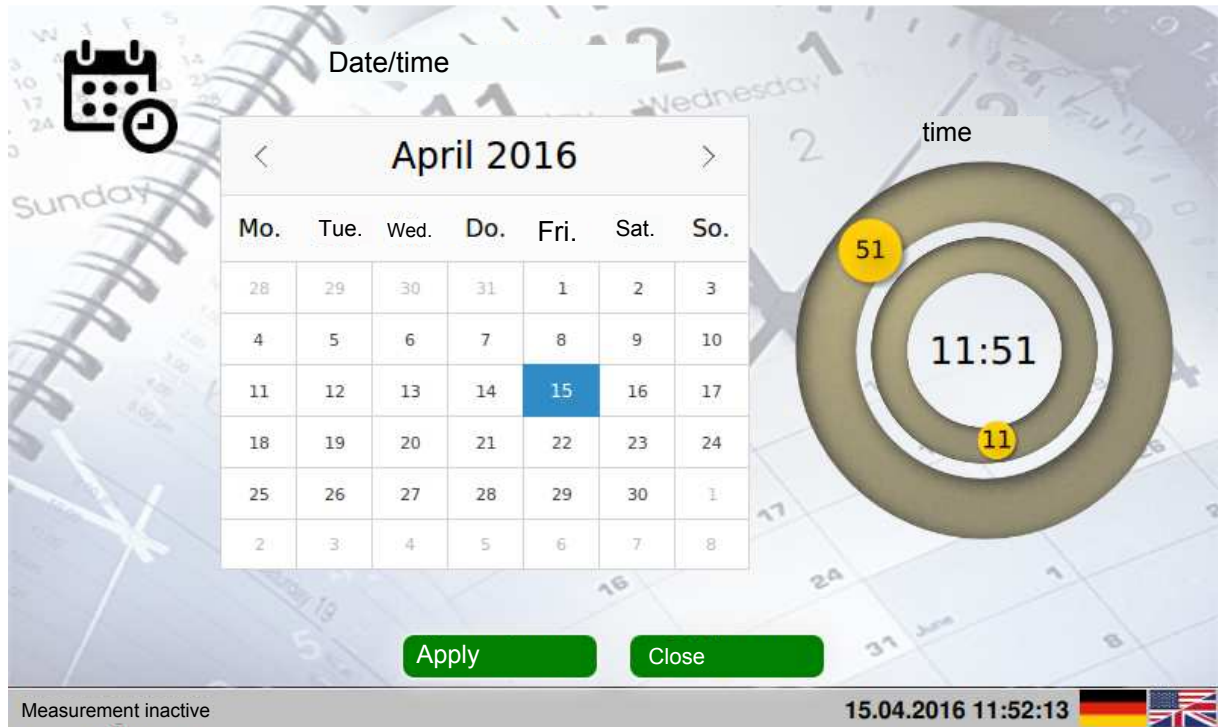
- Start / stop a measurement
- Set the date and time
- Copy or delete measurement data to a USB stick
- Install software upgrades
- Make channel settings
- Monitor data recording (values or charts)
- Language selection (German / English)
- Shut down the measuring case
- Check and test email settings (GSM option)

If no operations are carried out on the screen, it switches to screen saver mode after approx. 3 minutes.

A click anywhere on the display brings the main screen back to light.

Check and set the date and time:

Open the dialog for entering the date and time via the “main screen” by clicking on the “Date / Time” button.



Check the settings and adjust if necessary. You change the date using the calendar.

The time can be changed by dragging and moving the orange fixed points. If you have made any changes, save them by clicking “Apply”.



If no changes are required, close the dialog by clicking “Close” .



Configure measuring channels for testing:

The case records 4-20 mA signals on up to 8 analogue channels. You can temporarily assign a sensor type and range to each channel to display converted engineering values, such as temperature in °C. These display settings are not required for the underlying measurement.

