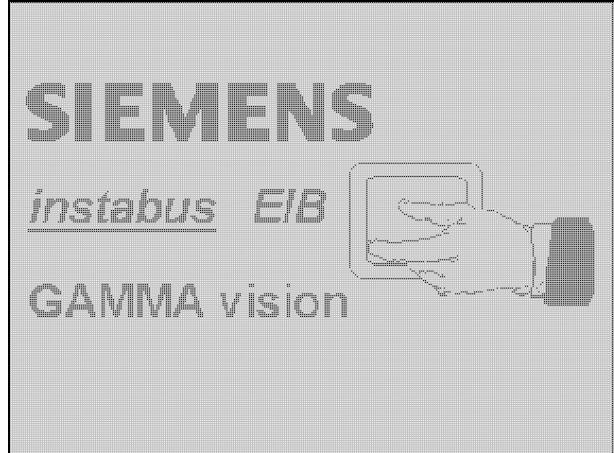


01 07 Touch-Panel vision 802103**Use of the application program**

Product family: Display
Product type: Display units
Manufacturer: Siemens

Name: Touch-Panel vision UP 588
(green backlighting)
Order no.: 5WG1 588-2AB01

Name: Touch-Panel vision UP 588/11
(white backlighting)
Order no.: 5WG1 588-2AB11

**Functional description**

The Touch-Panel vision is a multifunctional display/control unit for KNX / EIB. The basis for the device is an LC display with full graphic capability, a resolution of 320 x 240 pixels and an integrated, resistive touch matrix with 6 x 10 fields. The display has green or white backlighting available which is activated during operation and is switched off automatically after an adjustable period. In connection with the application program 01 07 Touch-Panel vision 802103, the display unit can be used for the following functions: the display and operation of up to 70 standard functions on 7 display pages and the display of an alarm page with 4 alarm signals and 2 text messages. In addition, various time programs that can be modified by the user can be programmed to implement time control tasks and scene programs.

Note:

The application program can be downloaded with ETS2 from version 1.2 onwards.

Start page

The start page appears first when the display unit is switched on or after a bus reset. The backlighting is also activated. At the startup or after a reset, all the status objects of the functions are scanned once. This process can take up to 30 seconds.

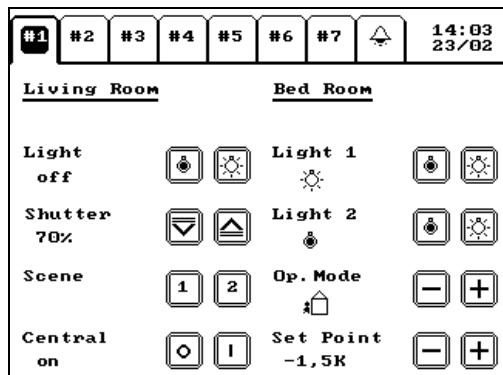
The standard page #1 is activated by pressing anywhere on the start page. In principle, the backlighting of the display is deactivated once an adjustable period has elapsed. In the default parameter setting, the display changes back to the start screen when the backlighting is switched off. The period is restarted by the user with each push button action.

Apart from switching to an active page or switching on the backlighting, pressing the display when the backlighting is switched off or the start page is active causes a 1 bit telegram to be sent to object no. 2 ("Touch" object). This object can be used for example to switch on the background lighting. The sending of the "1" telegram can be disabled with object no. 3. It is therefore possible to activate the start function of the start page only under certain conditions (e.g. when it is dark or at particular times). Object no. 2 can further be used to activate the display via an external telegram e.g. from a presence detector. If the display unit is deactivated (i.e. the start page is visible or the backlighting is switched off), it can be reactivated not only by touching the display but also via a "1" telegram to object no. 2.

Standard pages

A variety of standard functions can be implemented with the Touch-Panel vision. There is a maximum of 7 display pages (the number can be selected) available for the standard functions. Up to 10 functions can be displayed and carried out per page. The selection of individual pages is carried out by touching the corresponding index tab, numbered #1 to #7.

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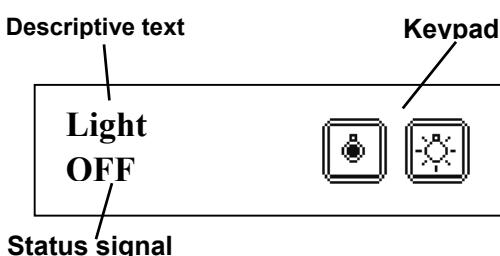
The current time (represented in hours and minutes) and date (can be deactivated via parameters) are displayed in the upper right-hand corner above the respective active standard page. The device does not have an internal real-time clock so that an external time and date telegram is required to set the clock. The telegrams should be sent at least 4x daily by an external timing module (e.g. Siemens time switches) to ensure accuracy. If no time/date telegrams are sent after a period of 24 hours, the symbol --:-- appears in the date and time display.

Possible standard functions

31 different standard functions are available for the standard pages. Up to 10 functions can be defined per page in any combination when assigning parameters in the ETS program. Depending on the selected function, the number and type of the required communication objects are automatically defined by ETS as well as the possible parameters.

