KNX Touch One

Item number 70195

elsner
elektronik

Installation and Adjustment

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Room Controller KNX Touch One • from software version 3.0, ETS program version 3.0
Status: 06.03.2017 • Subject to technical changes. Errors excepted.

Explanation of the symbols used in this manual

Danger of death by electrocution!
Advice on dangers concerning work on electrical terminals, components etc.
Safety measures to protect the life and health of relevant personnel.

Safety instruction!
Instructions that must strictly be observed to ensure the safe operation.
Safety measures to protect against damage to persons or property.

☐   "Control unit"
The symbol is followed by a menu path. In this menu the settings just
described can be changed.

📖   "Manual"
The symbol is followed by chapter information with a page number. In this
chapter you will find additional information about the setting just described.

ETS   In the ETS tables, the default settings are underlined.

1. Description

1.1.   Field of application

The **Room Controller KNX Touch One** enables control of the KNX building technology for one room by means of a touch-sensitive display screen. The unit provides integrated control functions which can also be directly set on the display (automatic). Basic settings are made by the installer in the ETS.

The **KNX Touch One** with integrated indoor sensor (temperature, air humidity) includes an internal automated operation function for shades (sun/privacy shades) and room climate control (heating, cooling, ventilation), internal light control as well as bus functions for time and scene control. 4 binary inputs enable the connection of conventional buttons, switches and window contacts.

Eight universal pages with up to eight functions per page can be created to ensure the orderly operation and display of the function and object assignments.

For remote control of the drives, one Remo 8 eight-channel wireless remote control can be used with the **KNX Touch One**.

Functions
- Internal automatic shade controls (protection from the sun/privacy)
- Room climate control (heating, cooling, ventilation)
- Internal lighting control
- Integrated interior sensors (temperature, air humidity)
- Bus functions for time and scene control
- Universal menu to display and operate the function and object assignments
- Bus functions: Actuating variable comparators, multi-function modules (computers), AND/OR logic

Configuration is made using the KNX software ETS. The **product file** can be downloaded from the Elsner Elektronik website on **www.elsner-elektronik.de** in the "Service" menu.

1.1.1.   Scope of delivery
- Central control and operation unit with colour touch-display screen, 5.7 inch
  Integrated interior sensors (temperature, air humidity) and
  4 binary inputs (e.g. for buttons)
- Data sheet

Accessories (not included in the scope of delivery):
- Radio remote control Remo 8

1.1.2.   Technical Data

Housing	Plastic
Colour	Gloss white (similar to RAL 9003 Signal White) /Light grey (similar to RAL 7035 Light Grey)

Assembly	Surface mount
Protection Class	IP 20
Dimensions	approx. 164 x 121 x 38 (B × H × D, mm)
Weight	Approx. 380 g
Ambient temperature	Operational 0 to +50°C, Storage -30 to +70°C, Avoid condensation
Auxiliary supply	12...40 V DC / 14...28 V AC Residual ripple 10 %
Auxiliary current at 100% display lighting	300 mA at 12 V DC 230 mA at 14 V AC 130 mA at 24 V DC 110 mA at 28 V AC 80 mA at 40 V DC

Auxiliary current at 0% display lighting	120 mA at 12 V DC 85 mA at 14 V AC
	  55 mA at 24 V DC 45 mA at 28 V AC
	  35 mA at 40 V DC

Power consumption	For 100 % display lighting: max. 3.6 Watt For 0 % display lighting: max. 1.5 Watt
Bus current	max. 10 mA
Data output	KNX +/- Bus connector terminal
BCU type	TP UART
PEI type	0
Group addresses	max. 1024
Assignments	max. 1024
Communications objects	447 (Number 1 ... 532)
Temperature measurement range	0...+50°C
Resolution (temperature)	0.1°C
Humidity measurement range	0...100% RH
Resolution (humidity)	0,1% RH
Accuracy (humidity)	± 7.5% RH at 0… 10% RH ± 4.5% RH at 10… 90% RH ± 7.5% RH at 90…100% RH

* Please not chapter *Measuring accuracy*.

The product conforms with the provisions of EU directives.

1.1.2.1. **Measuring accuracy**

Deviations in measured values due to interfering sources must be corrected in the ETS (offset).

📖 Installation location

During the **Temperature measurement**, the self-heating of the device is taken into consideration by the electronics. The software compensates the self-heating by reduc-

ing the measured temperature. After commissioning, it may take up to 1.5 hours for the correct indoor temperature value to be displayed.

1.2.   Maintenance and care

Finger marks on the touch screen are best removed with a damp cloth or a microfiber cloth. You can wipe the buttons without activating them.
Do not use abrasives / detergents or aggressive cleaners for cleaning.

If there is a power outage, the data you have entered will be saved for around 10 years. No battery is required for this.

1.3.   Connection and control options

The following **ambient parameters** are measured and displayed:

• Indoor temperature
• Air humidity, interior

The following **ambient parameters** must be received:

• Brightness
• Wind speed
• Precipitation
• Outdoor temperature
This data can be provided by Suntracer KNX, Suntracer KNX-GPS, or Suntracer KNX-GPS light weather sensors.
• Time/Date
It is recommended that **Date and time** be received by means of the KNX. When the date and time are set manually on the touch display, the values are not saved following an auxiliary power failure, and these must then be re-entered.

The following devices can be connected using a **wireless connection**:

• 8-channel radio remote control Remo 8

The following **button interfaces** are available:

• 4 binary inputs for connecting conventional buttons, switches and window contacts

1.3.1.   An overview of the automatic functions

The **Room Controller KNX Touch One** has got internal automatic functions for blinds (for protection from the sun/privacy) and for room climate regulation (heating, cooling, ventilation).

General instructions:
• The entire runtime is completed for timed closures
• The movement positions are only settable in the blind and ventilation functions

Automatic functions for up to eight Lighting settings

- Time switching / night switching: Switching on for a set period and at night (periods, brightness values can be set)
- Switch on daily (periods can be set)
- Dim the light (period, brightness at ON/OFF can be set)
- Automatic resets (time/periods can be set)

Automatic functions for up to six Shutters

- Timed Retraction
- Blind dependent on brightness and position of the sun
  (Sun elevation and direction can be set)
  or independent of brightness (slat and travel position can be set) or leave extended (privacy, automatic retraction only in the event of rain or wind alarm)
- Night-time closure (can be switched off)
- Timed closure (period can be set)
- Interior temperature lock: Leave open until a selectable interior temperature is reached (can be switched off)
- Outside temperature lock: Lock when below a selectable external temperature (can be switched off)
- Frost alarm: Retract during rainfall below a selectable external temperature (can be switched off)
- Wind alarm: Retract when a selectable wind speed is exceeded
  (can be switched off)
- Rain alarm: Retract during rainfall (can be switched off)
- Travel position and slat position can be set
  (Slat retraction dependent on sun elevation possible)
- Travel delays during extension/retraction (can be set)

Automatic functions for up to four Awnings

- Timed Retraction
- Extension dependent on brightness and position of the sun (Sun elevation and direction can be set) or leave retracted independent of brightness (manual extension only) or leave extended independent of brightness (privacy, automatic retraction only in the event of rain or wind alarm)
- Leave retracted until a selectable interior temperature is reached (can be switched off)
- Outside temperature lock: Allow blinds from a selectable external temperature (can be switched off)
- Interior temperature lock: Allow blinds from a selectable interior temperature (can be switched off)
- Frost alarm: Retract during rainfall below a selectable external temperature (can be switched off)
- Wind alarm: Retract when a selectable wind speed is exceeded (can be switched off)
- Rain alarm: Retract during rainfall (can be switched off)
- Travel position can be set

• Travel delays during extension/retraction (can be set)

Automatic functions for up to four Roller shutters

• Timed Retraction
• Close dependent on brightness and position of the sun (travel position can be set) or leave open independent of brightness (Closure only using time control or manually) or leave closed independent of brightness (privacy, automatic retraction only in the event of rain or wind alarm)
• Night-time closure (can be switched off)
• Timed closure (period can be set)
• Interior temperature lock: Leave open until a selectable interior temperature is reached (can be switched off)
• Outside temperature lock: Lock when below a selectable external temperature (can be switched off)
• Frost alarm: Retract during rainfall below a selectable external temperature (can be switched off)
• Wind alarm: Retract when a selectable wind speed is exceeded (can be switched off)
• Rain alarm: Retract during rainfall (can be switched off)
• Travel position can be set
• Travel delays during extension/retraction (can be set)

Automatic functions for up to two Windows

• Open at a selectable interior temperature (TH sensor/CO2 can be switched off)
• Open at a selectable air humidity in the room (TH sensor/CO2 can be switched off)
• Open/close at a selectable CO2 content in the room (TH sensor/CO2 can be switched off)
• Outside temperature lock: Lock when below a selectable external temperature (can be switched off)
• Frost alarm: Close during rainfall below a selectable external temperature (can be switched off)
• Close when the supply air temperature is higher than the room temperature (TH sensor/CO2 can be switched off)
• Rain alarm: Close completely or to only provide a gap during rainfall (can be switched off)
• Wind alarm: Close when a selectable wind speed is exceeded (can be switched off)
• Timed ventilation/closure (periods can be set, switched off)
• Night-time re-cooling (period, room temperature and window opening can be set, switched off)
• Leave closed during a settable period
• Travel position/number of steps (Stepped window openings operate gradually with a selectable number of steps (2-10))

Automatic functions for a ventilator

- Use ventilator (can be switched off)
- Timed ventilation in up to 16 periods with defined force
  (periods can be set, ventilation steps can be set on a percentage basis)
- Use TH sensor for ventilator (can be switched off)
- Ventilate until room temperature drops below a set value (value and ventilation steps can be defined)
- Ventilate from a selectable interior temperature (can be switched off)
- Ventilate from a selectable air humidity in the room (can be switched off)
- Ventilate from a selectable CO_2 content in the room (can be switched off)
- Start and increase exhaust ventilation (can be set on a percentage basis)
- Use night-time re-cooling for up to 16 periods (period can be set)

Automatic functions for heating and cooling

- Switch between heating and cooling by means of a dead zone
  (temperature can be set) or by means of a switching object
- Night-time reduction (with settings for the period and the temperature to which this should reduce)
- Day mode extension (temporary deactivation of night mode)
- Frost/heat protection (reference value and activation delay can be set)

1.3.2. Overview of functions

1.3.2.1. Only using ETS settable functions

- All parameters under General Settings
- TH sensor transmission behaviour
- Function and thus object allocations for Start and Universal menus
- Use of Lights 1 - 8 and Light type
- Use of Shutters 1 - 6, Awnings 1- 4, Roller Shutters 1 - 4
- Use of Windows 1 - 2 and Window type
- Temperature regulation type
- Actuating variable comparator
- Logic

1.3.2.2. Only using Display settable functions

- Calibrating the touch display
- Teaching radio remote control Remo 8
- Programming button/Programming LED (phys. address)
- Reset

1.3.2.3. Using ETS and display operable functions

Settings
- Language
- Date and time

- Location
- Display
- Texts
- Automatic
- TH sensor (adjusting/external segment)
- Alarm actions
- Access code

Light automation + names

Blind automation + names + manual control
- Blind
- Awning
- Roller blind

Window automation + manual control
Ventilation automation

The reference values for the temperature regulation defined using the ETS can be changed on the display.

Change names for functions, pages and scenes.

Temperature and humidity offset (correction to TH sensors).

1.4. List of communication objects

DTP: Data Point Type

N0.	Text	Function	Flags	DPT Typ	Size
1	Software version	Output	R-CT	[217.1] DPT_Version	2 bytes
2	Unit malfunction	Output	R-CT	[1.1] DPT_Switch	1 bit
3	Date	Input	-WCT	[11.1] DPT_Date	3 bytes
4	Time	Input	-WCT	[10.1] DPT_TimeOfDay	3 bytes
6	Display light brightness in %	Input	RWC-	[5.1] DPT_Scaling	1 Byte
7	Room brightness	Output	R-CT	[9.4] DPT_Value_Lux	2 bytes
8	Surface operation	0	R-CT	[1.1] DPT_Switch	1 bit
9	Surface operation	Output	R-CT	[5.1] DPT_Scaling	1 Byte
10	TH sensor malfunction	Output	R-CT	[1.1] DPT_Switch	1 bit
11	External temperature measurement value	Input	-WCT	[9.1] DPT_Value_Temp	2 bytes
12	Internal temperature measurement value	Output	R-CT	[9.1] DPT_Value_Temp	2 bytes

N0.	Text	Function	Flags	DPT Typ	Size
13	Overall temperature measurement value	Output	R-CT	[9.1] DPT_-Value_Temp	2 bytes
14	External humidity measurement value	Input	-WCT	[9.7] DPT_-Value_Humidity	2 bytes
15	Internal humidity measurement value	Output	R-CT	[9.7] DPT_-Value_Humidity	2 bytes
16	Overall humidity measurement value	Output	R-CT	[9.7] DPT_-Value_Humidity	2 bytes
17	Temperature requirement Min./maximum value	Input	-WC-	[1] 1.xxx	1 bit
18	Minimum temperature measurement value	Output	R-CT	[9.1] DPT_-Value_Temp	2 bytes
19	Maximum temperature measurement value	Output	R-CT	[9.1] DPT_-Value_Temp	2 bytes
20	Reset min./max. temperature value	Input	-WC-	[1] 1.xxx	1 bit
21	Request min./max. humidity value	Input	-WC-	[1] 1.xxx	1 bit
22	Minimum humidity measurement value	Output	R-CT	[9.1] DPT_-Value_Temp	2 bytes
23	Maximum humidity measurement value	Output	R-CT	[9.1] DPT_-Value_Temp	2 bytes
24	Reset min./max. humidity value	Input	-WC-	[1] 1.xxx	1 bit
25	Sun azimuth 32-bit	Output	R-CT	[14.7] DPT_-Value_AngleDeg	4 bytes
26	Sun elevation 32-bit	Output	R-CT	[14.7] DPT_-Value_AngleDeg	4 bytes
27	Sun azimuth 16-bit	Output	R-CT	[9] 9.xxx	2 bytes
28	Sun elevation 16-bit	Output	R-CT	[9] 9.xxx	2 bytes
29	CO2 measurement value in ppm	Input	-WCT	[9.8] DPT_-Value_AirQuality	2 bytes
30	Rain	Input	-WCT	[1.2] DPT_Bool	1 bit
31	External temperature	Input	-WCT	[9.1] DPT_-Value_Temp	2 bytes
32	Wind force	Input	-WCT	[9.5] DPT_-Value_Wsp	2 bytes
33	Brightness	Input	-WCT	[9.4] DPT_-Value_Lux	2 bytes
34	Display page selection	Input	-WC-	[5.10] DPT_-Value_1_Ucount	1 Byte

NO.	Text	Function	Flags	DPT Typ	Size
39	Alarm 1	Input	-WC-	[1.1] DPT_Switch	1 bit
40	Alarm 1 Acknowledge	Input/ Output	-WCT	[1.1] DPT_Switch	1 bit
41	Alarm 2	Input	-WC-	[1.1] DPT_Switch	1 bit
42	Alarm 2 Acknowledge	Input/ Output	-WCT	[1.1] DPT_Switch	1 bit
43	Alarm 3	Input	-WC-	[1.1] DPT_Switch	1 bit
44	Alarm 3 Acknowledge	Input/ Output	-WCT	[1.1] DPT_Switch	1 bit
45	Alarm 4	Input	-WC-	[1.1] DPT_Switch	1 bit
46	Alarm 4 Acknowledge	Input/ Output	-WCT	[1.1] DPT_Switch	1 bit
47	Alarm 5	Input	-WC-	[1.1] DPT_Switch	1 bit
48	Alarm 5 Acknowledge	Input/ Output	-WCT	[1.1] DPT_Switch	1 bit
49	Start menu function 1 (Display / Input)	Input / Output	RWCT	Dep. on setting	
50	Start menu function 1 (Short-term input)	Output	R-CT	Dep. on setting	
51	Start menu function 2 (Display / Input)	Input / Output	RWCT	Dep. on setting	
52	Start menu function 2 (Short-term input)	Output	R-CT	Dep. on setting	
53	Start menu function 3 (Display / Input)	Input / Output	RWCT	Dep. on setting	
54	Start menu function 3 (Short-term input)	Output	R-CT	Dep. on setting	
55	Start menu function 4 (Display / Input)	Input / Output	RWCT	Dep. on setting	
56	Start menu function 4 (Short-term input)	Output	R-CT	Dep. on setting	
57	Start menu function 5 (Display / Input)	Input / Output	RWCT	Dep. on setting	
58	Start menu function 5 (Short-term input)	Output	R-CT	Dep. on setting	
59	Start menu function 6 (Display / Input)	Input / Output	RWCT	Dep. on setting	
60	Start menu function 6 (Short-term input)	Output	R-CT	Dep. on setting	

N0.	Text	Function	Flags	DPT Typ	Size
61	Universal menu page 1 Function 1 (Display / Input)	Input / Output	RWCT	Dep. on setting	
62	Universal menu page 1 Function 1 (Brief Input)	Output	R-CT	Dep. on setting	
63	Universal menu page 1 Function 2 (Display / Input)	Input / Output	RWCT	Dep. on setting	
64	Universal menu page 1 Function 2 (Brief Input)	Output	R-CT	Dep. on setting	
65	Universal menu page 1 Function 3 (Display / Input)	Input / Output	RWCT	Dep. on setting	
66	Universal menu page 1 Function 3 (Brief Input)	Output	R-CT	Dep. on setting	
67	Universal menu page 1 Function 4 (Display / Input)	Input / Output	RWCT	Dep. on setting	
68	Universal menu page 1 Function 4 (Brief Input)	Output	R-CT	Dep. on setting	
69	Universal menu page 1 Function 5 (Display / Input)	Input / Output	RWCT	Dep. on setting	
70	Universal menu page 1 Function 5 (Brief Input)	Output	R-CT	Dep. on setting	
71	Universal menu page 1 Function 6 (Display / Input)	Input / Output	RWCT	Dep. on setting	
72	Universal menu page 1 Function 6 (Brief Input)	Output	R-CT	Dep. on setting	
73	Universal menu page 1 Function 7 (Display / Input)	Input / Output	RWCT	Dep. on setting	
74	Universal menu page 1 Function 7 (Brief Input)	Output	R-CT	Dep. on setting	
75	Universal menu page 1 Function 8 (Display / Input)	Input / Output	RWCT	Dep. on setting	
76	Universal menu page 1 Function 8 (Brief Input)	Output	R-CT	Dep. on setting	
77-92	Universal menu page 2 Function 1-8			Dep. on setting	
93-108	Universal menu page 3 Function 1-8			Dep. on setting	
109-124	Universal menu page 4 Function 1-8			Dep. on setting	
125-140	Universal menu page 5 Function 1-8			Dep. on setting	
141-156	Universal menu page 6 Function 1-8			Dep. on setting	

N0.	Text	Function	Flags	DPT Typ	Size
157-172	Universal menu page 7 Function 1-8			Dep. on setting	
173-188	Universal menu page 8 Function 1-8			Dep. on setting	
191	Switch Light 1 on / off	Output	R-CT	[1.1] DPT_Switch	1 bit
192	Dim Light 1	Output	R-CT	[3.7] DPT_Control_Dimming	4 bit
193	Light 1 brightness value in %	Input / Output	RWCT	[5.1] DPT_Scaling	1 Byte
194	Light 1 change (Automatic = 1 | Manual = 0)	Input / Output	RWCT	[1.1] DPT_Switch	1 bit
195	Switch Light 2 on / off	Output	R-CT	[1.1] DPT_Switch	1 bit
196	Dim Light 2	Output	R-CT	[3.7] DPT_Control_Dimming	4 bit
197	Light 2 brightness value in %	Input / Output	RWCT	[5.1] DPT_Scaling	1 Byte
198	Light 2 change (Automatic = 1 | Manual = 0)	Input / Output	RWCT	[1.1] DPT_Switch	1 bit
199	Switch Light 3 on / off	Output	R-CT	[1.1] DPT_Switch	1 bit
200	Dim Light 3	Output	R-CT	[3.7] DPT_Control_Dimming	4 bit
201	Light 3 brightness value in %	Input / Output	RWCT	[5.1] DPT_Scaling	1 Byte
202	Light 3 change (Automatic = 1 | Manual = 0)	Input / Output	RWCT	[1.1] DPT_Switch	1 bit
203	Switch Light 4 on/off	Output	R-CT	[1.1] DPT_Switch	1 bit
204	Dim Light 4	Output	R-CT	[3.7] DPT_Control_Dimming	4 bit
205	Light 4 brightness value in %	Input / Output	RWCT	[5.1] DPT_Scaling	1 Byte
206	Light 4 change (Automatic = 1 | Manual = 0)	Input / Output	RWCT	[1.1] DPT_Switch	1 bit
207	Switch Light 5 on/off	Output	R-CT	[1.1] DPT_Switch	1 bit
208	Dim Light 5	Output	R-CT	[3.7] DPT_Control_Dimming	4 bit
209	Light 5 brightness value in %	Input / Output	RWCT	[5.1] DPT_Scaling	1 Byte
210	Light 5 change (Automatic = 1 | Manual = 0)	Input / Output	RWCT	[1.1] DPT_Switch	1 bit
211	Switch Light 6 on/off	Output	R-CT	[1.1] DPT_Switch	1 bit

NO.	Text	Function	Flags	DPT Typ	Size
212	Dim Light 6	Output	R-CT	[3.7] DPT_Control_Dimming	4 bit
213	Light 6 brightness value in %	Input / Output	RWCT	[5.1] DPT_Scaling	1 Byte
214	Light 6 change (Automatic = 1 | Manual = 0)	Input / Output	RWCT	[1.1] DPT_Switch	1 bit
215	Switch Light 7 on/off	Output	R-CT	[1.1] DPT_Switch	1 bit
216	Dim Light 7	Output	R-CT	[3.7] DPT_Control_Dimming	4 bit
217	Light 7 brightness value in %	Input / Output	RWCT	[5.1] DPT_Scaling	1 Byte
218	Light 7 change (Automatic = 1 | Manual = 0)	Input / Output	RWCT	[1.1] DPT_Switch	1 bit
219	Switch Light 8 on/off	Output	R-CT	[1.1] DPT_Switch	1 bit
220	Dim Light 8	Output	R-CT	[3.7] DPT_Control_Dimming	4 bit
221	Light 8 brightness value in %	Input / Output	RWCT	[5.1] DPT_Scaling	1 Byte
222	Light 8 change (Automatic = 1 | Manual = 0)	Input / Output	RWCT	[1.1] DPT_Switch	1 bit
225	Blind 1 Extended	Output	R-CT	[1.8] DPT_UpDown	1 bit
226	Blind 1 Brief	Output	R-CT	[1.10] DPT_Start	1 bit
227	Blind 1 Travel position	Input / Output	RWCT	[5.1] DPT_Scaling	1 Byte
228	Blind 1 Slat position	Input / Output	RWCT	[5.1] DPT_Scaling	1 Byte
229	Blind 1 Safety	Output	R-CT	[1.2] DPT_Bool	1 bit
230	Blind 1 change (Automatic = 1 | Manual = 0)	Input / Output	RWCT	[1.1] DPT_Switch	1 bit
231	Blind 2 Extended	Output	R-CT	[1.8] DPT_UpDown	1 bit
232	Blind 2 Brief	Output	R-CT	[1.10] DPT_Start	1 bit
233	Blind 2 Travel position	Input / Output	RWCT	[5.1] DPT_Scaling	1 Byte
234	Blind 2 Slat position	Input / Output	RWCT	[5.1] DPT_Scaling	1 Byte
235	Blind 2 Safety	Output	R-CT	[1.2] DPT_Bool	1 bit
236	Blind 2 change (Automatic = 1 | Manual = 0)	Input / Output	RWCT	[1.1] DPT_Switch	1 bit

N0.	Text	Function	Flags	DPT Typ	Size
237	Blind 3 Extended	Output	R-CT	[1.8] DPT_Up-Down	1 bit
238	Blind 3 Brief	Output	R-CT	[1.10] DPT_Start	1 bit
239	Blind 3 Travel position	Input / Output	RWCT	[5.1] DPT_Scaling	1 Byte
240	Blind 3 Slat position	Input / Output	RWCT	[5.1] DPT_Scaling	1 Byte
241	Blind 3 Safety	Output	R-CT	[1.2] DPT_Bool	1 bit
242	Blind 3 change (Automatic = 1 | Manual = 0)	Input / Output	RWCT	[1.1] DPT_Switch	1 bit
243	Blind 4 Extended	Output	R-CT	[1.8] DPT_Up-Down	1 bit
244	Blind 4 Brief	Output	R-CT	[1.10] DPT_Start	1 bit
245	Blind 4 Travel position	Input / Output	RWCT	[5.1] DPT_Scaling	1 Byte
246	Blind 4 Slat position	Input / Output	RWCT	[5.1] DPT_Scaling	1 Byte
247	Blind 4 Safety	Output	R-CT	[1.2] DPT_Bool	1 bit
248	Blind 4 change (Automatic = 1 | Manual = 0)	Input / Output	RWCT	[1.1] DPT_Switch	1 bit
249	Blind 5 Extended	Output	R-CT	[1.8] DPT_Up-Down	1 bit
250	Blind 5 Brief	Output	R-CT	[1.10] DPT_Start	1 bit
251	Blind 5 Travel position	Input / Output	RWCT	[5.1] DPT_Scaling	1 Byte
252	Blind 5 Slat position	Input / Output	RWCT	[5.1] DPT_Scaling	1 Byte
253	Blind 5 Safety	Output	R-CT	[1.2] DPT_Bool	1 bit
254	Blind 5 change (Automatic = 1 | Manual = 0)	Input / Output	RWCT	[1.1] DPT_Switch	1 bit
255	Blind 6 Extended	Output	R-CT	[1.8] DPT_Up-Down	1 bit
256	Blind 6 Brief	Output	R-CT	[1.10] DPT_Start	1 bit
257	Blind 6 Travel position	Input / Output	RWCT	[5.1] DPT_Scaling	1 Byte
258	Blind 6 Slat position	Input / Output	RWCT	[5.1] DPT_Scaling	1 Byte
259	Blind 6 Safety	Output	R-CT	[1.2] DPT_Bool	1 bit
260	Blind 6 change (Automatic = 1 | Manual = 0)	Input / Output	RWCT	[1.1] DPT_Switch	1 bit

