

Manual

animeo[®] [®]
Master Control W2
Ref. 1860187
animeo[®] [®]
Master Control W8
Ref. 1860193

Version 3.1
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Table of contents

Table of contents	2
1 Functional description	5
1.1 Functions	5
1.2 Product contents	5
1.3 Connection diagrams	6
1.3.1 Connection diagram animeo KNX Master Control W2 version with Outside Sensor Box, optional with Compact Sensor and Weather Station M8/M13	6
1.3.2 Connection diagram animeo KNX Master Control W8 version with Outside Sensor Box	7
1.3.3 Wiring	7
1.4 Checking the connections	8
1.4.1 Checking the KNX Master Control connections	8
1.4.2 Checking the Outside Sensor Box connection	12
2 Software Installation	13
2.1 Required software	13
3 Setting the PC IP address	13
4 animeo KNX Operating software	15
4.1 Starting up the Operating software	15
4.2 Input serial number in the Operating software	16
4.3 Software Overview	17
4.3.1 Menu	17
4.3.2 Sensor bar	18
4.3.3 Navigation	18
4.3.4 Data transfer	19
4.3.5 Communication	19
4.4 Menu	19
4.4.1 File	19
4.4.2 Setting	20
4.4.3 Help	39
4.5 Status	41
4.5.1 Function status	41
4.5.2 Sensor status	43
4.6 Control	45
4.6.1 Manual operation	45
4.6.2 Locking command	46
4.7 Setting	47
4.7.1 Setting of the functions - zone functions	47
4.7.2 Setting of the functions – timer via KNX object	63
4.7.3 Energy mode	69
4.8 Log	74
4.8.1 Log of the system data	74
4.8.2 Log errors	76
5 ETS Programming	77
5.1 Importing the ETS Plug-in to ETS5	77
5.2 Download Individual Address of KNX/TP1 Module	78
5.3 Opening the ETS Plug-in	79
5.4 Importing a Symbol File in the ETS Plug-in	80
5.5 KNX/TP1 Module Parameterization	81
5.5.1 Graphical User Interface of the ETS Plug-in	81
5.5.2 Main menu	82
5.5.3 "File" Menu Item	82
5.5.4 "View" Menu Item	84
5.5.5 "Options" Menu Item	84
5.5.6 "Help" Menu Item	86

5.5.7	Toolbar	86
5.5.8	“Network Variables” Tab – List of Network Variables	87
5.5.9	“Network Variables” Tab – EIB Datatypes	88
5.5.10	“Properties” Tab	89
5.5.11	Status Bar	90
5.6	Uninstalling the ETS Plug-in.....	90
6	Communication objects.....	91
6.1	Object overview	91
6.1.1	List of Objects	91
7	Changing the IP address	98
7.1	Assigning IP address via web-based management	98
7.1.1	Preparation.....	98
7.1.2	Carrying out the IP address change	98
7.2	Assigning IP Address via Address Selection Switch.....	100
7.3	Resulting IP address saved in the fieldbus controller: 192.168.7.50	101
7.4	New start	102
8	Operating Switch.....	103
9	Technical data	104



These instructions apply to animeo Master Control W2/W8 from version E onwards!



Before starting up it is necessary to follow the safety instructions in these instructions. SOMFY cannot be held liable for defects and damages when these have been caused as a result of not following instructions (wrong installation, incorrect service etc.). Establishing, testing and starting up of the equipment is permitted only by a qualified person (in accordance with VDE 0100). Switch on all connections without voltage. Take precautions against unintentional turning on.

The installation of the Somfy products may occur only at easily accessible places. If maintenance and repair become hindered by accessibility substantially (e.g. stuck or extensively stuck flooring, installation behind lamps or behind façades), any originating supplementary costs therein cannot be charged to the seller.

Technical changes reserved.

1 Functional description

1.1 Functions

animeo KNX Master Control is a sun protection controller which can control up to 16 different zones in a building via the KNX bus wire. Depending on weather conditions (sun, wind and wind direction, rain, temperature, ...) and depending on time programs, animeo KNX Master Control sends information via the KNX bus wire to the individual sun protection control devices (e.g. animeo KNX Motor Controller) to provide optimum light and room climate conditions in the building and to protect the sun protection against damages. The sun protection controller can be connected to external systems (e.g. fire warning equipment), so that safety is guaranteed in the building. Thanks to special controlling of the sun protection equipment, the animeo KNX Master Control saves energy costs.

The parameter setting is realised with a user-friendly PC surface (animeo KNX Operating Software) and the objects are linked with the ETS Software. animeo KNX Master Control is available in two versions:

- **animeo KNX Master Control W2 (ref.1860187)**
to connect from up to two wind speed sensors on the Outside Sensor Box (ref.9001606) or one Compact Sensor (ref.9015047).
- **animeo KNX Master Control W8 (ref.1860193)**
to connect from up to eight wind speed sensors, two on the Outside Sensor Box (ref.9001606) and six additional wind speed sensors (9140180) to the direct connection in animeo KNX Master Control W8.



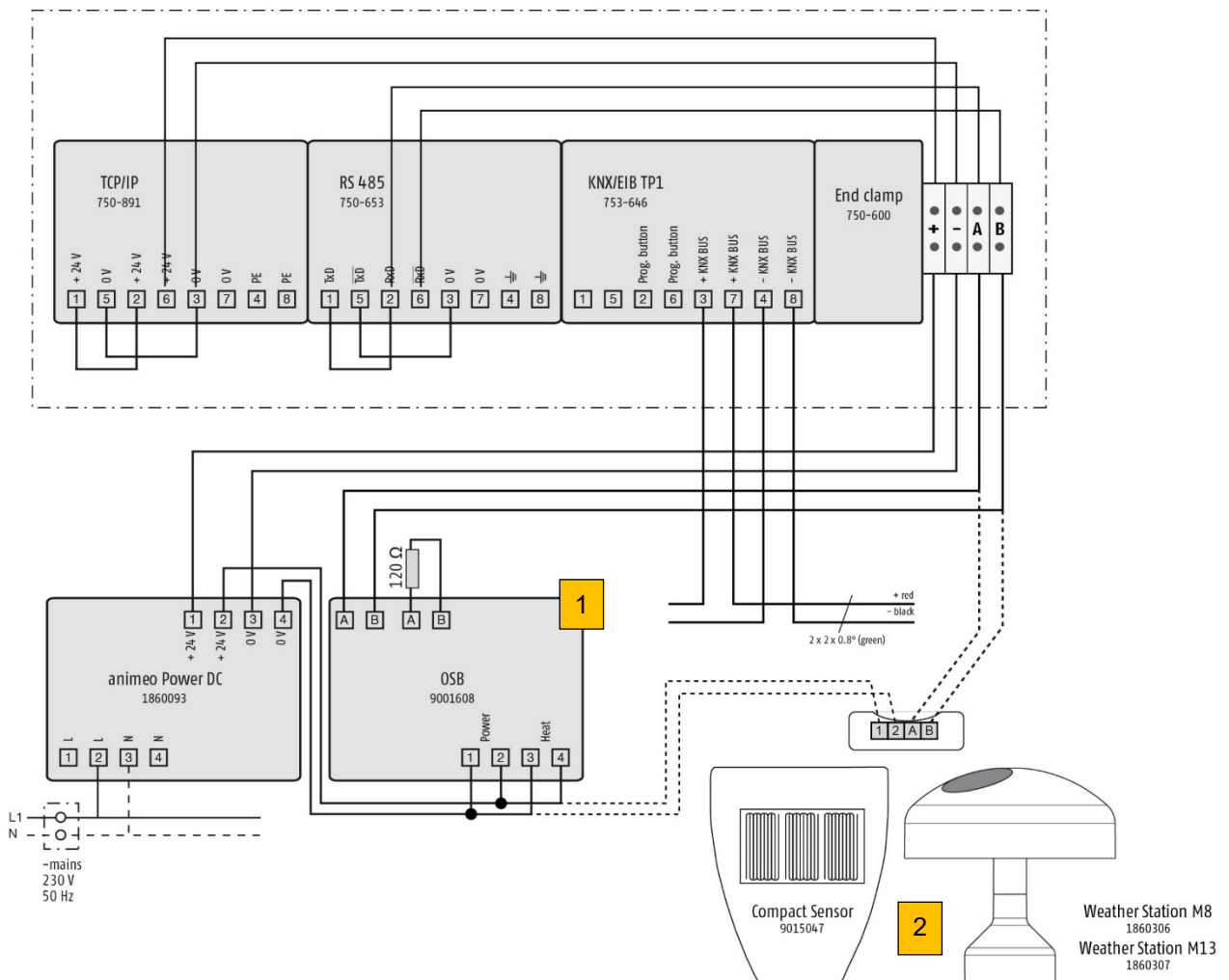
1.2 Product contents

The central control animeo KNX Master Control contains:

- The controller module animeo KNX Master Control W2 (ref.1860187) or
- The controller module animeo KNX Master Control W8 (ref.1860193)
- A USB stick with the following files and programs:
 - animeo KNX Operating software for setting parameters
 - operating and setting instructions (PDF format)
 - connection diagrams (PDF format)
 - KNX product data base and symbols file
- A cross-over cable for direct communication between PC and animeo KNX Master Control.
- Screw driver

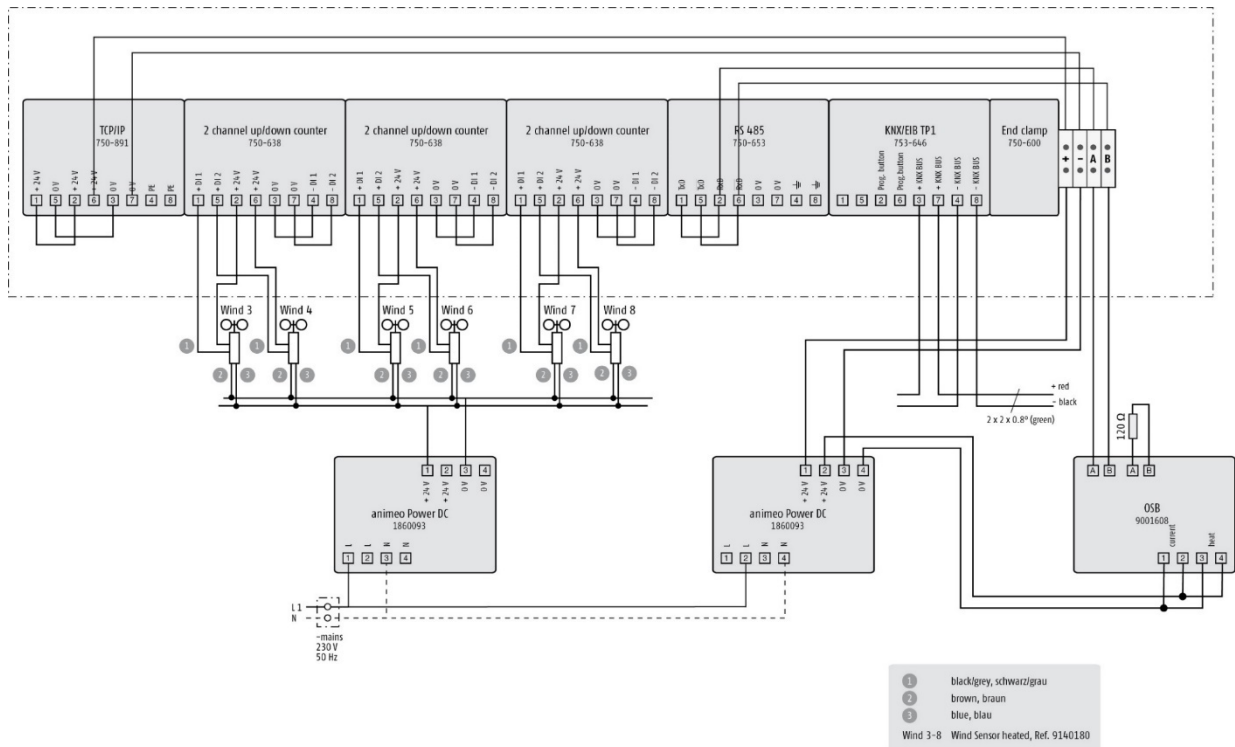
1.3 Connection diagrams

1.3.1 Connection diagram animeo KNX Master Control W2 version with Outside Sensor Box, optional with Compact Sensor and Weather Station M8/M13



1. Connection of Outside Sensor Box to KNX Master Control
2. Optional connection of Compact Sensor, Weather Station M8, Weather Station M13

1.3.2 Connection diagram animeo KNX Master Control W8 version with Outside Sensor Box



	Wiring colour of the wind sensor (ref.9140180)
1	Black/Grey
2	Brown
3	Blue

1.3.3 Wiring

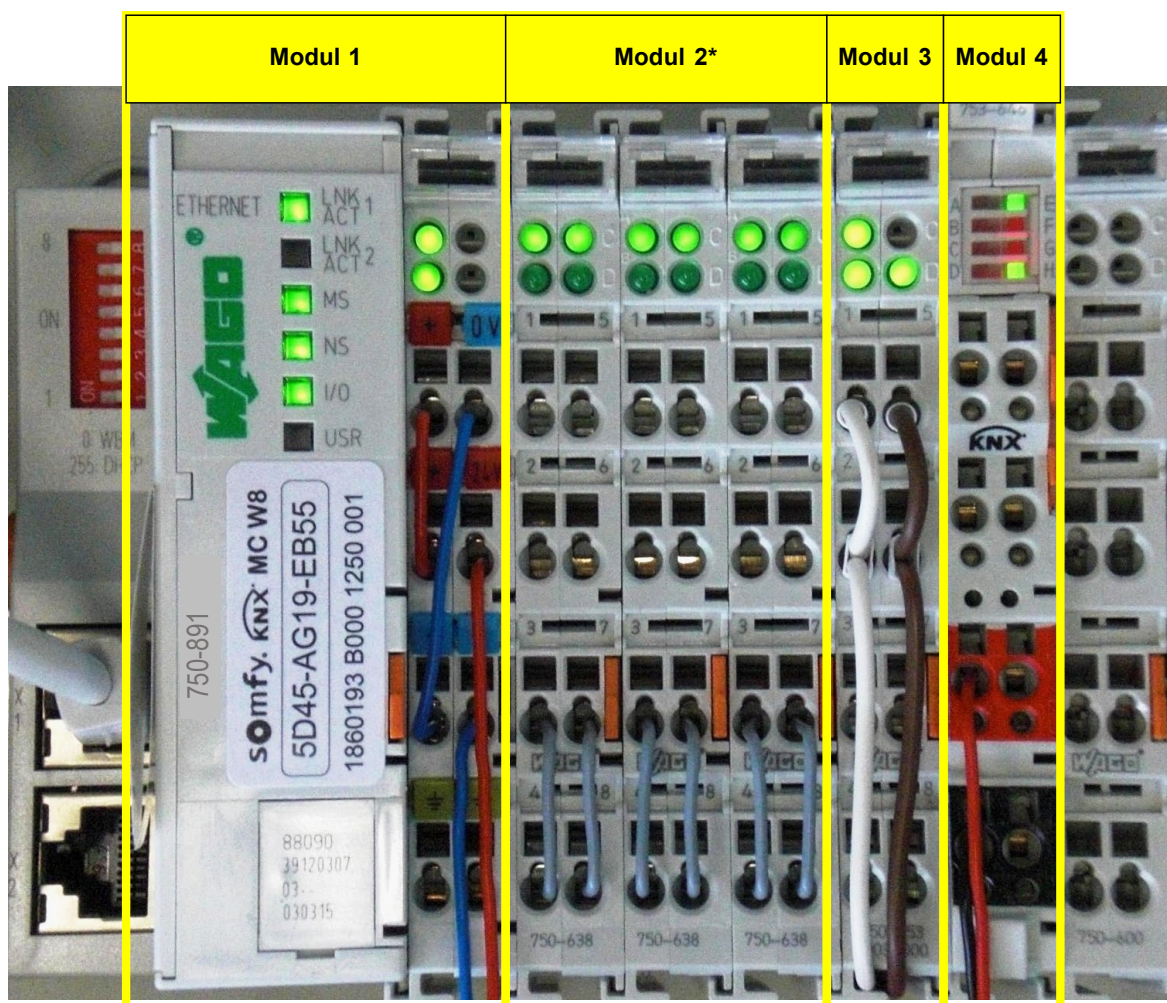
Connection on ...	Cable	Twisted pair	Max. distance
24 V DC	Min: 2 x 1.5 mm ² /15 AWG Max: 2 x 2.5 mm ² /13 AWG	-	-
Sensor Bus (Outside Sensor Box/ Compact Sensor/ Wetter- station M8 und M13)	Min: 2 x 0.6 mm/22 AWG Max: 2 x 0.8 mm/20 AWG	Required	500 m/1650 ft
Ethernet	Cat. 5/100 Mbit/s	-	100 m/330 ft
KNX bus connection	2 x 0.8 mm/20 AWG	Required, see KNX topology instruction	
Wind Sensor heated	Min.: 4 x 1.5 mm ² /15 AWG Max.: 4 x 2.5 mm ² /13 AWG	-	100 m/330 ft
Wind Sensor un- heated	Min.: 4 x 0.6 mm/22 AWG Max.: 4 x 2.5 mm ² /13 AWG	-	100 m/330 ft

1.4 Checking the connections

Before you start with setting the parameters, check first whether the controller is properly connected. The LEDs in animeo KNX Master Control and in the Outside Sensor Box indicate whether the connection is correct.

Wait a few seconds until the system has started and compare the LEDs on the devices to the normal LED state in the table. If they do not match, the connection must be checked.

1.4.1 Checking the KNX Master Control connections



*Module 2 only available with animeo KNX Master Control W8, ref. 1860193.

1.4.1.1 Module 1 (Ethernet TCP/IP)

Connection	LED State
Module 1: Ethernet TCP/IP connection (If connected to network)	LINK ACT 1: green (OFF but LINK ACT2: green)** LINK ACT 2: green (OFF but LINK ACT1: green)** MS: green NS: green, blinking I/O: green USR: OFF A: green B or C: green
Module 1: Ethernet TCP/IP connection (If connected to network)	LINK ACT 1: OFF LINK ACT 2: OFF MS: green NS: green, blinking I/O: green USR: OFF A: green B or C: green

** Minimum of one of the two LINK ACT1 or LINK ACT2 must shine green.

LED	Color	Meaning
LINK ACT 1	green	indicates a connection to the physical network at port 1
LINK ACT 2	green	indicates a connection to the physical network at port 2
MS	red/green	indicates the status of the node
NS	red/green	indicates the network status
I/O	red/green/ orange	indicates the operation of the node and signals via a blink code if errors occur
USR	red/green/ orange	indicates information to the internal bus faults, controlled from the user programm according to the visualization programming.
A	green	indicates the status of the operating voltage of the system
B	green	indicates the status of the operating voltage power of the jumper contacts

1.4.1.2 Module 2* (counter/wind sensor connection)

Connection	LED State
Module 2: Counter/wind sensor connection* (If wind sensor is connected)	A: Green B: OFF → blinks green, when connected windmill turns* C: Green D: OFF → blinks green, when connected, windmill turns** (** To check, turn the sensor wheel of the corresponding wind sensor if necessary)

*Only with animeo KNX Master Control W8, ref. 1860193

LED	Channel	Designation	State	Function
A green	1	Function DI 1	Off	Counter 1: no communication with coupler/ controller
			On	Counter 1: communication with coupler/controller
B green		Status DI 1	Off	Counter 1: signal input off
			On	Counter 1: DC 24 V signal input on
C green	2	Function DI 2	Off	Counter 2: no communication with coupler/ controller
			On	Counter 2: communication with coupler/controller
D green		Status DI 2	Off	Counter 2: signal input off
			On	Counter 2: DC 24 V signal input on

1.4.1.3 Module 3 (RS485 connection)

Connection	LED State
Module 3: RS485 connection (If Outside Sensor Box or Compact Sensor is connected to network)	A: green B: green C: OFF D: green, blinking

LED	Channel	State	Function
A green	Function	Off	No operational readiness or the internal data bus communication is interrupted
		On	Operational readiness and trouble-free internal data bus communication
B green	TxD	Off ¹⁾	Signal transmission TxD running
		On	No signal transmission TxD
D green	RxD	Off ¹⁾	Signal transmission RxD running
		On	No signal transmission RxD

¹⁾ The pulses are so short that the off status cannot or only hardly be recognized with the eyes.

1.4.1.4 Module 4 (KNX connections)

Connection	LED State
Module 4: KNX connection (If not already programmed with the ETS)	A: OFF B: OFF C: OFF D: OFF E: green F: OFF G: red H: green
Module 4: KNX connection (If already programmed with the ETS)	A: OFF B: OFF C: OFF D: OFF E: green F: OFF G: OFF H: green

LED	Named	State	Function
A green	Router mode	Off	Operating mode Router not active
		On	Operating mode Router active
		Flashing	Synchronization
B red	KNX- Programming mode	Off	KNX programming mode not active
		On	KNX programming mode active
		Flashing	Check sum error
C green	Data transfer inter- nal bus	Off	Internal data bus data transfer not active
		flashing	Internal data bus data transfer active
D yellow	Data transfer KNX	Off	KNX data transfer not active
		Flashing	KNX data transfer active
E green	Device mode	Off	Device mode not active
		On	Device mode active
		Flashing	Synchronization
F red	Buffer overflow	Off	No buffer overflow
		On	Buffer overflow
G red	Internal fault	Off	No fault
		On	Check sum error / device not configured
H green	KNX bus voltage	Off	KNX bus voltage not available
		On	KNX bus voltage available

1.4.2 Checking the Outside Sensor Box connection



1.4.2.1 COMM LED (RS 485 sensor bus)

Connection	LED State
Outside Sensor Box	COM: yellow, blinking

2 Software Installation

2.1 Required software

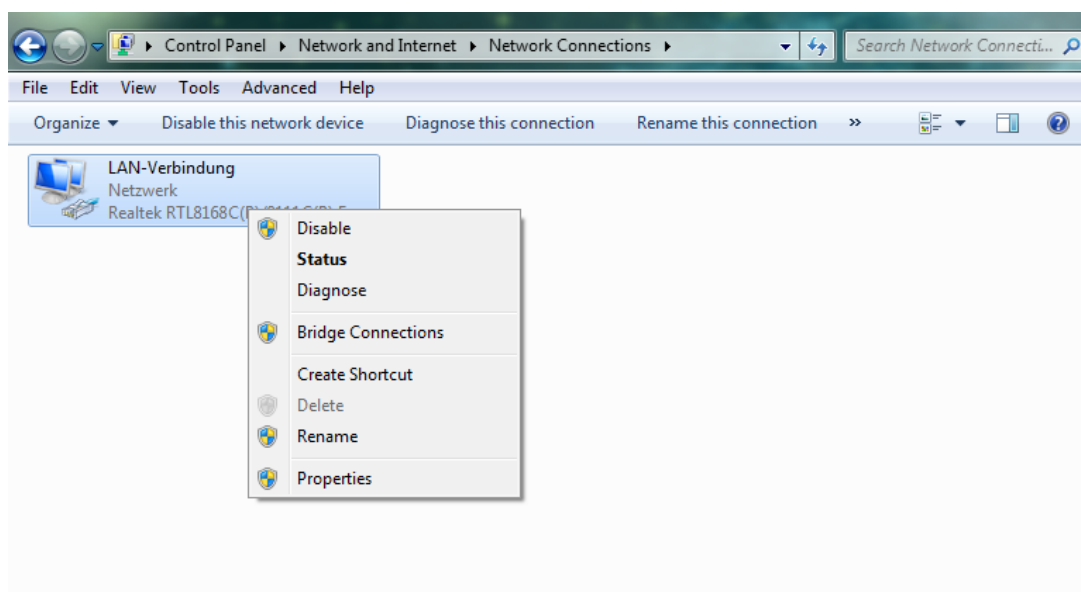
Before you start with the configuration of the project, you must install the following software on your computer:

- Framework.NET 1.1 (for ETS3 Plug in)
- Framework.NET 3.5 (for animeo KNX Operating Software)
- animeo KNX Operating Software (see accompanying CD), Version 2.0 or later
- Licensed ETS 3.0 and the following or higher version
- WAGO Ethernet Settings (see accompanying CD)

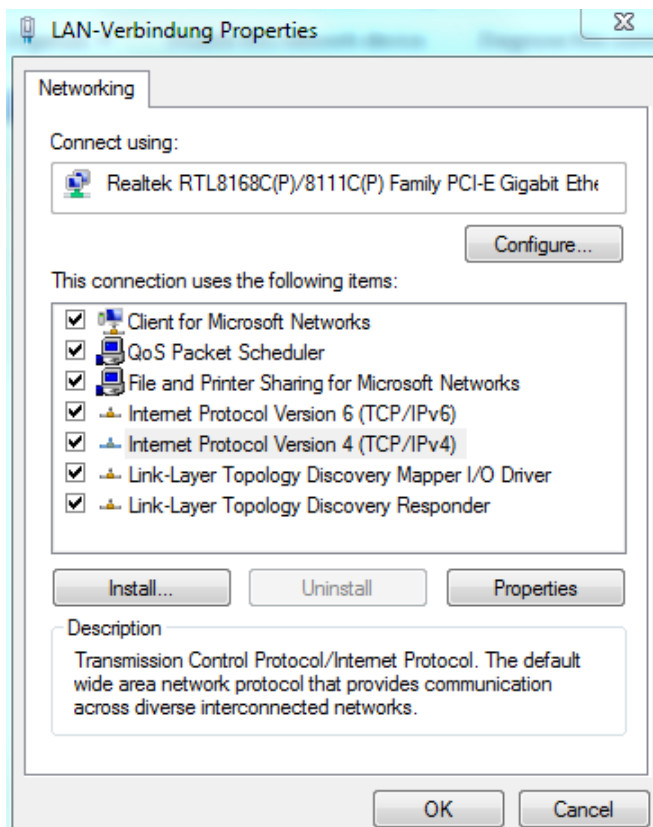
3 Setting the PC IP address

To enable communication between the computer and animeo KNX Master Control via the TCP/IP, you must assign to the computer an IP address in the same subnet as with the animeo KNX Master Control. The IP address/subnet mask of the animeo KNX Master Control is in the delivery state 192.168.0.2/255.255.0.0.

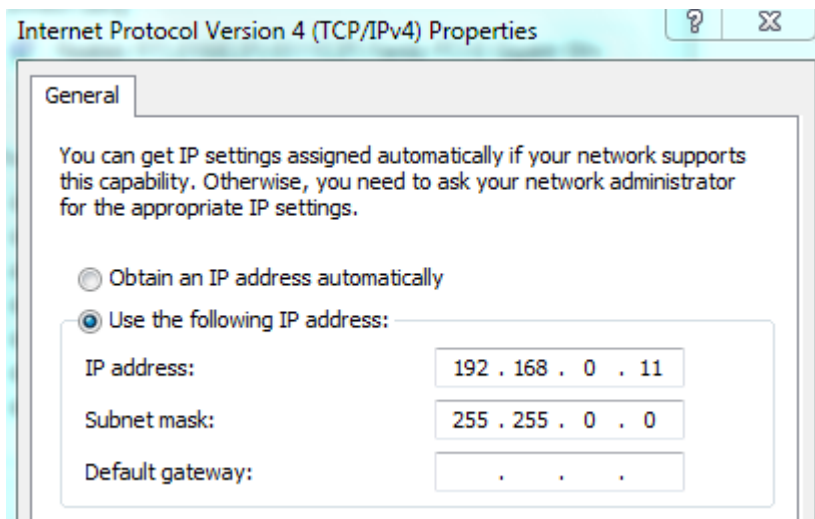
In the computer you select under “System Control\Network connections” the option “LAN connections”. With the right mouse button you select “properties”.



Now select “Internet protocol version 4 (TCP/IPv4)” and click on “properties”.



Enter an IP address (e.g. 192.168.0.11) and the subnet mask 255,255.0.0.



Confirm your entry with "OK" and close the remaining windows.

4 animeo KNX Operating Software

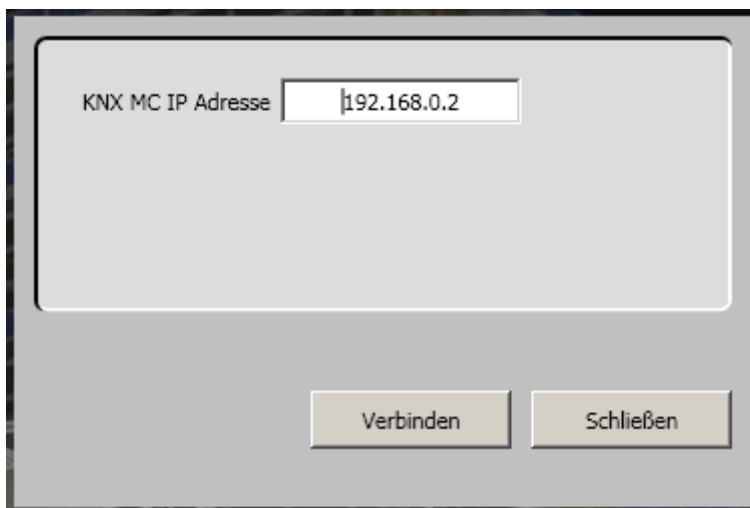
4.1 Starting up the Operating Software

Start the animeo KNX Master Control Operating Software.

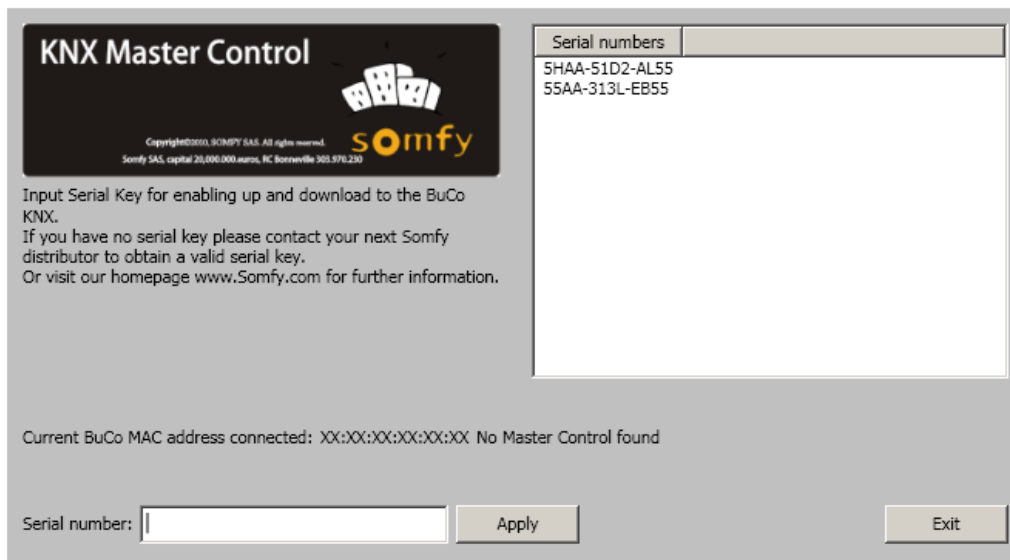
Enter the IP address. The IP address in the delivery state is “192.168.0.2” which you can change at any time in the software. The last assigned address is always saved and indicated.

You can change the IP address at any time in the menu under “settings” and “TCP/IP settings”.

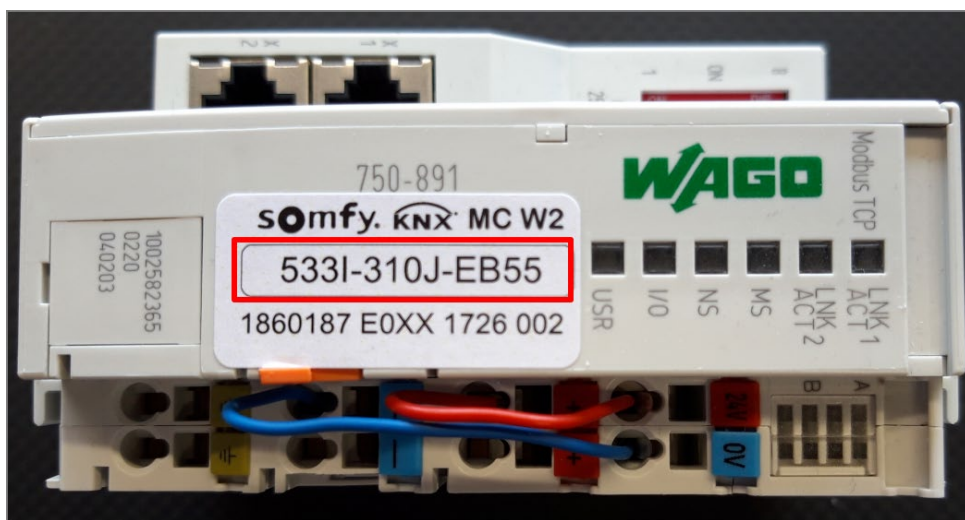
Click on “connect” to start the communication with animeo KNX Master Control and to carry out the parameter settings online. Click on “close” to carry out the parameter settings off-line.



