TECHNISCHE ALTERNATIVE

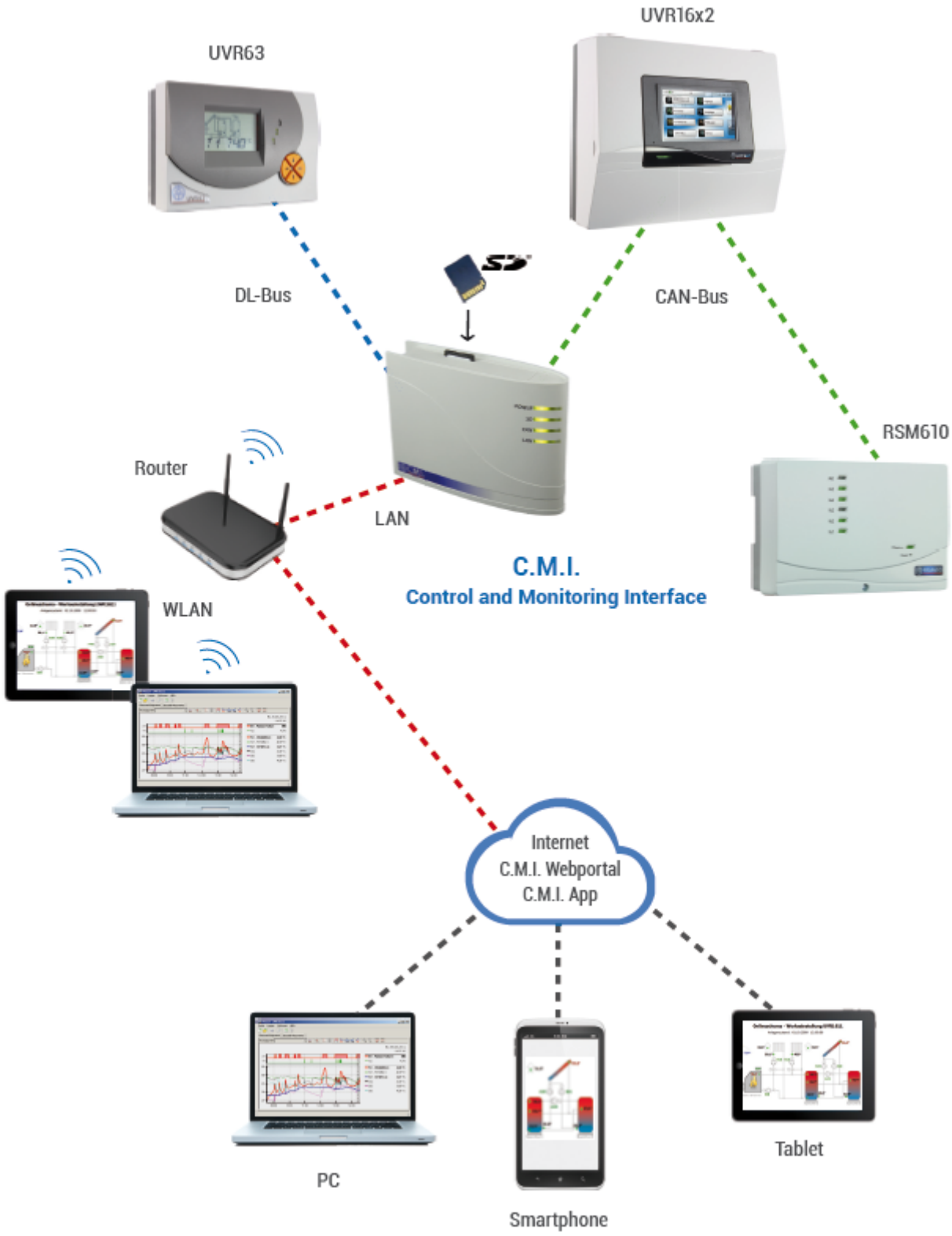
C.M.I.
Control and Monitoring Interface
Version 1.28

User manual

Hardware / General

Function

The control and monitoring interface ("C.M.I." for short) is a web server that creates a connection between a LAN network and the CAN bus components. This device makes it possible to load function data into CAN bus devices, update and remote control them, illustrate online diagrams and log data. Access can be local directly from the PC/network, via Internet and the C.M.I. web portal or via Internet through port forwarding to the router. Data logging of devices with DL Bus is also possible. It was ensured to make commissioning as easy as possible for computer novices as well.



Power supply

Operation of the C.M.I. requires 12V supply from **CAN bus or** a **12V-power pack**. Power is not supplied via DL bus.

Power consumption: typically 1.5 W

If there is only one controller (UVR1611, UVR16x2, RSM610) in the network, it is essential to use a 12 V power supply unit to ensure power to other CAN bus subscribers that do not have their own supply.

Data retention is also ensured without power supply.

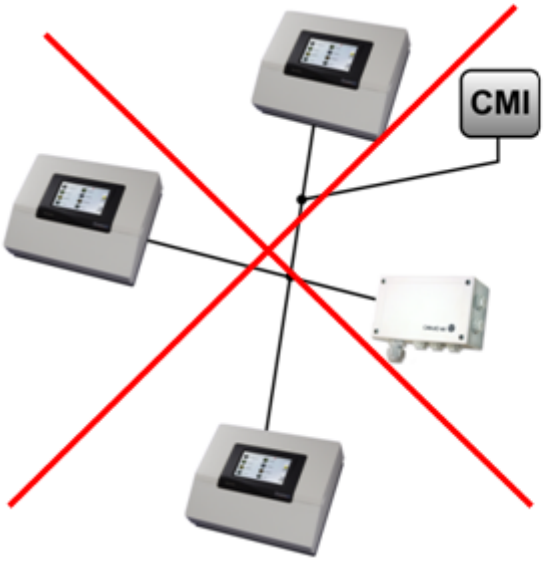
CAN bus

Next to data transfer, the CAN bus offers also the possibility to directly access the devices in the CAN network from the PC via browser.

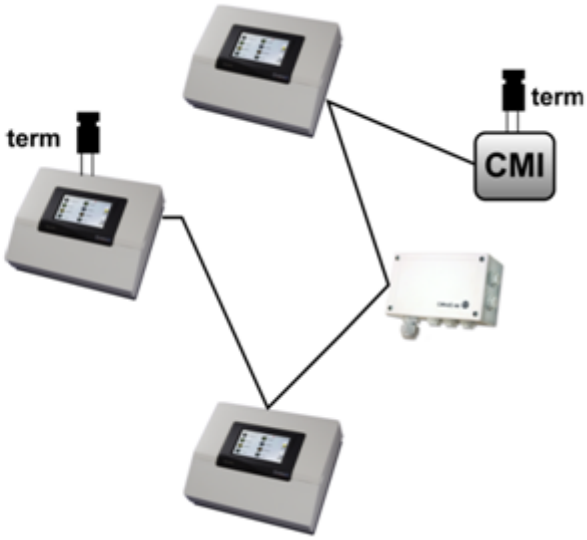
Termination

Correct termination of the buses is important for use of the CAN bus to connect several devices. The network must have **terminations** at the **ends of the lines**. For this, the C.M.I. (**next to the connections)** and each CAN bus device have an appropriate jumper (***term***). The CAN bus must never be set up in a star shape from one node or clamp to several devices. Rather, the correct topology is a bus line from the first device (with terminal) to the second and so forth. The final bus connection has the terminal bridge.

Incorrect



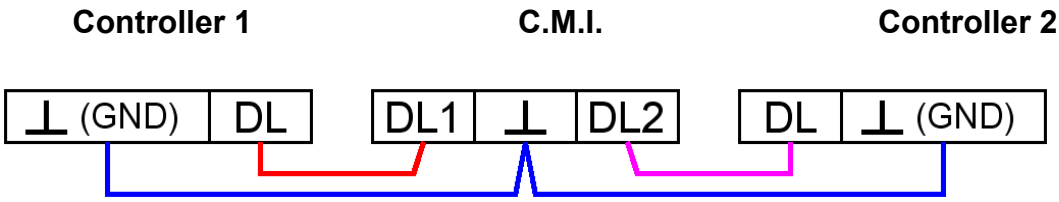
Correct



For further information on the correct topology of a CAN bus network (e.g.: cable selection, surge protection, etc.), see the controller manuals (UVR1611, UVR16x2, RSM610).

DL bus

The C.M.I. has two DL inputs for simultaneous measurement recording from up to two controllers with DL outputs.



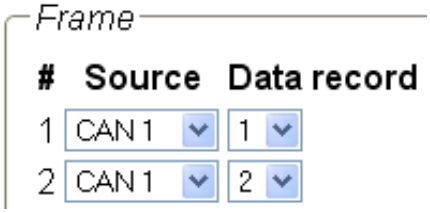
Any cable with a cross section of 0.75 mm² and a length of up to max. 30 m can be used for the data line (e.g. twin-strand). For longer cables, we recommend the use of shielded cable whereby the cable shielding must be connected with the sensor earth.
If two controllers are recorded with the C.M.I., separately **shielded** cables must be used as protection against crosstalk. The data link for the DL bus must likewise never be run in one cable with the CAN bus.

WARNING:

With controllers UVR1611K and UVR1611S, output 14 (DL) can be used either as data line or as switch output (with extra auxiliary relay). For data logging via DL bus, output 14 must therefore always be defined as a “Data line” in the “Outputs” menu.

With the controllers UVR1611 of the **E-series** (“board version“), output 14 is **simultaneously** used as switch output OUTPUT 14 and data line (DL bus). For activation, the output must be parameterised as a “Switch output”, even if the data link is to be activated. For activation of the data line, the query “UVR1611E:” must additionally be answered with ”yes” (see additional manual for UVR1611 E).

UVR1611 controllers from version A2.16 additionally enable the recording of network input variables, which are handled by the C.M.I. as a virtual second UVR1611. When parameterising output 14 as a “Data line”, the menu option *NETW.EG.=>DL.:* must be answered with *yes*. Recording of network variables is therefore not possible, if two controllers are connected with the C.M.I. (this note applies only to data recording via DL bus).
The scope for data recording of this 2nd virtual UVR1611 in the menu “**Settings/Data logging**“ of the C.M.I.s must be set like this:



Commissioning

UVR1611 compatibility information

In order to be able to access the full range of functions, the controller must have at least operating system version A3.25.

Delivery scope

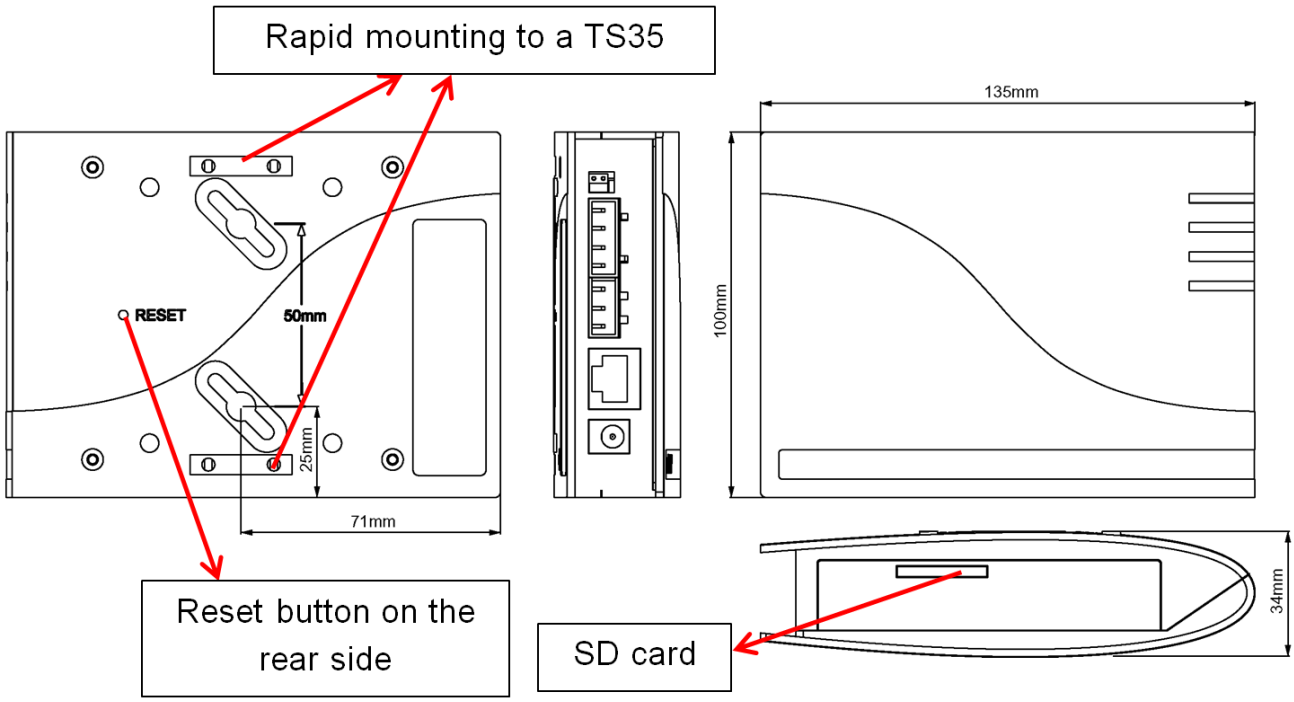
The delivery scope of the device includes the following parts:

1 pc. Control and Monitoring Interface C.M.I.
1 pc. SD card
1 pc. 4-pole plug for the CAN bus
1 pc. 3-pole plug for the DL bus
1 pc. Brief guide
1 pc. 12V power unit (only with model: 01/CMI-NT)

Mounting and connection

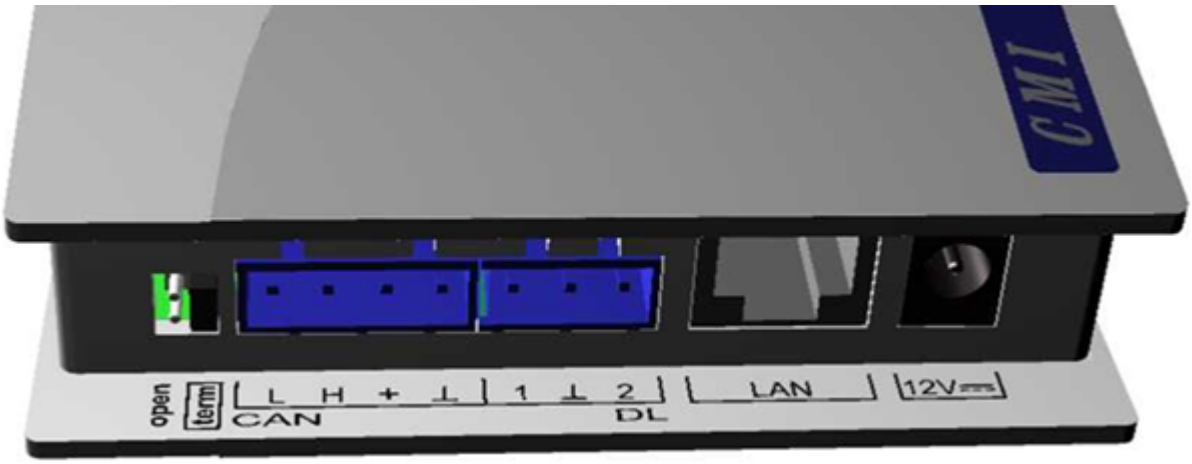
The C.M.I. can be assembled either with 2 screws on an even surface or with the enclosed rapid mounting to a TS35 DIN rail according to the EN 50022 Standard.

Dimensions:



Connections

Connections are labelled and must not be confused.
The following Figure also shows termination on the left (CAN bus).



Making the connections

Connections must be made in the following sequence

1. Connection LAN cable
2. Connection CAN bus or DL bus cable
3. Optional: power supply with power unit

(positive pole on the internal conductor, earth outside)

The **POWER** LED now has to be **green permanently**.

IP-Address
Access requires an IP address.

Network with DHCP server (standard)
The network settings are determined **automatically**.

Network without DHCP server
Direct C.M.I. connection– Windows PC
DHCP must be activated on the PC.PC and C.M.I. automatically gets an IP address this way. This process can take more than 1 minute.

Fixed IP address
1. Create a **Text file** called **fix_ip.txt** with the required IP address and UTF-8 encoding in the root directory of the SD card. The content of this file must be only an IP address (example: 192.168.0.10) and "Enter".
2. Insert the SD card in the C.M.I.
3. During the next start, the C.M.I. adopts this IP address and deletes the txt file on the SD card.
The network settings must then be configured locally (C.M.I. menu Settings/Ethernet).

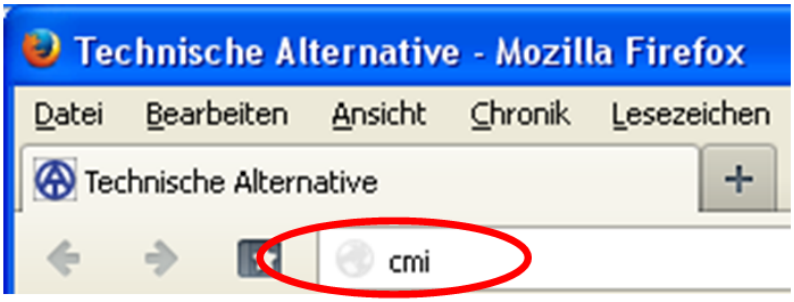
The **LAN** LED now has to **flash green or be green permanently**.

Access via browser

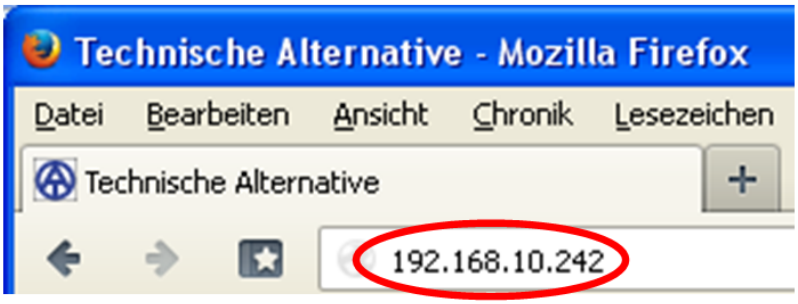
Access via LAN or port forwarding

1. Browser start

2. Entry in the address field of the browser: **cmi** (factory setting, only under Windows) or **IP address**



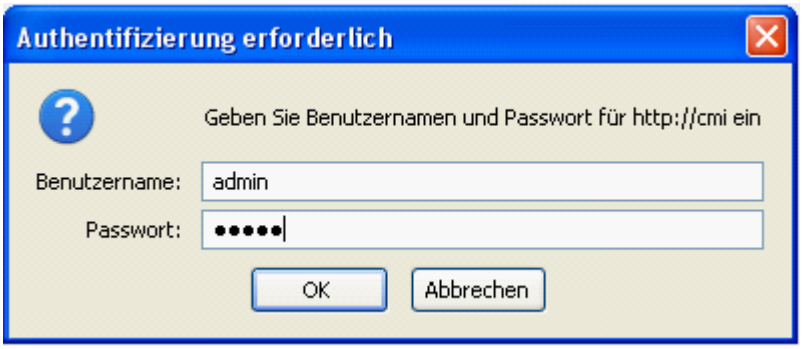
Entry „cmi“



Entry IP address (example)

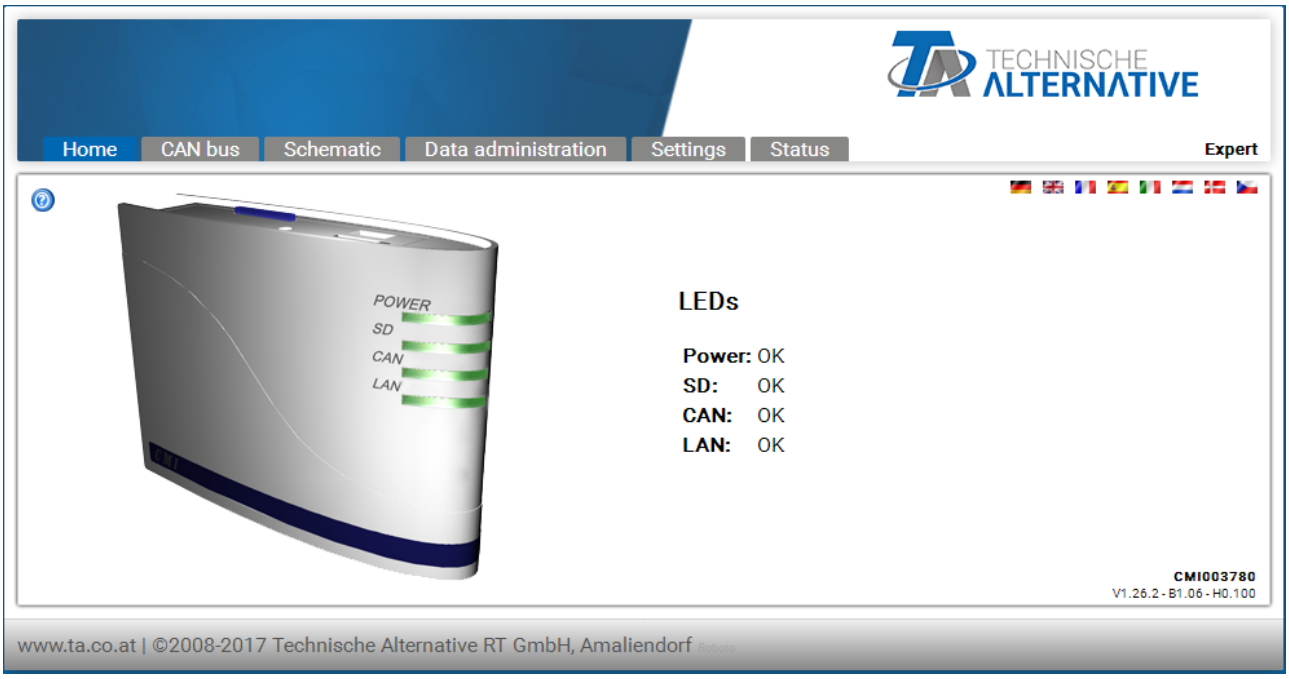
The language in this window depends on the language setting in the PC operating system.

3. Authentication: Entry user name and password



The **factory-set** predefined user name is **admin**, the password also **admin**.
Confirmation with "**OK**".
The language in this window depends on the language setting in the PC operating system.

4. Now the **menu** of the C.M.I. appears already.

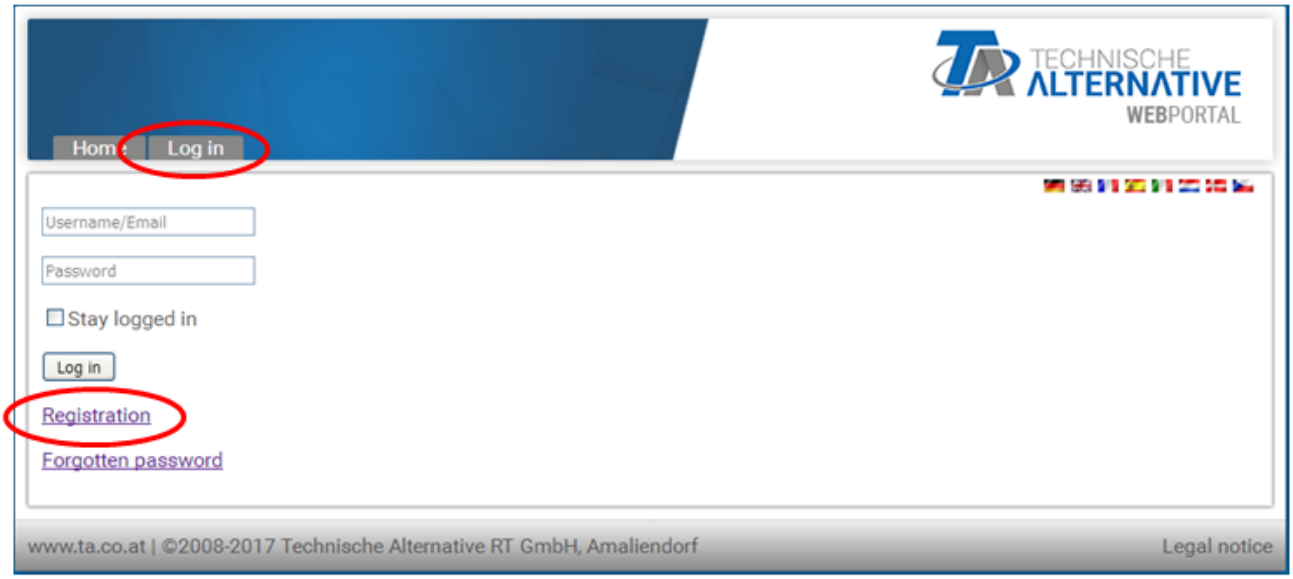


Further operation is described in chapter "C.M.I. menu".

Access via C.M.I. web portal https://cmi.ta.co.at

IIf you want access via **Internet**, then the C.M.I can be connected via "„**C.M.I. web portal**". The C.M.I. web portal is a server that was set up by Technische Alternative.

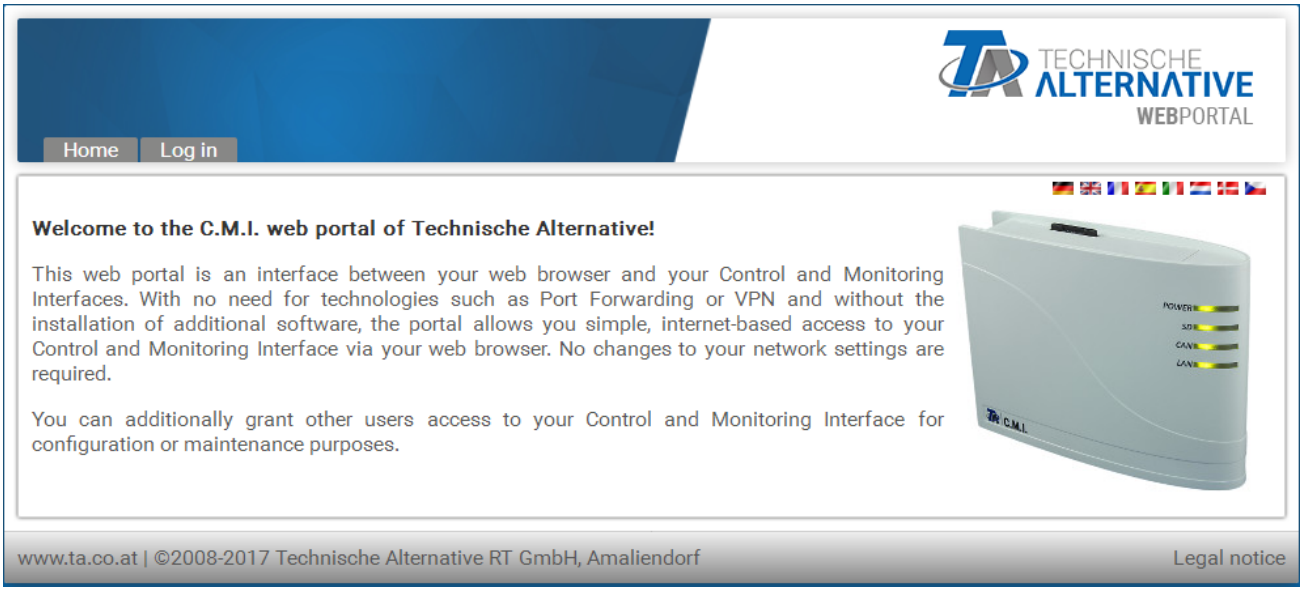
1. Select the address https://cmi.ta.co.at, „**Log in**" and click "**Registration**".



2. Completing the registration form and accepting the terms of use

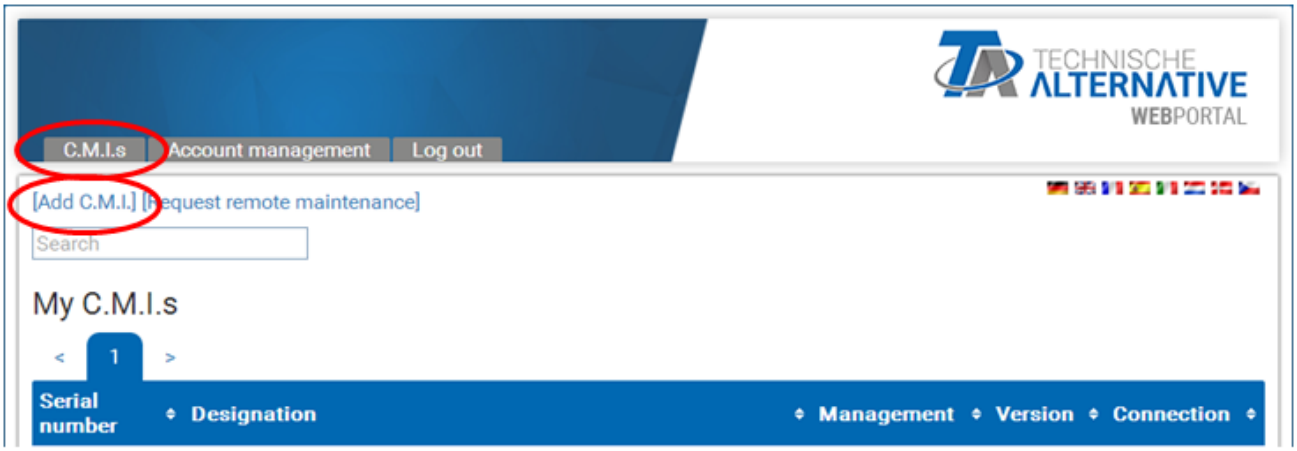
3. After completing registration, an e-mail with an activation link will be sent to the e-mail address used for registration. This process can take up to 30 minutes.