A function consists of up to 3 subfunctions:

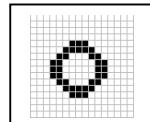
- 1 Descriptive text (up to 10 characters, for text: 12 characters)
- 2 Keypad (single or two-fold button)
- 3 Status signal (as a symbol or clear text)



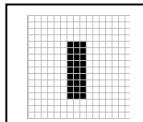
Possible standard symbols:

The following symbols are available for the symbolic representation of 1 bit status signals or for the symbols on the push buttons:

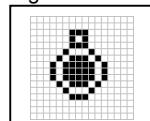
General OFF



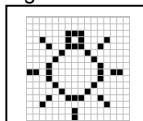
General ON



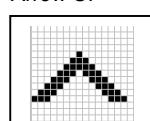
Light OFF



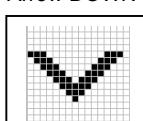
Light ON



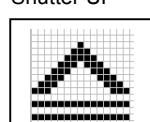
Arrow UP



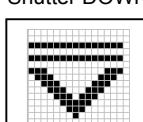
Arrow DOWN



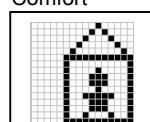
Shutter UP



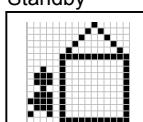
Shutter DOWN



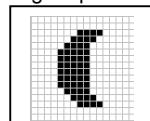
Presence
Comfort



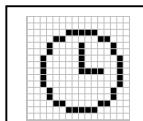
No presence
Standby



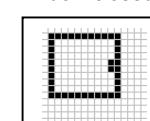
Night operation



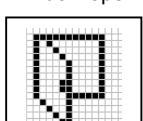
Time control



Window closed



Window open



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The 1 bit status signals can also be expressed as clear text. There is therefore a special page available in the ETS application program where text blocks for the '0' and '1' state can be defined. The text blocks can be a maximum of 3 characters.

In principle, it is possible to distinguish between three groups of standard functions:

Organising functions: Used to improve the description and structure of the display.

Status signals: Used to display values or object contents.

Operator-controllable functions: Used to actively influence the object contents via a push button or a pair of push buttons, as well as to display the status signal if necessary.

The following standard functions are possible:

Organising functions:

1. no function

This function produces an empty area in the corresponding position of the associated page. This function can be used to improve the structure of the pages.

2. Text

Any text of up to 12 characters in length is displayed (e.g. as a title of a page or area of a page). It can be set via a parameter whether the text is underlined.

Status signals:

3. Status display 1 bit (EIS 1)

The status of a 1 bit object is represented as a symbol or in clear text. The assignment of the symbol or text takes place via the parameterisation.

4. Status display 1 byte (EIS 6)

The value of a 1 byte object is displayed as a value of 0..100%.

5. Status display temperature (EIS 5)

A temperature value is represented in °C. A range of -99.9 to 600°C is permitted.

6. Status display pressure (EIS 5)

An air pressure value is represented in hPa. A range of 0 – 1998 hPa is permitted.

7. Status display wind speed (EIS 5)

A wind speed is represented in m/s. A range of 0 to 200 m/s is permitted.

8. Status display wind direction (EIS 6)

A wind direction is represented in ° (angular degree). A range of 0 to 360° is permitted.

9. Status brightness (EIS 5)

A brightness value is represented in lux (lx). A range of 0 to 99999 lux is permitted.

10. Status display counter

(1 byte (EIS 14), 2 byte (EIS 10), 4 byte (EIS 11))
A count/event value is represented. A range between -999.999 and 999.999 is permitted. It can be selected via a parameter which data format (8 bit, 16 bit, 32 bit signed and unsigned) is used.

11. Status display operating hours (EIS 11)

An elapsed time value is represented in hours. A range between 0 and 9.999.9 h is permitted. The input value required is a 32 bit count value via the object. The conversion into hours is carried out internally.

12. Status display energy value [kWh] (EIS 9)

An energy value is represented in kWh. A range of 0 to 99.999.9 kWh is permitted. The input value required in Wh is in 32 bit floating format. The conversion into kWh is carried out internally.

13. Status display power (EIS 9)

A power output is represented in W. A range of 0 to 99.999 watts is permitted. An input value in 32 bit floating format is required.

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14. Status display volume [m³] (EIS 9)

A volume (e.g. water consumption) is represented in m³. A range of 0 to 99,999 m³ is permitted. An input value in 32 bit floating format is required.

15. Status display EIS 5 general

An EIS 5 2 byte value is represented without a unit of measurement. A range of -6000 to 60,000 is permitted.

16. Status display EIS 9 general

An EIS 9 4 byte value is represented without a unit of measurement. A range of 0 to 99,999 is permitted.

Operator-controllable functions:

17. Switch Toggle (EIS 1)

It is possible to toggle via a push button. The push button is denoted with the respective symbol "General ON" or "General OFF" (depending on the switching state). The type of status display can be selected in the parameters: none, symbol or as text.

18. Switch Off (EIS 1)

It is possible to switch off (only '0' telegram) via a push button. The push button is denoted with the symbol "General OFF". The type of status display can be selected in the parameters: none, symbol or as text.