4.2 Input serial number in the Operating Software



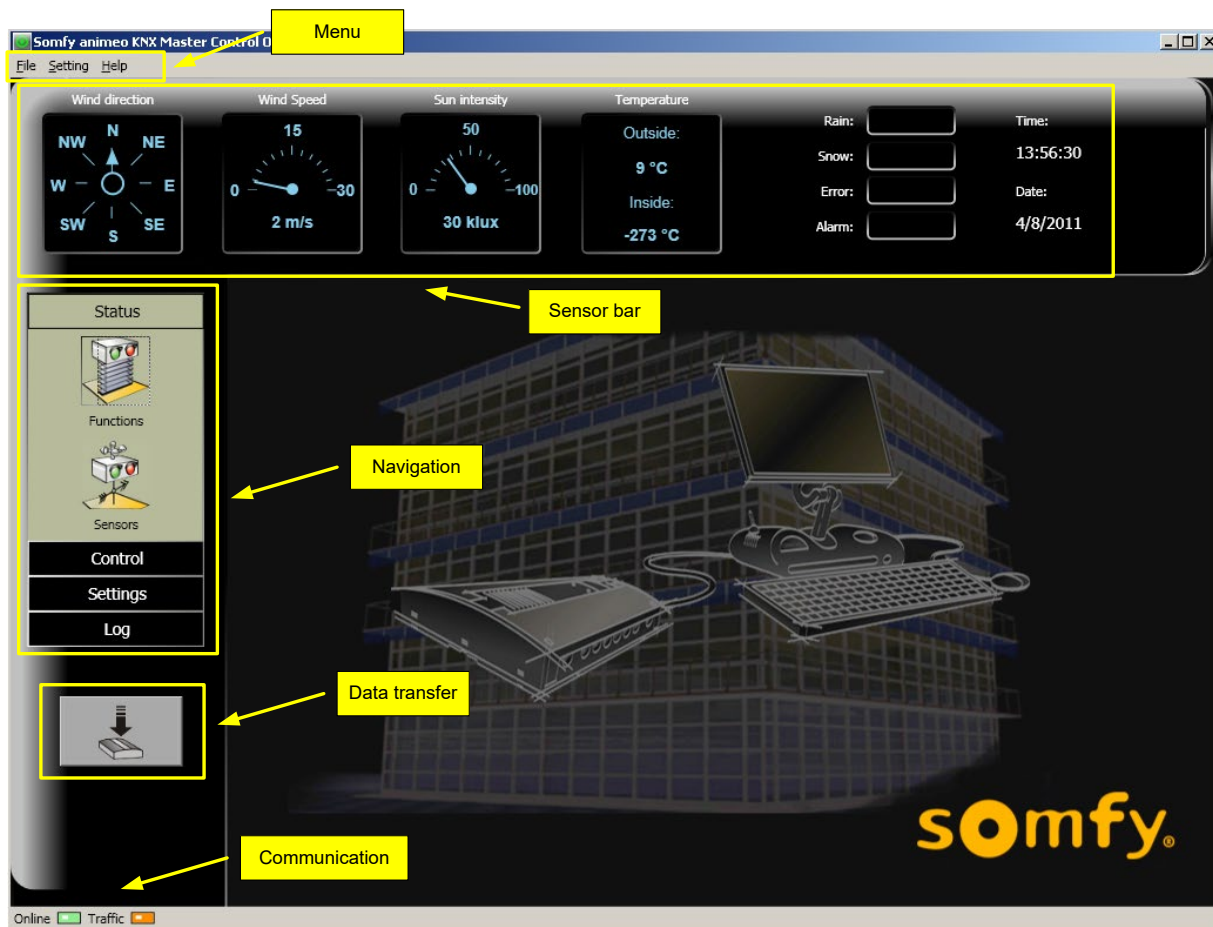
With the first connection of the animeo KNX Operating Software with the animeo KNX Master Control, you are asked to enter the serial number (Serial Key) of the device.



The serial number (serial key) must be entered only once. Since this is saved in the animeo KNX Master Control Operating Software, with a renewed connection between software and hardware, this standard number must not be entered again.

Should the animeo KNX Operating Software not be connected with the animeo KNX Master Control, the serial number can be also entered by hand in the software and saved.

4.3 Software Overview



4.3.1 Menu

The menu contains the following menu and cascading menu points:

- File
 - Project open
 - Project save
 - Project print
 - Exit
- Setting
 - TCP/IP setting
 - Languages
 - Time format
 - Units
 - Set time
 - Set password
 - Set position
 - Zones
 - Sensors
 - Shadow management
 -
- Help
 - Help
 - Homepage visit
 - Info
 - Serial number

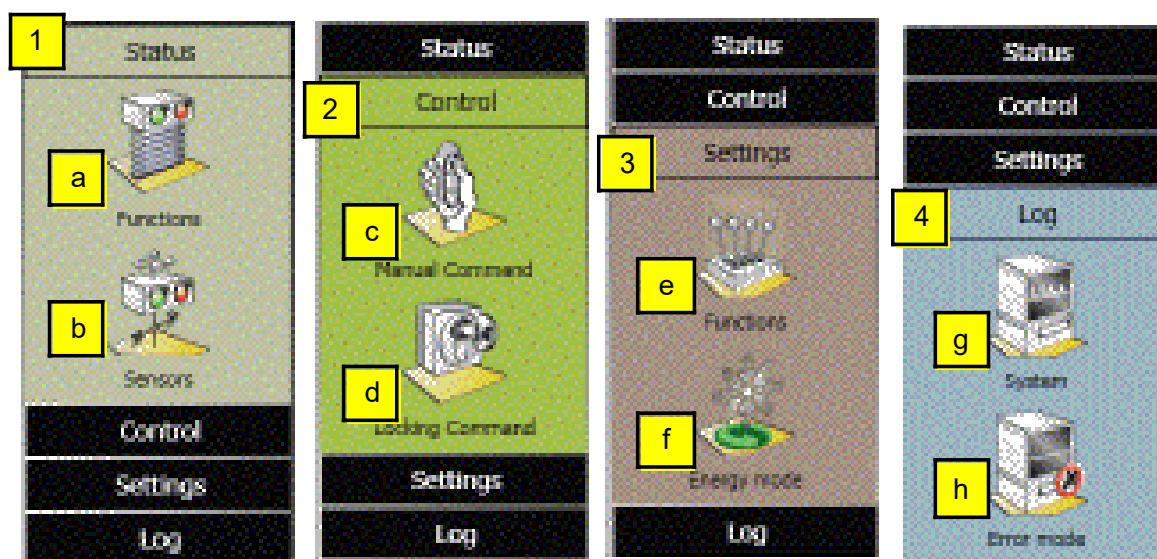
4.3.2 Sensor bar

In the sensor bar, the current sensor values (wind direction, wind speed, sun value, outside temperature and indoor temperature, rain and snow), error, alarm, time and date are displayed.

4.3.3 Navigation

Using the navigation bar you reach:

- the visualisation of the functions and sensor values
- the manual control and blockage of the sun protection zones
- the parameter setting of the zones
- the protocol of the system data and errors



Parameter:

1. Status
 - a. Functions: Overview of the function states (active or inactive) for every zone (chapter 4.5.1)
 - b. Sensors: Display of the sensor values and eventual errors (chapter 4.5.2)
2. Control
 - a. Manual command: Manual operation via the PC for every zone (chapter 4.6.1)
 - b. Locking command: Blocking of the building or a single zone on the PC (chapter 4.6.2)
3. Settings
 - a. Functions: Setting of the function in every zone (chapter 4.7.1 ff)
 - b. Energy mode: Setting of the energy savings function in every zone (chapter 4.7.3)
4. Log
 - a. System: Display of the sensor data, function data and user data (chapter 4.8.1 ff)
 - b. Error mode: Error message in the system (chapter 4.8.2 ff)

4.3.4 Data transfer

As soon as a setting is changed in animeo KNX Operating Software, this button becomes green. To download updates in animeo KNX Master Control, press the button. When downloading is completed, the button becomes grey again.



4.3.5 Communication

If animeo KNX Operating Software is connected with animeo KNX Master Control, the “online” diode shines pale green. If the software is offline, the diode becomes dark green.

In the data transfer between the PC and animeo KNX Master Control, the “PC-Comm” diode blinks yellow.



The IP address shows

1. which KNX Master Control is currently connected to the Operating Software
2. which “Shadow Device” is currently connected to the KNX Master Control:

4.4 Menu

4.4.1 File

The menu point “File” contains all Windows application functions with regard to printing, file management and exiting. The individual sub functions of this menu point are described in the following.

4.4.1.1 Save project

With this sub function the project is saved as a “Projectname.caw3”. Thus a backup of a project (*.p) can occur.

4.4.1.2 Open project

Here, project files “Projectname.caw3” can be opened.

4.4.1.3 Print project

This command prints out all configuration and setting data of your project. Here, the project can be documented.

4.4.1.4 Exit

Here, the application is closed. When exiting the program asks, provided that updates were carried out, whether these should be saved; this prevents data getting lost.

4.4.2 Setting

The menu point “Setting” contains settings with regard to the TCP/IP setting, languages, time format, units, time adjust, password, position, zones and sensor adjustment. The individual sub functions of this menu point are described in the following.

4.4.2.1 TCP/IP setting

With this sub function communication is made between the software (KNX Operating Software) and the hardware (KNX Master Control W2 or KNX Master Control W8). Select the IP address of the desired KNX Master Control. In the delivery state this is 192.168.0.2.

4.4.2.2 Languages

Here the language can be selected for the entire software. The language can also be selected later.

4.4.2.3 Time format

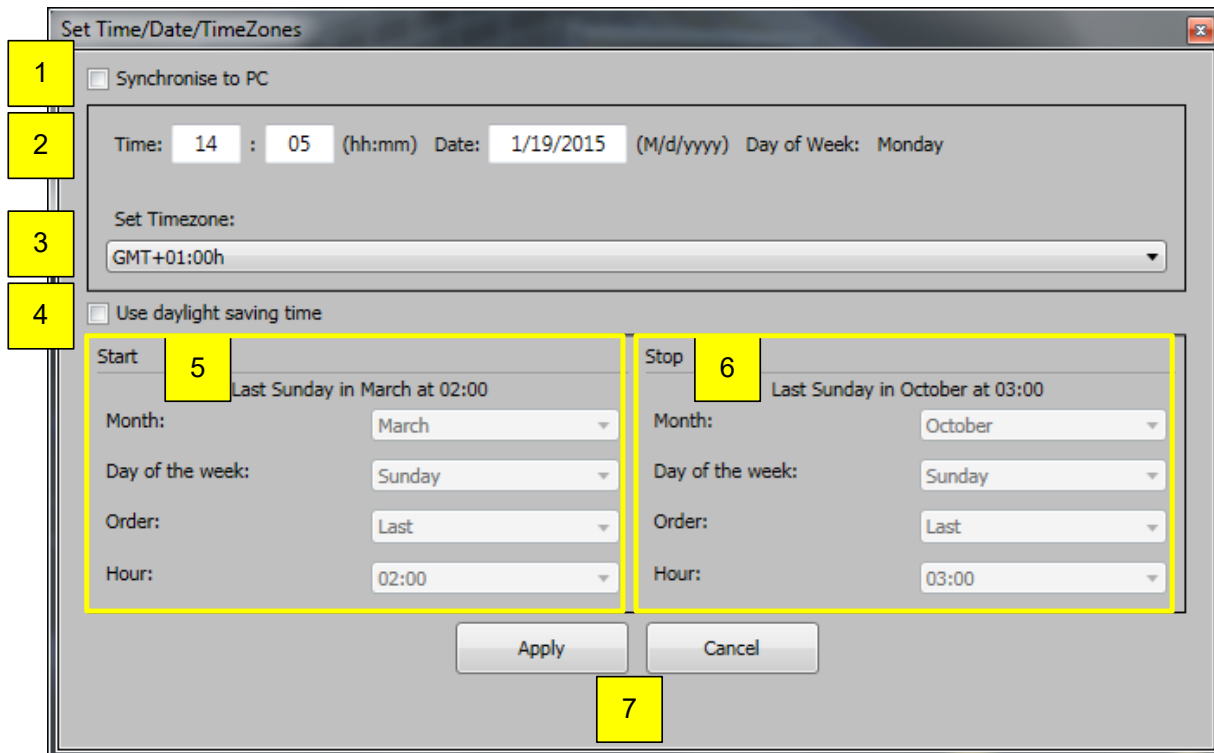
Here you can set the desired time format 12 or 24.

4.4.2.4 Units

Select the units which should be displayed. The selected unit is marked by a tick. The units are divided into the following categories:

1. Temperature
Celsius and Fahrenheit available.
2. Wind
m/s, km/h and mph available.

4.4.2.5 Time setting



The screenshot shows the 'Set Time/Date/TimeZones' dialog box. The interface includes the following elements:

- 1**: A checkbox labeled 'Synchronise to PC'.
- 2**: Time and date input fields. Time is set to 14:05 (hh:mm), Date is 1/19/2015 (M/d/yyyy), and Day of Week is Monday.
- 3**: A dropdown menu for 'Set Timezone' currently showing 'GMT+01:00h'.
- 4**: A checkbox labeled 'Use daylight saving time'.
- 5**: The 'Start' section for daylight saving time, showing 'Last Sunday in March at 02:00'. It includes dropdowns for Month (March), Day of the week (Sunday), Order (Last), and Hour (02:00).
- 6**: The 'Stop' section for daylight saving time, showing 'Last Sunday in October at 03:00'. It includes dropdowns for Month (October), Day of the week (Sunday), Order (Last), and Hour (03:00).
- 7**: 'Apply' and 'Cancel' buttons at the bottom.

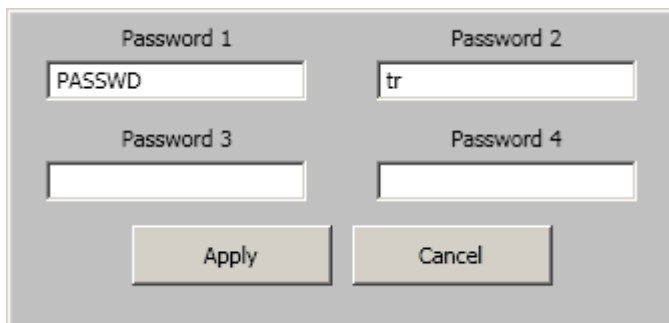
Define the following time parameters:

1. "Synchronise to PC", if the time, the date and time zone should be taken over from the internal clock of the PC.
2. Manual setting of time and date.
 △ The average accuracy of the internal clock of the KNX Master Control is +50 seconds per month at an ambient temperature of 25°C.
3. Manual selection of time zone, e.g. Germany is GMT+01:00h
4. "Using daylight saving time"
 △ **When using the daylight saving time function, it must be noted that no external time synchronization is done via the KNX Object "KNX.MC.Info_Time_3Byte_IN_OUT" and/or "KNX.MC.Info_Date_3Byte_IN_OUT". With parallel use of the daylight saving time function and external KNX time synchronization, time-dependent faults will occur.**
5. Begin of daylight saving time, change over from daylight saving time to normal time – the clock is put forward one hour.
6. End of daylight saving time, change over from normal time to daylight saving time – the clock is put back one hour.
7. "OK" for taking over of the setting;
 "Cancel" without taking over the setting.

4.4.2.6 Password

With this sub function, up to 4 passwords are defined which are required for entering in the different menu points. These passwords ensure that updates are not carried out in the settings by mistake or by unauthorised persons.

In the delivery state there is the first password "PASSWD" (see picture below) which is required for changing or entering further passwords.



Change or define new passwords.

4.4.2.7 Position

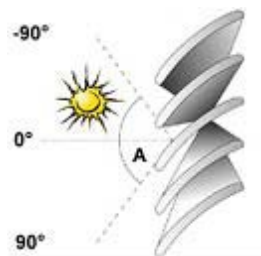
Enter the position of the building (degree of longitude and degree of latitude) either as a number or in degrees.



4.4.2.8 Zones

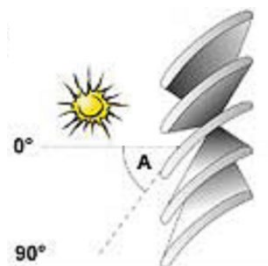
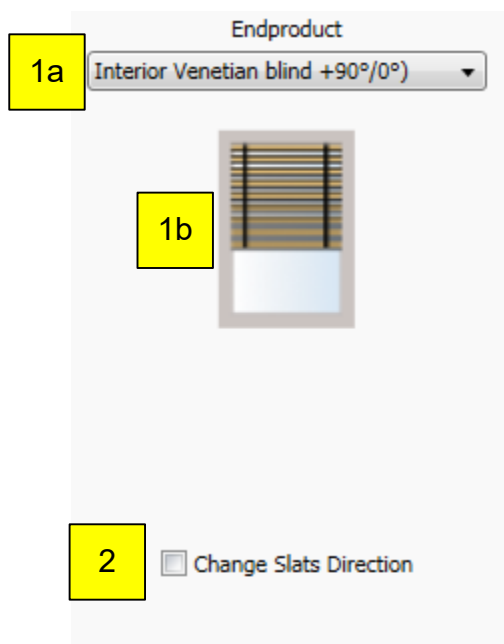
Defining the following zone parameters:

1. Number of the zones in the project.
2. If more than 4 zones are set up, the next 4 zones can be selected by clicking the corresponding register heading.
3. Assigned zone name.
4. Orientation/alignment of the single zone with the help of the arrow (a) or by direct input in degrees (b).
5. Type of product in every zone (a) and display the selected end product (b).
6. Slat alignment by use of $-90^\circ/90^\circ$ change external Venetian blind: (the slat alignment normally corresponds to -90° to the value 0, 90° corresponds to the value 255). If the definition has reverted, however, select the option “change slats direction”.



7. “Apply “ for taking on the setting.
8. “Cancel” without taking on the settings.

4.4.2.8.1 Interior Venetian Blind (DC) +90°/0°



Define following zone parameters:

1. Choose kind of end product in each zone (a) and display the chosen end product (b).
2. Changing slats orientation by using +90°/0° exterior Venetian blind: (as standard the slats orientation of 0° is the value 0 and 90° is the value 255). If the definition is reversed, please choose the option "change slats direction".


4.4.2.8.2 Interior Venetian Blind (DC) +90°/-90°

1a

Endproduct

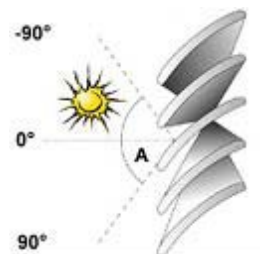
Interior Ven. blind +90°/-90°

1b



2

☐ Change Slats Direction



Define following zone parameters:

1. Choose kind of end product in each zone (a) and display of the chosen end product (b)
2. Changing slats orientation by using -90°/+90° exterior Venetian blind: (as standard the slats orientation of -90° is the value 0, 90° is the value 255). If the definition is reversed, please choose the option "change slats direction".


4.4.2.8.3 Interior Roller Blind

1a

Endproduct

Interior Roller blind

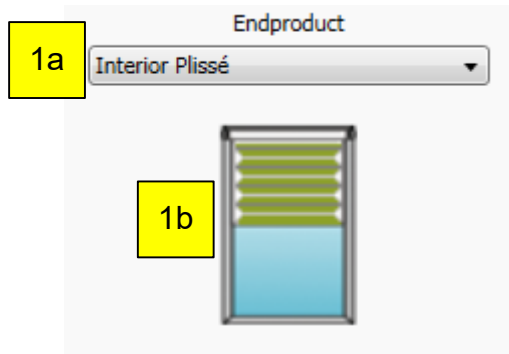
1b



Define following zone parameters:

1. Choose kind of end product in each zone (a) and display of the chosen end product (b)

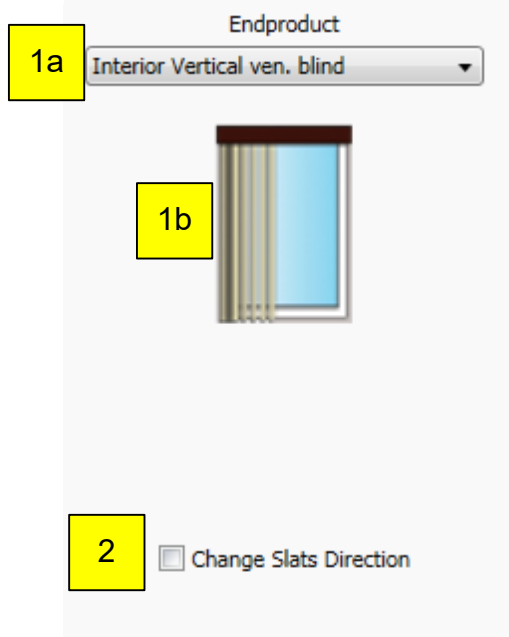
4.4.2.8.4 Interior Plissé



Define following zone parameters:

1. Choose kind of end product in each zone (a) and display of the chosen end product (b)

4.4.2.8.5 Interior Vertical Venetian Blind



Define following zone parameters:

1. Choose kind of end product in each zone (a) and display of the chosen end product (b)
2. Changing slats orientation by using -90°/90° exterior Venetian blind: (as standard the slats orientation of - 90° is the value 0, 90° is the value 255). If the definition is reversed, please select the option "change slats direction".

4.4.2.8.6 Exterior Venetian Blind (+90°/0°)

1a

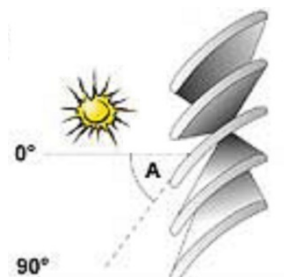
Endproduct

Exterior Venetian blind (+90°/0°)

1b

2

☐ Change Slats Direction



Define following zone parameters:

1. Choose kind of end product in each zone (a) and display of the chosen end product (b).
2. Changing slats orientation by using +90°/0° exterior Venetian blind: (as standard the slats orientation of 0° is the value 0, +90° is the value 255). If the definition is reversed, please choose the option "change slats orientation".

4.4.2.8.7 Exterior Venetian Blind (+90°/-90°)

1a

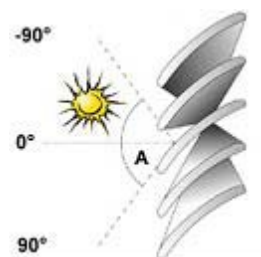
Endproduct

Exterior Venetian blind (+90°/-90°)

1b

2

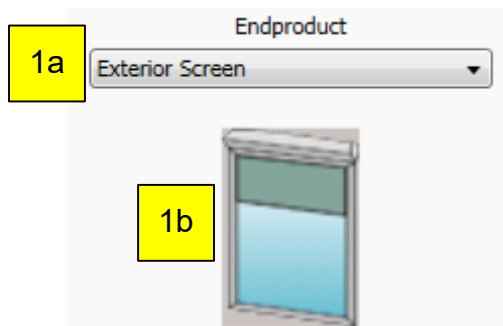
☐ Change Slats Direction



Define following zone parameters:

1. Choose kind of end product in each zone (a) and display of the chosen end product (b)
2. Changing slats orientation by using -90°/90° exterior Venetian blind: (as standard the slats orientation of -90° is the value 0, 90° is the value 255). If the definition is reversed, please choose the option "change slats direction".

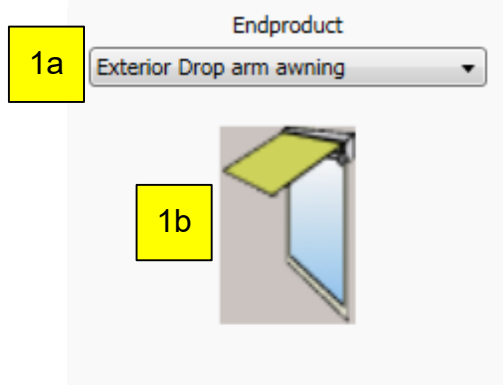
4.4.2.8.8 Exterior Screen



Define following zone parameters:

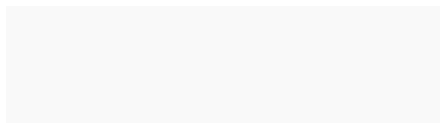
1. Choose kind of end product in each zone (a) and display of the chosen end product (b)

4.4.2.8.9 Exterior Drop Arm Awning

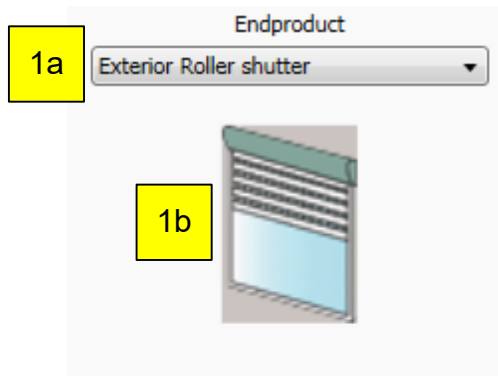


Define following zone parameters:

1. Choose kind of end product in each zone (a) and display of the chosen end product (b)

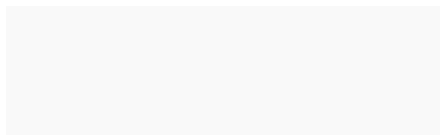


4.4.2.8.10 Exterior Roller Shutter

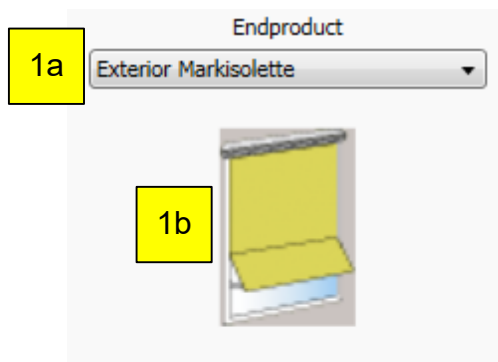


Define following zone parameters:

1. Choose kind of end product in each zone (a) and display of the chosen end product (b)

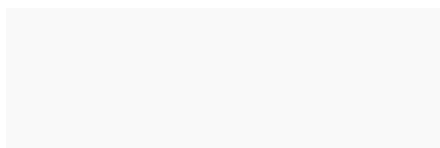


4.4.2.8.11 Exterior Markisolette

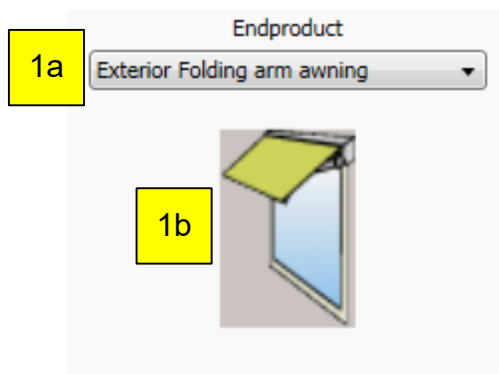


Define following zone parameters:

1. Choose kind of end product in each zone (a) and display of the chosen end product (b)

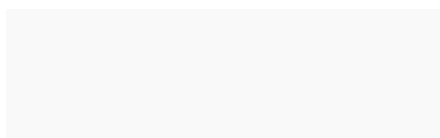


4.4.2.8.12 Exterior Folding Arm Awning

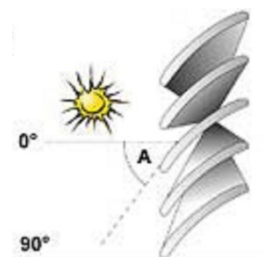
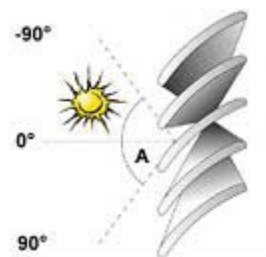
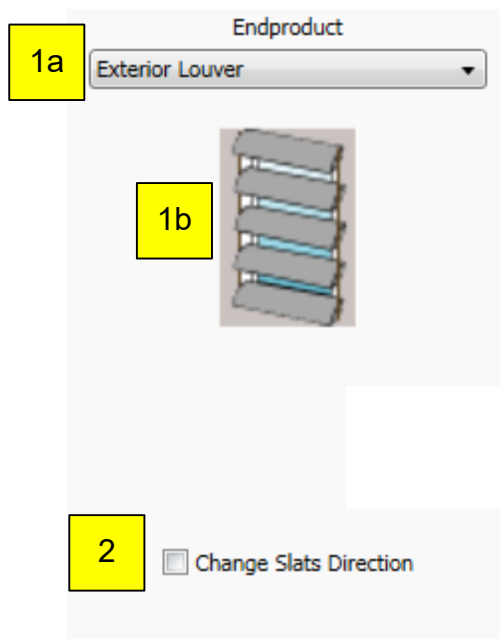


Define following zone parameters:

1. Choose kind of end product in each zone (a) and display of the chosen end product (b)



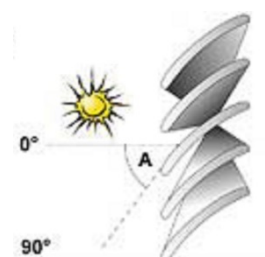
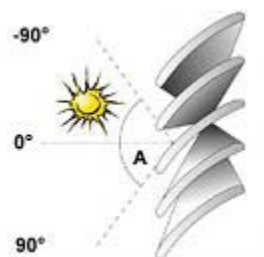
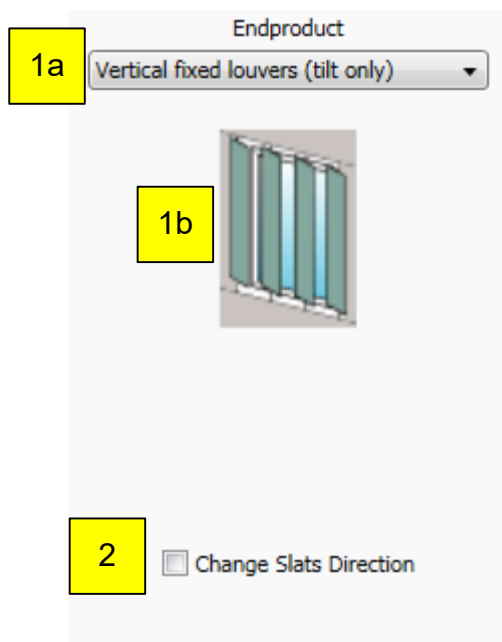
4.4.2.8.13 Exterior Louver



Define following zone parameters:

1. Choose kind of end product in each zone (a) and display of the chosen end product (b)
2. Changing slats orientation by using -90°/90° exterior Venetian blind: (as standard the slats orientation of - 90° is the value 0, 90° is the value 255). If the definition is reversed, please choose the option "change slats direction".

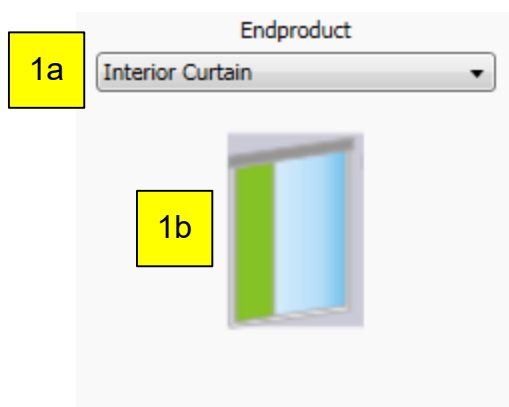
4.4.2.8.14 Vertical Fixed Louvers (tilt only)



Define following zone parameters:

1. Choose kind of end product in each zone (a) and display of the chosen end product (b)
2. Changing slats orientation by using -90°/90° exterior Venetian blind: (as standard the slats orientation of - 90° is the value 0, 90° is the value 255). If the definition is reversed, please choose the option "change slats direction".

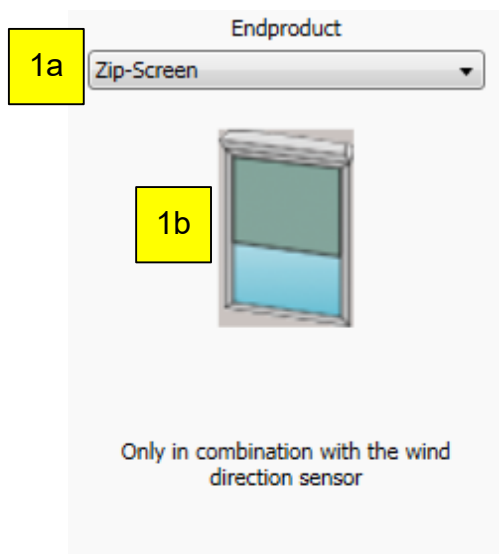
4.4.2.8.15 Interior Curtain



Define following zone parameters:

1. Choose kind of end product in each zone (a) and display of the chosen end product (b)

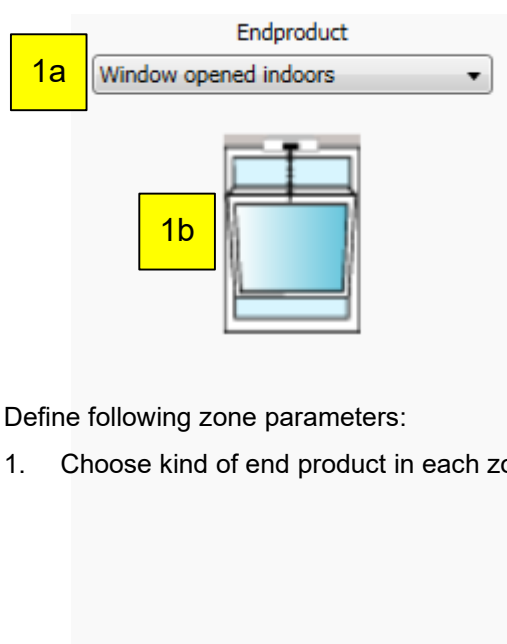
4.4.2.8.16 ZIP-Screen



Define following zone parameters:

1. Choose kind of end product in each zone (a) and display of the chosen end product (b)

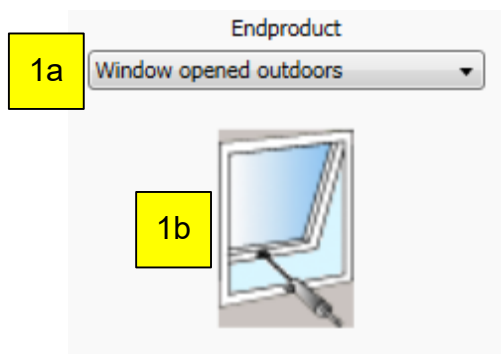
4.4.2.8.17 Windows opened indoors



Define following zone parameters:

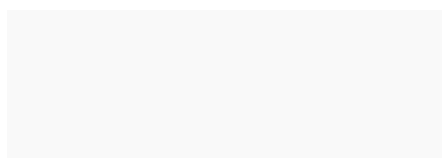
1. Choose kind of end product in each zone (a) and display of the chosen end product (b)

4.4.2.8.18 Window opened outdoors



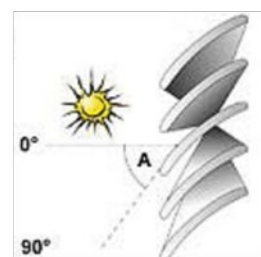
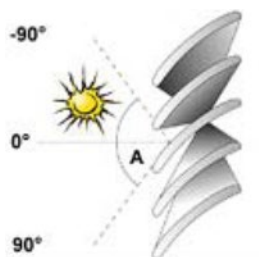
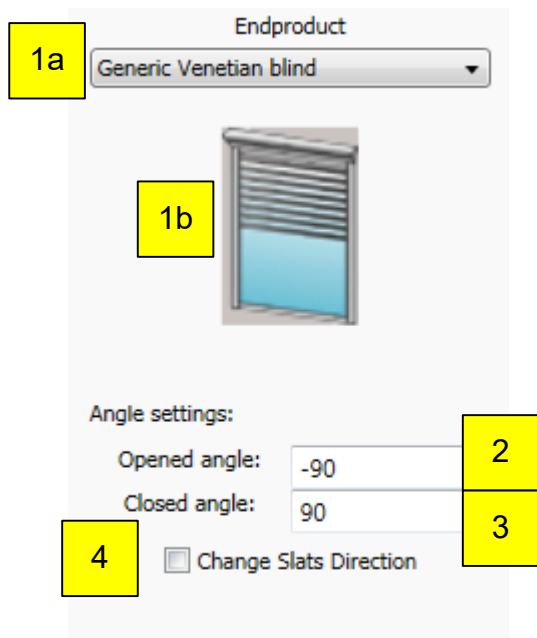
Define following zone parameters:

1. Choose kind of end product in each zone (a) and display of the chosen end product (b)



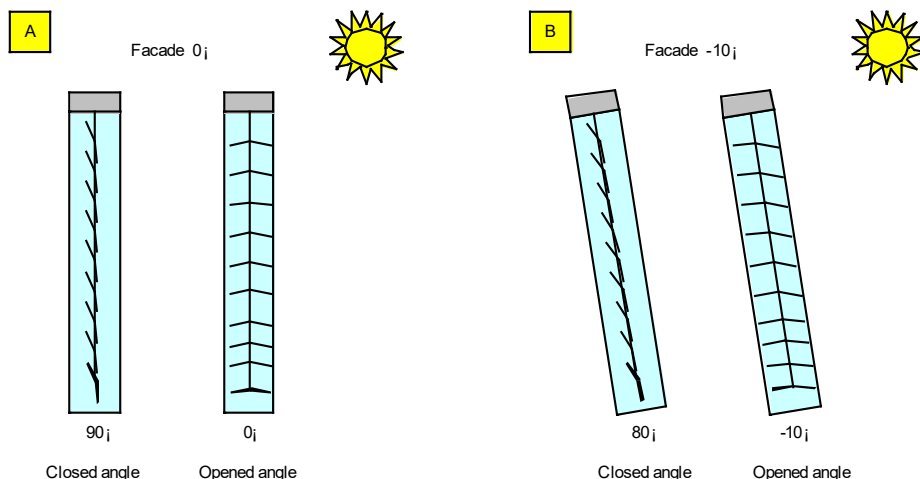
4.4.2.8.19 Special end product “Generic Venetian blind”

The special end product “Generic Venetian blind” enables the optimal use of Venetian blinds even on slanted façades .