4. After clicking the link, the **start page** of the web portal is displayed already.

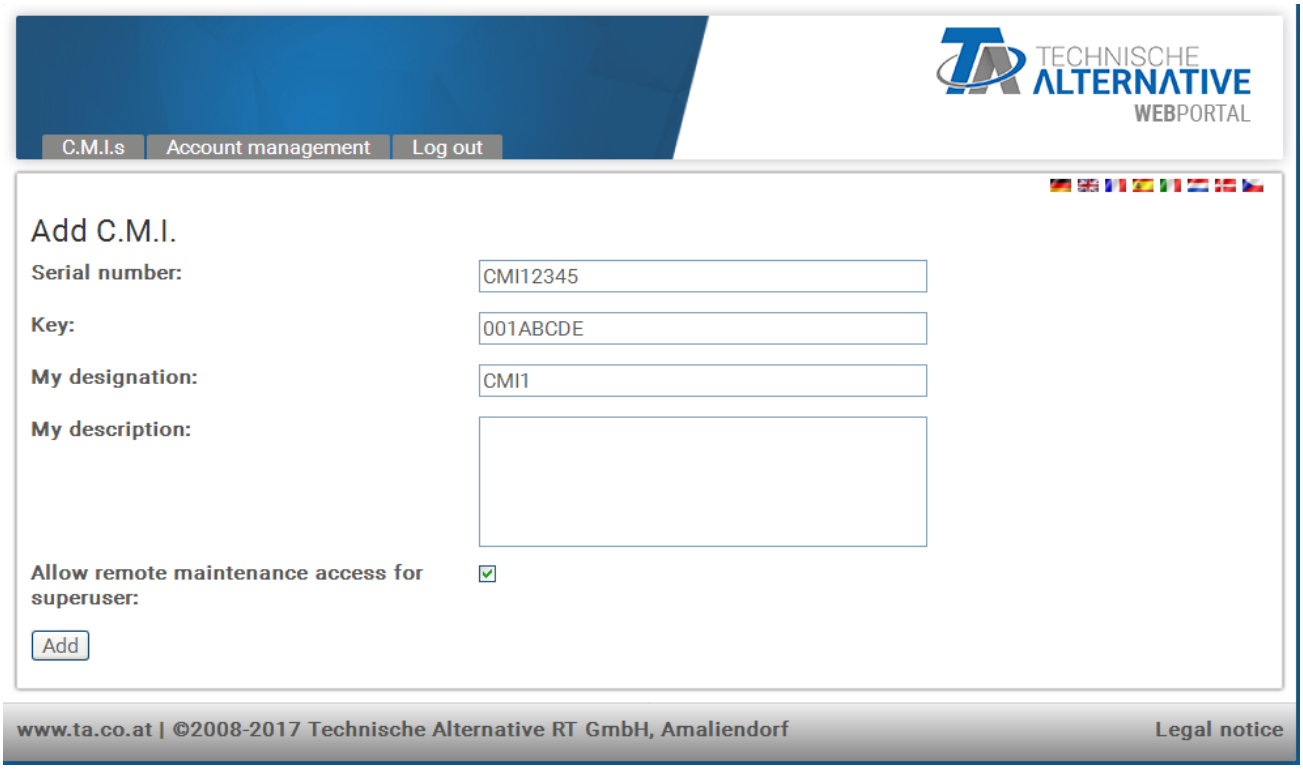


5. Adding the C.M.I. in the Web portal
Selection of the tab "**C.M.I.s**"

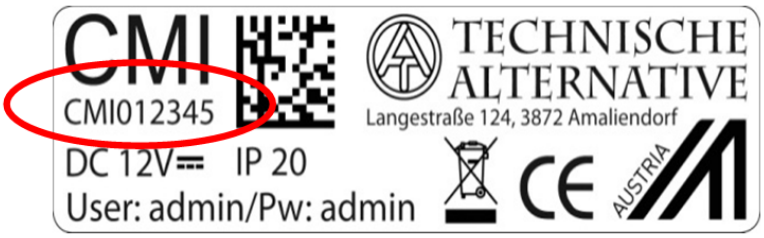
6. Selection "**Add C.M.I.**"

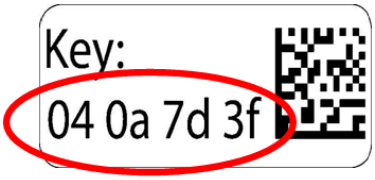


7. Entry of C.M.I. data



On the rear of the device is the **serial number** on the rating plate and the **key** on the key label. The key must be entered **without spaces**.



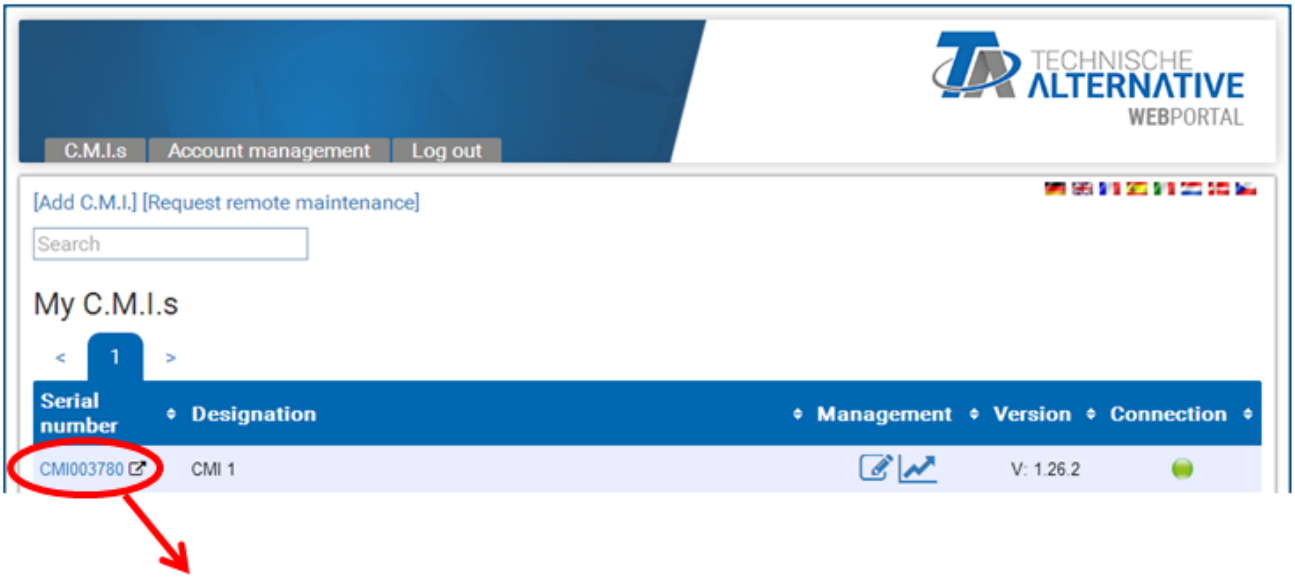


Caution: All warranty and guarantee claims become void if the rating plate or key label is removed!

The "**Designation**" helps with the selection of several individual C.M.I.s and is visible in the list of individual C.M.I.s. If service by the **super user** (e.g. Technische Alternative) is to be allowed **at all times**, the appropriate field will be checked.

After clicking on “**Add**“, a message about successful addition is displayed. After updating the page, the C.M.I. appears in the list “My **C.M.I.s**“.

8. After updating the page, the C.M.I. appears in the list “**My C.M.I.s**“.



Clicking on the serial number takes you to the C.M.I. menu.

Further operation is described in chapter "C.M.I. menu".

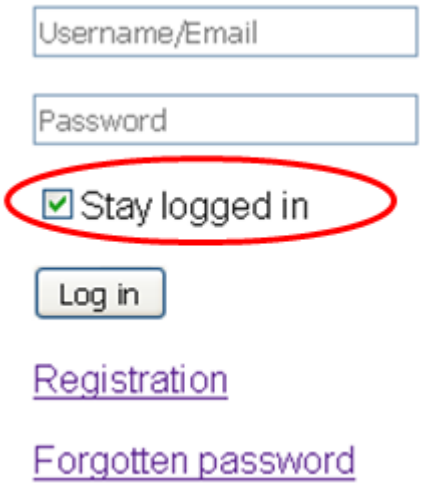
Resetting and loading of factory settings

Briefly pressing the reset key on the rear of the C.M.I. restarts the C.M.I. (reset).
If the reset button is pressed and released while the red LEDs are still illuminated, resets the C.M.I. to factory settings.
Caution: Pressing the reset button until the red LEDs stop being illuminated starts a firmware update with the C.M.I. operation system saved to the SD card. Up to boot sector 1.04, the current firmware in the "UPDATE" folder of the SD card must be called "**CMI.BIN**". From boot sector 1.05 onwards, it must be called "**FIRMWARE.cmi**". You can identify whether the boot sector is 1.05 or above by 4 red LEDs, which begin to glow faintly when the device is started.

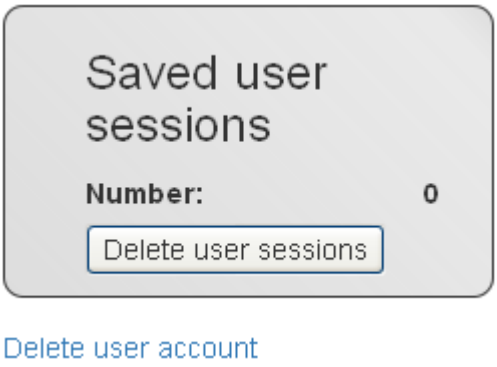
Web portal cmi.ta.co.at

Menu Account management

Contact information and password can be changed in this menu.
The current password must be entered to finalise **every change**.
It is also possible to delete the user.
During the log, it can be specified that the user always stays logged in when selecting the web portal:

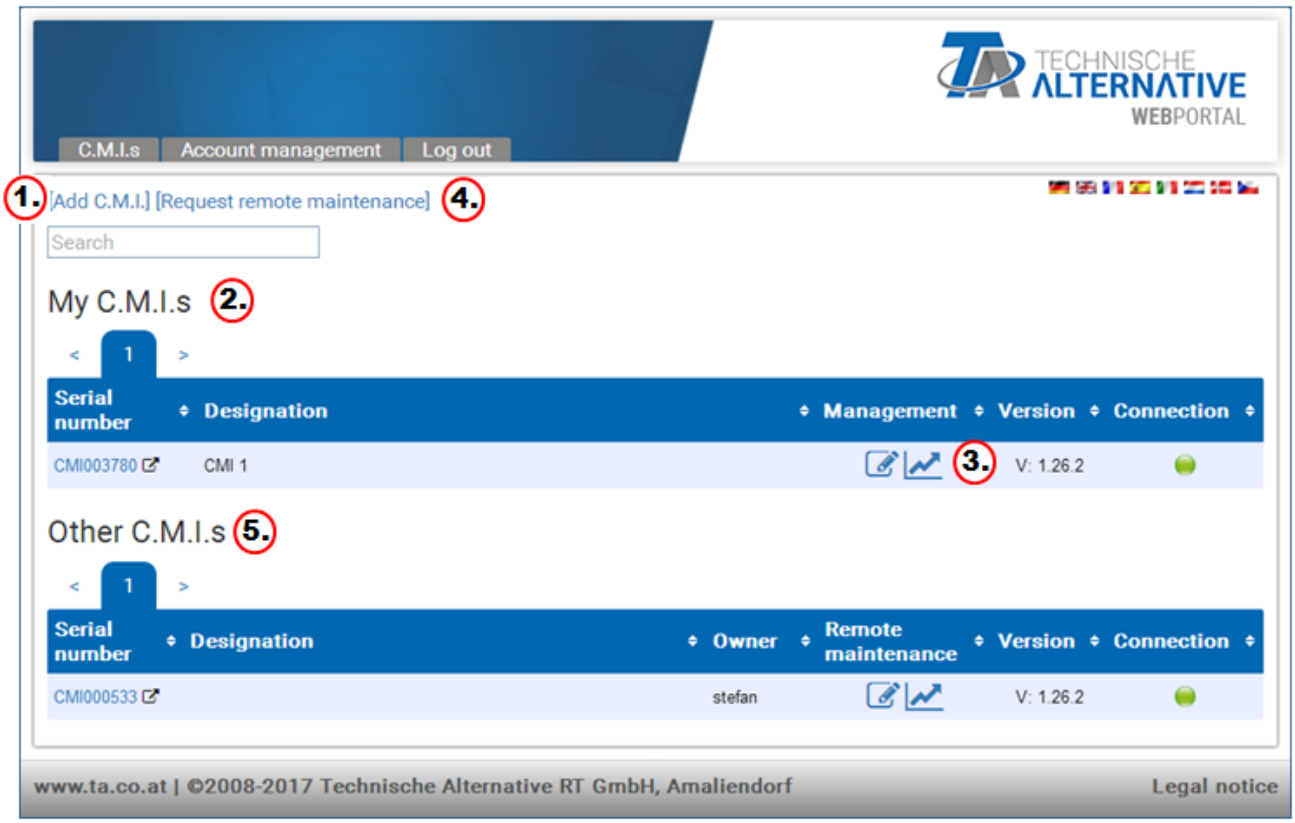


All saved user settings can be deleted in the account management menu.



Menu C.M.I.s

Example of a user who already has registered an individual C.M.I. (CMI003780) and to whom **another user** (stefan) has granted access to his/her C.M.I. (CMI000533):



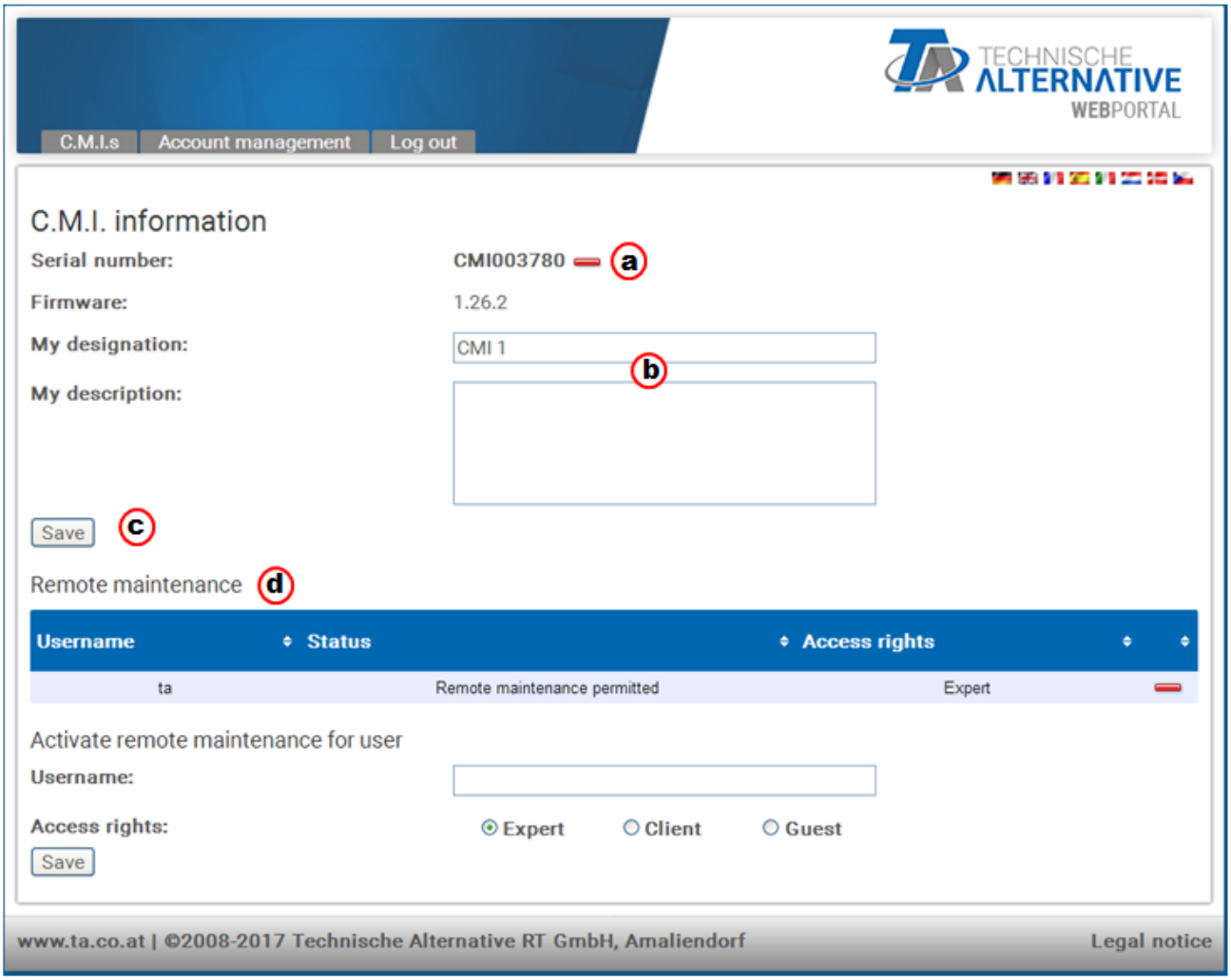
1. Add C.M.I.

This application is described in the chapter “**Access via C.M.I. web portal https://cmi.ta.co.at** “.

2. My C.M.I.s

All C.M.I.s of the logged in user are listed here with a shortcut.
Clicking on the serial number takes you to the C.M.I. menu (see chapter “**C.M.I. menu**“).

3. Management

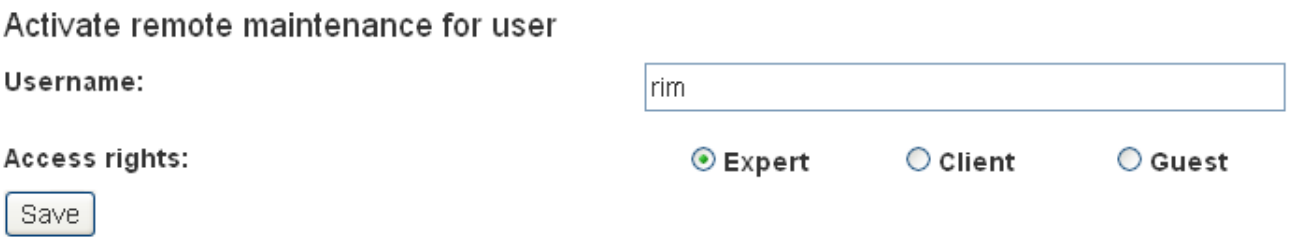


a) Clicking on the **-** next to the serial number **deletes** this C.M.I. and it can no longer be selected.

b) The summary and the description of the C.M.I. can be changed here.

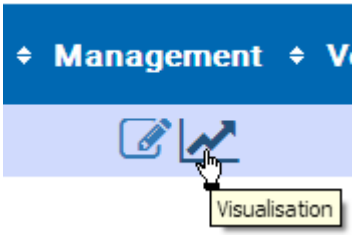
c) Click on "**Save**" to finalise changes.

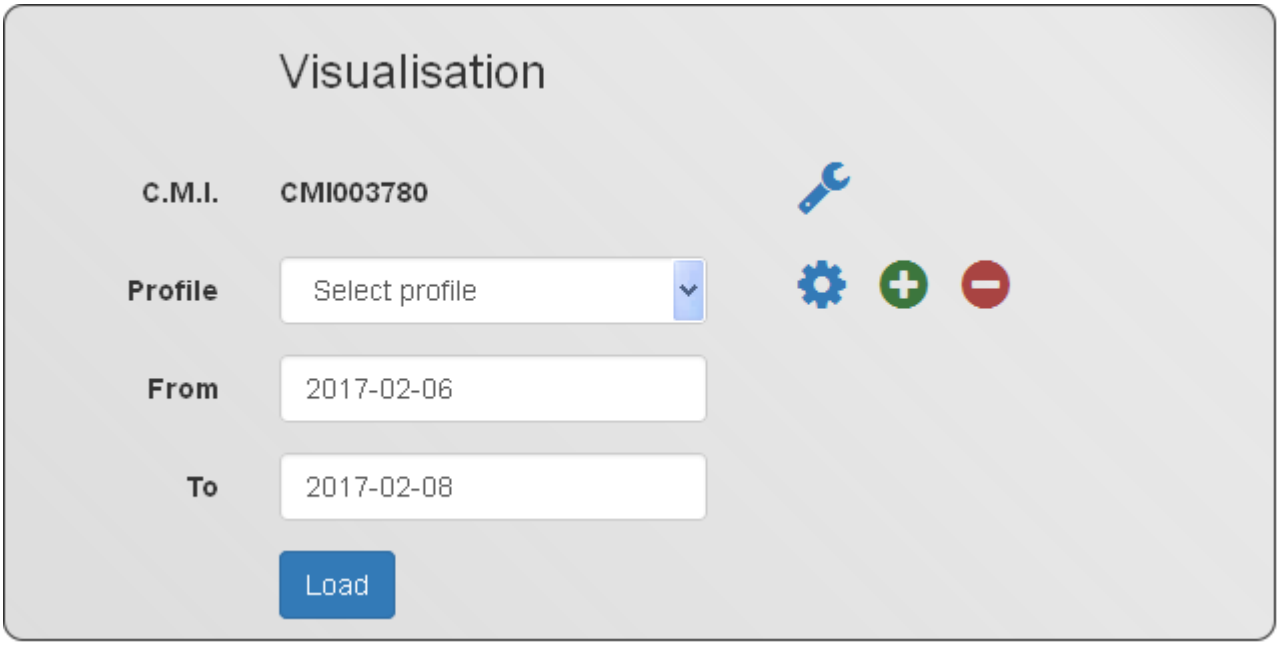
d) In the submenu "**Manage**", remote maintenance can be authorised **directly** for another user whose login name is known.
Example: The user with the login name "**rim**" is granted permission for remote maintenance as an expert.



The released C.M.I. for which remote maintenance as expert was granted is now shown to user “**rim**“ in the menu “**C.M.I.s**” under “**Other C.M.I.s**“.

4. Visualisation





Under "**Visualisation**", **datalogging** can be set up and visualised via the web portal: cmi.ta.co.at. This option is only available for C.M.I. version 1.26 onwards.
Datalogging via the web portal is independent of the C.M.I.'s CAN datalogging.
For online datalogging, any existing firewall must not block outgoing port 40003.

The following devices can be logged:

- **UVR1611** (only inputs and outputs and network inputs and outputs)
- **UVR16x2**
- **RSM610**
- **CAN-I/O 45**
- **CAN-EZ2**
- **CAN-MTx2**

Settings can only be made by the **owner** of the C.M.I. (displayed under "**My** C.M.I.s") **or** by an **expert** for whom the C.M.I. has been enabled (displayed under "**Other** C.M.I.s").

Owners can:

- Alter logging values
- Create display profiles
- Enable display profiles for experts / users / guests / nobody
- Create diagrams
- Edit/delete display profiles enabled by an expert

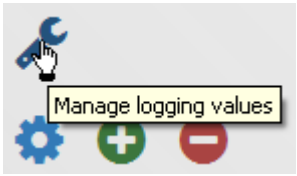
Experts can:

- Alter logging values
- Create display profiles
- Add their own display profiles for the owner
- See and edit the owner display profiles if these are enabled by the owner
- Create diagrams

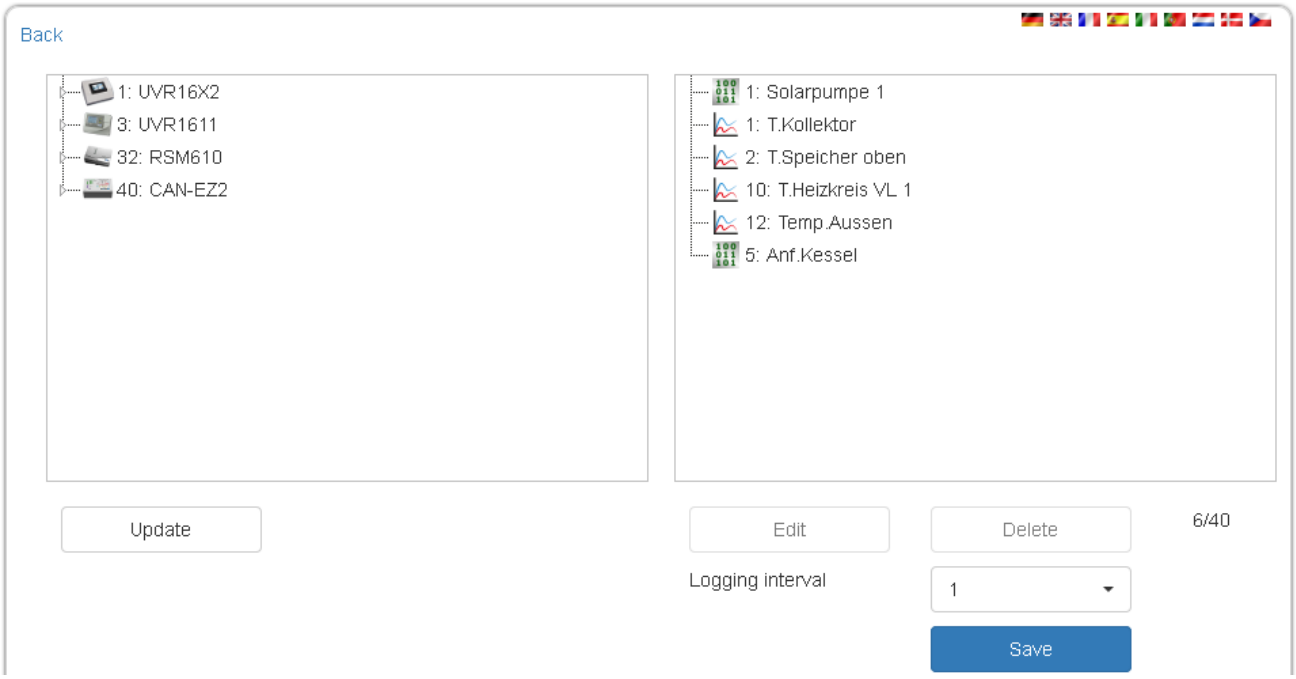
Users/guests can:

- See display profiles enabled by the owner
- Create diagrams

Managing logging values



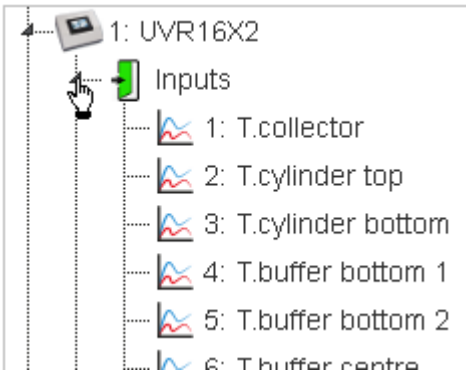
Before profiles can be defined and diagrams can be loaded, the logging values must be set.
This menu is used to determine which values should be logged. Up to **40 values** (analogue or digital) can be selected.



Inserting

It is possible to log values for the 4 available devices in this system.

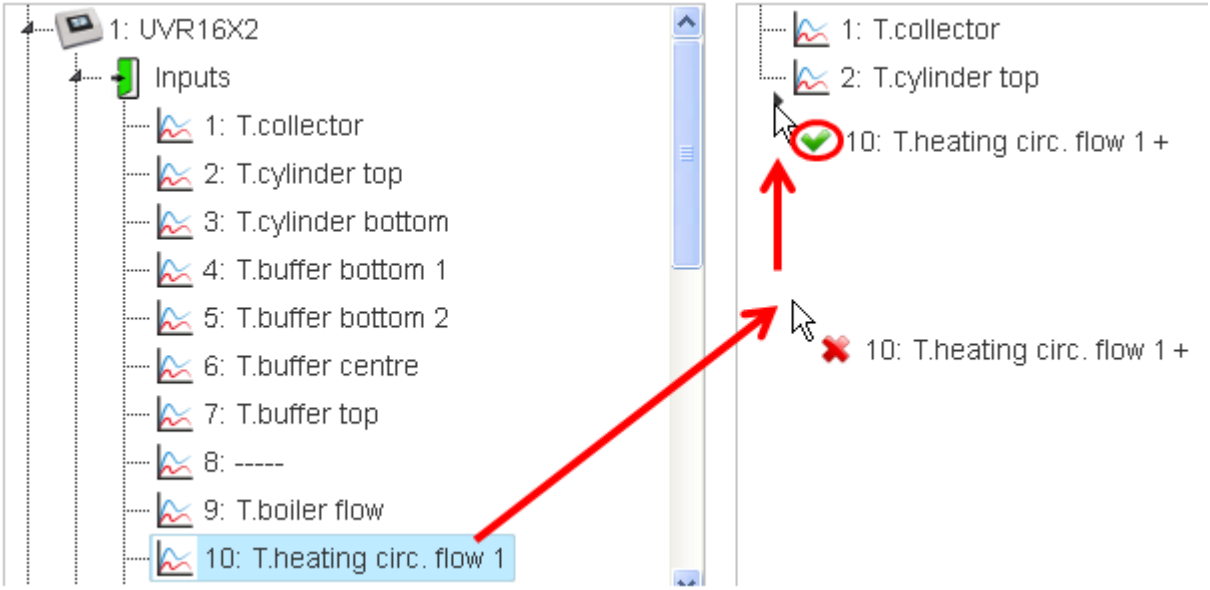
Clicking the **small triangle** next to the device or the submenu opens up the search tree further.



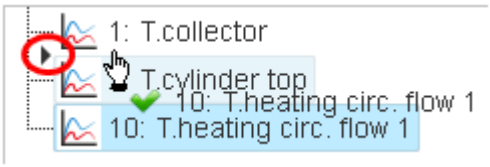
Now the values to be logged can be dragged into the **right-hand** field using **drag & drop**.

It is also possible to select **several values** and drag them into the right-hand field at the same time by clicking them whilst holding down the **Shift** or **Ctrl** key.

Additional values must be dragged into the area for the logging values which have already been created. When this has been done, a green tick appears in place of the red cross and the mouse pointer turns into a hand.



Select and move the logging values to change the **order**.

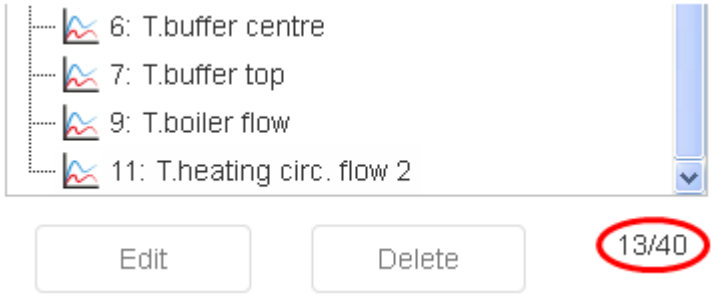


The value for **T.heating circ. flow 1** is moved up a row.

Similarly, all values offered in the search tree can be selected for logging (inputs, outputs, functions, CAN bus, DL bus).

Analogue and digital values are identified by corresponding icons.

The **number** of logging values already inserted can be seen at the bottom right.

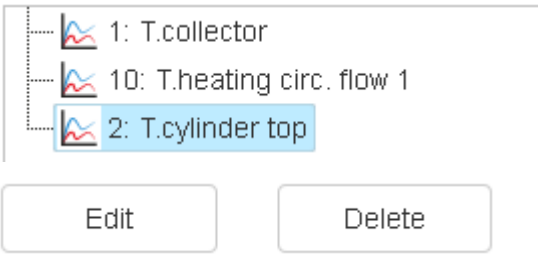


In this example, 13 out of 40 possible logging values have been inserted.

Special cases for outputs:
Mixer outputs could not be logged.
Both a digital value (ON/OFF) and an analogue value (speed stage) can be selected for **variable speed** triac outputs (wave packet control).

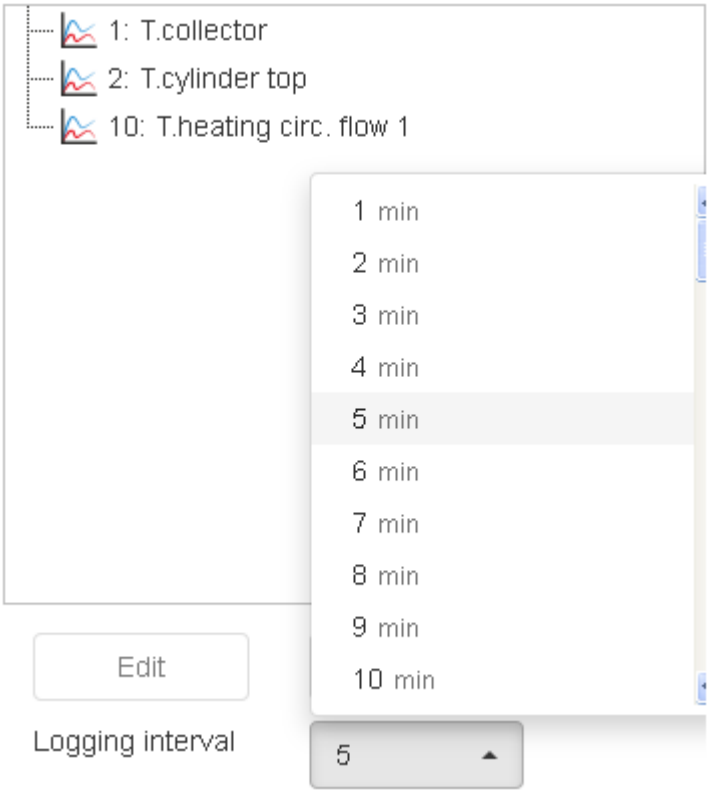
Editing/deleting

Selected logging values can be **edited** (designation changed) or **deleted**.