N0.	Text	Function	Flags	DPT Typ	Size
263	Awning 1 Extended	Output	R-CT	[1.8] DPT_Up-Down	1 bit
264	Awning 1 Brief	Output	R-CT	[1.10] DPT_Start	1 bit
265	Awning 1 Travel position	Input / Output	RWCT	[5.1] DPT_Scaling	1 Byte
266	Awning 1 Safety	Output	R-CT	[1.2] DPT_Bool	1 bit
267	Awning 1 change (Automatic = 1 | Manual = 0)	Input / Output	RWCT	[1.1] DPT_Switch	1 bit
268	Awning 2 Extended	Output	R-CT	[1.8] DPT_Up-Down	1 bit
269	Awning 2 Brief	Output	R-CT	[1.10] DPT_Start	1 bit
270	Awning 2 Travel position	Input / Output	RWCT	[5.1] DPT_Scaling	1 Byte
271	Awning 2 Safety	Output	R-CT	[1.2] DPT_Bool	1 bit
272	Awning 2 change (Automatic = 1 | Manual = 0)	Input / Output	RWCT	[1.1] DPT_Switch	1 bit
273	Awning 3 Extended	Output	R-CT	[1.8] DPT_Up-Down	1 bit
274	Awning 3 Brief	Output	R-CT	[1.10] DPT_Start	1 bit
275	Awning 3 Travel position	Input / Output	RWCT	[5.1] DPT_Scaling	1 Byte
276	Awning 3 Safety	Output	R-CT	[1.2] DPT_Bool	1 bit
277	Awning 3 change (Automatic = 1 | Manual = 0)	Input / Output	RWCT	[1.1] DPT_Switch	1 bit
278	Awning 4 Extended	Output	R-CT	[1.8] DPT_Up-Down	1 bit
279	Awning 4 Brief	Output	R-CT	[1.10] DPT_Start	1 bit
280	Awning 4 Travel position	Input / Output	RWCT	[5.1] DPT_Scaling	1 Byte
281	Awning 4 Safety	Output	R-CT	[1.2] DPT_Bool	1 bit
282	Awning 4 change (Automatic = 1 | Manual = 0)	Input / Output	RWCT	[1.1] DPT_Switch	1 bit
285	Roller shutter 1 Extended	Output	R-CT	[1.8] DPT_Up-Down	1 bit
286	Roller shutter 1 Brief	Output	R-CT	[1.10] DPT_Start	1 bit
287	Roller shutter 1 Travel position	Input / Output	RWCT	[5.1] DPT_Scaling	1 Byte
288	Roller shutter 1 Safety	Output	R-CT	[1.2] DPT_Bool	1 bit
289	Roller shutter 1 change (Automatic = 1 | Manual = 0)	Input / Output	RWCT	[1.1] DPT_Switch	1 bit

N0.	Text	Function	Flags	DPT Typ	Size
290	Roller shutter 2 Extended	Output	R-CT	[1.8] DPT_Up-Down	1 bit
291	Roller shutter 2 Brief	Output	R-CT	[1.10] DPT_Start	1 bit
292	Roller shutter 2 Travel position	Input / Output	RWCT	[5.1] DPT_Scaling	1 Byte
293	Roller shutter 2 Safety	Output	R-CT	[1.2] DPT_Bool	1 bit
294	Roller shutter 2 change (Automatic = 1 | Manual = 0)	Input / Output	RWCT	[1.1] DPT_Switch	1 bit
295	Roller shutter 3 Extended	Output	R-CT	[1.8] DPT_Up-Down	1 bit
296	Roller shutter 3 Brief	Output	R-CT	[1.10] DPT_Start	1 bit
297	Roller shutter 3 Travel position	Input / Output	RWCT	[5.1] DPT_Scaling	1 Byte
298	Roller shutter 3 Safety	Output	R-CT	[1.2] DPT_Bool	1 bit
299	Roller shutter 3 change (Automatic = 1 | Manual = 0)	Input / Output	RWCT	[1.1] DPT_Switch	1 bit
300	Roller shutter 4 Extended	Output	R-CT	[1.8] DPT_Up-Down	1 bit
301	Roller shutter 4 Brief	Output	R-CT	[1.10] DPT_Start	1 bit
302	Roller shutter 4 Travel position	Input / Output	RWCT	[5.1] DPT_Scaling	1 Byte
303	Roller shutter 4 Safety	Output	R-CT	[1.2] DPT_Bool	1 bit
304	Roller shutter 4 change (Automatic = 1 | Manual = 0)	Input / Output	RWCT	[1.1] DPT_Switch	1 bit
307	Window 1 Extended	Output	R-CT	[1.8] DPT_Up-Down	1 bit
308	Window 1 Brief	Output	R-CT	[1.10] DPT_Start	1 bit
309	Window 1 Travel position	Input / Output	RWCT	[5.1] DPT_Scaling	1 Byte
310	Window 1 Safety	Output	R-CT	[1.2] DPT_Bool	1 bit
311	Window 1 change (Automatic = 1 | Manual = 0)	Input / Output	RWCT	[1.1] DPT_Switch	1 bit
312	Window 2 Extended	Output	R-CT	[1.8] DPT_Up-Down	1 bit
313	Window 2 Brief	Output	R-CT	[1.10] DPT_Start	1 bit
314	Window 2 Travel position	Input / Output	RWCT	[5.1] DPT_Scaling	1 Byte
315	Window 2 Safety	Output	R-CT	[1.2] DPT_Bool	1 bit
316	Window 2 change (Automatic = 1 | Manual = 0)	Input / Output	RWCT	[1.1] DPT_Switch	1 bit

NO.	Text	Function	Flags	DPT Typ	Size
319	Fan status	Output	R-CT	[1.1] DPT_Switch	1 bit
320	Fan speed	Input / Output	RWCT	[5.1] DPT_Scaling	1 Byte
321	Fan change (Automatic = 1 | Manual = 0)	Input / Output	RWCT	[1.1] DPT_Switch	1 bit
334	Temp. controller: Blocking object	Input / Output	RWCT	[1.3] DPT_Enable	1 bit
335	Temp. controller: Current setpoint	Output	R-CT	[9.1] DPT_-Value_Temp	2 bytes
336	Temp. controller: Switching object (0:Heating | 1:Cooling)	Input	-WC-	[1.2] DPT_Bool	1 bit
337	Temp. controller: Setpoint, daytime heating	Input / Output	RWCT	[9.1] DPT_-Value_Temp	2 bytes
338	Temp. controller: Setpoint, daytime heating (1:+ | 0:-)	Input	-WC-	[1.2] DPT_Bool	1 bit
339	Temp. controller: Setpoint, daytime cooling	Input / Output	RWCT	[9.1] DPT_-Value_Temp	2 bytes
340	Temp. controller: Setpoint, daytime cooling (1:+ | 0:-)	Input	-WC-	[1.2] DPT_Bool	1 bit
341	Temp. controller: Actuating variable, Heating level 1	Output	R-CT	[5.1] DPT_Scaling	1 Byte
342	Temp. controller: Actuating variable, Heating level 2	Output	R-CT	[5.1] DPT_Scaling	1 Byte
343	Temp. controller: Actuating variable, Heating level 2	Output	R-CT	[1.1] DPT_Switch	1 bit
344	Temp. controller: Actuating variable, Cooling level 1	Output	R-CT	[5.1] DPT_Scaling	1 Byte
345	Temp. controller: Actuating variable, Cooling level 2	Output	R-CT	[5.1] DPT_Scaling	1 Byte
346	Temp. controller: Actuating variable, Cooling level 2	Output	R-CT	[1.1] DPT_Switch	1 bit
347	Temp. controller: Night-time reduction activation	Input / Output	RWCT	[1.3] DPT_Enable	1 bit
348	Temp. controller: Setpoint, night-time heating	Input / Output	RWCT	[9.1] DPT_-Value_Temp	2 bytes
349	Temp. controller: Setpoint, night-time heating (1:+ | 0:-)	Input	-WC-	[1.2] DPT_Bool	1 bit
350	Temp. controller: Setpoint, night-time cooling	Input / Output	RWCT	[9.1] DPT_-Value_Temp	2 bytes
351	Temp. controller: Setpoint, night-time cooling (1:+ | 0:-)	Input	-WC-	[1.2] DPT_Bool	1 bit

N0.	Text	Function	Flags	DPT Typ	Size
352	Temp. controller: Status – Heating 1	Output	R-CT	[1.2] DPT_Bool	1 bit
353	Temp. controller: Status – Heating 2	Output	R-CT	[1.2] DPT_Bool	1 bit
354	Temp. controller: Status – Cooling 1	Output	R-CT	[1.2] DPT_Bool	1 bit
355	Temp. controller: Status – Cooling 2	Output	R-CT	[1.2] DPT_Bool	1 bit
356	Temp. controller: Window status	Input	-WC-	[1.2] DPT_Bool	1 bit
357	Temp.control: Day mode extension time (sec)	Input / Output	RWCT	[7.1] DPT_Value_2_U-count[7.5] DPT_TimePeriod-Sec	2 bytes
358	Temp.control: Day mode extension status	Input / Output	RWCT	[1.2] DPT_Bool	1 bit
373	Period 1	Output	R-CT	[1.1] DPT_Switch	1 bit
374	Period 2	Output	R-CT	[1.1] DPT_Switch	1 bit
375	Period 3	Output	R-CT	[1.1] DPT_Switch	1 bit
376	Period 4	Output	R-CT	[1.1] DPT_Switch	1 bit
377	Period 5	Output	R-CT	[1.1] DPT_Switch	1 bit
378	Period 6	Output	R-CT	[1.1] DPT_Switch	1 bit
379	Period 7	Output	R-CT	[1.1] DPT_Switch	1 bit
380	Period 8	Output	R-CT	[1.1] DPT_Switch	1 bit
381	Period 9	Output	R-CT	[1.1] DPT_Switch	1 bit
382	Period 10	Output	R-CT	[1.1] DPT_Switch	1 bit
383	Period 11	Output	R-CT	[1.1] DPT_Switch	1 bit
384	Period 12	Output	R-CT	[1.1] DPT_Switch	1 bit
385	Period 13	Output	R-CT	[1.1] DPT_Switch	1 bit
386	Period 14	Output	R-CT	[1.1] DPT_Switch	1 bit
387	Period 15	Output	R-CT	[1.1] DPT_Switch	1 bit
388	Period 16	Output	R-CT	[1.1] DPT_Switch	1 bit
389	Load / save scene	Input / Output	RWCT	[18.1] DPT_SceneControl	1 Byte
390	Scene object 1	Input / Output	-WCT	Dep. on setting	
391	Scene object 2	Input / Output	-WCT	Dep. on setting	

NO.	Text	Function	Flags	DPT Typ	Size
392	Scene object 3	Input / Output	-WCT	Dep. on setting	
393	Scene object 4	Input / Output	-WCT	Dep. on setting	
394	Scene object 5	Input / Output	-WCT	Dep. on setting	
395	Scene object 6	Input / Output	-WCT	Dep. on setting	
396	Scene object 7	Input / Output	-WCT	Dep. on setting	
397	Scene object 8	Input / Output	-WCT	Dep. on setting	
398	Scene object 9	Input / Output	-WCT	Dep. on setting	
399	Scene object 10	Input / Output	-WCT	Dep. on setting	
400	Scene object 11	Input / Output	-WCT	Dep. on setting	
401	Scene object 12	Input / Output	-WCT	Dep. on setting	
402	Scene object 13	Input / Output	-WCT	Dep. on setting	
403	Scene object 14	Input / Output	-WCT	Dep. on setting	
404	Scene object 15	Input / Output	-WCT	Dep. on setting	
405	Scene object 16	Input / Output	-WCT	Dep. on setting	
406	Button 1 Extended	Output	R-CT	[1.8] DPT_Up-Down	1 bit
407	Button 1 Brief	Output	R-CT	[1.10] DPT_Start	1 bit
408	Button 1 switching	Input / Output	RWCT	[1.1] DPT_Switch	1 bit
409	Button 1 dimming	Input / Output	RWCT	[3.7] DPT_Cont-rol_Dimming	4 bit
410	Button 1 - 8-bit encoder	Output	R-CT	[5] 5.xxx	1 Byte
411	Button 1 - 16-bit encoder	Output	R-CT	[9] 9.xxx	2 bytes
412	Button 1 Scene	Output	R-CT	[5] 5.xxx	1 Byte
413	Button 2 Extended	Output	R-CT	[1.8] DPT_Up-Down	1 bit
414	Button 2 Brief	Output	R-CT	[1.10] DPT_Start	1 bit

N0.	Text	Function	Flags	DPT Typ	Size
415	Button 2 switching	Input / Output	RWCT	[1.1] DPT_Switch	1 bit
416	Button 2 dimming	Input / Output	RWCT	[3.7] DPT_Control_Dimming	4 bit
417	Button 2 - 8-bit encoder	Output	R-CT	[5] 5.xxx	1 Byte
418	Button 2 - 16-bit encoder	Output	R-CT	[9] 9.xxx	2 bytes
419	Button 2 Scene	Output	R-CT	[5] 5.xxx	1 Byte
420	Button 3 Extended	Output	R-CT	[1.8] DPT_UpDown	1 bit
421	Button 3 Brief	Output	R-CT	[1.10] DPT_Start	1 bit
422	Button 3 switching	Input / Output	RWCT	[1.1] DPT_Switch	1 bit
423	Button 3 dimming	Input / Output	RWCT	[3.7] DPT_Control_Dimming	4 bit
424	Button 3 - 8-bit encoder	Output	R-CT	[5] 5.xxx	1 Byte
425	Button 3 - 16-bit encoder	Output	R-CT	[9] 9.xxx	2 bytes
426	Button 3 Scene	Output	R-CT	[5] 5.xxx	1 Byte
427	Button 4 Extended	Output	R-CT	[1.8] DPT_UpDown	1 bit
428	Button 4 Brief	Output	R-CT	[1.10] DPT_Start	1 bit
429	Button 4 switching	Input / Output	RWCT	[1.1] DPT_Switch	1 bit
430	Button 4 dimming	Input / Output	RWCT	[3.7] DPT_Control_Dimming	4 bit
431	Button 4 - 8-bit encoder	Output	R-CT	[5] 5.xxx	1 Byte
432	Button 4 - 16-bit encoder	Output	R-CT	[9] 9.xxx	2 bytes
433	Button 4 Scene	Output	R-CT	[5] 5.xxx	1 Byte
440	Actuating variable comparator 1: Input 1	Input	-WC-	[5.1] DPT_Scaling	1 Byte
441	Actuating variable comparator 1: Input 2	Input	-WC-	[5.1] DPT_Scaling	1 Byte
442	Actuating variable comparator 1: Input 3	Input	-WC-	[5.1] DPT_Scaling	1 Byte
443	Actuating variable comparator 1: Input 4	Input	-WC-	[5.1] DPT_Scaling	1 Byte
444	Actuating variable comparator 1: Input 5	Input	-WC-	[5.1] DPT_Scaling	1 Byte
445	Actuating variable comparator 1: Output	Output	R-CT	[5.1] DPT_Scaling	1 Byte
446	Actuating variable comparator 1: Block	Input	-WC-	[1.2] DPT_Bool	1 bit

N0.	Text	Function	Flags	DPT Typ	Size
447	Actuating variable compara- tor 2: Input 1	Input	-WC-	[5.1] DPT_Scaling	1 Byte
448	Actuating variable compara- tor 2: Input 2	Input	-WC-	[5.1] DPT_Scaling	1 Byte
449	Actuating variable compara- tor 2: Input 3	Input	-WC-	[5.1] DPT_Scaling	1 Byte
450	Actuating variable compara- tor 2: Input 4	Input	-WC-	[5.1] DPT_Scaling	1 Byte
451	Actuating variable compara- tor 2: Input 5	Input	-WC-	[5.1] DPT_Scaling	1 Byte
452	Actuating variable compara- tor 2: Output	Output	R-CT	[5.1] DPT_Scaling	1 Byte
453	Actuating variable compara- tor 2: Block	Input	-WC-	[1.2] DPT_Bool	1 bit
454	Actuating variable compara- tor 3: Input 1	Input	-WC-	[5.1] DPT_Scaling	1 Byte
455	Actuating variable compara- tor 3: Input 2	Input	-WC-	[5.1] DPT_Scaling	1 Byte
456	Actuating variable compara- tor 3: Input 3	Input	-WC-	[5.1] DPT_Scaling	1 Byte
457	Actuating variable compara- tor 3: Input 4	Input	-WC-	[5.1] DPT_Scaling	1 Byte
458	Actuating variable compara- tor 3: Input 5	Input	-WC-	[5.1] DPT_Scaling	1 Byte
459	Actuating variable compara- tor 3: Output	Output	R-CT	[5.1] DPT_Scaling	1 Byte
460	Actuating variable compara- tor 3: Block	Input	-WC-	[1.2] DPT_Bool	1 bit
461	Actuating variable compara- tor 4: Input 1	Input	-WC-	[5.1] DPT_Scaling	1 Byte
462	Actuating variable compara- tor 4: Input 2	Input	-WC-	[5.1] DPT_Scaling	1 Byte
463	Actuating variable compara- tor 4: Input 3	Input	-WC-	[5.1] DPT_Scaling	1 Byte
464	Actuating variable compara- tor 4: Input 4	Input	-WC-	[5.1] DPT_Scaling	1 Byte
465	Actuating variable compara- tor 4: Input 5	Input	-WC-	[5.1] DPT_Scaling	1 Byte
466	Actuating variable compara- tor 4: Output	Output	R-CT	[5.1] DPT_Scaling	1 Byte
467	Actuating variable compara- tor 4: Block	Input	-WC-	[1.2] DPT_Bool	1 bit
469	Logikeingang 1	Input	-WC-	[1.2] DPT_Bool	1 bit

N0.	Text	Function	Flags	DPT Typ	Size
470	Logic input 1	Input	-WC-	[1.2] DPT_Bool	1 bit
471	Logic input 2	Input	-WC-	[1.2] DPT_Bool	1 bit
472	Logic input 3	Input	-WC-	[1.2] DPT_Bool	1 bit
473	Logic input 4	Input	-WC-	[1.2] DPT_Bool	1 bit
474	Logic input 5	Input	-WC-	[1.2] DPT_Bool	1 bit
475	Logic input 6	Input	-WC-	[1.2] DPT_Bool	1 bit
476	Logic input 7	Input	-WC-	[1.2] DPT_Bool	1 bit
477	Logic input 8	Input	-WC-	[1.2] DPT_Bool	1 bit
478	Logic input 9	Input	-WC-	[1.2] DPT_Bool	1 bit
479	Logic input 10	Input	-WC-	[1.2] DPT_Bool	1 bit
480	Logic input 11	Input	-WC-	[1.2] DPT_Bool	1 bit
481	Logic input 12	Input	-WC-	[1.2] DPT_Bool	1 bit
482	Logic input 13	Input	-WC-	[1.2] DPT_Bool	1 bit
483	Logic input 14	Input	-WC-	[1.2] DPT_Bool	1 bit
484	Logic input 15	Input	-WC-	[1.2] DPT_Bool	1 bit
485	AND Logic 1: 1 bit Switching output	Output	R-CT	[1.2] DPT_Bool	1 bit
486	AND Logic 1: 8 bit Output A	Output	R-CT	[5.10] DPT_Value_1_Ucount	1 Byte
487	AND Logic 1: 8 bit Output B	Output	R-CT	[5.10] DPT_Value_1_Ucount	1 Byte
488	AND Logic 1: Blocking	Input	-WC-	[1.2] DPT_Bool	1 bit
489	AND Logic 2: 1 bit Switching output	Output	R-CT	[1.2] DPT_Bool	1 bit
490	AND Logic 2: 8 bit Output A	Output	R-CT	[5.10] DPT_Value_1_Ucount	1 Byte
491	AND Logic 2: 8 bit Output B	Output	R-CT	[5.10] DPT_Value_1_Ucount	1 Byte
492	AND Logic 2: Blocking	Input	-WC-	[1.2] DPT_Bool	1 bit
493	AND Logic 3: 1 bit Switching output	Output	R-CT	[1.2] DPT_Bool	1 bit
494	AND Logic 3: 8 bit Output A	Output	R-CT	[5.10] DPT_Value_1_Ucount	1 Byte
495	AND Logic 3: 8 bit Output B	Output	R-CT	[5.10] DPT_Value_1_Ucount	1 Byte
496	AND Logic 3: Blocking	Input	-WC-	[1.2] DPT_Bool	1 bit
497	AND Logic 4: 1 bit Switching output	Output	R-CT	[1.2] DPT_Bool	1 bit
498	AND Logic 4: 8 bit Output A	Output	R-CT	[5.10] DPT_Value_1_Ucount	1 Byte

N0.	Text	Function	Flags	DPT Typ	Size
499	AND Logic 4: 8 bit Output B	Output	R-CT	[5.10] DPT_-Value_1_Ucount	1 Byte
500	AND Logic 4: Blocking	Input	-WC-	[1.2] DPT_Bool	1 bit
517	OR Logic 1: 1 bit Switching output	Output	R-CT	[1.2] DPT_Bool	1 bit
518	OR Logic 1: 8 bit Output A	Output	R-CT	[5.10] DPT_-Value_1_Ucount	1 Byte
519	OR Logic 1: 8 bit Output B	Output	R-CT	[5.10] DPT_-Value_1_Ucount	1 Byte
520	OR Logic 1: Blocking	Input	-WC-	[1.2] DPT_Bool	1 bit
521	OR Logic 2: 1 bit Switching output	Output	R-CT	[1.2] DPT_Bool	1 bit
522	OR Logic 2: 8 bit Output A	Output	R-CT	[5.10] DPT_-Value_1_Ucount	1 Byte
523	OR Logic 2: 8 bit Output B	Output	R-CT	[5.10] DPT_-Value_1_Ucount	1 Byte
524	OR Logic 2: Blocking	Input	-WC-	[1.2] DPT_Bool	1 bit
525	OR Logic 3: 1 bit Switching output	Output	R-CT	[1.2] DPT_Bool	1 bit
526	OR Logic 3: 8 bit Output A	Output	R-CT	[5.10] DPT_-Value_1_Ucount	1 Byte
527	OR Logic 3: 8 bit Output B	Output	R-CT	[5.10] DPT_-Value_1_Ucount	1 Byte
528	OR Logic 3: Blocking	Input	-WC-	[1.2] DPT_Bool	1 bit
529	OR Logic 4: 1 bit Switching output	Output	R-CT	[1.2] DPT_Bool	1 bit
530	OR Logic 4: 8 bit Output A	Output	R-CT	[5.10] DPT_-Value_1_Ucount	1 Byte
531	OR Logic 4: 8 bit Output B	Output	R-CT	[5.10] DPT_-Value_1_Ucount	1 Byte
532	OR Logic 4: Blocking	Input	-WC-	[1.2] DPT_Bool	1 bit
601	Computer 1: Input I1	Input	RWCT	Dep. on setting	4 bytes
602	Computer 1: Input I2	Input	RWCT	Dep. on setting	4 bytes
603	Computer 1: Input I3	Input	RWCT	Dep. on setting	4 bytes
604	Computer 1: Output O1	Output	R-CT	Dep. on setting	4 bytes
605	Computer 1: Output O2	Output	R-CT	Dep. on setting	4 bytes
606	Computer 1: Condition text	Output	R-CT	[16.0] DPT_String_ASCII	14 by-tes
607	Computer 1: Monitoring status	Output	R-CT	[1.1] DPT_Switch	1 bit
608	Computer 1: Block (1: block)	Input	-WC-	[1.1] DPT_Switch	1 bit

NO.	Text	Function	Flags	DPT Typ	Size
609	Computer 2: Input I1	Input	RWCT	Dep. on setting	4 bytes
610	Computer 2: Input I2	Input	RWCT	Dep. on setting	4 bytes
611	Computer 2: Input I3	Input	RWCT	Dep. on setting	4 bytes
612	Computer 2: Output O1	Output	R-CT	Dep. on setting	4 bytes
613	Computer 2: Output O2	Output	R-CT	Dep. on setting	4 bytes
614	Computer 2: Condition text	Output	R-CT	[16.0] DPT_String _ASCII	14 bytes
615	Computer 2: Monitoring status	Output	R-CT	[1.1] DPT_Switch	1 bit
616	Computer 2: Block (1: block)	Input	-WC-	[1.1] DPT_Switch	1 bit
617	Computer 3: Input I1	Input	RWCT	Dep. on setting	4 bytes
618	Computer 3: Input I2	Input	RWCT	Dep. on setting	4 bytes
619	Computer 3: Input I3	Input	RWCT	Dep. on setting	4 bytes
620	Computer 3: Output O1	Output	R-CT	Dep. on setting	4 bytes
621	Computer 3: Output O2	Output	R-CT	Dep. on setting	4 bytes
622	Computer 3: Condition text	Output	R-CT	[16.0] DPT_String _ASCII	14 bytes
623	Computer 3: Monitoring status	Output	R-CT	[1.1] DPT_Switch	1 bit
624	Computer 3: Block (1: block)	Input	-WC-	[1.1] DPT_Switch	1 bit
625	Computer 4: Input I1	Input	RWCT	Dep. on setting	4 bytes
626	Computer 4: Input I2	Input	RWCT	Dep. on setting	4 bytes
627	Computer 4: Input I3	Input	RWCT	Dep. on setting	4 bytes
628	Computer 4: Output O1	Output	R-CT	Dep. on setting	4 bytes
629	Computer 4: Output O2	Output	R-CT	Dep. on setting	4 bytes
630	Computer 4: Condition text	Output	R-CT	[16.0] DPT_String _ASCII	14 bytes
631	Computer 4: Monitoring status	Output	R-CT	[1.1] DPT_Switch	1 bit
632	Computer 4: Block (1: block)	Input	-WC-	[1.1] DPT_Switch	1 bit
633	Computer 5: Input I1	Input	RWCT	Dep. on setting	4 bytes
634	Computer 5: Input I2	Input	RWCT	Dep. on setting	4 bytes
635	Computer 5: Input I3	Input	RWCT	Dep. on setting	4 bytes
636	Computer 5: Output O1	Output	R-CT	Dep. on setting	4 bytes
637	Computer 5: Output O2	Output	R-CT	Dep. on setting	4 bytes
638	Computer 5: Condition text	Output	R-CT	[16.0] DPT_String _ASCII	14 bytes
639	Computer 5: Monitoring status	Output	R-CT	[1.1] DPT_Switch	1 bit
640	Computer 5: Block (1: block)	Input	-WC-	[1.1] DPT_Switch	1 bit

N0.	Text	Function	Flags	DPT Typ	Size
641	Computer 6: Input I1	Input	RWCT	Dep. on setting	4 bytes
642	Computer 6: Input I2	Input	RWCT	Dep. on setting	4 bytes
643	Computer 6: Input I3	Input	RWCT	Dep. on setting	4 bytes
644	Computer 6: Output O1	Output	R-CT	Dep. on setting	4 bytes
645	Computer 6: Output O2	Output	R-CT	Dep. on setting	4 bytes
646	Computer 6: Condition text	Output	R-CT	[16.0] DPT_String _ASCII	14 by-tes
647	Computer 6: Monitoring status	Output	R-CT	[1.1] DPT_Switch	1 bit
648	Computer 6: Block (1: block)	Input	-WC-	[1.1] DPT_Switch	1 bit
649	Computer 7: Input I1	Input	RWCT	Dep. on setting	4 bytes
650	Computer 7: Input I2	Input	RWCT	Dep. on setting	4 bytes
651	Computer 7: Input I3	Input	RWCT	Dep. on setting	4 bytes
652	Computer 7: Output O1	Output	R-CT	Dep. on setting	4 bytes
653	Computer 7: Output O2	Output	R-CT	Dep. on setting	4 bytes
654	Computer 7: Condition text	Output	R-CT	[16.0] DPT_String _ASCII	14 by-tes
655	Computer 7: Monitoring status	Output	R-CT	[1.1] DPT_Switch	1 bit
656	Computer 7: Block (1: block)	Input	-WC-	[1.1] DPT_Switch	1 bit
657	Computer 8: Input I1	Input	RWCT	Dep. on setting	4 bytes
658	Computer 8: Input I2	Input	RWCT	Dep. on setting	4 bytes
659	Computer 8: Input I3	Input	RWCT	Dep. on setting	4 bytes
660	Computer 8: Output O1	Output	R-CT	Dep. on setting	4 bytes
661	Computer 8: Output O2	Output	R-CT	Dep. on setting	4 bytes
662	Computer 8: Condition text	Output	R-CT	[16.0] DPT_String _ASCII	14 by-tes
663	Computer 8: Monitoring status	Output	R-CT	[1.1] DPT_Switch	1 bit
664	Computer 8: Block (1: block)	Input	-WC-	[1.1] DPT_Switch	1 bit

2. Installation

2.1.   Installation

2.1.1.   Installation notes

Installation, testing, operational start-up and troubleshooting should only be performed by an electrician.