19. Switch On (EIS 1)

It is possible to switch on (only '1' telegram) via a push button. The push button is denoted with the symbol "General ON". The type of status display can be selected in the parameters: none, symbol or as text.

20. Switch Light Toggle (EIS 1)

It is possible to toggle via a push button. The push button is denoted with the respective symbol "Light ON" or "Light OFF". The type of status display can be selected in the parameters: none, symbol or as text.

21. Switch Light Off (EIS 1)

It is possible to switch off (only '0' telegram) via a push button. The push button is denoted with the symbol "Light OFF". The type of status display can be selected in the parameters: none, symbol or as text.

22. Switch Light On (EIS 1)

It is possible to switch on (only '1' telegram) via a push button. The push button is denoted with the symbol "Light ON". The type of status display can be selected in the parameters: none, symbol or as text.

23. Presence Toggle (EIS 1)

It is possible to toggle via a push button. The push button is denoted with the respective symbol "Presence" or "No presence". The type of status display can be selected in the parameters: none, symbol or as text.

24. Switch On / Off (EIS 1)

It is possible to switch on and off via a push button each (right: ON, left: OFF). The push buttons are denoted with the respective symbol "General ON" or "General OFF". The type of status display can be selected in the parameters: none, symbol or as text.

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25. Switch On / Off (arrow symbol) (EIS 1)

It is possible to switch on and off via a push button each (right: ON, left: OFF). The push buttons are denoted with the respective symbol "Arrow UP" or "Arrow DOWN". The type of status display can be selected in the parameters: none, symbol or as text.

26. Switch Light On / Off (EIS 1)

It is possible to switch on and off via a push button each (right: ON, left: OFF). The push buttons are denoted with the respective symbol "Light ON" or "Light OFF". The type of status display can be selected in the parameters: none, symbol or as text.

27. Presence On / Off (EIS 1)

It is possible to switch on and off via a push button each (right: ON, left: OFF). The push buttons are denoted with the respective symbol "Presence" or "No presence". The type of status display can be selected in the parameters: none, symbol or as text.

28. Dimming (EIS 2)

A short push button action switches on and off (right: ON, left: ON), while a long push button action generates 4 bit dimming telegrams (right: dim brighter, left: dim darker). The push buttons are denoted with the respective symbol "Light ON" or "Light OFF". The type of dimming (dimming with stop telegram or dimming with cyclical sending) and likewise the increment for dimming can be set via the ETS program. The type of status display can be selected in the parameters: none, symbol, as text or as relative dimming value of 0..100% (only for actuators with 8 bit status signal).

29. Shutter (EIS 7)

A long push button action raises and lowers the shutter (right: UP, left: DOWN) while a short push button action enables louvre adjustment. The push buttons are denoted with the respective symbol "Shutter UP" or "Shutter DOWN". The type of status display can be selected in the parameters: none or relative opening value of 0..100% (only for actuators with 8 bit status signal).

30. Scene by object

Using two push buttons, it is possible to recall a scene which has been stored in a scene module ("0" telegram = Scene 1, "1" telegram = Scene 2). It can be set via a parameter whether the push buttons are labelled as 1+2, 3+4, 5+6 or 7+8. Two "Scene" functions can be arranged above each other so that e.g. it is possible to recall four scenes of a scene module. If internally

programmed scenes should be retrieved with this function, they must be linked together via group addresses.

31. Scene internal

One of the eight internal scenes can be recalled via a push button, if the correct parameter settings have been selected. The retrieval is carried out without sending any external objects. The descriptive text that is displayed for the function corresponds to the descriptive text for the associated scene (scene page in ETS).

32. Set value 0..100% (EIS 6)

It is possible to set a value between 0 and 100% via two push buttons. The value can be adjusted stepwise upwards or downwards using the push buttons. The set value is displayed as a status signal. An increment of 5%, 10% or 20% can be selected. After a push button action, the set value is sent via an 8 bit telegram. Any 8 bit values that are received are displayed.

33. Set value 0..40°C (EIS 5)

It is possible to set a temperature value between 0 and 40°C via two push buttons. The value can be adjusted stepwise upwards or downwards using the push buttons. The set value is displayed as a status signal. An increment of 0.5 K, 1 K, 2 K or 5 K can be set. The set value is sent 3 seconds after the last adjustment via a 2 byte telegram. Any 2 byte values that are received are displayed.

34. Adjust set value (EIS 5)

A temperature setpoint value can be adjusted above and below the value 0 by 3 steps each time via two push buttons. The value can be shifted stepwise upwards or downwards using the push buttons. The set adjustment is displayed as a status signal. An increment of 0.5 K, 1 K or 1.5 K can be selected for the adjustment. The set value is sent 3 seconds after the last adjustment via a 2 byte telegram. Any 2 byte values that are received are displayed.

35. Change operating mode of heating (standard)

It is possible to toggle cyclically between the operating modes: comfort, standby and night via two push buttons. The respective symbol of the selected operating mode is displayed as a status signal. The function can be adapted to two different types of thermostats using a parameter. Thermostat 1 operates with 3 x 1 bit objects (comfort, standby, night, e.g. UP 231). A '1' telegram is sent to the relevant object for the set operating mode 3 seconds after the last operation.