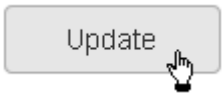
Edited designations then apply to all display profiles as well.

Logging interval

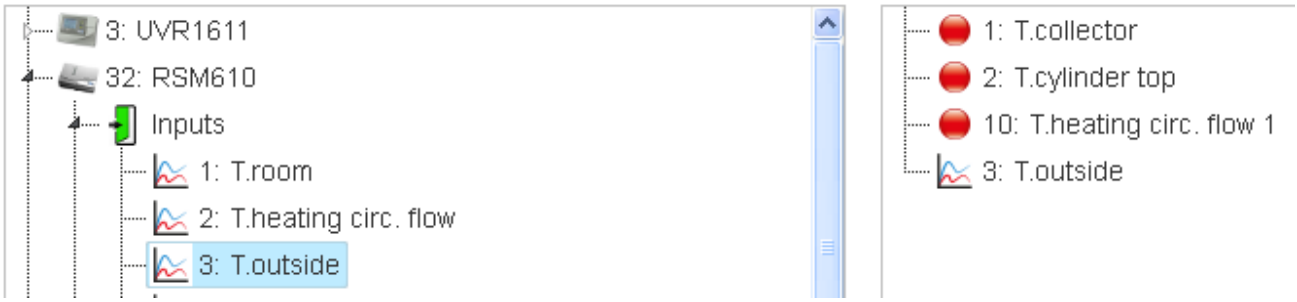


The logging interval can be set to between 1 and 60 minutes.

Updating



In the case of a CAN node failure (logging values for this node are displayed as 0 in the diagram), **"Update"** checks whether all values to be logged are able to be called up.
Example: The node for the first three values, which are shown with a red dot, has failed. The node for the fourth value is active.



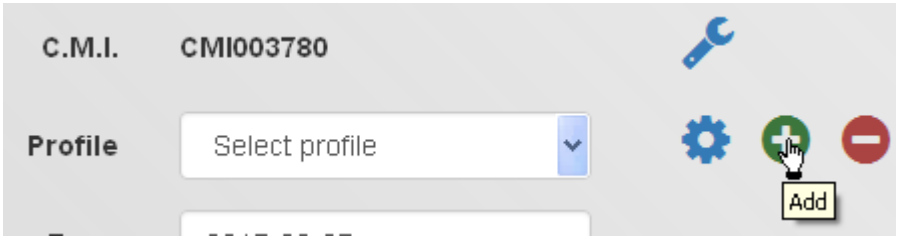
Saving

All settings for this menu are only saved once the Save button has been pressed.

If saving is successful, a message appears at the bottom.

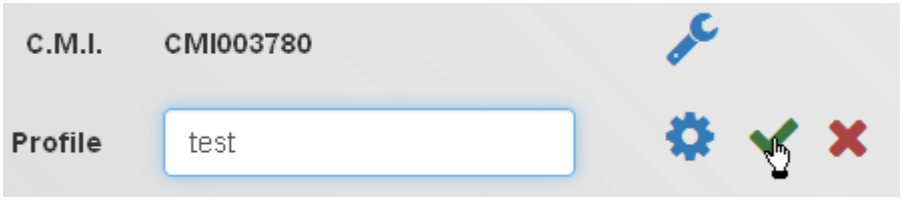
"**Back**" takes you to the visualisation window.

Adding a profile



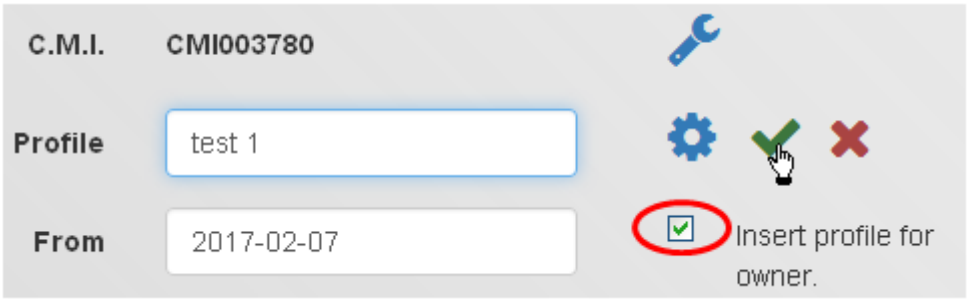
To be able to create a profile, logging values should have already been defined (see chapter "**Managing logging values**").

Specifying and confirming the profile name

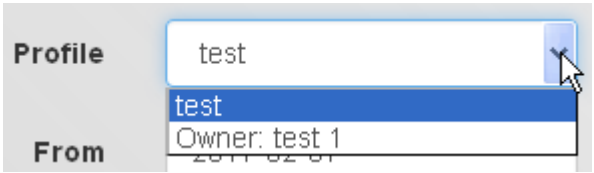


Once you have entered the profile name, click the tick.

If the profile is successfully added, a message appears to this effect.



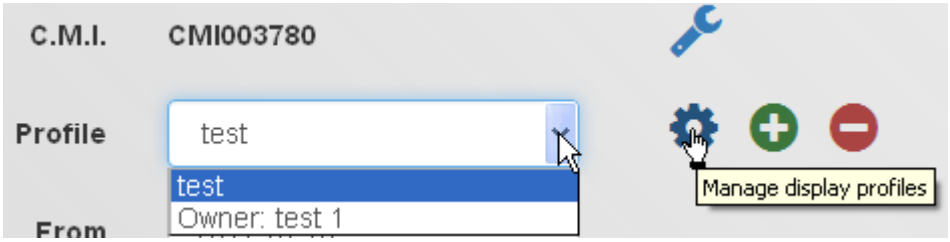
If the profile is created as an **expert** for whom the C.M.I. has been enabled (displayed under "**Other** C.M.I.s"), then the user can determine whether a new profile should be inserted **for the owner** or whether it should be visible **only to the user**.



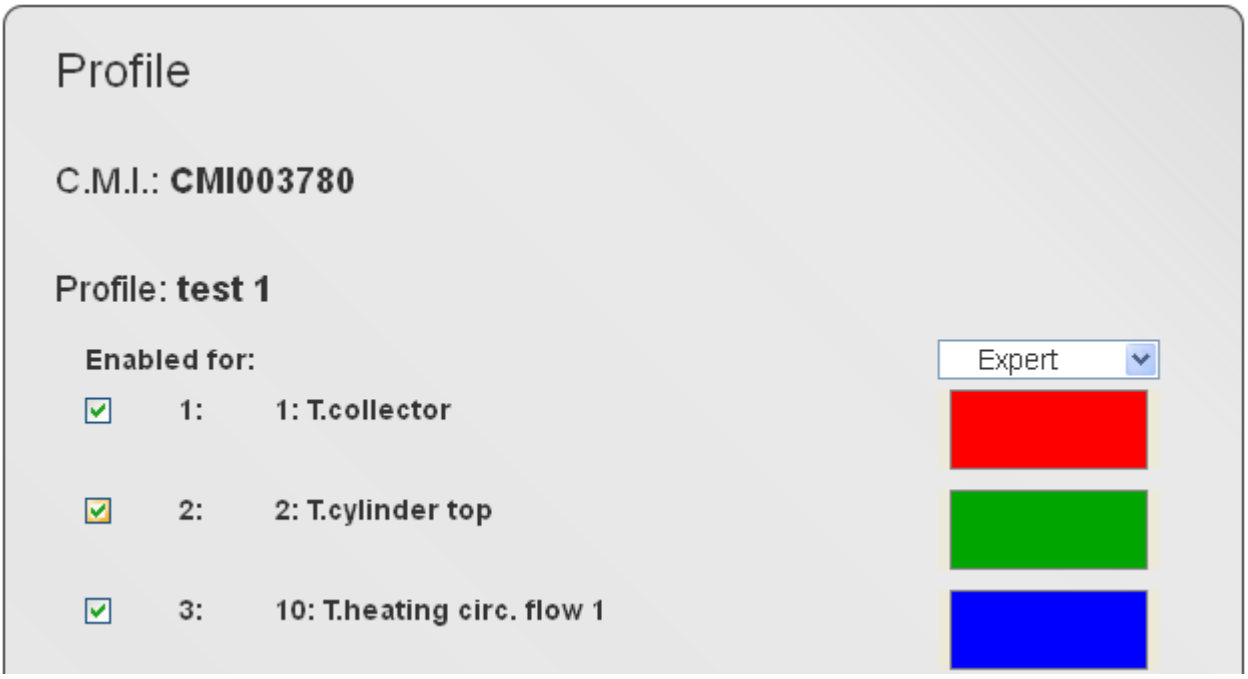
The **expert** can select all profiles they created or profiles which were created by the owner and enabled for the expert. To show whether the profile was created by the owner **or** by the expert using "Insert profile for owner", the additional information "**Owner**" is visible to the **expert**.

The profile must **first be created** before it can be managed (see chapter "**Managing display profiles**").

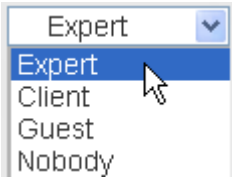
Managing display profiles



After selecting the required profile, click the "**Manage display profiles**" icon.



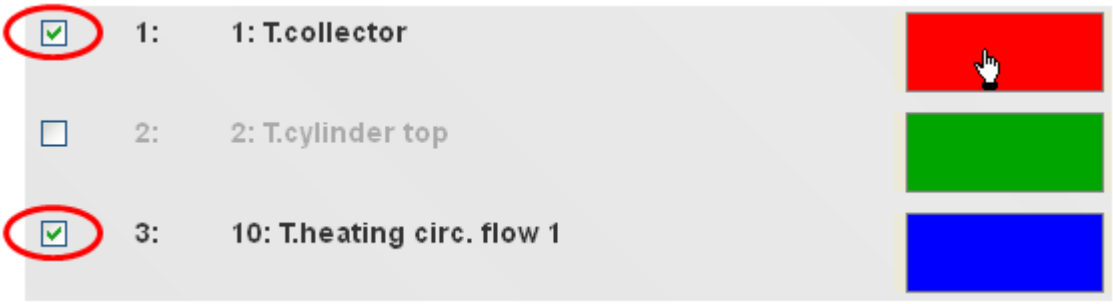
Enabling

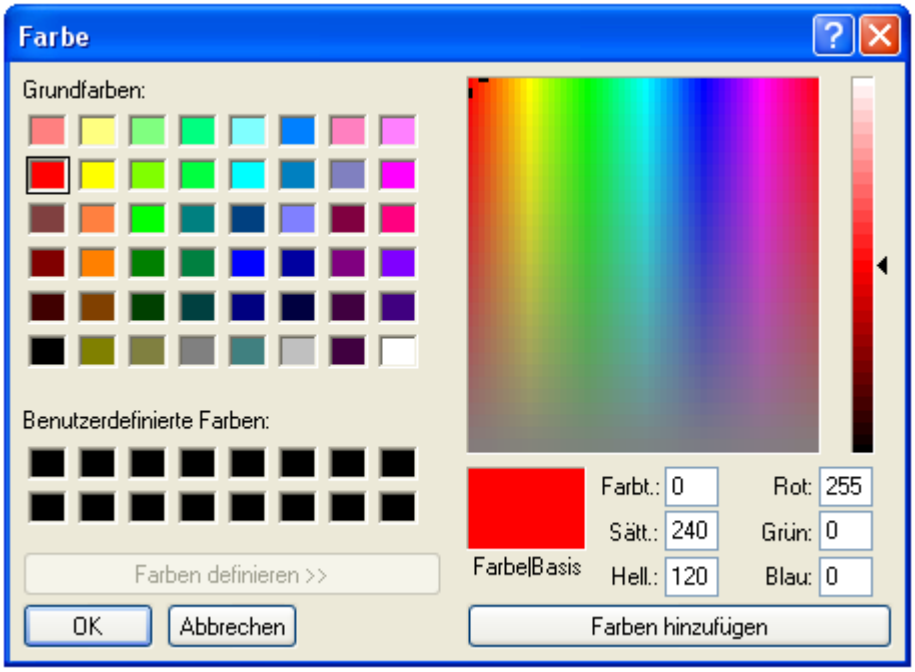


The **owner** can enable the profile for experts, users or guests (who have permission to access the C.M.I.) or for nobody. Chapter "**Visualisation**" describes which actions the respective user is permitted to carry out.

Selecting diagram values

The values which should be displayed in the diagram are selected using a tick.





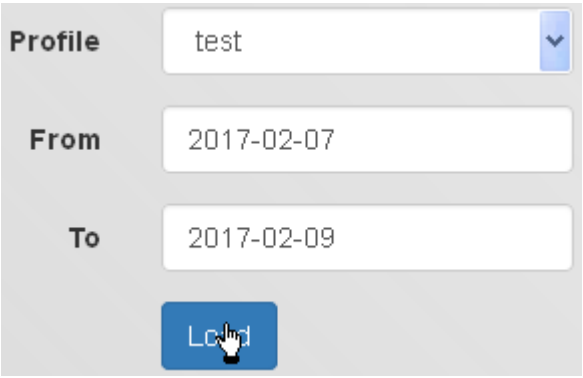
Clicking the **colour** opens up a selection window where a different colour for the graphs can be chosen.The language in this window depends on the language setting in the PC operating system.

Once all values for the diagram have been defined, click "**Save**" **at the end of the list**.

If saving is successful, a message appears to this effect.

"**Back**" takes you to the visualisation window.

Loading the diagram



After the **profile** and **display period** have been selected, click "**Load**".

With a logging interval of **1 minute** (setting under "**Manage logging values**"), after a period of **7 days** logging values are filtered for the display, in order to prevent the diagram from taking too long to load. This means a maximum of **10080** (= 7 x 24 x 60) logging times are displayed in one diagram. If more specific graphs need to be displayed, a shorter period must be selected.

The logged values are retained as follows:

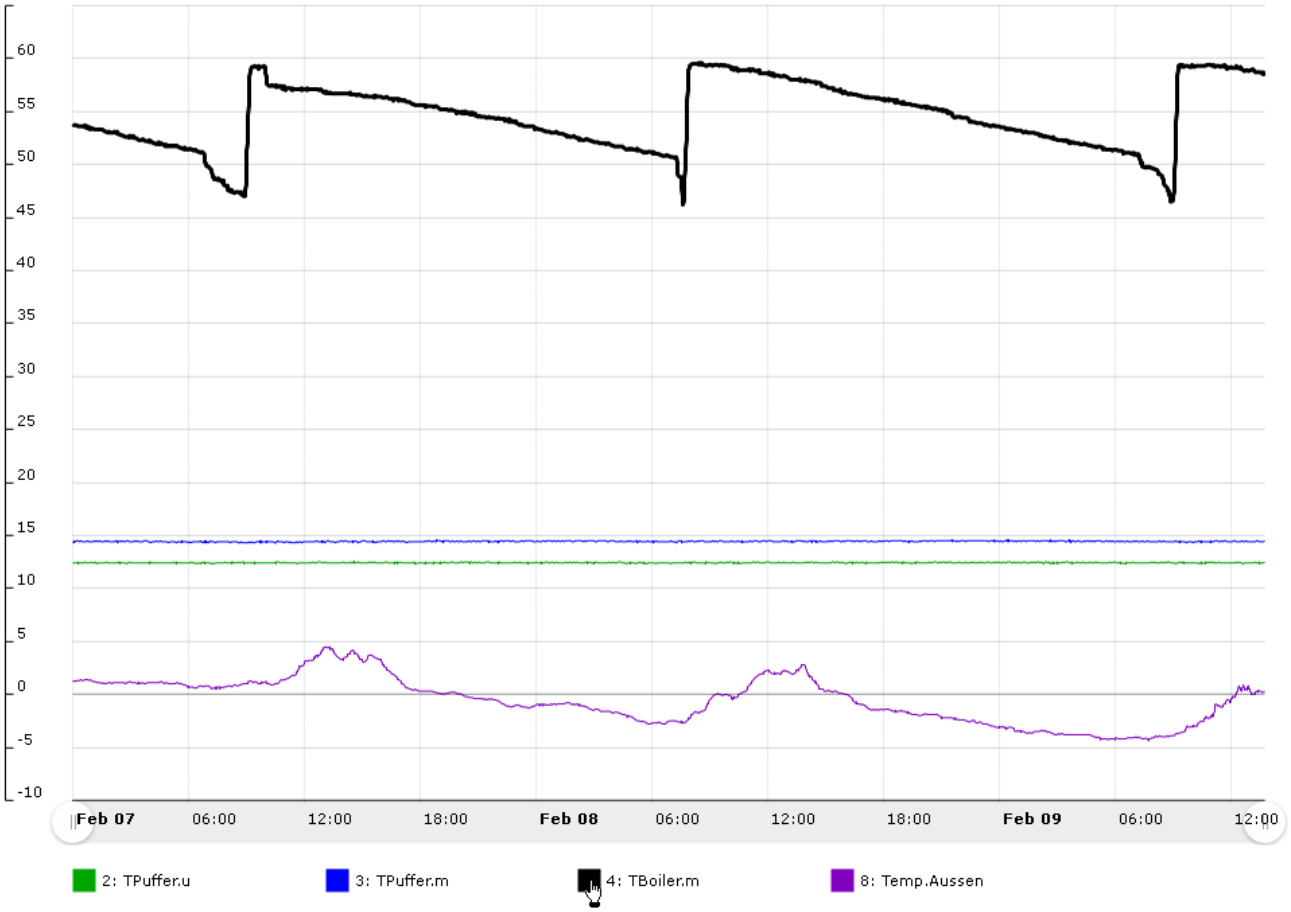
Less than 3 months old	1 value/minute
More than 3 months old	1 value/2 minutes
More than 12 months old	1 value/5 minutes
More than 18 months old	1 value/10 minutes
More than 24 months old	1 value/30 minutes

This means that with older data, intermediate values are deleted from the memory, so that after 24 months only all of the 30 minute data times remain.

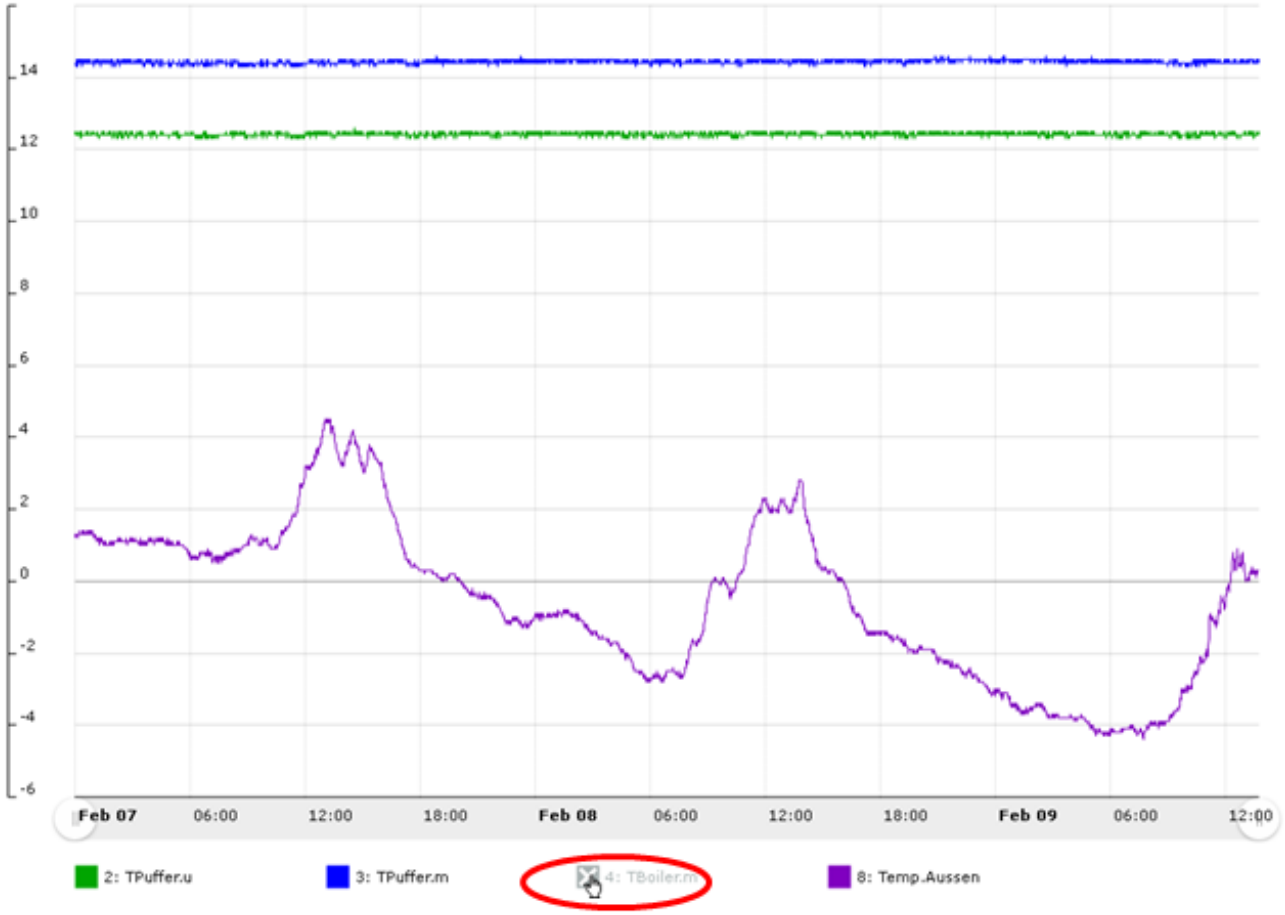
Example:

The **scale** for the analogue values is set automatically according to the **highest** displayed value.

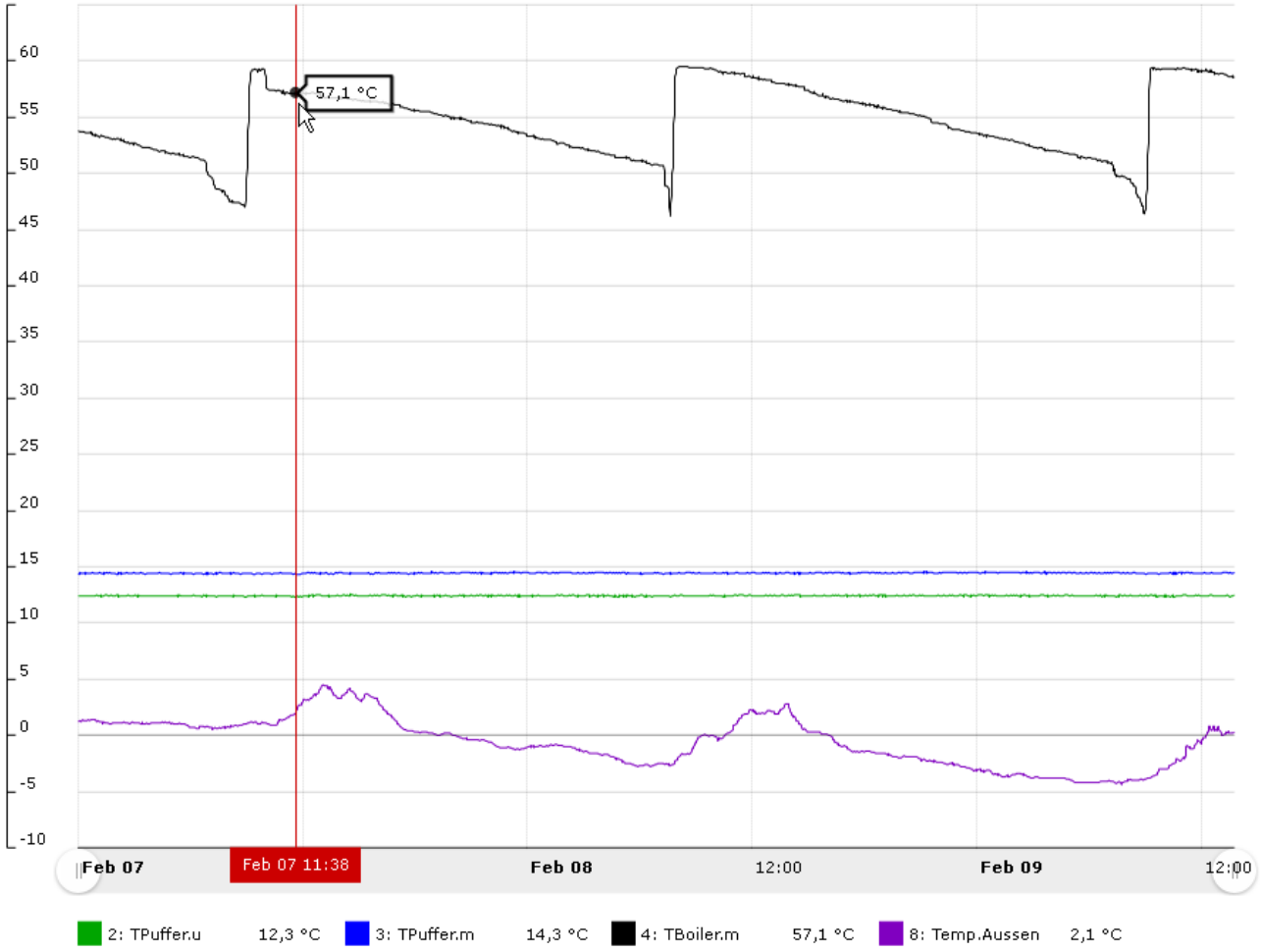
If the cursor is placed over a value, the relevant value is shown in **bold**.



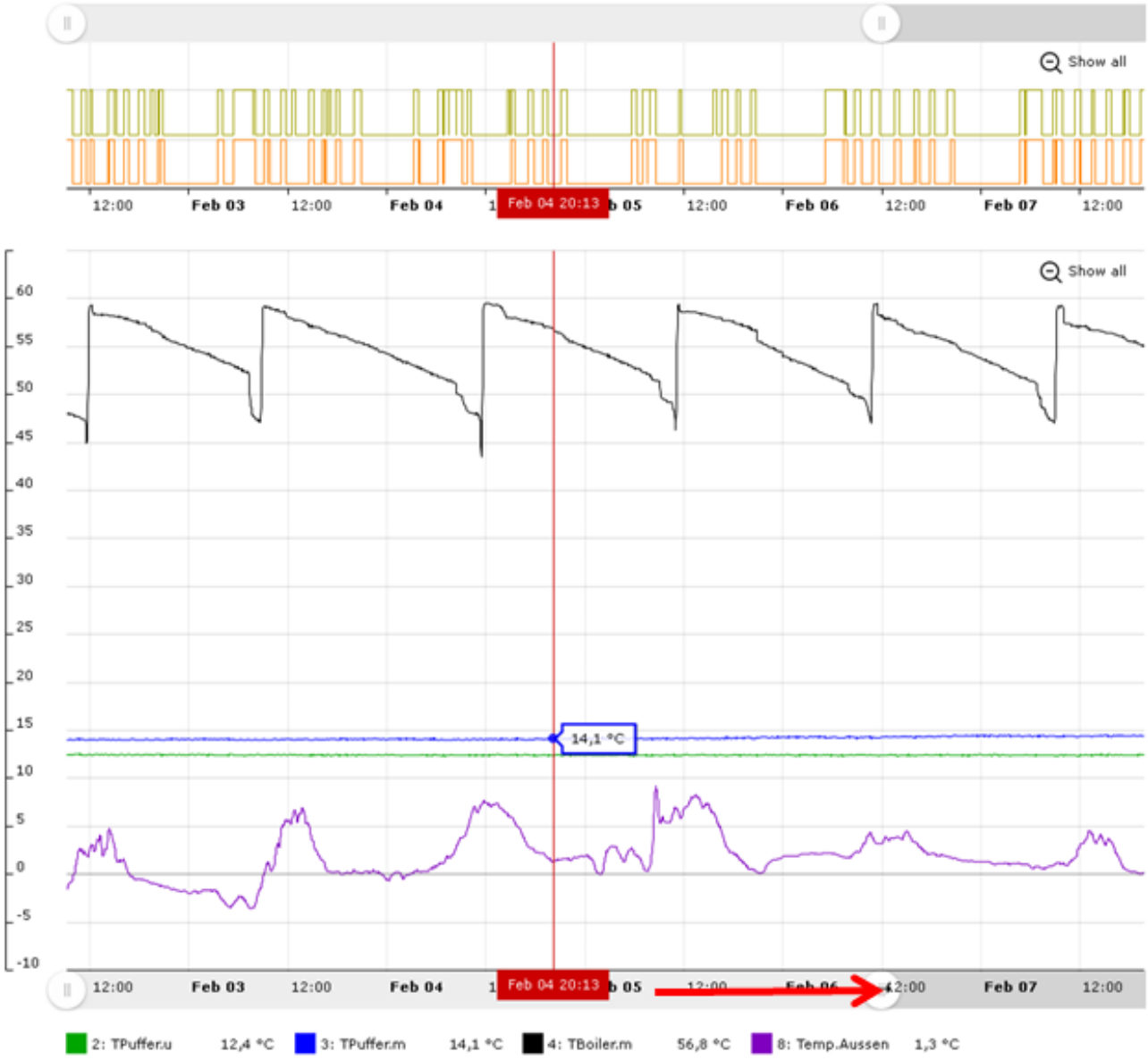
Clicking the icon **hides** the value and the scale is adjusted to the highest displayed value.