CAUTION!
Live voltage!
There are unprotected live components inside the device.
- National legal regulations are to be followed.
- Ensure that all lines to be assembled are free of voltage and take precautions against accidental switching on.
- Do not use the device if it is damaged.
- Take the device or system out of service and secure it against unintentional use, if it can be assumed, that risk-free operation is no longer guaranteed.

The device is only to be used for its intended purpose. Any improper modification or failure to follow the operating instructions voids any and all warranty and guarantee claims.

After unpacking the device, check it immediately for possible mechanical damage. If it has been damaged in transport, inform the supplier immediately.

The device may only be used as a fixed-site installation; that means only when assembled and after conclusion of all installation and operational start-up tasks and only in the surroundings designated for it.

Elsner Elektronik is not liable for any changes in norms and standards which may occur after publication of these operating instructions.

2.1.2.   Installation location

The device must be installed in a frost-free room which must wherever possible be heatable in order to prevent dew on the display.

When selecting an installation location, please ensure as far as possible that the temperature and humidity measurements of the integrated sensor are affected as little as possible by external influences. Possible sources of interference include:

- Direct sunlight
- Drafts from windows and doors
- Warming or cooling of the building structure on which the sensor is mounted, e.g. due to sunlight, heating or cold water pipes
- Connection lines which lead from warmer or colder areas to the sensor

You can correct temperature and humidity variations from such sources of interference on the ETS and/or directly on to the touch display.

2.1.3. Installing the device

The **KNX Touch One** refers to a surface-mounted unit. Ducting and connections should be via a plaster, hollow wall box or concrete box (see drilling plan).
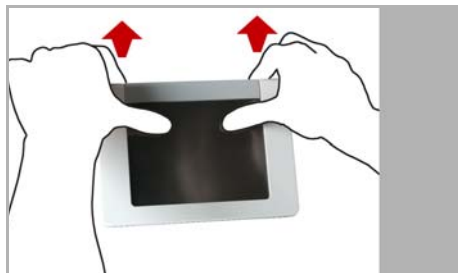
Loosen the frame on the upper corners by pulling it forward. You can apply pressure on the screen with your thumbs while doing this.

Remove the frame at the top first, then at the bottom.
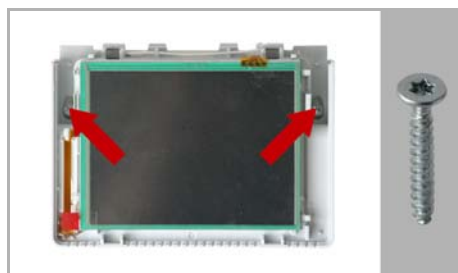
Secure the underside of the housing to the wall using 2 screws.
Use screws which are appropriate for the wall material.
Ensure a sufficient distance from wall trim, door frames, etc.

2.1.4.   Assigning connector terminals
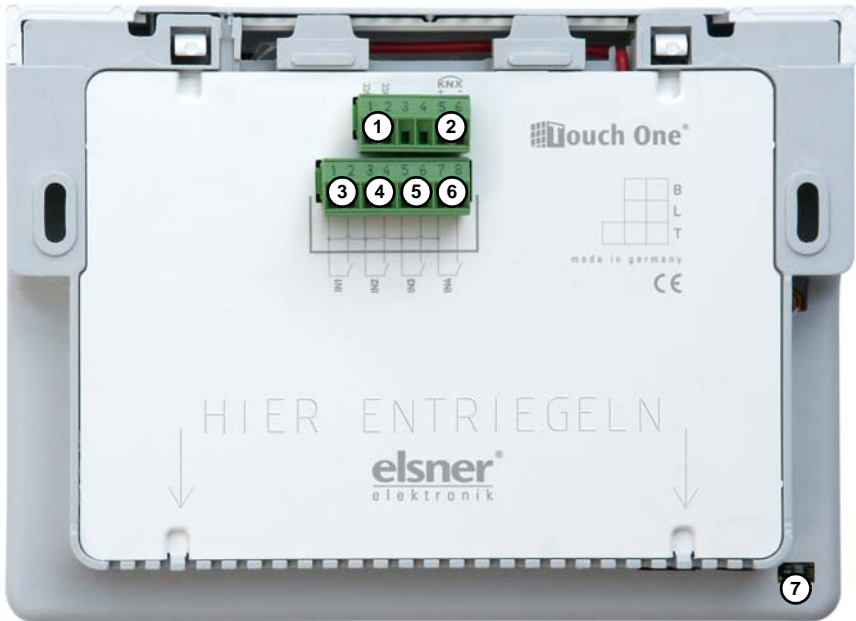
1️⃣ *Terminals 1, 2: VCC (Auxiliary voltage AC/DC)*
2️⃣ *Terminal 5: KNX + | Terminal 6: KNX -*
3️⃣ *Terminals 1, 2: Button interface 1*
4️⃣ *Terminals 3, 4: Button interface 2*
5️⃣ *Terminals 5, 6: Button interface 3*
6️⃣ *Terminals 7, 8: Button interface 4*
7️⃣ *Opening sensor (temperature/humidity)*

2.1.5.   Drill sketch
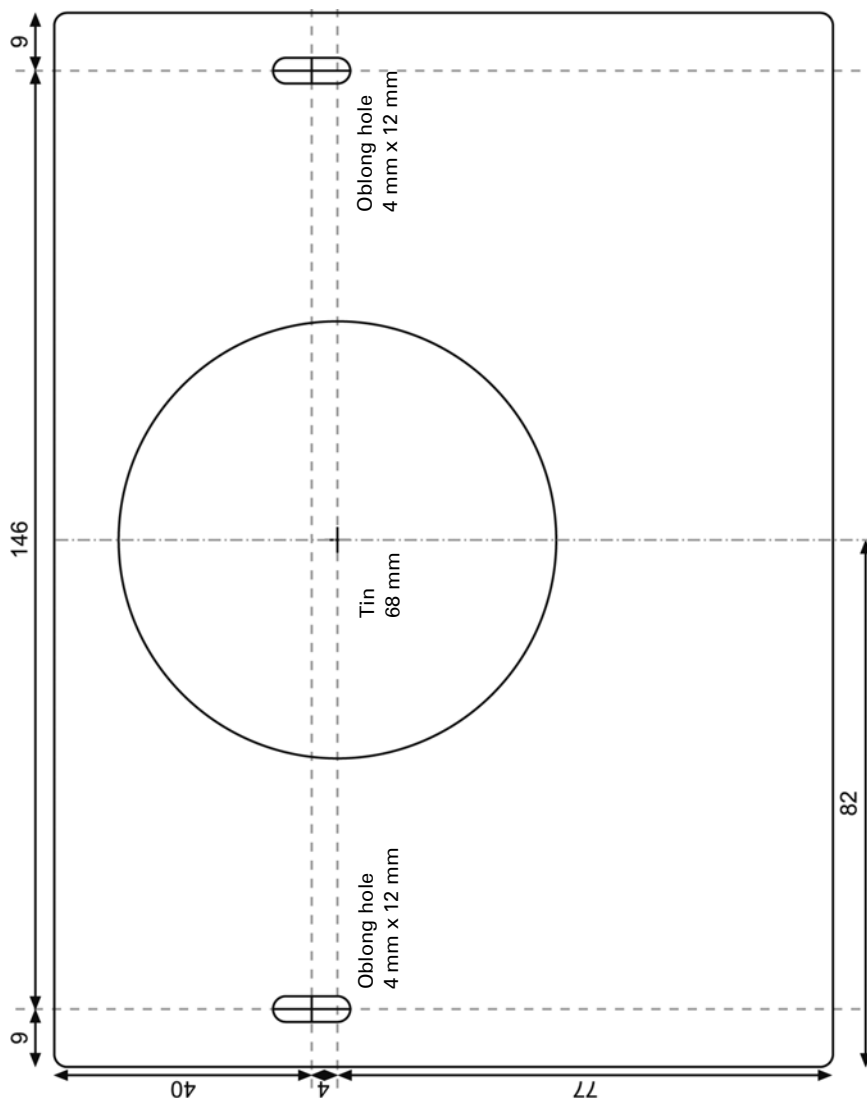
Touch panel, external dimensions 164 x 121 mm
Ensure a sufficient distance from wall trim, door frames, etc.!
All dimensions in mm. Variations are possible for technical reasons.

3. Initial start-up

3.1.   First commissioning

Installation, inspection, commissioning and troubleshooting of the device must only be carried out by a competent electrician.

3.1.1.   Boot the control system

⚠ Bringing a device from a cold room into a warm room can cause a build-up of condensation. Before commissioning, ensure that there is no humidity in the device (leave to dry if necessary).

After installation, wiring up the equipment and verifying all connections, switch on the auxiliary supply.

Once the Start-up test sequence has been successfully completed, the Control system in the Start menu is in its start position.

3.1.2.   Check the function of the sensors

The current values for the room interior sensors for room temperature and air humidity are shown on the display.

If the measured values of the integrated sensor are affected by external influences (sources of interference like direct sunlight), they can be corrected manually. It is alos possible to set an external proportion.

📖 Technical Data, page 6
📖 TH sensor, page 73

3.1.3.   Addressing the unit

The physical address is assigned using the display screen menu **Settings > Phys. Address**. Press the buttons:

🔧 ▶ | Phys. Adrdess |

The **Physical Address** menu displays the current address and the status of the programming LED (the address is 15.15.250 on delivery).

⭕ Press the Programming button, in order to address the device to the bus.

3.2. Alarm and error messages

⚠ **Alarm messages are always prioritised before error messages. When an alarm has already been triggered and displayed on the start screen, error messages are no longer visible.**

3.2.1. Warning messages

In case of an alarm message from the bus, the display switches to start menu and shows the message. You can acknowledge alarm messages directly on the unit by pressing the relevant alarm message in the display.

☐ Settings > Alarm
📖 Setting an alarm at the screen, page 76

3.2.2. Error messages

Error Messages in the start menu/in the waether data display:

No drives available!

is displayed as long as there are no drives and no lights set in the ETS (e. g. at first commissioning).

Please set the time!

is displayed if a drive or light is set, but there has (still) been no time signal reception (e. g. afer a restart). Once date and time have been received, this message disappears. Time and date are the basis for the timer, that allows for definition of up to 16 time periods for different automatic functions.

☐ Settings > Date and time.
📖 Enter the date and time at the screen, page 62

No connection to weather station!

is displayed if a drive or light is set, but there has (still) been no weather data reception (e. g. afer a restart). Once values for rain, external temperature, wind speed and brightness have been received from the bus, this message disappears.

If the monitoring of the wind and rain object is active, you should ensure that weather data can be received within the defined monitoring intervall. The monitoring of the wind and rain object is active and set to "every 5 seconds" by default.

No connection to KNX bus!

is displayed:

- during ETS download (ETS transfers the data to the unit)
- when unloading the device in the ETS

- if a failure has led to a loss of connection between the bus and the unit
- if the power to the bus fails.

Error messages in the drive/light menu:

Those messages are displayed next to the drive or light (menu drive/light):

Position unknown...!

for a shading element or window indicates that the relevant actuator has not sent information about position.

Brightness unknown...!

for a light indicates that the relevant dimming actuator has not sent information about brightness.

Further error messages:

Incorrect code

indicates that a false, non-existent access code was input.

3.3.   Power failure, maintenance work, etc. (restart of control system)

The control system will be unable to control the required drive in the event of a power failure! In the event that a full range of services must be ensured even in the event of a mains power supply failure, an emergency power supply system with the relevant switching from the mains to the emergency power supply must be installed.

Settings which have been saved in the control system program will remain unaffected by any power failure.

Should cleaning or maintenance work be performed in the building, the control system must be voltage-free by tripping the fuse fitted on site, and secured against re-activation. This is to ensure that the switched-off drives cannot operate.

> ⚠ **Following any re-start (such as when the power supply is reconnected following a power failure or following a manual reset), all drives and light controls are in automatic mode.**

3.4.   Behaviour following a failure of power supply

Failure of the auxiliary power supply:

Nothing is sent, and nothing can be received.

Resumption of the auxiliary power supply:

The following objects are sent:
- No. 1 Software version
- No. 2 Unit malfunction
- No. 10 TH sensor malfunction

The following objects send a read telegram:
- No. 3 Date
- No. 4 Time
- No. 11 External temperature measurement value
- No. 14 External humidity measurement value
- No. 29 CO2 measurement value in ppm
- No. 30 Rain
- No. 31 External temperature
- No. 32 Wind force
- No. 33 Brightness

If further objects are to be sent, please set the flags "Update" and "Read on Init" for the relevant objects:
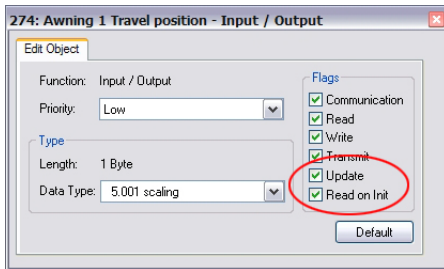
Failure of the bus power supply:

"No connection to KNX bus" is displayed on the display.

Resumption of the bus power supply:

As for resumption of the auxiliary power supply

4. Operation

4.1. The touch screen

The **Room Controller KNX Touch One**'s wall-mounted touch screen display allows manual control as well as the settings for the automatic functions. The button surfaces are actuated by pressing the screen in the respective area.
Actuating a button triggers a visual message, and a short audible signal is heard.

In the event that the displayed surfaces of the buttons are not aligned with the touch-sensitive surfaces, the touch display can be calibrated.

☐ Settings > Display > Calibrating the touch display
📖 Setting the display at the screen, page 65

Operating the display with long fingernails will not damage the display screen or the touch function. Operation using hard or sharp items (such as glass, precious stones or metal) should be avoided as this can lead to scratching.

4.2. Display options for operating elements and sensor data

The **Room Controller KNX Touch One** offers various displays for operation of drives and light applications and for showing sensor data: The Start Screen/Start Menu, the weather data display and the universal menus.

⚠️ **The screen display and all drives will only function once weather data has been sent to the unit.**
These values are not retained when the unit is reset. The weather data must then be received again from the bus.

4.2.1. Start Screen/Start Menu
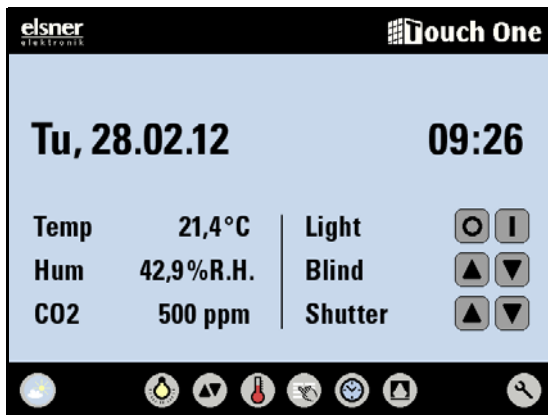
The Start menu is the central display from which you can reach the other menu areas. The date and time are shown on the Start screen and six free places are available. Sensor values and control buttons can be shown here. The Start screen must be set up in the ETS. After the initial start only the values of the integrated indoor sensor and, if applicable, error messages will be shown.

📖 Set the Start Menu (ETS), page 54

The texts displayed (e.g. names for the sensors and functions) can also be changed on the display.

☐ Settings > Texts
📖 Changing text at the screen, page 68

Alarm and error messages:

When malfunction or error messages are displayed, the data and time are no longer visible. Comments about alarm and error messages can be found in the chapter

📖 Alarm and error messages, page 39

Date and time:

Once date and time have been received by the **KNX Touch One**, they appear on the start screen. The time can be displayed with or without seconds.

☐ Settings > Date and Time
📖 Date and time, page 60

Indoor data (TH Sensor):

If the measured values of the integrated sensor are affected by external influences (sources of interference like direct sunlight), they can be corrected manually.

📖 TH sensor, page 73

⌂   You get to the Start Menu from all menus by pressing "Home"

Use the buttons at the bottom of the display to reach the operating and setting menus of **KNX Touch One**:

To Weather Data Display

Light Menu (operation and adjustment of automatic functions)

Drive Menu (operation and adjustment of automatic functions)

Temperatur Controller (adjustment)

Universal Menu (pages for display and operation)

Timer (setting of periods)

Scene Control (save and recall)

Settings Menu

4.2.2. Weather data display

From the Start Menu, you get to the weather data display by pressing "Weather Display"
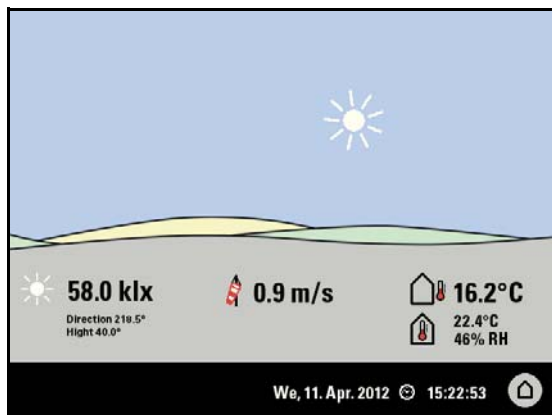
The weather data display is a graphical menu for weather and indoor data, date and time.

The following data is displayed in case it is provided by the bus:

Sun data:

Intensity: Light intensity (brightness) in Lux (lx) or Kilolux (klx)
Direction: Direction (azimuth) in degrees
Height: Elevation over the horizon in degrees

Wind:

The wind speed will be shown in metres per second (m/s) and the windsock changes:

Calm: up to 2.0 m/s

Slight wind: 2.1 to 10.0 m/s

Strong wind: 10.1 m/s and up

A caution flag appears besides the wind symbol if wind alarm has been triggered for a drive.

Outdoor temperature:

Outdoor temperature in degrees Celsius (°C)

Indoor information:

Temperature in degrees Celsius (°C)
Air humidity in %RH

The general weather situation is shown graphically:
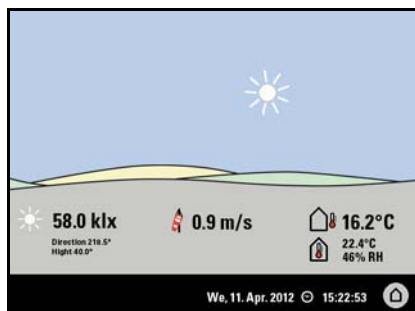
Sunny or cloudy:

The sun moves across the sky according to its current direction and height.
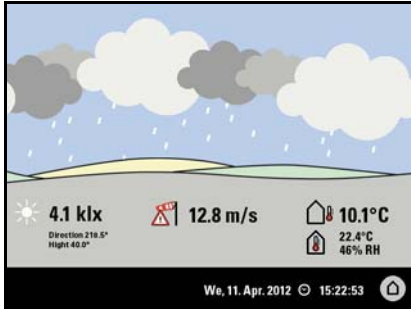
Rain:

When there is a precipitation report and temperatures above -3 °C, it is raining.
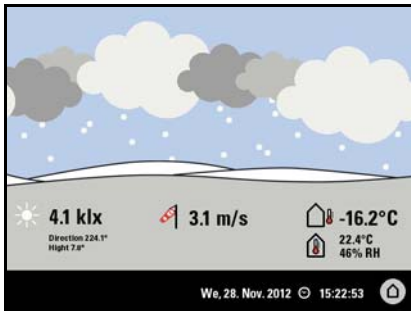
Snow:

When there is a precipitation report and temperatures below -3 °C, it is snowing.
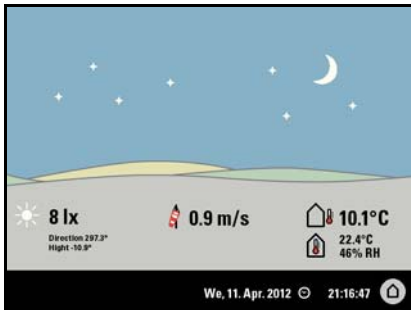
Night:

At night (twilight) the display will be darker; instead of the sun, the moon and stars will appear.

Alarm and error messages:

When error messages are displayed, the weather animation is no longer visible. Once an alarm message has been received from the bus, the display swtiches to Start Menu. Comments about alarm and error messages can be found in the chapter

📖 Alarm and error messages, page 39

⌂   To Start Menu ("Home")

4.2.3. Universal Menu

From the Start Menu, you get to the Universal Menu by pressing "Universal Menu"
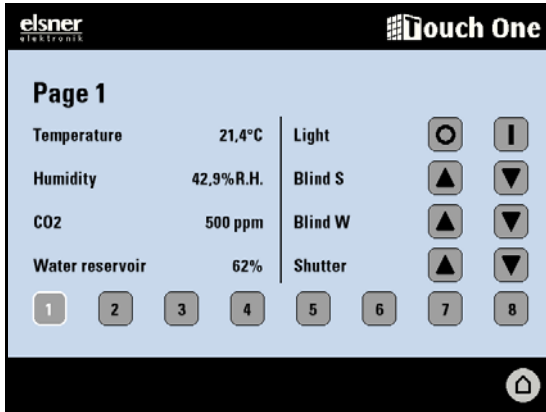
The universal menu offers space for up to 64 functions on eight pages. These may be control elements, display values or input fields and buttons for the bus communication. The universal menu must be set up in the ETS.

📖 Universal menu, page 123

Press buttons 1 - 8 to select the relevant page. The selected page is marked in white.

You can change the page text and the function names in the ETS and on the display.

📖 Texts, page 67

Operation with the buttons up/down:

Buttons up/down

If the object function "Input Extended/Short Term" is assigned to the up/down buttons, a long and a short button press are executed as follows:

released before expiry of Time 1
==> Stop/Step
Maintained for longer than Time 1
==> Up/Down
Triggered between Times 1 and 1 + 2
==> Stop
Triggered after Times 1 + 2
==> No further stop

Input functions:

The object function "Input 16-bit / 32-bit floating point" allows you to enter the values using the numeric keyboard, and to use the +/- buttons to define whether the value should be treated as a negative or positive number. The value input here is converted if set so in the ETS.

Press **OK** to send the set value.

The object function "Text input" allows you to enter text using a keyboard.

Press **OK** to send the set text.

To Start Menu ("Home")

4.3. Adjustment and operation - further options

Manual operation and setting of the automatic functions of configured drives and light applications can take place directly in the menus

Light Menu (operation and adjustment of automatic functions)

Drive Menu (operation and adjustment of automatic functions)

Scenes are recalled in the menu

Scene Control (save and recall)

Buttons for navigation and manual operation

OK button. This allows settings to be confirmed.

Arrow buttons to increase/reduce a value or
to scroll through a list of input possibilities.
Extended pressing of a button accelerates its input.

Up/Down buttons for manual operation

If the object function "Input Extended/Brief" is assigned to the up/down buttons, a long and a short button press are executed as follows:

By pushing the button (shorter than adjustable time 1) the drive will be positioned (and stopped) incrementally.
If the drive is to be moved a bit farther, then a little longer push is needed (longer than time 1 but shorter than time 1+2). The drive stops immediately when releasing the button.
If the drive must be moved independently into the end position, the button is released only after times 1 and 2 have expired. The move can be stopped by briefly pushing.

Fig. 1
Time interval comfort mode diagram
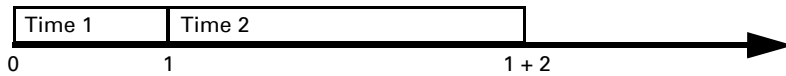
Time 1	Time 2	
0	1	1 + 2

Point in time 0:	*Push of button, start of time 1*
Release before time 1 expired:	*step (or stop if drive is moving)*
Point in time 1:	*End of time 1, start of time 2*
	Moving command
Release after time 1 expired but before time 2 expires:	*Stop*
Release after time 1 + 2 expired:	*Move into end position*

4.3.1.   Input keyboard for names and codes

An input keyboard for names and codes will appear in certain menus. Words can be typed in normally.

Special buttons:

ABC	Selects the alphabetical and numeric input keyboard.
&	Selects the symbols and special character input keyboard.
←	Delete. Deletes the preceding characters.
⇧	Shift key. Switches between upper and lower case letters.
⇦ ⇨	Moves the cursor/caret one character to the left/right.

4.4.   Protect menus with access codes

If you want to prevent unauthorised changes of the automatic functions or in the settings menu, you can set an access code for certain areas. The protected menu areas are only accessible after the input of the correct code.

The code for **General Settings** protects the menus

Language	Alarm
Location	Phys. Addresse
Display	Service
TH Sensor	

The code for **Automatic Settings** protects the menus

(automatic menu for light)

(automatic menu for drives)

If an access code has been activated at the touch display but is no longer available for input, the unit can be unlocked via the ETS.

5. Adjustment

5.1.   Start menu

5.1.1.   Set the Start Menu (ETS)

There are six free display positions in the Start Menu that can be occupied with functions The six functions are arranged as follows:

Function 1	Function 4
Function 2	Function 5
Function 3	Function 6

By default the TH sensor's temperature and humidity value are displayed as functions 1 and 4 (external proportions are included).

Transfer the name of the object function (Note: The names of the internal functions are always transferred. If you activate this by clicking **Yes**, the names of the object functions are also transferred to the display)	<u>No</u> • Yes
Functions 1, 2, 3, 4, 5, 6 linked with	• <u>Internal function</u> • Object function
Function	• No function • All activated internal functions • All activated object functions
Name	Text input field

5.1.1.1.   List of internal functions

No function
TH sensor temperature
TH sensor humidity
Light 1 (2, 3, 4, 5, 6, 7, 8)
Blind 1(2, 3, 4, 5, 6)
Awning 1 (2, 3, 4)
Shutter 1 (2, 3, 4
Window 1 (2)
Ventilation unit

5.1.1.2.   List of object functions

For object function „Display ..." the received value/text is shown on the display only. For object function „Input ..." a value/text can be edited on the display and sent with **OK**.