Define following zone parameters:

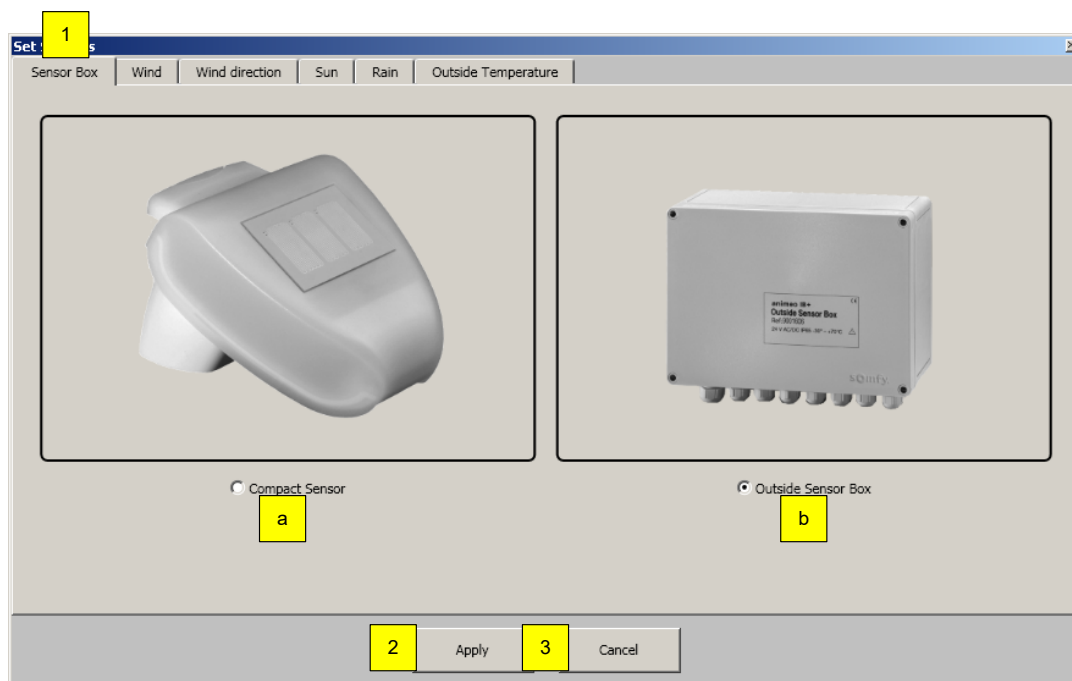
1. Choose kind of end product in each zone (a) and display of the chosen end product (b)
 2. Slats angle for an open Venetian blind
 3. Slats angle for a closed Venetian blind
- Example for a standard façade with 0° (A) and with 10° slant (B):



4. Changing slats orientation by using -90°/90° exterior Venetian blind: (as standard the slats orientation of -90° is the value 0, 90° is the value 255). If the definition is reversed, please choose the option “change slats direction”.

4.4.2.9 Sensors

4.4.2.9.1 Set Compact Sensor or Outside Sensor Box



Define following sensor parameters:

1. Select Sensor Box, Compact Sensor (ref.9015047) or Outside Sensor Box (ref.9001606) to activate.
 - a. Upon activating Compact Sensor, the number of individual sensors is defined.
 - b. Upon activating Outside Sensor Box, the number of individual sensors has to be set in each sensor sub menu e.g wind, wind direction.
2. “Apply” for taking on the setting.
3. “Cancel” for quitting without setting.

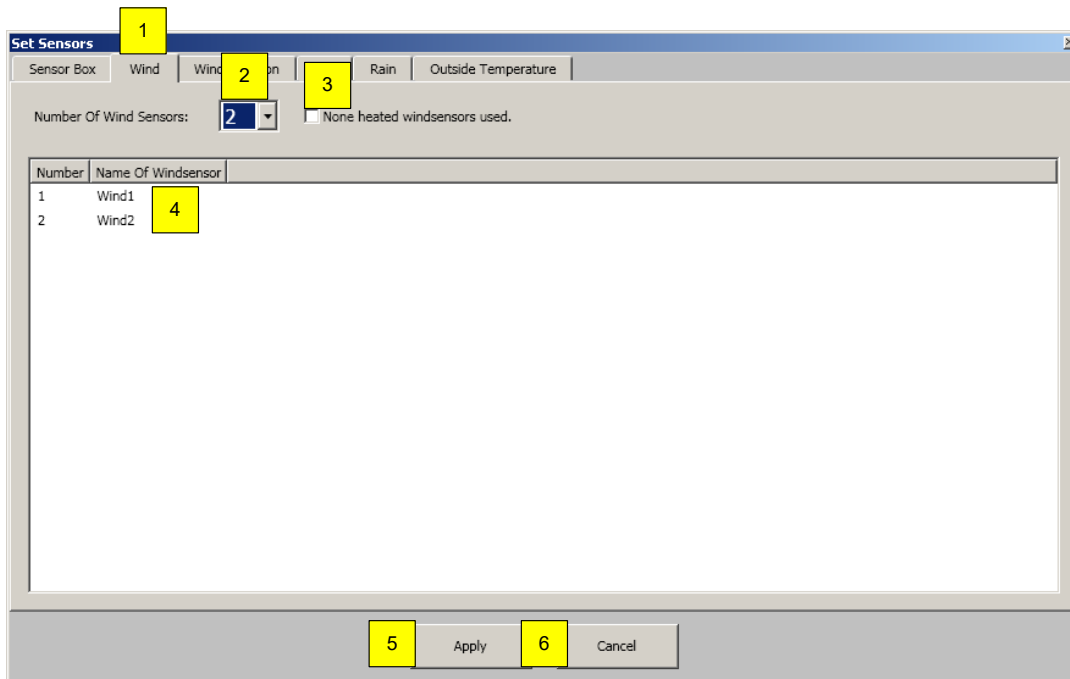
When using Weather Station M8(ref. 1860306):

- Outside Sensor Box selected
 - 4 x sun
 - 1 x wind
 - 1 x rain
 - 1 x outside temperature

When using Weather Station M13 (ref. 1860307):

- Outside Sensor Box selected
 - 8 x sun
 - 1 x wind
 - 1 x wind direction
 - 1 x rain
 - 1 x outside temperature

4.4.2.9.2 Wind Sensor

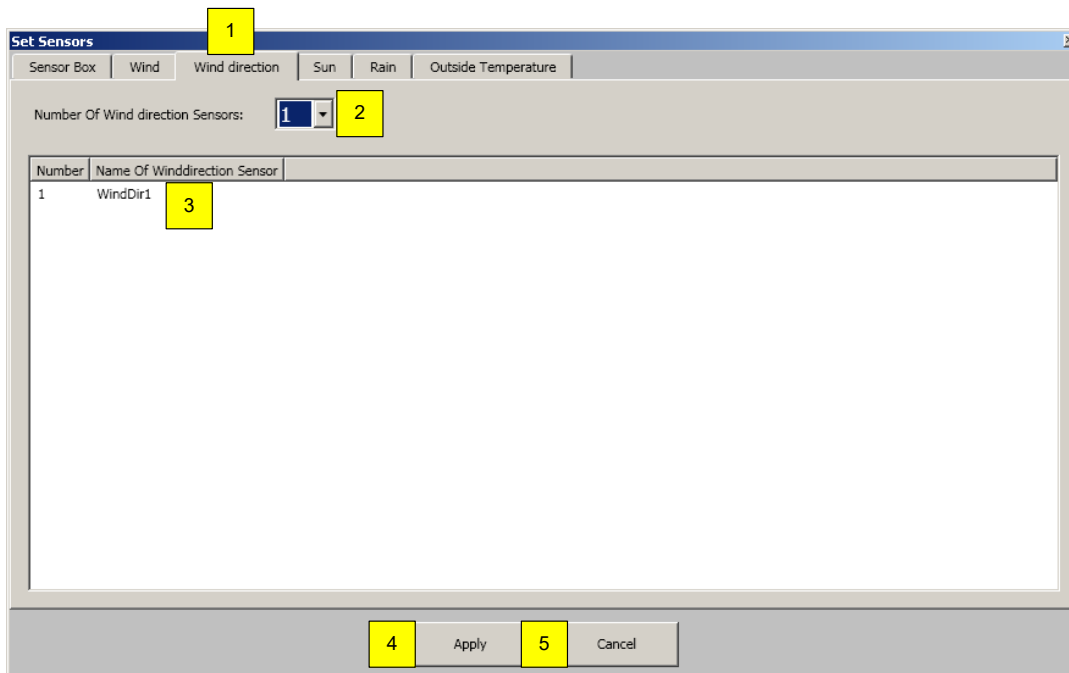


Number	Name Of Windsensor
1	Wind1
2	Wind2

Define following sensor parameters:

1. Select Wind
2. Wind sensor; 0 to 8 wind sensors can be activated
 - Wind 1 and wind 2 are two wind sensors which are connected to the Outside Sensor Box (KNX Master Control W2, ref.1860187)
 - Wind 3 to wind 8 are the wind sensors which are connected directly to the KNX Master Control W8 (ref.1860193).
3. No heated wind sensors used: Select if heated wind sensors (ref.9140180) are connected. A combination of heated and unheated sensors is not permitted.
4. Alias of wind sensor.
5. "Apply" for taking on the setting.
6. "Cancel" for quitting without setting.

4.4.2.9.3 Wind Direction Sensor



Set Sensors

Sensor Box | Wind | Wind direction | Sun | Rain | Outside Temperature

Number Of Wind direction Sensors: 1

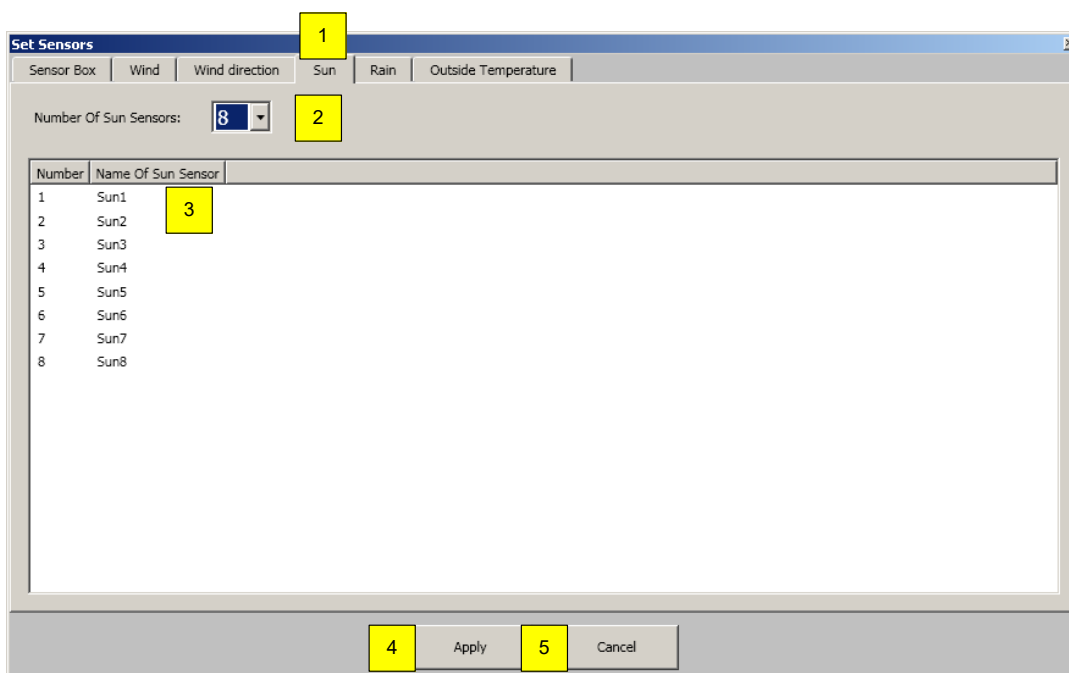
Number	Name Of Winddirection Sensor
1	WindDir1

Apply Cancel

Define following sensor parameters:

1. Select Wind direction
2. Wind direction sensor; 0 to 1 wind direction sensor can be activated. Wind direction sensor is connected to the Outside Sensor Box.
3. Alias of wind direction sensor.
4. "Apply" for taking on the setting.
5. "Cancel" for quitting without setting.

4.4.2.9.4 Sun Sensor



Set Sensors

Sensor Box | Wind | Wind direction | Sun | Rain | Outside Temperature

Number Of Sun Sensors: 8

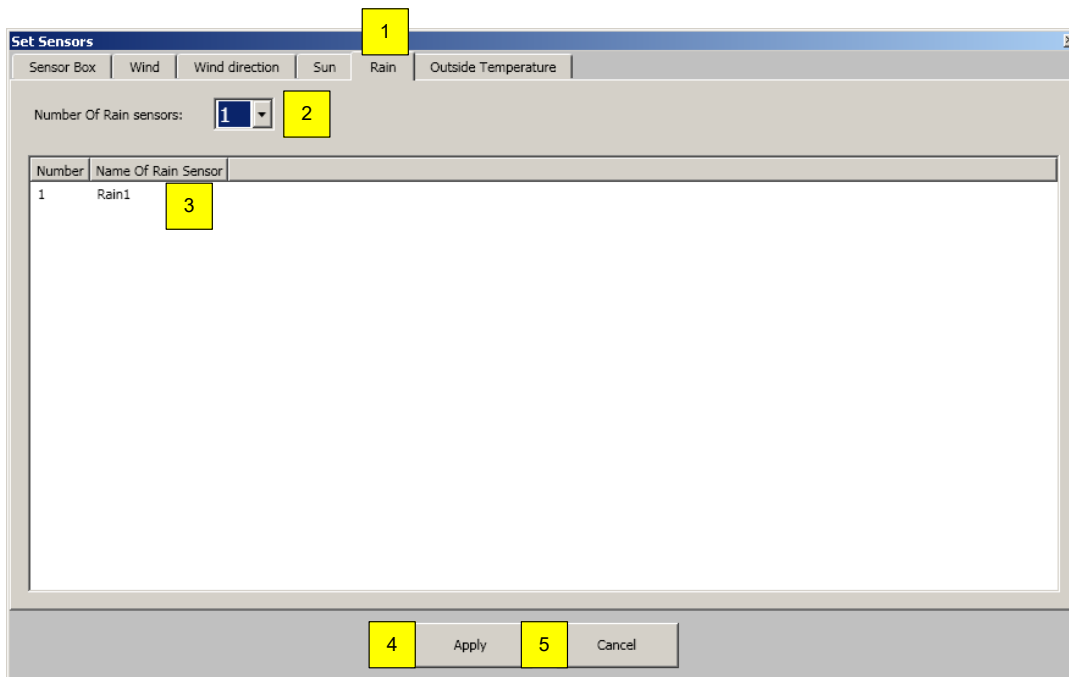
Number	Name Of Sun Sensor
1	Sun1
2	Sun2
3	Sun3
4	Sun4
5	Sun5
6	Sun6
7	Sun7
8	Sun8

Apply Cancel

Define following sensor parameters:

1. Select Sun
2. Sun sensors; 0 to 8 solar sensors can be activated.
Sun sensors are connected to the Outside Sensor Box.
3. Alias of sun sensor.
4. "Apply" for taking on the setting.
5. "Cancel" for quitting without setting.

4.4.2.9.5 Rain



Set Sensors

Sensor Box | Wind | Wind direction | Sun | **Rain** | Outside Temperature

Number Of Rain sensors: 1 2

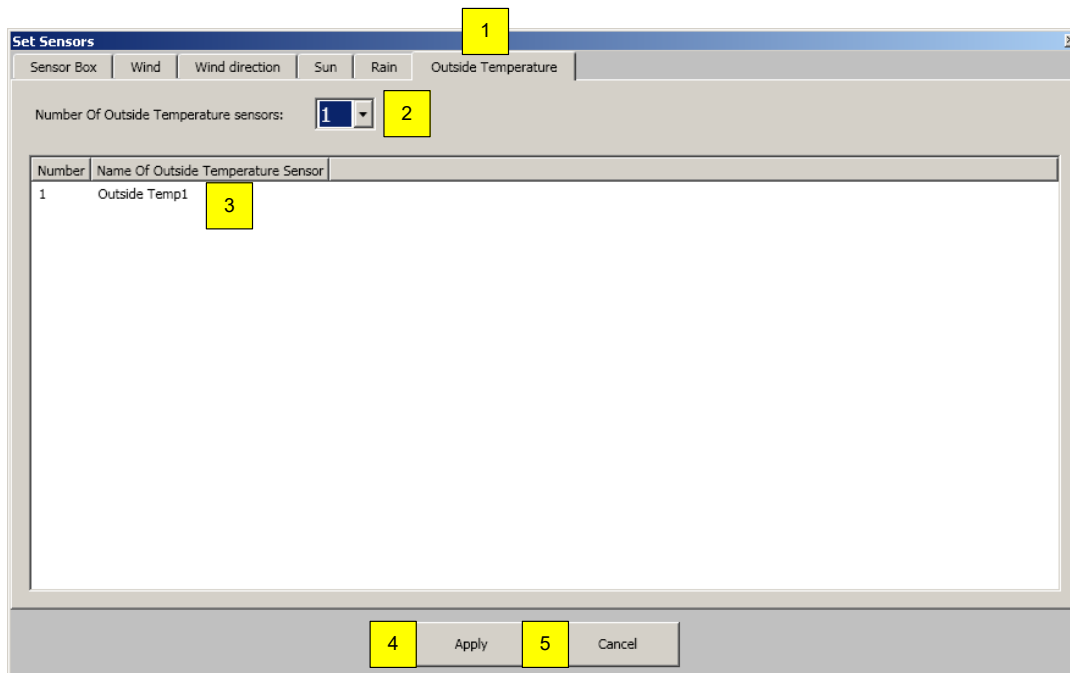
Number	Name Of Rain Sensor
1	Rain1 3

4 Apply 5 Cancel

Define following sensor parameters:

1. Select Rain
2. Rain sensor; from 0 to 1 rain sensor can be activated.
Rain sensor is connected to the Outside Sensor Box.100
- 3.
4. Alias of rain sensor.
5. "Apply" for taking on the setting.
6. "Cancel" for quitting without setting.

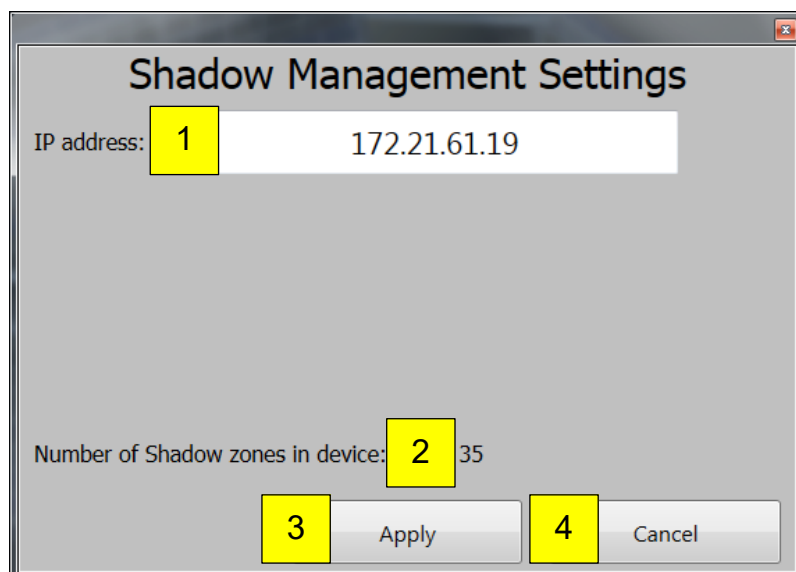
4.4.2.9.6 Outside Temperature



Define following sensor parameters:

1. Select Outside Temperature
2. Outside temperature sensor; 0 to 1 outside temperature sensors can be activated. Outside temperature sensor is connected to the Outside Sensor Box.
3. Alias of outside temperature sensor.
4. "Apply" for taking on the setting.
5. "Cancel" for quitting without setting.

4.4.2.10 Shadow Management



Define the following sensor parameters:

1. Select "IP Address of the Shadow Device"
 - a. Background colour white: IP connection between KNX and Master Control and "Shadow Device" in order
 - b. Background colour red: no IP connection between KNX Master Control and "Shadow Device", e.g. with incorrect entry of IP address
2. Display of the active shadow area in "Shadow Device"
3. "Apply" to take on the setting
4. "Cancel" without taking on the setting

The KNX Master Control and the "Shadow Device" synchronize themselves once per minute based on date and time of the KNX Master Control.

For further details see the operating instructions of the "Shadow Device"

4.4.3 Help

4.4.3.1 Help

In this sub point you can call up the program help files; you also find this manual there. The help file can also be called up with F1.

4.4.3.2 Homepage

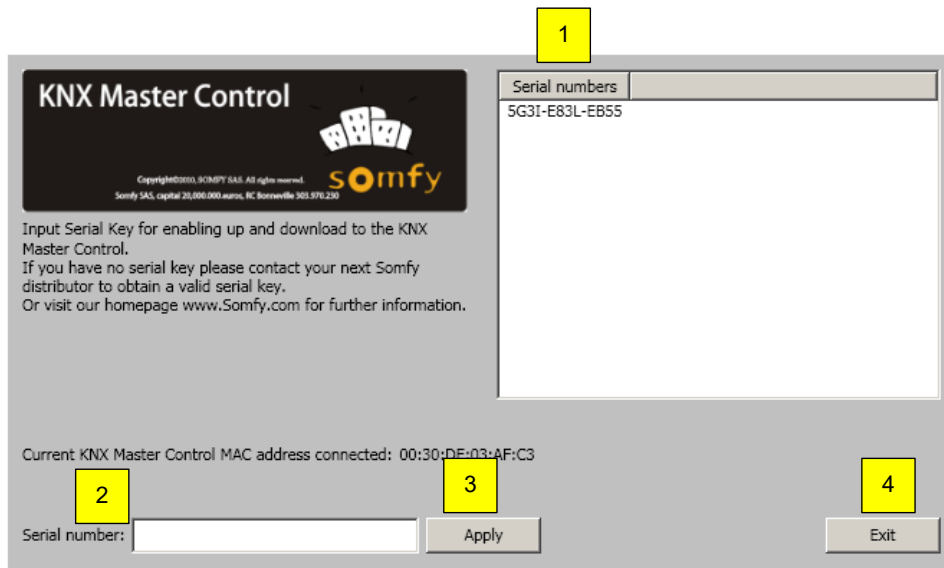
In this sub point a browser is automatically started and opens the corresponding Somfy internet address automatically for further information.

4.4.3.3 Info



1. Display of the animeo KNX Master Control Operating Software version
2. Firmware version of the connected KNX Master Control W2 or KNX Master Control W8
3. Through "System info" you receive access to the system information of your computer.
4. "OK" to close the window.

4.4.3.4 Serial number



KNX Master Control

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Somfy SAS capital 20,000,000 euros, RC Bourneville 303.576.230

Input Serial Key for enabling up and download to the KNX Master Control.
If you have no serial key please contact your next Somfy distributor to obtain a valid serial key.
Or visit our homepage www.Somfy.com for further information.

Current KNX Master Control MAC address connected: 00:30:DE:03:AF:C3

Serial numbers

5G3I-E83L-EB55

Serial number:

Apply

Exit

1. Listing of already entered serial numbers
2. Serial number of the KNX Master Control entry (see chapter 4.2.)
3. “Apply” for taking over the entered serial number.
4. “Exit” to close the current window.

4.5 Status

Important: To visualise the states, the computer with the KNX Master Control must be online.

4.5.1 Function status

In the navigation bar you click on “status” and then on “functions”.

In the window, “status functions”, a complete overview is displayed of all function states in every zone. The functions are listed according to priority (the important functions are at the top). If more than one function is active in a zone, only the function with the highest priority is carried out. The state of the individual function is defined by its colour.

The arrows ▲ or ▼ appear during the delay time of the function to be performed.

Status - Functions

Group 1 - 2

Group 1

Manual

Group 1

Exterior Venetian blind (+90°/0°)

Major Alarm

Lock 0%

Major Error

Wind Speed

Wind Direction

Snow

Frost / Ice

Rain

PC Command

Timer

Block Heat

Solar Heating

Maintain Heat

Ventilation Cooling

Sun

Group 2

Auto

Group 2

Exterior Venetian blind (+90°/0°)

a Major Alarm

b Lock 0%

c Major Error

d Wind Speed

e Wind Direction

f Snow

g Frost / Ice

h Rain

a PC Command

b Timer

c Block Heat

d Solar Heating

e Maintain Heat

f Ventilation Cooling

g Sun

Information

Security functions

Active

Inactive

Disabled

Non security functions

Active

Inactive

Energy active

Energy inactive

Disabled

Not used in manual mode

1

2

3

4


5


6

7

Explanation of the functions:

1. Display whether zone is in automatic or manual mode
2. Assigned zone name
3. Installed end product of the zone
4. Safety functions
 - a. **Alarm input:** The function becomes active when over the object KNX KNX.MC.Zone_Major_Alarm_Bit_IN [n] "1" is transmitted. Then all end products go to the upper end position (0 %). Chapter 6.1.1 KNX Object no. 88ff).
 - b. **Everything locked at 0 %:** The function is triggered when in the KNX Operating Software individual zones or the whole building are locked. Then all end products go to the upper end position (0 %) (chapter 4.6.2).
 - c. **Error:** When activated, all end products go to the 0 % position. For the identification of error see chapter 4.8.2 and error code.
 - d. **Wind speed:** The wind alarm is triggered with the exceeding of the defined threshold value. Then all end products in a zone go to the safety position (chapter 4.7.1.1).
 - e. **Wind direction:** The wind direction alarm is triggered if the wind speed lies above the threshold value and the wind comes from the defined direction. Then all end products in a zone go to the safety position (chapter 4.7.1.2).
 - f. **Snow:** The snow alarm is triggered at temperatures under 4° C and the measurement by rain is triggered. Then all end products in a zone go to the safety position (chapter 4.7.1.8).
 - g. **Frost/ice:** The Frost alarm is triggered at temperatures below the threshold value. All end products in a zone go to the safety position (chapter 4.7.1.8).
 - h. **Rain:** With an active function all end products in a zone go to the safety position (chapter 4.7.1.8).
5. Non-safety functions
 - a. **Manual service through PC:** The function becomes active if manual command is entered over the KNX Operating Software a. (chapter 4.6.1).
 - b. **Timer:** With activation the zone goes in the given position and angle (chapter 4.7.2ff).
 - c. **Block Heat:** Upon activation, heat is retained by means of the sun screen from the building, for example, the sun protection is moved into the position of 100 % (section 4.7.3.3.).
 - d. **Heat by the sun:** With activation the zone uses solar energy for warming, for example, the sun protection is driven in 0 % position (chapter 4.7.4.1).
 - e. **Heat retention:** With activation the zone saves the caloric energy, for example, the sun protection is driven to the 100 % position (chapter 4.7.4.2).
 - f. **Ventilation Cooling:** When activated the area uses the natural ventilation for cooling of the building, for example, windows are opened automatically (chapter 4.7.3.4.).
 - g. **Sun:** Active with excess of the threshold value for solar intensity. The zone goes in the defined position (defined or according to sun tracking) (chapter 4.7.1.3).
 - i. **Sun:** Active when the threshold value for sun intensity is exceeded. The zone moves in the defined position (determined according to sun tracking) (Chapter 4.7.1.4).


 - ii. **Shadow Management:** Active when the threshold value for sun intensity is exceeded. The zone, according to the "Shadow Device" is in the defined position. The zone moves in the defined OUT position (Chapter 4.7.1.4).


6. Information safety functions
7. Information non-safety functions

4.5.2 Sensor status

In the navigation bar click on “status” and then on “sensors”.

In the register “sensors: wind, sun, rain” the sensor values are indicated which are directly in the KNX Master Control or are connected via the Outside Sensor Box.

Status - Sensors

Sensor: Wind, Sun, Rain

Sensor: Inside, Outside Temperature

1

2

3

4

5

6

Wind sensors		Alias	Value	Error information	
Wind 1 (Outside sensor box):	3	Wind Sensor 1	4 1 m/s	5 Ok	6
Wind 2 (Outside sensor box):		Wind Sensor 2	2 m/s	Ok	
Wind 3 (KNX MC):		Wind Sensor 3	0 m/s	Ok	
Wind 4 (KNX MC):		Wind Sensor 4	0 m/s	Ok	
Wind 5 (KNX MC):		Wind Sensor 5	0 m/s	Ok	
Wind 6 (KNX MC):		Wind Sensor 6	0 m/s	Ok	
Wind 7 (KNX MC):		Wind Sensor 7	0 m/s	Ok	
Wind 8 (KNX MC):		Wind Sensor 8	0 m/s	Ok	
Wind direction (Outside sensor box):		Winddirection	N	Ok	
Sun sensors					
Sun 1 (Outside sensor box):		Sun Sensor 1	31 klux	Ok	
Sun 2 (Outside sensor box):		Sun Sensor 2	10 klux	Ok	
Sun 3 (Outside sensor box):		Sun Sensor 3	4 klux	Ok	
Sun 4 (Outside sensor box):		Sun Sensor 4	0 klux	Ok	
Sun 5 (Outside sensor box):		Sun Sensor 5	0 klux	Ok	
Sun 6 (Outside sensor box):		Sun Sensor 6	0 klux	Ok	
Sun 7 (Outside sensor box):		Sun Sensor 7	0 klux	Ok	
Sun 8 (Outside sensor box):		Sun Sensor 8	0 klux	Ok	
Rain sensor					
Rain (Outside sensor box):		Rain Sensor	Inactive		

Parameter:

1. Name of sensor type.
2. Physical sensor name within the system.
3. Selected special sensor name.
4. Display of the current sensor measured value.
5. Details of the sensor function. When it is functioning without interference, “OK” appears in the LED display (green), with interference, “Error” (red) will appear.
6. Eventual details of errors with interference.

In the register “sensor: inside, outside temperature”, the sensor values are indicated which are connected via the KNX Master Control on the Outside Sensor Box or received via the object “KNX.MC.Zone_In_Temp_2Byte_IN[n]”.

Status - Sensors

Sensor: Wind, Sun, Rain

Sensor: Inside, Outside Temperature

1

2

3

4

5

6

Inside Temperature sensors

	Alias	Value	Error information
Inside temperature 1 (KNX)	Inside Temp1	- °C	
Inside temperature 2 (KNX)	Inside Temp2	- °C	
Inside temperature 3 (KNX)	Inside Temp3	- °C	
Inside temperature 4 (KNX)	Inside Temp4	- °C	
Inside temperature 5 (KNX)	Inside Temp5	- °C	
Inside temperature 6 (KNX)	Inside Temp6	- °C	
Inside temperature 7 (KNX)	Inside Temp7	- °C	
Inside temperature 8 (KNX)	Inside Temp8	- °C	
Inside temperature 9 (KNX)	Inside Temp9	- °C	
Inside temperature 10 (KNX)	Inside Temp10	- °C	
Inside temperature 11 (KNX)	Inside Temp11	- °C	
Inside temperature 12 (KNX)	Inside Temp12	- °C	
Inside temperature 13 (KNX)	Inside Temp13	- °C	
Inside temperature 14 (KNX)	Inside Temp14	- °C	
Inside temperature 15 (KNX)	Inside Temp15	- °C	
Inside temperature 16 (KNX)	Inside Temp16	- °C	

Outside Temperature sensors

Outside (Outside sensor box):	Outside Temp.	9 °C	5	Ok
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Parameter:

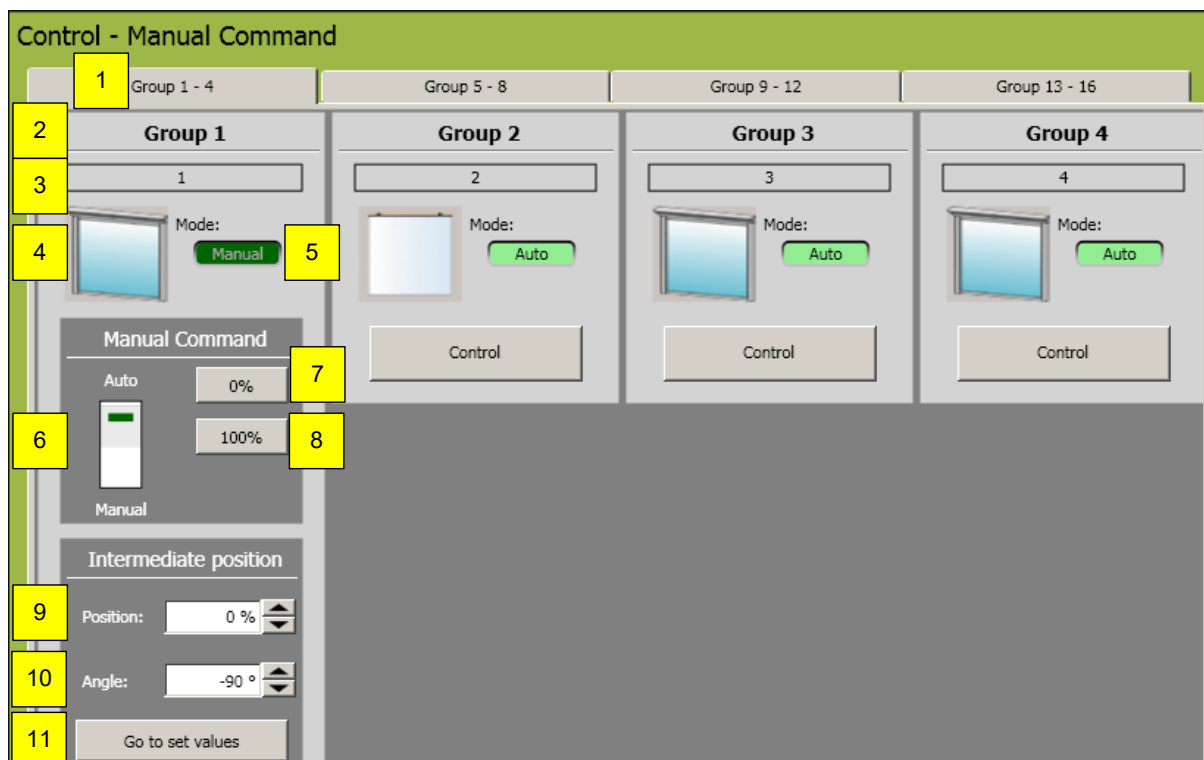
1. Name of the sensor model.
2. Physical sensor name within the system.
3. Selected sensor name.
4. Display of the current sensor measured data.
5. Details of the sensor function. When the sensor functions interference-free, "OK" appears in the LED display (green). With an interference "error" (red) will appear.
6. Eventual details of errors with sensor interference.