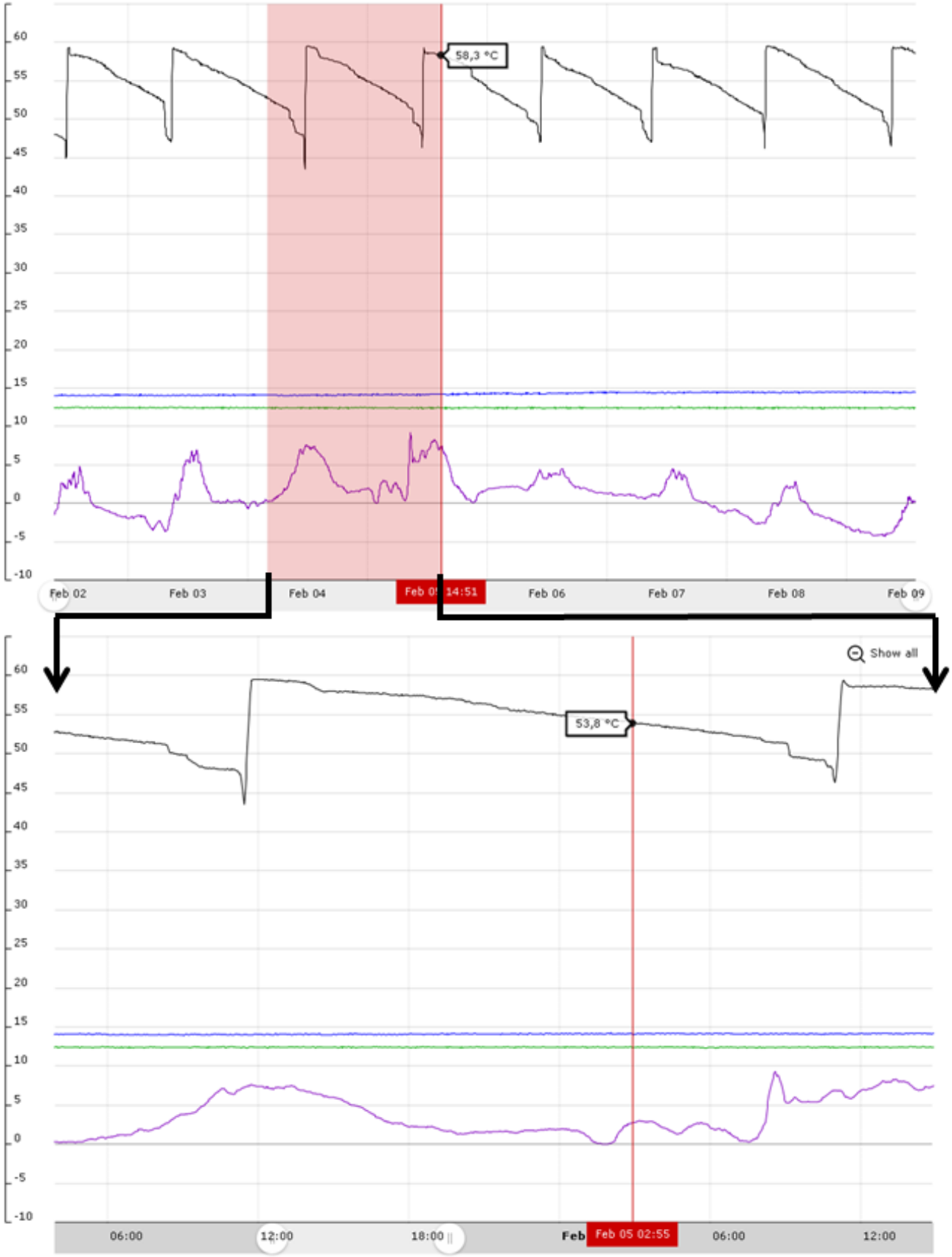
Moving the cursor onto the diagram displays a **time line** with time and date information and the **value** nearest to the cursor for this time point.



It is possible to **zoom in on the time axis** by dragging one of the dots shown by the red arrow.

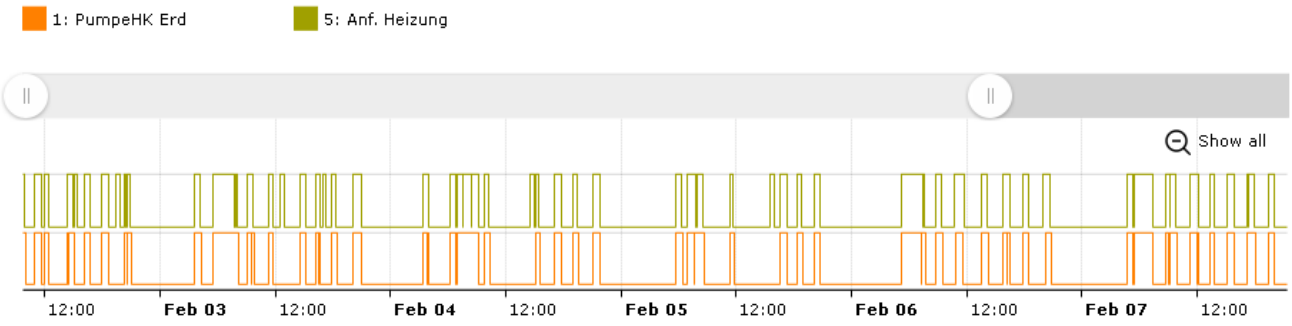


Dragging the **time line** in the diagram whilst **holding down** the left mouse button allows you to zoom in on the **selected** time period.

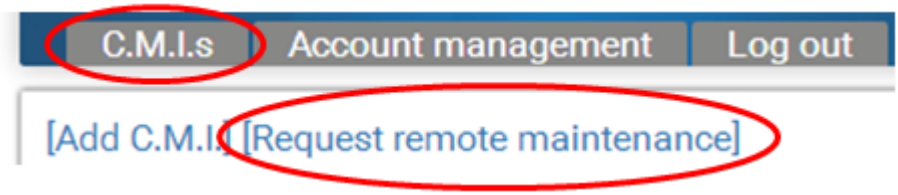


Digital values

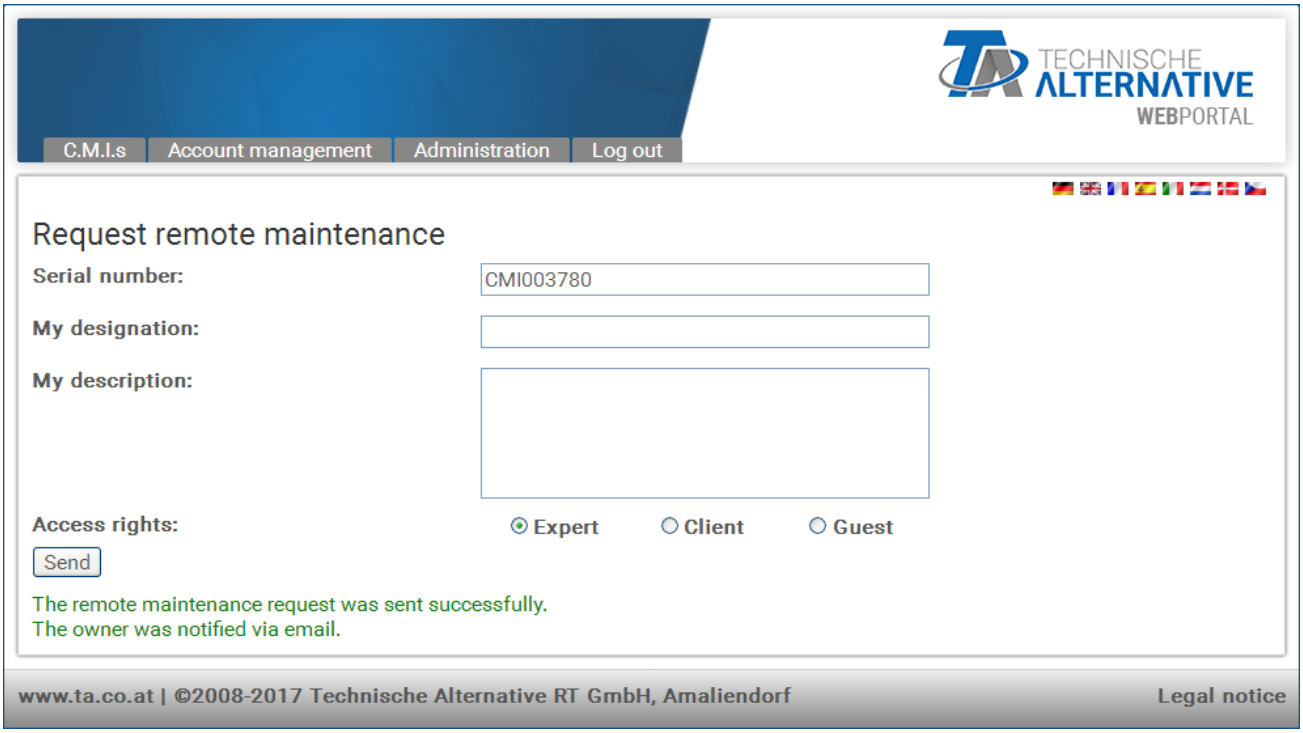
The ON/OFF status of the digital values is displayed above the analogue values.
Zooming in on the time axis always applies to both digital and analogue values.


1: PumpeHK Erd
5: Anf. Heizung
Show all
12:00
Feb 03
12:00
Feb 04
12:00
Feb 05
12:00
Feb 06
12:00
Feb 07
12:00

5. Request remote maintenance



With this request with specification of the C.M.I. serial number and the access level, the user of this C.M.I. is asked for permission to perform remote maintenance for his system.



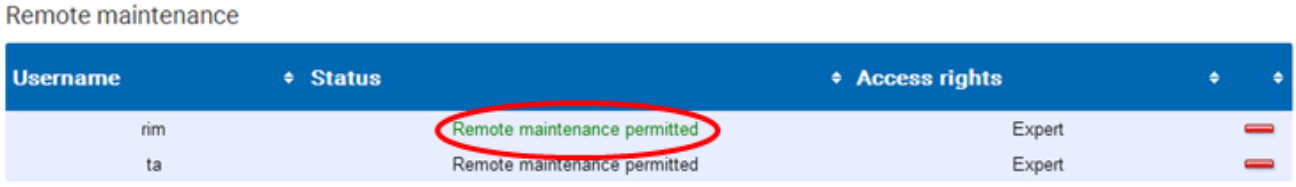
The queried user will immediately get a mail with a **link** to click.

If a request for remote maintenance was made, the following can be seen in the "**Remote maintenance**" area under "**My C.M.I.s**", after you click on management:

The user "**rim**" (=login name) has submitted a remote maintenance request.

Now, either remote maintenance can be permitted (by clicking on "+") or refused (by clicking on "-").

If it is permitted, the display changes to:



Clicking on "-" can revoke this permission at any time.

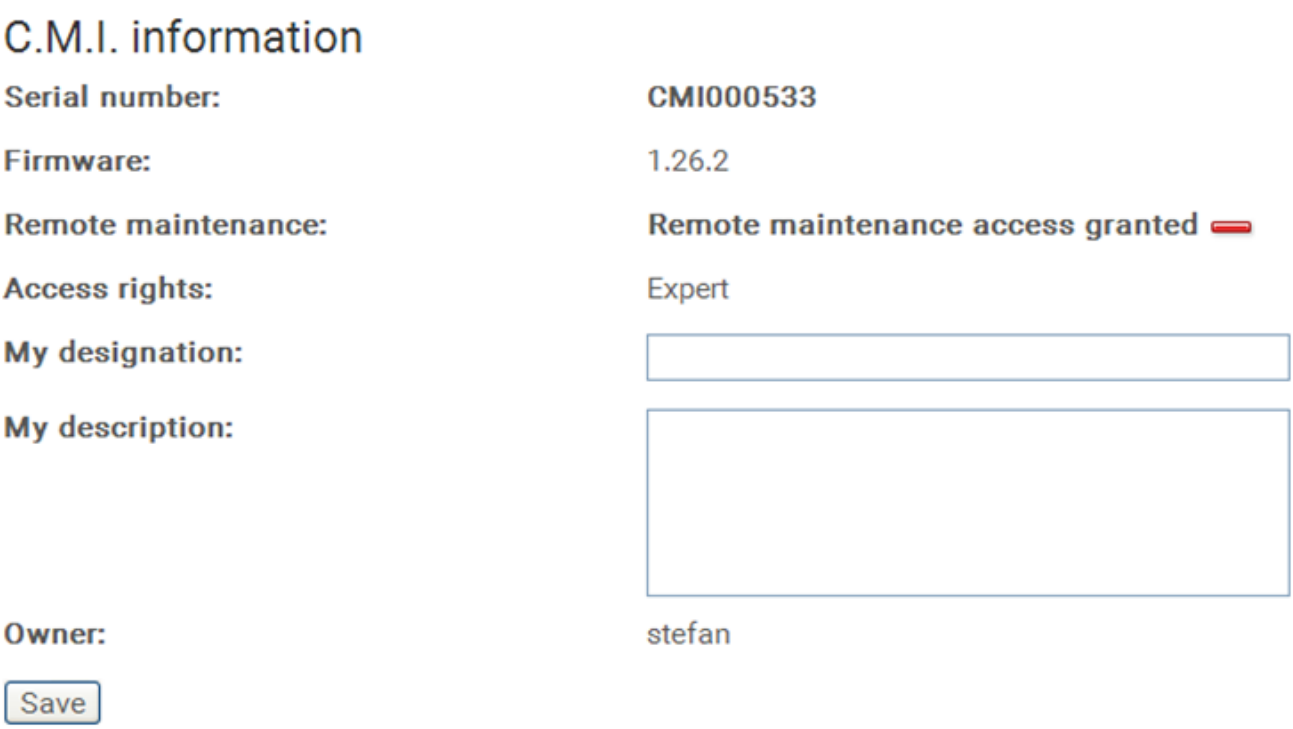
6. Other C.M.I.s

Here the C.M.I.s of **other users** are displayed for which the logged in user has been given permission for remote maintenance.

Example:

Clicking on the serial number takes you to the C.M.I. menu (see chapter “**C.M.I. menu**“).

When you click the symbol under "Remote maintenance", the "**C.M.I. information**" window appears (see "**Management**").

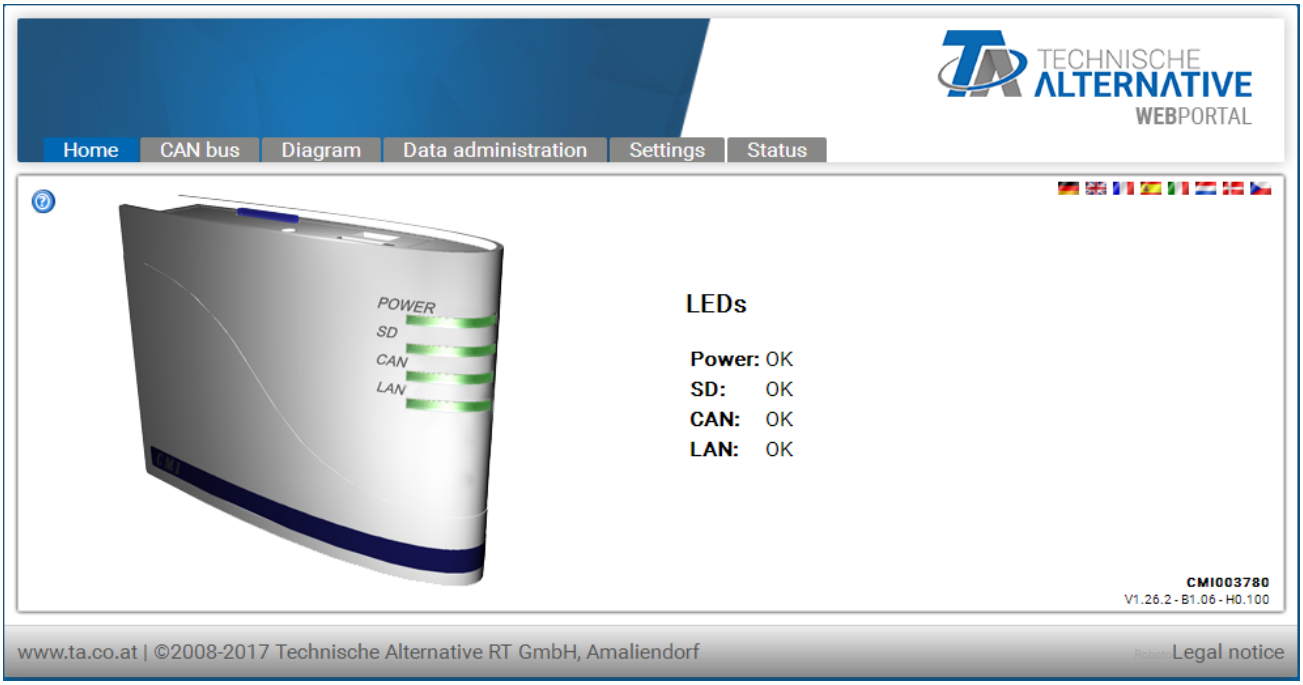


Access authorisation can be revoked again in this menu.

C.M.I. menu

Local operation (LAN): Access to the C.M.I. menu by calling the browser and entering the host name or the IP address of the C.M.I.. Subsequently authentication with user name and password (expert, user or guest).

Operation via web portal (Internet): Entry of the C.M.I. web portal name (https://cmi.ta.co.at) and log in. Selection of the tab "**C.M.I.s**“ and clicking on the serial number of the desired C.M.I.. A new tab with the designation of the device opens.



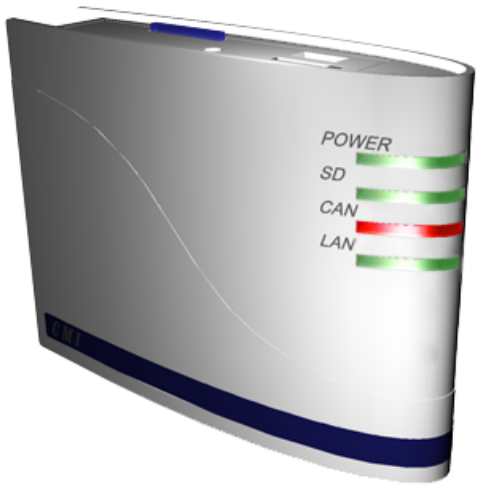
On the page that now opens, the version and serial number of the C.M.I. can be seen bottom right.

There are 6 different submenus that are described in the following:

Home
CAN bus
Schematic
Data administration
Settings
Status

Menu Home

The 1st page (Home) shows the operating status of the C.M.I. with the LEDs. The actual status of the LEDs is shown. The current LED status is explained on the side. Six different states are possible: green, orange, red, permanently lit or flashing.



LEDs

Power: OK
SD: OK
CAN: One/several node/s has/have failed.
LAN: OK

Example: Failure of a CAN network node.

If a GSM module is installed in the C.M.I., then the menu Home will be displayed with provider ID and GSM receiver quality.

Table C.M.I. LED description

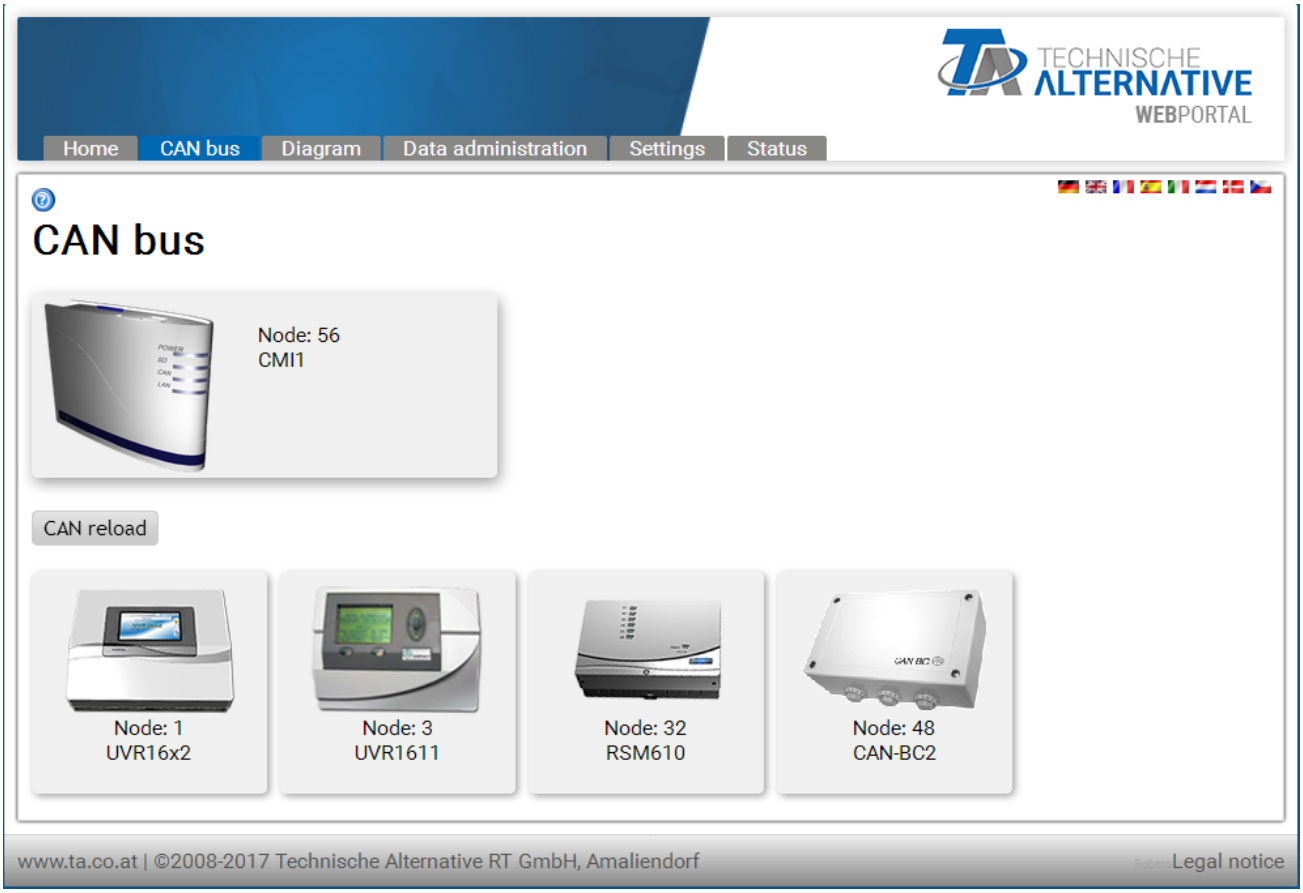
Start	**all LEDs red = power on**	
	all LEDs orange= booting	
POWER	**green**	everything ok
	green, short lapses	everything ok, short regular lapses indicate data logging
	green flashing	at the start files are transmitted from SD card to flash memory
	orange	Everything OK with the **GSM module**
	orange. short lapses	With GSM module:everything ok, short regular lapses indicate data logging
	orange flashing	With GSM module: at the start files are transmitted from SD card to flash memory
	red	internal error
	red flashing	no files in flash memory
SD	**green**	everything ok
	orange	SD card memory full
	red	SD card incorrectly formatted

	OFF	no SD card inserted
CAN	**green**	everything ok (at least **one** additional CAN node found)
	orange	not all essential nodes **for logging** available
	red	one node has failed
	OFF	no CAN network available
LAN	**green**	everything ok
	green flashing	no reverse connection to the web portal (if selected in the Ethernet menu)
	red	error
	OFF	no connection (e.g. cable not connected)

Menu CAN-Bus

This menu shows the devices in the CAN bus network with their designation and node number displayed. **The C.M.I. has node number 56 with factory settings.**

Example of a CAN network with one controller UVR16x2, one controller UVR1611, one CAN I/O 45 module and one RSM610 module:



Clicking on one of the devices takes you to the device menu.

The operating status of the C.M.I. LEDs is not displayed on this page.

Remote maintenance of CAN bus devices

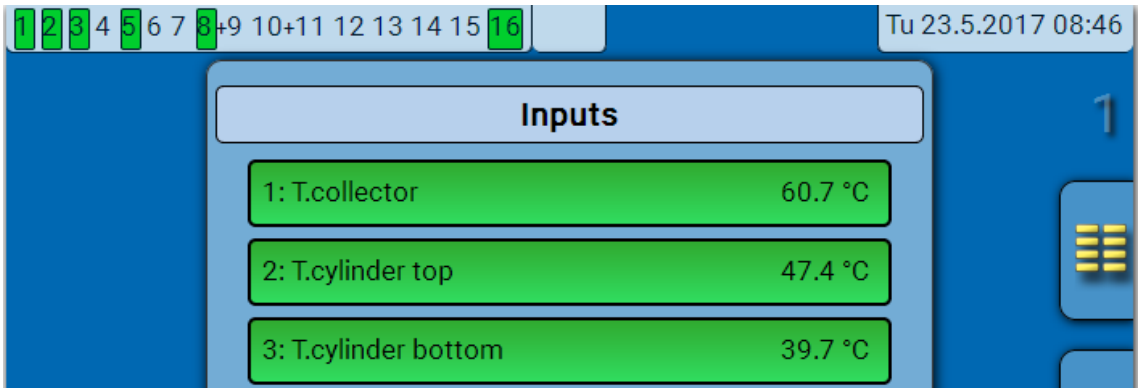
Example: UVR16x2

Only the values current **at the time of loading** of the page that are displayed. In order to display the actual (latest) values, the page must be refreshed.

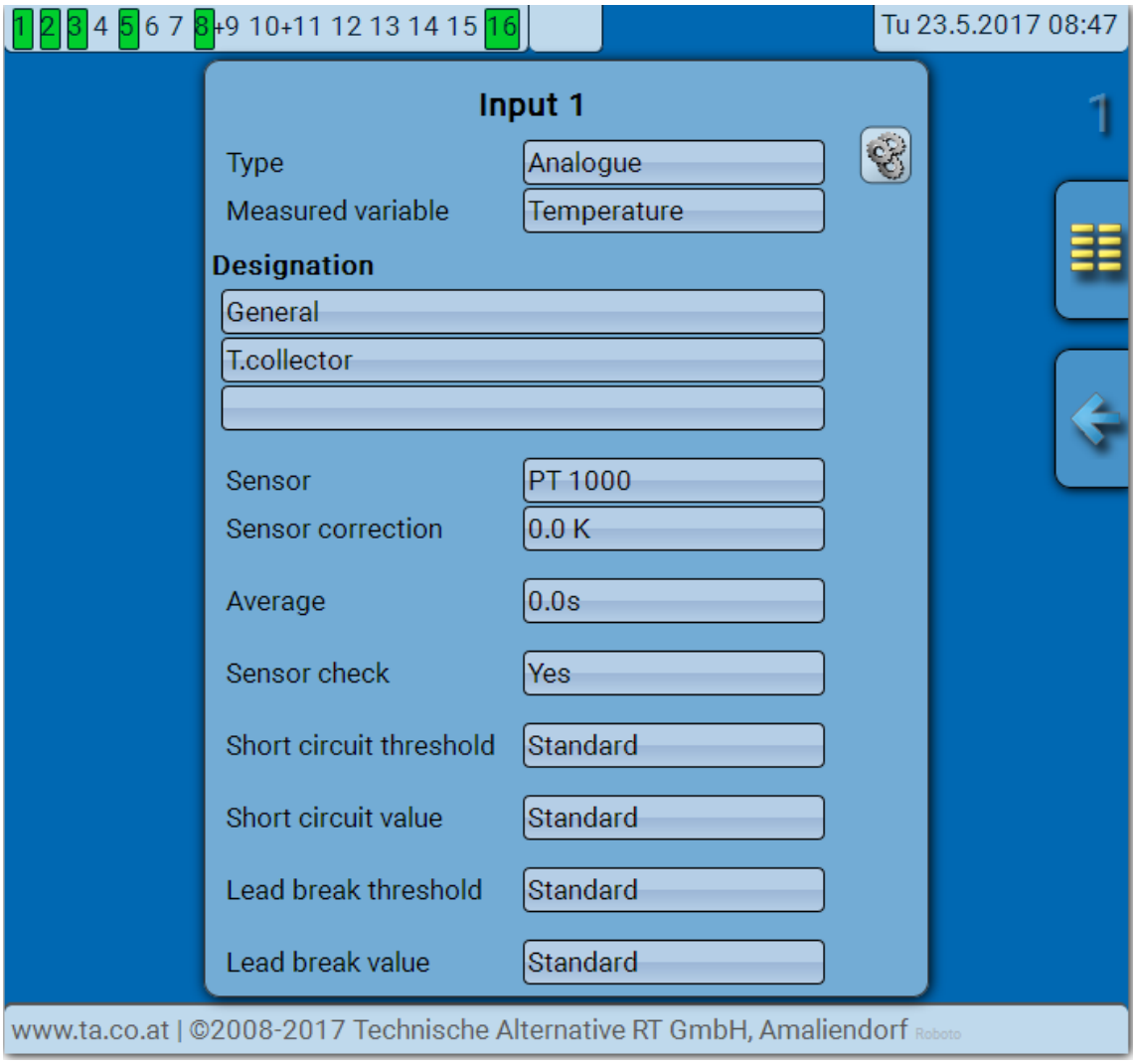
The view is comparable to the view on the controller display. Selecting a menu item takes you to the selected submenu.

Example: Programming the parameters for Input 1

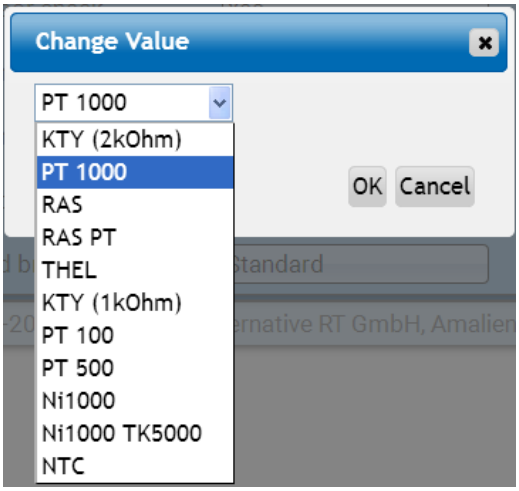
When the "**Inputs**" menu item is selected, a page appears that has the same layout as the controller.



Selecting the required input takes you to the following display:

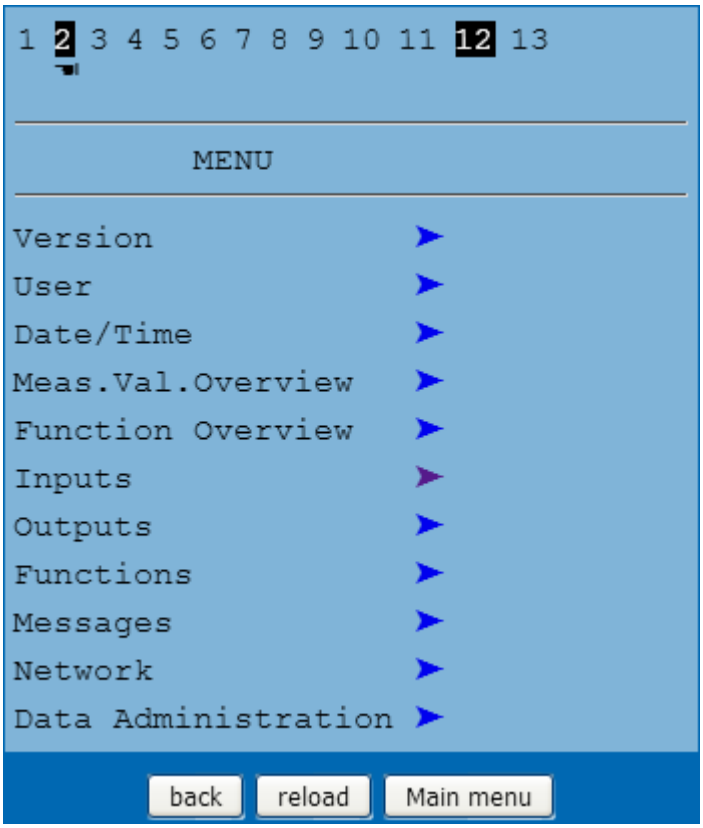


When you select the parameter you want to modify, a dropdown list appears:



Select the required parameter and complete the modification procedure with "OK".

Example: UVR1611
The top row displays, as familiar from the controller, the status of the outputs:
Highlighted in black: Output **ON**
The **hand symbol** means manual mode.

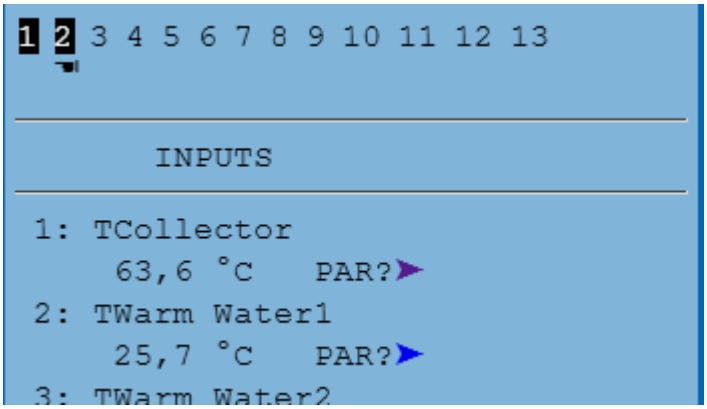


Clicking on an arrow takes you to the selected sub-menu.
This enables direct selection of the most important submenus (exception: “**User**” menu).