No function
Display 1 / 0
Display Up (for value 0) / Down (for value 1)
Display Up (for value 1) / Down (for value 0)

Display On (for value 1) / Off (for value 0)
Display On (for value 0) / Off (for value 1)
Display Up (for value 1) / To (for value 0)
Display Up (for value 0) / To (for value 1)
Display 8-bit value [0...255]
Display 8-bit value [0%...100%]
Display 8-bit value [0...360°]
Display 16-bit counter with math. symbol
Display 16-bit counter without math. symbol
Display 16-bit floating point
Display 32-bit counter with math. symbol
Display 32-bit counter without math. symbol
Display 32-bit floating point
Display text
Input 1 / 0
Input 0
Input 1
Input (press = 1 / release = 0)
Input (press = 0 / release = 1)
Input up/down (press = 1 / release = 0)
Input up/down (press = 0 / release = 1)
Input + / -
Input Up (for value 0) / Down (for value 1)
Input Up (for value 1) / Down (for value 0)
Input On (for value 1) / Off (for value 0)
Input On (for value 0) / Off (for value 1)
Input Open (for value 1) / Close (for value 0)
Input Open (for value 0) / Close (for value 1)
Input Extended / Brief
Input 8-bit value [0...255]
Input 8-bit value [0%...100%]
Input 8-bit value [0...360°]
Input 16-bit counter with math. symbol
Input 16-bit counter without math. symbol
Input 16-bit floating point
Input 32-bit counter with math. symbol
Input 32-bit counter without math. symbol
Input 32-bit floating point
Input text

Object function „Input Extended/Brief":

Function	Input Extended / Brief
Time 1 in 10 m/s	0...200; <u>40</u>
Time 5.08 cm 10 m/s	0...24 000; <u>200</u>

For the object function „Input Brief/Extended", you can trigger the following commands by variing the duration of the button press:

Up/down buttons

Button was pressed and
released before expiry of Time 1
==> Stop/Step
Maintained for longer than Time 1
==> Up/Down
Triggered between Times 1 and 1 + 2
==> Stop
Triggered after Times 1 + 2
==> No further stop

Object function „Display/Input 16/32-bit floating point":

Function	• Display 16-bit floating point • Display 32-bit floating point • Input 16-bit floating point • Input 32-bit floating point
Text for unit	Text input (max. 2 chars.)
Conversion factor a	-/+ 0,001 • ... • -/+ 10000
Conversion factor a	1 ... 65535

For object function "Display 16/32-bit floating point" and „Input 16/32-bit floating point", you can input the unit as text. Additionally, you can convert the value by using the factors *a* (+/-, floating point) and *b* (number 1...65535).
Thus, the value of 10 m/s received from the bus could be displayed as $10 \times (+0.1) \times 36 = 36$ km/h

Object function „Input 8/16/32-bit...":

Function	• Input 8-bit value [0...255] • Input 8-bit value [0%...100%] • Input 8-bit value [0...360°] • Input 16-bit counter with math. symbol • Input 16-bit counter without math. symbol • Input 16-bit floating point • Input 32-bit counter with math. symbol • Input 32-bit counter without math. symbol • Input 32-bit floating point
Name [Start menu only]	Text input
Text for unit	Text input (max. 2 chars.)
Value can be set via display	Yes • No
Start value	0

Minimum value	Depending on the function
Maximum value	Depending on the function

For object function "Input 8/16/32-bit" you can input the unit as text. In addition, you can select whether the value can be changed via the display. And you can specify a start, minimum, and maximum value.

5.2. Basic settings

Basic settings concerning display, time/location and global settings for the automatic functions are done in the ETS ("General Settings") or at the display in the setting menus.

Language:	ETS and screen
Date and time:	ETS (without manual time setting) and screen
Location:	ETS and screen
Screen:	ETS and screen
Texts:	ETS (menu "Texts" in the general settings) and screen
Automatic:	ETS and screen
TH Sensor:	ETS and screen
Remo 8:	**Only screen**
Alarm:	ETS and screen
Phys. Addresse:	**Only screen**
Service: Access Codes:	ETS and screen

Service: Reset, Factory Defaults etc.: Only screen

5.2.1. Basic setting in the ETS

General, monitoring wind/rain:

Maximum message rate	1 • 2 • 5 • 10 • 20 messages per second
Transmission delays after power-up and programming	5 s ... 2 h
Using wind and rain object monitoring	No • Yes
Monitoring period *(only if monitoring is used)*	5 s ... 2 h

The monitoring of the wind and rain object is active and set to "every 5 seconds" by default

> ⚠️ **You must ensure that the unit can receive weather data at the selected monitoring interval (e.g. every 5 seconds) when wind and rain object monitoring is activated.**

Transfer/set general parameters:

Transfer the following parameters: **(Attention: If you transfer these parameters, the settings which have been made manually on the touch display will be overwritten.)**	
Language	No • Yes
Date and time	No • Yes
Location	No • Yes
Display	No • Yes
Automatically transfer all	No • Yes
TH sensor	No • Yes
Alarm	No • Yes
Access code	No • Yes

When a parameter is set to "Yes", it appears in the menu on the left. Settings can be made there.

⚠ **If you transfer parameters, the settings which have been made manually on the screen will be overwritten.**

The setting options of the parameters are discribed in the chapters *Language, Date and time* ...

Surface operation, alarm acknowledgement:

Surface operation object sends	• 0 • 1 • Switching command (0 or 1) • 8-bit value [0...255] • 8-bit value [0%...100%]
Value *(only when surface actuation object "8-bit value" is sent)*	0...255 (object sends 8-bit value [0...255]) 0...100 (object sends 8-bit value [0%...100%])

Surface operation can be activated in the "Display" menu in the ETS (or at the screen).

📖 Setting the display at the screen, page 65

Object value for alarm acknowledgment	0 • 1

The alarm action is set in the "Alarm" menu in the ETS (or at the screen).

📖 Alarm, page 76

5.2.2.   Settings menu at the screen

🔧 From the Start Menu, you get to the Settings menu by pressing "Settings"
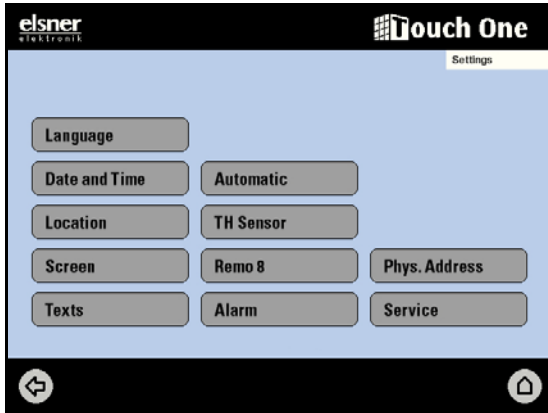
The **Settings** menu area allows you to adjust the following general parameters:

- Language*
- Date and time
- Location*
- Screen* (brightness, switch-off, colour, surface operation, touch calibration)
- Texts (names for functions in the Start, Universal and Scene menu)
- Automatic (general settings for all drives/light applications)
- TH sensor* (adjustment, external proportion)
- Remo 8 (programm remote control)
- Alarm* (reaction)
- Phys. Address*
- Service* (access codes, restart, factory settings)

*code-protected when access code 2 is activated

If an access code has been activated but is no longer available for input, the unit can only be unlocked via the ETS.

☐ Settings > Service > Access Code
📖 Setting access codes using the ETS, page 77
📖 Setting access codes at the screen, page 78

The settongs options for the parameters are described in the chapters *Language*, *Date and time* ....

5.2.3.   Language

The display language can be set to German, English, French or Italian.

5.2.3.1.   Setting the language using the ETS

Activate the "Transfer parameter" function for the language in the ETS's "General Settings" menu. Then select the language in the appearing "Language" menu.

Language	• German
	• English
	• French
	• Italian

5.2.3.2. Setting the language at the screen

Press the buttons:

Choose the button for the language you want from the menu. Confirm your setting using **OK**.

The menu is code-protected when access code 2 is activated.

5.2.4. Date and time

5.2.4.1. Setting the date and time in the ETS

Activate the "Transfer parameters" function for date and time under "General settings" in the ETS menu. Then set the display of seconds, the time zone and the summer time rule in the appearing "Date and time" menu.

Display seconds	No • Yes

Time zone (relative to GMT):	
Hours	-12...13; 1
Minutes	0...59;

Summer time rule	• Europe
	• USA
	• none
	• user-defined

If "Europe" is selected for the Summertime Rule, the following pre-defined values are applicable:

Start of Summer Time:	
On the first	Sunday
After (day)	25
(Month)	3
(Hour)	2
(Minute)	0
End of Summer Time:	
On the first	Sunday
After (day)	25

(Month)	10
(Hour)	2
(Minute)	0
Time shift:	
Hours	1
Minutes	0

If "USA" is selected for the Summertime Rule, the following pre-defined values are applicable:

Start of Summer Time:	
On the first	Sunday
After (day)	8
(Month)	3
(Hour)	2
(Minute)	0
End of Summer Time:	
On the first	Sunday
After (day)	1
(Month)	11
(Hour)	2
(Minute)	0
Time shift:	
Hours	1
Minutes	0

If "User-defined" is selected for the Summertime Rule, the following values can be freely set:

Start of Summer Time:	
On the first	• Monday ... • <u>Sunday</u>
After (day)	1..31; <u>25</u>
(Month)	1...12; <u>3</u>
(Hour)	0...23; <u>2</u>
(Minute)	<u>0</u>...59
End of Summer Time:	
On the first	• Monday ... • <u>Sunday</u>
After (day)	1..31; <u>25</u>
(Month)	1...12; <u>10</u>
(Hour)	0...23; <u>2</u>
(Minute)	<u>0</u>...59
Time shift:	

| Hours | -12..12;<u>1</u> |
| Minutes | <u>0</u>...59 |

5.2.4.2. Enter the date and time at the screen

As long as no error messages appear, the date and time is displayed in the Start menu and in the weather data display. The date and time are received from the bus, but can also be entered manually on a short-term basis. Even with UTC reception via bus (coordinated worldwide, e.g. via GPS) the time zone and Summertime Rule must still be defined. Press the button:

🔧 ▶ | **Date and time** |

To set the time, consecutively press the hour, minute, second, day, month and year fields to set their current values manually using the arrow buttons.

In order to include the seconds in the display, press the **Yes** button for "Display seconds?".
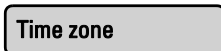
| **Time zone** |

In order to calculate local date and time correctly from the UTC signal received via the bus (e. g. received via GPS), the time zone (in relation to GMT) must be specified. Additionally, the automatic switch-over to summer time can be set.

Consecutively press, the hour and minute fields in order to set the time zone (relative to GMT) using the arrow buttons.

Press the button next to **Summertime Rule** to set the automatic switch-over to summer time. Depending on your location, select **Europe, USA or None** (if no summertime switch-over shall take place), or **User-defined** (if you want to be able to set the time setting individually).

Confirm your setting using the **OK** button.

The Summer Time time settings for Europe and the USA are shown in the lower area of the touch display.

If a "User-defined" Summer Time rule is selected:

When you want to set the time individually (User-defined), a new window will open. You can use the arrow buttons to set the time zone, start/end of summer time as well as the Daylight Saving Time:
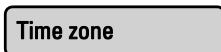
| **Time zone** |

Press **Time zone** and then, consecutively, the hour and minute fields in order to set the time zone (relative to GMT) using the arrow buttons.

Start of summer time	End of summer time

Press the button beside **Start of summer time**, and a new window will open.

When pre-setting the "**Fixed date**", press the day, month, hour and minute fields consecutively in order to set the start date of summer time using the arrow buttons. If you want to set a specific weekday, press the **Fixed date** button in order to change this to a specific weekday.

Confirm your setting using the **OK** button.

Time shift summer/winter time

Press the hour and minute fields consecutively in order to set the daylight savings time using the arrow buttons.

Confirm your setting using the **OK** button.

5.2.5. Location

The information on the location is necessary in order to calculate the position of the sun (shading automation). If this location data is not correct, the shading elements will not be correctly controlled. The location is entered using the ETS or at the screen.

5.2.5.1. Setting the location using the ETS

Activate the "Transfer parameters" function for location under "General settings" in the ETS menu. Then set the location in the appearing "Location" menu.

Location input using	• Town • Coordinates

Location input using	**Town**
Country	Germany • Austria • Switzerland • Other country
Town	40 towns in Germany; Stuttgart 23 towns in France 10 towns in Italy 6 towns in Belgium 4 towns in Austria 4 towns in Switzerland 4 towns in Great Britain 7 towns in other countries

Location input using	**Coordinates**
E. longitude in degrees	-180 ... +180; 9
E. longitude in minutes	-59 ... + 59; 10

N. latitude in degrees	-90 ... +90; <u>48</u>
N. latitude in minutes	-59 ... + 59; <u>46</u>

5.2.5.2. Setting the location at the screen

Press the buttons:

 ▸ **Location**

The menu is code-protected if access code 2 is activated.

You can input the location using a **Town** or using **Coordinates** (longitude and latitude).

Town

Select **Town** to select a state and town from a list.

Coordinates

Select **Coordinates** to input the location using numbers. Set the location manually by consecutively selecting the input fields for Easterly longitude and Northerly latitude, and then input the ° values using the arrow buttons.

Confirm your setting using the **OK** button.

5.2.6.   Display

The brightness, switching off and background colours for the display screen can be individually set. Additionally, the surface operations (using the upper half of screen as a button) can be activated and the standard page can be set.

5.2.6.1. Setting the display using the ETS

Activate the "Transfer parameters" function for display under "General settings" in the ETS. Then set the display in the appearing "Diyplay" menu.

Brightness	• <u>Has a specific value</u> • is adjusted to ambient light • controlled by means of an object
Brightness in % *(only when brightness is defined using a set value)*	1...<u>100</u>

Automatic shutdown *(does not appear when brightness is controlled by an object)*	• <u>From</u> • To
When the upper half of the display is touched, the surface operation object sends	• <u>never</u> • always

The value sent by the object surface operation is determined by the parameter "surface operation object sends" in the General settimgs in the ETS.

📖 Basic setting in the ETS, page 57

Background colour for operator menus	• <u>Blue</u> • Grey • Red • Green • Yellow
If screen is not touched for 5 minutes, display switches	• not • to weather data • <u>to start menu</u> • to universal menu 1...8 • to value of object "display page selection"

Assignment of the object value when switching according to value of object "display page selection":

0 = no switching
1...8 = Universal menu pages 1...8
10 = Weather data display
11 = Start screen

5.2.6.2. Setting the display at the screen

Press the buttons:

🔧 ▶ | Display |

The menu is code-protected if access code 2 is activated.
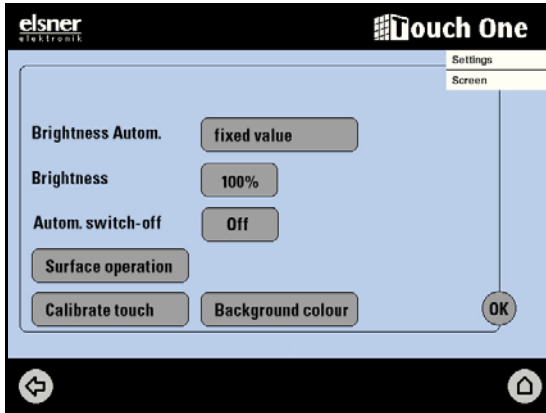
Set brightness automation

Press the button beside Auto. brightness and select from **Fixed value**, **Ambient brightness** or **via Object** by repeated pressing.

If you want to define a set value for the brightness of the display, select **Fixed value** and input the desired % value using the arrow buttons.

If you select **Ambient brightness** or **via Object**, the brightness which is either automatically determined or set by the object is increased by 30% when the touch display is touched. This value is maintained for one minute after the last touch contact.

The automatic brightness function uses **ambient brightness** to adjust the display screen to the light conditions in the room (the darker the room, the darker the display screen lighting).

If the brightness of the display is to be controlled via an object, select **via Object.** In this case, the switch-over automation is deactivated.

Setting the automatic switch-off

The **automatic swtich-off** can be used if if the display screen brightness is controlled by a fixed value or by the ambient brightness. If the brightness of the display is controlled via an object, the asutomation is deactivated**.** Select the setting by pressing the button next to "Autom. switch-off".

If the automatic switch-off is set to **On**, the display lighting will be turned off if no command is given for 1 minute. If the screen is touched, it re-activates.

If the automatic switch-off is set to **When ambience dim**, then the display lighting will switch off if the room is dark. If the room is lit, the display lighting will automatically re-activate. If the screen is touched, it also re-activates. If no command is given for around 1 minute, the automatic switch-off darkens the screen again.

Confirm your setting using the **OK** button.

Surface operation

Surface operation enables the rapid call-up of a user-defined function, such as switching on a light at night or calling up a scene menu, by touching the upper half of the display screen (large-scale operability).

You can set whether the surface operation object is **always** or **never** sent when the upper half of the display screen is touched. Press the **Surface operation** button and select the desired option using the arrow buttons.

Confirm your setting using the **OK** button.

The value sent by the object surface operation is determined by the parameter "surface operation object sends" in the General settimgs in the ETS.

📖 Basic setting in the ETS, page 57

Standard page

Please select what will happen if the screen is not touched for 5 minutes. Then the display switches
- to object value (0 = no switching, 1...8 = Universal menu pages 1...8,
  10 = Weather data display, 11 = Start screen)
- to start menu
- to universal menu 1...8
- to weather data
- not

Confirm your setting using the **OK** button.

Calibrate touch

Follow the instructions on the display and press the centre of the cross. The touch surface is then adjusted.

Confirm your setting using the **OK** button.

Background colour

To choose a different background colour for the operation menu, press the button and select **Blue**, **Grey**, **Red**, **Green** or **Yellow**.

Confirm your setting using the **OK** button.

5.2.7. Texts

Texts and function names in the Start menu, on the pages of the Universal menu and in the Scene menu can be changed. Some names for functions can already be set during the setting of the function in the ETS.

5.2.7.1. Changing text using the ETS

You can set texts for Universal and Scene menu in the ETS's menu "Texts".

Change text for:	
Universal menu pages	<u>No</u> • Yes
Universal menu functions	<u>No</u> • Yes
Scene menu	<u>No</u> • Yes

Change text for Universal menu pages:

Page 1 / 2 / 3 / 4 / 5 / 6 / 7 / 8	Text field (default setting: Pages 1 - 8)

Change text for Universal menu functions:

Page 1 / 2 ... / 8 Function 1 / 2 / ... 8	Text field (default setting: Pages 1 - 8 Function 1 - 8)

Change text for scene menu:

Scene 1 / 2 / 3 / 4 / 5 / 6 / 7 / 8 ... / 16	Text field (default setting: Scene 1 - 16)

5.2.7.2. Changing text at the screen

Press the buttons:
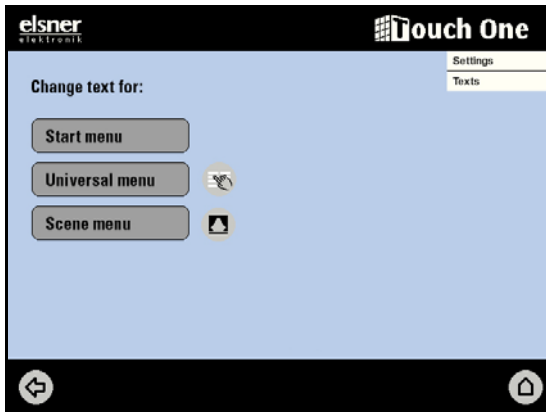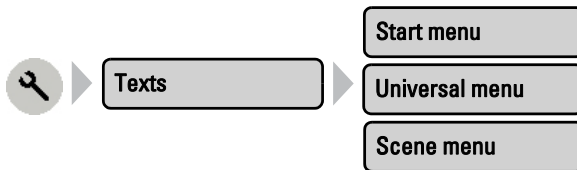
The **Start menu** allows you to change the names of all set functions, the **Universal menu** to change the texts of the pages and allocated functions, and the **Scene menu** to rename all set scenes.

Press the appropriate button and input the desired name into the button field which appears.

📖 Input keyboard for names and codes, page 51

Confirm your text input using the **OK** button.

5.2.8.   Automatic settings

The general automatic menu in the ETS allows you to adjust settings that apply to all drives/lightapplications:

- Twilight value for shading and light
- Movement delays for shading
- Night-time re-cooling for windows
- Frost alarm for shading and windows
- Automatic reset

5.2.8.1.   Change general automatic settings using the ETS

Activate the "Transfer parameters" function for the automatic functions under "General settings" in the ETS. Then set the automatic functions in the appearing menus.

Twilight:

Night is determined at a light level below (in lx)	1...200; <u>10</u>

Note that on moonlit nights, brightness values short below 10 lux can be achieved. If the twilight value is set below 10 lux, shades which are set to "close at night" will remain open because of the moonlight or retract during the night.

Movement delays:

Extension delay for blinds in minutes	<u>1</u>...240
Retraction delay for blinds in minutes	1...240; <u>12</u>

Night-time re-cooling:

Use night-time re-cooling	<u>No</u> • Yes
start when an external temperature of (in 0.1 °C)	<u>100</u>...350
for an extended time which exceeds the following hours	1...72; <u>48</u>

Frost alarm:

use	<u>No</u> • Yes

| use	**Yes**
Start frost alarm when	
an external temperature of (in 0.1 °C) is undercut	-50...40; <u>20</u>
during or until (in hours) after the end of precipitation	1...10; <u>5</u>
End frost alarm when	
an external temperature of (in 0.1 °C)	30...100; <u>50</u>
is exceeded for more than (in hours)	1...10; <u>5</u>

Automatic Reset:

The drives can be reset daily at	
Time (Hours)	0...23; <u>3</u>
Time (minutes)	<u>0</u>...59
or	
after (in minutes)	5...480; <u>60</u>
to automatic after manual operation.	

5.2.8.2. Change automatic settings at the screen

Press the buttons:
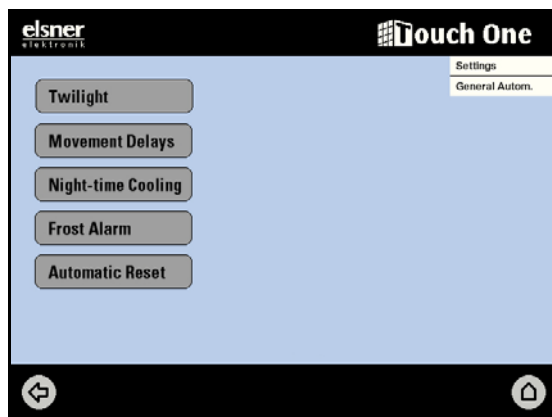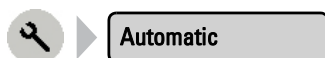
In order to be able to set the automation functions, at least one relevant drive or a light must be configured.

Twilight

Use the arrow buttons to set the value from which the control system should identify twilight and night. Pre-setting: 10 lx.

Night identification has a delay of one minute.

Confirm your setting using the **OK** button.

Movement delays

You can adjust the delay time for shading actuation. The movement delay prevents the solar protection system from continuously extending and retracting in the event of rapid changes in lighting conditions.

The brightness must remain uninterrupted above the brightness value set for solar protection for a set delay time (e. g. 1 minute) before the blind will extend. The brightness must remain continuously below the value during the set retraction delay time (e. g. 12 minutes) before the blind will retract again. This allows passing clouds to be "blended out", while the shading can still react rapidly to the sun.

Use the arrow buttons to set the values for the extension and retraction delays. Presetting: Extension 1 minute, retraction 12 minutes.

Confirm your setting using the **OK** button.

Night-time cooling

The night-time re-cooling function using the windows and ventilation equipment is activated once a set external temperature is exceeded for an defined period of time. The window(s) and ventilator(s) which are used for the night-time re-cooling, as well as the time period over which these are activated, can be set in the automatic operation functions for the individual windows and ventilators.

You can use the arrow buttons to activate night-time re-cooling and set the external temperature which must be exceeded for the cooling to start (e.g. higher than 10 °C). You can also set the time period within which the external temperature must remain above the minimum temperature (e.g. longer than 48 hours).

Confirm your setting using the **OK** button.

Frost alarm

The frost alarm for shading elements and windows will be active when during or after precipitation the outdoor temperature falls below a defined level.

You adjust which blinds will be retracted and which windows will be closed in the automatic functions for the individual blinds and windows.

The frost alarm is triggered in the following situations:
- The external temperature is below the set frost alarm temperature and it is beginning to rain/snow.
- The external temperature drops below the set frost alarm temperature while it is raining/snowing.
- It has rained/snowed. The external temperature falls below the set frost alarm temperature within the set standby period after the end of the precipitation.

The frost alarm ends in the following situations:
- The external temperature remains above the set dew point temperature for the period of time.

Triggering the frost alarm: First, determine when the frost alarm is triggered. Use the arrow buttons to adjust the outdoor temperature that must be undercut to trigger the frost alarm (e. g. 2.0 °C).

Then, set the number of hours during or after a precipitation which the external temperature must undercut this in order to trigger a frost alarm (e. g. 5 hours).

Ending a frost alarm: Use the arrow buttons to determine the outdoor temperature that must be exceeded to end the frost alarm (e. g. 5.0 °C). Then set how many hours the external temperature must be exceeded in order to end the frost alarm (e. g. 5 hrs).

⚠ **A drive or curtain can be damaged if an external shade which has frozen stiff is retracted!**

Automatic reset

Following a manual intervention, the affected drive or light remains in manual mode, and automatic operations are switched off. Once the general Automatic Function time point is reached, drives and light applications are once again set to Automatic. Alternatively, the automatic function can be set to reactivate following a manual intervention. The period for this can be set.

The Automatic Reset prevents drives from being manually operated and then stay in an unfavourable position (leaving windows accidentally open, or blinds retracted despite the sunlight).

The general Automatic Reset and reset following a manual intervention can be separately activated and de-activated in the Automatic functions menu for each drive group and each unit.

General Automatic Reset:

Set the time point by selecting the hour and accordingly the minute fields and setting the time using the arrow buttons. Default setting: 3:00 AM.

Automatic reset following a manual intervention:

Use the arrow keys to set the time interval after which Automatic functions should be once again activated.Default setting: 60 minutes.

Confirm your setting with the **OK** button.

5.2.9. TH sensor

If the measured values of the integrated sensors are affected by external influences, they can be corrected manually. An external compound for temperature and humidity can be set, too.

5.2.9.1. Setting the TH sensor using the ETS

Activate the "Transfer parameters" function for the TH sensor under "General settings" in the ETS. Then set the indoor sensor in the appearing menu.