4.6 Control

4.6.1 Manual operation

In the navigation bar you click on “control” and then on “manual command”.

Select the zone in which the end products are moved manually. Press the switch position “Manual”. Click on 0 % (the end products go to the upper end position) or by pressing on 100 % (the end products go to the bottom end position). The end products can also be moved to an intermediate position (position between 0 % and 100 % and angles between -90°, 0° and 90°). Click on “Go to set values”.



Parameter:

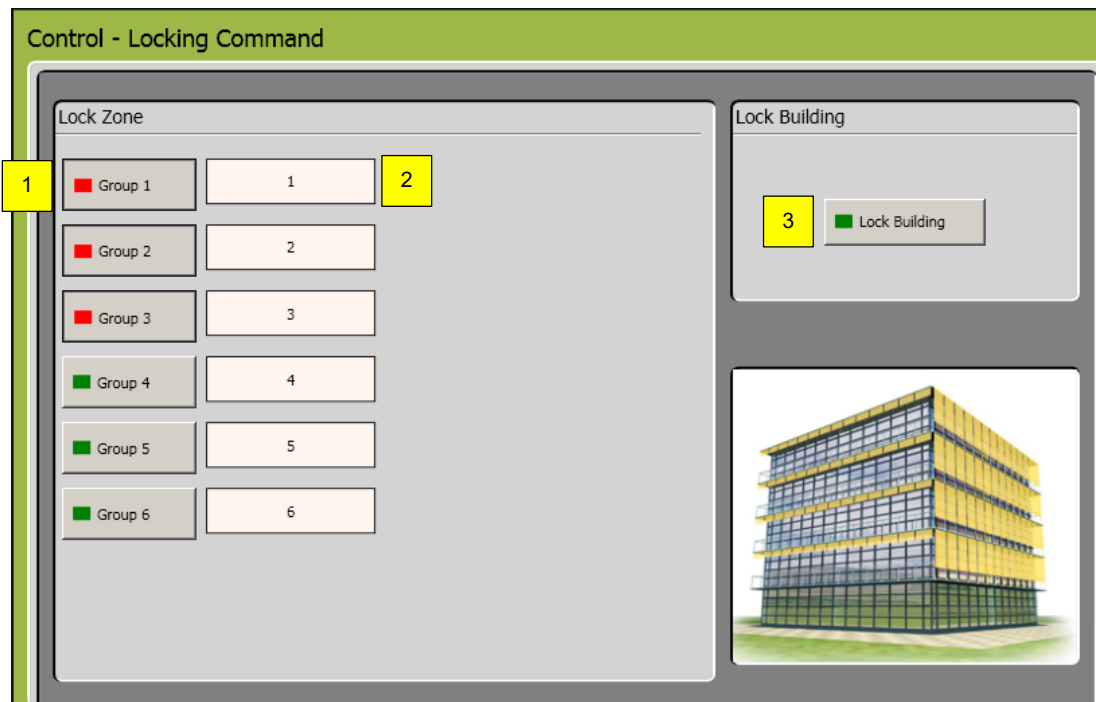
- When more than 4 zones have been defined, the next 4 zones can be selected by clicking on the corresponding register overview.
- Zone number.
- Assigned zone name.
- Graphic display of the end product type.
- Display of the control mode → manual or automatic.
- Selection of the control mode → manual or automatic.
In manual mode the manual commands can be entered and other functions can be activated via the PC. In automatic mode, all functions can be activated. Manual control via the computer is not possible. Local control through press buttons or remote is possible in both modes as long as no security functions are active.
- Click to carry out the command; move to 0 % position. (move up/move in, close), end product moves to the upper end position.
- Click to carry out the command; move to 100 % position. (move down/move out/open), end product moves to the bottom end position.
- Selection of desired position which will be moved to after activating; “Go to set values”.
- Selection of desired angle which will be moved to after activating; “Go to set values” (not available with all end products).
- Click to carry out the previously set value under Position (point 9) or Angle (point 10).

4.6.2 Locking command

In the navigation bar click on “control” and then on “lock”.

Every zone (lock zone) as well as the whole building (lock building) can be locked. This function is used, e.g. with window cleaning.

This function can be activated or deactivated either via the below displayed software surface or via the according KNX object KNX.MC.Zone_Key_Switch_Bit_IN[n]. Both functions are equal but only the last order is carried out.



Parameter:

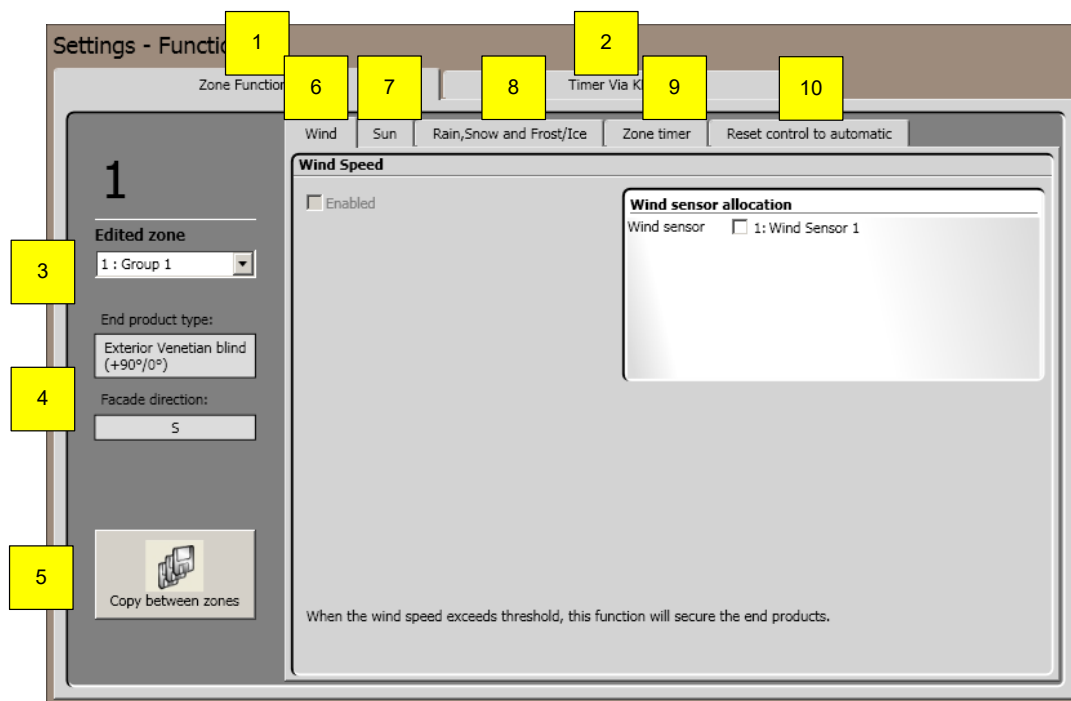
1. Locking interface for the individual zones.
2. Selected zone names.
3. Locking interface for the whole building (all zones).

4.7 Setting

4.7.1 Setting of the functions - zone functions

In this window individual settings of the single zones can be planned. Select the zone functions by clicking the zone register (1). Select the zone to be worked on from the dropdown menu (2). In the entries (3) appear end product model and façade orientation of the selected zone.

The function to be worked on is selected by choosing the appropriate register (from 6 to 10).



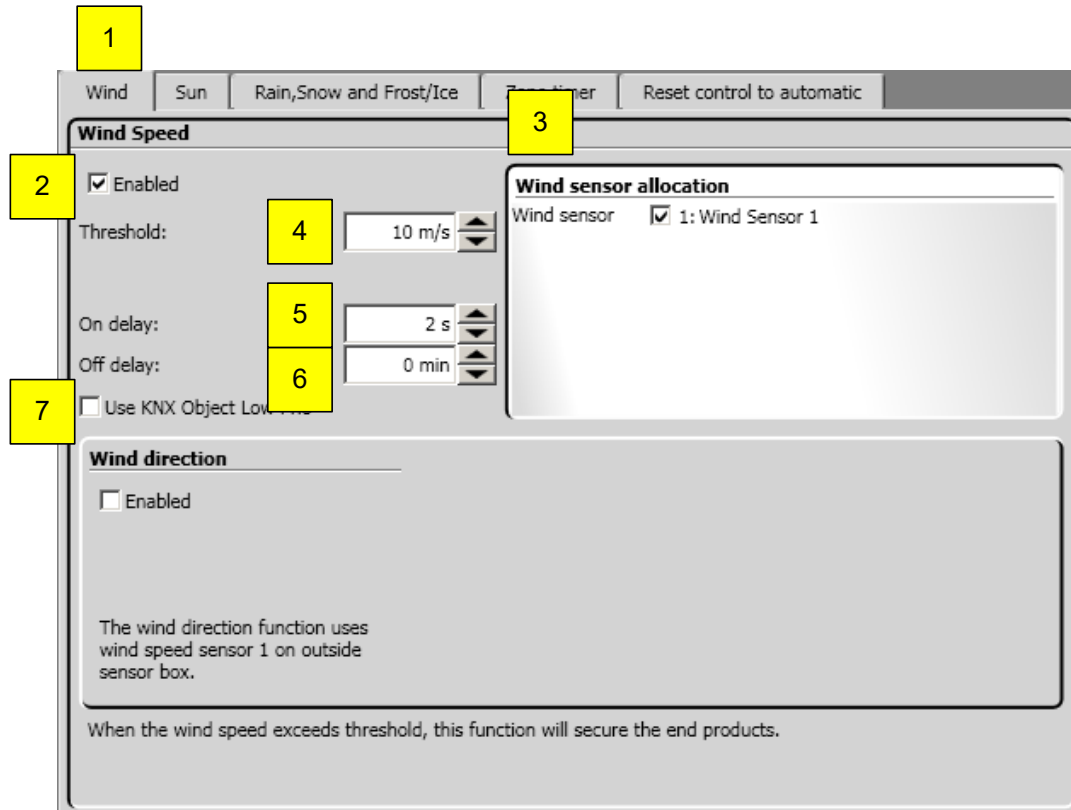
Parameter:

1. Select "zone functions".
2. Select "timer via KNX objects".
3. Select "zone" which is worked on.
4. Display of end product and façade orientation of the current zone.
5. Copy parameters of a zone on another zone (chapter 4.7.1.11.).
6. Select wind function (chapter 4.7.1.1.) and wind direction function (chapter 4.7.1.2.).
7. Select sun function (chapter 4.7.1.3.) and sun tracking (chapter 4.7.1.6.).
8. Select rain, snow and frost/ice function (chapter 4.7.1.8),
9. Select zone timer function (chapter 4.7.1.9).
10. Select reset control to automatic (chapter 4.7.1.10.).

4.7.1.1 Wind

Using the wind function, it can be ensured that the end products do not become damaged by wind. If one of the assigned wind sensors measures values above the defined threshold value for wind speed, the corresponding KNX object (KNX.MC.Zone_Security_High_Prio_Bit_OUT) will transmit "1".

This function is not available for end products in an inside zone.



The screenshot shows the 'Wind Speed' configuration window. At the top, there are tabs for 'Wind', 'Sun', 'Rain, Snow and Frost/Ice', and 'Timer'. A 'Reset control to automatic' button is also present. The 'Wind Speed' section includes a 'Wind sensor allocation' list on the right, which currently shows '1: Wind Sensor 1' selected. The main configuration area on the left has the following elements:

- 1**: Tab selection (Wind)
- 2**: 'Enabled' checkbox
- 3**: 'Wind sensor allocation' list
- 4**: 'Threshold' value (10 m/s)
- 5**: 'On delay' value (2 s)
- 6**: 'Off delay' value (0 min)
- 7**: 'Use KNX Object Low Prio' checkbox

Below the 'Wind Speed' section is the 'Wind direction' section, which is currently disabled. A note at the bottom states: 'When the wind speed exceeds threshold, this function will secure the end products.'

Parameter:

1. Select wind function.
2. Enable/disable function.
3. Allocate wind sensor. All sensors are displayed in the list. Wind sensors are assigned to the selected zone by clicking the control box. At least one sensor must be assigned.
4. Threshold value wind speed → necessary measured wind speed to trigger the function. The value of the maximum fixable set value is dependent on the type of end product.
5. Response time → time span, in which the wind speed must exceed the threshold value (4), before the wind function is activated.
6. Delay time → time span, how long the wind speed must be below the threshold value (4), before the wind function is deactivated.
7. Use KNX Object Low Prio → only active in use with wind direction (chapter 4.7.1.2.1.).

4.7.1.2 Wind direction

With the wind direction function it can be ensured that the end products do not become damaged by wind from a particular direction. The wind direction only works in connection with the first wind sensor (Wind1).

If the wind set value is exceeded and lies in the protected area, the corresponding KNX object (KNX.MC.Zone_Security_High_Prio_Bit_OUT) will transmit 1.

1

Wind Sun Rain, Snow and Frost/Ice Zone timer Reset control to automatic

Wind Speed

☒ Enabled

Threshold: 10 m/s

On delay: 2 s

Off delay: 0 min

☐ Use KNX Object Low Prio

Wind sensor allocation

Wind sensor ☒ 1: Wind Sensor 1

Wind direction

☒ Enabled

Threshold: 9 m/s

Uses the wind speed on and off delays.
The wind direction function uses wind speed sensor 1 on outside sensor box.

Protected angle

4

5

6

Direction

Range: 90°

When the wind speed exceeds threshold, this function will secure the end products.

Parameter:

1. Select wind function.
2. Enable/disable function.
3. Set wind speed value → necessary measured wind speed to trigger the function.
4. Monitored direction → wind direction for the protective angle by rotating the button to the left or on the right, so that the alignment of the selected façade lies in the middle of the lighted diode ring.
5. Monitored zone → the size of the protective angle is varied by pulling the bar to the right or left. Generally, the protective angle is 180 ° and the direction will be measured according to the orientation of the façade center.
6. The function wind direction uses the response times and delay times of the wind function.

4.7.1.2.1 Use Of KNX Object Low Prio

With “Use KNX Object Low Prio” will be two KNX objects (KNX.MC.Zone_Security_Low_Prio_Bit_OUT) and (KNX.MC.Zone_Security_High_Prio_Bit_OUT) active.

The screenshot shows the animeo KNX Master Control W2/W8 interface. At the top, there are tabs for 'Wind', 'Sun', 'Rain, Snow and Frost/Ice', 'Zone timer', and 'Reset control to automatic'. The 'Wind' tab is selected. Below the tabs, there are two main sections: 'Wind Speed' and 'Wind direction'. The 'Wind Speed' section is highlighted with a yellow box and labeled '1'. It contains a 'Threshold' set to '10 m/s', 'On delay' set to '2 s', and 'Off delay' set to '0 min'. There is a 'Use KNX Object Low Prio' checkbox which is checked. To the right of these settings is a 'Wind sensor allocation' box with a 'Wind sensor' dropdown set to '1: Wind Sensor 1'. The 'Wind direction' section is highlighted with a yellow box and labeled '2'. It contains a 'Threshold' set to '9 m/s' and a 'Protected angle' diagram. The diagram shows a compass rose with 'N', 'S', 'E', and 'W' and a 'Range: 90°' slider. Below the diagram, it says 'When the wind speed exceeds threshold, this function will secure the end products.'

Parameter:

1. Wind speed: → If the adjusted wind threshold is exceeded a “1” is sent on the KNX object (KNX.MC.Zone_Security_High_Prio_Bit_OUT).
2. Wind direction: → If the set value of the wind speed is exceeded and the wind is within the adjusted direction a “1” is sent on KNX object (KNX.MC.Zone_Security_Low_Prio_Bit_OUT).

4.7.1.3 Sun function

With the help of the sun function, end products are moved to certain positions. If the sun threshold exceed the set value (4), the end products are moved down. If the sun threshold are below the set value (6), the end products are moved to the 0 % position. If the sun function, on account of the set value, becomes active, the end products are moved to a defined position (13 and 14) or to a position calculated according to the sun situation; you find detailed information in the chapter 4.7.1.6 sun tracking. This function is only carried out when no other function with a higher priority is active. The corresponding KNX objects are KNX.MC.Zone_Position_UP_DOWN_1Byte_OUT (height of the end product) and KNX.MC.Zone_Slat_Position_1Byte_OUT (angle of the end product). In parallel a „1“ is sent to the KNX object KNX.MC.Zone_Sun-Function_Bit_OUT as soon as the sun function is active and a „0“ when the function is inactive.

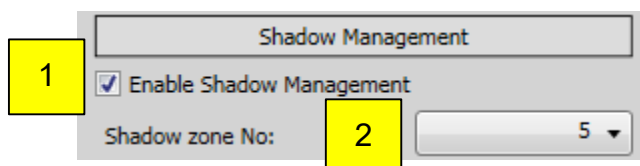
Parameter:

1. Select sun function.
2. Enable/disable function.
3. Sun sensor allocation → at least one sensor must be selected. Assign sun sensor by activating the control box of the zone. When assigning several sensors, the highest measured value of the sun rays is used.
4. On set value ("on") → required measured sun intensity to trigger the function.
5. On delay time → time span, during the sun threshold must exceed the set value (4) before the sun function is activated. The average value is 2 minutes.
6. Off set value ("off") → the required measured sun intensity which must be below the value to deactivate the sun function.
7. Off delay time → time span during the sun threshold off set value (6) must be below the sun set value before function is deactivated.
8. Enable/disable Shadow Management → see chapter 4.7.1.4
9. Select shadow zone number at the "Shadow Device"
10. Select Sun OFF Position → see chapter 4.7.1.5.
11. Select sun tracking, see the following chapter 4.7.1.4.
12. Select fixed position which is moved to with exceeding an on set value (4).
13. Position which is moved to with exceeding the on set value (4).
14. Angle, which is moved to with exceeding the on set value (4). Not available with all end products.
15. Azimuth range and elevation angle → see chapter 4.7.1.7

4.7.1.4 Shadow Management

With help of the Shadow Management, end products move to given positions. When the sun threshold exceed the on set values and when the zone is not in shade according to the shadow calculation, made by the shadow device, then the end products will move down. When the zone is in shade according to the shadow calculation, the end products move to the ON position.

This function is only carried out when there is no other function with a higher priority active. The corresponding KNX objects are KNX.MC.Zone_Position_UP_DOWN_1Byte_OUT, KNX.MC.Zone_Slat_Position_1Byte_OUT and KNX.MC.Zone_Sun-Function_Bit_OUT.



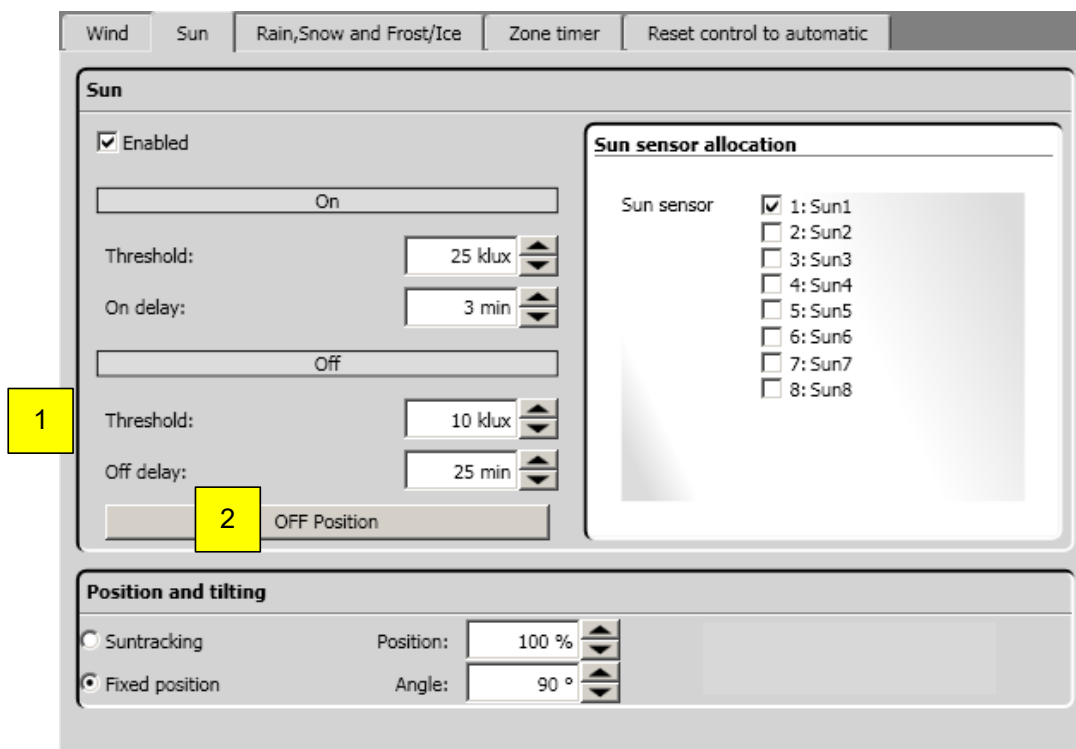
Parameter:

1. Enable/disable Shadow Management
2. Select shadow zone number from the “Shadow Device”

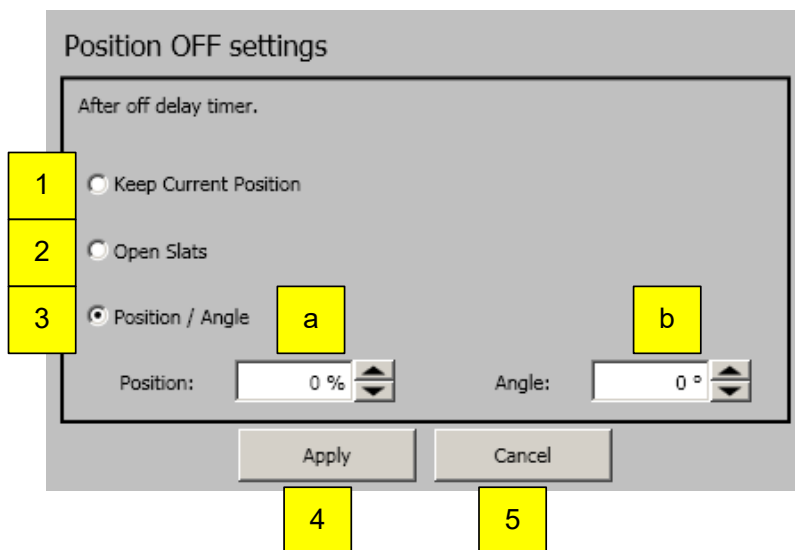
4.7.1.5 OFF Position

If the sun intensity falls below the adjusted sun off threshold (1), then the end product will move into the defined OFF Position. Click on the button OFF Position (2) to adjust it.

This function is only carried out if no other function with a higher priority is active. The corresponding KNX objects are KNX.MC.Zone_Position_UP_DOWN_1Byte_OUT, KNX.MC.Zone_Slat_Position_1Byte_OUT, and KNX.MC.Zone_Sun-Function_Bit_OUT.



4.7.1.5.1 Position OFF Settings



Parameter:

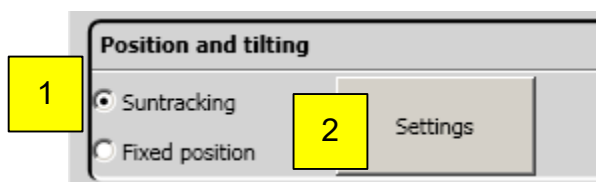
1. "Keep Current Position": → if sun intensity falls below the adjusted sun off threshold, then the end product will stay in the current position.
2. "Open Slats": → if sun intensity falls below the adjusted sun off threshold, then the end product will stay in the current position and only the slats will move into the horizontal position. Not in all end products available.
3. "Position / Angle": → if sun intensity falls below the adjusted sun off threshold, then the end product will move into the set position (a) and angle (b). Angle (b) not in all end products available.
 - a. Position: the position which is moved to by not reaching the set points.
 - b. Angle: the angle which is moved to by not reaching the set points. Not in all end products available.
4. "Apply" for taking on the setting.
5. "Cancel" for quitting without settings.

4.7.1.6 Sun tracking

The function is not available for windows, folding arm awnings and screens.

This function aligns the position of the end products automatically to the sun's angle. Select the option "Sun tracking" (1) and click on the button on the right "Settings" (2).

This function is only carried out if no other function with a higher priority is active. The corresponding KNX objects are KNX.MC.Zone_Position_UP_DOWN_1Byte_OUT , KNX.MC.Zone_Slat_Position_1Byte_OUT and KNX.MC.Zone_Sun-Function_Bit_OUT.



Parameter:

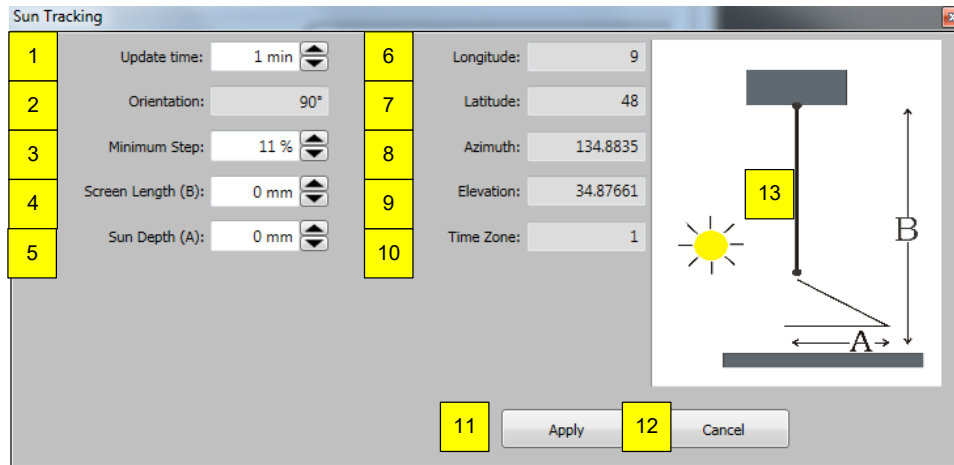
1. Select sun tracking.
2. Settings; an extra window is opened for setting sun tracking (see picture below).

4.7.1.6.1 Sun tracking with exterior Venetian blind

Parameter:

1. Update time: the time between two position calculations.
2. Façade orientation: orientation of the zone, determined under zones setting (chapter 4.4.2.8).
3. Slats – distance/width: Ratio between slats distance and slats width. This parameter is used for the calculation of the sun tracking to ensure an optimum ratio of brightness and glare protection.
4. Minimum step: States the minimum percent value which must be calculated from the position before a move command can be carried out.
5. Degree of longitude: Provides the geographical length of the building. Setting is done under settings – position (chapter 4.4.2.7).
6. Degree of latitude: Provides the geographical width of the building. Setting is done under settings – position (chapter 4.4.2.7).
7. Azimuth: Horizontal angle of the current sun tacking.
8. Elevation: Height angle of the current sun tracking.
9. Time zone: States the time zone of the building. Setting is done under settings – zones (chapter 4.4.2.5).
10. “Apply” for taking on the setting.
11. “Cancel” for quitting without settings.
12. Graphic display of the end product. Setting is done under settings - zones (chapter 4.4.2.8).

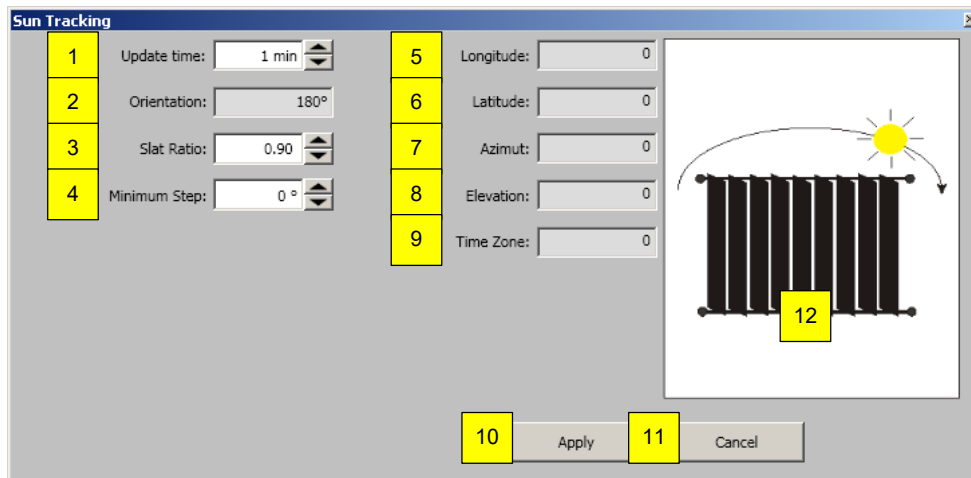
4.7.1.6.2 Suntracking with external hangings



Parameter:

1. Updating time: gives the time between two position calculations.
2. Façade orientation: Orientation of the zone, set under setting - zones (chapter 4.4.2.8).
3. Minimum step: Gives the minimum percent value which the calculated position must be before a move command is carried out.
4. Screen length (B): The maximum length of the screen.
5. Sun depth (A): Gives the maximum depth of how far the sun rays will enter the room.
6. Degree of longitude: Gives the geographical length of the building. Setting is done under settings – position (chapter 4.4.2.7).
7. Degree of latitude: Gives the geographical width of the building. Setting is done under settings – position (chapter 4.4.2.7).
8. Azimuth: Horizontal angle of the actual sun tracking.
9. Elevation: Height angle of the actual sun tracking.
10. Time zone: Gives the time zone of the building. Setting is done under settings – zones (chapter 4.4.2.5).
11. “Apply” for taking on the settings.
12. “Cancel” to quit without settings.
13. Graphic display of the end product. Setting is done under settings – zones (chapter 4.4.2.8).

4.7.1.6.3 Suntracking with exterior vertical Venetian blind (tilt only)

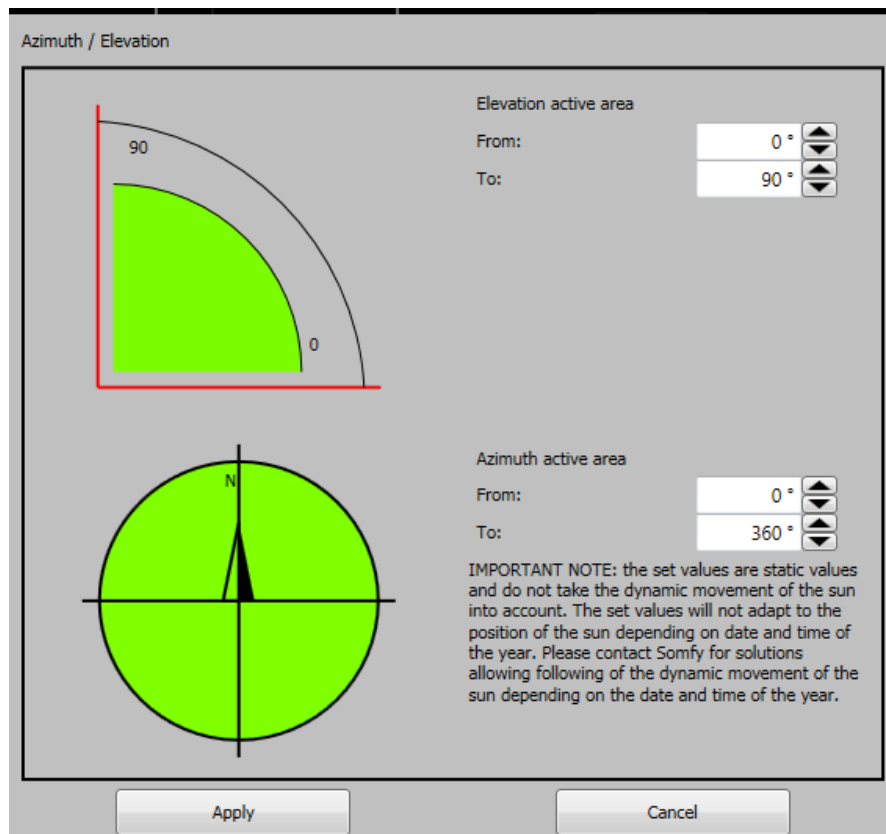


Parameter:

1. Updating time: gives the time between two position calculations.
2. Façade orientation: Orientation of the zone, set under setting - zones (chapter 4.4.2.8).
3. Slats – distance/width: Ratio between slats distance and slats width. This parameter is used for the calculation of the sun tracking to ensure an optimum ratio of brightness and glare protection.
4. Minimum step: States the minimum percent value which must be calculated from the position before a move command can be carried out.
5. Degree of longitude: Provides the geographical length of the building. Setting is done under settings – position (chapter 4.4.2.7).
6. Degree of latitude: Provides the geographical width of the building. Setting is done under settings – position (chapter 4.4.2.7).
7. Azimuth: Horizontal angle of the current sun tacking.
8. Elevation: Height angle of the current sun tracking.
9. Time zone: States the time zone of the building. Setting is done under settings – zones (chapter 4.4.2.5).
10. “Apply” for taking on the settings.
11. “Cancel” for quitting without settings.
12. Graphic display of the end product. Setting is done under settings - zones (chapter 4.4.2.8).