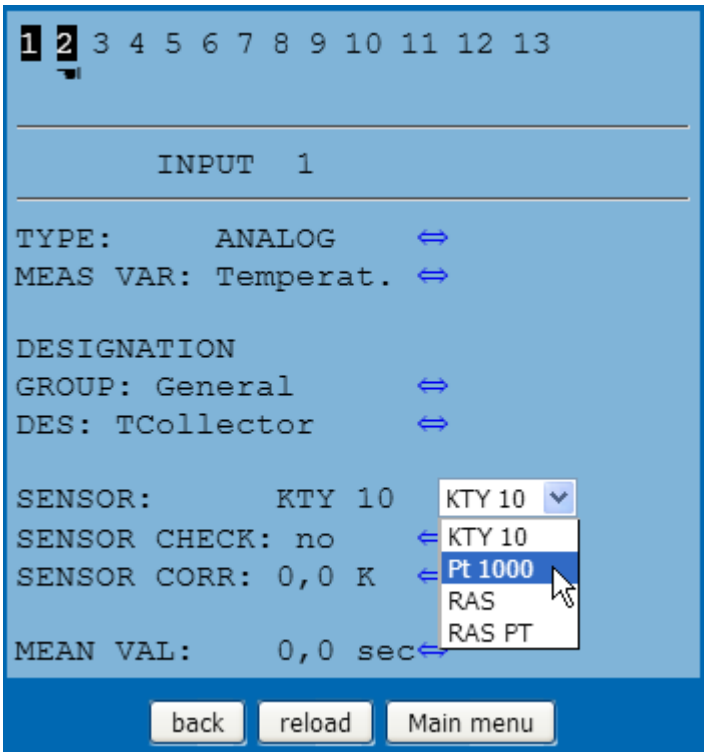
back	Using the **back** function displays the page **shown** last. This may no longer show current values.
reload	This button reloads the displayed page with current values.
Main menu	“**Main menu**“ takes you to the main menu of the currently selected CAN device.

Navigation, parameterisation and configuration in the submenus is generally done in the same manner as with the controller. However, function modules cannot be created or deleted. The menu “**User**“ cannot be selected.
Manual adjustment of the mixer outputs is not possible.

Example: Parameterisation input 1
After selection of the menu item “**Inputs**” a page is displayed, which has the same layout as in the controller.

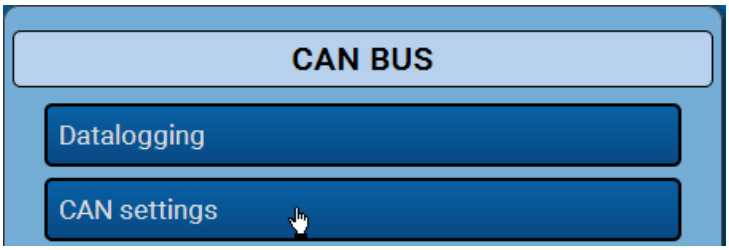


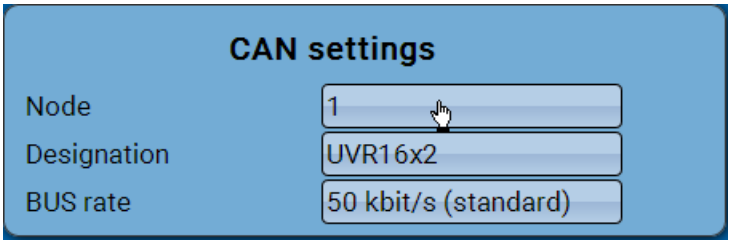
By clicking the arrow next to the desired input, the following display is brought up:

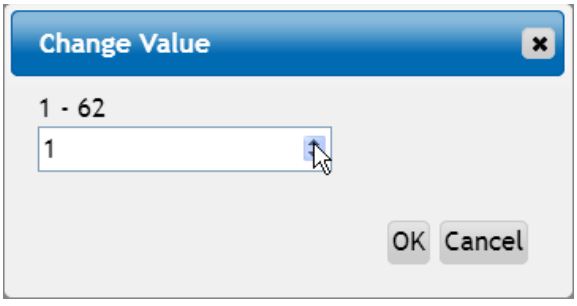


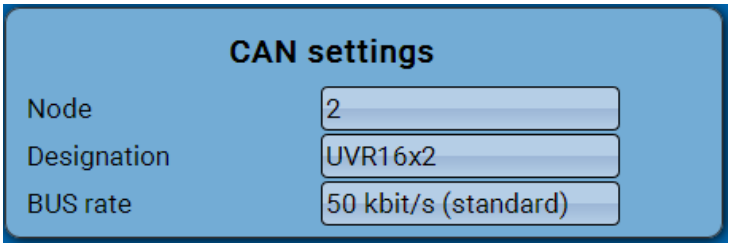
Clicking the arrow symbol of the corresponding parameter to be changed displays a selection list with possible adjustment parameters.
After making a selection by mouse clicking, the new controller parameter is immediately transferred via the CAN-bus. The controller saves the parameters and returns the corrected menu page which is reloaded by the browser.

Example: Change node number of UVR16x2 from 1 to 2
Menu "CAN bus“









The change is displayed after the node number has been modified.

Menu Diagram

Selecting this menu item displays the online diagram (if programmed). Programming of the online diagram with “**TA-Designer**” is described in the program's **online tutorial**.

Direct **local** access to the online diagram without login can be done by entering the following URL:

http://user:password@cmi/schema.html#1

User: user name for expert, user or guest

Password: password defined for the respective user

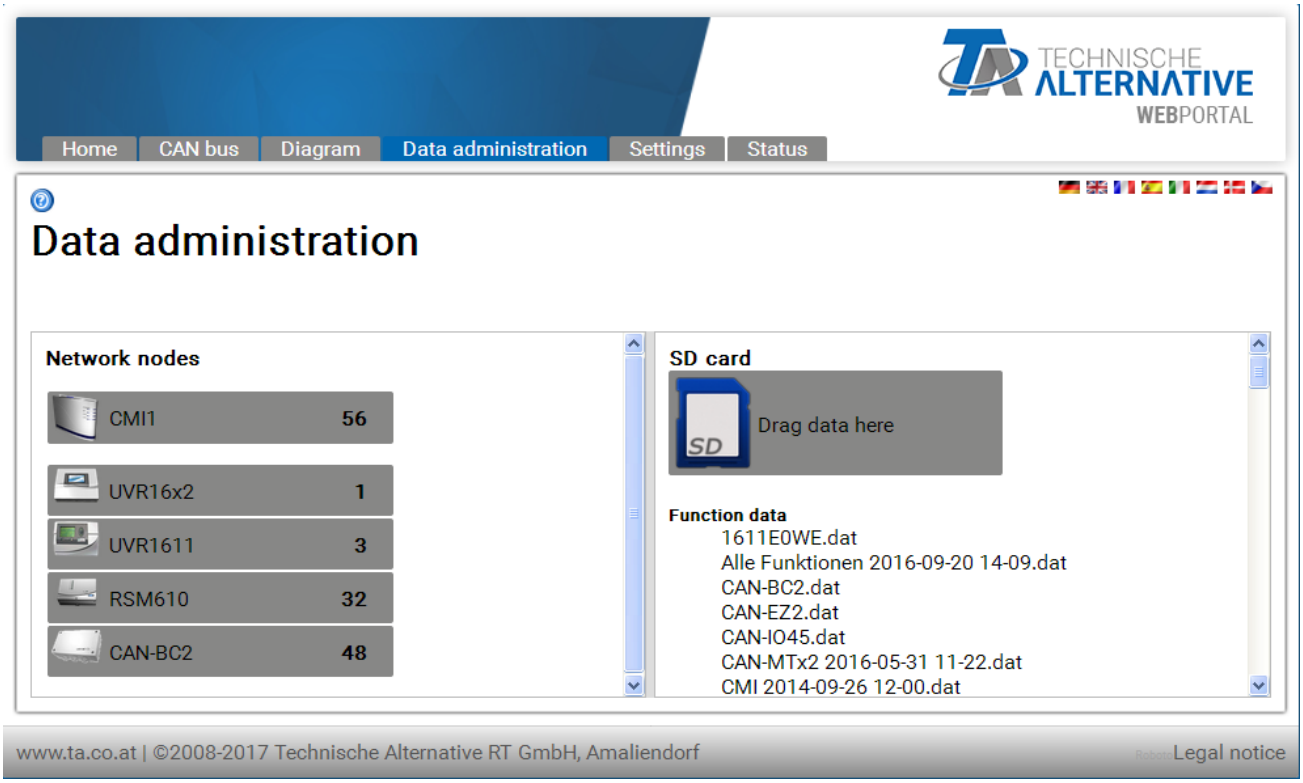
cmi: host name or IP address of the C.M.I.

schema.html#1: page 1 of the online schematic is called

System requirements

UVR1611: at least operating system version **A3.25**
UVR16x2: at least operating system version **V1.04**
CAN-I/O modules: at least operating system version **A2.02**
CAN-BC bus converter: at least operating system version **A1.10**
CAN-EZ energy meter: at least operating system version **A1.03**

Menu Data administration



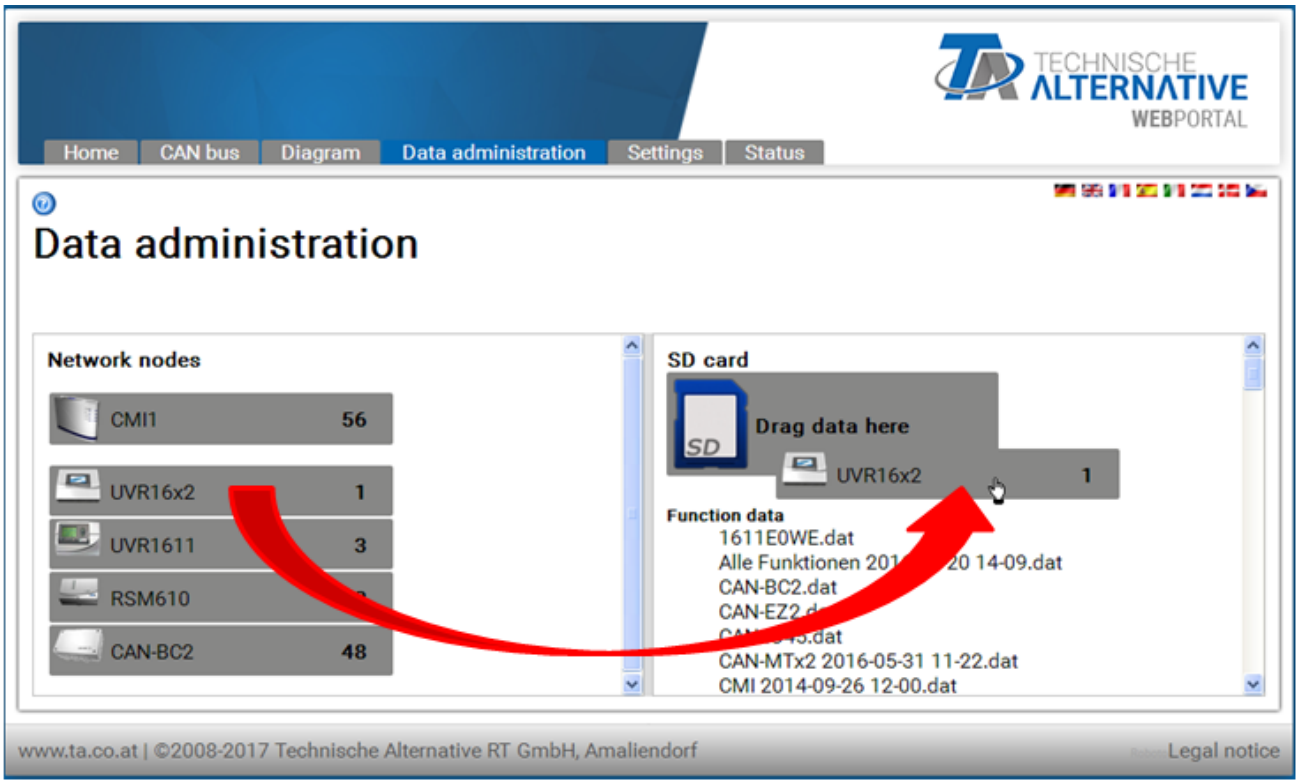
In the left part of the window, the active (connected) CAN bus devices are displayed, and in the right part the SD card with the function data and firmware files saved to the SD card.

Updating the C.M.I.

If the button "**Update C.M.I.**" appears, then new software is available for the C.M.I. A click downloads the software from the web server and automatically installs the update.
The query for the availability of new software is carried out daily. Port 80 must not be blocked by any firewalls in order to enable this button to be displayed.

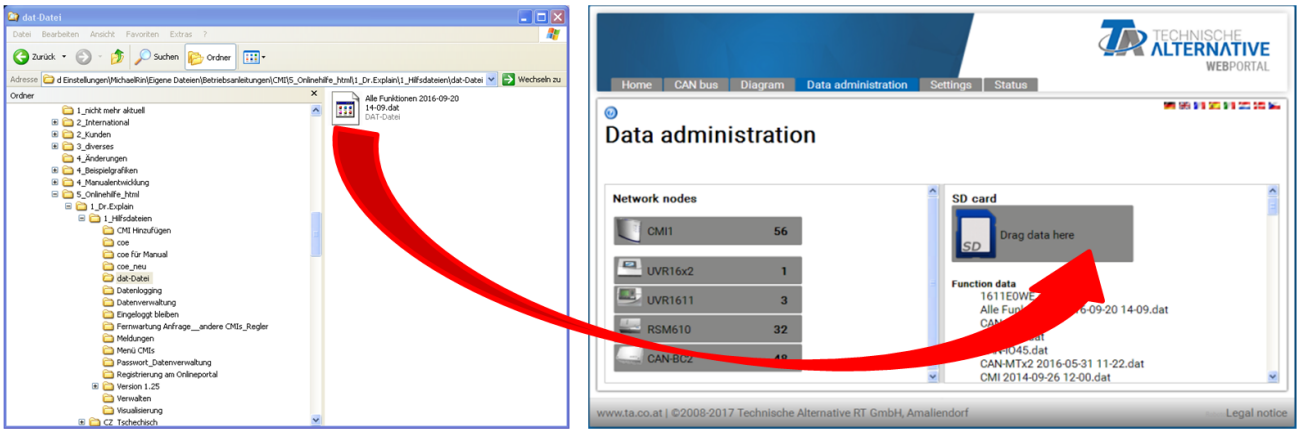
The following actions can be carried out by simple dragging with a pressed left mouse button ("**drag & drop**"):

1. Download of function data from devices to SD card



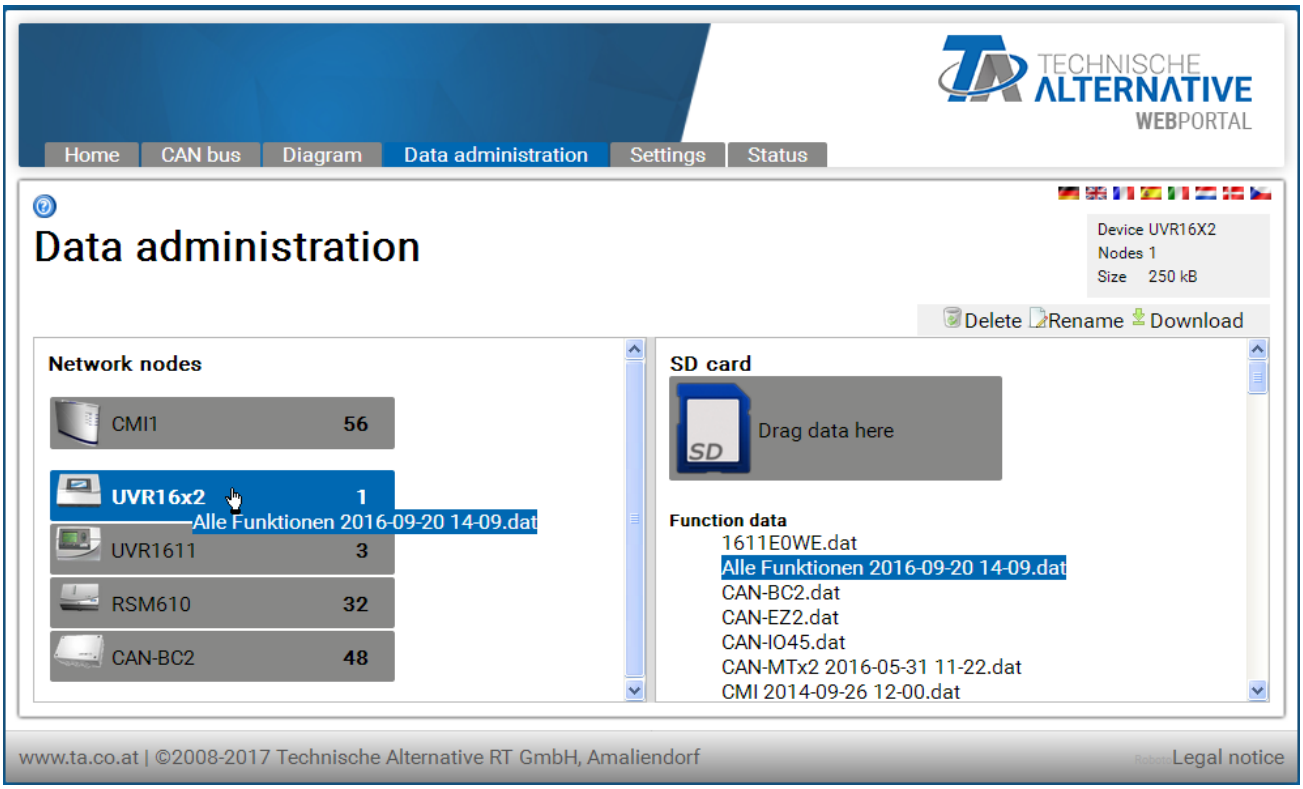
The network node is dragged to the SD card symbol with drag & drop. The function data are copied to the SD card.
This is followed by a display indicating successful or unsuccessful download:
Function data of Bootloader BL-NET cannot be copied to the SD card this way.

2. Copying files from Windows-Explorer to SD card



The file is pulled to the SD card symbol with drag & drop and thus copied to the SD card.

3. Upload of function data and firmware from SD card to devices



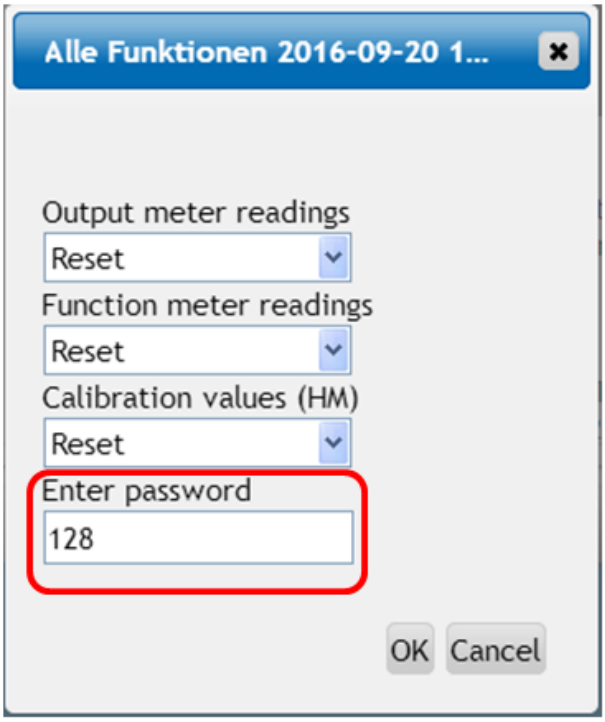
The upload is started with drag & drop from the list of function data or firmware to the device symbol. This allows devices on the CAN bus – including the C.M.I. – to be updated.

A UVR16x2 controller update (= firmware upload) is only possible from controller version 1.20.

It is not possible to update a BL-NET bootloader

If a file was dragged to an incorrect device that is not compatible with this file, there will be an ERROR message.

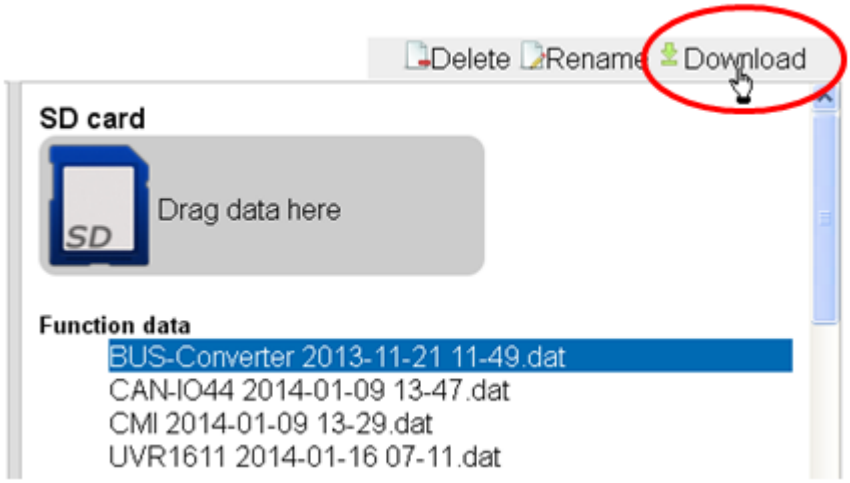
When uploading function data to an X2 device (UVR16x2, RSM610, CAN-I/O45, CAN-EZ2), you will also be asked to provide the expert password for the X2 device:



Problem case:

If the CAN connection is interrupted during the firmware update of a UVR1611, then the controller in node 63 is without operation system. For a **new start** of the firmware update again, drag the controller firmware to the C.M.I. icon as an exception.

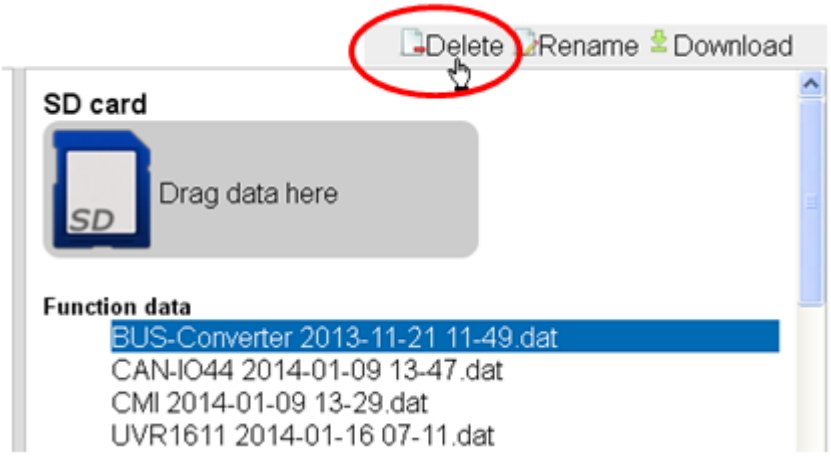
4. Download of function data or firmware from SD card to PC



Highlight the desired file and click on “**Download**“.

“**Save file**“ copies the file to the download folder of the browser where it can be moved to another folder.

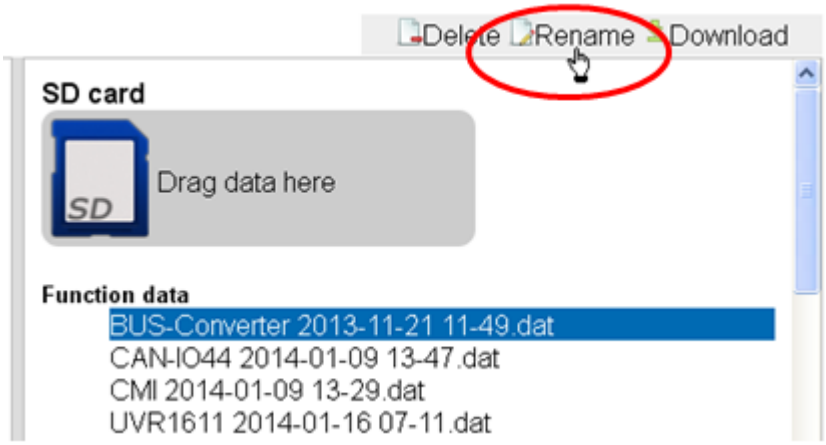
5. Deleting files on the SD card



Highlight the desired file and click on “**Delete**“.

Answer the subsequently displayed confirmation message with Ok.

6. Renaming files on the SD card

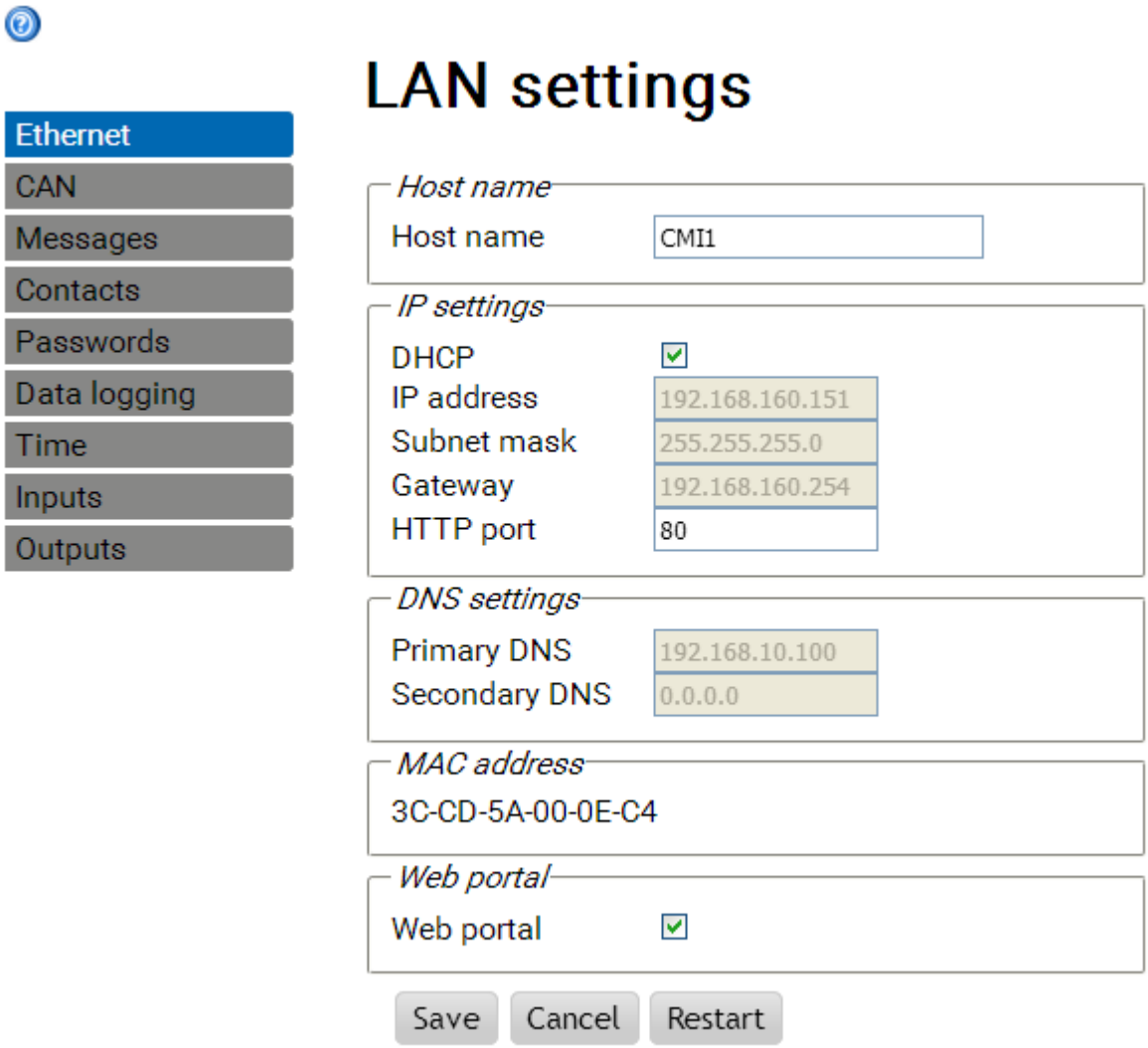


Highlight the desired file and click on “**Rename**“.

In the subsequently displays window, enter the new file name and confirm with Ok.

Menu Settings

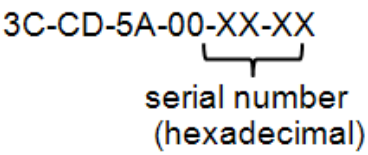
Ethernet (LAN settings)



If more than one C.M.I. is used in the same LAN network, then these C.M.I.s must have different host names.
In this example, the host name was changed to "CMI1". The host name can be freely selected and does not require a reference to the word “CMI“. The host name may not include an underscore ("_"); a hyphen ("-") is permitted.

The HTTP port can be adjusted. Factory setting: 80

Every C.M.I. has an individual MAC address:



After the entry of the new name, first click “**Save**“ and then “**Restart**“.

Firewall: For access via the web portal and for mail dispatch, any existing firewall must not block outgoing ports 40001 and 40002. For online datalogging (visualisation), outgoing port 40003 must not be blocked.

In order to enable the "Update C.M.I" button to be displayed, outgoing port 80 must not be blocked by any existing firewall.

Direct connection C.M.I. - PC

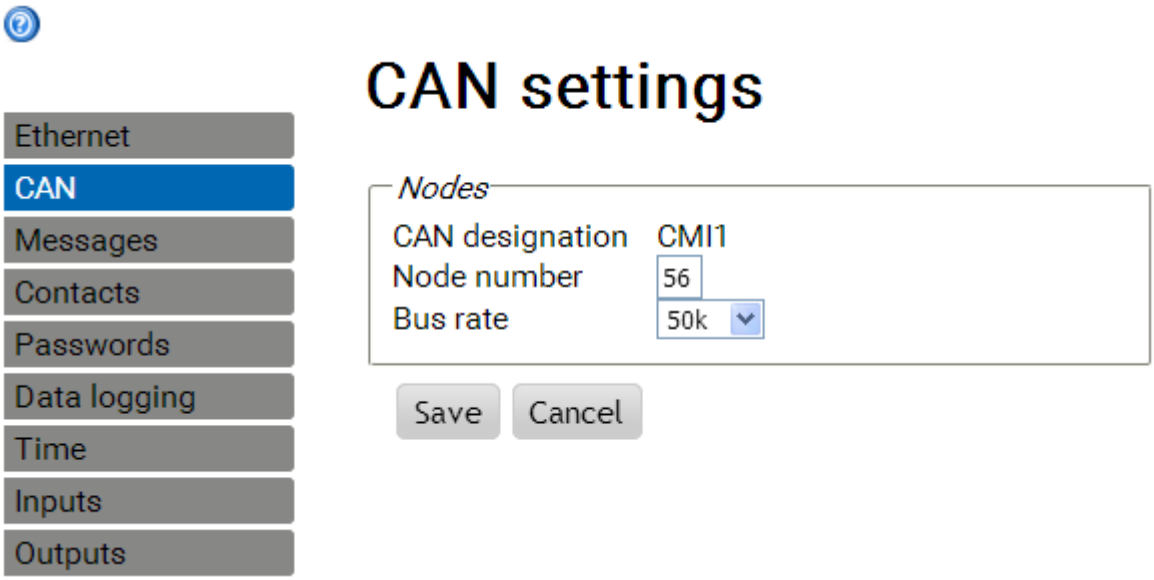
DHCP is activated in the factory setting. The C.M.I. tries to obtain a valid IP address from the network on its own.
If there is no DHCP server in the network, automatic IP allocation will be started. An IP address between 169.254.0.1 and 169.254.254.255 is allocated. The subnet mask is 255.255.0.0. This process can take more than 1 minute.
The C.M.I. can be selected directly with the host name in Windows in the browser. If the name resolution does not work, you have to proceed as described in chapter “**Connection without DHCP**“.