Making adjustments

Temperature and humidity deviations due to various malfunctions can be corrected in the ETS:

Temperature offset (in 0.1 °C)	-70...70; 0
Humidity offset (in % absolute)	-20...20; 0

External component

The external temperature must reach percent	0...100
The external humidity must reach percent	0...100
of the TH sensor measurement value.	

The resulting total measurement value for temperature and humidity is then applicable to the display and all automatic settings.

TH sensor transmission behaviour

You can set the transmission behaviour of temperature and humidity in the ETS menu "TH sensor transmission behaviour":

Internal and total temperature	• do not transmit • transmit periodically • transmit on change • transmit on change and periodically
From change (in °C)	• 0,1 • 0,2 • 0,5 • 1,0 • 2,0 • 5,0
Cycle	5 s ... 2 h
Internal and total humidity	• do not transmit • transmit periodically • transmit on change • transmit on change and periodically
From change (in %)	• 0,1 • 0,2 • 0,5 • 1,0 • 2,0 • 5,0
Cycle	5 s ... 2 h
Use minimum / maximum values	No • Yes

5.2.9.2. Setting the TH sensor at the screen

Press the buttons:

The menu is code-protected when access code 2 is activated.
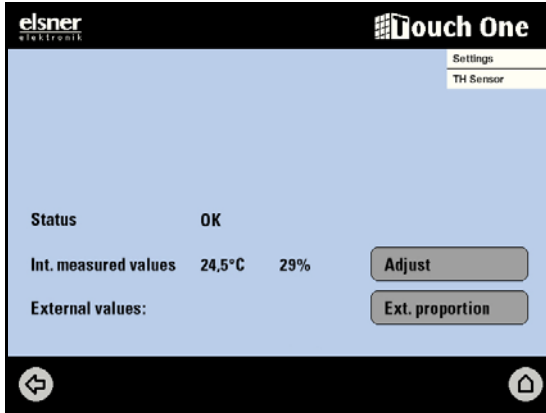
Adjust

Press **Adjust** and use the appropriate arrow buttons to correct the measured temperature and measured humidity upward or downward. The measurement value may need to be corrected when the temperature or air humidity at the sensor does not correspond to the room average reading (for example when the **Room Controller KNX Touch One** is positioned in a location which is warmer than average).

Confirm your setting using the **OK** button.

The intrinsic heat of the unit is already taken into consideration during the temperature measurement.

External component

Press **External component** and use the respective arrow buttons to set the percentage component of the external temperature and humidity in the TH sensor measurement value.
Pre-setting: 0 %

Confirm your setting using the **OK** button.

5.2.10. Remo 8 Remote Control

With the optional radio remote control Remo 8, drives (or dirve grous) and lights (or light groups) configured at the **Room Controller KNX Touch One** can be operated.

The hand-held transmitter must be taught to the **KNX Touch One** via a screen menu first. Press the buttons:

Remo 8

Now you can teach in the radio connection and then assign drives and light applications of **KNX Touch One** to the channels of the hand-held transmitter. Radio connections can also be deleted here, if neccessary.

Learning

Press **Learn** to bring the **Room Controller KNX Touch One** into learning readiness mode.
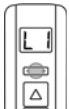
Press the centre of the +/- button **on the hand-held transmitter** until an "L" for Learning and a number (channel) are displayed. It does not matter wihich channel is selected.

Press the Up arrow button to establish the wireless connection with the **KNX Touch One**.

As soon as the wireless connection has been established, the **KNX Touch One** reports "Device successfully taught" and beeps. Press ← to return to the menu.

Assing channels

At the screen of **KNX Touch One**, select the hand transmitter channel you want to program (Channels 1 to 8).

Select the drives or light applications which you want to operate using this channel (multiple choices are possible). The selected drives/öights are marked in white.

Confirm your selection using **OK**.

> ⚠ **Only drives/units with the same function should be controlled together using a single hand-held transmitter channel (for example, blinds or windows alone).**

```
 Delete
```

Press **Delete** to delete the wireless connection between the **Room Controller KNX Touch One** and the Remo 8 remote control. A security check prevents accidental deletion. Press **Yes** to confirm that you really want to delete the wireless connection to the Remo 8. Press ◀ to leave the "Delete" menu.

5.2.11. Alarm

An alarm is triggered when a 1 is received by object "Alarm 1 / 2 / 3 / 4 / 5 input". You can set how the alarm is displayed using the ETS or the screen.

An alarm is stopped and the alarm message in the display disappears when a 0 is received by the object "Alarm input 1/ 2 / 3 / 4 / 5".

The alarm can be acknowledged by touching the alarm message in the display. The message then disappears. What will be sent when acknowledging an alam, is set by the parameter "object value for alarm acknowledgement" in the in the ETS "General settings" menu.

   Basic setting in the ETS, page 57

5.2.11.1. Setting an alarm using the ETS

Activate the "Transfer parameters" function for the alarm under "General settings" in the ETS. Then set the alarm action in the appearing menu.

Alarm action for input 1 / 2 / 3 / 4 / 5	
Flashing backlighting	<u>No</u> • Yes
Alarm sound	<u>No</u> • Yes
Alarm text	Text field (Pre-setting: Alarm 1 - 5

5.2.11.2. Setting an alarm at the screen

Press the buttons:

```
 Alarm
```

The menu is code-protected when access code 2 is activated.

```
 Alarm 1 - 5
```

You can activate/deactivate the **blinking background lighting** and **alarm sound** by pressing in the **Alarm 1 - 5** menu as well as set and change the **Alarm text** using an input keyboard with text input field. Make sure that the text you enter is as short and precise as possible. The display alarm text is limited to 15 characters.

Confirm your settings by pressing the **OK** button.

5.2.12. Addressing the unit

The physical address is assigned using the display screen menu **Settings > Phys. Address**. Press the buttons:

 Phys. Adrdess

The **Physical Address** menu displays the current address and the status of the programming LED (the address is 15.15.250 on delivery).

 Press the Programming button, in order to address the device to the bus.

5.2.13. Service / Access codes

Access codes, that protect certain menu areas from unauthorised changes, can be set in the ETS or at the screen in the menu **Settings > Service**. the Service menu can also be used for re-starting the unit and for re-setting to facory defaults.

Access Codes

The code 1 for **General Settings** protects the menus

Language	Alarm
Location	Phys. Addresse
Display	Service
TH Sensor	

The code 2 for **Automatic Settings** protects the menus
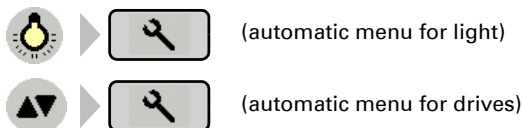
 (automatic menu for light)

 (automatic menu for drives)

If an access code has been activated at the touch display but is no longer available for input, the unit can be unlocked via the ETS.

5.2.13.1. Setting access codes using the ETS

Activate the "Transfer parameters" function for access codes under "General settings" in the ETS. Then set the codes in the appearing menu.

Access code (for General Settings and for Automatic Settings)

Activate access code	No • Yes

Access code *(only when the access code is activated)*	Input field for access code
If no value is entered, the access code is not activated.	

5.2.13.2. Setting access codes at the screen

Press the buttons:

🔧 ▸ [Service] ▸ [Access Code 1/2]

[Input code]
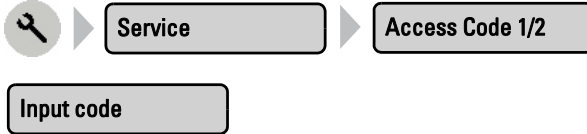
Press the button to set a new code. Enter the desired access code via the keypad that appears. The code is displayed in plain language.
📖 Input keyboard for names and codes, page 51

Confirm your setting using the **OK** button.

The unit will ask for this code before displaying the menus.

[Change code]

This button is deactivated (greyed out) when no there is no access code.
Press the button to change an existing code. Then enter the desired access code via the keypad that appears. The code is displayed in plain language.
📖 Input keyboard for names and codes, page 51

Confirm your input using the **OK** button.

Then enter the new access code via the keypad that appears.

Confirm your setting using the **OK** button.

The control system will ask for this new code before displaying the menus.

[Delete code]

This button is deactivated (greyed out) when no there is no access code.
Press this button to delete an existing code, such as when you no longer wish to install a lock. Enter the current access code via the keypad that appears.

Confirm this using the **OK** button.

The control system will report "Access code deleted".

Press ← to return to the menu.

If an access code has been activated at the touch display but is no longer available for input, the unit can be unlocked via the ETS

5.2.13.3. Reset

Reset starts the control system software again. The automatic settings are retained in this event. After re-starting, all drives and units will be set to Automatic mode. The Reset function settings can be accessed by pressing the buttons:

🔧 ▶ | Service | ▶ | Reset |

| Reset |
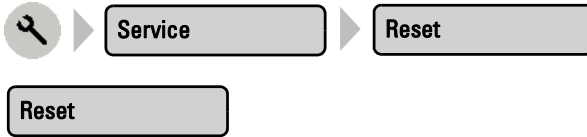
Press **Reset** and the control system will restart.

5.2.13.4. Factory defaults

Resetting to factory settings will delete all basic and automatic settings. The control system will be returned to its delivery condition. The factory settings can be accessed by pressing the buttons:

🔧 ▶ | Service | ▶ | Factory Settings |

| Factory Settings |
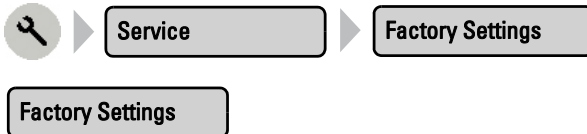
Select **Factory settings**. Enter the code "81" into the button field which appears and confirm this by pressing the **OK** button. The factory settings will be loaded and the control system restarted.

5.2.13.5. Internal area

The internal area allows basic unit settings to be changed. You are not authorised to make such changes.

Test mod.

A function which is only intended for internal company test purposes.

5.3.   Light applications

To enable adjustment and operation of light applications at the **Room Controller KNX Touch One**, the individual lamps must be configured in the ETS first.

5.3.1.   Set light using the ETS

Light applications are setup via the menu items "Light 1...8". Light can be set for simple switching or for dimming.

Use light 1 / 2 / 3 / 4 / 5 / 6 / 7 / 8	• <u>No</u> • <u>Yes as switch</u> • Yes as dimmer

Use light as switch or dimmer:

Use light 1 / 2 / 3 / 4 / 5 / 6 / 7 / 8	**Yes as switch or Yes as dimmer**
Switch to manual if feedback value deviates from automatic nominal value [Recognition of manual operation]	<u>No</u> • Yes
Automatic/Manual object value at	• <u>Automatic = 1 | Manual = 0</u> • Automatic = 0 | Manual = 1
Automatic/Manual object value after reset	<u>Automatic</u> • Manual
Transfer the following parameters	No • <u>Yes</u>

⚠ **If you transfer these parameters, the settings which have been made manually on the touch display will be overwritten.**

Name	Light 1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Use automatic functions	<u>No</u> • Yes

If the light automation is used:

Light 1...8 switches on during:	
Period 1 - 16	<u>No</u> • Yes
AND at night (only when a min. of 1 period is selected)	<u>No</u> • Yes

If "AND at night" is selected, the light is only switched on during the selected periods at twilight.

Brightness value when ON (in %) *(only for dimming)*	0...<u>100</u>
Brightness value when OFF (in %) *(only for dimming)*	<u>0</u>...100

Perform Automatic Reset	
at set time	<u>No</u> • Yes
After the input waiting period following manual operation	<u>No</u> • Yes

5.3.2. Operate and adjust light at the screen
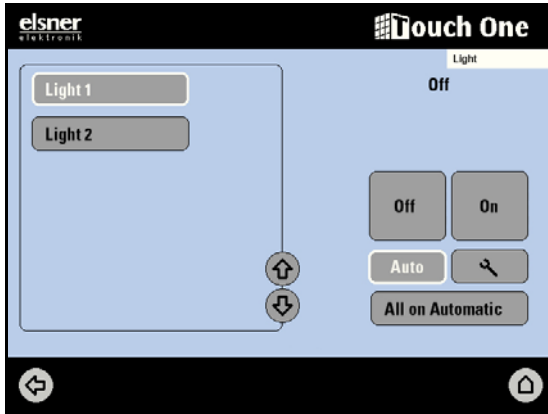
You can access the light application operations via the light menu:

 Light

You can operate the connected light applications directly here: Use the buttons to se-lect the names to the left of the lighting which you want to operate.

    Use the arrow buttons to scroll through the list.

The selected light is marked in white. The right-hand side contains information on the status (e. g. dimming brightness, error messages) and different operating possibilities (up/down arrow buttons, Automatic button, Settings button).

The light operation varies by the application type that has been set using the ETS.

Light as switch (On/Off buttons):
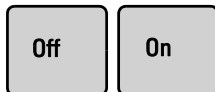
Switch the light using the **On** or **Off** buttons. The automatic functions for the respec-tive lighting are deactived by the manual operation (if set so, only to a fixed automatic reset).

Light as dimmer (Up/Down buttons):
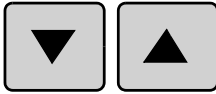
Dim the light using the **Up** and **Down** buttons. The automatic functions for the respective lighting are deactived by the manual operation (if set so, only to a fixed automatic reset).

Briefly press and release ==> ON/OF
Extended press and hold ==> Dimmer brighter/darker
Release   ==> Stop

Activate and adjust automatic functions:

Auto

You can tell whether a light is in automatic mode or must be manually operated by the white marking of the "Auto" button to the right, and by the "Auto" text beside the button name in the list in the left-hand area.

After any manual operation, the light remains in manual mode. The automatic functions are then switched off.

An automatic reset will switch the light back to automatic mode. The automatic reset can be separately activated in the automatic menu for each light.

Use the arrow buttons to set the exact time for the daily automatic reset. Pre-setting: 3.00 am. Use the arrow buttons to set the time when the lights are reset to automatic after manual operation. Pre-setting: 60 min

☐ Settings > Automatic > Automatic Reset
📖 Automatic settings, page 69

All to automatic

Press this button to set all light applications to automatic mode.

Press the button with the **Tool icon** to access the following settings:
• Change the light name
• Time switches for up to 16 different time periods
• Twilight switching/switching on at night (activatable using time switches)
• Dimmer value ON/OFF
• Switch automatic reset on/off

Name

Press the button to change this name. Enter the desired name via the keypad that appears.
📖 Input keyboard for names and codes, page 51

Confirm your input using the **OK** button.

Time switching

Press the button to set the time switch. Press **Select** to select the time during which the lights will be turned on.

As soon as you activate the twilight setting (see below), the light will only be turned on at twilight in the selected time periods.

Activate one or more times on the list.

Confirm your setting using the **OK** button.

To change any of the time periods set in the timer, press **Timer**.
📖 Setting the timer at the screen, page 127

Twilight

The twilight button will only be activated when at least one time-switching period has been set. Otherwise, the button is greyed out.

Press the button to switch the twilight / night switch on or off. Pressing the **Yes** button activates twilight switching, and the light is then switched on at night (e.g. below 200 lx). Pre-setting: Yes (twilight switching activated).

Confirm your setting using the **OK** button.

The limit value which identifies twilight/night can be adjusted.
☐ Settings > Automatic > Twilight
📖 Change automatic settings at the screen, page 70

The twilight/night switch has a delay of one minute.

Dimmer value on   **Dimmer value off**   When a light is used as a dimmer

Press the **Dimmer value on** button in order to set the brightness of the light when it is switched on. Pre-setting: 100%. Adjust the value using the arrow buttons.

Confirm your setting using the **OK** button.

Press the **Dimmer value off** button in order to set the brightness of the light when it is switched off. Pre-setting: 0%. Adjust the value using the arrow buttons.

Confirm your setting using the **OK** button.

Automatic Reset

Press the button to switch on or off the setting for automatic operation at a set point in time, or following a manual intervention.

The general Automatic Reset occurs daily at the same time.

Activate: To set the lights to Automatic at a set point in time, select **Yes**.
Deactivate: To switch off the Reset function for these lights, select **No** (this is the default setting).

Alternatively, the automatic function can be reactivated at a set time following a manual intervention.

Activate: To perform an Automatic Reset after a manual intervention, select **Yes**.
Deactivate: To switch off the Reset function for these lights, select **No** (this is the default setting).

Confirm your setting using the **OK** button.

You can set automatic reset times and/or durations.
▢   Settings > Automatic > Automatic Reset
▢   Change automatic settings at the screen, page 70

5.4.   Drives and ventilation units

To be able to set and operate the drives of blinds, awnings, shutters and windows and ventilation equipment on the **Room Controller KNX Touch One**, the individual drives must first be created and set up in the ETS.

Please adjust the settings for the drives to the individual conditions. This is the only way that alarm and locking functions such as rain or wind warnings will help to protect external awnings or prevent rain coming in through a window. Also note the general automatic settings and set the time/date and location.

▢   Automatic settings, page 69
▢   Date and time, page 60
▢   Location, page 63

5.4.1.   Setting drives using the ETS

5.4.1.1.   Safety notes for automatic functions

⚠ **WARNING!**
Risk of injury due to automatically moved components!
The automatic control may cause parts of the system to travel and pose a danger to humans.
•   No persons may remain in the travelling range of parts driven by an electric motor.

- Adhere to the relevant building regulations (see guideline for power-operated windows, doors and gates BGR 232 et al).
- Always disconnect the system from the mains power before maintenance or cleaning (e.g. switch off/remove fuse).

Precipitation warning for automatically controlled windows:

Some time can pass before falling rain is recognised by the sensors in the system, depending on the rain amount and outdoor temperature. Furthermore, a closure time must be calculated for electrically-actuated windows or sliding roofs. Humidity-sensitive items should therefore not be placed in an area where they might be damaged by incoming precipitation. Please also bear in mind that in the event of a power failure and rainfall, a window will not be automatically closed if no emergency generator is installed.

Running rails of shades icing up:

Note that the rails of shutters, awnings and blind which are externally mounted can ice up. Operating the drive under such conditions can damage the shades and drives.

5.4.1.2. Setting blinds using the ETS

The drives of blinds are setup in the menu item "Blind 1...6".

Use blind	No • Yes
Switch to manual if feedback value deviates from automatic nominal value [Recognition of manual operation]	No • Yes
Automatic/Manual object value at	• Automatic = 1 | Manual = 0 • Automatic = 0 | Manual = 1
Automatic/Manual object value after reset	Automatic • Manual
Transmission behaviour of the safety object	• on change • on change to 1 • on change to 0 • on change and periodically • on change to 1 and periodically • on change to 0 and periodically

Transfer the following parameters	No • Yes

⚠️ **If you transfer these parameters, the settings which have been made manually on the touch display will be overwritten.**

Name	Text field (Pre-Setting: Blind 1...6)

Manual direction on the touch menu	• Up arrow: Extended 0 |
	  Down arrow: Extended 1
	• Up arrow: Extended 1 |
	  Down arrow: Extended 0

Use timed opening for Period 1 / 2 / ... / 16	No • Yes
Shading	• <u>Never</u> • Always • Brightness-dependent

Settings for "Shading: Always" and "Shading: Brightness-dependent" see bottom.

Use night-time closure	No • <u>Yes</u>
Use timed closure for	
Period 1 - 16	<u>No</u> • Yes
Use frost protection	<u>No</u> • Yes
Use wind alarm	No • <u>Yes</u>
Retract at wind speeds from (in 0.1 m/s) *(only if wind alarm is used)*	5...195; <u>60</u>
for longer than (in sec) *(only if wind alarm is used)*	<u>1</u>...5
Retract upon rain	<u>No</u> • Yes
Perform Automatic Reset	
at set time	No • <u>Yes</u>
after the set waiting period following manual operation	<u>No</u> • Yes

📖 Change general automatic settings using the ETS, page 69

If shading is always used:

Shading	**Always**
Movement position (in %)	0...<u>100</u>
Slat position	Does not track the sun
Slat position (in %)	0...100; <u>75</u>

If shading is used dependent on brightness:

Shading	**Brightness-dependent**
From a brightness of (in klx)	1...99; <u>40</u>
Sun direction	• <u>All sides</u> • West • South-West • South • South-East • East • Angle range
greater than (in °) *(only when the selected angle range is settable)*	0...360; <u>90</u>
lower than (in °) *(only when the selected angle range is settable)*	0...360; <u>270</u>

Sun height	• <u>Any height</u> • Angle range
greater than (in °) *(only when the selected angle range is settable)*	<u>0</u>...90
lower than (in °) *(only when the selected angle range is settable)*	0...<u>90</u>
Movement position (in %)	0...<u>100</u>
Slat position	• <u>Does not track the sun</u> • Tracks the sun
Slat position (in %) *(only when the slat position does not follow the sun)*	0...100; <u>75</u>
Sun height: *(only when the slat position follows the sun)*	Slat position (in %):
0° - 15°	0...<u>100</u>
15° - 30°	0...100; <u>80</u>
30° - 45°	0...100; <u>65</u>
45° - 90°	0...100; <u>50</u>
Use internal temperature lock shut-off *(only if an interior temperature lock is used)*	No • <u>Yes</u>
Allow shading from (in 0.1 °C)	50...400; <u>250</u>
Use external temperature shut-off	No • <u>Yes</u>
Allow shading from (in 0.1 °C)	-200...300; <u>50</u>

Sun position angle

All sides	greater than 0°	lower than 360°
West	greater than 180°	lower than 360°
South-West	greater than 135°	lower than 315°
South	greater than 90°	lower than 270°
South-East	greater than 45°	lower than 225°
East	greater than 0°	lower than 180°

5.4.1.3. Setting awnings using the ETS

The drives of awnings are setup in the menu item "Awning 1...4".

Use awning	<u>No</u> • Yes
Switch to manual if feedback value deviates from automatic nominal value [Recognition of manual operation]	<u>No</u> • Yes
Automatic/Manual object value at	• <u>Automatic = 1 | Manual = 0</u> • Automatic = 0 | Manual = 1

Automatic/Manual object value after reset	Automatic • Manual
Transmission behaviour of the safety object	• on change • on change to 1 • on change to 0 • on change and periodically • on change to 1 and periodically • on change to 0 and periodically

Transfer the following parameters	No • Yes

⚠️ **If you transfer these parameters, the settings which have been made manually on the touch display will be overwritten.**

Name	Text field (Pre-Setting: Awning 1...6)

Manual direction on the touch menu	• Up arrow: Extended 0 |
	  Down arrow: Extended 1
	• Up arrow: Extended 1 |
	  Down arrow: Extended 0

Use timed opening for Period 1 / 2 / ... / 16	No • Yes
Shading	• Never • Always • Brightness-dependent

Settings for "Shading: Always" and "Shading: Brightness-dependent" see bottom.

Use frost protection	No • Yes
Use wind alarm	No • Yes
Retract at wind speeds from (in 0.1 m/s) *(only if wind alarm is used)*	5...195; 60
for longer than (in sec) *(only if wind alarm is used)*	1...5
Retract upon rain	No • Yes
Perform Automatic Reset	
at set time	No • Yes
after the set waiting period following manual operation	No • Yes

📖 Change general automatic settings using the ETS, page 69

If shading is always used:

Shading	**Always**
Movement position (in %)	0...100

If shading is used dependent on brightness:

Shading	**Brightness-dependent**
From a brightness of (in klx)	1...99; 40

Sun direction	• <u>All sides</u> • West • South-West • South • South-East • East • Angle range
greater than (in °) *(only when the selected angle range is settable)*	0...360; <u>90</u>
lower than (in °) *(only when the selected angle range is settable)*	0...360; <u>270</u>
Sun height	• <u>Any height</u> • Angle range
greater than (in °) *(only when the selected angle range is settable)*	<u>0</u>...90
lower than (in °) *(only when the selected angle range is settable)*	0...<u>90</u>
Movement position (in %)	0...<u>100</u>
Use internal temperature lock shut-off *(only if an interior temperature lock is used)*	No • <u>Yes</u>
Allow shading from (in 0.1 °C)	50...400; <u>250</u>
Use external temperature shut-off	No • <u>Yes</u>
Allow shading from (in 0.1 °C)	-200...300; <u>50</u>

Sun position angle

All sides	greater than 0°	lower than 360°
West	greater than 180°	lower than 360°
South-West	greater than 135°	lower than 315°
South	greater than 90°	lower than 270°
South-East	greater than 45°	lower than 225°
East	greater than 0°	lower than 180°

5.4.1.4. Setting roller shutters using the ETS

The drives of roller shutters are setup in the menu item "Shutter 1...4".

Use shutter	<u>No</u> • Yes
Switch to manual if feedback value deviates from automatic nominal value [Recognition of manual operation]	<u>No</u> • Yes
Automatic/Manual object value at	• <u>Automatic = 1 | Manual = 0</u> • Automatic = 0 | Manual = 1

Automatic/Manual object value after reset	Automatic • Manual
Transmission behaviour of the safety object	• on change • on change to 1 • on change to 0 • on change and periodically • on change to 1 and periodically • on change to 0 and periodically

Transfer the following parameters	No • <u>Yes</u>

⚠️ **If you transfer these parameters, the settings which have been made manually on the touch display will be overwritten.**

Name	Text field (Pre-Setting: Shutter 1...6)
Manual direction on the touch menu	• <u>Up arrow: Extended 0 | Down arrow: Extended 1</u> • Up arrow: Extended 1 | Down arrow: Extended 0
Use timed opening for Period 1 / 2 / ... / 16	<u>No</u> • Yes
Shading	• <u>Never</u> • Always • Brightness-dependent

Settings for "Shading: Always" and "Shading: Brightness-dependent" see bottom.

Use night-time closure	No • <u>Yes</u>
Use timed closure for	
Period 1 - 16	<u>No</u> • Yes
Use frost protection	<u>No</u> • Yes
Use wind alarm	No • <u>Yes</u>
Retract at wind speeds from (in 0.1 m/s) *(only if wind alarm is used)*	5...195; <u>60</u>
for longer than (in sec) *(only if wind alarm is used)*	<u>1</u>...5
Retract upon rain	<u>No</u> • Yes
Perform Automatic Reset	
at set time	No • <u>Yes</u>
after the set waiting period following manual operation	<u>No</u> • Yes

📖 Change general automatic settings using the ETS, page 69

If shading is always used:

Shading	**Always**
Movement position (in %)	0...<u>100</u>

If shading is used dependent on brightness:

Shading	**Brightness-dependent**
From a brightness of (in klx)	1...99; <u>40</u>
Sun direction	• <u>All sides</u> • West • South-West • South • South-East • East • Angle range
greater than (in °) *(only when the selected angle range is settable)*	0...360; <u>90</u>
lower than (in °) *(only when the selected angle range is settable)*	0...360; <u>270</u>
Sun height	• <u>Any height</u> • Angle range
greater than (in °) *(only when the selected angle range is settable)*	<u>0</u>...90
lower than (in °) *(only when the selected angle range is settable)*	0...<u>90</u>
Movement position (in %)	0...<u>100</u>
Use internal temperature lock shut-off *(only if an interior temperature lock is used)*	No • <u>Yes</u>
Allow shading from (in 0.1 °C)	50...400; <u>250</u>
Use external temperature shut-off	No • <u>Yes</u>
Allow shading from (in 0.1 °C)	-200...300; <u>50</u>

Sun position angle

All sides	greater than 0°	lower than 360°
West	greater than 180°	lower than 360°
South-West	greater than 135°	lower than 315°
South	greater than 90°	lower than 270°
South-East	greater than 45°	lower than 225°
East	greater than 0°	lower than 180°

5.4.1.5. Setting windows using the ETS

The drives of windows are setup in the menu item "Window 1..2". Windows can be configured with or without step opening.