4.7.1.7 Azimuth Range and Elevation Angle

If the solar radiation is outside the set angle, the end products/shades are moved to the parameterized “Off” position. The horizontal and elevation angles are defined in the “Azimuth/Elevation” menu.



Elevation active area:

At the set angle “From:/To:” the sun function is active.

From: → The sun function is not active below this value
To: → The sun function is not active above this value

Azimuth active area:

At the set angle “From:/To:” the sun function is active.

From: → The sun function is not active below this value
To: → The sun function is not active above this value

This function is only executed when no other function with higher priority has been activated.

4.7.1.8 Rain, snow and frost/ice function

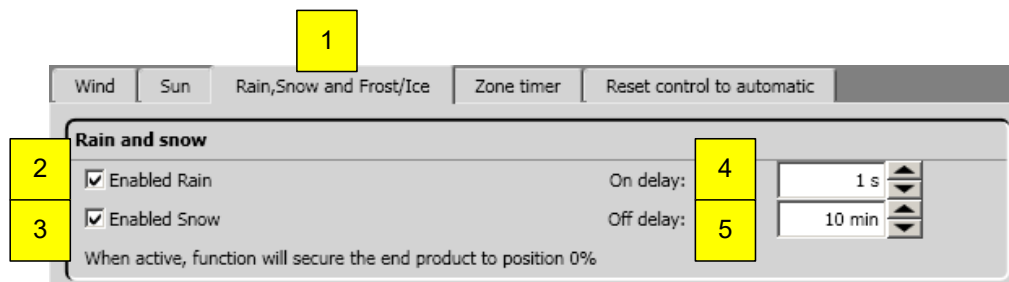
This function is not available for interior sun protection.

With rain, snow, frost and ice, the end products are locked in the safety position.

The rain and frost functions use the same sensor. If the outside temperature is lower than 4°C, then rain is interpreted as snow. Frost is recognised if the outside temperature is under the set value. Ice is recognised if the outside temperature is lower than the set value and when it has been raining in the last hours.

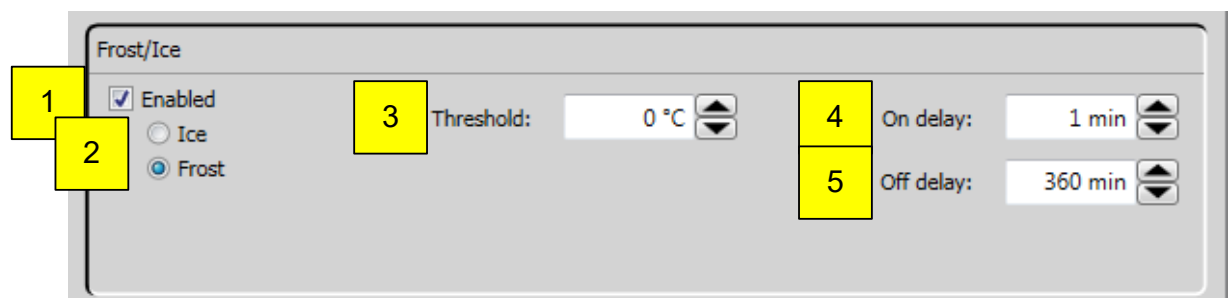
These functions are only carried out if no other function with a higher priority is active. The corresponding KNX object is KNX.MC.Zone_Security_High_Prio_Bit_OUT.

First you select the zone which is to be configured.



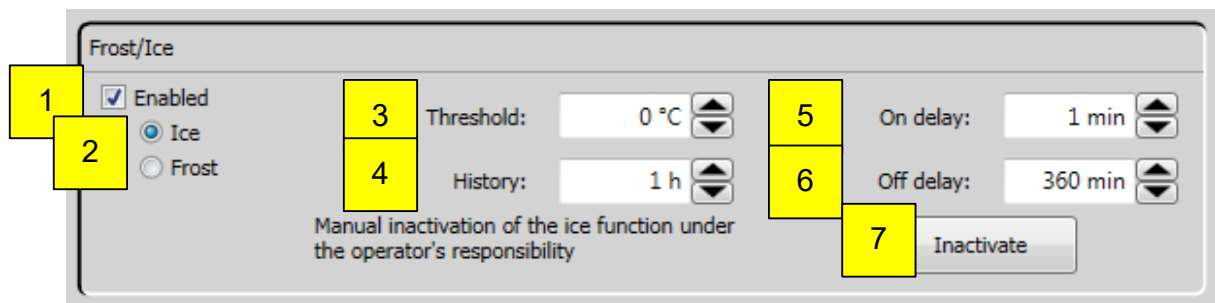
Rain and snow parameter:

1. Select rain, snow and frost/ice function.
2. Enable/disable rain function.
Rain function = rain and outside temperature $\geq 4^{\circ}\text{C}$
3. Enable/disable snow function.
Snow function = rain and outside temperature $< 4^{\circ}\text{C}$
 Δ If only snow is enabled, there is no possibility to use the rain wind direction function.
4. On delay \rightarrow duration of the rain, before the rain function or snow function becomes active.
5. Off delay \rightarrow Time span without rain, before the rain function or snow function becomes inactive.



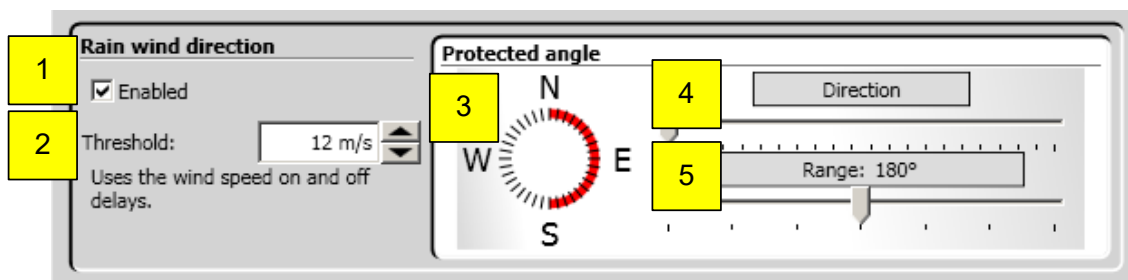
Frost parameter:

1. Enable/disable frost/ice function.
2. Enable/disable ice or frost function.
3. Set value \rightarrow the necessary measured outside temperature which must be below the set value to trigger the function.
4. On delay \rightarrow time span, during rain or snow is detected, before the rain function or snow function is activated.
5. Off delay \rightarrow time span, during rain or snow is not detected any more, before the rain function or snow function is deactivated.



Ice parameter:

1. Enable/disable frost/ice function.
2. Enable/disable frost or ice function.
3. Set value → the necessary measured outside temperature which must be below the set value to trigger the function.
4. History → Previous time span in which rain has been detected
5. On delay → time span, during rain or snow is detected, before the rain function or snow function is activated.
6. Off delay → Time span, during rain or snow is not detected any more, before the rain function or snow function is deactivated.
7. "Inactivate" to set back the history time by hand and to deactivate with it the ice function.



Rain wind direction parameters:

The function wind direction uses the response times and delay times of the rain function.

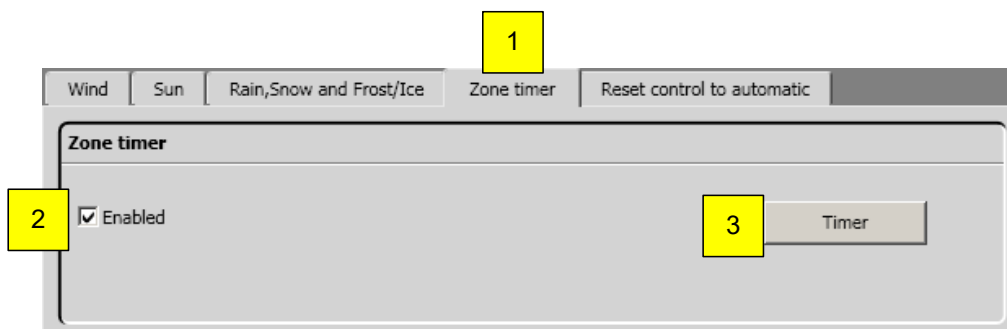
1. Enable/disable rain wind direction: ! Only available in combination of rain or rain and snow, but not available at only snow !
2. Set wind speed value → required measured wind speed to trigger the function.
3. Visualize monitored direction and range.
4. Monitored direction → wind direction for the protective angle by pulling the bar to adjust to the left or on the right, so that the alignment of the selected façade lies in the middle of the lighted diode ring (3).
5. Monitored range → the size of the protective angle is varied by pulling the bar to the right or left. Generally, the protective angle is 180 ° and the direction will be measured according to the orientation of the façade center.

4.7.1.9 Zone timer

This function enables the end products of a zone, within a defined period, to move to a certain position. When this is completed, the end products go to the upper end position (position 0 % and angle 0°).

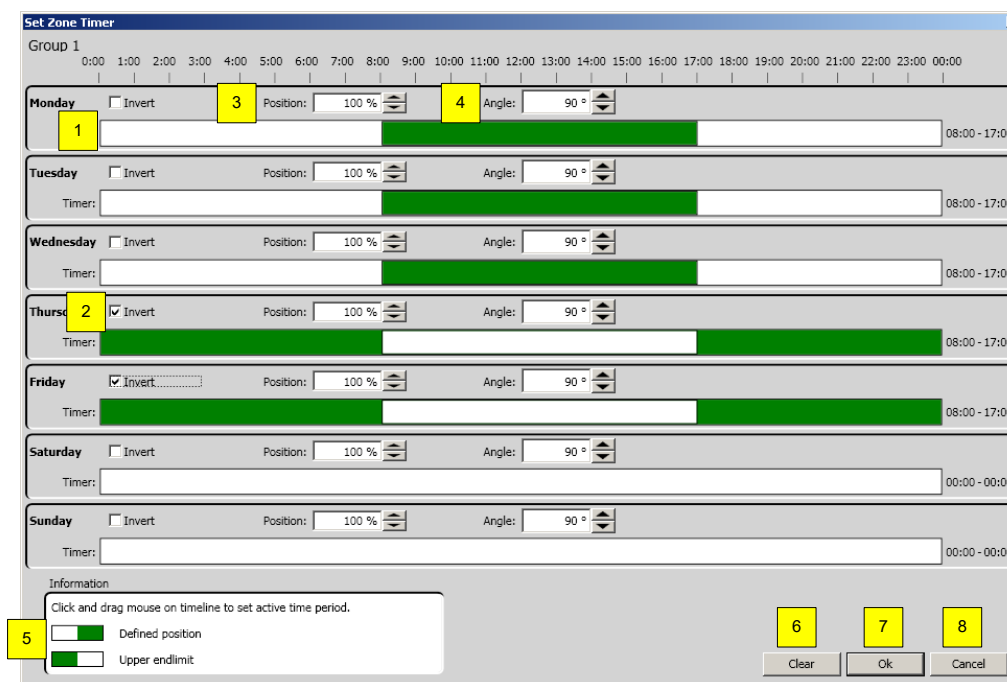
This function is only carried out if no other function with a higher priority is active.

The corresponding KNX objects are KNX.MC.Zone_Position_UP_DOWN_1Byte_OUT [n] and KNX.MC.Zone_Slat_Position_1Byte_OUT [n] whereby n stands for the respective selected zone 1-16.



Parameter:

1. Select zone timer.
2. Enable/disable function.
3. Open zone timer for this zone which then opens the following window.

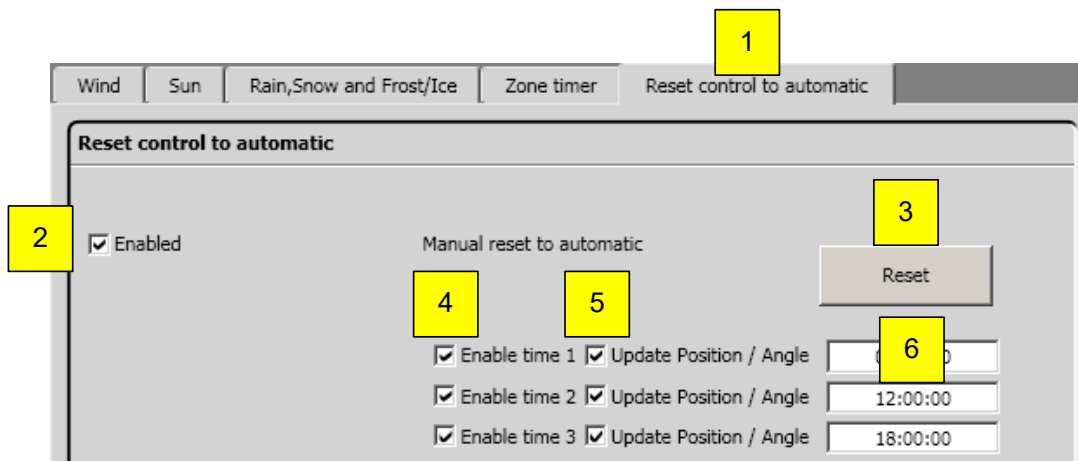


Parameter:

1. Time interval (green) in a time line
 - a. Add new time interval: With pressed mouse button, click on desired day and suitable position bar (1). Drag the time interval (2) to the right or left. Release the mouse button. The set time is displayed on the right beside the bar.
 - b. Change time interval: With pressed mouse button on one of the bar ends of the time interval to be changed (2), click and drag this in the desired direction. Release the mouse button. The set time is displayed on the right beside the bar.
 - c. Shift time interval: With pressed mouse button on the time interval (2) to be shifted, click and drag this in the desired direction. Release the mouse button. The set time is indicated on the right beside the bar.
 - d. Delete time interval: With pressed mouse button on one of the bar ends of the time interval to be deleted (2), click and drag this until it disappears. With the button "delete" (3), all time intervals can be deleted.
2. Inverts the time interval.
3. Position to which is moved after colour change white to green in the time line (1).
4. Angle to which is moved after colour change white to green in the time line (1). Not available with all end products.
5. Description with explanation.
6. "Clear" to delete all set time intervals in this zone.
7. "OK" for taking on the setting.
8. "Cancel" for quitting without settings.

4.7.1.10 Reset Control To Automatic

This function enables the possibility to change the priority automatic function and priority manual function on a KNX actor (e.g. ref.1860114 animeo KNX 4 AC Motor Controller WM) by using the KNX object. Up to three time points can be defined at which this takes place automatically. You can also do this manually in the software by pressing "Reset". The corresponding KNX object is KNX.MC.Zone_Timer_Reset_To_Auto_Bit_OUT[n] whereby "n" stands for the respective selected zone 1-16.



Parameter:

1. Select reset control to automatic.
2. Enable/disable function „Reset control to automatic“.
3. “Reset“, to return to automatic manually. After activating Reset, the following KNX objects are sent to the KNX Bus.
 - a. KNX.MC.Zone_Timer_Reset_To_Auto_Bit_OUT → “1”
 - b. KNX.MC.Zone_Security_Low_Prio_Bit_OUT → “0”
 - c. KNX.MC.Zone_Security_High_Prio_Bit_OUT → “0”
 - d. KNX.MC.Zone_Position_UP_DOWN_1Byte_OUT → “0-255”, the current calculated position.
 - e. KNX.MC.Zone_Slat_Position_1Byte_OUT → “0-255”, the current calculated angle. Not available in all end products.
4. Enable/disable time 1-3.
5. Enable/disable to send the current position and angle of the end product.
 - a. KNX.MC.Zone_Position_UP_DOWN_1Byte_OUT → “0-255”, the current calculated position.
 - b. KNX.MC.Zone_Slat_Position_1Byte_OUT → “0-255”, the current calculated angle. Not in all end products available.
6. Set time 1-3.

4.7.1.11 Copy zone

With the function “copy zone” settings of a zone can be transmitted quickly to other zones. Select source and destination zone as well as the functions to be copied and then press the copy button. The functions available for the copy depend on the end products in the zone.

The screenshot shows a 'Copy zone' dialog box with the following elements:

- Source (1):** A dropdown menu showing '1 : EAST 0-1 (Küche)'.
- Target (2):** A dropdown menu showing '2 : EAST 0-2 (Versan)'.
- Endproduct (3):** Two text boxes, both showing 'Exterior Venetian blind (+90°/-90°)'.
- Parameters to copy (4):** A list of checkboxes:
 - ☒ Wind Speed
 - ☐ Wind direction
 - ☐ Sun
 - ☐ Sunracking
 - ☐ Zone timer
 - ☒ Frost/Ice
 - ☐ Rain
 - ☒ Snow
 - ☐ Reset to Automatic
- Buttons (5, 6, 7, 8):** A row of four buttons at the bottom: 'Deselect all' (5), 'Select all' (6), 'Copy' (7), and 'Close' (8).

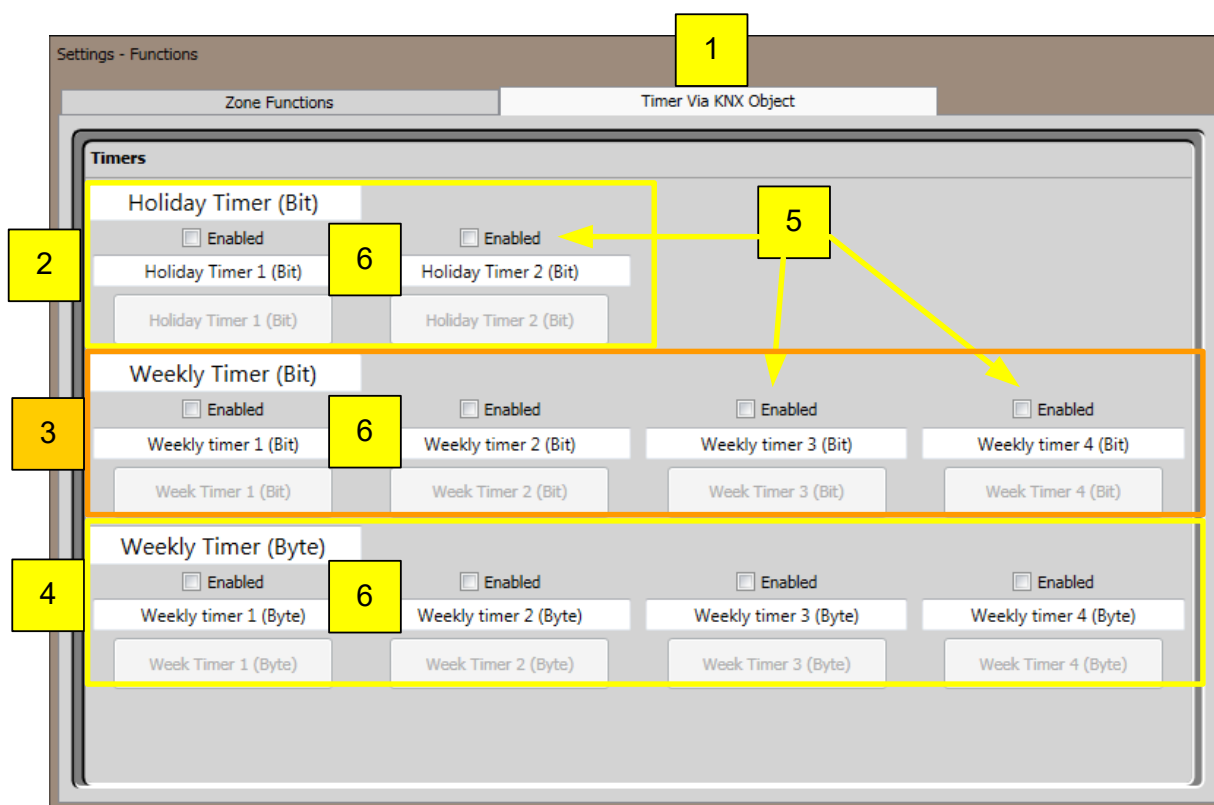
Parameter:

1. The source from the zone you would like to copy the parameters.
2. The destination of the zone you would like to copy the parameters.
3. Displays which end product was defined for the zone (chapter 3.4.2.8).
4. The selection of single parameters to be copied.
5. "Deselect all", all parameters (4) are deactivated. No selection.
6. "Select all", all parameters (4) are activated.
7. "Copy", activated parameters (4) are copied from the source to the destination. After successfully copying, these are displayed in green.
8. "Close", to close the current window.

4.7.2 Setting of the functions – timer via KNX object

In this window, settings can be made for individual timers. These timers are not related to the previous parametered zones.

These timers transmit at the set time bit or byte values to certain KNX objects. Select the timer functions by clicking the "Timer Via KNX Object" (1). Then activate the timer to be worked on (5) and then click on the appropriate timer (2-4).



Parameter:

1. Select "Timer via KNX object".
2. Select "Holiday Timer (Bit)" (chapter 4.7.2.1.).
3. Select "Weekly Timer (Bit)" (chapter 4.7.2.2.).
4. Select "Weekly Timer (Byte)" (chapter 4.7.2.3.).
5. Enable/disable Timer.
6. Assigned timer description
 - △ When the description is changed, this is not stored in the KNX Master Control W2/W8 but on the PC being used

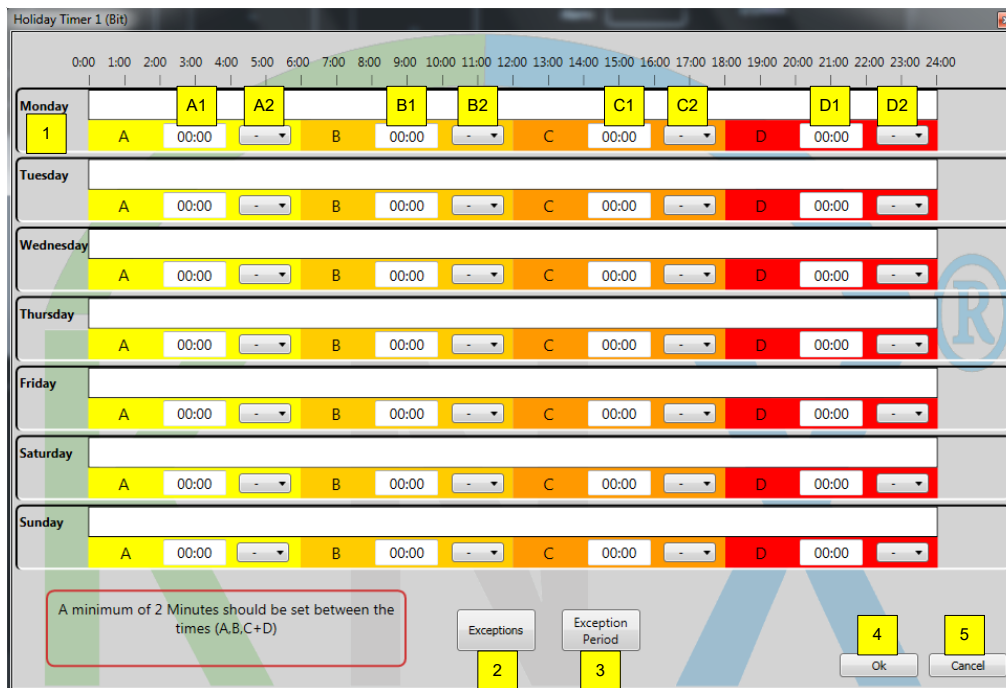
4.7.2.1 Year timer Bit

This function transmits “0”, “1” or “-” as a bit telegram at the defined time. Two annual timers are available.

On some days (e.g. vacation, bank holidays) other timer commands are necessary and can be activated using “exception” and “exception time period”. This function is not taken into consideration in the priority function list.

The corresponding KNX object is “KNX.MC.Timer_Yearly_Bit_OUT [1]” for the “Holiday Timer 1 (Bit)” and “KNX.MC.Timer_Yearly_Bit_OUT [2]” for the “Holiday Timer 2 (Bit)”

To set the timer function, click on “activate” and on “year timer bit 1” or “year timer bit 2”.



Parameter:

1. Time line with four possible moments (A, B, C and D) for each weekday.
 - A1 Time at which the Bit value set under A2 will be sent.
 - A2 Selection of the Bit telegram [“0”, “1” or “-”(nothing)] which will be sent.
 - B1 Time at which the Bit value set under B2 will be sent.
 - B2 Selection of the Bit telegram [“0”, “1” or “-”(nothing)] which will be sent.
 - C1 Time at which the Bit value set under C2 will be sent.
 - C2 Selection of the Bit telegram [“0”, “1” or “-”(nothing)] which will be sent.
 - D1 Time at which the Bit value set under D2 will be sent.
 - D2 Selection of the Bit telegram [“0”, “1” or “-”(nothing)] which will be sent.
2. Time () Exception defines one or more days (chapter 4.7.2.1.1).
3. Exception period defines a time period (chapter 4.7.2.1.2).
4. “OK” for taking on the setting.
5. “Cancel” for quitting without settings.

4.7.2.1.1 Exceptions

To enable the yearly timer on certain days to send other Bit telegrams, exception days can be defined. Click on “Exception”. The following window opens:



Timer year exception

A1 A2 B1 B2

1 011 15 00:00 0 00:00 0 1/1/2011 15 00:00 0 00:00 0

Exception date 2

Exception date 3

Exception date 4

Exception date 5

Exception date 6

Exception date 7

Exception date 8

Exception date 9

Exception date 10

Defines the day where the week timer is not active.

Past Date

Present Date

Future Date

2

3

4

Apply

Cancel

Parameter:

- 10 possible exception days.
 - A1 Time at which the Bit value set under A2 will be sent.
 - A2 Selection of the Bit telegram [“0”, “1” or “-“(nothing)] which will be sent.
 - B1 Time at which the Bit value set under B2 will be sent.
 - B2 Selection of the Bit telegram [“0”, “1” or “-“(nothing)] which will be sent.
- Key with explanation.
- “Apply” for taking on the setting.
- “Cancel” for quitting without taking on settings.

4.7.2.1.2 Exception period

To enable the yearly timer to send other Bit telegrams over certain periods, two given periods can be defined. Click on "Exception period". The following window opens:

Exception period

Exception period 1

Start Date: 12/24/2010 **2** **15**

End Date: 1/2/2011 **3** **15**

4

A1 08:00 **A2** 1

B1 17:00 **B2** 0

Exception period 2

Start Date: 1/1/2011 **15**

End Date: 1/1/2011 **15**

00:00 0

00:00 0

6 Apply **7** Cancel

Parameter:

1. The first exception period.
2. "Start date" when the exception period should begin.
3. "End date", when the exception period should end.
4. Displays the exception period set under 2 and 3.
 - A1 Time at which the Bit value set under A2 will be sent.
 - A2 Selection of the Bit telegram ["0", "1" or "-(nothing)"] which will be sent.
 - B1 Time at which the Bit value set under B2 will be sent.
 - B2 Selection of the Bit telegram ["0", "1" or "-(nothing)"] which will be sent.
5. The second exception period
6. "Apply" for taking on the setting.
7. "Cancel" for quitting without taking on settings.

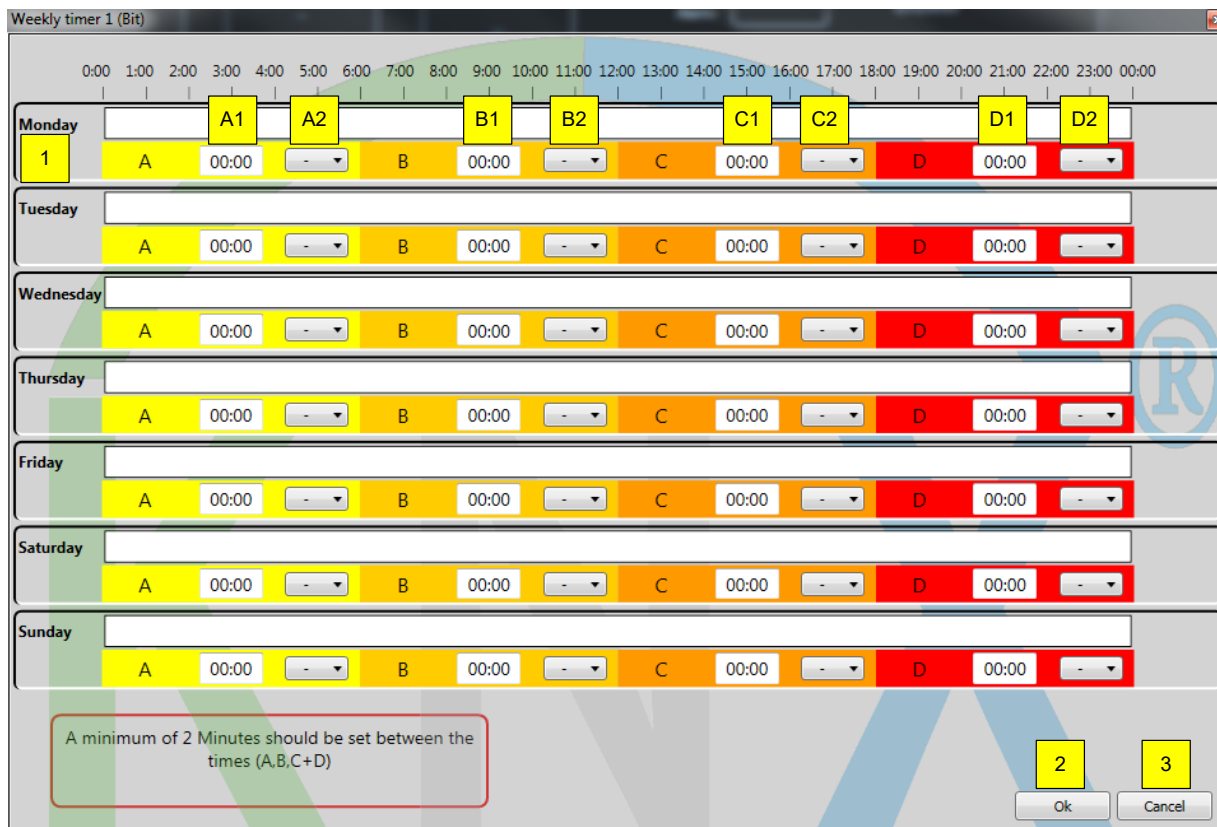
4.7.2.2 Weekly bit timer

This function transmits “1”, “0” or “-” as a bit telegram at the defined time. Four weekly timers (bit) are available.

This function is not taken into consideration in the priority function list.

The corresponding KNX object is KNX.MC.Timer_Weekly_Bit_OUT[n], whereby “n” stands for the corresponding selected weekly timer Bit 1-4.

To set the timer function, click on “enable” and on “weekly bit timer 1” to “weekly bit timer 4”.



Parameter:

- Time line with four possible moments (A, B, C and D) for each weekday
 - A1 Time at which the Bit value set under A2 will be sent.
 - A2 Selection of the Bit telegram [“0”, “1” or “-”(nothing)] which will be sent.
 - B1 Time at which the Bit value set under B2 will be sent.
 - B2 Selection of the Bit telegram [“0”, “1” or “-”(nothing)] which will be sent.
 - C1 Time at which the Bit value set under C2 will be sent.
 - C2 Selection of the Bit telegram [“0”, “1” or “-”(nothing)] which will be sent.
 - D1 Time at which the Bit value set under D2 will be sent.
 - D2 Selection of the Bit telegram [“0”, “1” or “-”(nothing)] which will be sent.
- “OK” for taking on the setting.
- “Cancel” for quitting without settings.

4.7.2.3 Weekly byte timer

This function enables moving an end product at a set time, by means of two KNX objects, to a predefined position and angle.

This function transmits two “Byte” telegrams for position and angle at a defined time. Four weekly timers (byte) are available.

This function is not taken into consideration in the priority function list.

The corresponding KNX object for the position is

(KNX.MC.Timer_Weekly_Position_UP_DOWN_1Byte_OUT[n]) and for the angle

(KNX.MC.Timer_Weekly_Slat_Position_1Byte_OUT[n]), whereby “n” stands for the corresponding selected weekly timer byte 1-4.

To set the timer function, click on “activate” and on “weekly timer byte 1” to “weekly timer byte 4”.

Parameter:

- Timer per day with two possible points in time per weekday.
 - Time point A activate/deactivate
 - Time at which set position and angle under A3 and A4 will be sent.
 - Position at which time point A1 will be moved to.
 - Angle at which time point A1 will be moved to.
 - Time point B activate/deactivate
 - Time at which set position and angle under B3 and B4 will be sent
- Angle $0^\circ \rightarrow 90^\circ$, limits the turning angle of the end product from $-90^\circ/+90^\circ$ to $0^\circ/90^\circ$.
- “OK” for taking on the setting.
- “Cancel” for quitting without settings.

4.7.3 Energy mode

For every zone, an energy mode can be set individually to optimise the room climate and to reduce energy consumption. Two functions are available: “Heating with sun” and “keep heat”.