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The three objects can also be described by an external bus device. The operating mode that last received a '1' telegram is the active mode. The status signal in the display is updated accordingly.

Thermostat 2 operates with a combined "Comfort/Standby" object and a "Night" object as well as an 8 bit status object for the status feedback (e.g. UP 25x). If comfort mode is selected, a '1' is sent to the "Comfort/Standby" object and a '0' to the "Night" object. If standby mode is selected, a '0' is sent both to the "Comfort/Standby" object and the "Night" object. If night operation is selected, a '0' is sent to the "Comfort/Standby" object and a '1' to the "Night" object. The sending is carried out 3 seconds after the last setting each time. The 8 bit status object can be described externally and updates the status feedback in the display with the following: bit 0 = comfort mode, bit 1 = standby mode and bit 2 = night operation of the thermostat.

36. Change operating mode of heating (with timer) (only possible with UP 231)

It is possible to toggle cyclically between the operating modes: comfort, standby and night via two push buttons. The respective symbol of the selected operating mode is displayed for the setting. The function can be used in connection with a time task (e.g. also stored in the display). It operates with the three 1 bit objects: "Comfort", "Night" and "Timing". The selection of comfort mode sends a '1' to the "Comfort" object and a '1' to the "Timing" object. The selection of night operation sends a '1' to the "Night" object and a '1' to the "Timing" object. The selection of timer mode only sends a '0' to the "Timing" object. The corresponding telegrams are sent 3 seconds after the last operation. A timer program which is stored in the time task module of the display can be enabled or disabled with the "Timing" object (by sending a '0' to the respective disable object). The "Comfort" and "Night" objects can also be described externally. If the "Comfort" object is set to '1', the "Comfort" symbol is displayed. If both the "Comfort" and "Night" objects are set to '0', the "Standby" symbol is displayed. The "Night" symbol is displayed if the "Comfort" object is set to '0' and the "Night" object is set to '1'.

37. Reset value

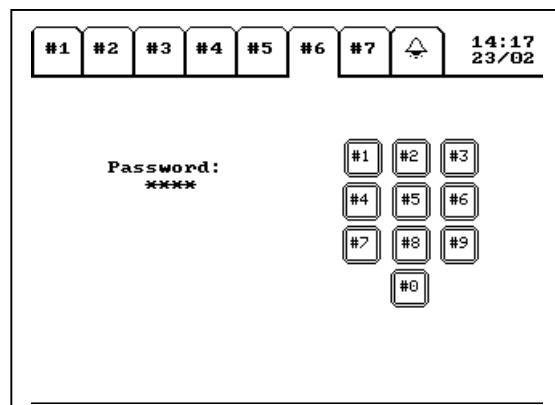
A value can be reset via a push button. The reset can be carried out by sending a telegram with the value "0". 1 byte (EIS 14), 2 byte (EIS 5 or EIS 10) and 4 byte (EIS9 or EIS11) telegrams are possible.

Status objects

The status objects of the standard functions are all queried once via the bus during the initialisation phase of the display unit. It can further be set that the status objects of the currently active page are scanned cyclically. The cyclic period can be set in the parameters.

Password protection of standard pages

To prevent unauthorised use of the functions which are parameterised on the display unit, it is possible for standard pages #2 to #7 to be password-protected. A four-digit password (0000..9999, numbers only) can be assigned via the ETS program for this purpose. If the user then changes to a protected page via the tab, he is first prompted to enter the password.

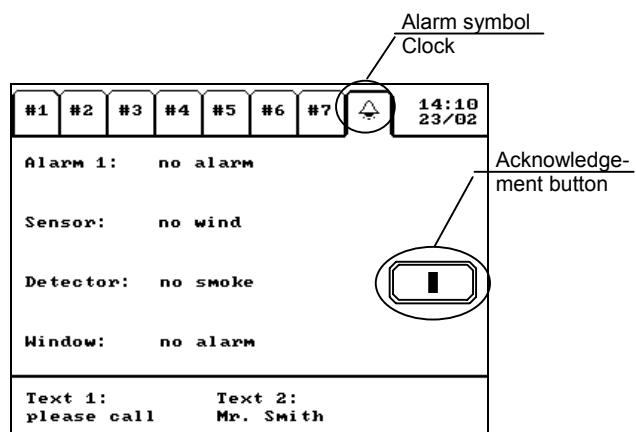


The required page is only displayed once the correct password has been entered. Page #1 cannot be protected with a password.

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Alarm page

Apart from the standard pages, it is also possible to select an alarm page via the index tab. Up to 4 alarm signals and 2 text messages can be represented on the alarm page. Two text blocks with a maximum of 12 characters are assigned to each 1 bit object of an alarm signal. The first text block is displayed at an object value of '0' in the corresponding communication object, while the second block appears at a value of '1'. Both the contents of the text blocks and the descriptive text for the alarm function (max. 10 characters) can be freely parameterised via the ETS program.



When an alarm occurs (object value 1 at object no. 214 to 217), the display automatically changes to the alarm page, the alarm symbol (clock) flashes and the alarm is clarified acoustically for an adjustable period by a signal tone. In addition, an acknowledgement button is shown on the right-hand side of the display.