Use window	<u>No</u> • Yes
Switch to manual if feedback value deviates from automatic nominal value [Recognition of manual operation]	<u>No</u> • Yes

Automatic/Manual object value at	• <u>Automatic = 1	Manual = 0</u> • Automatic = 0	Manual = 1
Automatic/Manual object value after reset	<u>Automatic</u> • Manual
Transmission behaviour of the safety object	• on change • on change to 1 • on change to 0 • on change and periodically • on change to 1 and periodically • on change to 0 and periodically
Window type	• <u>without gradual opening</u> • with gradual opening
Number of steps *(only when With gradual opening is selected)*	2...10; <u>5</u>

Transfer the following parameters	No • <u>Yes</u>

⚠️ **If you transfer these parameters, the settings which have been made manually on the touch display will be overwritten.**

Name	Text field
Manual direction on the touch menu	• <u>Up arrow: Extended 0	Down arrow: Extended 1</u> • <u>Up arrow: Extended 1	Down arrow: Extended 0</u>
Use TH sensor	<u>No</u> • Yes

Settings for use of the TH Sensor (indoor temperature/humidity) see bottom.

Use timed ventilation for	
Period 1 - 16	<u>No</u> • Yes
Use external temperature shut-off	No • <u>Yes</u>
Close when below (in 0.1 °C) *(only if an exterior temperature lock is used)*	-100...200; <u>50</u>
Use timed closure for	
Period 1 - 16	<u>No</u> • Yes
Use frost protection	<u>No</u> • Yes
Use wind alarm	No • <u>Yes</u>
Retract at wind speeds from (in 0.1 m/s) *(only if wind alarm is used)*	5...195; <u>60</u>
for longer than (in sec) *(only if wind alarm is used)*	<u>1</u>...5
Close during rain	No • <u>Yes</u>
Use gap opening during rain *(only when the window closes due to rain)*	No • <u>Yes</u>
Gap opening (in %) *(only if gap-opening due to rain is used)*	0...100; <u>5</u>
Perform Automatic Reset	
at set time	No • <u>Yes</u>
after the input waiting period following manual operation	<u>No</u> • Yes

📖 Change general automatic settings using the ETS, page 69

When the TH sensor is used:

Use TH sensor	**Yes**
Use interior temperature	No • **<u>Yes</u>**
Open from (in 0.1 °C) *(only if the interior temperature is used)*	50...500; <u>250</u>
Use air humidity	No • <u>Yes</u>
Open from (in % rH) *(only if the air humidity is used)*	10...95; <u>80</u>
Use CO2	No • <u>Yes</u>
Open from above (in 10 ppm) *(only if the CO2 content is used)*	50...200; <u>80</u>
Close from below (in 10 ppm) *(only if the CO2 content is used)*	50...200; <u>55</u>
Close the window when the supply air temp. is higher than the room temperature	No • <u>Yes</u>
Use night-time cooling for	
Period 1 - 16	No • <u>Yes</u>

Open window until room temp. drops below (in 0.1 °C) *(only if night-time re-cooling is used)*	50...500; <u>160</u>
Window opening (in %) *(only if night-time re-cooling is used)*	0...100; <u>30</u>

5.4.1.6. Setting ventilation units using the ETS

⚠️ **Automatic and manual operation of the ventilator is only possible if the unit receives feedback on the currently operating ventilator speed from the ventilator actuator.**

Ventilation units are setup in the menu item "Ventilation Unit".

Use ventilator	<u>No</u> • Yes
Automatic/Manual object value at	• <u>Automatic = 1	Manual = 0</u> • Automatic = 0	Manual = 1
Automatic/Manual object value after reset	<u>Automatic</u> • Manual
Transfer the following parameters	No • <u>Yes</u>

⚠️ **If you transfer these parameters, the settings which have been made manually on the touch display will be overwritten.**

Name	Text field
Use TH sensor	<u>No</u> • Yes

Settings for use of the TH Sensor (indoor temperature/humidity) see bottom.

|	
Use timed ventilation for	
Period 1 - 16	<u>No</u> • Yes
Ventilate at levels (in 10%) *(only if timed ventilation is used)*	1...10; <u>4</u>
Perform Automatic Reset	
at set time	No • <u>Yes</u>
After the input waiting period following manual operation	<u>No</u> • Yes

📖 Change general automatic settings using the ETS, page 69

When the TH sensor is used:

Use TH sensor	**Yes**
Use interior temperature	No • <u>Yes</u>
Start ventilation from (in 0.1 °C) *(only if the interior temperature is used)*	50...500; <u>250</u>
Use air humidity	No • <u>Yes</u>

Start ventilation from (in % rH) *(only if air humidity is used)*	10...95; <u>80</u>
Use CO2	No • <u>Yes</u>
Start ventilation from above (in 10 ppm) *(only if CO2 is used)*	50...200; <u>80</u>
Stop ventilation from below (in 10 ppm) *(only if CO2 is used)*	50...200; <u>55</u>
Start exhaust ventilation at (in 10%)	<u>1</u>...10
and increase exhaust ventilation until (in 10%)	1...10; <u>8</u>
Use night-time cooling for	
Period 1 - 16	<u>No</u> • Yes
Ventilate until the room temperature drops to below (in 0.1 °C)	50...500; <u>160</u>
Ventilate at levels (in %)	1...10; <u>4</u>

5.4.2. Set and operate drives at the screen
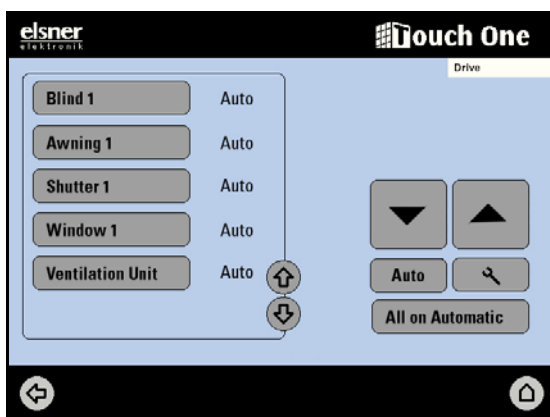
You can access the drive operations via the drive menu:

      Drive

You can operate the drives and ventilation units configured in the ETS directly here: Use the buttons to select the names to the left of the drive or unit which you want to operate.

Use the arrow buttons to scroll through the list.

The selected drive is marked in white. The right-hand side contains information on the status (e. g. position, error messages) and different operating possibilities (up/down arrow buttons, automatic button, settings button).

For blinds and windows, the To an From buttons are equipped with timer automation. A brief press (less than 1 second, brief audible signal) allows the drive to be precisely positioned. If the button is pressed for longer than 1 second (higher audible signal: detection signal), the drive moves automatically to its end position. Briefly pressing the Up or down buttons stops the drive.

If manual operation of a drive group is currently locked by the **rain, wind or frost alarm**, the arrow buttons are greyed out and cannot be operated. The message "Rain alarm" and/or "Wind alarm" are displayed.

Unlock manual operation

Manual operation is only possible once frost, rain and wind alarms are switched off.

The **frost alarm** can be switched off by pressing the frost alarm button for 7 seconds. The frost lock will then only be active for this drive again when it is reactivated manually or the next time the frost alarm is triggered.

⚠ **A drive or curtain can be damaged if an external shade which has frozen stiff is retracted!**

Activate and adjust automatic functions

Auto   Manu

You can tell whether a drive or unit is in automatic mode or must be manually operated by the "Auto" or "Manu" button, and by the "Auto" text beside the button name in the list in the left-hand area.
Press the **Auto/Manu** button to toggle between the modes.

After any manual operation, the drive or unit remains in manual mode. The automation functions are then switched off and only rain, wind and frost protection are available.

An automatic reset will switch the device back to automatic mode. The automatic reset can be separately activated for each drive group and each unit in the automatic menu.

Use the arrow buttons to set the exact time for the daily automatic reset. Pre-setting: 3.00 am. Use the arrow buttons to set the time when the drives are reset to automatic after manual operation. Pre-setting: 60 min

☐ Settings > Automatic > Automatic Reset
📖 Change automatic settings at the screen, page 70

    All to automatic

This button allows you to reset the drives to automatic mode.

    🔧

Press the button with the **tool symbol** to set the automatic functions of the selected drive or ventilation unit.

5.4.2.1. Safety notes for automatic functions

⚠ **WARNING!**
Risk of injury due to automatically moved components!
The automatic control may cause parts of the system to travel and pose a danger to humans.
*   No persons may remain in the travelling range of parts driven by an electric motor.
*   Adhere to the relevant building regulations (see guideline for power-operated windows, doors and gates BGR 232 et al).
*   Always disconnect the system from the mains power before maintenance or cleaning (e.g. switch off/remove fuse).

Precipitation warning for automatically controlled windows:

Some time can pass before falling rain is recognised by the sensors in the system, depending on the rain amount and outdoor temperature. Furthermore, a closure time must be calculated for electrically-actuated windows or sliding roofs. Humidity-sensitive items should therefore not be placed in an area where they might be damaged by incoming precipitation. Please also bear in mind that in the event of a power failure and rainfall, a window will not be automatically closed if no emergency generator is installed.

Running rails of shades icing up:

Note that the rails of shutters, awnings and blind which are externally mounted can ice up. Operating the drive under such conditions can damage the shades and drives.

5.4.2.2. Setting automatic functions for shading elements

The following can be set for blinds, awnings and roller shutters:

- Give name
- Manual operation
- Timed Retraction
- Light intensity
- Sun direction
- Sun height
- Movement position
- Slat position (only for blinds)
- Sensor selection
- Sun screen dependent on interior temperature (integrated indoor sensor which is used for the blind/awning/roller shutter)
- Night-time closure (only for blinds and roller shutters)
- Timed closure (only for blinds and roller shutters)
- Sun screen dependent on exterior temperature
- Frost alarm
- Wind alarm
- Rain alarm
- Switch automatic reset on/off

The settings are only executed if an awning is in automatic mode and none of the alarm functions named above is active.

Only when the direction and height of the sun agree and there is no active block is the **automatic shading by light intensity** engaged.

The automatic blind function can be accessed by pressing the buttons:
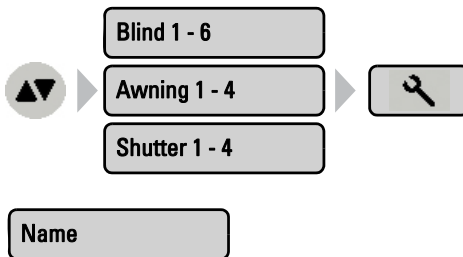
Blind 1 - 6

▲▼ ▶ | Awning 1 - 4 | ▶ | 🔧 |

| Shutter 1 - 4 |

Name

Press the **Name** button and input the desired name into the button field which appears.
📖 Input keyboard for names and codes, page 51

Confirm your input using the **OK** button.

Manual direction

Press the button to set the **manual direction**. When pressing the ⇧ button the long-term object sends either 0 or 1. Default setting: 0

Manual operation can be defined separately for each drive and each unit.

Confirm your input using the **OK** button.

Timed Retraction

Press the button to set the timed retraction. Timed retraction has the highest priority of the automatic functions. Only safety functions take precedence.

Press **Select** to select the time during which the shading will be opened completely. Activate one or more times on the list. These operating times can be individually customised.

Confirm your setting using the **OK** button.

To change any of the time periods set in the timer, press **Timer**.

Intesity

You can select one of three shading control options.

⚠ **Please activate the frost alarm so that the drive or curtain is not damaged if an external shading which has frozen stiff is retracted!**

Never use shading: If the drive should not react to brightness, select **Never (does not react to the sun)**. The drive will then remain retracted, unless it is manually operated or controlled by night-time/ timed closure.
All of the parameters which are relevant for this setting (e.g. sensor selection and external temperature) are greyed out.

Confirm your setting using the **OK** button.

Always use shading: If the drive should always screen, select **Always**. The drive will then always move the blind using a slat position which can be set by percentage (shutters only) and travel position. You can use timed closures (using the closure timer) and night-time closure (dependent on brightness) to control when to fully close the shutter/ roller shutter.

Using shading dependent on brightness: If the drive must operate a screen dependent on brightness, select **Use shading from a brightness of X kilolux** using the arrow buttons and change the value using the arrow buttons depending on your needs.
Pre-setting: 40 klx. The drive will always actuate the screen:

- from a set external temperature which you can define using the appropriate button
- in accordance with the settings for night-time/timed closures (shutters/roller shutters)
- in accordance with the sun direction settings
- in accordance with the solar elevation settings

📖 List of communication objects, page 12

The set light intensity value must be undercut or exceeded for the length of the delay period in order for the automatic function to react. This is to prevent continuous awning extension and retraction in the event of rapidly changing light conditions. The movement delays can be adjusted. (Default setting: Extension delay 1 min; retraction delay 12 min)

☐ Settings > Automatic > Movement delays
📖 Change automatic settings at the screen, page 70

Sun direction | **only if screens are used dependent on brightness**

Press the button in order to set the range (sun direction) at which the sun must be located in order to actuate the drive.

All directions: If the sun's orientation is not decisive for shading purposes, select **All sides** (default setting).

Direction: If the shade should only be deployed when the sun is in a specific orientation, select as appropriate: **West**, **South-West**, **South**, **South-East** or **East**. The thickened part of the circle in the centre shows the selected area.

Enter angle: To set the range in which shading shall be provided in exact numbers, press the "from **0°**" or "to **360°**" and adjust the numeric values with the arrows keys that appear.

Confirm your setting using the **OK** button.

Where the date and time are not available ("Please set the time!" in the display), the shading elements are controlled using aperture, temperature, alarm messages and time periods. The position of the sun is not taken into consideration.

Sun elevation | only if blinds are used dependent on brightness

Press the button in order to set the elevation at which the sun must be located in order to actuate the drive.

Any height: If the solar elevation for blind actuation is not crucial, select **All elevations** (default setting).

Input an angle: In order to input a precise numeric elevation, change the numeric value "lower than **90°**" or "greater than **0°**" using the arrow buttons which appear. The thickened section of the image shows the selected area.

Confirm your setting using the **OK** button.

Where the date and time are not available ("Please set the time!" in the display), the blinds are controlled using aperture, temperature and alarm messages. The position of the sun is not taken into consideration.

Movement position

Press the button to set the travel position for automatic operation. Input the movement position in % using the arrow buttons (0% = fully retracted, 100% = fully extended). Pre-setting: 100%.

Confirm your setting using the **OK** button.

Slat position   **Only for blinds!**

Press the button to set the shutter slat angle.

Fixed angle: if the slats should be opened to a fixed angle once the travel position has been reached, leave the button position at **No** (do not track solar elevation). Input the slat setting in % using the arrow buttons (0% = closed, 50% = horizontal, 100% = closed). Pre-setting: 75% (slightly open).

Tracking in accordance with position of sun: If the slats should be opened according to the solar elevation, press the button so that this changes to **Yes**. You can now adjust the slat opening to the changing angle of the sun. Use the arrow buttons beside the % values to do this.

Pre-setting: 0° to 15°: 100% (closed), 15° to 30°: 80%, 30° to 45°: 65%, 45° to 90°: 50% (horizontal).

Confirm your setting using the **OK** button.

Sensor selection   **only if shading is used dependent on brightness**

Press the button to select whether the interior room sensor is assessed. If "**No sensor**" is selected, the interior temperature and air humidity are not taken into consideration when controlling the blinds (default setting). Select **"TH sensor"** if the internal thermo-hygrometer should be evaluated when controlling the blinds.

Confirm your setting using the **OK** button.

Outdoor temperature   **only if shading is used dependent on brightness**

Press the button to set the outdoor temperature block. The effect of the block is that the shade remains in the current position. This protects external shades from damage through movement when the rails are iced up. The outdoor temperature block can also be used when no shading should take place in winter. This allows the light and heat of the sun to be utilised fully.

The outdoor temperature block only applies to automatic operation; no shading based on light intensity or the position of the sun takes place. When the rain or wind alarm is triggered, the shade will be retracted despite the outdoor temperature block (the alarm has priority over temperature block).

Manual operation continues to remain possible, even when shading is blocked because of low outdoor temperatures. Please note that the shade rails or other mechanical components can remain iced even when the outdoor temperature has already risen to a relatively high value.

⚠ **A drive or curtain can be damaged if an external shade which has frozen stiff is retracted!**

Setting the temperature: If the awnings must be locked at low exterior temperatures, use the arrow buttons to set the value recommended by the manufacturer. Pre-setting: 5.0 °C. The block is lifted again when the temperature rises more than 2.0 °C over the pre-set value (hysteresis).

Switching off the lock: If the awning should be actuated independently of the exterior temperature (e.g. for interior awnings), press the **Off** button.

Confirm your setting using the **OK** button.

Indoor temperature　　**only when an indoor sensor is selected**

Press the button to set the interior temperature block. Where no interior room sensor is selected, the interior temperature lock will not be activated.

The interior temperature block enables the use of solar energy to warm the room. The block's effect is to ensure that the shade only deploys when the room temperature exceeds the pre-set value. The shade is retracted again once the temperature sinks more than 2.0 °C under the pre-set value (hysteresis).

Setting the temperature: Adjust the value for the desired room temperature using the arrow buttons. Pre-setting: 25.0 °C.

Switching off the lock: If ventilation is to be independent of indoor temperature, press the **Off** button.

Confirm your setting using the **OK** button.

Night Closure　　**Only for blinds and roller shutters!**

Press the button to close switch the night-time closure of the shutter and/or roller shutter on or off.

Activate: If the shutter or roller shutter should be closed completely at night, select **Yes**.
Deactivate: If the shutter or roller shutter should remain open at night, select **No** (default setting).

Confirm your setting using the **OK** button.

The limit value which identifies twilight/night can be adjusted.

☐ Settings > Automatic > Twilight
📖 Change automatic settings at the screen, page 70

Note on the night-time closure function and the exterior temperature block:

If the outdoor temperature is below the blocking temperature (see "Outdoor Temperature" settings), the blinds and roller shutters will close, but will not open automatically. If the blind/shutter fails to move up in the morning, please check if the hangings are not frozen or the rails iced. When the shading is free, you can move the hangings up by hand.

⚠️ **A drive or curtain can be damaged if an external shade which has frozen stiff is retracted!**

Timed Closure   **Only for blinds and roller shutters!**

Press the button to set the shut-off time. Press **Select** to select the time during which the shutter or roller shutter will be closed completely. Activate one or more times on the list. These operating times can be individually customised.

Confirm your setting using the **OK** button.

To change any of the time periods set in the timer, press **Timer**.
📖 Setting the timer at the screen, page 127

Note on the timed closure function and the exterior temperature block:

If the outdoor temperature is below the blocking temperature (see "Outdoor Temperature" settings), the blinds and roller shutters will close, but not open automatically. If the blind/shutter fails to move up after the preset period, please check if the hangings are not frozen or the rails iced. When the shading is free, you can move the hangings up by hand.

⚠️ **A drive or curtain can be damaged if an external shade which has frozen stiff is retracted!**

Frost alarm

Press the button to active or deactivate the frost alarm for this shade. The frost alarm retracts the sun shade if the outdoor temperature is low and it is raining/snowing at the same time. This protects external shades from icing and from damage through movement when the rails are iced up.

The conditions for the triggering of the frost alarm are defined in the "General Settings" menu.

☐   Settings > Automatic > Frost alarm
📖 Change automatic settings at the screen, page 70

When the frost alarm is triggered, manual operation of the shade is initially blocked. You can only remove the blocks by deactivating the frost alarm or sending an appropriate signal using the ETS. The block will then be first active for this drive again when it is reactivated manually or the next time the frost alarm is triggered. Please note that the shade rails or other mechanical components can remain iced even when the outdoor temperature has already risen to a relatively high value.

> ⚠ **A drive or curtain can be damaged if an external shade which has frozen stiff is retracted!**

Activate: If the security object is sent when there is a frost alarm, select **Yes**.
Deactivate:If the solar protection should actuate the blind regardless of the frost risk (e.g. for internal awnings), select **No** (default setting).

Confirm your setting using the **OK** button.

> Wind alarm

Press the button to set the wind alarm. The wind alarm protects sensitive awning fabric from damage by retracting the awning.

Adjust values: Adjust the values for wind speed and the duration that this is exceeded using the arrow buttons.
Deactivate:If the drive need not react to the wind (e.g. for internal awnings), select **Do not retract** (default setting).

Confirm your setting using the **OK** button.

A wind alarm actuated for the drive will remain active for 5 minutes. If the saved value is exceeded in these 5 minutes, the stoppage time will be restarted.

> Rain alarm

Press the button to switch the rain alarm on or off. The rain alarm protects items such as sensitive awning fabric from damage by retracting the awning.

Activate: For humidity-sensitive awnings, select **Yes** (awnings should be retracted during rain).
Deactivate: For interior awnings, select **No** (awnings should not be retracted during rain, default setting).

Confirm your setting using the **OK** button.

Automatic Reset

Press the button to switch the setting for automatic operation on or off at a set point in time, or following a manual intervention.

The general Automatic Reset occurs daily at the same time.

Activate: To set the drive to Automatic at a set point in time, select **Yes** (default setting).
Deactivate: To switch off the drive Reset function, select **No**.

Alternatively, the automatic function can be reactivated at a set time following a manual intervention.

Activate: To perform an Automatic Reset after a manual intervention, select **Yes**.
Deactivate: To switch off the Reset function for these awnings, select **No** (default setting).

Confirm your setting using the **OK** button.

You can set automatic reset times and/or durations.
▢ Settings > Automatic > Automatic Reset
▢ Change automatic settings at the screen, page 70

5.4.2.3. Setting automatic functions for windows

The following settings can be changed for windows:

- Name
- Manual direction
- Interior room sensor which is evaluated for the window
- Indoor temperature
- Air humidity
- CO2 content
- Supply air temperature
- Night-time re-cooling (indoor temperature and movement position can be set)
- Movement position (only for sliding windows)
- Number of steps (only for step windows)
- Timed ventilation
- Outdoor temperature
- Timed Closure
- Frost alarm
- Wind alarm
- Rain alarm
- Gap ventilation
- Gap position
- Switch automatic reset on/off

Highest priority is assigned to **time closure**, followed by the **outdoor temperature-block** (keep closed), **timed ventilation** (open), the incoming **air temperature-block** (keep closed) and **night-time re-cooling**.

This means that e.g. timed ventilation or night-time re-cooling will only occur, when the outdoor temperature lies over the pre-set value for the outdoor temperature block.

The **automatic ventilation according to temperature** or relative humidity is only performed if no block is active.

The automatic window function can be accessed by pressing the buttons:
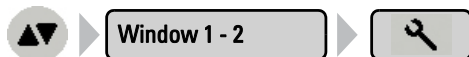
▲▼ ▸ Window 1 - 2 ▸ 🔧

Name

Press the **Name** button and input the desired name into the button field which appears.
📖 Input keyboard for names and codes, page 51

Confirm your input using the **OK** button.

Manual direction

Press the button to set the **manual direction**. When pressing the ⇧ button the long-term object sends either 0 or 1. Default setting: 0.

Manual direction can be defined separately for each drive.

Confirm your input using the **OK** button.

Sensor selection

Press the button to select whether the interior room sensor is assessed. If "**No sensor**" is selected, the interior temperature, air humidity and CO2 content are not taken into consideration when controlling the windows (default setting).

Confirm your setting using the **OK** button.

Indoor temperature   **only when an indoor sensor is selected**

Press the button to set the internal temperature at which the window is opened.

Setting the temperature: Adjust the value for the desired room temperature using the arrow buttons. Pre-setting: 25.0 °C.
The window is opened as soon as the temperature lies above the pre-set value. However, it is only closed again when the temperature sinks by more than 2.0 °C under the pre-set value (hysteresis).
Shutting off ventilation: If the interior temperature should be independently ventilated, press the **Off** button.

Confirm your setting using the **OK** button.

Air humidity　　　**only when an indoor sensor is selected**

Press the button to set the air humidity at which the window is opened. if no interior room sensor with humidity measurement is selected, air humidity is not taken into consideration.

Setting humidity: Adjust the value for the desired room humidity using the arrow buttons. Pre-setting: 80%.
The window is opened as soon as the air humidity lies above the pre-set value. it is however closed again once the humidity drops more than 3.0%
below the set value (hysteresis).
Shutting off ventilation: If the ventilation should be performed independently of air humidity, press the **OFF** button.

Confirm your setting using the **OK** button.

CO 2　　　**only when an indoor sensor is selected**

Press the button to set the room air CO_2 content at which the window is opened or closed.

Setting CO_2 content: The window is opened as soon as the CO_2 content lies above the pre-set value. It is closed again once the CO_2 value lies below the set value. Adjust both CO_2 values using the arrow buttons (default window opening setting: > 800 ppm; default window closure setting: < 550 ppm).
Shutting off ventilation: If the ventilation should be performed independently of CO_2 content, press the **OFF** button.

Confirm your setting using the **OK** button.

Supply air　　　**only when an indoor sensor is selected**

Press the button to set the interior temperature block (thermal protection). If no interior room sensor is selected, the supply air temperature is not taken into consideration.

Activate: If the window should be closed when the supply air temperature is higher than the room temperature, select **Yes**.
The supply air temperature-block becomes active as soon as the supply air temperature lies above the room temperature. The block is however only deactivated again when the supply air temperature sinks more than 3.0 °C below the room temperature (hysteresis).
Deactivate: If the window should be opened/remain open when the supply air temperature is higher than the room temperature, select **No** (default setting).

Confirm your setting using the **OK** button.

Number of steps　　　**Only for step windows.**
Only when an indoor sensor is selected

Press the button to set the number of travel steps for a stepped window in automatic operation. In stepped windows, the control system checks every 3 minutes whether the set room temperature and/or air humidity is still undercut, and then if necessary extends this a further step.

Input the desired number of steps using the arrow buttons. Pre-setting: 5.

Confirm your setting using the **OK** button.

Night-time cooling   **Only if night-time re-cooling is activated.**
Only when an indoor sensor is selected

Press the button to set the times for night-time re-cooling. The button is only active when the general settings for the night-time re-cooling have already been input and the TH sensor for the window has been selected.

☐ Settings > Automatic > Night-time re-cooling
📖 Change automatic settings at the screen, page 70

Press **Select** to select the times during which the night-time re-cooling should be activated. Activate one or more times on the list.