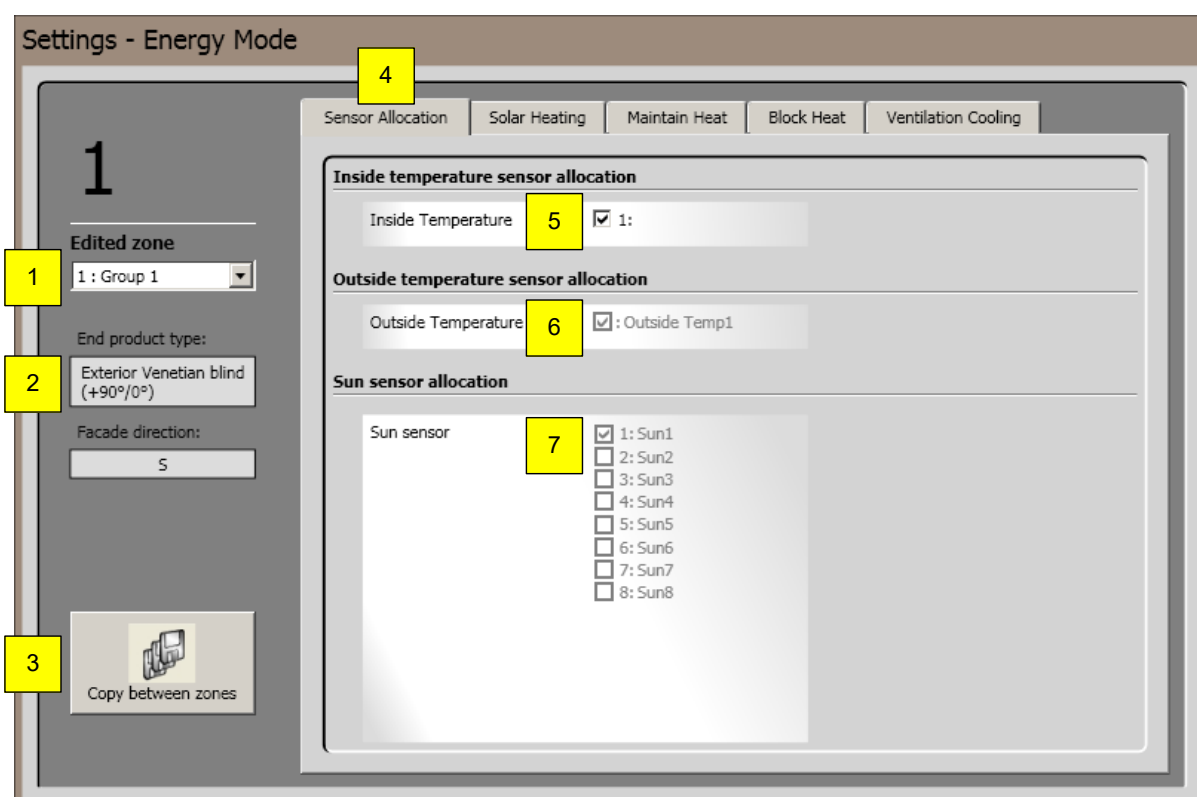
In the navigation bar click on “settings” and enter your password.

Select the zone which is to be configured. The general setting is displayed.

In the register “sensor allocation”, the inside temperature sensors and sun sensors are assigned. The inside temperature sensors are exclusively KNX sensors which are solely assigned to the zone: Inside Temperature 1 for the zone 1, Inside Temperature 2 for zone 2 and so on.

If no sensor is activated, the functions are deactivated (appears in grey).

To accelerate the setting procedure, you can copy the settings between the zones (chapter 6.3.2.7).



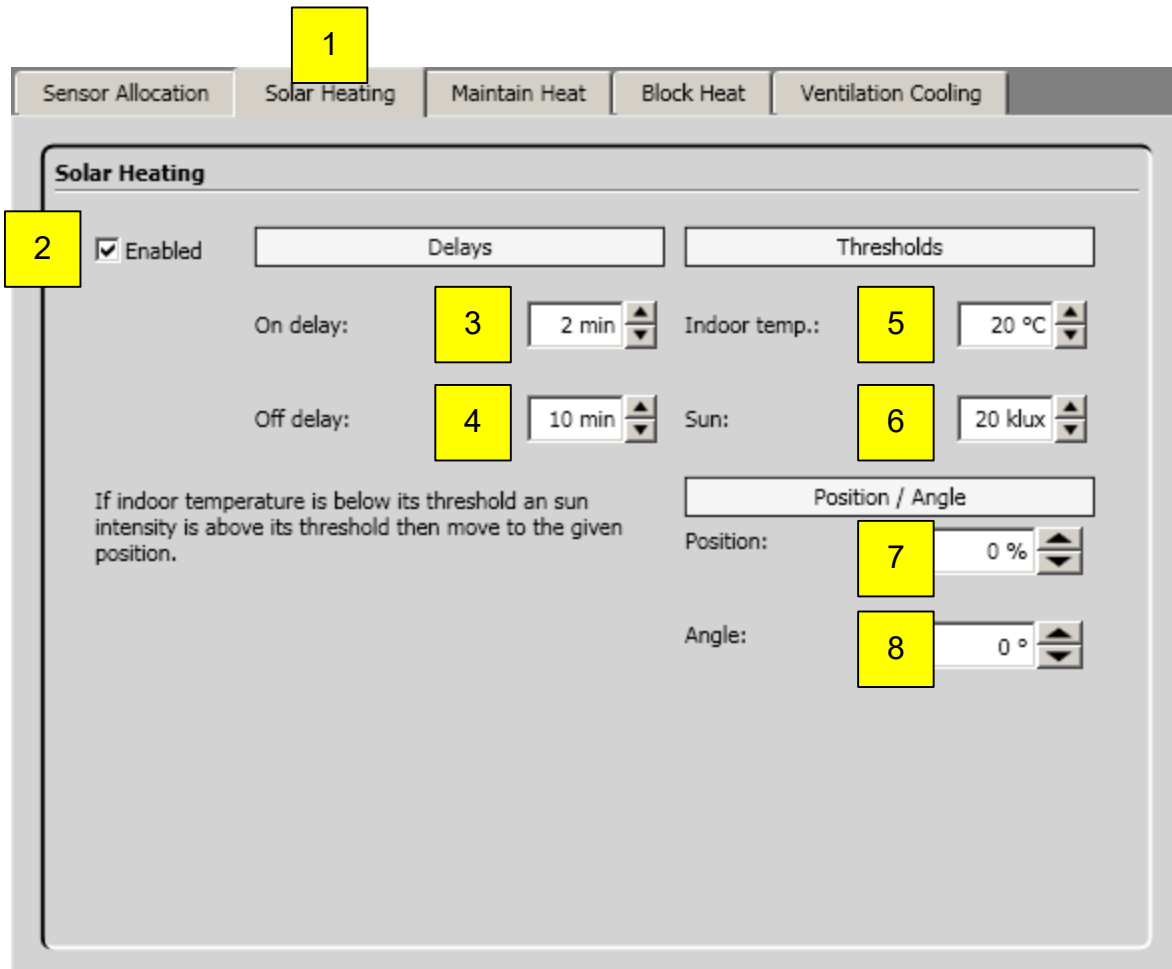
Parameter:

1. Select “zone” which is worked on.
2. Display end product and façade orientation of the current zone.
3. Copy parameters of a zone to another zone (chapter 4.7.1.11).
4. Select “sensor allocation”.
5. Activate/deactivate inside temperature sensor.
6. Display if outside temperature sensor is activate/deactivate (chapter 4.4.2.9.6).
7. Display sun sensors activated under sun function 4.4.2.9.4 for this zone.

4.7.3.1 Solar heating

This function is available only for sun protection. In this mode, the sun's heat is used to lower heating costs (e.g. in winter after working hours). If the indoor temperature is lower than the set value and the sun's brightness is higher than the set value, the sun protection hangings move to a predefined position. This function is only carried out if no other function with higher priority is active.

The corresponding KNX objects are KNX.MC.Zone_Energy_Saving_Bit_OUT[n], KNX.MC.Zone_Position_UP_DOWN_1Byte_OUT[n] and KNX.MC.Zone_Slat_Position_1Byte_OUT[n], whereby "n" stands for the corresponding selected zones 1-16.



The screenshot shows the 'Solar Heating' configuration window. At the top, there are tabs: 'Sensor Allocation', 'Solar Heating' (selected), 'Maintain Heat', 'Block Heat', and 'Ventilation Cooling'. Below the tabs, the 'Solar Heating' section is active. It contains a checkbox labeled 'Enabled' (checked). To the right of the checkbox are two sections: 'Delays' and 'Thresholds'. Under 'Delays', there are two settings: 'On delay' (set to 2 min) and 'Off delay' (set to 10 min). Under 'Thresholds', there are two settings: 'Indoor temp.' (set to 20 °C) and 'Sun' (set to 20 klux). Below these, there is a section labeled 'Position / Angle' with two settings: 'Position' (set to 0 %) and 'Angle' (set to 0 °). A text box on the left states: 'If indoor temperature is below its threshold and sun intensity is above its threshold then move to the given position.'

Parameter:

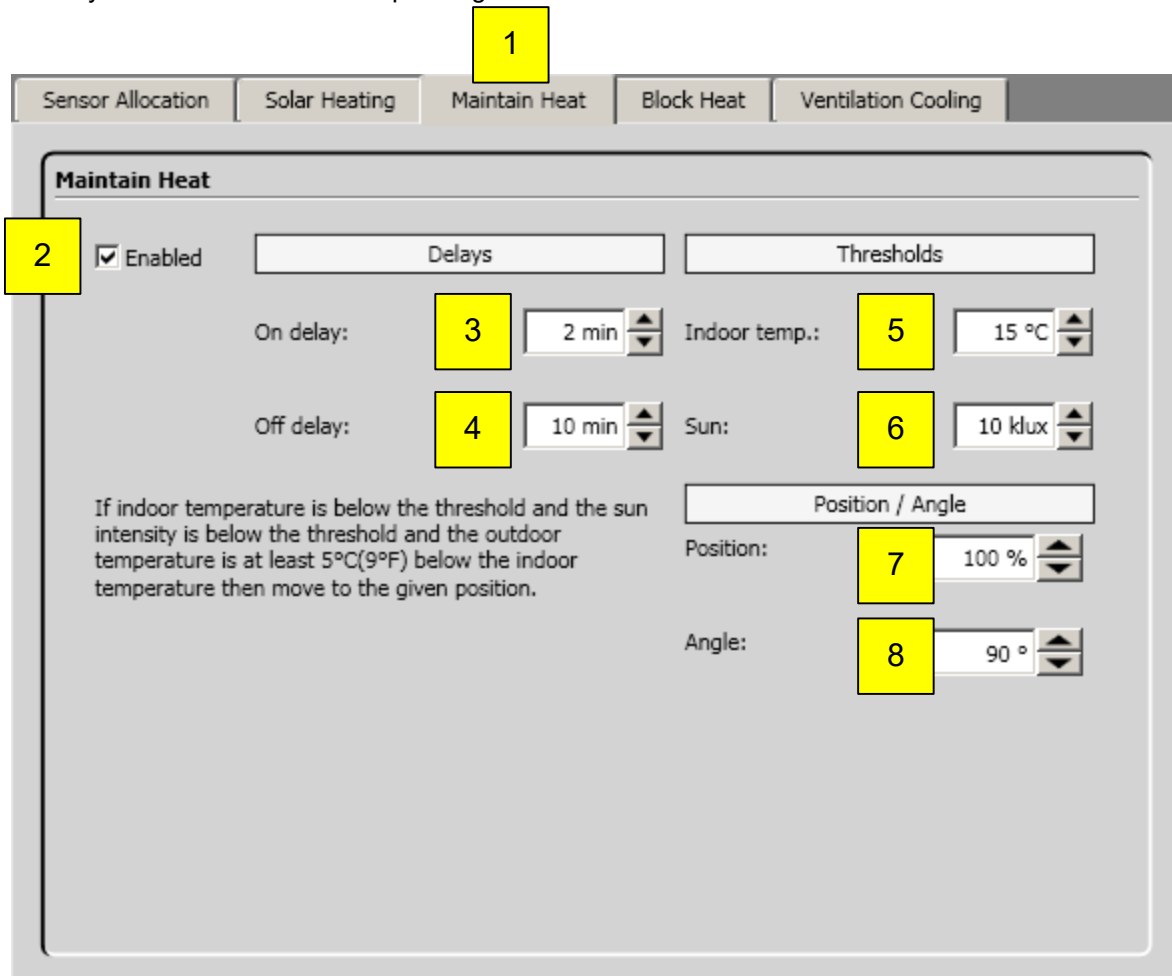
1. Select Solar Heating.
2. Enable/disable function.
3. Response time → time span, during indoor temperature (5) falls below and sun rays (6) must exceed before the function is activated.
4. Delay time → time span, during the indoor temperature (5) must be exceeded and sun rays be less than (6) before the function is deactivated.
5. Indoor temperature → the necessary measured indoor temperature which must be exceeded or be below to activate or deactivate the function.
6. The sun → the necessary measured sun intensity which must be exceeded or be below to activate or deactivate the function.
7. Position, to which is moved to with activating the function (2).
8. Angle, to which is moved to with activating the function (2).

4.7.3.2 Maintain heat

This function enables heat to be kept in the building with the help of the sun protection. This function is normally used after working hours.

If the indoor temperature and the sun brightness are lower than the set value and the outside temperature lies under 5°C, the sun protection hangings move to a predefined position. This function is only carried out if no other function with higher priority is active.

The corresponding KNX objects are KNX.MC.Zone_Energy_Saving_Bit_OUT[n], KNX.MC.Zone_Position_UP_DOWN_1Byte_OUT[n] and KNX.MC.Zone_Slat_Position_1Byte_OUT[n] whereby "n" stands for the corresponding zones 1-16.



The screenshot shows the 'Maintain Heat' configuration window. At the top, there are tabs: 'Sensor Allocation', 'Solar Heating', 'Maintain Heat' (selected), 'Block Heat', and 'Ventilation Cooling'. A yellow box with the number '1' points to the 'Maintain Heat' tab. Below the tabs, the 'Maintain Heat' section is active. It contains a checkbox labeled 'Enabled' with a yellow box '2' next to it. To the right of the checkbox are two sections: 'Delays' and 'Thresholds'. Under 'Delays', there are two settings: 'On delay:' with a value of '2 min' (yellow box '3') and 'Off delay:' with a value of '10 min' (yellow box '4'). Under 'Thresholds', there are two settings: 'Indoor temp.:' with a value of '15 °C' (yellow box '5') and 'Sun:' with a value of '10 klux' (yellow box '6'). Below these settings is a text box explaining the function: 'If indoor temperature is below the threshold and the sun intensity is below the threshold and the outdoor temperature is at least 5°C(9°F) below the indoor temperature then move to the given position.' To the right of this text box is a section labeled 'Position / Angle'. It contains two settings: 'Position:' with a value of '100 %' (yellow box '7') and 'Angle:' with a value of '90 °' (yellow box '8').

Parameter:

1. Select Maintain Heat.
2. Enable/disable function.
3. Response time → time span, during indoor temperature (5) falls below and sun rays (6) must exceed before the function is activated.
4. Delay time → time span, during the indoor temperature (5) must be exceeded and sun rays less than (6) before the function is deactivated.
5. Indoor temperature → the necessary measured indoor temperature which must be exceeded or be below to activate or deactivate the function.
6. The sun → the necessary measured sun intensity which must be exceeded or be below to activate or deactivate the function.
7. Position, to which is moved to with activating the function (2).
8. Angle, to which is moved to with activating the function (2).

4.7.3.3 Block heat

This function is normally to keep the heat out of the building by using the sun protection. This function is normally used beyond working hours.

If inside or outside temperature plus sun rays exceed the set value, then the end products move into a predefined position. The local control can be blocked.

This function is only carried out if no other function with a higher priority is active. The corresponding KNX objects are KNX.MC.Zone_Energy_Saving_Bit_OUT[n], KNX.MC.Zone_Position_UP_DOWN_1Byte_OUT[n] and KNX.MC.Zone_Slat_Position_1Byte_OUT[n], whereby "n" stands for the respective selected zone 1-16.

The screenshot shows the 'Block Heat' configuration window. At the top, there are tabs: 'Sensor Allocation', 'Solar Heating', 'Maintain Heat', 'Block Heat' (selected), and 'Ventilation Cooling'. The 'Block Heat' tab is highlighted with a yellow box labeled '1'. Inside the 'Block Heat' window, there is a 'Block Heat' title bar. Below it, there is a '2' in a yellow box next to an 'Enabled' checkbox. To the right of the checkbox are two sections: 'Delays' and 'Thresholds'. Under 'Delays', there are 'On delay:' and 'Off delay:' labels, each followed by a yellow box labeled '3' and '4' respectively, and a '0 min' value. Under 'Thresholds', there is a 'Temp.:' label followed by a yellow box labeled '6' and a '0 °C' value. Below this is a radio button labeled '5' for 'Inside' and another for 'Outside'. Below that is a 'Sun:' label followed by a yellow box labeled '7' and a '0 klux' value. At the bottom right, there is a 'Position / Angle' section with 'Position:' followed by a yellow box labeled '8' and '100 %', and 'Angle:' followed by a yellow box labeled '9' and '90 °'. A text box on the left explains the logic: 'If selected temperature and sun intensity is above is threshold then move to the given position and block local control'. At the bottom, it says 'T inside/outside => T threshold => block local control'.

Parameter:

1. Select Block Heat.
2. Enable/disable function.
3. Response time → time span, during the temperature (6) and sun rays (7) must exceed before the function is activated.
4. Delay time → time span, during the temperature (6) and sun rays (7) must fall below before the function is deactivated.
5. Inside or Outside → select which ambient temperature will be used for the calculation.
6. Temperature → the necessary measured temperature which must be exceeded or be below to activate or deactivate the function.
7. The sun → the necessary measured sun intensity which must be exceeded or be below to activate or deactivate the function.
8. Position, to which is moved to with activating the function (2).
9. Angle, to which is moved to with activating the function (2).

4.7.3.4 Ventilation Cooling

This function allows to open windows dependent on inside and outside temperature. This function is normally used beyond working hours.

The outside temperature (3) must exceed before the function is activated.

Windows will be opened, if inside temperature (4) and the set delta between inside and outside temperature (5) is exceeded. Windows will be closed, if outside temperature (3), inside temperature (4) or the set delta between inside and outside temperature (5) is below.

This function is only carried out if no other function with a higher priority is active.

The corresponding KNX objects are KNX.MC.Zone_Energy_Saving_Bit_OUT[n] and KNX.MC.Zone_Position_UP_DOWN_1Byte_OUT[n], whereby "n" stands for the respective selected zone 1-16.

Parameter:

1. Select Ventilation Cooling.
2. Enable/disable function.
3. Outside temperature threshold → the necessary measured temperature which must be exceeded or be below to activate or deactivate the function.
4. Inside temperature threshold → the necessary measured temperature which must be exceeded or be below to activate or deactivate the function.
5. Outside/inside temperature threshold → the necessary measured temperature delta which must be exceeded or be below to activate or deactivate the function.
6. Inside temperature threshold → the necessary measured temperature which must be exceeded or be below to activate or deactivate the function.
7. Outside/inside temperature threshold → the necessary measured temperature delta which must be exceeded or be below to activate or deactivate the function.
8. Position, to which is moved to with activating the function.

4.8 Log

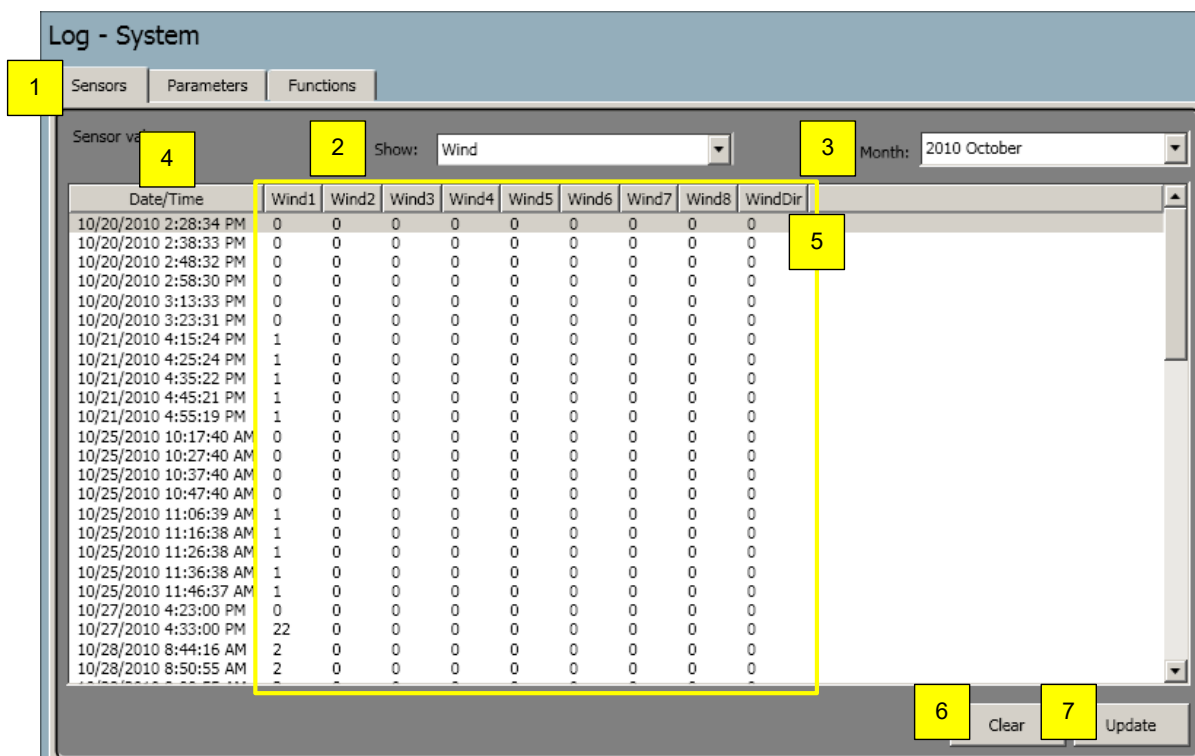
Important: System data (sensor values, parameters updates or functions) and errors are only recorded if a PC with KNX Operating software is connected to the animeo KNX Master Control. The KNX Master Control has no storage for system data or errors.

4.8.1 Log of the system data

In the navigation bar, click on “Log” and then on “System”.

Current values of individual sensors, parameter updates and function states (active or inactive) are saved since the start of the project and are displayed here.

4.8.1.1 Protocolling sensors



The screenshot shows the 'Log - System' window with the 'Sensors' tab selected. The interface includes a 'Sensor value' dropdown (2) set to 'Wind', a 'Month' dropdown (3) set to '2010 October', and a table of sensor data. The table has columns for 'Date/Time' (4) and ten wind sensors (Wind1 to Wind10). The 'WindDir' column (5) is highlighted. At the bottom, there are 'Clear' (6) and 'Update' (7) buttons.

Date/Time	Wind1	Wind2	Wind3	Wind4	Wind5	Wind6	Wind7	Wind8	Wind9	Wind10	WindDir
10/20/2010 2:28:34 PM	0	0	0	0	0	0	0	0	0	0	0
10/20/2010 2:38:33 PM	0	0	0	0	0	0	0	0	0	0	0
10/20/2010 2:48:32 PM	0	0	0	0	0	0	0	0	0	0	0
10/20/2010 2:58:30 PM	0	0	0	0	0	0	0	0	0	0	0
10/20/2010 3:13:33 PM	0	0	0	0	0	0	0	0	0	0	0
10/20/2010 3:23:31 PM	0	0	0	0	0	0	0	0	0	0	0
10/21/2010 4:15:24 PM	1	0	0	0	0	0	0	0	0	0	0
10/21/2010 4:25:24 PM	1	0	0	0	0	0	0	0	0	0	0
10/21/2010 4:35:22 PM	1	0	0	0	0	0	0	0	0	0	0
10/21/2010 4:45:21 PM	1	0	0	0	0	0	0	0	0	0	0
10/21/2010 4:55:19 PM	1	0	0	0	0	0	0	0	0	0	0
10/25/2010 10:17:40 AM	0	0	0	0	0	0	0	0	0	0	0
10/25/2010 10:27:40 AM	0	0	0	0	0	0	0	0	0	0	0
10/25/2010 10:37:40 AM	0	0	0	0	0	0	0	0	0	0	0
10/25/2010 10:47:40 AM	0	0	0	0	0	0	0	0	0	0	0
10/25/2010 11:06:39 AM	1	0	0	0	0	0	0	0	0	0	0
10/25/2010 11:16:38 AM	1	0	0	0	0	0	0	0	0	0	0
10/25/2010 11:26:38 AM	1	0	0	0	0	0	0	0	0	0	0
10/25/2010 11:36:38 AM	1	0	0	0	0	0	0	0	0	0	0
10/25/2010 11:46:37 AM	1	0	0	0	0	0	0	0	0	0	0
10/27/2010 4:23:00 PM	0	0	0	0	0	0	0	0	0	0	0
10/27/2010 4:33:00 PM	22	0	0	0	0	0	0	0	0	0	0
10/28/2010 8:44:16 AM	2	0	0	0	0	0	0	0	0	0	0
10/28/2010 8:50:55 AM	2	0	0	0	0	0	0	0	0	0	0

Parameter:

1. Select sensors.
2. Select sensor (wind, sun or other sensors) for the protocol to be displayed.
3. Select month for the protocol to be displayed.
4. Date/time.
5. Protocolled sensor value.
6. Delete current protocol.
7. Update current protocol.

4.8.1.2 Log parameter

Log - System

Parameters

Month: 2010 October

Date/Time	Parameter Name	Value Old	Value New
10/28/2010 8:41:06 AM	Pc Priority Active Comfort Function0	False	True
10/28/2010 8:41:14 AM	Pc Priority Active Comfort Function0	True	False
10/28/2010 8:42:16 AM	Disable Wind Zone2	True	False
10/28/2010 8:42:16 AM	Group Timer On Zone4	0	32400
10/28/2010 8:42:16 AM	Group Timer Off Zone4	0	36900
10/28/2010 8:42:16 AM	Disable Group Timer Zone1	True	False

Parameter

1. Select parameter.
2. Select month for the protocol to be displayed.
3. Date/time.
4. Name of the parameter.
5. Value before update.
6. Value after update.

4.8.1.3 Log functions

Log - System

Functions

Month: 2010 October

Date/Time	Functions	Zone	Value
10/28/2010 8:42:17 AM	Wind Speed	2	True
10/28/2010 8:42:17 AM	Sun	2	True
10/28/2010 8:43:25 AM	Rain	1	True
10/28/2010 8:43:29 AM	Rain	1	False
10/28/2010 8:43:58 AM	Wind Speed	2	False

Parameter:

1. Select functions.
2. Select month for the protocol to be displayed.
3. Date/time.
4. Name of function.
5. Details of zone.
6. Value (true = active, false = inactive).

4.8.2 Log errors

In the navigation bar, click on “Log” and then on “error”.

All errors are saved since the start of the project and are displayed here.

Log - Error

Errors

Error ch

2

3

4

5

1

Month: 2010 November

Date/Time	Error	Error information	Error
11/4/2010 3:01:08 PM	OSC Communication	0	Cleared
11/4/2010 3:01:08 PM	Sun Sensor	1	Cleared
11/4/2010 3:01:08 PM	Sun Sensor	2	Cleared
11/4/2010 3:01:08 PM	Sun Sensor	3	Cleared
11/4/2010 3:01:08 PM	Sun Sensor	4	Cleared
11/4/2010 3:01:08 PM	Sun Sensor	5	Cleared
11/4/2010 3:01:08 PM	Sun Sensor	6	Cleared
11/4/2010 3:01:08 PM	Sun Sensor	7	Cleared
11/4/2010 3:01:08 PM	Sun Sensor	8	Cleared
11/4/2010 3:01:08 PM	Wind Direction	0	Cleared
11/4/2010 3:01:08 PM	Outside Temperature	0	Cleared
11/4/2010 3:01:30 PM	Sun Sensor	1	Cleared
11/4/2010 3:01:30 PM	Sun Sensor	2	Cleared
11/4/2010 3:01:30 PM	Sun Sensor	3	Cleared
11/4/2010 3:01:30 PM	Sun Sensor	4	Cleared
11/4/2010 3:01:30 PM	Sun Sensor	5	Cleared
11/4/2010 3:01:30 PM	Sun Sensor	6	Cleared
11/4/2010 3:01:30 PM	Sun Sensor	7	Cleared
11/4/2010 3:01:30 PM	Sun Sensor	8	Cleared
11/4/2010 3:01:30 PM	Wind Direction	0	Cleared
11/4/2010 3:01:30 PM	Outside Temperature	0	Cleared
11/4/2010 3:01:36 PM	Wind Sensor	1	Cleared
11/4/2010 3:01:36 PM	Wind Sensor	2	Cleared
11/4/2010 3:01:36 PM	Sun Sensor	1	Occured

6

Clear

7

Update

Parameter:

1. Select month for the protocol to be displayed.
2. Date/time.
3. Type of error.
4. Error information.
5. Error.
6. Delete current protocol.
7. Update current protocol.

5 ETS Programming

5.1 Importing the ETS Plug-in to ETS5

To import the ETS plug-in, select the corresponding vd4 file:

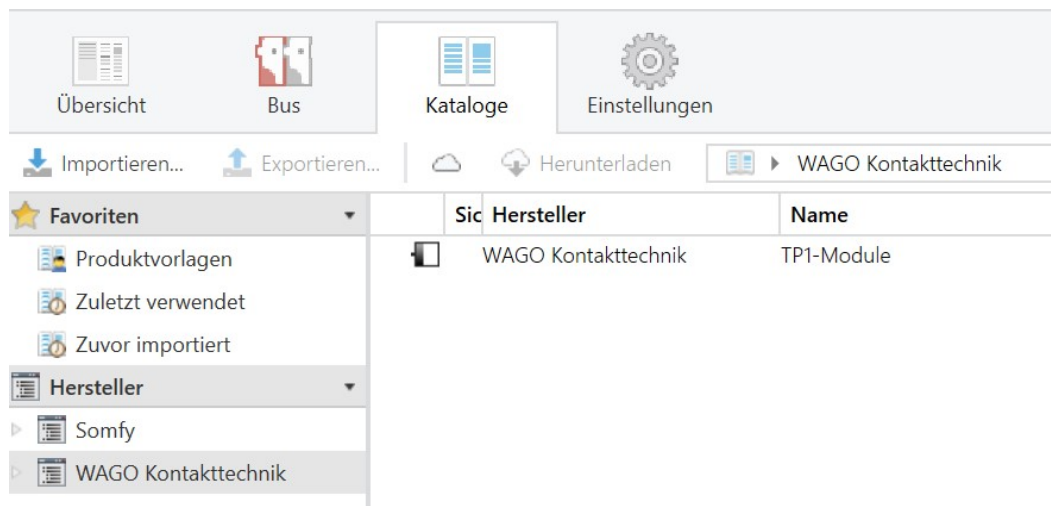
1. Click the **[Catalogs]** button on the ribbon.
2. Click the **[Import...]** button.



This opens the “Import Products” dialog containing the import wizard that guides you through importing a product catalog into your database:

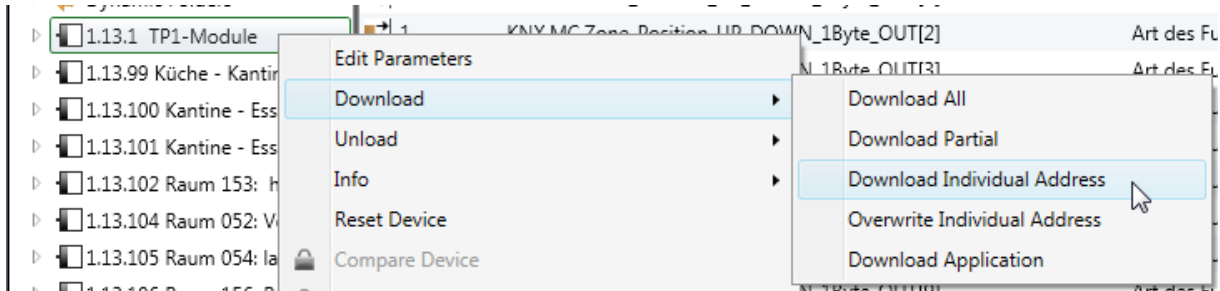
3. **File:** Find the file path of the product file to be imported in the directory and click the **[Next]** button.
4. **Conversion:** The file you selected may have to be converted from an older format to the new format. If required, you can enter a path here to save the converted output file (optional). Click the **[Next]** button.
5. **Products:** You can decide here whether to import all products or make an additional selection. Then click the **[Next]** button.
6. **Languages:** Here you can choose to import all languages or make an additional selection. Then click the **[Next]** button.

The Summary relists all the selections made. Then click the **[Import]** button.

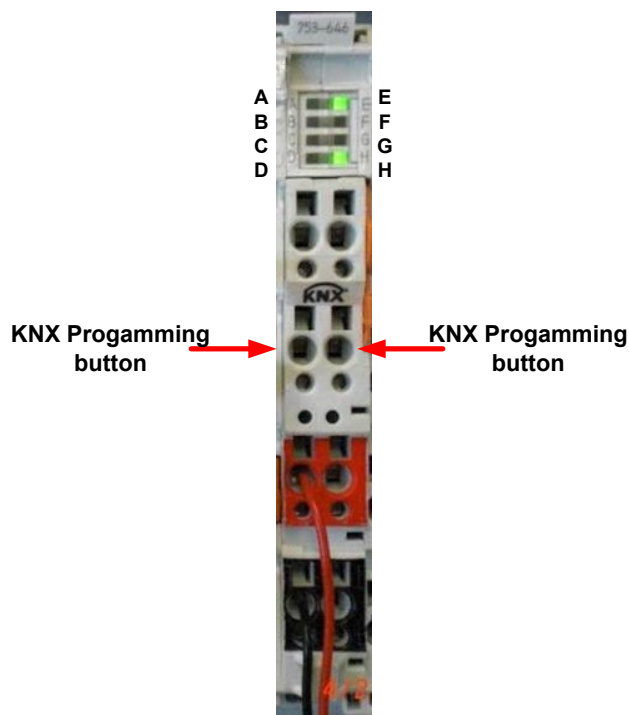


5.2 Download Individual Address of KNX/TP1 Module

.At the topology window, click with the right mouse button on the device “TP1 Module” and select the option “Download“. > “Download Individual Address”



The yellow LED's “D” on the KNX terminal begin to blink. Make an electronic connection for a short moment between the KNX programming buttons (e.g. with a wire bridge).



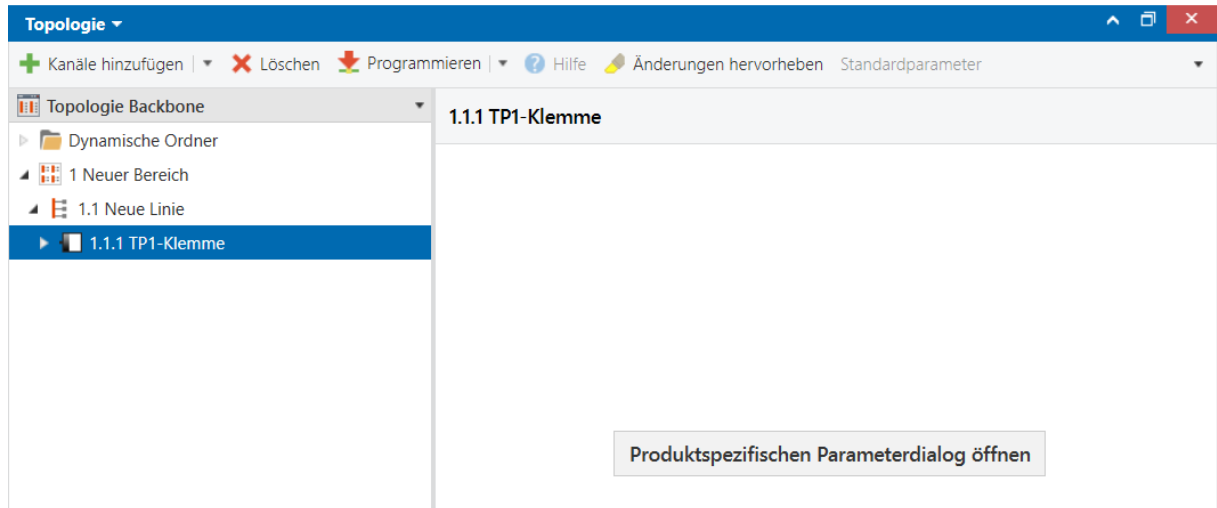
The red LED “B” on the KNX terminal blinks and shows that it is now in the active programming mode.