To configure the channel, click on the channel icon. The channel dialog opens. Here you can select the appropriate sensor type and the limits of your sensor. (Settings active as long as the measuring case is running)

Settings channel 1

Sensor type

4 - 20 mA

Current measurement (A)

Power measurement (kW)

Temperature measurement (°C)

Dew point measurement (°C)

Pressure (bar)

Flow measurement (m3/min)

Current measurement (A)

0 - 100 A

0 - 200 A

0 - 400 A

0 - 1000 A

Apply Close

!!! Measurement active!!! 15.04.2016 11:53:36

Settings channel 1

Sensor type

4 - 20 mA

Current measurement (A)

Power measurement (kW)

Temperature measurement (°C)

Dew point measurement (°C)

pressure (bar)

Flow measurement (m3/min)

Flow measurement

0.00 m3/min

Screen keyboard

0 1 2 3 4

5 6 7 8 9

. DEL

Apply Close

!!! Measurement active!!! 15.04.2016 11:53:51

Clicking on “Apply” closes the dialog and applies your settings. With “Close” you can close the dialog without making any changes.

Start/stop measurement:

The measurement can be started using the “Start” button. If the measurement is active, the status line turns green and the message flashes: “Measurement active!!!” When the measurement is active, the text changes to “Stop”. Both when starting and stopping there is a security query that must be confirmed in order to carry out the action.

When measurement is active, the main functions are deactivated. Only channel configurations and the channel chart views are active during the measurement.



Every start or stop action requires confirmation.

Language selection:

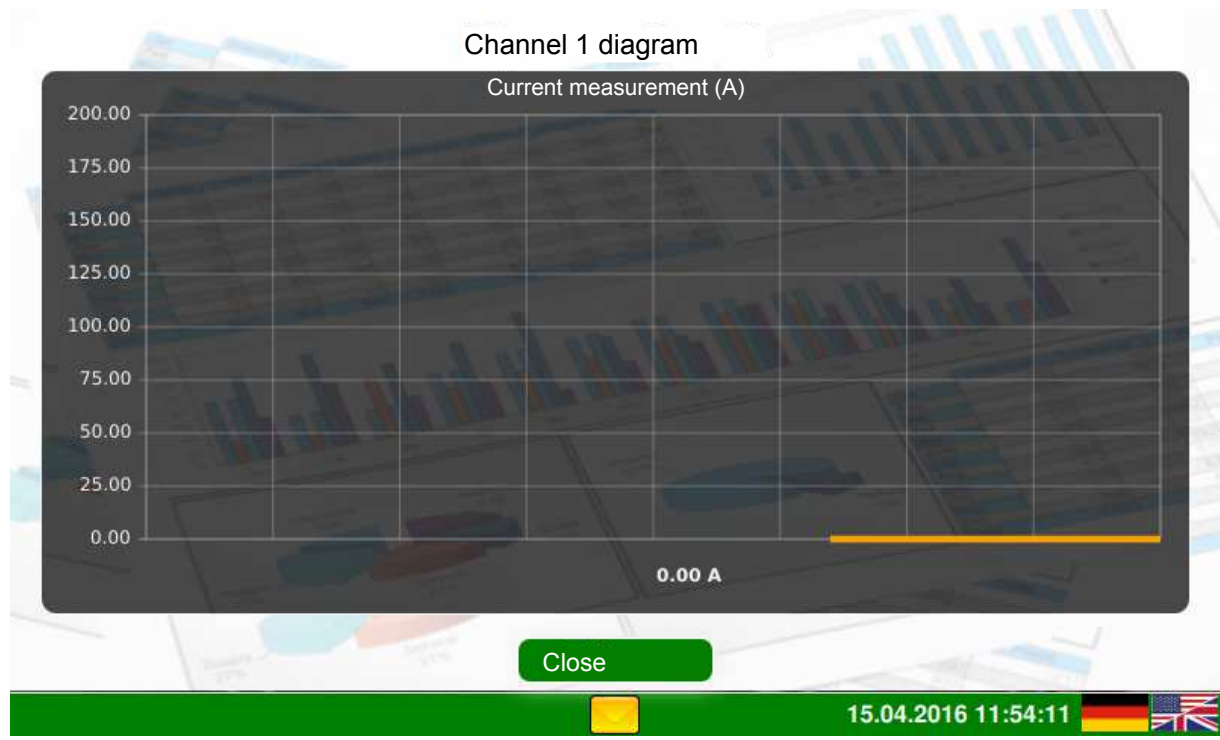
The language can be selected using the two flag icons on the main screen and all dialogs. The system is bilingual: German and English.