Confirm your setting by pressing the **OK** button.

To change any of the time periods set in the timer, press **Timer**.
📖 Setting the timer at the screen, page 127

Be careful that your timer settings do not prevent night-time re-cooling operations!

NTC interior temp.   **Only when night-time re-cooling has been activated for this drive**

Press the button to set the internal temperature to the desired cooling level (for the night-time re-cooling). The button will only be activated once a night-time re-cooling temperature has been set.

Use the arrow buttons to change the value as required.
Pre-setting: 16.0 °C .

Confirm your setting using the **OK** button.

NTC operation   **Only when night-time re-cooling has been activated for this drive**

Press the button to set the operating position for the night-time re-cooling. The button will only be activated once a night-time re-cooling temperature has been set.

Input the operating position in % using the arrow buttons (0% = closed, 100% = fully open). Pre-setting: 30%.

Confirm your setting using the **OK** button.

Timed ventilation

Press the button to set the ventilation running time. At the end of the ventilation period, the normal automated ventilation is once again performed according to the temperature, air humidity and CO2 content.

Press **Select** to select the times. Activate one or more times on the list. These operating times can be individually customised.

Confirm your setting using the **OK** button.

To change any of the time periods set in the timer, press **Timer**.
📖 Setting the timer at the screen, page 127

Outdoor temperature

Press the button to set the outdoor temperature block. The effect of the block is that the window remains in the current position. The outdoor temperature block can, for example, be used if the window should not be used for ventilation in winter (cold protection for plants).

The outdoor temperature block only applies for automatic operation; no ventilation then takes place. When the rain or wind alarm is triggered, the window will be closed despite the outdoor temperature block (the alarm has priority over temperature block).

Manual operation continues to remain possible, even when the window is blocked because of low outdoor temperatures.

Setting a value: Use the arrow buttons to change the value as required.
Pre-setting: 5.0 °C .
The outdoor temperature-block becomes active as soon as the temperature sinks under the pre-set value. The block is however only deactivated again when the temperature rises over the pre-set value by more than 2.0 °C (hysteresis).
Switching off the lock: If the window should be controlled independently of the external temperature, press the **Off** button.

Confirm your setting using the **OK** button.

Timed Closure

Press the button to set the shut-off time. Shut-off times prevent the windows for example from opening and closing at night, and thus causing noise.
Make sure that no night-time re-cooling is possible during the set shut-off times.

Press **Select** to select the times during which the window should be closed. Activate one or more times on the list. These operating times can be individually customised.

Confirm your setting using the **OK** button.

To change any of the time periods set in the timer, press **Timer**.
📖 Setting the timer at the screen, page 127

Frost alarm

Press the button to activate or deactivate the frost alarm for this window. The frost alarm sends the security object if the outdoor temperature is low and it is raining/snowing at the same time. This prevents damage from ice (e.g. at the seal).

The conditions for the triggering of the frost alarm (outdoor temperature, period) are defined in the "Settings" menu.
☐   Settings > Automatic > Frost alarm
📖   Change automatic settings at the screen, page 70

When the frost alarm is triggered, manual operation of the window is initially blocked. You can remove the block by deactivating the frost alarm. The block will then be first active for this drive again when it is reactivated manually or the next time the frost alarm is triggered.

Activate: If the security object is sent when there is a frost alarm, select **Yes**.
Deactivate: If the security object should not be sent when there is a frost alarm, select **No** (default setting).

Confirm your setting using the **OK** button.

Wind alarm

Press the button to set the wind alarm. The wind alarm protects the device and equipment from damage by closing the window. Even manually opened windows are closed in the event of a wind alarm.

Adjust values: Adjust the values for wind speed (default setting: 6 m/s) and the duration that this is exceeded (default setting: 1 sec.) using the arrow buttons.
Deactivate:If the window need not react to the wind, select **Do not close** (default setting).

Confirm your setting using the **OK** button.

A wind alarm actuated for the drive will remain active for 5 minutes. If the saved value is exceeded in these 5 minutes, the stoppage time will be restarted.

Rain alarm

Press the button to switch the rain alarm on or off. The rain alarm provides protection from humidity damage by sending the security object. Even manually opened windows are closed in the event of a rain alarm.

Activate: If the security object should be sent, select **Yes**.
Deactivate: If the security object should not be sent in the event of rain, select **No** (default setting).

Confirm your setting using the **OK** button.

⚠️ **A certain amount of time may pass before precipitation is recognised by the weather equipment, depending on the rain amount and temperature. The operating time taken to close the window must also be included in this calculation. Humidity-sensitive items should not be placed within range of the automatic windows.**

Gap ventilation

Press the button to switch gap openings in the event of a rain alarm on or off. This function is only active when the rain alarm has been switched on. Gap opening allows the window to be opened slightly despite a rain alarm.

Activate: If gap opening should be activated when it is raining, select **Yes**.
Deactivate: If the window should be fully closed in the event of rain, select **No** (default setting).

Confirm your setting using the **OK** button.

Gap position

Press the button to set the travel position for gap opening in the event of rain. This function is only active when gap opening has been switched on.

Input the operating position in % using the arrow buttons (0% = closed, 100% = fully open). Pre-setting: 10%.

Confirm your setting using the **OK** button.

Automatic Reset

Press the button to switch on or off the setting for automatic operation at a set point in time, or following a manual intervention.

The general Automatic Reset occurs daily at the same time.

Activate: To set the window to Automatic at a set point in time, select **Yes** (default setting).
Deactivate: To switch off the Reset function for this window, select **No**.

Alternatively, the automatic function can be reactivated at a set time following a manual intervention.

Activate: To perform an Automatic Reset after a manual intervention, select **Yes**.
Deactivate: To switch off the Reset function for this window, select **No** (default setting).

Confirm your setting using the **OK** button.

You can set automatic reset times and/or durations
☐ Settings > Automatic > Automatic Reset
📖 Change automatic settings at the screen, page 70

5.4.2.4. Setting automatic functions for ventilation units

⚠️ **Automatic and manual operation of the ventilator is only possible if the unit receives feedback on the currently operating ventilator speed from the ventilator actuator.**

The following settings can be changed for a ventilator:

• Name
• Indoor sensor selection
• Indoor temperature
• Air humidity
• CO2 content
• Minimum ventilation
• Maximum ventilation
• Night-time re-cooling (internal temperature and ventilation steps for night-time re-cooling)
• Timed ventilation (and steps for timed ventilation)
• Switch automatic reset on/off

The automatic ventilation function can be accessed by pressing the buttons:

▲▼ ▶ **Ventilation Unit** ▶ 🔧

Name

Press the **Name** button and input the desired name into the button field which appears.
📖 Input keyboard for names and codes, page 51

Confirm your input using the **OK** button.

Sensor selection

Press the button to select whether the interior room sensor is assessed. If "**No sensor**" is selected, the interior temperature, air humidity and CO2 content are not taken into consideration when controlling the ventilation (default setting).

Confirm your setting using the **OK** button.

Indoor temperature   **only when an indoor sensor is selected**

Press the button to set the internal temperature at which the ventilation is opened.

Setting the temperature: Adjust the value for the desired room temperature using the arrow buttons. Pre-setting: 25.0 °C.
Shutting off ventilation: If ventilation is to be independent of indoor temperature, press the button labelled **OFF**.

Confirm your setting using the **OK** button.

| Air humidity | **only when an indoor sensor is selected**

Press the button to set the air humidity at which the ventilation is opened. If no interior room sensor is selected, air humidity is not observed.

Setting humidity: Adjust the value for the desired room humidity using the arrow buttons. Pre-setting: 80%.
Shutting off ventilation: If the ventilation should be performed independently of air humidity, press the **OFF** button.

Confirm your setting using the **OK** button.

| CO 2 | **only when an indoor sensor is selected**

Press the button to set the room air CO_2 content at which ventilation should begin and end.

Setting CO_2 content: The ventilator operates as soon as the CO_2 content lies above the pre-set value. Ventilation stops once the CO_2 value lies below the set value. adjust both CO_2 values using the arrow buttons (default setting for ventilation with highest speed: > 800 ppm; default ventilation end setting: < 550 ppm).
Shutting off ventilation: If the ventilation should be performed independently of CO_2 content, press the **OFF** button.

Confirm your setting using the **OK** button.

| Min. ventilation | **only when an indoor sensor is selected**

Press the button to set the minimum ventilation force. If no interior room sensor is selected, minimum ventilation is not taken into consideration.

Setting minimum ventilation: The ventilator force can be set in 10% steps from 100 to 10% using the arrow buttons (default setting: 10%).

Confirm your setting using the **OK** button.

| Max. ventilation | **only when an indoor sensor is selected**

Press the button to set the maximum ventilation force. If no interior room sensor is selected, maximum ventilation is not taken into consideration.

Setting maximum ventilation: The ventilator force can be set in 10% steps from 100 to 10% using the arrow buttons (default setting: 100%).

Confirm your setting using the **OK** button.

Night-time cooling

Press the button to set the night-time re-cooling. The general settings for night-time re-cooling must be set for this.

☐ Settings > Automatic > Night-time re-cooling
☐ Change automatic settings at the screen, page 70

Press **Select** to select the times during which the night-time re-cooling should be activated. Activate one or more times on the list.

Confirm your setting using the **OK** button.

To change any of the time periods set in the timer, press **Timer**.
☐ Setting the timer at the screen, page 127

NTC interior temp.   only when night-time re-cooling is selected

Press the button to set the internal temperature to the desired cooling level (for the night-time re-cooling). The button will only be activated once a night-time re-cooling temperature has been set.

Use the arrow buttons to change the value as required.
Pre-setting: 16.0 °C .

Confirm your setting using the **OK** button.

NTC exhaust steps   only when night-time re-cooling is selected

Press the button to set the ventilation force. The button will only be activated once a night-time re-cooling temperature has been set.

Setting ventilation for night-time re-cooling: The ventilator force can be set in 10% increments from 100 to 10% using the arrow buttons. (Default setting: 40%).

Confirm your setting using the **OK** button.

Timed ventilation

Press the button to set the timed ventilation time. Press **Select** to select the times during which ventilation will occur. Activate one or more times on the list.

Confirm your setting using the **OK** button.

To change any of the time periods set in the timer, press **Timer**.
☐ Setting the timer at the screen, page 127

Timed ventilation   Only when a time period for timed ventilation has been selected

Press the button to set the ventilation force for timed ventilation. The button will only be activated once a ventilation time for the timed ventilation has been set.

Setting ventilation force for timed ventilation: The ventilator force for timed ventilation can be set in 10% increments from 100 to 10% using the arrow buttons. (Default setting: 40%).

Confirm your setting using the **OK** button.

> **Automatic Reset**

Press the button to switch on or off the setting for automatic operation at a set point in time, or following a manual intervention.

The general Automatic Reset occurs daily at the same time.

Activate: To set the ventilator to Automatic at a set point in time, select **Yes** (default setting).
Deactivate: To switch off the Reset function for this ventilator, select **No**.

Alternatively, the automatic function can be reactivated at a set time following a manual intervention.

Activate: To perform an Automatic Reset after a manual intervention, select **Yes**.
Deactivate: To switch off the Reset function for this ventilator, select **No** (default setting).

Confirm your setting using the **OK** button.

You can set automatic reset times and/or durations.
☐ Settings > Automatic > Automatic Reset
📖 Change automatic settings at the screen, page 70

5.5.　Temperature control

The temperature control must be activated in the ETS first, before it can be used at the **Room Controller KNX Touch One**.

5.5.1.　Setting temperature control using the ETS

The temperature control with a heating and/or cooling is set via the menu item "Temperature control".

Control in general:

Use control	No • Yes
Type of control	• One-step heating • Two-step heating • One-step cooling • One-step heating + One-step cooling • Two-step heating + One-step cooling • Two-step heating + Two-step cooling

Behaviour of the blocking object at value	• 1 = Block control |
	  0 = Release control
	• 0 = Block control |
	  1 = Release control

Blocking object value before 1st communication	0 • 1
Send actuating variables	• on change • on change and periodically
Transmit cycle *(is only transmitted if "periodically" is selected)*	5 s … 2 h; 5 min
Send status objects	• on change • on change to 1 • on change to 0 • on change and periodically • on change to 1 and periodically • on change to 0 and periodically
Cycle *(is only transmitted if "periodically" is selected)*	5 s … 2 h; 5 min

Controller setpoint (when heating ONLY or cooling ONLY are used)

Storage of the last received value	• not • After reset • After reset and programming **(Attention: Do not use during initial start-up)**
Start setpoint in 0.1 °C valid till 1st communication	-300 … 800; 220
Object value limit (min) in 0.1 °C (restricts the input of the reference temperature on the touch display appropriately)	-300 … 800; 140
Object value limit (max) in 0.1 °C (restricts the input of the reference temperature on the touch display appropriately)	-300 … 800; **300**
Type of setpoint change	• Absolute value • Increase / Decrease
Increment (in 0.1 °C) *(only when "increase/reduce" is used)*	1 … 50; **10**

Controller setpoint (when heating AND cooling are used)

Switching between heating and cooling	• <u>By means of dead zone</u> • By means of switching object
Dead zone between heating and cooling (in °C) *(when switched by means of a "dead zone")* Cooling regulation starts at Actual temperature >= (reference value + dead zone)	1...100; <u>50</u>
Switching object value before 1st communication	<u>0</u> • 1
Storage of the last received value	• <u>not</u> • After reset • After reset and programming **(Attention: Do not use during initial start-up)**
Heating initial setpoint (in 0.1 °C) valid till 1st communication	-300 … 800; <u>220</u>
H min. object value limit (in 0.1 °C) (restricts the input of the reference temperature on the touch display appropriately)	-300 … 800; <u>140</u>
Object value limit Hmax (in 0.1 °C) (restricts the input of the reference temperature on the touch display appropriately)	-300 … 800; **<u>250</u>**
Cooling initial setpoint (in 0.1 °C) valid till 1st communication	-300 … 800; <u>260</u>
K min. object value limit (in 0.1 °C) (restricts the input of the reference temperature on the touch display appropriately)	-300 … 800; <u>140</u>
K max. object value limit (in 0.1 °C) (restricts the input of the reference temperature on the touch display appropriately)	-300 … 800; <u>300</u>
Type of setpoint change	• <u>Absolute value</u> • Increase / Decrease
Increment (in 0.1 °C) *(only when "increase/reduce" is used)*	1 … 50; **<u>10</u>**

Heating control

Set control using	• Controller parameter • <u>provided applications</u>

Application *(only when the controller is set by means of a "default application")*	• <u>Warm water heating</u> • Floor heating • Convection unit • Electric heating
Maximum control variable is reached at setpoint/actual difference of (in °C) *(only when controller is set by means of "controller parameter")*	1 ... <u>5</u>
Reset time (in min) *(only when controller is set by means of "controller parameter")*	1 … 255; <u>30</u>
Upon shut-off, control variable should	• <u>not transmitted</u> • send a specific value
Value in % *(only if a set value is sent)*	<u>0</u> … 100
The control variable follows the rule upon triggering	

Preferences for "default applications":

Application	Maximum control variable is reached at setpoint/ actual difference of	Reset time
Warm water heating	5 °C	150 min
floor heating	5 °C	240 min
Convection unit	4 °C	90 min
Electric heating	4 °C	100 min

Heat control, second step (only for two-step heat control)

Setpoint difference between steps 1 and 2 in 0.1 °C	0...100; <u>40</u>
Control type	• <u>2-point control</u> • PI control

For 2-point control:

Hysteresis in 0.1 °C	0 … 100; <u>20</u>
Control variable is a	• <u>1-bit object</u> • 8-bit object
Value in % *(only when control variable is an 8-bit object)*	0 … <u>100</u>
Upon shut-off, control variable should (do not send: display 0%, Send value: display shows value in %)	• <u>not transmitted</u> • send a specific value

Value in % *(only if the control variable should send a set value)*	<u>0</u> • 1
The control variable follows the rule upon triggering	

For PI control:

For possible settings, see Heat control, single-step

Cooling control

Set control using	• <u>Provided applications</u> • Controller parameter
Application *(only when the controller is set by means of a "default application")*	• <u>Cooling ceiling</u>
Maximum control variable is reached at setpoint/actual difference of in °C *(only when controller is set by means of "controller parameter")*	1 ... <u>5</u>
Reset time in min *(only when controller is set by means of "controller parameter")*	1 … 255; <u>30</u>
Upon shut-off, control variable should	• <u>not transmitted</u> • send a specific value
Value in % *(only if a set value is sent)*	<u>0</u> … 100
The control variable follows the rule upon triggering	

Preferences for "default applications":

Application	Maximum control variable is reached at setpoint/ actual difference of	Reset time
Cooling ceiling	5 °C	240 min

Cooling control, second step (only shown for two-step cooling control)

Setpoint difference between steps 1 and 2 in 0.1 °C	0...100; <u>40</u>
Control type	• <u>2-point control</u> • PI control

For 2-point control:

Hysteresis in 0.1 °C	0 … 100; <u>20</u>
Control variable is a	• <u>1-bit object</u> • 8-bit object
Value in % *(only when control variable is an 8-bit object)*	0 … <u>100</u>

Upon shut-off, control variable should (do not send: display 0%, Send value: display shows value in %)	• <u>not transmitted</u> • send a specific value
Value in % *(only if the control variable should send a set value)*	<u>0</u> ...100
The control variable follows the rule upon triggering	

For PI control:

For possible settings, see Cooling control, first step

Night-time reduction:

Use night-time reduction	<u>No</u> • Yes

Use night-time reduction	**Yes**
Night-time reduction when object value	• <u>1 = active	0 = inactive</u> • 0 = active	1 = inactive
Activation object value before 1st communication	<u>0</u> • 1
Content of the last received value	• <u>Not</u> • After reset • After reset and programming **(Attention: Do not use during initial start-up)**

If night-time reduction is used for heating only:

Initial setpoint (in 0.1 °C) valid till 1st communication	-300...800; <u>180</u>
Min. object value limit (in 0.1 °C)	-300...800; <u>140</u>
Max object value limit (in 0.1 °C)	-300...800; <u>250</u>

If night-time reduction is used for cooling only:

Initial setpoint (in 0.1 °C) valid till 1st communication	-300...800; <u>300</u>
Min. object value limit (in 0.1 °C)	-300...800; <u>240</u>
Max object value limit (in 0.1 °C)	-300...800; <u>360</u>

If night-time reduction is used for heating and cooling:

Heating initial setpoint (in 0.1 °C) valid till 1st communication	-300...800; <u>180</u>
Object value limit Hmin (in 0.1 °C)	-300...800; <u>140</u>
Object value limit Hmax (in 0.1 °C)	-300...800; <u>250</u>
Cooling initial setpoint (in 0.1 °C)	-300...800; <u>300</u>
Object value limit Kmin (in 0.1 °C)	-300...800; <u>240</u>
Object value limit Kmax (in 0.1 °C)	-300...800; <u>360</u>

The following night-time reduction settings can be adjusted for all heatings and coolings:

Type of setpoint change	• Absolute value • Increase / Decrease
Increment (in 0.1 °C) *(only when "increase/reduce" is used)*	1...50; 10
Day extension time in seconds	0 ... 36000

The night-time reduction can be cancelled for the set time with the day extention.

☐ Temperature menu > Night-time reduction
📖 Setting temperature control at the screen, page 122

Frost/heat protection:

Use frost/heat protection	No • Yes

If control is used for heating only:

Use frost protection	**Yes**
Setpoint (in 0.1 °C)	-300 … 800; 70
Activation delay according to Window opening (so that the controller does not immediately heat in the event of short-term temperature variations, e.g. airing)	None • 1 s … 2 h; 5 min
Window status before 1st communication	OPEN • CLOSE

If control is used for cooling only:

Use heat protection	**Yes**
Setpoint (in 0.1 °C)	-300 … 800; 310
Activation delay according to Window opening (so that the controller does not immediately heat in the event of short-term temperature variations, e.g. airing)	None • 1 s … 2 h; 5 min
Window status before 1st communication	OPEN • CLOSE

If control is used for heating AND cooling:

Use frost/heat protection	**Yes**
Heating setpoint in 0.1 °C	-300 … 800; 70
Activation delay according to Window opening (so that the controller does not immediately heat in the event of short-term temperature variations, e.g. airing)	None • 1 s … 2 h; 5 min
Cooling setpoint in 0.1 °C	-300 … 800; 350

Activation delay according to Window opening (so that the controller does not immediately heat in the event of short-term temperature variations, e.g. airing)	None • 1 s … 2 h; <u>5 min</u>
Window status before 1st communication	<u>OPEN</u> • CLOSE

5.5.2. Setting temperature control at the screen

You can access the temperature controller via the menu:

Temperature

The type of control, setpoint values and other parameters are set in the ETS. The way in which the controller is shown on the display varies depending on the selected control type as well as the activation/deactivation of night-time reduction and frost/heat protection. This also applies to the control status display.

The following settings can be configured using the touch display:

• Change the setpoint temperature for heating and cooling (dependent on the selected control type)
• Activate or deactivate night-time reduction and change the setpoint temperatures (only if night-time reduction has been activated in the ETS)
• Deactivate night-time reduction temporarily with the day extension
• Block/unblock the controller

The display shows the actual temperature (including the temperature offset and external component), heating/cooling setpoint temperatures and the current setpoint temperature (which consists of the setpoint temperature with the highest priority).

The following parameters are valid for all control types:

Setpoint temperature heating/cooling

Only the setpoint temperatures which are required for the controller type are displayed. These values are given in the ETS and can be changed directly on the display.

This ensures that no unnecessary heating/cooling energy is wasted, and max./min. object value limits can be defined in the ETS which restrict the setpoint temperature range for input into the touch display.

Current setpoint temperature

The current setpoint temperature corresponds to the setpoint temperature with the highest priority for the temperature controller. If for example a heat shield is used, the current setpoint temperature thus corresponds to the temperature which is set as the threshold value for cooling (heat shield).
If a superordinate frost or heat alarm is used, this corresponds to the heating/cooling setpoint temperature.

If the heating/cooling setpoint temperature is changed on the touch display, the current setpoint temperature is automatically adjusted.

Controller status

The controller status indicates the control variables dependent on the selected control type in % as well as the window status (open/closed). if the control variables are not sent due to blocking (an ETS setting), the setting 0% is automatically shown.

Blocking the controller: If the temperature controller must be locked, select **Yes**.
Unblocking the controller: If the temperature controller must be unlocked, select **No**.

Also status changes of the blocking that were triggered via an object (the bus) are shown here immediately.

Night reduction   **Only if night-time reduction has been activated in the ETS**

The night-time reduction setting is applicable to each type of temperature control and is only displayed if this has been activated in the ETS. The following also applies for night-time reduction: Only the setpoint temperatures which are required for the controller type are displayed. The pre-set setpoint temperatures correspond to the values given in the ETS and can be changed using the display.

You can change the setpoint temperature for night-time reduction within the permissible input range using the arrow buttons (the min./max. object value limits defined in the ETS restrict the setpoint temperature range appropriately).
The object value limits cannot be changed in the touch display.

Confirm your setting using the **OK** button.

Switching on: To activate the night-time reduction, select **On**.
Switching off: To deactivate the night-time reduction, select **Off**.

Day extension

If you want to switch off night-time reduction (e.g. when guests are there), you can use day extension. Day extension can only be switched on when night-time reduction is switched on (night-time reduction **On**). If you press day extension **On**, the control will switch to day mode and the set extension time will begin to run. You can change the expiry time by simply pressing the numeric keys next to the day extension time: An input field appears. You enter the time in seconds and confirm with **OK**. The expiry time can also be changed in the ETS.

5.6.　Universal menu

The universal menu offers space for up to 64 functions on eight pages. These may be control elements, display values or input fields and buttons for the bus communication. The universal menu must be set up in the ETS.

📖 Universal menu, page 123

5.6.1.   Setting the Universal menu using the ETS

Up to 8 pages can be created for the Universal menus. Each page can be allocated up to 8 functions. Thus, a total of 64 functions can be displayed in the Universal menus.

Make sure that the text you enter is as short and precise as possible. The page title display is limited to 15 characters.

Page 1 - 8 Function 1 - 8	Text input field S. 1 - 8 Function 1 - 8

Function 1 / 2 / 3 / 4 / 5 / 6 / 7 / 8	• No function • Select all object functions

Determine in the ETS which object functions are displayed, and/or which can be directly processed on the touch display.

5.6.1.1. List of object functions

For object function „Display ..." the received value/text is shown on the display only. For object function „Input ..." a value/text can be edited on the display and sent with **OK**.

No function
Display 1 / 0
Display Up (for value 0) / Down (for value 1)
Display Up (for value 1) / Down (for value 0)
Display On (for value 1) / Off (for value 0)
Display On (for value 0) / Off (for value 1)
Display Up (for value 1) / To (for value 0)
Display Up (for value 0) / To (for value 1)
Display 8-bit value [0...255]
Display 8-bit value [0%...100%]
Display 8-bit value [0...360°]
Display 16-bit counter with math. symbol
Display 16-bit counter without math. symbol
Display 16-bit floating point
Display 32-bit counter with math. symbol
Display 32-bit counter without math. symbol
Display 32-bit floating point
Display text
Input 1 / 0
Input 0
Input 1
Input (press = 1 / release = 0)
Input (press = 0 / release = 1)
Input up/down (press = 1 / release = 0)
Input up/down (press = 0 / release = 1)
Input + / -
Input Up (for value 0) / Down (for value 1)
Input Up (for value 1) / Down (for value 0)

Input On (for value 1) / Off (for value 0)
Input On (for value 0) / Off (for value 1)
Input Open (for value 1) / Close (for value 0)
Input Open (for value 0) / Close (for value 1)
Input Extended / Brief
Input 8-bit value [0...255]
Input 8-bit value [0%...100%]
Input 8-bit value [0...360°]
Input 16-bit counter with math. symbol
Input 16-bit counter without math. symbol
Input 16-bit floating point
Input 32-bit counter with math. symbol
Input 32-bit counter without math. symbol
Input 32-bit floating point
Input text

Object function „Input Extended/Brief":

Function	Input Extended / Brief
Time 1 in 10 m/s	0...200; 40
Time 5.08 cm 10 m/s	0...24 000; 200

For the object function „Input Brief/Extended", you can trigger the following commands by variing the duration of the button press:

 Up/down buttons

Button was pressed and
released before expiry of Time 1
==> Stop/Step
Maintained for longer than Time 1
==> Up/Down
Triggered between Times 1 and 1 + 2
==> Stop
Triggered after Times 1 + 2
==> No further stop

Object function „Display/Input 16/32-bit floating point":

Function	• Display 16-bit floating point • Display 32-bit floating point • Input 16-bit floating point • Input 32-bit floating point
Text for unit	Text input (max. 2 chars.)