It is not possible to exit the alarm page until the triggered alarm has been acknowledged. This also applies if the cause of the alarm has been rectified in the meantime and the normal state of the alarm is displayed. This guarantees that an alarm does not remain unnoticed.

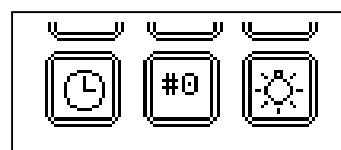
Once the alarm has been acknowledged, the signal tone stops and it is possible to switch to a standard page again. The alarm symbol continues to flash for the duration of the alarm. The acknowledgement also causes a '0' telegram to be sent by the "Acknowledge" object no. 220 (e.g. to switch off a siren). The acknowledgement button disappears after the acknowledgement.

In addition to the 1 bit alarms, it is possible to display two text messages as alarms at the bottom of the page. These messages can be sent as 14 byte string objects e.g. from event module N 341 to objects no. 218 and no. 219.

Time tasks

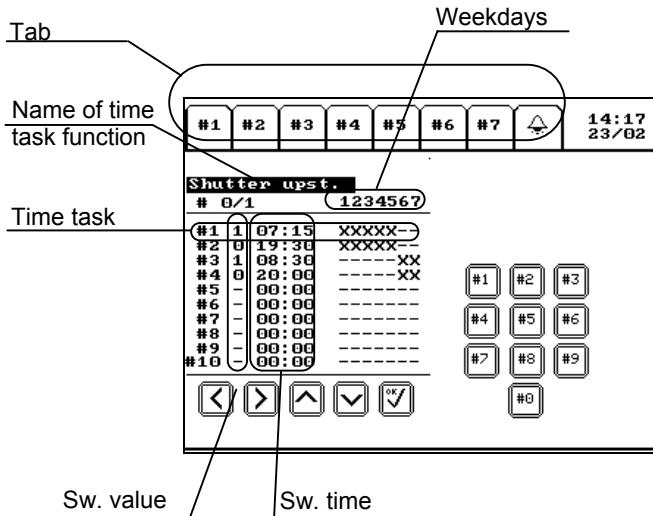
A prerequisite for the execution of time tasks is the daily updating of the date and time by a master clock (indicated by the representation of the time and date on the display).

Apart from the described functionality, time tasks can also be executed on the bus by the device. There are 5 x 1 bit objects (no. 221, no. 223, no. 225, no. 227, no. 229) available for this purpose. Time programs with switching commands (switch on/off) can be programmed for these objects by the user via the display. This area is password-protected for security reasons. The password page appears once you have pressed the display for a long period (> 1 second) in the area of the clock display. The input of the four-digit password is carried out in the same way as the password-protected standard pages (see above). If only the execution of time tasks has been parameterised, the device changes directly to the input page for the time tasks once the correct password has been entered. If the programming of scenes has been selected in addition to time control, two selection buttons appear to the right and left of the #0 button on the keypad after the password input.



In this case, the device only changes to the input page for time tasks once the time button (clock symbol) has been pressed.

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With the "Next" button and "Previous" button (> symbol or < symbol), it is possible to run through the individual time programs with the lists of time tasks. Text (max. 12 characters) can be assigned to each program during the parameterisation in ETS. This text is displayed above the respective list (e.g. Shutter GF). If the displayed list of time tasks is to be amended, the "Down" button (v symbol) or "OK" button (✓ symbol) must be pressed. The descriptive text is then shown as inverted and the first time task (#1) is selected. Further time tasks of this object can be selected stepwise with the "Down" button (v symbol) or the "Up" button (^ symbol). If a selected time task should be edited, the "Next" button (> symbol) or "OK" button (✓ symbol) must be pressed. The required switching value can then be set by pressing the "1" or "0" button. Any other number deactivates this time task. After pressing the "Next" button again, the cursor marks the first digit of the time. Now enter the individual digits of the time and press the "Next" button after each number. The respective digit can be set by pressing the required number on the keypad. Once the time has been entered, you can scroll through the individual days of the week by pressing the "Next" button (> symbol). The day denoted by a 1 at the top of the table corresponds to Monday, 2 corresponds to Tuesday, 3 corresponds to Wednesday etc. When the required day of the week is selected, the time task can be activated for the respective day (denoted by an X in the display) by pressing the "1" button. The operation of the "0" button deletes the time task for this day (denoted by -).

In the example shown, a '0' telegram (Shutter UP) is sent on Monday to Friday at 7:15 (#1) and a '1' telegram (Shutter DOWN) on Monday to Friday at 19:30 (#2). A '0' telegram (Shutter UP) is sent on Saturdays and Sundays at 8:30 (#3) and a '1' telegram (Shutter DOWN) on Saturdays and Sundays at 20:00 (#4).

If you run through all the days of the week with the "Next" button (> symbol), the set task is permanently stored (program maintained on voltage failure) and the programming mode of the page with time task objects changes to display mode. As when entering the password, it is now possible to scroll through the list of time task objects and lists using the "Next" button.

In principle, the time task page is exited 60 seconds after the last push button operation and the display activates the last visible standard or alarm page. When you press the index tab, the display changes to the required page and exits the time task page.