Connection without DHCP

The user can specify the parameters (IP address etc.) manually.
This can be done in the web interface. If access via the web interface is impossible, there is the possibility to define a fixed IP address with a file:
A text file with the name **fix_ip.txt** with the desired IP address is created in the root directory of the SD card. The content of this file may consist only of an IP address (e.g. 192.168.0.10) and “Enter“.
During the next start, the C.M.I. will adopt this IP address, deactivate DHCP and reverse (web portal) and delete the txt-file on the SD card.

CAN settings

The CAN node number and the bus rate of the C.M.I. can be changed in this submenu. Every CAN bus participant must have an individual node number in the CAN network.

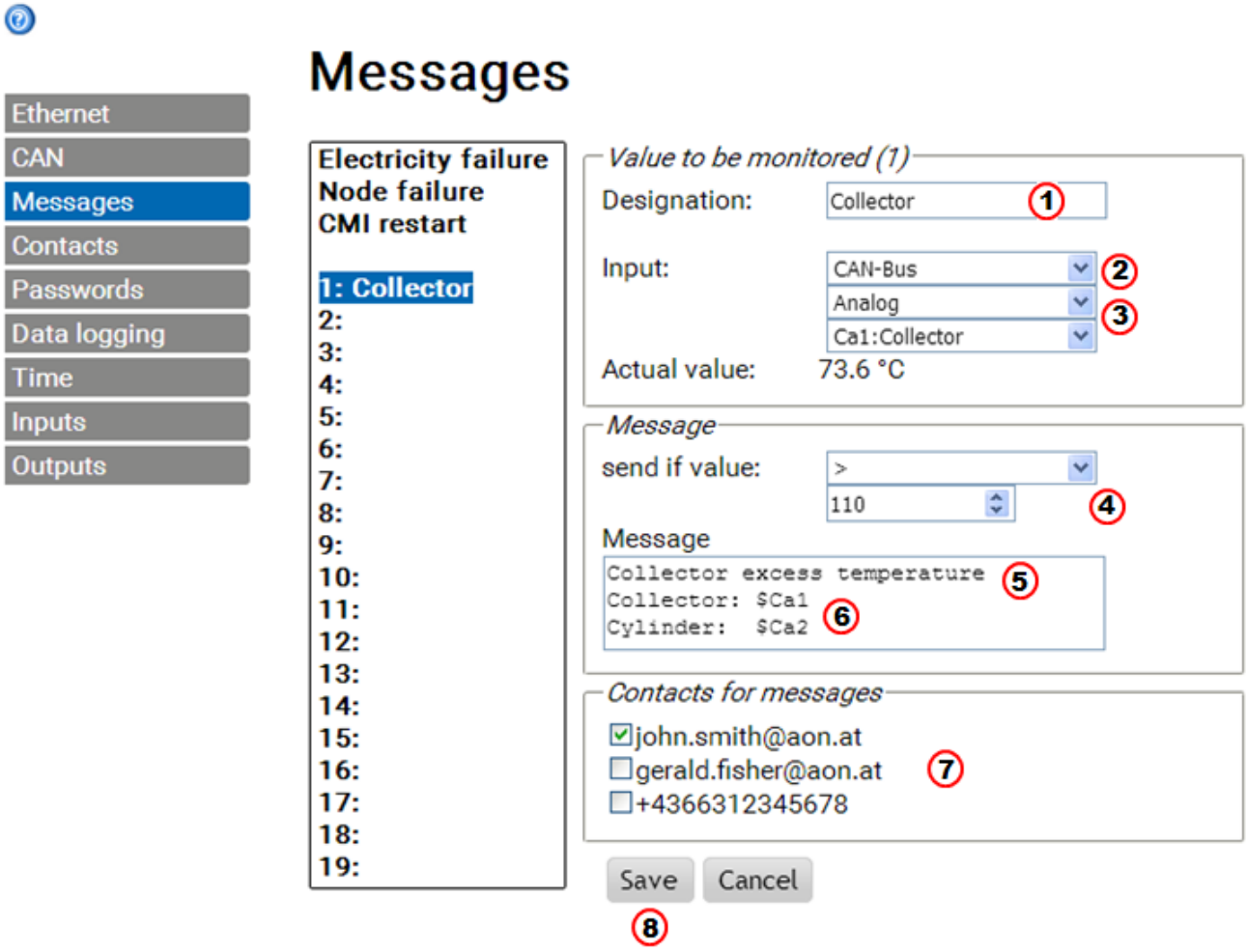


The C.M.I. has node number 56 with factory settings.
The C.M.I. can get the system time from the Internet.
Because the system time of all other devices will be accepted by node 1 in a CAN network, the C.M.I. could be assigned with node number 1. But it must be ensured that no other device has this node number. That applies especially to networks with several UVR1611.

Bus rate: The bus rate can be set in the CAN settings of controller UVR16x2. This bus rate must match that of the C.M.I. and of all other CAN bus devices.

Messages

The values and conditions for mail and SMS dispatch can be determined in the menu **“Messages”**.
It is only possible to send text messages with the built-in GSM module.
The values are adopted from the C.M.I. inputs. Up to 32 messages are available.
Example for a message in case of excess collector temperature:



1. Message designation
2. Select the input type (CAN bus, Modbus or data link)
3. Selection of analogue or digital and the input number (see chapter "**Inputs**")
4. **Sending condition**: Analogue values: equal =, greater >, greater or equal >=, less <, less or equal <=, digital values: ON or OFF
5. **Enter text** for email or SMS
6. **Optional: Specification of the value** to be issued with the text. The value always refers to a **C.M.I. input**.
A **$ sign** must be placed at the beginning of the definition. See below for the source (input type, analogue or digital) and number of the input: C = CAN bus, M = Modbus, L = data link, S = SMS
Examples: $Ca1 = value of the analogue CAN bus input 1
$Md3 = value of the digital M-Bus input 3
7. Select the **contacts** to whom an email or SMS should be sent if the message conditions are met. Sending an SMS is only possible if a GSM module is fitted. The contacts are determined in the menu “**Contacts**“.
More precise details regarding sending an SMS and SMS inputs can be found in chapter" **Inputs/SMS**" and in the manual for the **MDC-GSM** GSM module.
8. After completing the entry: **Save**.

SMS dispatch and SMS query are described in the manual for the GSM module.

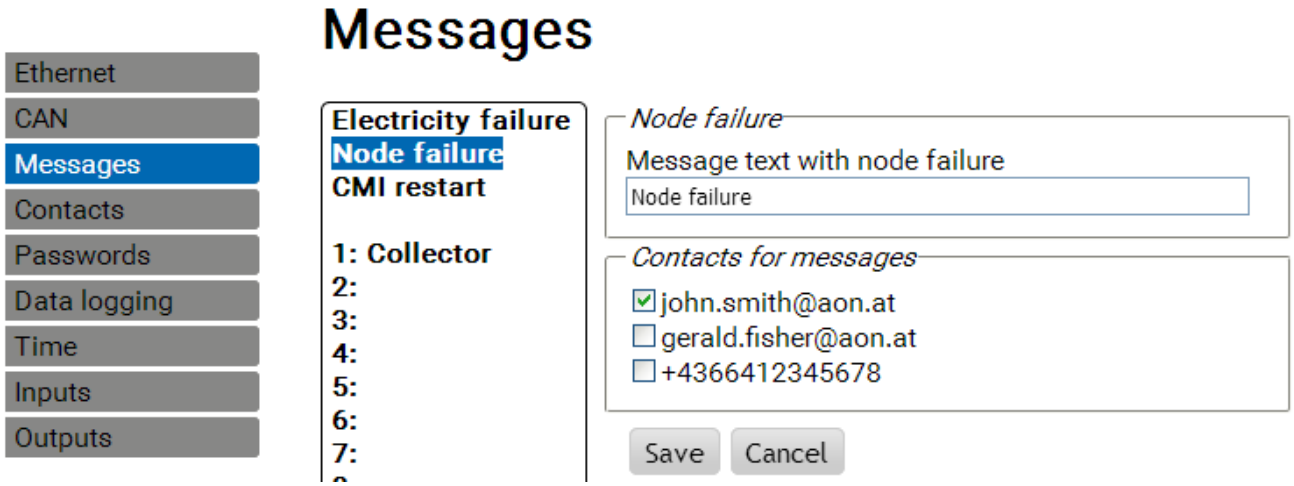
Automatic messages

Electricity failure

In case of electricity failure, an SMS can be sent only via the GSM module (description in the GSM module manual).

Node failure

In the event of a CAN node failure, an email message can be sent, and with an installed GSM module an SMS message can be sent. A CAN node failure is detected only after a time-out of **20 seconds**.
Example:

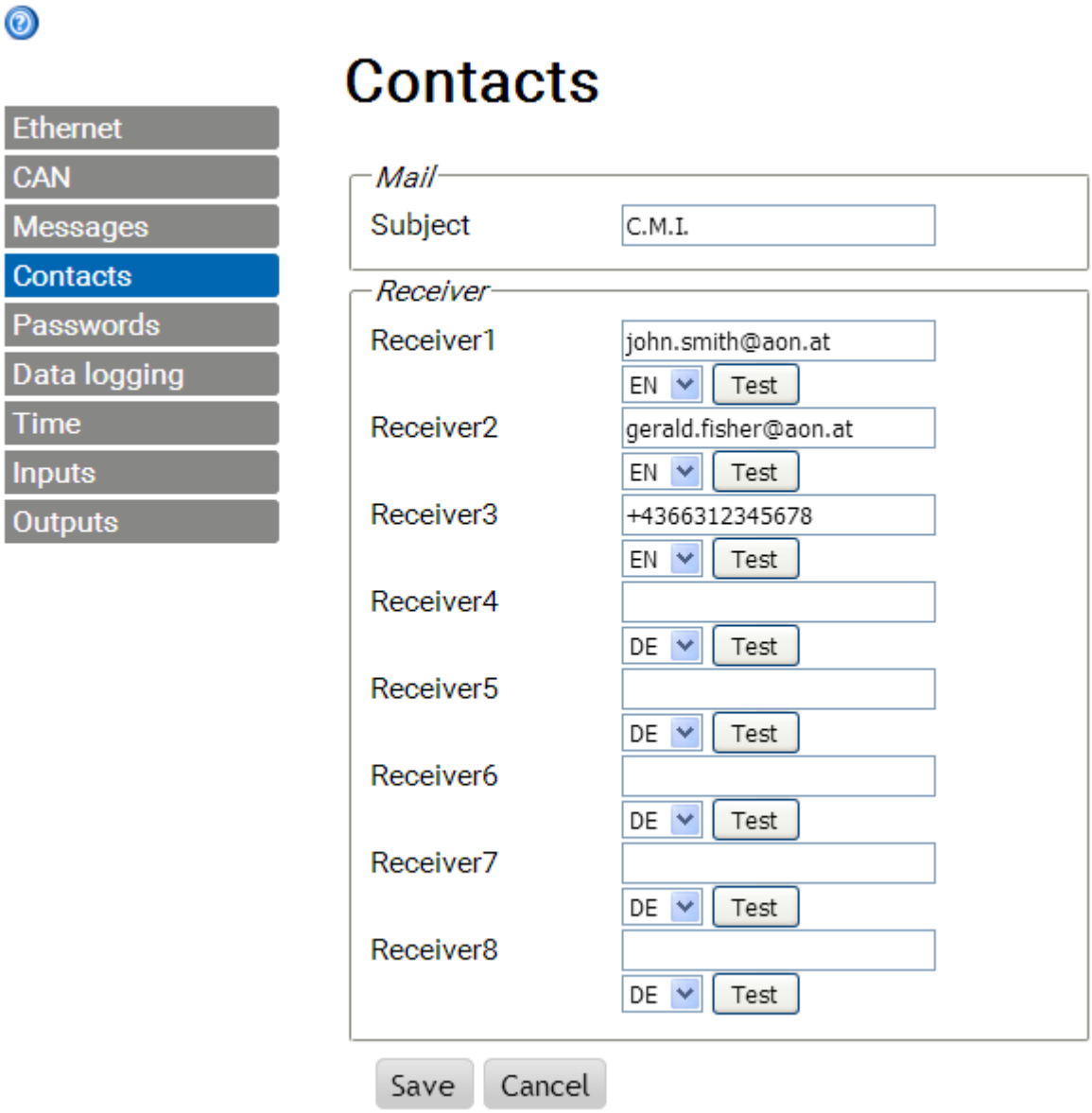


CMI restart

A restart of the C.M.I. that was caused by e.g. electricity failure or an update can trigger an email message, or an SMS message if a GSM module is installed.
Example:

Contacts

E-mail addresses and phone numbers for text messaging are entered in this menu.
It is only possible to send text messages with the built-in GSM module.



Up to **8 contacts** can be listed and tested.

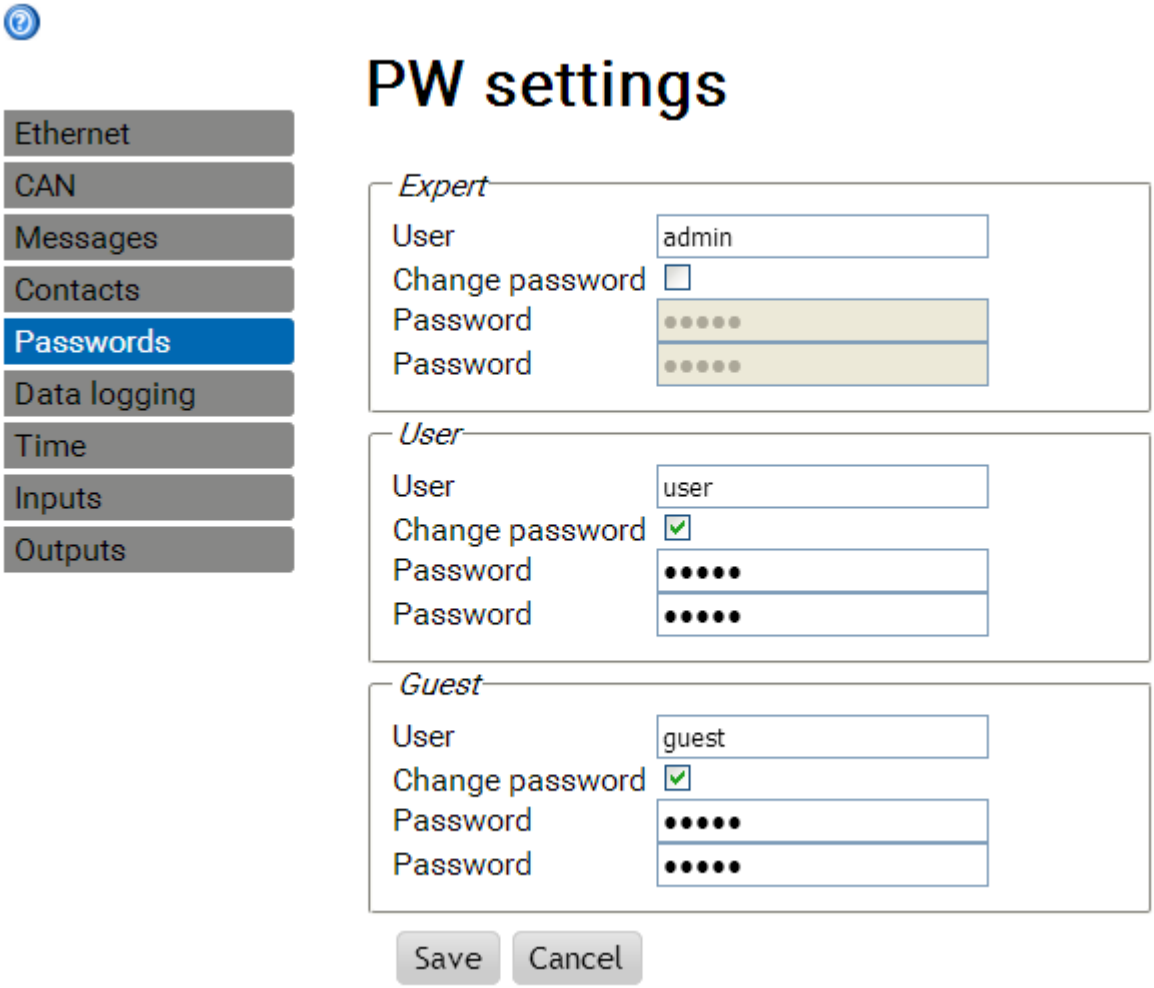
The phone numbers must begin with the international area code (e.g. +44 ...or 0044...).

The language setting relates to the correct format for controller values and units which can be sent in a message.

E-mails or text messages can be sent to these contacts if the message condition (see menu "**Messages**") applies.

Passwords

User names and passwords for different user levels are defined here. Only the user name and the password for the expert (admin/admin) are pre-set in the factory settings.
Password settings can be changed by registered **experts** only.



Passwords may not include special characters or umlauts ("ä, ü, ö").

Password entry must be repeated as a precaution.

The “**Expert**“ has complete access to the C.M.I. without restrictions.

The “**User**“ is authorised for access to the interactive **online schematic** and can view values **and,** depending on the programming, **also change them**. Access to other C.M.I. pages is possible but settings cannot be modified there.

Only the online schematic is displayed for a "**Guest**“. Guests may view it but are not allowed to modify values.

Direct local access to a C.M.I. page without login can be done by entering the following URL:

http://user:password@cmi/xxxxxx

User: user name for expert, user or guest

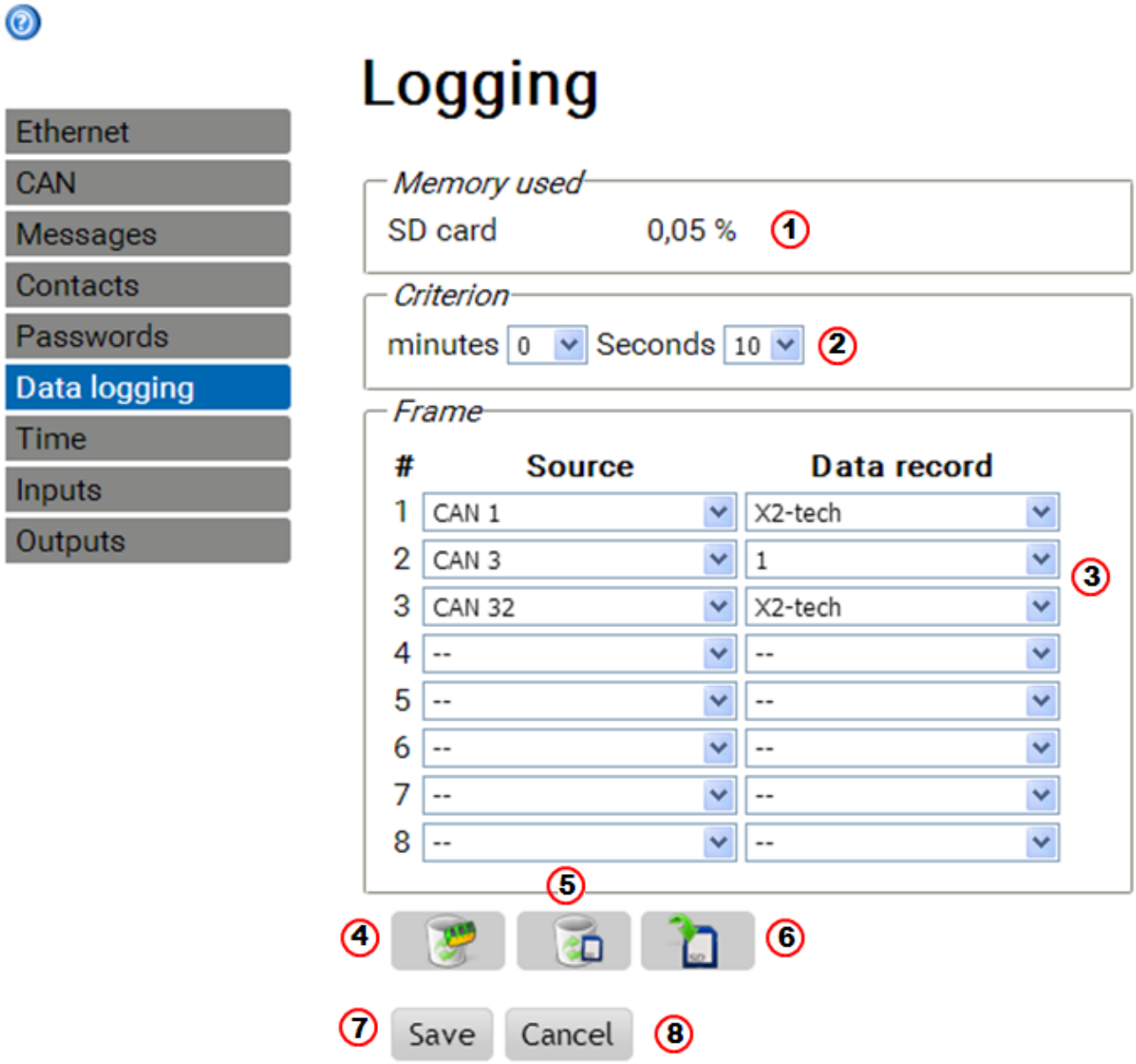
Password: password defined for the respective user

cmi: host name or IP address of the C.M.I.

xxxxxx: entry of the required URL

Data logging

The datalogging settings for readout with ***Winsol*** are found in this menu. You can log either from the DL bus (max. 2 data lines) or from the CAN bus (max. 8 data records).
The data is saved to the SD card.
Example: CAN data logging of data records of node 1 (e.g. UVR16x2), node 3 (UVR1611) and of node 32 (e.g. RSM610)



1. Display of already used memory in % of available memory space for data logging.
2. The saving criterion defines the time interval for data logging. Entries from 2 seconds up to 60 minutes are possible.
3. Source information (DL bus: DL1, DL2 or CAN bus: entry of node number) and of the data record. Controller UVR1611 and the CAN energy meter CAN-EZ can output 2 data records.
When logging data from devices with X2 technology (UVR16x2, RSM610, CAN-I/O45, CAN-EZ2), please note:

UVR16x2 up to version 1.20, RSM610 up to version 1.07, CAN-I/O module 45 up to version 1.03 and CAN-EZ2 up to version 1.03:

Only 1 data record or 2 data records will be logged, depending on the settings in the controller's menu under **Settings / Datalogging**.
The number of data records depends on the following rule: If at least a higher or equal analogue value is assigned to the number 17, then a 2nd data record is automatically created for this controller. The same applies to digital values greater than or equal to the number 14 or when there are more than 2 heat meters. That is no apparent in the C.M.I. menu. If e.g. 4 UVR16x2 are entered, for which 2 data records each are output, then no additional data records are displayed in **Winsol** even if they could be entered in the above list.

From Winsol 2.06:
UVR16x2 from version 1.21, RSM610 from version 1.08, CAN-I/O module 45 from version 1.04 and CAN-EZ2 from version 1.04:
Up to **64 analogue** values and **64 digital** values can be logged per device (max. 8 devices X2).

Further information about datalogging with **X2 devices** can be found in the programming manuals for the respective devices.

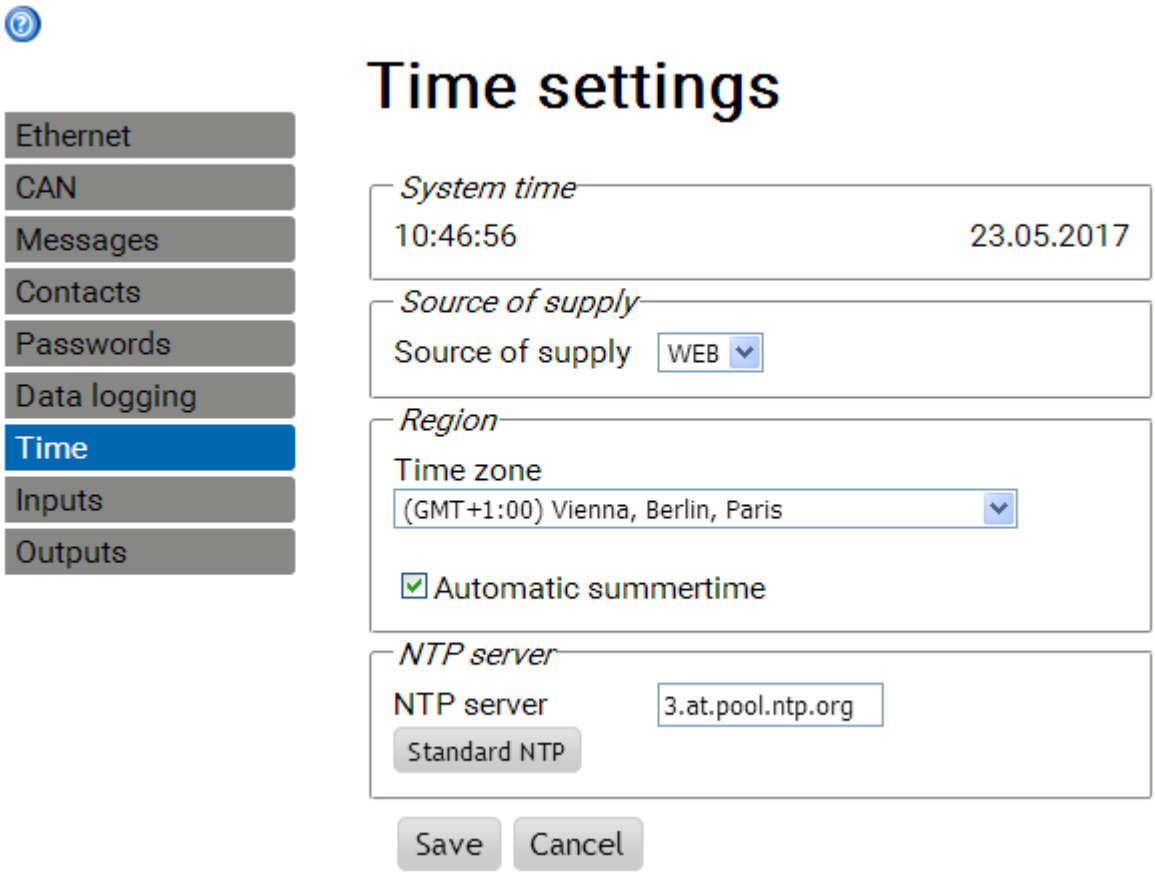
4. Delete the **C.M.I.** internal memory logging values.
5. Delete the logging values **from the SD card**.
6. Manually create daily log files on the SD card, which can be read out with ***Winsol***.
7. Completion of entry with "**Save**".
8. Cancellation of entry and resetting to the setting saved last.

If the settings for the source and/or the data record of a source are changed, then we recommend **restarting** the C.M.I. (menu "**Ethernet/Restart**") and **deleting the memory**. After the first logging time, a **set-up** is carried out in ***Winsol*** and completed with "**Ok**" so that the C.M.I. logs data with the modified settings.

The contents of the internal C.M.I. memory are saved to the SD card as a day log file every day at midnight. When reading out with ***Winsol*** a log file for the current day is automatically generated and all of the daily log files saved on the SD card are copied over to the Winsol monthly log file. Depending on the setting in ***Winsol***, the daily log files are either deleted or saved on the SD card.

With simultaneous data logging with C.M.I. and BL-Net or D-LOGG, this is not possible and will disrupt logging.

Time settings



Source of supply: The C.M.I. accepts the time-stamp either from an adjustable NTP server (default setting: 3.at.pool.ntp.org) or from the CAN network (UVR1611 with node number 1) or via one of the two data lines (DL bus) of the respective connected controllers.

Automatic switch to summer time takes place according to the specifications of the European Union.

The system time is responsible for the time-stamp during data logging and for the time information of other log files.

Because the system time of all other devices will be accepted by node 1 in a CAN network, the C.M.I. could be assigned with node number 1. But it must be ensured that no other device has this node number. That applies especially to networks with several UVR1611.

During the data logging of controllers without individual system time (e.g. UVR64, HZR65), it must be ensured that “**WEB**” is set as source and that there is an Internet connection.

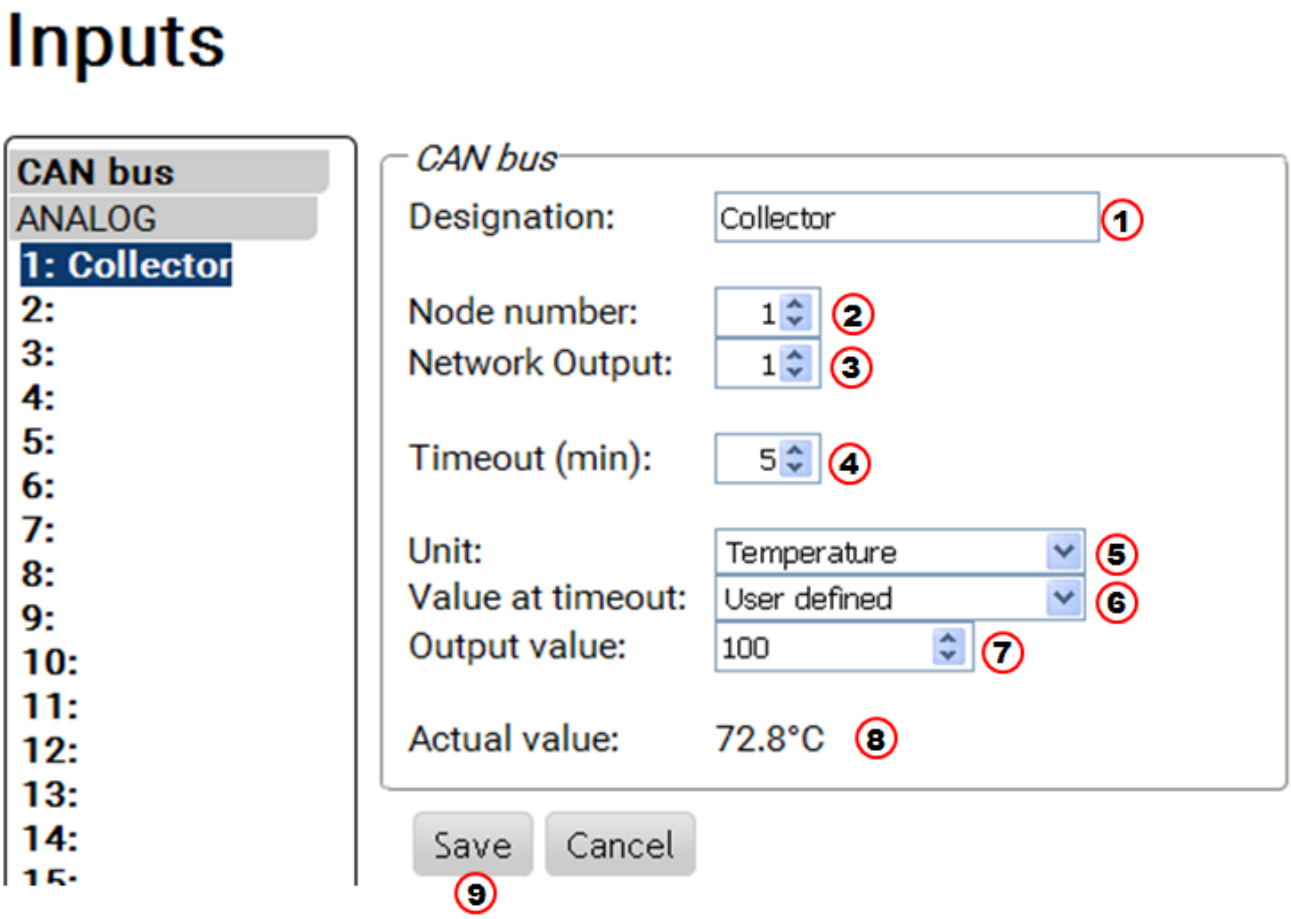
Inputs

All settings for values which can be adopted by the C.M.I. via **CAN bus**, **Modbus/TCP**, **DL bus** or **SMS** can be found in this menu.
These values can then be transferred to C.M.I. outputs or used for messages.