Conversion factor a	-/+ 0,001 • ... • -/+ 10000
Conversion factor a	1 ... 65535

For object function "Display 16/32-bit floating point" and „Input 16/32-bit floating point", you can input the unit as text. Additionally, you can convert the value by using the factors *a* (+/-, floating point) and *b* (number 1...65535).
Thus, the value of 10 m/s received from the bus could be displayed as $10 \times (+0.1) \times 36$ = 36 km/h

Object function „Input 8/16/32-bit...":

Function	• Input 8-bit value [0...255] • Input 8-bit value [0%...100%] • Input 8-bit value [0...360°] • Input 16-bit counter with math. symbol • Input 16-bit counter without math. symbol • Input 16-bit floating point • Input 32-bit counter with math. symbol • Input 32-bit counter without math. symbol • Input 32-bit floating point
Name [Start menu only]	Text input
Text for unit	Text input (max. 2 chars.)
Value can be set via display	<u>Yes</u> • No
Start value	<u>0</u>
Minimum value	Depending on the function
Maximum value	Depending on the function

For object function "Input 8/16/32-bit" you can input the unit as text. In addition, you can select whether the value can be changed via the display. And you can specify a start, minimum, and maximum value.

5.6.2.   Universal menu at the screen

The Universal menu is used for display (e. g. measured values) and operation.

 Universal menu, page 123

Page texts and names for functions can be changes in the ETS and at the screen.
 Texts, page 67

5.7.   Timer

For use of the timer, reception of date and time via the bus or manual setting of the internal clock is required.
Date and time, page 60

Sixteen periods can be set in the week-long timer, which can be used for different automation functions. A start and end point, as well as a day of the week must be set for each time period.

5.7.1. Setting the timer using the ETS

The time periods for the timer are set in the menu items "Timer 1...16".

Period output transmits	• <u>not</u> • on change • on change to 1 • on change to 0 • on change and periodically • on change to 1 and periodically • on change to 0 and periodically
Cycle *(is only transmitted if "periodically" is selected)*	5 s ... 2 h; <u>1 min</u>
Transfer the following parameters	No • <u>Yes</u>

⚠️ **If you transfer these parameters, the settings which have been made manually on the touch display will be overwritten.**

Name	Text input field
Start:	
Hour	<u>0</u>...23
Minute	<u>0</u>...59
End:	
Hour	<u>0</u>...23
Minute	<u>0</u>...59
Use weekday:	
Monday	<u>No</u> • Yes
Tuesday	<u>No</u> • Yes
Wednesday	<u>No</u> • Yes
Thursday	<u>No</u> • Yes
Friday	<u>No</u> • Yes
Saturday	<u>No</u> • Yes
Sunday	<u>No</u> • Yes

5.7.2. Setting the timer at the screen

You can access the timer via the menu:

🕐 Timer
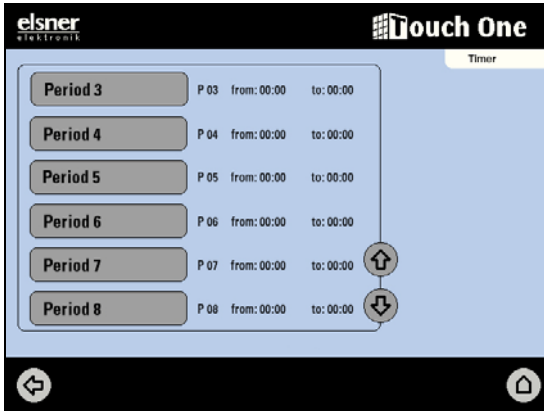
The defined time periods can be easily identified in the overview for all time periods. Press the button in order to adjust a time period. The following settings of each time period can be changed:

Name:

    Period 1 - 16

Press the button to change this name. Enter the desired name via the keypad that appears.

Start / end:

Set the start and end of the time period by selecting each hour and minute field consecutively and setting the time using the arrow buttons. Holding the arrow button allows you to input the time more rapidly.

Weekdays:

Select the day of the week on which the time period should be activated. More than one day can also be selected.

Confirm your setting using the **OK** button.

    Reset

The **Reset** command allows you, at the touch of a button, to reset the time periods to their original condition (start: 00:00, end: 00:00, no weekday).

Confirm your setting using the **OK** button.

5.8.   Scenes

5.8.1.   Setting scenes using the ETS

Scenes are set via the menu items "Scenen control" and "Scene object 1...16".

Scene control

At first the required number of scene objects is activated here (up to 16 objects).

Use scene object 1 - 16	**Yes**

Scene object 1...16

After that you dfine the individual scene objects (e. g. sending an 8 bit value in % for addressing a light dimming actuator in the living room). The scene objects must be liked with the corresponding actuator inputs.

After reset, last received value should	• Not retained • Retained
Object type	• 1 bit • 8 bit [0...255] • 8-bit in % [0...100] • 8 bit in ° [0...360] • 16-bit floating point [-6707600...+6707600]

Those scene objects (e. g. the dimming linked with the light in the living room) can now be assigned to the individual scenes (1...16) and a value can be defined. Thus each linkage can be used several times (e. g. dimming to 20% for scene "TV", dimming to 60% for scene "Guests")

Use scene 1 - 16	No • Yes
When a scene is used, the following values appear:	
Value *(for "1-bit object type")*	0 • 1
Value *(for "8-bit object type [0...255]")*	0...255
Value *(for "8-bit object type in %[0...100]")*	0...100
Value *(for "8-bit object type in ° [0...360]")*	0...360
Value (in 0.1) *(for "16-bit floating comma object type")*	-6707600...6707600;0

5.8.2.   Scene activation at the screen

Up to 16 scenes can be called up or saved in the **Scene actuation > Scene 1 - 16** menu area. Press the button:
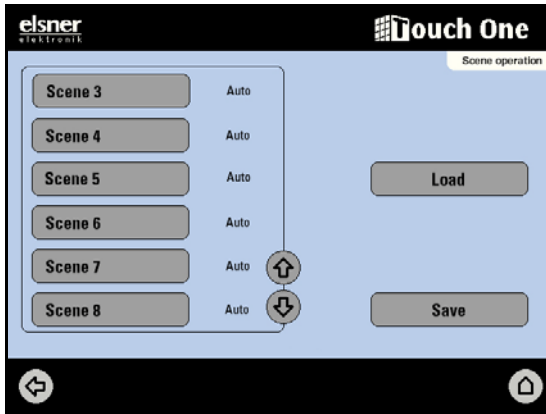
Load

Pressing the **Load** buttons sends all of the values allocated in the ETS for objects which are allocated to the selected scene.

Saving

Pressing the **Saving** button sends a read message to all of the objects which are assigned to the scene. The value of the reply message is used as the new scene value. Please note that the L-flag is set in the actuator.

5.9.   Push-button inputs

Besides operating using the display, you can also connect external buttons (wall-mounted buttons) to the **Room Controller KNX Touch One**. The button inputs are configured in the ETS.

Use button interface 1 / 2 / 3 / 4	<u>No</u> • Yes

Use button interface 1 / 2 / 3 / 4	**Yes**
Function	• switch • Changeover switch • Blind • Roller blind • Awning • Window • Dimmer • 8-bit encoder • 16-bit encoder • Scene load

Input as switch:

If a button with switch function is assigned to the input, select the bus function "Switch" and specify which value is sent when pressing/releasing the button and when it will be sent.

Function	**Switch**
Command when pressing the button	• send 0 • send 1 • do not send telegram
Command when releasing the button	• send 0 • send 1 • do not send telegram
Send value	• no change • for change to 1 • for change to 0 • for change and cyclical • for change to 1 and cyclical • for change to 0 and cyclical
Cycle *(if sent cyclical)*	5 s • 10 s • 30 s • 1 min • 2 min • 5 min • 10 min • 20 min • 30 min • 1 h • 2 h

Input as changeover switch:

If a button with switch function is assigned to the input, select the bus function "Changeover Switch" and specify if the button should switch when pressed/released.

Function	**Changeover Switch**
Command when pressing the button	• Switching • do not send telegram
Command when releasing the button	• Switching • do not send telegram

Input to shutter, blinds, awning or window control:

If the input to the drive control is used via the bus, select the bus function "shutter", "awning", "blinds" or "window" and specify the button function and control mode.

Function	Shutter / blinds / awning / window	
Button function	Up • Down Up • Down • Up/ Down On • Off • On/Off Open • Closed • Open/Closed	(shutter) (blinds) (awning) (window)
Control mode*	• Standard • Standard inverted • Comfort mode • Dead man's switch	

Input as dimmer:

If the input is used as a dimmer, select the bus function "Dimmer" and specify the button function, time interval (switching/dimming) and if requested, the repeat interval for a long button press.

Function	Dimmer
Button function	brighter • darker • brighter/darker
Time between switching and dimming (in 0.1 s)	1...50; 5
Repeat the dimm command	no • yes
Repeat the dimm command for a long button press *(if dimm command is repeated)*	every 0.1 s • every 2 sec; every 0,5 sec
Dim by *(if dimm command is repeated)*	1,50% • 3% • 6 % • 12,50% • 25% • 50%

Input 8 bit encoder:

If the input is to be used as an 8bit encoder, select the "8 bit encoder" bus function and specify which value will be sent.

Bus function	8 bit encoder
Value	-6707600...6707600; 0

Input for scene control:

If scenes are called and saved with the input, then choose the "Scenes" bus function and specify the scene number.

Bus function	Scenes
Scene No.	0...127

Standard:

If briefly operated, the drive will move incrementally or stops. If operated longer, the drive will move up to the end position. The time difference between "short" and "long" is set individually.

Control mode	**Standard**
Behavior during button operation: short = stop/increment long = Up or Down	
Time between short and long in 0.1 seconds	1...50; <u>10</u>

Standard inverted:

When pushed shortly, the drive moves up to the end position. When pushed for longer, the drive moves incrementally or stops. The time difference between "short" and "long" and the repeat interval is set individually.

Control mode	**Standard inverted**
Behavior during button operation: short = Up or Down long = Stop/Step	
Time between short and long in 0.1 seconds	1...50; <u>10</u>
Repeat the step command for a long button press	every 0.1 s • every 2 sec; <u>every 0.5 sec</u>

Comfort mode:

In the **comfort mode** pushing the button briefly, a bit longer and long will trigger different responses of the drive. The time intervals are set individually.

By pushing the button (shorter than adjustable time 1) the drive will be positioned (resp. stopped) incrementally.
If the drive is to be moved a bit farther, then a little longer push is needed (longer than time 1 but shorter than time 1+2). The drive stops immediately when releasing the button.
If the drive must be moved independently into the end position, the button is released only after times 1 + 2 have expired. The move can be stopped by briefly pushing.

Fig. 2
Time interval comfort mode diagram

Time 1	Time 2	
0	1	1 + 2

Point in time 0:	*Push of button, start of time 1*
Release before time 1 expired:	*step (or stop if drive is moving)*
Point in time 1:	*End of time 1, start of time 2* *Moving command*
Release after time 1 expired *but before time 2 expires:*	*Stop*
Release after time 1 + 2 expired:	*Move into end position*

Control mode	**Comfort mode**

Behavior during button operation: Button is pushed and released before time 1 expired = stop/step held longer than time 1 = Up or Down released between time 1 and 1-2= stop released after time 1 +2 = no more stop	
Time 1	0.0s ... • 2 s; <u>0.4 s</u>
Time 2	0 s • 2 s; <u>2 s</u>

Dead man's switch:

The drive moves as soon as the button is pushed and stops as soon as the button is released.

Control mode	**Dead man's switch**
Behavior during button operation: Push button = Up or Down command Release button = Stop command	

5.10. Variable comparator (ETS)

The integrated variable comparators can output maximum, minimum and average values.

Use comparator 1/2/3/4	<u>No</u> • Yes

5.10.1. Control variable comparator 1/2/3/4

Determine what the control variable comparator should output, and activate the input objects to be used. Transmission patterns and blocks can also be set.

Output delivers	• Maximum value • Minimum value • <u>Average value</u>
Use input 1 / 2 / 3 / 4 / 5	No • Yes (Yes acivates the communication object "Actuating variable comparator X: input X")
Output sends	• <u>on change of output</u> • on change of output and periodically • when receiving an input object • when receiving an input object and periodically
Cycle *(if sent periodically)*	5 s • 10 s • 30 s • ... • <u>5 min</u> • ... • 2 h
At and above change of *(if sent on change)*	<u>1%</u> • 2% • 5% • 10% • 20% • 25% • 50%

Analysis of the blocking object	• <u>at 1: block | at 0: release</u> • at 0: block | at 1: release
Blocking object value before 1st communication	0 • 1
Behaviour of the switching output	
On block	• <u>do not send message</u> • Send value
value in %	0 ... 100
output sends on release (with 2 seconds release delay)	• <u>the current value</u> • the current value after receipt of an object

5.11. Logic (ETS)

The device has 16 logic inputs, four AND and four OR logic gates.

Activate the logic inputs and assign object values up to first call.

Use logic inputs	Yes • <u>No</u>
Object value prior to first call for:	
- Logic input 1	<u>0</u> • 1
- Logic input ...	<u>0</u> • 1
- Logic input 16	<u>0</u> • 1

Activate the required logic outputs.

AND logic

AND logic 1	<u>not active</u> • active
AND logic ...	<u>not active</u> • active
AND logic 4	<u>not active</u> • active

OR logic

OR logic 1	<u>not active</u> • active
OR logic ...	<u>not active</u> • active
OR logic 4	<u>not active</u> • active

5.11.1. AND logic 1-4 and OR logic outputs 1-4

The same setting options are available for AND and OR logic.

Each logic output may transmit one 1 bit or two 8 bit objects. Determine what the out put should send if logic = 1 and = 0.

1. / 2. / 3. / 4. Input	• do not use
	- Logic inputs 1...16
	- Logic inputs 1...16 inverted
	• all switching events that the device
	   provides (see *Connection inputs of the*
	   AND/OR logic)

Output type	• a 1-Bit-object • two 8-bit objects

If the **output type is a 1-bit object**, set the output values for the various conditions.

Logik output sends	**one 1 bit object**
if logic = 1 ➔ object value	1 • 0
if logic = 0 ➔ object value	1 • 0

If the **output type is two 8-bit objects**, set the type of object and the output values for the various conditions.

Logik output sends	**two 8 bit objects**
Object type	• Value [0…255] • Per cent [0…100%] • Angle [0…360°] • Scene call-up [0…127]
if logic = 1 ➔ object A value	0 … 255; 1
if logic = 0 ➔ object A value	0 … 255; 0
if logic = 1 ➔ object B value	0 … 255; 1
if logic = 0 ➔ object B value	0 … 255; 0

Object A: Shade position height (0 = safe position, 255 = fully extended).
Object B: Shade position slat angle (255 = 100% closed, 200 = approx. 80% closed).

Set the output send pattern.

Transmission behaviour	• on change of logic • on change of logic to 1 • on change of logic to 0 • on change of logic and periodically • on change of logic to 1 and periodically • on change of logic to 0 and periodically • on change of logic + receipt of object • on change of logic + receipt of obj.+ periodically
Transmission cycle *(when sending periodically)*	5 s • 10 s • ... • 2 h

Block

If necessary, activate the block for the logic output and set what a 1 or 0 at the block input means and what happens in the event of a block.

Evaluation of the blocking object	• <u>1 = block control |</u> <u>0 = release control</u> • 0 = block control | 1 = release control
Value of the blocking object before 1st communication	<u>0</u> • 1
Behaviour of the switching output	
With blocking	• <u>do not transmit message</u> • send value for logic = 0 • send value for logic = 1
With release (incl. 2 seconds release delay))	[Depends on the setting for "Output sends"]

The behaviour of the switching output on release is dependent on the value of the parameter "Transsion behaviour":

Switching output sends on change	• <u>transmit no message</u> • transmit status of the switching output
Switching output sends on change to 1	• <u>transmit no message</u> • if switching output = 1 ➜ transmit 1
Switching output sends on change to 0	• <u>transmit no message</u> • if switching output = 0 ➜ transmit 0
Switching output send on change and periodically	transmit value for current logic status
Switching output send on change to 1 and periodically	if switching output = 1 ➜ transmit 1
Switching output send on change to 0 and periodically	if switching output = 0 ➜ transmit 0
Switching output sends on change and on reception of an object	• <u>transmit no message</u> • transmit value for current logic status
Switching output sends on change and on reception of an object and periodically	transmit value for current logic status

5.11.2. AND logic connection inputs

Do not use
Logic input 1
Logic input 1 inverted
Logic input 2
Logic input 2 inverted
Logic input 3
Logic input 3 inverted
Logic input 4
Logic input 4 inverted

Logic input 5
Logic input 5 inverted
Logic input 6
Logic input 6 inverted
Logic input 7
Logic input 7 inverted
Logic input 8
Logic input 8 inverted
Logic input 9
Logic input 9 inverted
Logic input 10
Logic input 10 inverted
Logic input 11
Logic input 11 inverted
Logic input 12
Logic input 12 inverted
Logic input 13
Logic input 13 inverted
Logic input 14
Logic input 14 inverted
Logic input 15
Logic input 15 inverted
Logic input 16
Logic input 16 inverted

5.11.3. Connection inputs of the OR logic

The OR logic connection inputs correspond to those of the AND logic. In addition, the following inputs are available for the OR logic:

Switching output AND logic 1
Switching output AND logic 1 inverted
Switching output AND logic 2
Switching output AND logic 2 inverted
Switching output AND logic 3
Switching output AND logic 3 inverted
Switching output AND logic 4
Switching output AND logic 4 inverted

5.12. Computer (ETS)

Activate the multi-functional computer, with which the input data can be changed by calculation, querying a condition or converting the data point type. The menus for the further setting of the computer are then displayed.

Computer 1/2/3/4/5/6/7/8	<u>No</u> • Yes

5.12.1. Computer 1-8

Set, in which cases input values received are to be kept per object. Please note that the setting "After power restoration and programming" should not be used for the initial start-up, as the factory settings are always used until the first call (setting via objects is ignored).

Maintain the	
input values received via communication objects	• never • after power supply restoration • after power supply restoration and programming

Select the function set the input mode and starting values for input 1 and input 2.

Function (I = Input)	• Prerequisite: E1 = E2 • Prerequisite: E1 > E2 • Prerequisite: E1 >= E2 • Prerequisite: E1 < E2 • Prerequisite: E1 <= E2 • Prerequisite: E1 - E2 >= E3 • Prerequisite: E2 - E1 >= E3 • Prerequisite: E1 - E2 amount >= E3 • Calculation: E1 + E2 • Calculation: E1 - E2 • Calculation: E2 - E1 • Calculation: E1 - E2 Amount • Calculation: Output 1 = E1 × X + Y | Output 2 = E2 × X + Y | • Transformation: General
Tolerance for comparison *(in the case of prerequisite E1 = E2)*	0 ... 4,294,967,295
Input type	[Selection options depending on the function] • 1 bit • 1 byte (0...255) • 1 byte (0%...100%) • 1 byte (0°...360°) • 2 byte counter without math. symbol • 2 byte counter with math. symbol • 2 byte floating point • 4 byte counter without math. symbol • 4 byte counter with math. symbol • 4 byte floating point
Starting value E1 / E2 / E3	[Input range depending on the type of input]

Prerequisites

When querying the prerequisites set the output type and output values at different statuses:

Output type	• 1 bit • 1 byte (0...255) • 1 byte (0%...100%) • 1 byte (0°...360°) • 2 byte counter without math. symbol • 2 byte counter with math. symbol • 2 byte floating point • 4 byte counter without math. symbol • 4 byte counter with math. symbol • 4 byte floating point
Output value *(if applicable output value A1 / A2)*	
if the condition is met	0 [Input range depending on the type of output]
if the condition is not met	0 [Input range depending on the type of output]
if the monitoring time period is exceeded	0 [Input range depending on the type of output]
if blocked	0 [Input range depending on the type of output]

Set the output send pattern.

Output sends	• on change • on change and after reset • on change and periodically • when receiving an input object • when receiving an input object and periodically
Type of change *(is only sent if "on change" is selected)*	• on each change • on change to condition met • on change to condition not met
Send cycle *(if sent periodically)*	5 s ... 2 h; 10 s

Set the text to be displayed for conditions met / not met.

Text if the condition is met	[Free text max. 14 chars.]
Text if the condition is not met	[Free text max. 14 chars.]

If applicable set the send delays.

Send delay in the event of change to the condition is met	none • 1 s • ... • 2 h
Send delay in the event of change to the condition is not met	none • 1 s • ... • 2 h

Calculations and transformation

For calculations and transformations set the output values to the various conditions:

Output value (if applicable A1 / A2)	
if the monitoring time period is exceeded	0 [Input range depending on the type of output]
if blocked	0 [Input range depending on the type of output]

Set the output send pattern.

Output sends	• on change
	• on change and after reset
	• on change and periodically
	• when receiving an input object
	• when receiving an input object and periodically
on change of *(only if calculations are transmitted for changes)*	1 ... [Input range depending on the type of input]
Send cycle *(if sent periodically)*	5 s ... 2 h; 10 s

For **Calculations of the form output 1 = E1 × X + Y | output 2 = E2 × X +Y** define the variables X and Y. The variables can have a positive or negative sign, 9 digits before and 9 digits after the decimal point.

Formula for output A1: A1 = E1 × X + Y	
X	1.00 [free input]
Y	0.00 [free input]
Formula for output A2: A2 = E2 × X + Y	
X	1.00 [free input]
Y	0.00 [free input]

Further settings for all formulas

If necessary, activate the input monitoring. Set which inputs are to be monitored, at which intervals the inputs are to be monitored and what value the "monitoring status" should have, if the monitoring period is exceeded without feedback.

Use input monitoring	No • Yes
Monitoring of	• E1
	• E2
	• E3
	• E1 and E2
	• E1 and E3
	• E2 and E3
	• E1 and E2 and E3
	[depending on the function]

Monitoring period	5 s • ... • 2 h; <u>1 min</u>
Value of the object "monitoring status" if period is exceeded	0 • <u>1</u>

If necessary, activate the computer block and set what a 1 or 0 at the block entry means and what happens in the event of a block.

Use block	<u>No</u> • Yes
Analysis of the blocking object	• <u>At value 1: block | At value 0: release</u> • At value 0: block | At value 1: release
Value before first call	<u>0</u> • 1
Output pattern On block	• <u>do not send anything</u> • send value
On release	• as send pattern [see above] • <u>send current value immediately</u>

6. Tables

6.1.   Units for sun and wind

STOP **The unit must receive values for rain, external temperature, wind speed and brightness from the bus in order to have the weather station initialised.**

The display of sun intensity is in lux or kilolux and is shortened in the display to lx or klx. The value 1 is reached even with overcast skies, 20 klx if the sun has just come out again and 100 klx is reached when there are cloudless skies at noon. Experience indicates that extending shades above 40 klx is to be recommended.

The display of wind speed is in meters per second and is shortened in the display to m/s. Depending on the position of the building and the installation position of the weather station, different values may be optimal in order to protect the shade or window. Observe the response of the awning or blinds or the window to wind and then correct the wind value accordingly.

The following table should make it easier to find the optimal values for your situation:

Description	m/s	km/h	Beaufort	Knots
Calm	< 0,3	< 1	0	< 1
Light air	0,3-1,5	1-5	1	1-3
Light breeze	1,6-3,3	6-11	2	4-6
Gentle breeze	3,4-5,4	12-19	3	7-10
Moderate breeze	5,5-7,9	20-28	4	11-16
Fresh breeze	8,0-10,7	29-38	5	17-21
Strong breeze	10,8-13,8	39-49	6	22-27
Moderate gale	13,9-17,1	50-61	7	28-33
Fresh gale	17,2-20,7	62-74	8	34-40
Strong gale	20,8-24,4	75-88	9	41-47
Whole gale	24,5-28,4	89-102	10	48-55
Storm	28,5-32,6	103-117	11	56-63
Hurricane	> 32,6	> 117	12	> 63

6.2.   Settings data

Blind 1-6, Awning 1-4, Roller shutter 1-4:

No.	1	2	3	4	5	6
Name						
Manual direction						
Brightness (klx)						

Sun direction							
Sun elevation							
Actuation position							
Slat position							
Slat position for Sun elevation	0°-15°						
	15°-30°						
	30°-45°						
	45°-90°						
TH sensor Yes/No							
Indoor temperature (°C)							
Night-time closure?							
Timed closure (period)							
Frost alarm?							
Outdoor temperature (°C)							
Wind alarm in (m/s), time overrun							
Rain alarm?							
Automatic Reset?							
Reset following manual intervention?							

Awning 1-4, Roller shutter 1-4:

Extension delay (min)	
Retraction delay (min)	
Twilight value (lx)	

Window 1 - 2:

No.	1	2	-	-	-	-
Window type without or with step opening						
Number of steps						
Name						
Manual direction						
TH sensor Yes/No						
Timed ventilation (period) Yes/No						

No.	1	2	-	-	-	-
Outdoor temperature block Yes/No						
Close from outdoor temperature (0.1 °C)						
Frost protection Yes/No						
Wind alarm Yes/No						
Rain alarm Yes/No						
Gap opening when raining Yes/No Gap opening (in %)						
Automatic Reset?						
Reset following manual? actuation?						

When the TH sensor is used:

No.	1	2	-	-	-	-
Indoor temperature block Yes/No						
Ondoor temperature (0.1 °C)						
Air humidity Yes/No						
Air humidity (% rH)						
CO2 Yes/No						
CO2 content (10 ppm)						
Supply air temperature block Yes/No						
Night-time re-cooling Yes/No (period, temp.)						
Window opening (in %)						

Ventilation:

Name					
TH sensor Yes/No					
Timed ventilation Yes/No (period)					
Ventilate in steps (in %)					

Name						
Automatic Reset?						
Reset following manual? actuation?						

When the TH sensor is used:

Name						
Indoor temperature lock Yes/No						
Indoor temperature (0.1 °C)						
Use air humidity Yes/No						
Air humidity (% rH)						
Use CO2 Yes/No						
CO2 content (10 ppm)						
Start exhaust ventilation (in 10%)						
and increase exhaust ventilation from (in 10%)						
Night-time re-cooling (periods) Yes/No						
Ventilate in steps (in %)						

Light 1-8 Switch/Dimmer:

No.	1	2	3	4	5	6	7	8
Name								
Time switching (period 1 - 16)								
AND at night								
Brightness when ON When dimming (%)								
Brightness when OFF When dimming (%)								
Automatic Reset?								
Reset after manual actuation?								

General automation settings:

Twilight value (in lx)	

Extension delay (min)	
Retraction delay (min)	

Start night-time re-cooling when the external temperature is exceeded by (0.1 °C)	
for a period of (h)	

Start frost protection when the exterior temperature is exceeded (0.1 °C) for a set period following precipitation (in h)	
End frost protection when the exterior temperature is exceeded (0.1 °C) for a set period (in h)	

Time point for General Automatic Reset	
Automatic reset following a manual intervention (min)	

Period 1-16 of switching timer:

	Name	from	to	Weekday
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				

	Name	from	to	Weekday
12				
13				
14				
15				
16				