Shortly afterwards, the green LED's “C”, “H” and “E” will blink. The physical address of the KNX terminal has been programmed successfully when the green LED's “E” and “H” are continuously lit.

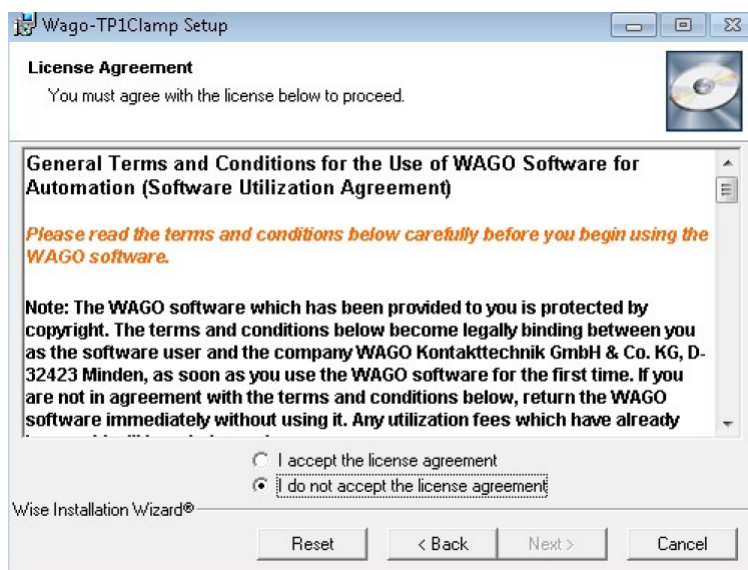
5.3 Opening the ETS Plug-in

Move to the topology view of the ETS in order to accept the license agreement and open the plug-in.

1. Click Edit Parameters in the context menu of a device in the ETS to open the ETS Plug-in and configure the device.

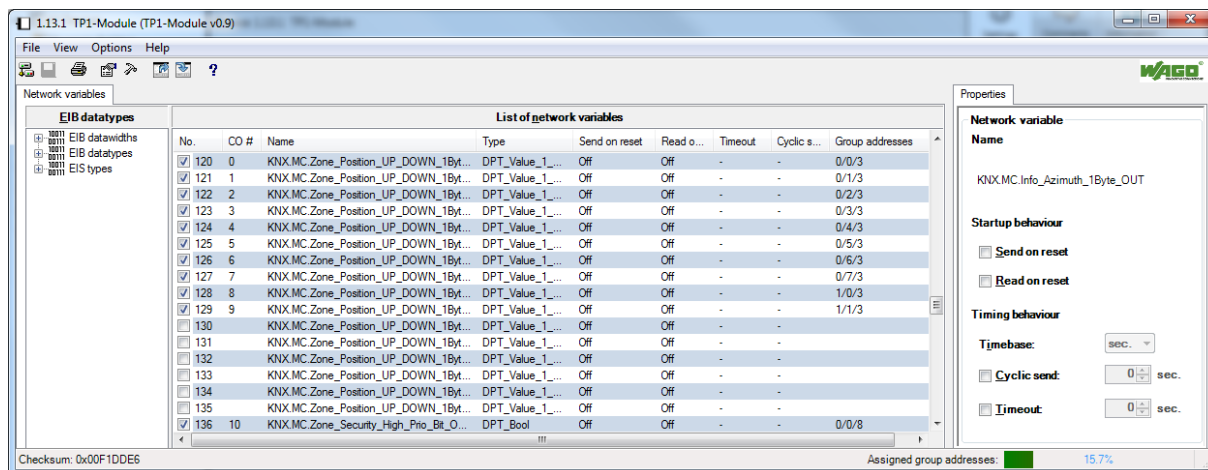


2. The dialog for the license agreement of the WAGO software opens:



3. Please read the license agreement carefully.
 - a. By clicking "I accept the license agreement." you can confirm the dialog with **[Next >]**. The Setup then installs the ETS Plug-in.
 - b. If you do not agree with the license agreement, the setup is cancelled by clicking **[Cancel]**.

The ETS Plug-in then opens for the selected device.

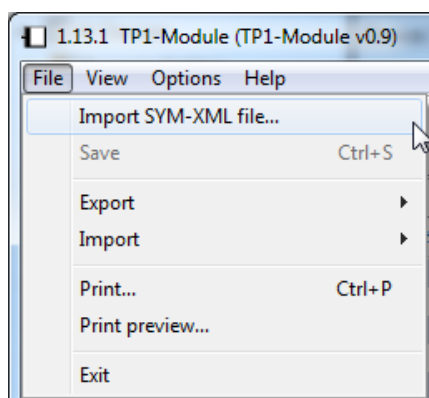


5.4 Importing a Symbol File in the ETS Plug-in

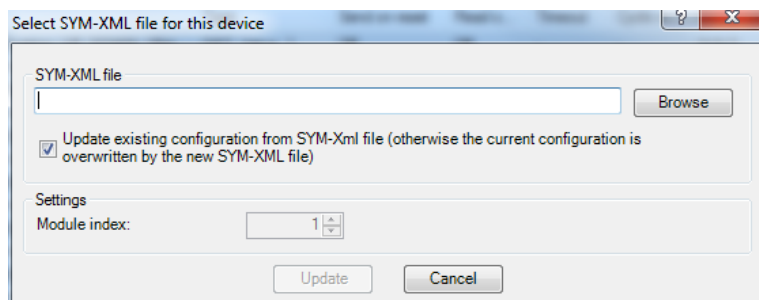
Specific configurations are required to operate the KNX Module and the KNX IP Controller. The WAGO-I/O-PRO software generates these configurations and exports them to an “SYM_XML” icon file.

In the Plug-in window:

1. Click **[File]** in the main menu of the plug-in user interface.
2. Select the **Import SYM-XML file...** menu item.



3. In the “Select SYM-XML file for this device” window, select a SYM_XML file containing the specific configuration of the KNX Module or KNX IP Controller.



A checkbox is provided below the entry field for the source file.

- If the box is unchecked, the device configuration is overwritten with the data in the SYM_XML file.
- If it is checked, the current device configuration is synchronized with the settings specified in the SYM_XML file.

You will find the required symbol data file “KNX_Master_Control. SYM_XML” on the provided CD “animeo KNX Master Control Operating Software” in the subdirectory: \ETS\SYM-XML\

Select the file “KNX_Master_Control. SYM_XML” and click on “open”.

Import the file “KNX_Master-Control. SYM_XML”.

The list of the communication objects and the properties of each object appear in the window.

The following graphic interface shows all relevant data which are needed for the configuration.

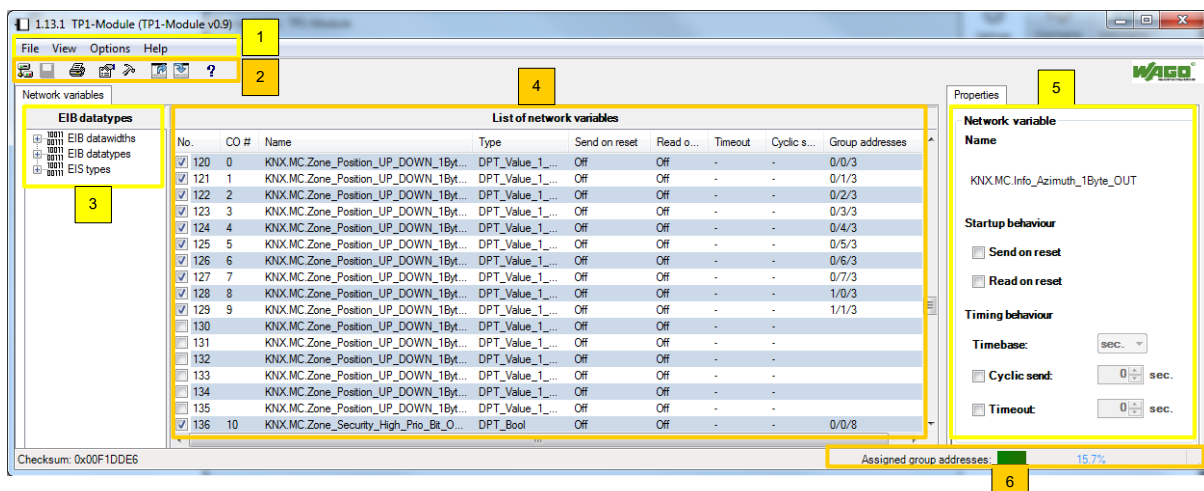
5.5 KNX/TP1 Module Parameterization

The following section describes the procedure for using the ETS Plug-in for the KNX Module within the ETS.

The ETS Plug-in is contained in the product database.

5.5.1 Graphical User Interface of the ETS Plug-in

The graphical user interface displays all relevant data applicable to configuring the KNX Module. The main window is divided into various areas, which are described in the following sections:



Parameter:

1. Main Menu
2. Toolbar
3. “Network variables” tab – EIB datatypes
4. “Network Variables” tab – List of network variables
5. “Properties” tab
6. Status bar – Percentage bar

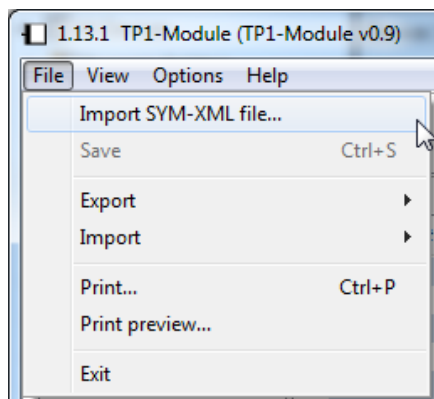
This display structure cannot be changed, although the toolbar and the Properties window may be shown or hidden above the View menu item in the main menu. It is also possible to use the mouse to resize the individual window panes to the desired height and width. It is also possible to use the mouse to resize the individual window panes to the desired height and width.

5.5.2 Main menu

The main menu contains the following items, each contains its own submenu items:

- File
- View
- Options
- Help

5.5.3 “File” Menu Item



Menu Item	Description
Import SYM-XML file...	Imports an SYM_XML file.
Save	Saves the settings to the database of the ETS. The basic changes made via the ETS Plug-in are saved in the ETS. The menu item is only activated if changes were made.
Export	<p>The following submenu items enable you to export the current configuration.</p> <p>XML (Backup) Export as XML file (not a SYM_XML file). All settings of WAGO devices (assignment of network variables, their properties, the settings of network variables and the assignment of communication objects to group addresses, etc.) are saved as an XML file. This file is used as a backup or as a template for the ETS Plug-in. When importing this file, the predefined settings are accepted in the devices and replace any existing settings.</p> <p>CSV (editing parameters) Export as CSV file. The exported ASCII text contains a table of the network variables visible in the ETS. The first row is used as the header and contains the property names. Any additional row corresponds to a network variable. The property values (table columns) are separated by semicolons. You can open and edit the exported *.csv file with Excel or a text editor.</p> <p>Notes on saving a *.csv file after editing! Excel cannot save any additional information in CSV format, such as cell formats, row heights or column widths. Therefore when saving, confirm the format warning prompt with “Yes” in order to retain the *.csv file format!</p>
Import	<p>Use the following submenu items to import a configuration.</p> <p>XML (Restore) Import as an XML file. This is not a SYM_XML file.</p>

Menu Item	Description
	<p>CSV</p> <p>Export as a CSV file. The imported .csv file must have been previously exported and, if necessary, edited with Excel or a text editor. This enables you to change group address associations and other properties of network variables. However, name, data type (DPT) and CO number cannot be changed.</p> <p>CSV file does not contain a fully specified configuration!</p> <p>Unlike an exported XML file, the CSV file does not contain a fully specified configuration. It is therefore not suitable for:</p> <ul style="list-style-type: none"> • transferring the configuration to a different device • reimporting after a manual change of the ETS visibility of variables • reimporting after an XML or SYM_XML import.
Print...	<p>Prints the current configuration.</p> <p>Two different documentation types can be selected:</p> <ul style="list-style-type: none"> • “Based on group addresses” • “Based on network variables”.
Print preview...	<p>Displays the print preview. The same two documentation types can be selected (see “Print...” menu item).</p>
Exit...	<p>Closes the Plug-in. If the modifications have not been saved, the software will provide a prompt with the option to save the changes.</p>

5.5.3.1 Exporting a Configuration as a CSV File

1. In the main menu choose **File > Export > CSV**.
2. Enter a storage location in the opened dialog.
3. Left-click [Save] to save the configuration and close the dialog.

⚠ Routinely save the configurations!

It is recommended that the configurations are regularly exported to create a backup file.

5.5.3.2 Exporting a Configuration as a CSV File

⚠ CSV file does not contain a fully specified configuration!

Unlike an XML file, the CSV file does not contain a fully specified configuration. It is therefore not suitable as a backup file.

In the main menu choose File > Export > CSV.
Enter a storage location in the opened dialog.
Left-click [Save] to save the configuration and close the dialog

⚠ Simple editing of group address associations and other properties of network variables!

You can edit the properties of network variables with Excel or a text editor. Many text fields start with an additional blank space in order to prevent accidental automatic Excel conversions. After editing, be sure to save the file again in *.csv file format

5.5.3.3 Import XML File (Backup Restore)

1. In the main menu, choose File > Import > XML (Restore).
2. Search for the required XML file in the dialog that opens.
3. Left-click [Open] to import the configuration file and close the dialog.
4. A warning prompt indicates that importing a configuration will overwrite all existing settings and assignments. If you agree, click the [Yes] button.

Δ Retain settings via the ETS Import/Export function (XML)!

The export or import function (XML) enables you to recover previous settings after a new installation of the ETS, or to load them another PC.

5.5.3.4 Importing a CSV File

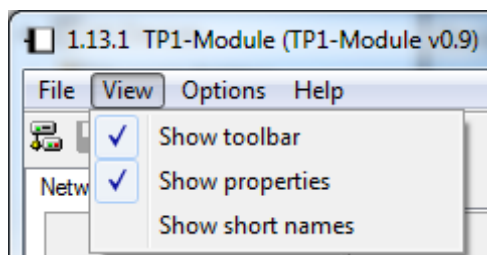
Δ CSV files do not contain a fully specified configuration!

Unlike an exported XML file, the CSV file does not contain a fully specified configuration. It is therefore not suitable for:

- transferring the configuration to a different device
- reimporting after a manual change of the ETS visibility of variables
- reimporting after an XML or SYM_XML import.

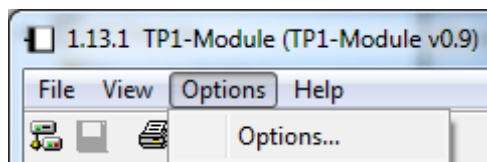
1. In the main menu, choose File > Import > CSV.
2. In the dialog that opens, search for the CSV file required.
3. Left-click [Open] to import the file and close the dialog.
4. A warning prompt indicates that importing a configuration will overwrite all existing settings and assignments. If you agree, click the [Yes] button.

5.5.4 “View” Menu Item



Menu Item	Description
Show toolbar	When checked, it displays the toolbar. The toolbar is otherwise hidden.
Show properties	When checked, the “Properties” tab is displayed on the right in the window. It is otherwise hidden.
Show short names	This parameter will not have any impact at the KNX Master Control

5.5.5 “Options” Menu Item

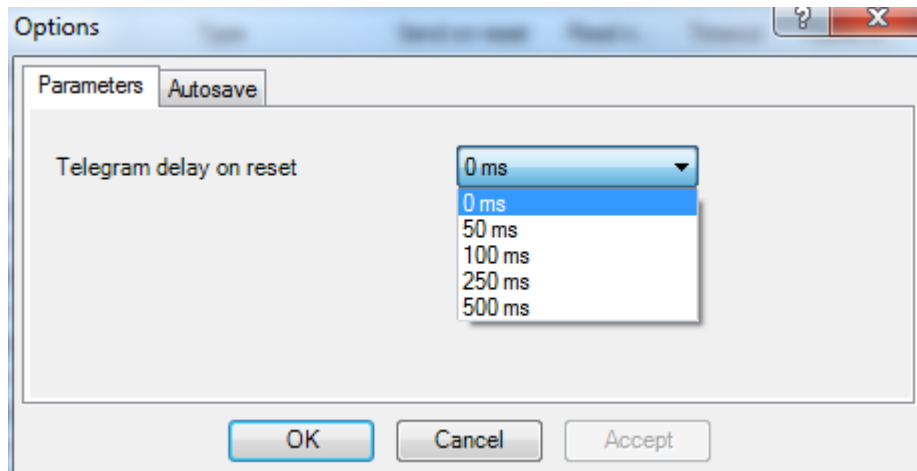


Menu Item	Description
Options	This opens the “Options” dialog to enter settings for functions such as telegram delay and automatic save.

The Options... menu item opens the “Options” dialog.

5.5.5.1 Defining the Telegram Delay after Reset

Use the “Parameters” tab to define the telegram delay after a reset. This is the smallest interval that must be observed between successive telegrams. 0, 50, 100, 250 and 500 milliseconds [ms] can be selected.

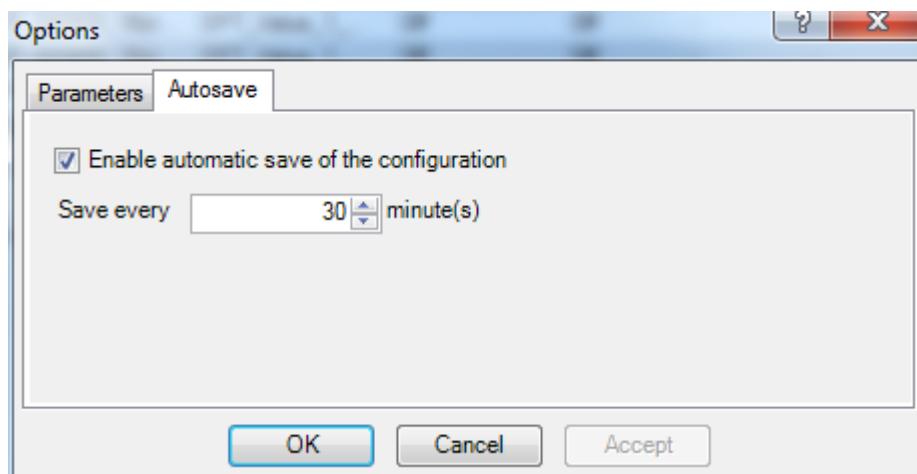


5.5.5.2 Setting the Autosave Function

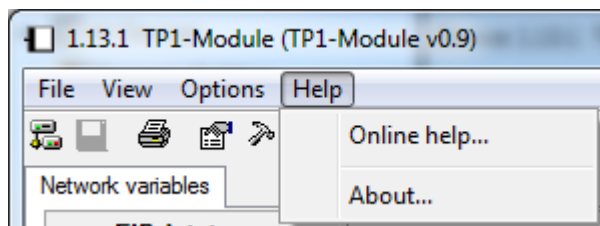
Using the registry card “Autosave”, set up a automatic saving of the momentary configuration. For this, the control field ‘automatic save of the configuration’ must be activated. Enter a number to determine the intervals for saving in minutes.

⚠ “Autosave” function saves changes in the database!

The “Autosave” function is identical to the normal “Save” function and saves changes in the ETS database. An XML file is not saved (as is the case with **File > Export > XML (Backup)**).



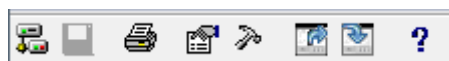
5.5.6 “Help” Menu Item











Menu Item	Description
Online help...	Activates online help.
About...	Displays information about the ETS Plug-in.

5.5.7 Toolbar

The toolbar provides fast and convenient access to frequently used functions of the main menu.



Button	Action
	Imports an SYM_XML file, similar to selection of the SYM_XML file.
	Saves the settings to the ETS. The SYM_XML file is not changed.
	Print the ETS settings.
	Shows or hides the “Properties” tab.
	Opens the “Options” dialog.
	Exports the current configuration as an XML file (not a SYM_XML file).
	Imports a configuration as an XML file (not a SYM_XML file).
	Activates online help.

5.5.8 “Network Variables” Tab – List of Network Variables

A “List of network variables” is located in the middle of the “Network Variables” tab. This lists all the network variables available that you can associate with group addresses from the ETS. These network variables each have a specific data point type by which they can be filtered (see Section “Network Variables’ tab – Datatypes”).

The following properties are listed in the “List of network variables” table:

Table Column	Value	Description
	<input checked="" type="checkbox"/> / <input type="checkbox"/>	Checkbox for enabling or disabling visibility in the ETS.
No.	(Table row number)	Consecutive number of the table rows.
CO ref.	(Communication object number)	Communication object number in the ETS’ topology. The communication object number is assigned automatically.
Name	(Network variable name)	The network variable name is taken from WAGO-I/O-PRO (CODESYS) and is preceded by the “program name”. With the appropriate setting in the “View” menu item, only the short name is shown; the display of the program name is disabled.
Type	(Data point type name or, if without type, amount + unit of data width)	Data point type name. If the data point has no type, its data width is shown.
Send on reset	On/Off	If the controller is reset, this variable automatically sends the current value on the bus or not. This function can be used to initialize the specific group object..
Read on reset	On/Off	If the controller is reset, this variable automatically reads the current value from the bus or not. This function can be used to initialize the associated function block.
Timeout	(amount + unit)	The data point has a watchdog and expects an update within the specified time.
Cyclic send	(amount + unit)	Time interval for repetitive cyclic send operation.
Group addresses	(x/x/x)	Assigned KNX group addresses. A data point can be associated with several group addresses, maximum 253 group addresses/ assignments. Data points and group addresses are associated in the topology window of the ETS.

Checkbox for visibility in the ETS

The checkbox at the beginning of the line for each list entry defines whether the corresponding network variable in the ETS is visible as a communication object and appears in the topology list. Some of the current properties/values of the network variables, e.g. “Read on reset”, can be edited in the area of the “Properties” tab (see Section “Properties’ tab”).

▲ Multiple selection is supported!

In order to change the properties of several network variables at the same time, you can mark several lines in the “List of network variables” simultaneously. The changes that you make in the “Properties” tab then apply to all network variables marked in the list.

5.5.9 “Network Variables” Tab – EIB Datatypes

The “Network Variables” tab contains the “EIB datatypes” in the left-hand area of the user interface. The tree structure displayed enables you to filter the “List of network variables” by EIB datawidth, EIB datatypes or EIS types. The EIB and EIS types represent the available data point types in the ETS. The “List of network variables” only shows those network variables that correspond to the data type you have selected.

The “EIB datawidths” tree node enables you to filter the network variables independently by datawidth rather than the actual data type. This enables you to also list the new datawidths without a type.

The figure shows three screenshots of the 'Network variables' tab in the ETS software, illustrating how different filter selections in the 'EIB datatypes' tree affect the 'List of network variables' table.

Screenshot 1: Filtered by EIB datawidths (2 byte)

No.	CO #	Name	Type	Send on reset	Read o
1		KNX.MC.Info_Out_Temp_2Byte_OUT	DPT_Value_Temp	Off	Off
2		KNX.MC.Info_Sun_Lux_2Byte_OUT[1]	DPT_Value_Lux	Off	Off
3		KNX.MC.Info_Sun_Lux_2Byte_OUT[2]	DPT_Value_Lux	Off	Off
4		KNX.MC.Info_Sun_Lux_2Byte_OUT[3]	DPT_Value_Lux	Off	Off
5		KNX.MC.Info_Sun_Lux_2Byte_OUT[4]	DPT_Value_Lux	Off	Off
6		KNX.MC.Info_Sun_Lux_2Byte_OUT[5]	DPT_Value_Lux	Off	Off
7		KNX.MC.Info_Sun_Lux_2Byte_OUT[6]	DPT_Value_Lux	Off	Off
8		KNX.MC.Info_Sun_Lux_2Byte_OUT[7]	DPT_Value_Lux	Off	Off
9		KNX.MC.Info_Sun_Lux_2Byte_OUT[8]	DPT_Value_Lux	Off	Off

Screenshot 2: Filtered by EIB datatypes (9.xxxx)

No.	CO #	Name	Type	Send on reset	Read o
1		KNX.MC.Info_Out_Temp_2Byte_OUT	DPT_Value_Temp	Off	Off
2		KNX.MC.Info_Sun_Lux_2Byte_OUT[1]	DPT_Value_Lux	Off	Off
3		KNX.MC.Info_Sun_Lux_2Byte_OUT[2]	DPT_Value_Lux	Off	Off
4		KNX.MC.Info_Sun_Lux_2Byte_OUT[3]	DPT_Value_Lux	Off	Off
5		KNX.MC.Info_Sun_Lux_2Byte_OUT[4]	DPT_Value_Lux	Off	Off
6		KNX.MC.Info_Sun_Lux_2Byte_OUT[5]	DPT_Value_Lux	Off	Off
7		KNX.MC.Info_Sun_Lux_2Byte_OUT[6]	DPT_Value_Lux	Off	Off
8		KNX.MC.Info_Sun_Lux_2Byte_OUT[7]	DPT_Value_Lux	Off	Off
9		KNX.MC.Info_Sun_Lux_2Byte_OUT[8]	DPT_Value_Lux	Off	Off

Screenshot 3: Filtered by EIS types (EIS 5)

No.	CO #	Name	Type	Send on reset	Read o
1		KNX.MC.Info_Out_Temp_2Byte_OUT	DPT_Value_Temp	Off	Off
2		KNX.MC.Info_Sun_Lux_2Byte_OUT[1]	DPT_Value_Lux	Off	Off
3		KNX.MC.Info_Sun_Lux_2Byte_OUT[2]	DPT_Value_Lux	Off	Off
4		KNX.MC.Info_Sun_Lux_2Byte_OUT[3]	DPT_Value_Lux	Off	Off
5		KNX.MC.Info_Sun_Lux_2Byte_OUT[4]	DPT_Value_Lux	Off	Off
6		KNX.MC.Info_Sun_Lux_2Byte_OUT[5]	DPT_Value_Lux	Off	Off
7		KNX.MC.Info_Sun_Lux_2Byte_OUT[6]	DPT_Value_Lux	Off	Off
8		KNX.MC.Info_Sun_Lux_2Byte_OUT[7]	DPT_Value_Lux	Off	Off
9		KNX.MC.Info_Sun_Lux_2Byte_OUT[8]	DPT_Value_Lux	Off	Off

⚠ Only one attribute (data type/datawidth) can be used as a filter!

Only one attribute can be entered as a filter. Multiple selection in the EIB datatype window is not possible.

5.5.10 “Properties” Tab

Properties

Network variable

Name

KNX.MC.Timer_Weekly_Bit_OUT[1]

Startup behaviour

☐ Send on reset
 ☐ Read on reset

Timing behaviour

Timebase:

sec.

☐ Cyclic send:

4

 sec.

☐ Timeout:

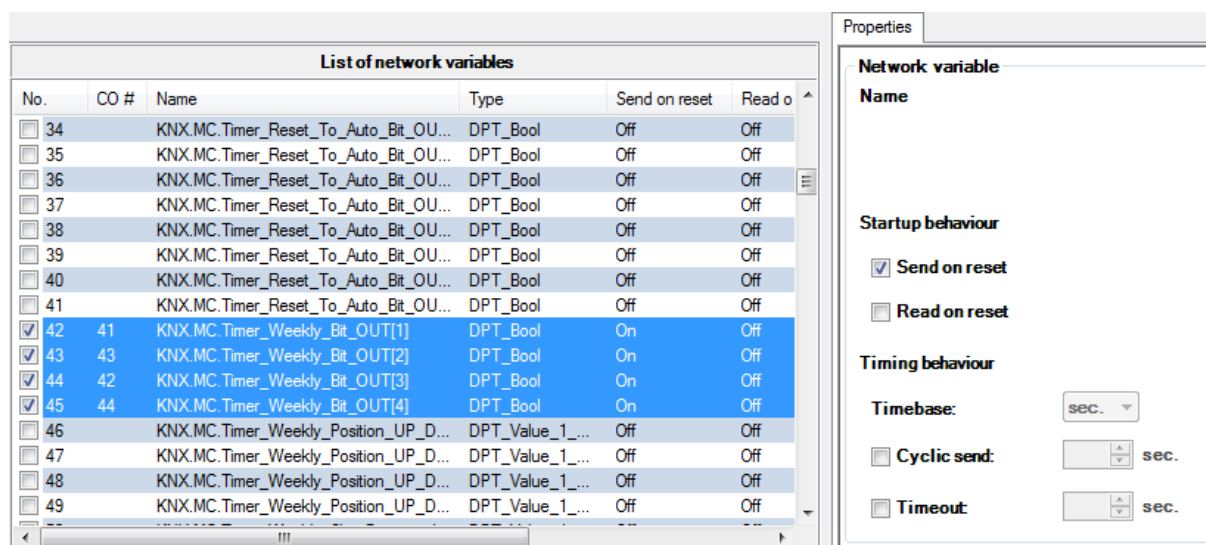
10

 sec.

The “Properties” tab displays the properties of selected network variables. You can read or write properties here. The settings made are immediately updated in the “List of network variables” table.

Designation	Explanation	Read / Write
Name	Description of the selected network variable. If several network variables are selected: empty	R
Startup behavior		
Send on reset checkbox	If the checkbox is checked, values are updated after a device reset. The values are updated with a voltage reset, the reset of the node from the ETS and a software reset of the IEC application.	R W
Read on reset checkbox	If the checkbox is checked, the device reads the current value from the bus after a device reset.	R W
Timing behavior		
Timebase	Conversion of the timebase to seconds [sec.] or minutes [min.]. Only enabled if the Cyclic send or Timeout checkbox is selected	R/ R W
Cyclic send checkbox	If the checkbox is checked, the device sends its value to the bus with the defined interval.	R/ R W
Timeout checkbox	If the checkbox is checked and the telegram is not updated within the specified time, the device indicates a timeout on the corresponding FbDPT function block in the PLC. The data point has a watchdog and expects a program update within the specified time.	R/ R W

If you have made multiple selections in the “List of network variables”, the properties of all selected network variables can be updated simultaneously. Checkboxes in which the selected network variables are different are marked in blue (see figure “Multiple selection for editing network variables”).



The screenshot shows the ETS software interface. On the left is the 'List of network variables' table, and on the right is the 'Properties' panel for a selected variable.

No.	CO #	Name	Type	Send on reset	Read on reset
<input type="checkbox"/>	34	KNX.MC.Timer_Reset_To_Auto_Bit_OU...	DPT_Bool	Off	Off
<input type="checkbox"/>	35	KNX.MC.Timer_Reset_To_Auto_Bit_OU...	DPT_Bool	Off	Off
<input type="checkbox"/>	36	KNX.MC.Timer_Reset_To_Auto_Bit_OU...	DPT_Bool	Off	Off
<input type="checkbox"/>	37	KNX.MC.Timer_Reset_To_Auto_Bit_OU...	DPT_Bool	Off	Off
<input type="checkbox"/>	38	KNX.MC.Timer_Reset_To_Auto_Bit_OU...	DPT_Bool	Off	Off
<input type="checkbox"/>	39	KNX.MC.Timer_Reset_To_Auto_Bit_OU...	DPT_Bool	Off	Off
<input type="checkbox"/>	40	KNX.MC.Timer_Reset_To_Auto_Bit_OU...	DPT_Bool	Off	Off
<input type="checkbox"/>	41	KNX.MC.Timer_Reset_To_Auto_Bit_OU...	DPT_Bool	Off	Off
<input checked="" type="checkbox"/>	42	KNX.MC.Timer_Weekly_Bit_OUT[1]	DPT_Bool	On	Off
<input checked="" type="checkbox"/>	43	KNX.MC.Timer_Weekly_Bit_OUT[2]	DPT_Bool	On	Off
<input checked="" type="checkbox"/>	44	KNX.MC.Timer_Weekly_Bit_OUT[3]	DPT_Bool	On	Off
<input checked="" type="checkbox"/>	45	KNX.MC.Timer_Weekly_Bit_OUT[4]	DPT_Bool	On	Off
<input type="checkbox"/>	46	KNX.MC.Timer_Weekly_Position_UP_D...	DPT_Value_1_...	Off	Off
<input type="checkbox"/>	47	KNX.MC.Timer_Weekly_Position_UP_D...	DPT_Value_1_...	Off	Off
<input type="checkbox"/>	48	KNX.MC.Timer_Weekly_Position_UP_D...	DPT_Value_1_...	Off	Off
<input type="checkbox"/>	49	KNX.MC.Timer_Weekly_Position_UP_D...	DPT_Value_1_...	Off	Off

The 'Properties' panel on the right shows the following settings for the selected variable:

- Network variable**
 - Name: [Empty]
- Startup behaviour**
 - ☒ Send on reset
 - ☐ Read on reset
- Timing behaviour**
 - Timebase: [sec.]
 - ☐ Cyclic send: [] sec.
 - ☐ Timeout: [] sec.

5.5.11 Status Bar

The “Assigned group addresses” percentage bar is shown on the right of the status bar. This indicates the relative usage of the ETS Plug-in based on the following limits:

- 253 communication objects for the configuration of controller and modules.
- 254 group addresses for the configuration of controller and modules.
- 254 associations for the configuration of controller and modules.

Usage is stated as a percentage of the specified capacity. It is displayed as a green bar.



Example:

The system is at full capacity when there are 253 communication objects or 254 group addresses or 254 associations present.

If two communication objects with 127 group addresses each are connected, this makes 254 associations. The system is then at full capacity.

No further assignments are possible with 100 % rate of usage.

5.6 Uninstalling the ETS Plug-in

Proceed as follows to remove the software from your system. For router and controller:

1. On your PC, open the Control Panel and click “Programs”, **[Uninstall a program]**. The entry “Wago-IEC61131Controller-IpRouter” is shown in the software list.
2. Right-click the required entry and choose [Uninstall] in the context menu.