Shut down and exit system:

After the measurement has been completed, the system can be shut down using the “Shutdown” button. The fans continue to run until the measuring case is disconnected from the mains.

Show channel data as a chart:

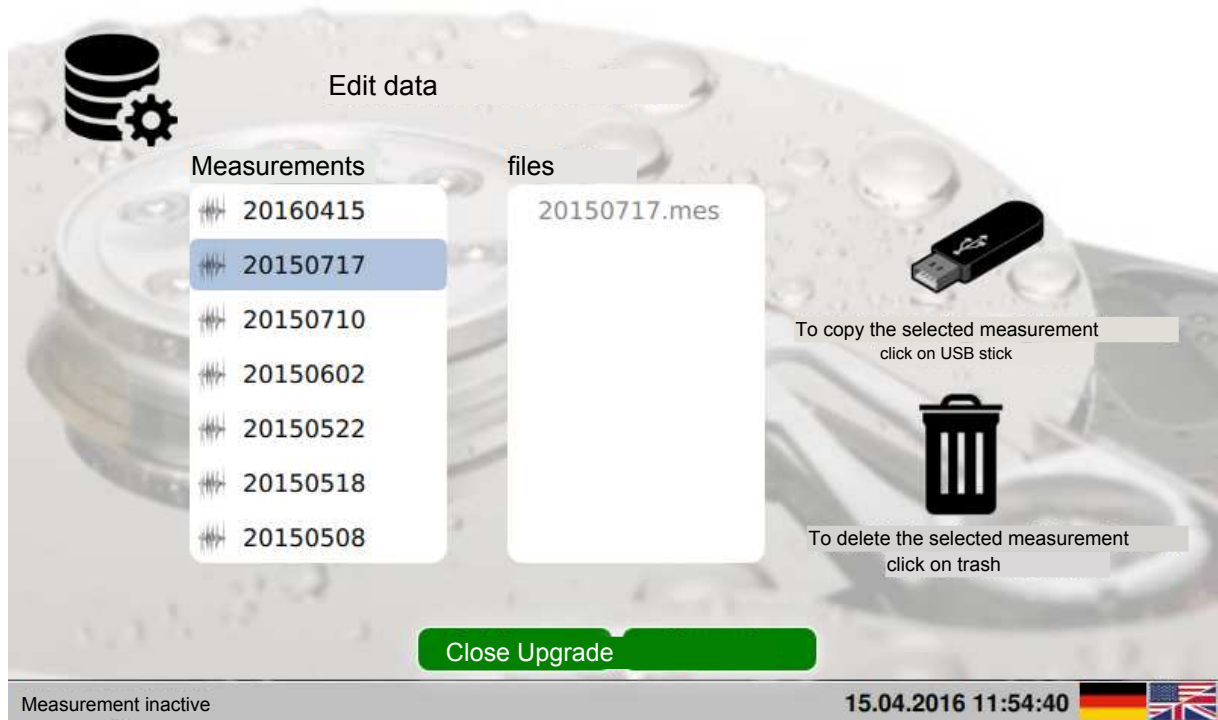
You can follow the  channel's data as a chart using the channel's icon
The chart view is accessible from the main screen.



New data is always inserted on the right and runs through to the left. The scaling and units of the chart view always depend on the channel configurations.

Edit, copy and delete data:

The “Edit data” button takes you to the following dialog. Attention: To copy data to a USB stick, insert the USB stick before calling up this dialog.



Copy: Select the measurement on the left. As soon as you have selected a measurement and the USB stick has been recognized, the USB stick graphic at the top right becomes active (changes from gray to black). You can now copy the data from the selected measurement by clicking on the USB stick graphic. The progress will be shown to you.