Note:

Any change to a time task that has not yet been concluded is lost in both of the cases above.

Each time task object can be deactivated by the respective disable object. The time task object is not sent while the disable object is set to the value '1'. If it is reset to '0', the current value of the time object is sent immediately. The information is therefore not lost if a change in the value by a corresponding time task should take place during this period.

A time task is disabled e.g. by deactivating the appropriate time control for the heating (changing to comfort/standby mode) or by pressing a button with the appropriate configuration.

The so-called "fast tracking" mode can be set during the parameterisation of the device. During normal operation, any newly received time and date values are directly adopted by the internal clock and displayed. During fast tracking mode however, on receipt of a new time telegram which deviates from the internal time, the internal clock advances very quickly to the new value. If there are time tasks between the old and the new time, they are executed during the fast tracking phase. No time tasks are lost. The fast tracking mode is only activated if the internal clock is running slowly compared to the newly received time. If the internal clock is running fast, the new value is adopted directly. Fast tracking (if parameterised) is also carried out in the event of a bus voltage failure. The internal time is saved on bus voltage failure. If the device then receives a new time and date on bus voltage recovery, the fast tracking is reactivated and the clock advances from the stored time to the new time. If the received time deviates from the stored time, a change in the date occurred during

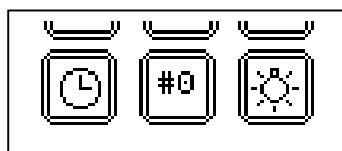
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the voltage failure. In this case, the clock advances from 0:00 hours to the newly received value.

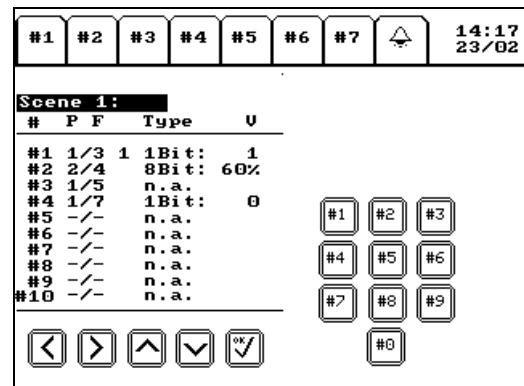
Scene programs

In connection with this application program, up to 8 scenes can also be stored in the device. A scene can thereby trigger up to 10 switch, dimming and shutter control telegrams. The scenes can be recalled internally via push buttons on the standard pages or externally via bus telegrams. The triggering of scenes via telegrams is carried out via 1 bit values. A "0" telegram at the first scene object (object no. 231) triggers scene 1 while a "1" telegram triggers scene 2. A "0" telegram at the second scene object (object no. 232) triggers scene 3 while a "1" telegram triggers scene 4 etc.

The programming of the scenes (or modification of programmed scenes) is carried out on the display unit by the user. Scenes can therefore be composed of any previously defined switching, dimming and shutter control functions. The programming is carried out on a special, password-protected programming page (similar to the programming page for time programs). The activation of the programming page is carried out via a long push button action (> 1 sec.) on the programming symbol (if the time display has not been set) or on the time field in the top right-hand corner of the display (if time programs have also been parameterised). As in the case of time control, the password page appears first of all. If only scene programming has been parameterised, the device changes directly to the input page for the scenes once the password has been entered. If the programming of time tasks has been selected in addition to scene programming, two selection buttons appear to the right and left of the #0 button on the keypad after the password input.



In this case, the device only changes to the input page for scenes once the scene button (light symbol) has been pressed.



With the "Next" button and "Previous" button (> symbol or < symbol), it is possible to run through the individual scenes with the lists of scene programs. Text (max. 12 characters) can be assigned to each scene during the parameterisation in ETS. This text is displayed above the respective list (e.g. Scene 1). If the list of scene telegrams is to be amended, the "Down" button (▽ symbol) or "OK" button (✓ symbol) must be pressed. The descriptive text is then no longer shown as inverted and the first task (#1) is selected. The tasks of this scene can be selected as required with the "Down" button (▽ symbol) or the "Up" button (△ symbol). If a selected task should be edited, the "Next" button (> symbol) or "OK" button (✓ symbol) must be pressed. One of the functions parameterised on the standard pages can then be selected and set by pressing the corresponding numeric keys. The first digit in front of the forward slash represents the page number (heading P = page) on which the required function is located while the number after the forward slash designates the number (heading F = function) of the function (e.g.: 1/3 standard page #1, function 3). Function no. 10 of a page corresponds to input value 0. When selecting a function, the assigned descriptive text is displayed below the table. The selected function is checked for its usability within a scene. All 1 bit switching, shutter, dimming and value functions (0...100%) can be used in scenes. If a switching or shutter control function is selected, the 1 bit telegram type appears after the function number (heading = Type). If a dimming or value function (0...100%) is selected, the 8 bit type appears. Any function that is not permitted within a scene is denoted by the abbreviation "n.a." (not available). It is possible to navigate within a line with the "Next" and "Previous" buttons.