CAN bus

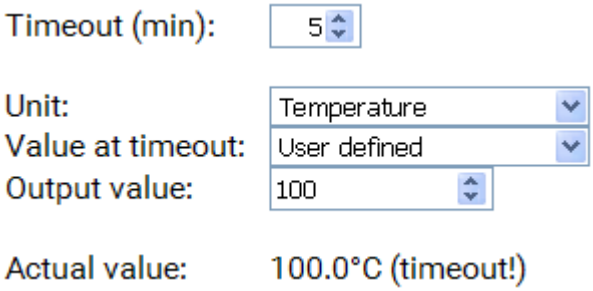
Setting the values which are adopted from the CAN bus. Up to 64 analogue and 64 digital values can be defined.

Example: adoption of the analogue CAN network output 1 of the CAN node 1 in the analogue CAN bus input 1 of the C.M.I.



1. **Input designation**
2. Select the **CAN node** from which the value is adopted.
3. Select the **CAN network output** of the CAN node from which the value is adopted.
4. **Timeout time**: if no new value is issued by the CAN node **within this time**, either the last output value transmitted or the next value to be subsequently set is adopted. Please note that the **interval time** of the source transmission conditions must **not be longer than the timeout time** of the C.M.I. input.
5. Select the **unit**: "**AUTO**" means that the source unit is adopted. However, a wide range of alternative units are also available to choose from.
6. **Value for timeout**: "**unchanged**" means that the timeout of the last transmitted value is retained. If "**User defined**" is selected, the output value subsequently set is adopted for timeout.
7. User defined **output value** for timeout: depending on the unit, this value is issued with the appropriate number of decimal places (example: "100" is issued if the temperature is "100.0 °C").
8. **Actual value**: this value is currently adopted by the C.M.I., subject to the unit and the timeout settings.
9. After completing the entry: **Save**

Example for issuing a user defined value for **timeout:**

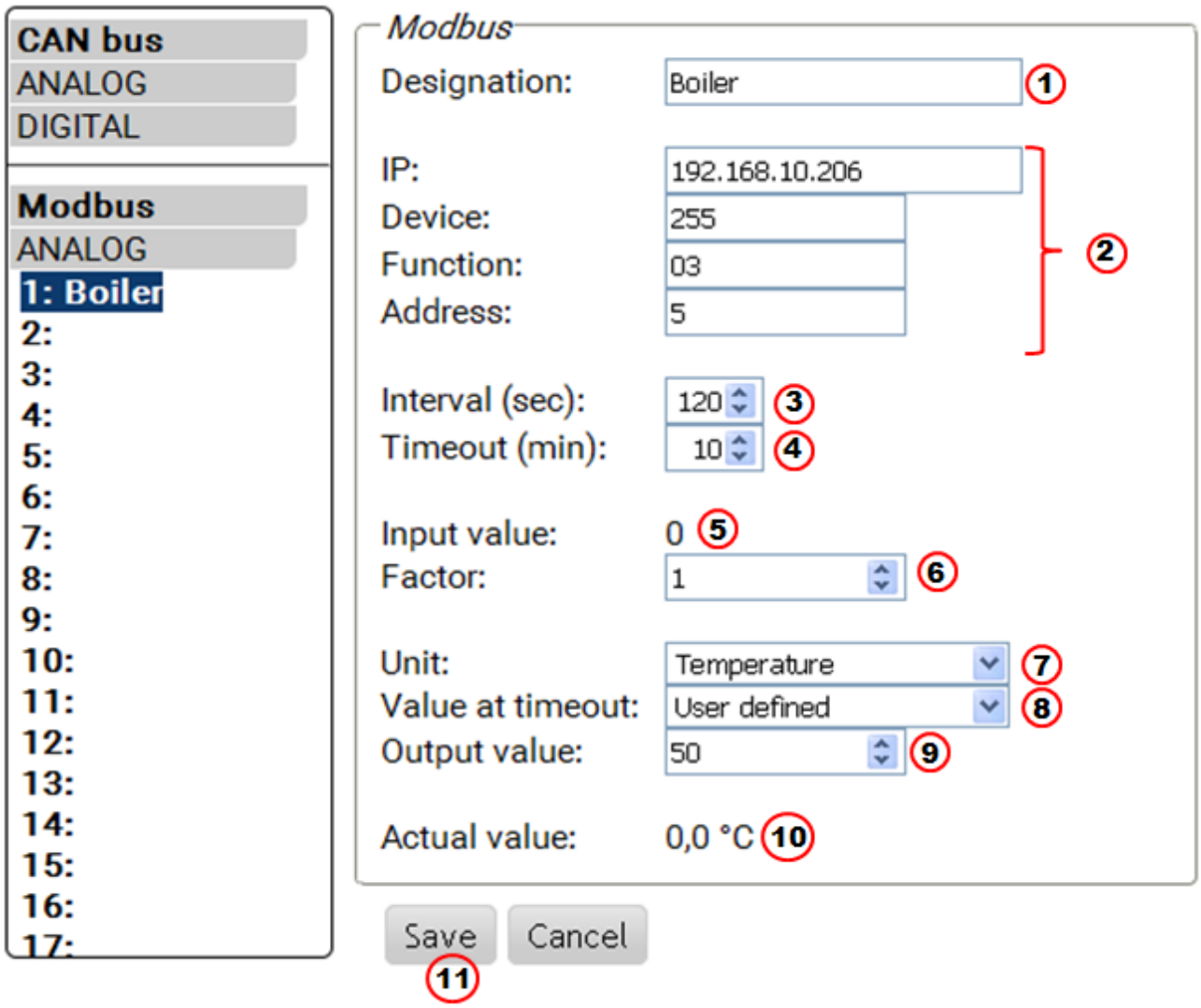


Because no new value was issued within 5 minutes, the output value of 100 °C is adopted and timeout is displayed.

Modbus

Setting the values which are read out from the Modbus device. Up to 64 analogue and 64 digital values can be defined.
In this case, the C.M.I. is the **master** and the requested value comes from the **slave**.

Example: analogue temperature value



1. Input designation

2. Enter the **IP address** and the **manufacturer-specific** data for the Modbus value which is being read out.

3. Define the **readout interval**.

4. Timeout time: if no new value can be read out from the Modbus device **within this time**, either the **last** requested value or the next output value to be subsequently set is adopted.

5. Input value from the Modbus device

6. Enter the **factor** for the input value for implementation at the value that is to be adopted by the C.M.I. Only **whole numbers** without a unit are adopted from the Modbus. To adjust to the unit and the decimal places with which the value from the C.M.I. should be issued, the correct factor must be selected (see "**Current value**").

7. Select the **unit**: the value is adopted from the Modbus **without a unit**. There are a wide range of units to choose from.

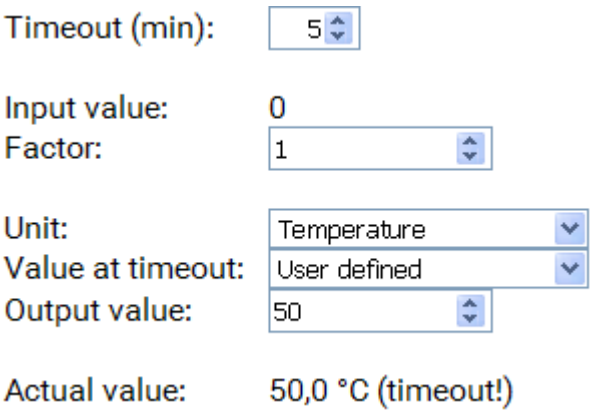
8. Value for timeout: "**unchanged**" means that the timeout of the last transmitted value is retained. If "**user defined**" is selected, the output value subsequently set is adopted for timeout.

9. User defined **output value** for timeout. Depending on the unit, this value is issued with the appropriate number of decimal places (example: "50" is issued if the temperature is "50.0 °C").

10. **Actual value**: this value is currently adopted by the C.M.I., subject to the factor, the unit and the timeout settings.

11. After completing the entry: **Save**

Example: for issuing a user defined value for timeout**:**

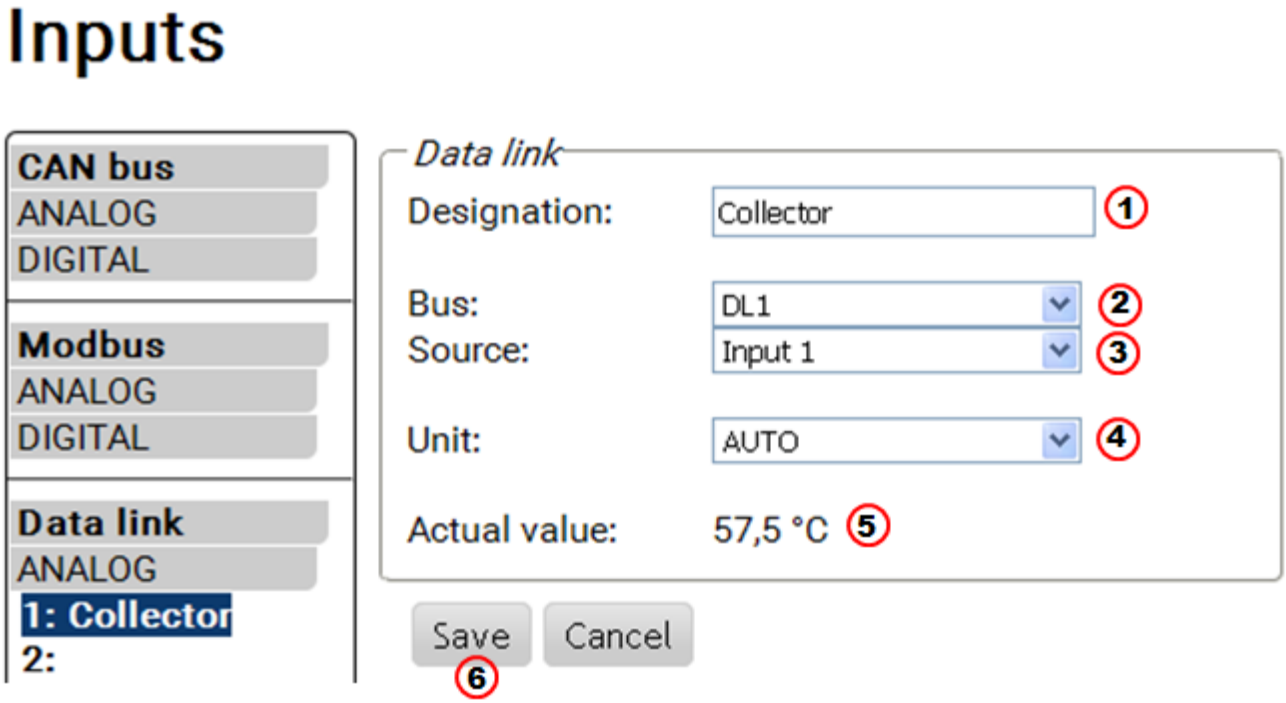


Because no new value was able to be read out within 5 minutes, the output value of 50 °C is adopted and the timeout is displayed.

Data link

Setting the values which are adopted from the DL bus. Only values from the DL **data frames** of the devices, which are also used for DL datalogging, can be adopted. Values from DL sensors cannot be read.
Up to 32 analogue and 32 digital values can be defined.

Example: analogue value 1 from DL1



1. **Input designation**
2. **Bus:** enter the **data link connection** on the C.M.I., via which the value should be read. The second UVR1611 data frame (setting for output 14 with "NETW.INP.=>DL.: yes") is not read.
3. Select the **source** (analogue: input 1...16; digital: output 1...13)
4. Select the **unit**: "**AUTO**" means that the source unit is adopted. However, a wide range of alternative units are also available to choose from.
5. **Actual value**: this value is currently adopted by the C.M.I., subject to the unit.
6. After completing the entry: **Save**

DL data frames for the analogue values

C.M.I. source	UVR16x2, UVR1611	ESR21, 31	UVR61-3, 63 **B**
	UVR61-3, 63, 63-H **A**		
Input 1	Sensor value 1	Sensor value 1	Sensor value 1
Input 2	Sensor value 2	Sensor value 2	Sensor value 2
Input 3	Sensor value 3	Sensor value 3	Sensor value 3
Input 4	Sensor value 4	Ext. value 1	Sensor value 4
Input 5	Sensor value 5	Ext. value 2	Sensor value 5
Input 6	Sensor value 6	Ext. value 3	Sensor value 6
Input 7	Sensor value 7	Ext. value 4	Ext. value 1
Input 8	Sensor value 8	Ext. value 5	Ext. value 2

Input 9	Sensor value 9	Ext. value 6	Ext. value 3
Input 10	Sensor value 10		Ext. value 4
Input 11	Sensor value 11		Ext. value 5
Input 12	Sensor value 12		Ext. value 6
Input 13	Sensor value 13		Ext. value 7
Input 14	Sensor value 14		Ext. value 8
Input 15	Sensor value 15		Ext. value 9
Input 16	Sensor value 16		

A = UVR61-3 **up to** version 8.2 / UVR63 **up to** version 1.4 / UVR63-H – all versions

B = UVR61-3 **from** version 8.3 / UVR63 **from** version 1.5

SMS

This function is only possible if a GSM module is fitted.

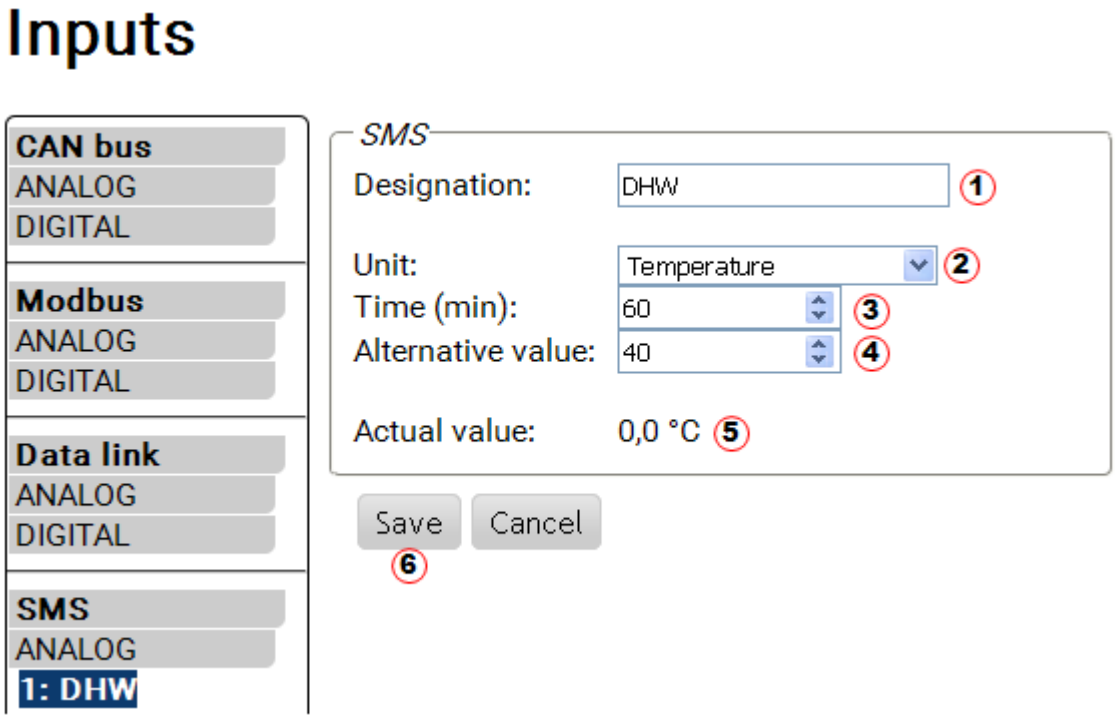
This menu is used for entering the designations and settings for **SMS commands**.
Up to 16 SMS commands for analogue values and 16 for digital values can be defined.
If an SMS message is transmitted to the GSM module with the **designation** (along with value and call sign), an **SMS input** is generated which can then act as the source for a **CAN output**, for example.
SMS **commands** always end with a **call sign** according to the designation. It does not matter whether the designations are upper or lower case, but **special characters** must not be used (e.g. ä, ü, ö, á, #, etc.).

Analogue commands

The C.M.I. analogue **SMS inputs**, whose value can be set via SMS command, are configured under **Analogue**. The command must always be completed with a **call sign**.

Example:

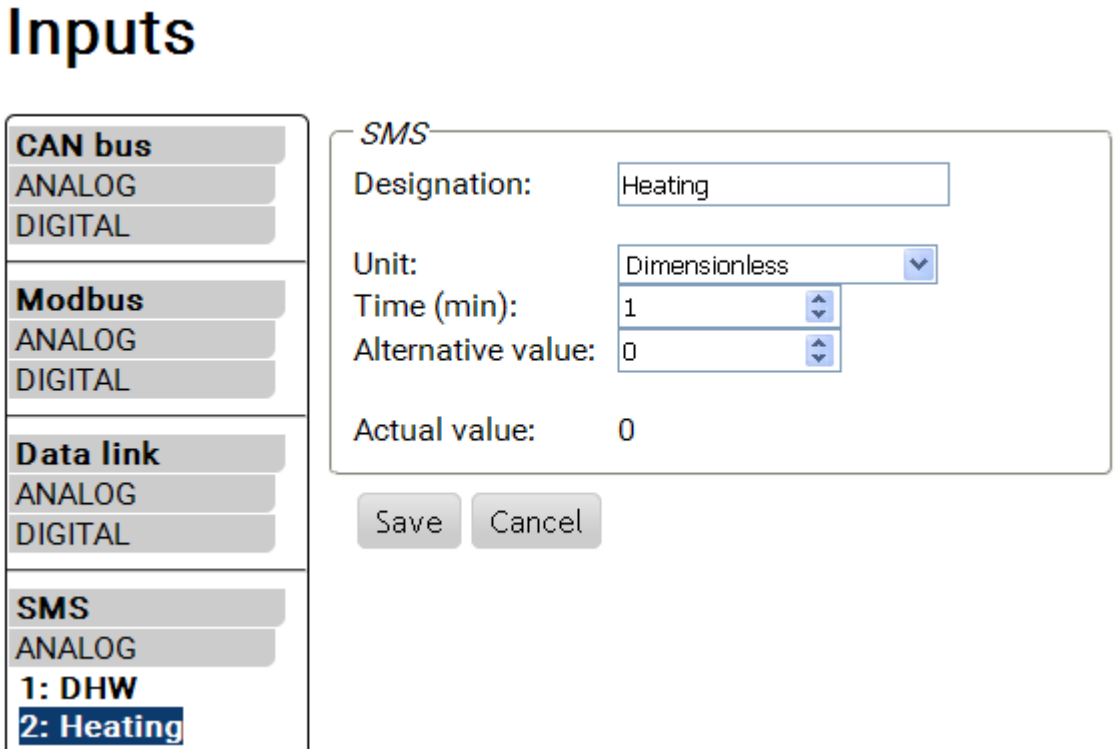
SMS with the designation "DHW" for analogue input



1. **Input designation** (= SMS designation)
2. Select the **unit**: a wide range of units are available to choose from.
3. **Time**: within the specified time period, the value indicated in the SMS is read as the **current value**. Following this, the **alternative value** is adopted. With a setting of "0", the SMS value remains unchanged until another value is transmitted via SMS.
4. **Alternative value**: at the end of the set time, the alternative value is adopted as the current value.
5. **Actual value**: this value is currently adopted by the C.M.I., subject to the time setting.
6. After completing the entry: **Save**

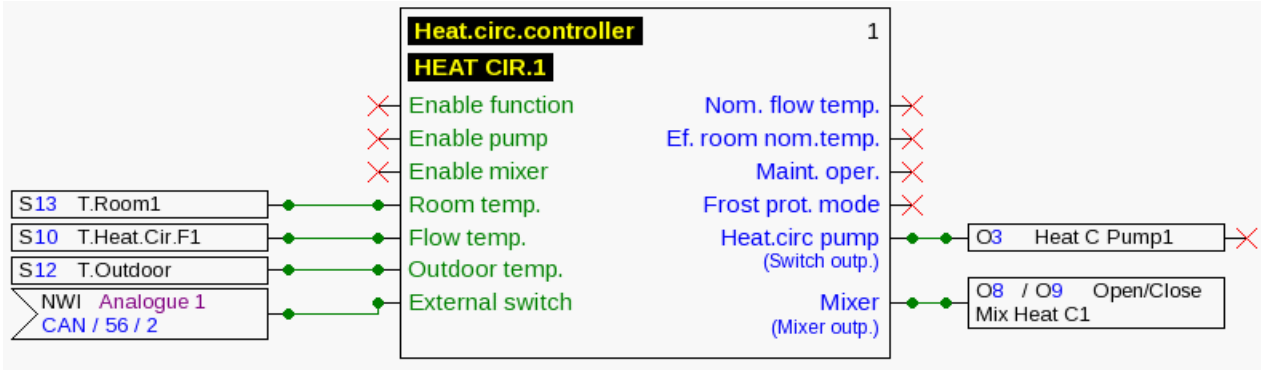
The SMS command ***DHW 60!*** sets the SMS input value **analogue 1** with the designation "DHW" to the value of 60.0 °C.
After 60 minutes (= "time" setting), the alternative value is adopted (in the example: 40.0 °C).
If the time is set to "**0**", the SMS value (60 °C) is maintained, providing it is not changed by another SMS command.

Example:
SMS with the designation "heating" for operating mode changeover of a heating circuit



With the additional texts ***standby***, ***time***, ***normal***, ***lowered*** and ***internal***, the operating mode of a heating circuit can be changed via SMS. These commands are adopted by the C.M.I. as **analogue** numbers and can be passed on to the CAN network (CAN output of the C.M.I.).
To do this, the appropriately programmed **analogue** CAN input on the UVR1611 or UVR16x2 must be linked to the "**external switch**" input of the "**heating circuit controller**" function (see operating instructions: *Heating circuit controller/external switch function*).

Programming example UVR1611



In the example above, the SMS input "**Heating**" was assigned to the CAN output **analogue 2** of the C.M.I. (node 56).
With the SMS command ***Heating lowered!***, the heating circuit changes to setback mode.
With the SMS command ***Heating internal!***, the internal operating status of the controller is reactivated before transmitting SMS commands.

Value transfer with analogue commands using text entry:

Text entry	**Value is adopted during the time period**	**Value <u>at the end</u> of the time**
standby	64	Alternative value
time	65	Alternative value

normal	66	Alternative value
lowered	67	Alternative value
internal	127	Alternative value

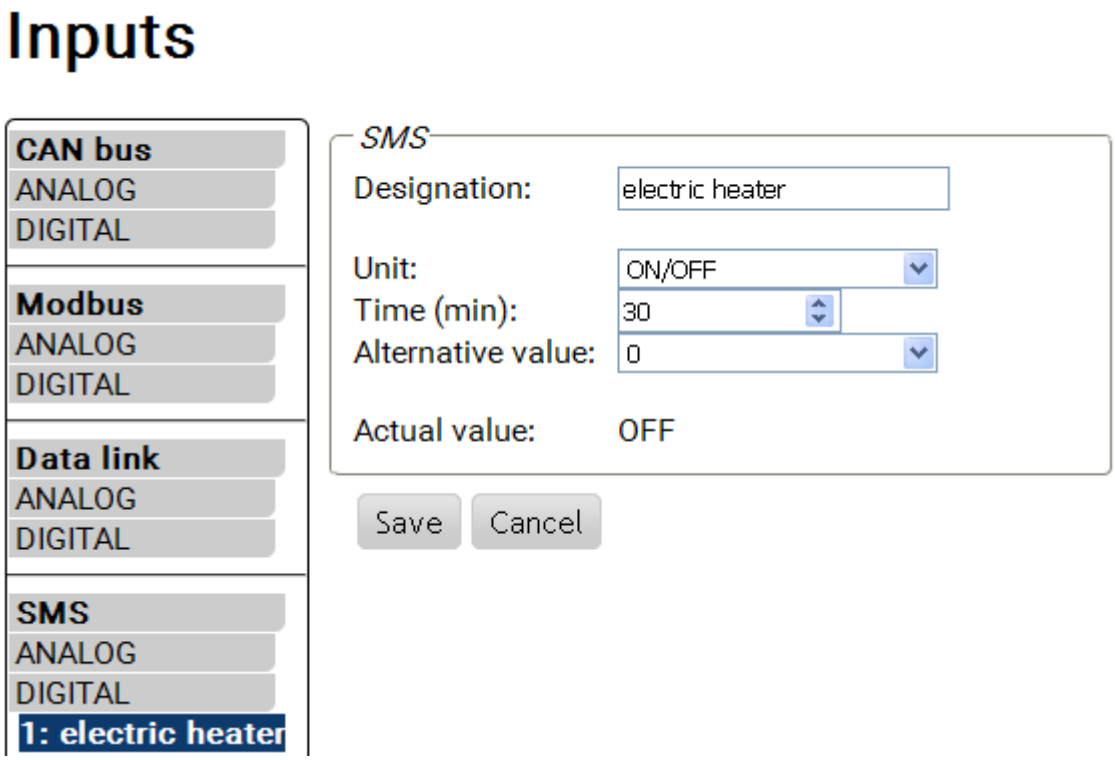
Note:
Settings **time > 0** and **alternative value 0**: **at the end of the time**, after the value 64-67 or 127 has been transferred, the C.M.I. issues the alternative value 0.
The **alternative value 0** does not result in any further changes in the heating circuit controller. After this, the operating mode can be changed again manually (at the RAS room sensor, at the CAN monitor, at the CAN-TOUCH, at the controller itself or via the browser).
If no alternative value 0 is transmitted (e.g. for **time = 0**), the operating mode cannot be changed manually.

Digital commands

The C.M.I. **digital SMS inputs**, whose value can be set via SMS command, are configured under **Digital**. An **SMS command** is set with the values ***on!*** and ***off!*** or ***0!*** and ***1!*** (e.g. ***designation on!*** or ***designation 1!***). The command must always be completed with a **call sign**.
The alternative value "0" corresponds to OFF/No; the value "1" corresponds to ON/Yes.

Example:

SMS with the designation "electric heater"



The SMS command ***electric heater on!*** sets the SMS input value **digital 1** with the designation "electric heater" to the value **ON**.
At the end of the time (= 30 minutes), the current value is set to the alternative value 0 (= OFF).

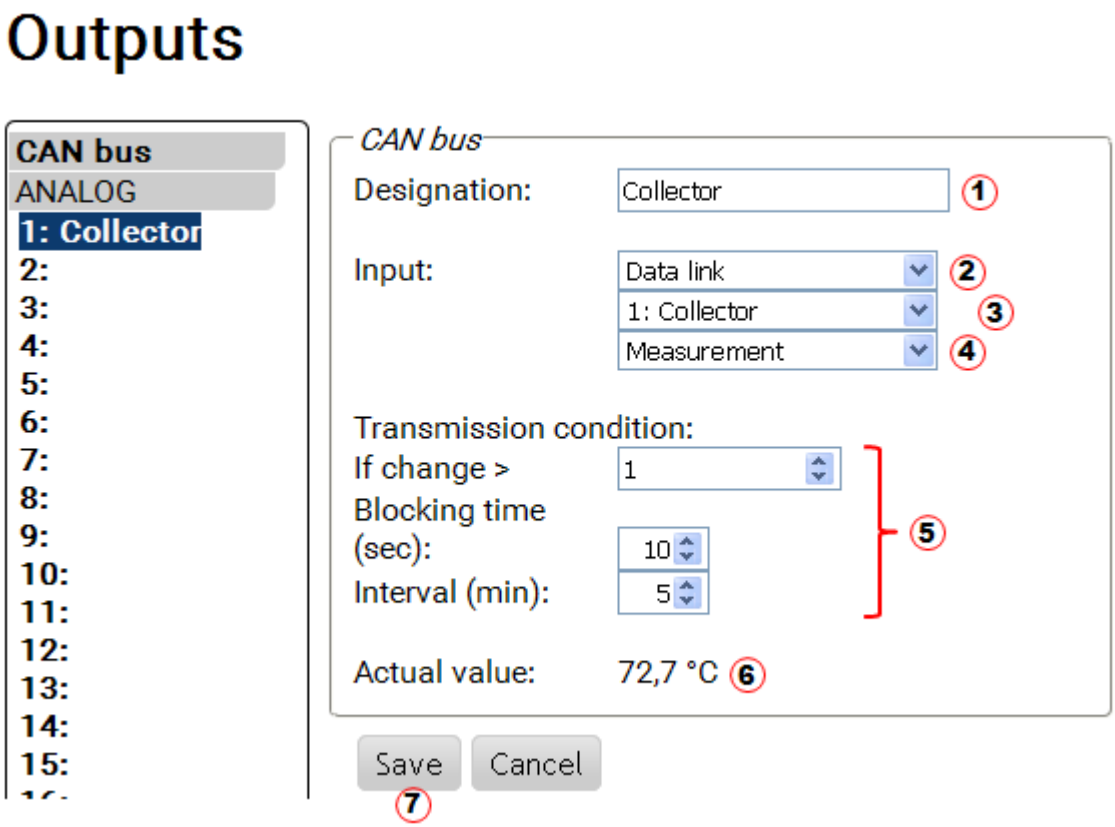
Outputs

In this menu, values from C.M.I. inputs can be linked with CAN bus or Modbus outputs of the C.M.I. or transmitted to other C.M.I.s via LAN using "CoE".

CAN bus

Setting the values which are transferred to the CAN bus for use in other CAN bus devices.
Up to 32 analogue and 32 digital values can be defined.

Example: adoption of the analogue DL input 1



1. **Output designation**

2. Select the **input type**: Modbus, Data link or SMS.

3. Select the required **input**.

4. Transfer the **measured value** (currently no other entry possible)

5. **Transmission conditions**: the input value is transferred to the CAN network as a current value under the following conditions.

Transmission conditions for analogue CAN outputs:

If change > 1	If the current value has changed by more than 1 compared to the last transmitted value, a new transmission is made. The unit used by the source is applied to the output value.
Blocking time 10	If the value changes by more than 1 within 10 seconds of the last transmission, the value is still only retransmitted after 10 seconds (minimum value: 1 second).
Interval time 5	The value is transmitted every 5 minutes even if it has not changed by more than 1 since the last transmission (minimum value: 1 minute).