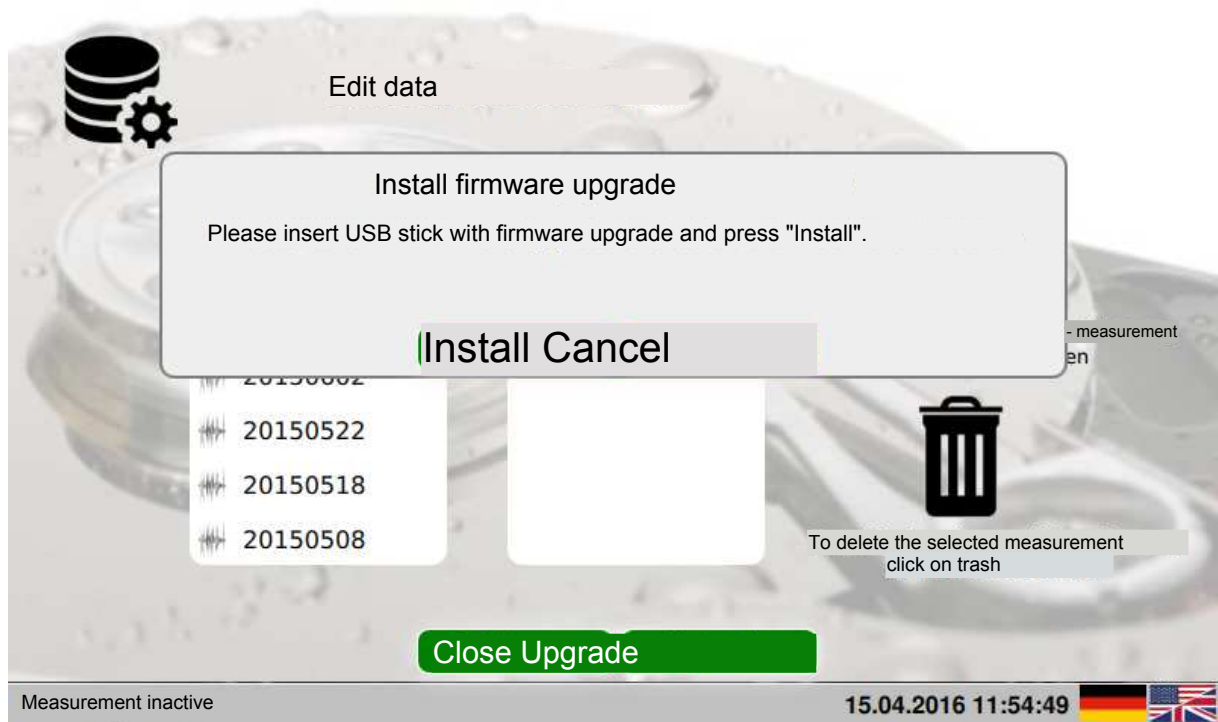
Delete: To delete a measurement, select the measurement on the left and click the trash can. The measurement will be deleted after confirming a security query.

Firmware Upgrade:

A firmware upgrade function is provided for further developments. To do this, with the USB stick containing the upgrade inserted, open the “Edit data” dialog.



Then click on the “Upgrade” button and follow the instructions.



The firmware upgrade will be provided to you by Airleader if available and required.

GSM and email delivery option:

As an additional option, the measuring case can be equipped with a GSM modem. This option allows data from the active measurement to be sent via email during the measurement. The data from the previous day is sent each night. This gives you the opportunity to create the evaluation before dismantling the measuring case. The email settings can be made in the mailing dialog.

Open the email dialog by clicking on the icon



Send data

Enter one or more email addresses (separated by semicolons).
While a measurement is running, all its data is sent to these addresses
once per day.

a.max@web.de

1 2 3 4 5 6 7 8 9 0 @

q w e r t z u i o p _

a s d f g h j k l ; .

y x c v b n m - DEL

Save Send immediately Close

15.04.2016 11:53:18

The recipient email addresses can be entered in this dialog. Multiple recipients can be specified, separated by “;” (Semicolon). Clicking on “Save” saves your entries. With “Send immediately” you can send a test email. “Close” ends the dialog. DANGER: When using the GSM option, please note that a function always depends on the reception of the GSM network.

Ch.	1	2	3	4	5	6	7	8	
Value at 20 mA									
Value at 4 mA									
Flow sensor									
Temperature sensor									
Extra pressure sensor									
System pressure sensor									
KW measurement value									Customer name
Ampere - clamp value									
Cos phi									
Motor kW									
m³/min - Maximum									Date
m³/min - Minimum									
regulated									
Load/idle									
Compressor type or Sensor type									Measuring case no.
Ch.	1	2	3	4	5	6	7	8	



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