For modules:

1. On your PC, open the Control Panel and click “Programs”, **[Uninstall a program]**. The entry “Wago-TP1Clamp” is shown in the software list.
2. Right-click the required entry and choose [Uninstall] in the context menu.

6 Communication objects

6.1 Object overview

A maximum of 183 communication objects are available. The number of the objects is dependent on the number of the zones.

6.1.1 List of Objects

No.	Object name	Model	Description
1	KNX.MC.Info_Azimuth_1Byte_OUT	1 Byte	The object sends telegrams with the value of the sun azimuth.
2	KNX.MC.Info_Date_3Byte_IN_OUT	3 Byte	The object sends or receives telegram with the date.
3	KNX.MC.Info_Elevation_1Byte_OUT	1 Byte	The object sends telegrams with the value of the elevation of the sun.
4	KNX.MC.Info_Out_Temp_2Byte_OUT	2 Byte	The object sends telegrams with the value of the outside temperature.
5	KNX.MC.Info_Rain_Bit_OUT	1 Bit	The object sends "1" if the rain sensor on the Outside Sensor Box recognizes rain and sends "0" when the rain has stopped.
6	KNX.MC.Info_SensorFailure_Bit_OUT	1 Bit	The object sends "1" if an error occurred and sends "0" when the error has stopped.
7	KNX.MC.Info_Sun_Lux_2Byte_OUT[1]	2 Byte	The objects send telegrams with the value of the sun's brightness of the respective sun sensor.
8	KNX.MC.Info_Sun_Lux_2Byte_OUT[2]		
9	KNX.MC.Info_Sun_Lux_2Byte_OUT[3]		
10	KNX.MC.Info_Sun_Lux_2Byte_OUT[4]		
11	KNX.MC.Info_Sun_Lux_2Byte_OUT[5]		
12	KNX.MC.Info_Sun_Lux_2Byte_OUT[6]		
13	KNX.MC.Info_Sun_Lux_2Byte_OUT[7]		
14	KNX.MC.Info_Sun_Lux_2Byte_OUT[8]		
15	KNX.MC.Info_Time_3Byte_IN_OUT	3 Byte	The object sends or receives telegram with the time.
16	KNX.MC.Info_Version_2Byte_OUT	2 Byte	The object sends telegrams with the software Version the KNX Master Control.
17	KNX.MC.Info_Wind_Dir_1Byte_OUT	1 Byte	The object sends telegrams with the value of the wind direction.

No.	Object name	Model	Description
18	KNX.MC.Info_Wind_Speed_2Byte_OUT[1]	1 Byte	The object sends telegrams with the value of the wind speed of the respective wind sensor. Wind sensor 1 and 2 are connected to the Outside Sensor Box. Wind sensors 3 to 8 are connected to the KNX Master Control W8 (chapter 1.4).
19	KNX.MC.Info_Wind_Speed_2Byte_OUT[2]		
20	KNX.MC.Info_Wind_Speed_2Byte_OUT[3]		
21	KNX.MC.Info_Wind_Speed_2Byte_OUT[4]		
22	KNX.MC.Info_Wind_Speed_2Byte_OUT[5]		
23	KNX.MC.Info_Wind_Speed_2Byte_OUT[6]		
24	KNX.MC.Info_Wind_Speed_2Byte_OUT[7]		
25	KNX.MC.Info_Wind_Speed_2Byte_OUT[8]		
26	KNX.MC.Timer_Reset_To_Auto_Bit_OUT[1]	1 Bit	The object sends "1" if the function "timer reset to auto" becomes active (chapter 4.7.1.10).
27	KNX.MC.Timer_Reset_To_Auto_Bit_OUT[2]		
28	KNX.MC.Timer_Reset_To_Auto_Bit_OUT[3]		
29	KNX.MC.Timer_Reset_To_Auto_Bit_OUT[4]		
30	KNX.MC.Timer_Reset_To_Auto_Bit_OUT[5]		
31	KNX.MC.Timer_Reset_To_Auto_Bit_OUT[6]		
32	KNX.MC.Timer_Reset_To_Auto_Bit_OUT[7]		
33	KNX.MC.Timer_Reset_To_Auto_Bit_OUT[8]		
34	KNX.MC.Timer_Reset_To_Auto_Bit_OUT[9]		
35	KNX.MC.Timer_Reset_To_Auto_Bit_OUT[10]		
36	KNX.MC.Timer_Reset_To_Auto_Bit_OUT[11]		
37	KNX.MC.Timer_Reset_To_Auto_Bit_OUT[12]		
38	KNX.MC.Timer_Reset_To_Auto_Bit_OUT[13]		
39	KNX.MC.Timer_Reset_To_Auto_Bit_OUT[14]		
40	KNX.MC.Timer_Reset_To_Auto_Bit_OUT[15]		
41	KNX.MC.Timer_Reset_To_Auto_Bit_OUT[16]		
42	KNX.MC.Timer_Weekly_Bit_OUT[1]	1 Bit	The object sends "1" if the function "timer weekly" becomes active. They transmit "0" if the function becomes inactive (chapter 4.7.2.2)
43	KNX.MC.Timer_Weekly_Bit_OUT[2]		
44	KNX.MC.Timer_Weekly_Bit_OUT[3]		
45	KNX.MC.Timer_Weekly_Bit_OUT[4]		
46	KNX.MC.Timer_Weekly_Position_UP_DOWN_1 Byte_OUT[1]	1 Byte	The objects send telegrams with a value between 0 and 255 (e.g. position) if the function "timer weekly byte" becomes active They send "0" if the function becomes inactive (chapter 4.7.2.3).
47	KNX.MC.Timer_Weekly_Position_UP_DOWN_1 Byte_OUT[2]		
48	KNX.MC.Timer_Weekly_Position_UP_DOWN_1 Byte_OUT[3]		
49	KNX.MC.Timer_Weekly_Position_UP_DOWN_1 Byte_OUT[4]		

No.	Object name	Model	Description
50	KNX.MC.Timer_Weekly_Slat_Position_1Byte_OUT[1]	1 Byte	The objects send telegrams with a value between 0 and 255 (e.g. slats angle) if the function “timer weekly byte” becomes active. They send “0” if the function becomes inactive (chapter 4.7.2.3).
51	KNX.MC.Timer_Weekly_Slat_Position_1Byte_OUT[2]		
52	KNX.MC.Timer_Weekly_Slat_Position_1Byte_OUT[3]		
53	KNX.MC.Timer_Weekly_Slat_Position_1Byte_OUT[4]		
54	KNX.MC.Timer_Yearly_Bit_OUT[1]	1 Bit	The objects transmit “1” if the function „annual timer of bit” becomes active. They transmit “0” if the function becomes inactive (chapter 4.7.2.1).
55	KNX.MC.Timer_Yearly_Bit_OUT[2]		
56	KNX.MC.Zone_Energy_Saving_Bit_OUT[1]	1 Bit	Per zone: the objects send “1” if the energy savings function becomes active. If the function becomes inactive, “0” is sent (chapter 4.7.3).
57	KNX.MC.Zone_Energy_Saving_Bit_OUT[2]		
58	KNX.MC.Zone_Energy_Saving_Bit_OUT[3]		
59	KNX.MC.Zone_Energy_Saving_Bit_OUT[4]		
60	KNX.MC.Zone_Energy_Saving_Bit_OUT[5]		
61	KNX.MC.Zone_Energy_Saving_Bit_OUT[6]		
62	KNX.MC.Zone_Energy_Saving_Bit_OUT[7]		
63	KNX.MC.Zone_Energy_Saving_Bit_OUT[8]		
64	KNX.MC.Zone_Energy_Saving_Bit_OUT[9]		
65	KNX.MC.Zone_Energy_Saving_Bit_OUT[10]		
66	KNX.MC.Zone_Energy_Saving_Bit_OUT[11]		
67	KNX.MC.Zone_Energy_Saving_Bit_OUT[12]		
68	KNX.MC.Zone_Energy_Saving_Bit_OUT[13]		
69	KNX.MC.Zone_Energy_Saving_Bit_OUT[14]		
70	KNX.MC.Zone_Energy_Saving_Bit_OUT[15]		
71	KNX.MC.Zone_Energy_Saving_Bit_OUT[16]		
72	KNX.MC.Zone_In_Temp_2Byte_IN[1]	2 Byte	Per zone: The object receives a telegram with the value of the KNX indoor temperature sensor. These values are used for the energy functions (chapter 4.7.3).
73	KNX.MC.Zone_In_Temp_2Byte_IN[2]		
74	KNX.MC.Zone_In_Temp_2Byte_IN[3]		
75	KNX.MC.Zone_In_Temp_2Byte_IN[4]		
76	KNX.MC.Zone_In_Temp_2Byte_IN[5]		
77	KNX.MC.Zone_In_Temp_2Byte_IN[6]		
78	KNX.MC.Zone_In_Temp_2Byte_IN[7]		
79	KNX.MC.Zone_In_Temp_2Byte_IN[8]		
80	KNX.MC.Zone_In_Temp_2Byte_IN[9]		
81	KNX.MC.Zone_In_Temp_2Byte_IN[10]		
82	KNX.MC.Zone_In_Temp_2Byte_IN[11]		
83	KNX.MC.Zone_In_Temp_2Byte_IN[12]		
84	KNX.MC.Zone_In_Temp_2Byte_IN[13]		

No.	Object name	Model	Description
85	KNX.MC.Zone_In_Temp_2Byte_IN[14]	1 Bit	Per zone: When the object receives “1”, the KNX Master Control understands it as a locking command and sends “1” on the object KNX.MC.Zone_Security_High_Prio_Bit_OUT (chapter 4.6.2).
86	KNX.MC.Zone_In_Temp_2Byte_IN[15]		
87	KNX.MC.Zone_In_Temp_2Byte_IN[16]		
88	KNX.MC.Zone_Key_Switch_Bit_IN[1]		
89	KNX.MC.Zone_Key_Switch_Bit_IN[2]		
90	KNX.MC.Zone_Key_Switch_Bit_IN[3]		
91	KNX.MC.Zone_Key_Switch_Bit_IN[4]		
92	KNX.MC.Zone_Key_Switch_Bit_IN[5]		
93	KNX.MC.Zone_Key_Switch_Bit_IN[6]		
94	KNX.MC.Zone_Key_Switch_Bit_IN[7]		
95	KNX.MC.Zone_Key_Switch_Bit_IN[8]		
96	KNX.MC.Zone_Key_Switch_Bit_IN[9]		
97	KNX.MC.Zone_Key_Switch_Bit_IN[10]		
98	KNX.MC.Zone_Key_Switch_Bit_IN[11]		
99	KNX.MC.Zone_Key_Switch_Bit_IN[12]		
100	KNX.MC.Zone_Key_Switch_Bit_IN[13]		
101	KNX.MC.Zone_Key_Switch_Bit_IN[14]	1 Bit	Per zone: When the object receives “1”, the KNX Master Control understands it as an alarm input signal and sends “1” on the object KNX.MC.Zone_Security_High_Prio_Bit_OUT.
102	KNX.MC.Zone_Key_Switch_Bit_IN[15]		
103	KNX.MC.Zone_Key_Switch_Bit_IN[16]		
104	KNX.MC.Zone_Major_Alarm_Bit_IN[1]		
105	KNX.MC.Zone_Major_Alarm_Bit_IN[2]		
106	KNX.MC.Zone_Major_Alarm_Bit_IN[3]		
107	KNX.MC.Zone_Major_Alarm_Bit_IN[4]		
108	KNX.MC.Zone_Major_Alarm_Bit_IN[5]		
109	KNX.MC.Zone_Major_Alarm_Bit_IN[6]		
110	KNX.MC.Zone_Major_Alarm_Bit_IN[7]		
111	KNX.MC.Zone_Major_Alarm_Bit_IN[8]		
112	KNX.MC.Zone_Major_Alarm_Bit_IN[9]		
113	KNX.MC.Zone_Major_Alarm_Bit_IN[10]		
114	KNX.MC.Zone_Major_Alarm_Bit_IN[11]		
115	KNX.MC.Zone_Major_Alarm_Bit_IN[12]		
116	KNX.MC.Zone_Major_Alarm_Bit_IN[13]		
117	KNX.MC.Zone_Major_Alarm_Bit_IN[14]		
118	KNX.MC.Zone_Major_Alarm_Bit_IN[15]		
119	KNX.MC.Zone_Major_Alarm_Bit_IN[16]		

No.	Object name	Model	Description
120	KNX.MC.Zone_Position_UP_DOWN_1Byte_OUT[1]	1 Byte	Per zone: The object sends a telegram with a value between 0 to 255 (e.g. position).
121	KNX.MC.Zone_Position_UP_DOWN_1Byte_OUT[2]		
122	KNX.MC.Zone_Position_UP_DOWN_1Byte_OUT[3]		
123	KNX.MC.Zone_Position_UP_DOWN_1Byte_OUT[4]		
124	KNX.MC.Zone_Position_UP_DOWN_1Byte_OUT[5]		
125	KNX.MC.Zone_Position_UP_DOWN_1Byte_OUT[6]		
126	KNX.MC.Zone_Position_UP_DOWN_1Byte_OUT[7]		
127	KNX.MC.Zone_Position_UP_DOWN_1Byte_OUT[8]		
128	KNX.MC.Zone_Position_UP_DOWN_1Byte_OUT[9]		
129	KNX.MC.Zone_Position_UP_DOWN_1Byte_OUT[10]		
130	KNX.MC.Zone_Position_UP_DOWN_1Byte_OUT[11]		
131	KNX.MC.Zone_Position_UP_DOWN_1Byte_OUT[12]		
132	KNX.MC.Zone_Position_UP_DOWN_1Byte_OUT[13]		
133	KNX.MC.Zone_Position_UP_DOWN_1Byte_OUT[14]		
134	KNX.MC.Zone_Position_UP_DOWN_1Byte_OUT[15]		
135	KNX.MC.Zone_Position_UP_DOWN_1Byte_OUT[16]		
136	KNX.MC.Zone_Security_High_Prio_Bit_OUT[1]	1 bit	Per zone: when a high alarm function (e.g. wind) is active, the objects send "1".
137	KNX.MC.Zone_Security_High_Prio_Bit_OUT[2]		
138	KNX.MC.Zone_Security_High_Prio_Bit_OUT[3]		
139	KNX.MC.Zone_Security_High_Prio_Bit_OUT[4]		
140	KNX.MC.Zone_Security_High_Prio_Bit_OUT[5]		
141	KNX.MC.Zone_Security_High_Prio_Bit_OUT[6]		
142	KNX.MC.Zone_Security_High_Prio_Bit_OUT[7]		
143	KNX.MC.Zone_Security_High_Prio_Bit_OUT[8]		
144	KNX.MC.Zone_Security_High_Prio_Bit_OUT[9]		
145	KNX.MC.Zone_Security_High_Prio_Bit_OUT[10]		
146	KNX.MC.Zone_Security_High_Prio_Bit_OUT[11]		
147	KNX.MC.Zone_Security_High_Prio_Bit_OUT[12]		

No.	Object name	Model	Description
148	KNX.MC.Zone_Security_High_Prio_Bit_OUT[13]	1 bit	Per zone: when a low alarm function (e.g. wind direction) is active, the objects send "1".
149	KNX.MC.Zone_Security_High_Prio_Bit_OUT[14]		
150	KNX.MC.Zone_Security_High_Prio_Bit_OUT[15]		
151	KNX.MC.Zone_Security_High_Prio_Bit_OUT[16]		
152	KNX.MC.Zone_Security_Low_Prio_Bit_OUT[1]		
153	KNX.MC.Zone_Security_Low_Prio_Bit_OUT[2]		
154	KNX.MC.Zone_Security_Low_Prio_Bit_OUT[3]		
155	KNX.MC.Zone_Security_Low_Prio_Bit_OUT[4]		
156	KNX.MC.Zone_Security_Low_Prio_Bit_OUT[5]		
157	KNX.MC.Zone_Security_Low_Prio_Bit_OUT[6]		
158	KNX.MC.Zone_Security_Low_Prio_Bit_OUT[7]		
159	KNX.MC.Zone_Security_Low_Prio_Bit_OUT[8]		
160	KNX.MC.Zone_Security_Low_Prio_Bit_OUT[9]		
161	KNX.MC.Zone_Security_Low_Prio_Bit_OUT[10]		
162	KNX.MC.Zone_Security_Low_Prio_Bit_OUT[11]		
163	KNX.MC.Zone_Security_Low_Prio_Bit_OUT[12]		
164	KNX.MC.Zone_Security_Low_Prio_Bit_OUT[13]		
165	KNX.MC.Zone_Security_Low_Prio_Bit_OUT[14]		
166	KNX.MC.Zone_Security_Low_Prio_Bit_OUT[15]		
167	KNX.MC.Zone_Security_Low_Prio_Bit_OUT[16]		
168	KNX.MC.Zone_Slat_Position_1Byte_OUT[1]	1 Byte	Per zone: if the object receives a telegram with the value between 0 and 255 (e.g. slats angle), the object KNX.MC.Zone_Slat_Position_1Byte_OUT sends this value when no function with a higher priority is active.
169	KNX.MC.Zone_Slat_Position_1Byte_OUT[2]		
170	KNX.MC.Zone_Slat_Position_1Byte_OUT[3]		
171	KNX.MC.Zone_Slat_Position_1Byte_OUT[4]		
172	KNX.MC.Zone_Slat_Position_1Byte_OUT[5]		
173	KNX.MC.Zone_Slat_Position_1Byte_OUT[6]		
174	KNX.MC.Zone_Slat_Position_1Byte_OUT[7]		
175	KNX.MC.Zone_Slat_Position_1Byte_OUT[8]		
176	KNX.MC.Zone_Slat_Position_1Byte_OUT[9]		
177	KNX.MC.Zone_Slat_Position_1Byte_OUT[10]		
178	KNX.MC.Zone_Slat_Position_1Byte_OUT[11]		
179	KNX.MC.Zone_Slat_Position_1Byte_OUT[12]		
180	KNX.MC.Zone_Slat_Position_1Byte_OUT[13]		
181	KNX.MC.Zone_Slat_Position_1Byte_OUT[14]		
182	KNX.MC.Zone_Slat_Position_1Byte_OUT[15]		
183	KNX.MC.Zone_Slat_Position_1Byte_OUT[16]		

No.	Object name	Model	Description
184	KNX.MC.Zone_Sun_Automatic_Bit_IN[1]	1 Bit	<p>If the set sun value is exceeded, the position/angle is sent again to the bus when changing from 0 to 1.</p> <p>If the sun is not active, then no position/angle is sent even if a 1 is sent repeatedly.</p>
185	KNX.MC.Zone_Sun_Automatic_Bit_IN[2]		
186	KNX.MC.Zone_Sun_Automatic_Bit_IN[3]		
187	KNX.MC.Zone_Sun_Automatic_Bit_IN[4]		
188	KNX.MC.Zone_Sun_Automatic_Bit_IN[5]		
189	KNX.MC.Zone_Sun_Automatic_Bit_IN[6]		
190	KNX.MC.Zone_Sun_Automatic_Bit_IN[7]		
191	KNX.MC.Zone_Sun_Automatic_Bit_IN[8]		
192	KNX.MC.Zone_Sun_Automatic_Bit_IN[9]		
193	KNX.MC.Zone_Sun_Automatic_Bit_IN[10]		
194	KNX.MC.Zone_Sun_Automatic_Bit_IN[11]		
195	KNX.MC.Zone_Sun_Automatic_Bit_IN[12]		
196	KNX.MC.Zone_Sun_Automatic_Bit_IN[13]		
197	KNX.MC.Zone_Sun_Automatic_Bit_IN[14]		
198	KNX.MC.Zone_Sun_Automatic_Bit_IN[15]		
199	KNX.MC.Zone_Sun_Automatic_Bit_IN[16]		
200	KNX.MC.Zone_Sun_Function_Bit_OUT[1]	1 Bit	<p>Per zone: the objects send "1" if the sun function becomes active. If the function becomes inactive, "0" is sent (chapter 4.7.1.3).</p>
201	KNX.MC.Zone_Sun_Function_Bit_OUT[2]		
202	KNX.MC.Zone_Sun_Function_Bit_OUT[3]		
203	KNX.MC.Zone_Sun_Function_Bit_OUT[4]		
204	KNX.MC.Zone_Sun_Function_Bit_OUT[5]		
205	KNX.MC.Zone_Sun_Function_Bit_OUT[6]		
206	KNX.MC.Zone_Sun_Function_Bit_OUT[7]		
207	KNX.MC.Zone_Sun_Function_Bit_OUT[8]		
208	KNX.MC.Zone_Sun_Function_Bit_OUT[9]		
209	KNX.MC.Zone_Sun_Function_Bit_OUT[10]		
210	KNX.MC.Zone_Sun_Function_Bit_OUT[11]		
211	KNX.MC.Zone_Sun_Function_Bit_OUT[12]		
212	KNX.MC.Zone_Sun_Function_Bit_OUT[13]		
213	KNX.MC.Zone_Sun_Function_Bit_OUT[14]		
214	KNX.MC.Zone_Sun_Function_Bit_OUT[15]		
215	KNX.MC.Zone_Sun_Function_Bit_OUT[16]		

7 Changing the IP address

Below chapter will describe how they change the opposed IP address of the KNX Master Control.

7.1 Assigning IP address via web-based management

7.1.1 Preparation

To change the IP address of the animeo KNX Master Control, you need a web browser (e.g. Microsoft's Internet Explorer) and a connection to the network from a PC to the animeo KNX Master Control. The network connection can be a direct connection between PC and animeo KNX Master Control via a crossover cable (included with delivery). Alternatively, it can also be a network connection whereby the PC and the animeo KNX Master Control are connected via the network (e.g. intranet).

7.1.2 Carrying out the IP address change

Open your web browser and enter the corresponding IP address of the animeo KNX Master Control (factory setting 192.168.0.2).



WAGO Web-based Management

Controller MODBUS TCP G4 2ETH

Navigation

- Information
- Administration
- Device
- Backup & Restore
- Clock
- Miscellaneous
- Storage Media
- Update
- Network
- Ethernet
- Protocols
- SNMP
- SNTP
- TCP/IP
- Fieldbus
- Modbus
- I/O
- I/O Data
- PLC
- PLC Application
- WebVisu

Device Information

Device Details

Product description:	Controller MODBUS TCP G4 2ETH
Order number:	750-891
MAC address:	00:30:DE:46:A4:BD
Firmware revision:	01.02.12(04)
Firmware loader revision:	01.03.01(03)
Serial number:	SN20200106T182253-1243436#PFC 0030DE46A4BD
Serial number (UII):	37SUN31564010260388772+00000000000010648

Active Network Settings

IP address:	172.21.61.20
Subnet mask:	255.255.0.0
Default gateway:	0.0.0.0
Host name:	0030DE46A4BD
Domain name:	
Time server:	0.0.0.0
DNS server 1:	0.0.0.0
DNS server 2:	0.0.0.0

Device Status

PLC application:	loaded [running]
Modbus watchdog:	disabled
Error code:	0
Error argument:	0
Error description:	no error

Security instruction from WAGO



The devices are intended for use in local networks. Always observe the following instructions when using any of the devices in your system:

- First of all, the notes in the chapter “Special Operating Instructions for ETHERNET Devices” in the respective manual must be observed. In addition, it is recommended to close the network port 6626 after the initial commissioning
- Do not connect control components and control networks to an open network such as the Internet or an office network. WAGO recommends installing control components and control networks behind a firewall.
- Close all ports and services not required by your application in the control components (e.g. for WAGO-I/O-CHECK and CODESYS) to reduce the risk of cyber-attacks and thus increase cyber security. Only open the ports and services for the duration of commissioning or configuration.
- Restrict the physical and electronic access to all automation components to an authorized group of persons.
- Be sure to change the default passwords before the first commissioning! This reduces the risk of unauthorized access to your system.
- If remote access to control components and control networks is required, a “Virtual Private Network” (VPN) should be used.
- Perform a threat analysis on a regular basis. This allows you to check whether the measures taken meet your protection requirements.
- Apply “defense-in-depth” mechanisms in the security-oriented design of your system to restrict access and control to individual products and networks. The device should not be directly connected to the Internet. (These measures can also be found in the product manuals of the above mentioned devices in the chapter “Special operating conditions for ETHERNET devices”.)

Now change to “TCP/IP” in the left hand navigation bar.

A new menu window opens. Please enter a user name and password.

Please enter **admin** (lower case) as user name and **wago** (lower case) as password and confirm with "OK".

WAGO Web-based Management
Controller MODBUS TCP G4 2ETH

Navigation

- Information
- Administration
- Device
 - Backup & Restore
 - Clock
 - Miscellaneous
 - Storage Media
 - Update
- Network
 - Ethernet
 - Protocols
 - SNMP
 - SNTP
 - TCP/IP
- Fieldbus
 - Modbus
- I/O
 - I/O Data
- PLC
 - PLC Application
 - WebVisu

TCP/IP Configuration

This page provides configuration options for TCP/IP related network parameters. Configuration options are stored in non-volatile memory when the "SUBMIT" button is pressed. Configuration option changes take effect after the next power-on cycle or software reset.

Please consider, that the IP address configuration options take effect, only if all DIP switch levers are set to "off" position and static IP configuration is selected.

Network Settings (non-volatile)

IP configuration source: ☐ BootP ☐ DHCP ☒ static

IP address conflict detection (ACD): ☐

IP address:

Subnet mask:

Default gateway:

Host name:

Domain name:

DNS server 1:

DNS server 2:

DIP switch base IP address:

IP fragment TTL [s] (max. 255):

Now enter the new desired IP address and if necessary Subnet Mask in the field "IP Address" and confirm your entry with "Submit".

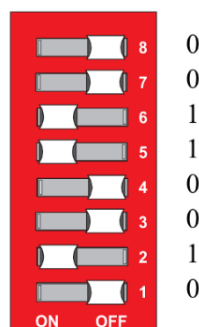
After pressing "Submit", restart the fieldbus coupler so that the changed configuration is adopted.

7.2 Assigning IP Address via Address Selection Switch

Use the address selection switch to set the host ID, i.e. the last byte of the IP address, which is entered in the web-based Management System on WBM page "TCP/IP", entry "DIP switch IP-Address", with values between 1 and 254 binary coded.

Example: DIP switch IP address: 192.168.7

Set DIP switch value: 50 (binary coded: 00110010)



7.3 Resulting IP address saved in the fieldbus controller: 192.168.7.50

The base address used consists of the first three bytes of the IP address. This always depends on the DIP switch IP address currently saved in the fieldbus controller.

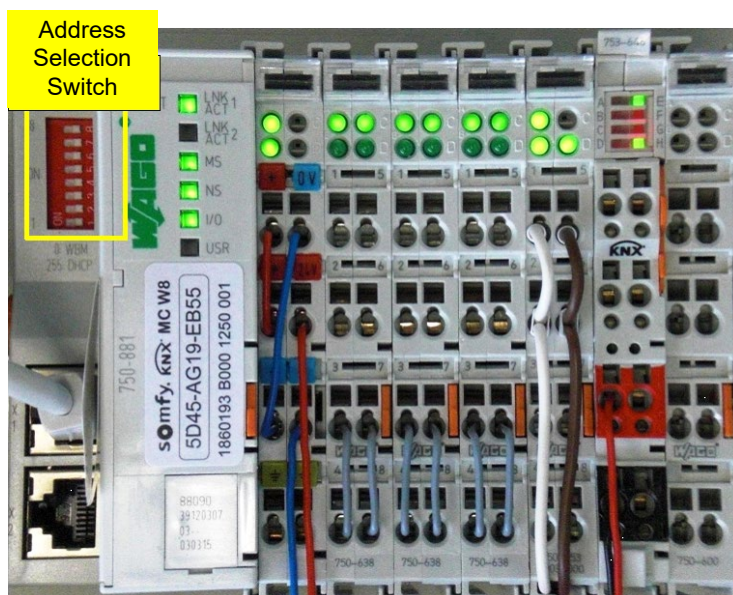
If there is still no static IP address in the fieldbus controller, the default value 192.168.1 defined by the firmware as the base address is used when setting the DIP switch to 1 - 254.

1. The setting of the address selection switch then overwrites the value of the host ID.

To configure the IP address via the address selection switch by setting the host ID (last position of the IP address) to a value that does not equal 0/255, first convert the host ID to the binary representation.

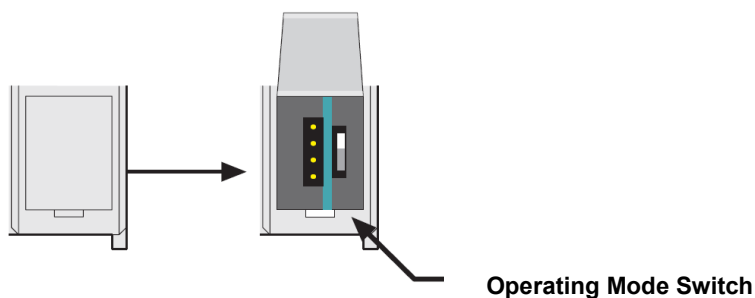
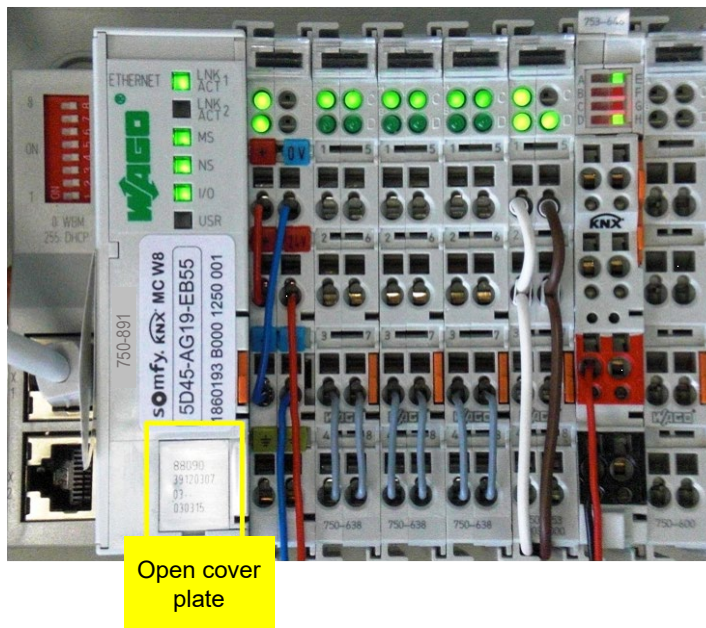
For example, host ID 50 results in a binary code of 00110010.

2. Set the bits in sequence using the 8 address switches. Start with address switch 1 to set bit 0 (LSB) and end with address switch 8 for bit 7 (MSB).
3. Restart the fieldbus coupler after adjusting the address selection switch to apply the configuration changes.



Address	Meaning
0	The IP parameter is configured via the web-based management. BootP, DHCP and application of the values from the EEPROM are available to the user. In the default status, configuration via BootP is activated.
1 - 254	The configuration of the IP address consists of the network address (configurable and 192.168.1 by default) and the value set for the DIP switch.
255	The DHCP protocol is used to configure the IP parameters.

7.4 New start



To activate the set IP address, a reset must be carried out on the animeo KNX Master Control.

To do this, open the cover plate and press down the operation switch briefly using a screw driver. During pressing down, the LED's for "I/O" and "USR" shine red.

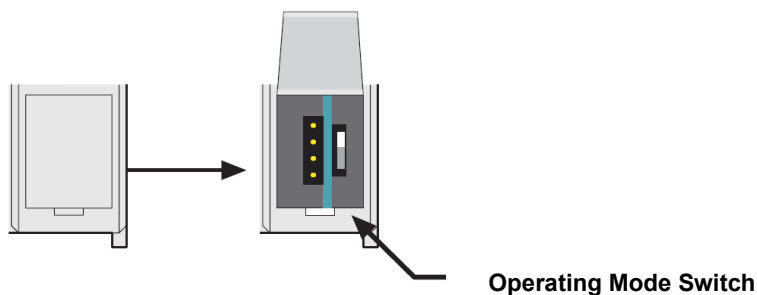
Now, discontinue pressing the operating switch and the LED "I/O" begins to blink. After a short time, the blinking stops and the LED's, "LINK", "MS", "NS", "TXD/RXD" and "I/O" light up green (see also chapter 1.4.1.1ff).

The animeo KNX Master Control has been successfully started and has taken on the new IP address.

8 Operating Switch

△ In principle, a change over of the type of operation is not necessary!

One of the following functions is active, depending in which of the three static positions “top”, “center” or “bottom” the switch is located at a power on or in a hardware or software reset:



Positions of the operating mode switch	Function
Up position	“RUN” - activate program processing, Boot-project (if available) is started.
Center position	“STOP” - stop program processing, PFC-application is stopped.
Down position	After a PowerOn reset, the controller is in Bootstrap mode.

If a position change of the switch is performed during the current operation, the controller performs the following functions:

Position change of the operating mode switch	Function
From the top to the center position	“STOP” - stop program processing, PFC-application is stopped.
From the center to the top position	“RUN” - activate program processing, Boot project (if available) is started.
From the center to the bottom position	No reaction. After Power On/Reset the Bootstrap loader is started on the service interface.
From the bottom to the center position	No reaction.
Press down (e.g. using a screwdriver)	Hardware reset All outputs are reset; variables are set to 0, FALSE or to an initial value. Retain variables or markers are not changed. A hardware reset can be performed either at STOP or at RUN at any position of the mode selector switch. Restart the fieldbus controller.

The operating mode is changed internally at the end of a PFC cycle.

9 Technical data

CHARACTERISTICS

animeo KNX Master Control	W8 Ref. 1860193	W2 Ref. 1860187
Supply voltage	24 V DC (-25 %/ +30 %)	24 V DC (-25 %/ +30 %)
Stand-by power	2.4 W@24V DC	2.2 W@24V DC
Max. current consumption	500 mA@24V DC	500 mA@24V DC
Operating temperature	0° C to 55° C	0° C to 55° C
Accuracy	+ 50 sec/month (+ 25°C)	50 sec/month (+ 25°C)
Relative humidity	Max. 85 %	Max. 85 %
Material of housing	PC-ABS	PC-ABS
Housing dimensions	180 x 254 x 110 mm	180 x 182 x 110 mm
Weight	1.150 g	880 g
Degree of protection	IP 20	IP 20
Protection class	III	III
Conformity	www.somfy.com/ce	www.somfy.com/ce

The KNX Master Control is an electronically-operated, independently-mounted control.

- Class A control function
- Type 1 action
- Pollution degree: 2
- Type X attachment
- Method of attachment for non-detachable cords: screwless spring terminal