Transmission conditions for digital CAN outputs:

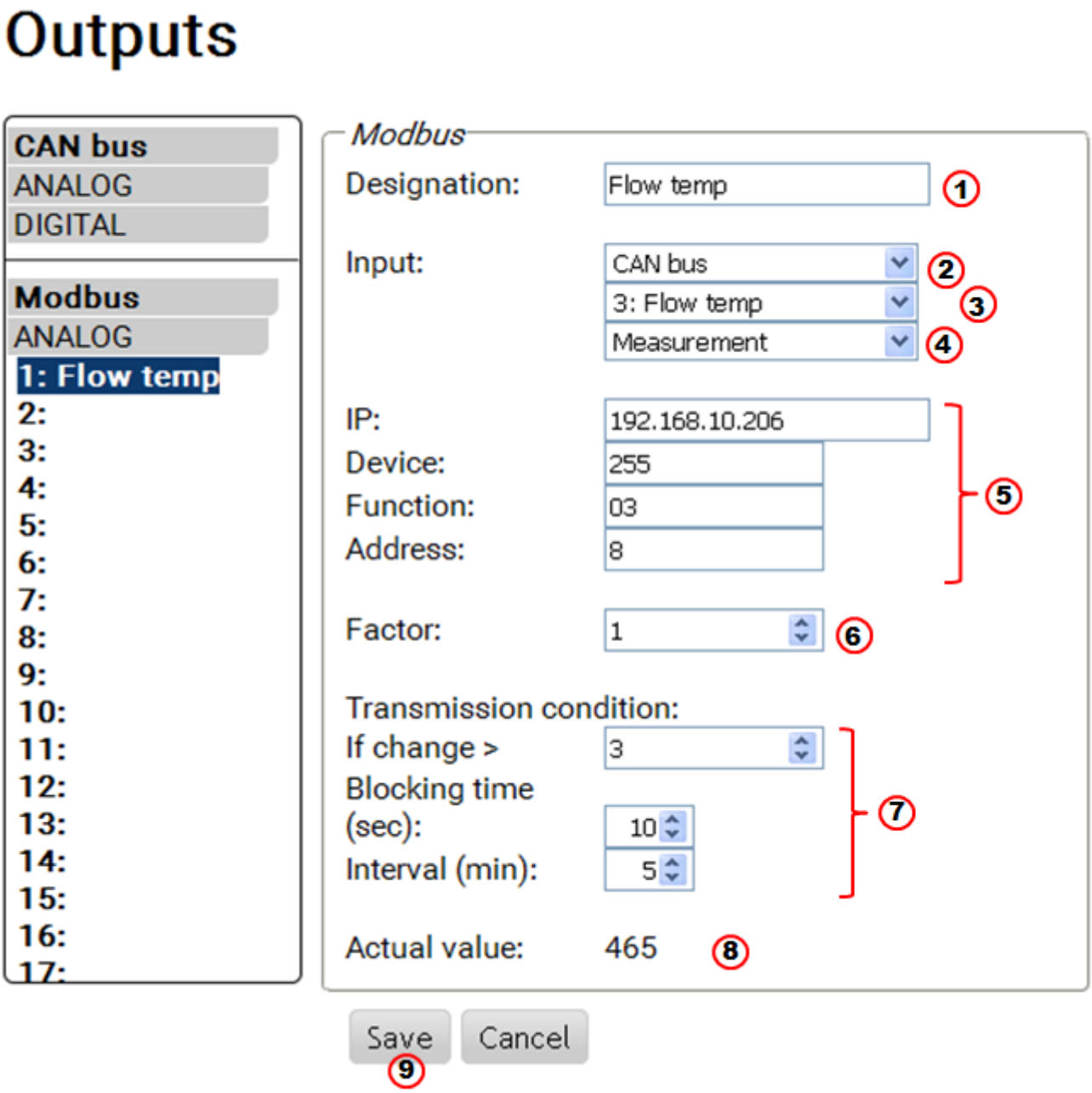
If change yes/no	Transmission of the value if a status change occurs
Blocking time 10	If the value changes within 10 seconds of the last transmission, the value is still only retransmitted after 10 seconds (minimum value: 1 second).

Interval time 5	The value is transmitted every 5 minutes even if it has not changed since the last transmission (minimum value: 1 minute).

6. **Actual value**: this value is currently being issued by the C.M.I.
7. After completing the entry: **Save**

Modbus

Setting the values which are transferred to the Modbus for use in Modbus devices.
In this case, the C.M.I. is the **master** and the value is transmitted to the **slave**.
Up to 32 analogue and 32 digital values can be defined.
Example: a CAN input value is transferred to a Modbus device



1. **Output designation**
2. Select the **input type**: CAN bus, Modbus, Data link or SMS.
3. Select the required **input**
4. Transfer the **measured value** (currently no other entry possible)
5. Enter the **IP address** and the **manufacturer-specific** data for the Modbus device (= slave) to which the value is transmitted
6. Enter the **factor** for the input value for implementation at the value that is transferred to the Modbus.
7. **Transmission conditions**: the input value is transferred to the Modbus as a current value under the following conditions.

Transmission conditions for analogue Modbus outputs:

If change > 3	If the current value has changed by more than 3 compared to the last transmitted value, a new transmission is made.
Blocking time 10	If the value changes by more than 1 within 10 seconds of the last transmission, the value is still only retransmitted after 10 seconds (minimum value: 1 second).
Interval time 5	The value is transmitted every 5 minutes even if it has not changed by more than 3 since the last transmission (minimum value: 1 minute).

Transmission conditions for digital Modbus outputs:

If change yes/no	Transmission of the value if a status change occurs
Blocking time 10	If the value changes within 10 seconds of the last transmission, the value is still only retransmitted after 10 seconds (minimum value: 1 second).
Interval time 5	The value is transmitted every 5 minutes even if it has not changed since the last transmission (minimum value: 1 minute).

8. **Current value**: this value is issued to the Modbus. Only **whole numbers** without a unit can be issued to the Modbus. Example: "375" is issued for 37.5 °C. If only "37" is to be issued, a factor of 0.1 should be entered.

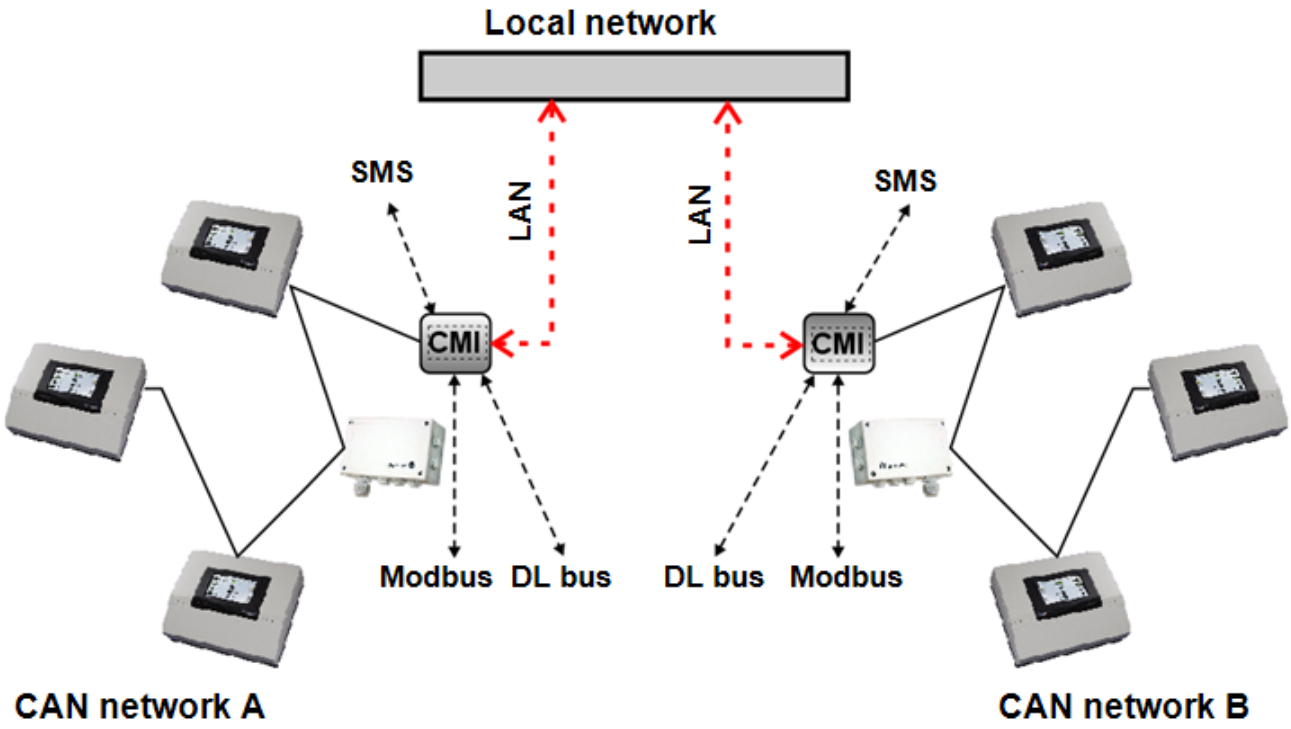
9. After completing the entry: **Save**

CoE (= CAN over Ethernet)

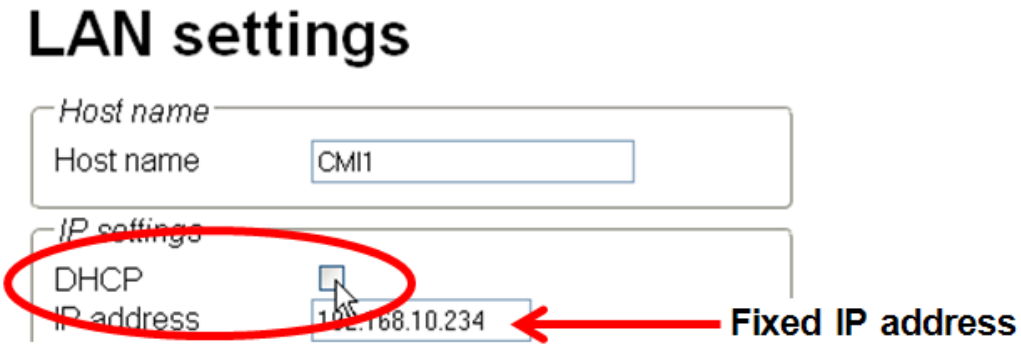
Description of the data transfer method

Using this method, it is possible to transfer the values of analogue and digital C.M.I. inputs to other C.M.I.s via Ethernet (LAN).
This means data can be exchanged between separate CAN networks.
Data transfer using Ethernet takes place via **UDP**, **port 5441**.

Example:



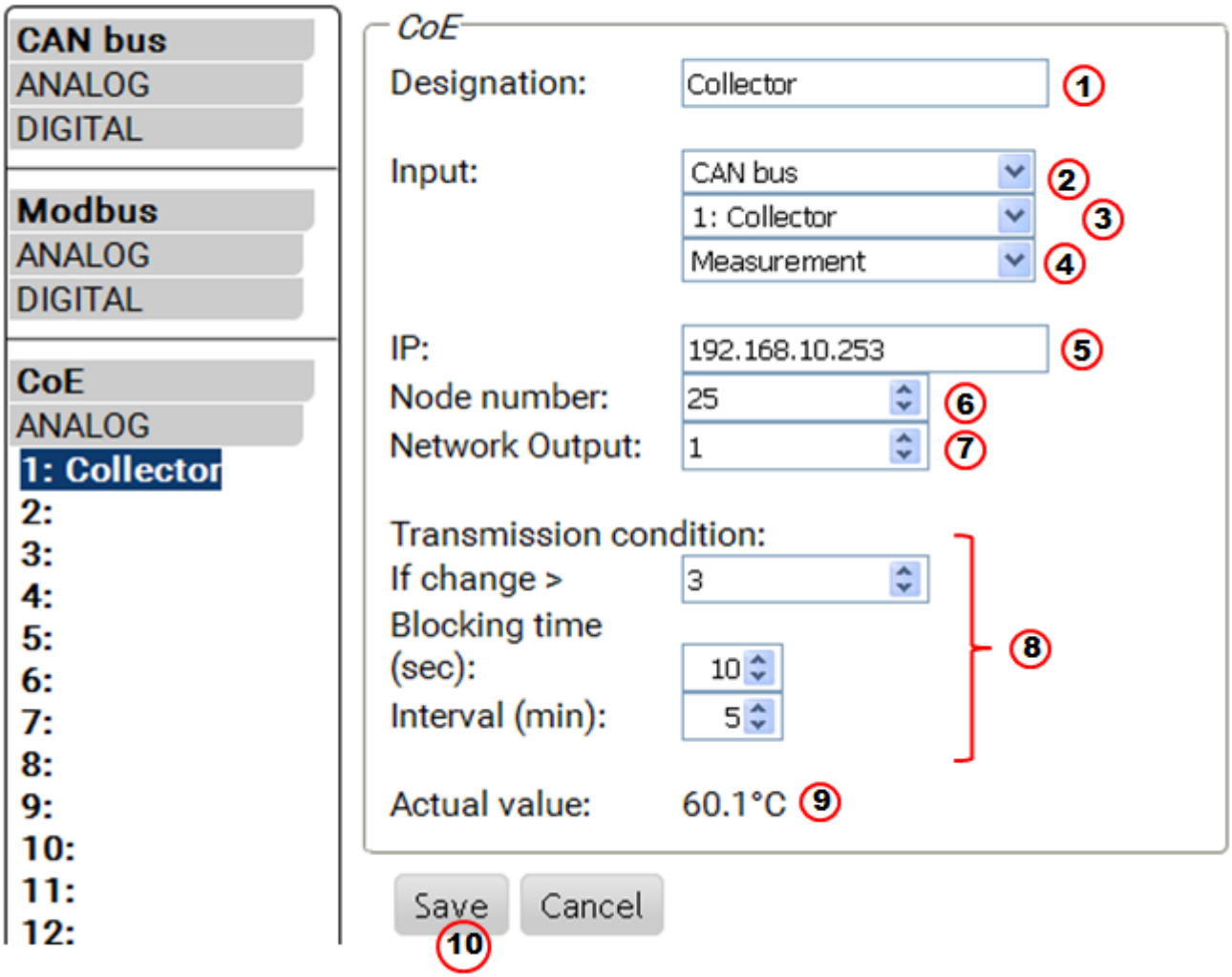
The **receiving** C.M.I. must have a **fixed** IP address. We recommend firstly installing the C.M.I. **with DHCP** and then **deactivating DHCP** mode in the Settings/Ethernet menu.



If data is transmitted in **both** directions, **both** C.M.I.s must have a **fixed** IP address.

Example: a C.M.I. input is transferred to the C.M.I. via the LAN with IP address 192.168.10.253, and there it is transferred from the C.M.I. into the CAN network as CAN output 1 via CAN node 25.

Outputs



1. **Output designation**

2. Select the **input type**: CAN bus, Modbus, Data link or SMS.

3. Select the required **input**

4. Transfer the **measured value** (currently no other entry possible)

5. Enter the **IP address** of the **receiving C.M.I.** to which the value is transmitted

6. Enter the **CAN node number:** the **receiving** C.M.I. **also** receives this **virtual** node number itself. This virtual node number must **not** already be assigned in the CAN network of the receiving C.M.I. This also applies to the receiving C.M.I. itself. Several virtual node numbers may be assigned for one C.M.I.

7. The transferred value receives this number for the **CAN network output**. Up to 32 analogue values and 32 digital values can be issued for each virtual node.

8. **Transmission conditions**: the input value is transferred to the LAN as a current value under the following conditions.

Transmission conditions for analogue CoE outputs:

If change > 3	If the current value has changed by more than 3 compared to the last transmitted value, a new transmission is made.
Blocking time 10	If the value changes by more than 1 within 10 seconds of the last transmission, the value is still only retransmitted after 10 seconds (minimum value: 1 second).

Interval time 5	The value is transmitted every 5 minutes even if it has not changed by more than 3 since the last transmission (minimum value: 1 minute).

Transmission conditions for digital CoE outputs:

If change yes/no	Transmission of the value if a status change occurs
Blocking time 10	If the value changes within 10 seconds of the last transmission, the value is still only retransmitted after 10 seconds (minimum value: 1 second).
Interval time 5	The value is transmitted every 5 minutes even if it has not changed since the last transmission (minimum value: 1 minute).

9. **Current value**: this value is currently being issued to the LAN from the C.M.I.

10. After completing the entry: **Save**

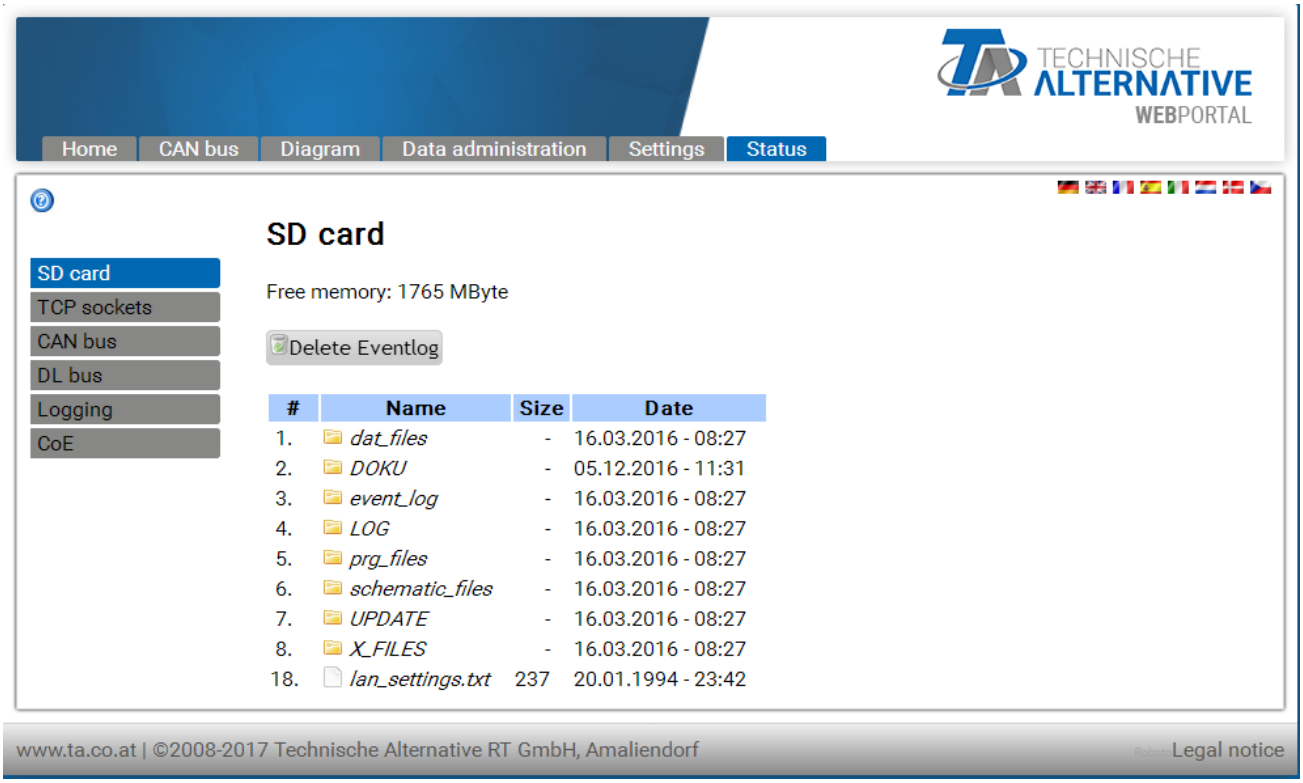
Menu Status

This menu provides information above files saved to the SD card and other states of the C.M.I..

SD card

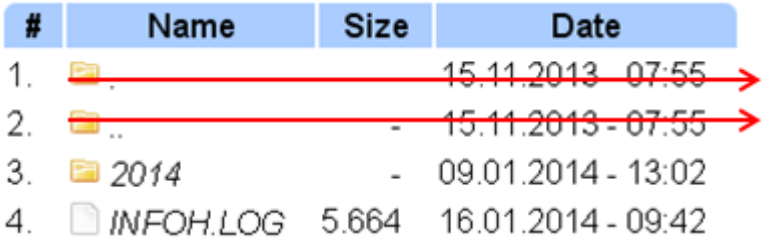
If an SD card other than the supplied one is used, then the following must be observed:

The SD card must be formatted with the FAT16 or FAT 32 file format.
SD cards with a memory of up to 4 GB can be used without problems.
SD cards with a memory of up to 32 GB can be used but the display of available memory may be incorrect.
SD cards with a memory of more than 32 GB cannot be used.



The available memory and all folders and files saved to the SD card are displayed.
Clicking on a folder displays the files in this folder.

Example: Folder ***LOG***
In the first two lines, symbols are displayed that can be clicked to trigger the following actions:



Click: Update view
Click: Back to last view

The folder **doku**, PDF files are saved, which were pulled to the SD card via drag & drop. Folder **x-files** is for all files that cannot be assigned to other folders.

Deleting the file in the folder event_log

Clicking on this button deletes the txt file in the folder event_log (event and error memory).

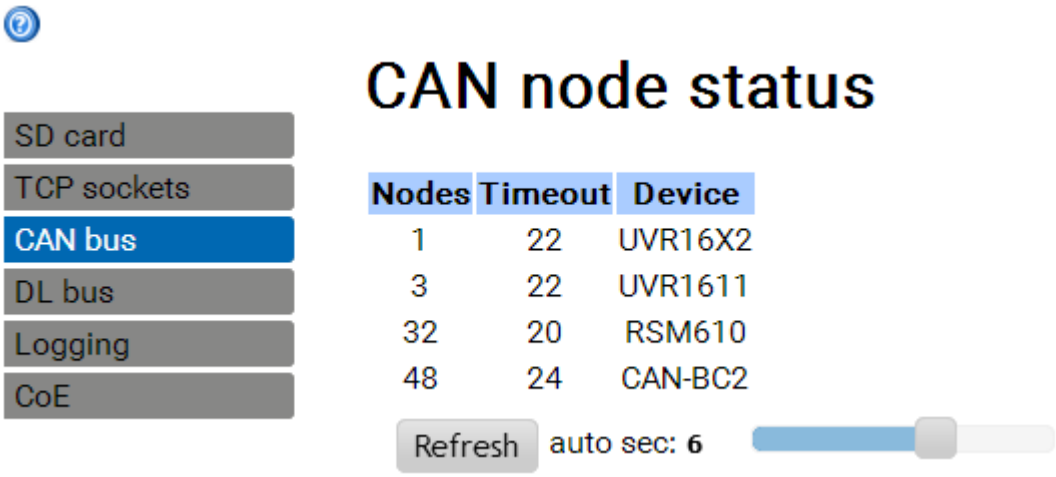
Copy the SD card's files to the computer

Click on the file in question with the right mouse button and select the target on the computer.

TCP sockets

This page provides an overview of possible network connections and is especially helpful for experts during the error analysis of network problems.

CAN-Bus



In this submenu, the CAN bus status can be checked.

Every CAN bus device sends a **Heartbeat**[1] to the C.M.I. every 10 seconds. If there is no signal after 15 seconds, "**Timeout**" is displayed for the node.

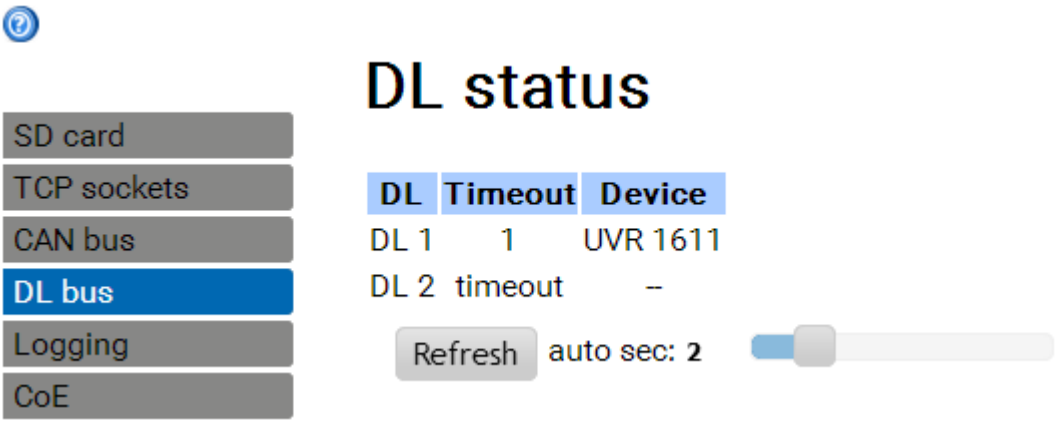
Nodes	Timeout	Device
1	20	UVR1611
31	20	CAN-I/O 44
32	timeout	-
48	17	BUS-CON

Example: Timeout of node 32

Clicking on the node number in this submenu takes you directly to the menu of the respective device.

[1] A **Heartbeat** is a network connection between two (or more) computers in a cluster to inform each other that they are operational and can still fulfil their tasks, i.e. that they are "alive" (Source: Wikipedia).

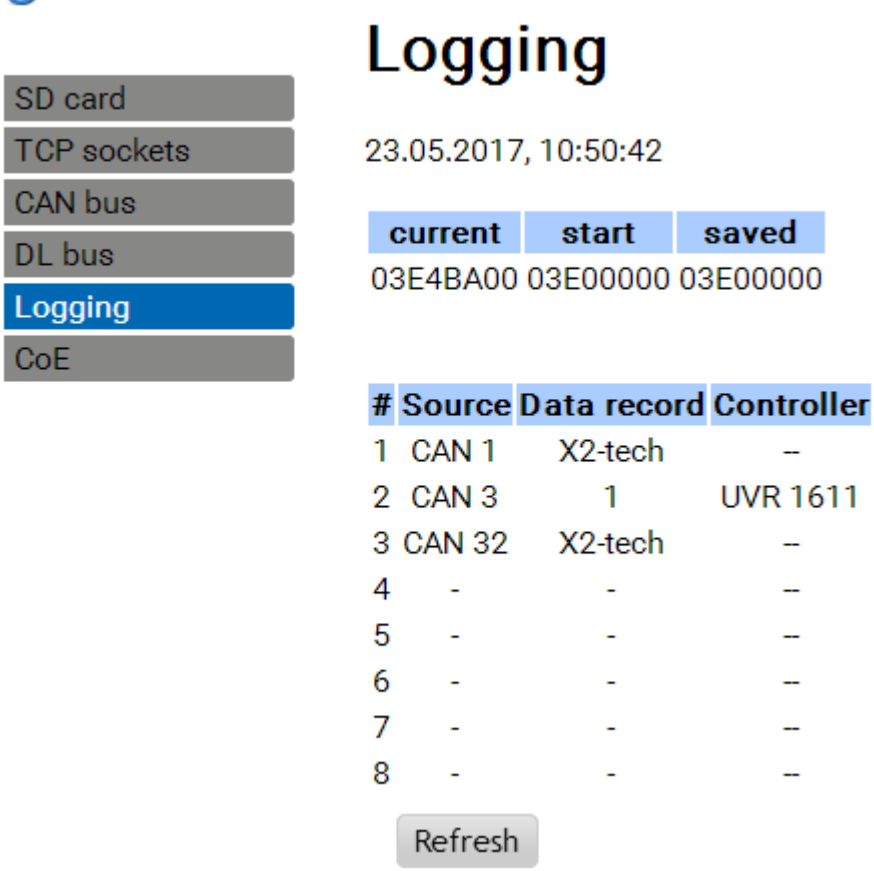
DL-Bus



In this submenu, the DL bus status can be checked.

If there is no signal after 15 seconds, “**Timeout**“ is displayed for the data line. In the above example, only one data line is connected so a timeout is visible only with DL2.

Logging



In this status menu, it can be checked whether the set logging method works.

In addition, it can be checked whether the system time is valid. There will be no logging without a valid system time.

Brief lapses of the green “**POWER**“ LED at regular intervals indicates active data logging

CoE

This page shows the current "CAN over Ethernet" (CoE) data transfer. For more detailed information about CoE, see chapter "**Outputs/CoE (= CAN over Ethernet)**".

EC-DECLARATION OF CONFORMITY

EU Declaration of conformity

Document- Nr. / Date:	TA17021 / 02/02/2017
Company / Manufacturer:	Technische Alternative RT GmbH
Address:	A- 3872 Amaliendorf, Langestraße 124

This declaration of conformity is issued under the sole responsibility of the manufacturer.

Product name:	C.M.I.
Product brand:	Technische Alternative RT GmbH
Product description:	Control and Monitoring Interface

The object of the declaration described above is in conformity with Directives:

2014/35/EU	Low voltage standard
2014/30/EU	Electromagnetic compatibility
2011/65/EU	RoHS Restriction of the use of certain hazardous substances

Employed standards:

EN 60730-1: 2011	Automatic electrical controls for household and similar use – Part 1: General requirements
EN 61000-6-3: 2007 +A1: 2011 + AC2012	Electromagnetic compatibility (EMC) - Part 6-3: Generic standards - Emission standard for residential, commercial and light-industrial environments
EN 61000-6-2: 2005 + AC2005	Electromagnetic compatibility (EMC) - Part 6-2: Generic standards - Immunity for industrial environments
EN 50581: 2012	Technical documentation for the assessment of electrical and electronic products with respect to the restriction of hazardous substances

Position of CE - label: On packaging, manual and type label

CE

Issuer: Technische Alternative RT GmbH
A- 3872 Amaliendorf, Langestraße 124

This declaration is submitted by

Schneider Andreas

Dipl.-Ing. Andreas Schneider, General manager,
02/02/2017

This declaration certifies the agreement with the named standards, contains however no warranty of characteristics.
The security advices of included product documents are to be considered.

Guarantee conditions, Legal notice

Guarantee conditions

Note: The following guarantee conditions do not in any way limit the legal right to a guarantee; rather expand your rights as a consumer.

1. The company Technische Alternative RT GmbH. provides a two-year guarantee from the date of purchase by the end consumer for all the devices and parts which it sells. Defects must be reported immediately upon detection and within the guarantee period. Technical support knows the correct solution for nearly all problems. In this respect, contacting us immediately will help to avoid unnecessary expense or effort in troubleshooting.

2. The guarantee includes the free of charge repair (but not the cost of on site fault-finding, removal, refitting and shipping) of operational and material defects which impair operation. In the event that a repair is not, for reasons of cost, worthwhile according to the assessment of Technische Alternative, the goods will be replaced.

3. Not included is damage resulting from the effects of overvoltage or abnormal ambient conditions. Likewise, no guarantee liability can be accepted if the device defect is due to: transport damage for which we are not responsible, incorrect installation and assembly, incorrect use, non-observance of operating and installation instructions or incorrect maintenance.

4. The guarantee claim will expire if repairs or actions are carried out by persons who are not authorised to do so or have not been so authorised by us or if our devices are operated with spare, supplementary or accessory parts which are not considered to be original parts.

5. The defective parts must be sent to our factory with an enclosed copy of the proof of pur-chase and a precise description of the defect. Processing is accelerated if an RMA number is applied for via our home page www.ta.co.at. A prior clarification of the defect with our technical support is necessary.

6. Services provided under guarantee result neither in an extension of the guarantee period nor in a resetting of the guarantee period. The guarantee period for fitted parts ends with the guarantee period of the whole device.

7. Extended or other claims, especially those for compensation for damage other than to the device itself are, insofar as a liability is not legally required, excluded.

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CE

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