If the required function is set, it is possible to change to the value setting (heading V = value) with the "Next" button (> symbol). The telegram value (0.1 for 1 bit or 0..100% for 8 bit) can be entered directly via the

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numeric keys. The following assignment must be noted for the shutter function: Value 0 = Shutter UP, 1 = Shutter DOWN. After entering the final digit, the set task is stored permanently (program maintained on voltage failure) and programming mode of the scene program page changes to display mode. In display mode, each scene can be triggered for testing purposes by pressing the "OK" button (✓ symbol).

If tasks that have previously been programmed within a scene should be deleted, the value "0" must be entered as a page number. If previously programmed 8 bit values should be modified, it must be ensured that the full value is entered with all the digits from left to right (e.g. enter 005 if 5% instead of 100% should be stored). If only the last digit is selected and modified with the "Next" button, an incorrect value may be displayed.

Download behaviour

Time programs and scenes can only be entered directly on the device via the screen (not via the ETS program). In the case of a full download, previously entered programs and scenes are deleted! During a partial download, programs and scenes are retained. It is therefore advisable to use the partial download (only possible with ETS2 V1.2 onwards) if you wish to make changes to the parameters. The parameters should be downloaded first if possible followed by the objects (if they have been modified).

Due to the complexity and length of the application program, a full download can take up to 10 minutes. If the download is carried out in a system with permanent bus traffic, it can lead to disruptions in the download process due to system-related, faulty transfer blocks. The download process must then be restarted. In the case of a large number of incoming telegrams, we recommend that the download be carried out in a separate line or a line with low bus traffic (separate line couplers for download process). During a faster, partial download, there are generally no disruptions in the download process.

Communication objects

A maximum of 231 communication objects are available for the communication of the device via the bus. Some of the objects are hidden or displayed depending on the parameter settings (depending on the selected function).

Maximum number of group addresses: 254
Maximum number of associations: 254

General

Communication objects

Phys. Addr		Program		
no.	Object name	Function	Type	
01.01.001	01 07 Touch-Panel vision 802103			
0	Timer	Master time clock	3 Byte	
1	Date	Master time clock	3 Byte	
2	Touch	Touch	1 Bit	
3	Power up object	disabled / enabled	1 Bit	

Obj	Object name	Function	Type	Flags
0	Time	Master clock	3 Byte	CWTU
The internal time must be updated by a time signal at least once in 24 hours via the group address of this object.				
1	Date	Master clock	3 Byte	CWTU
The internal date must be updated by a date signal at least once in 24 hours via the group address of this object.				
2	Touch	Touch	1 Bit	CWU
On receipt of a "1" telegram at this object, the display is activated if it is in sleep mode. A "1" telegram is sent via the group address of this object by touching the start screen (e.g. switching on the room lighting). The sending of the telegram can be disabled via object 3. 0 telegram: sending disabled, 1 telegram: sending enabled				
3	Power up object	enabled / disabled	1 Bit	CW
The sending of object 2 can be disabled by a "0" telegram via the group address of this object (e.g. switch light on only when it is dark).				

Object numbers 4 to 213 are reserved for the functions on the standard pages. A maximum of 3 sequential objects belong to a function. If functions have been parameterised which require less than three objects, the unused objects are not displayed. The type and the flags are set depending on the selected 70 functions. The following applies in detail:

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Parameters: "General"

General	General 2	Texts	P1	P2	P3	P4	P5	P6	P7
Number of display pages	1								
Password max. 4 char	1234								
Time before activating sleep mode	2 minutes								
Operating mode for dimming	Dimming with stop telegram								
Alarm function	deactivate alarms								
Scene function	no scenes programmable								
Clock mode and time schedule	no display								

Parameters	Settings
Number of display pages	Value: 1 to 7
The number of standard pages represented in the display is defined here (#1 to #7).	
Number of password-protected pages	<p>no page password protected</p> <p>last page password protected</p> <p>last two pages password protected</p> <p>last three pages password protected</p> <p>last four pages password protected</p> <p>last five pages password protected</p> <p>last six pages password protected</p>
It is set here whether pages are password-protected and the number that are protected. This parameter is only shown if the number of display pages is greater than 1.	
Password max. 4 char	Value: 0000 to 9999
A 4-digit password can be defined here for the password-protected pages and the time or scene control page.	
Period before activating sleep mode	<p>2 minutes</p> <p>5 minutes</p> <p>10 minutes</p> <p>30 minutes</p> <p>1 hour</p>
It is possible to set via this parameter when the backlighting is extinguished after the last operation or when the device switches back to the start page.	
Operating mode for dimming	<p>Dimming with stop telegram</p> <p>Dimming cyclical sending</p>
In the operating mode "Dimming with stop telegram", a dimming telegram for dimming brighter or darker is sent after a long push button action. When the push button is released, a stop telegram is sent to cease dimming. The parameters for cyclical sending are not displayed in this setting.	
In the operating mode "Dimming cyclical sending", dimming telegrams are sent at the rate specified in the parameter "Interval for cyclical sending" which effect a change in the brightness of the lamp by the value specified in the parameter "Increment for dimming".	

Parameters	Settings
Increment for dimming	<p>Change value by 100%</p> <p>Change value by 1/2</p> <p>Change value by 1/4</p> <p>Change value by 1/8</p> <p>Change value by 1/16</p> <p>Change value by 1/32</p> <p>Change value by 1/64</p>
The step width for the function "Dimming cyclical sending" is specified with this parameter. In the setting "Change value by 1/8", e.g. 8 dimming telegrams must be sent to dim from 0% to 100%.	
Interval for cyclical sending	<p>0.5 seconds</p> <p>0.6 seconds</p> <p>0.7 seconds</p> <p>0.8 seconds</p> <p>0.9 seconds</p> <p>1 second</p> <p>1.2 seconds</p> <p>1.5 seconds</p> <p>2 seconds</p> <p>2.5 seconds</p> <p>3 seconds</p> <p>3.5 seconds</p> <p>4 seconds</p> <p>5 seconds</p> <p>6 seconds</p> <p>7 seconds</p>
This parameter specifies the send repetition interval after a long push button action for the function "Dimming cyclical sending". The bus load should be taken into account when setting the interval.	
Alarm function	<p>deactivate alarms</p> <p>activate alarms</p>
With the setting "activate alarms", objects 214 to 220 and the parameter pages for setting the alarms are displayed.	
Scene function	<p>no scenes programmable</p> <p>scene programming active</p>
It can be set here whether scenes are programmed on the display unit and stored.	
Clock mode and time schedule	<p>no display</p> <p>24 hours</p> <p>24 hours with time schedules</p>
"24 hours": The time and date are displayed in the upper right-hand corner. "24 hours with time schedules": The input of time tasks directly on the Touch-Panel is enabled in addition to the display of the time and date. Objects 221 to 230 are displayed and a parameter page appears for entering the password and designating schedules 1-5.	

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Parameters: "General 2"

General	General 2	Texts	P1	P2	P3	P4	P5	P6	P7
Number of display pages	1								
Password max. 4 char	1234								
Time before activating sleep mode	2 minutes								
Operating mode for dimming	Dimming with stop telegram								
Alarm function	deactivate alarms								
Scene function	no scenes programmable								
Clock mode and time schedule	no display								

Note:

Display in "High Access" setting.

Parameters	Settings
Acoustic feedback	Yes No
It can be set with this parameter whether the operation of the push buttons is confirmed by acoustic feedback.	
Fast tracking of time if new telegram is received	Yes No
It can be set here whether the internal clock directly adopts the value on receipt of a new time telegram or whether it quickly advances to the new value. In the event of fast tracking, all the time tasks that lie inbetween are carried out.	
Function of power up object when touched in sleep mode or when ext. telegram	no function always receive / always send always receive / send if enabled
The function of the "Power up" object is defined here. In the setting "always receive / always send", the display is activated on receipt of a "1" telegram at object 2. When the display is touched in sleep mode, a "1" telegram is sent to object 2. In the setting "always receive / send if enabled", the "1" telegram is only sent when the screen is touched if object 3 is enabled.	
Manufacturer logo visible in sleep mode	Yes No
It can be set here whether the display unit changes to the start page with manufacturer logo in sleep mode or whether only the backlighting is deactivated.	
Short push button operation min.	100 milliseconds 200 milliseconds 300 milliseconds
If a push button is pressed for a shorter period than the set time, the push button action is not evaluated.	

Parameters	Settings
Long push button action min.	0.5 seconds 0.8 seconds 1 second 1.5 seconds 2 seconds
If a push button is pressed for longer than the set period, the software detects a long push button action.	
Cycle time to update the status objects of a page in normal mode	no request 2 seconds 5 seconds 10 seconds 30 seconds 1 minute 2 minutes
This parameter specifies the cycle time to update the status objects of a page in normal mode.	

Note: If a cycle time of up to 5 seconds inclusive is selected, a high bus load is produced which may influence the bus behaviour.

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Texts

Parameters

General	General 2	Texts	P1	P2	P3	P4	P5	P6	P7
Text for Switch Light On		ein							
Text for Switch Light Off		aus							
Text for Shutter Down		zu							
Text for Shutter Up		auf							
Text for Presence		an							
Text for No Presence		ab							
Text 1 general for 1		-							
Text 1 general for 0		-							
Text 2 general for 1		-							
Text 2 general for 0		-							

Parameters	Settings
Text for Switch Light On	Text: 3 characters
Text for Switch Light Off	Text: 3 characters
Text for Shutter Down	Text: 3 characters
Text for Shutter Up	Text: 3 characters
Text for Presence	Text: 3 characters
Text for No Presence	Text: 3 characters
Text 1 general for 1	Text: 3 characters
Text 1 general for 0	Text: 3 characters
Text 2 general for 1	Text: 3 characters
Text 2 general for 0	Text: 3 characters
Text (max. 3 characters) can be entered with these parameters which is then displayed as a text message for an object value of 0 or 1.	

Alarm

Communication objects

Phys. Addr	Program		
no.	Object name	Function	Type
01.01.001	01 07 Touch-Panel vision 802103		
214	Alarm 1	Alarm	1 Bit
215	Alarm 2	Alarm	1 Bit
216	Alarm 3	Alarm	1 Bit
217	Alarm 4	Alarm	1 Bit
218	Text 1	Text message	14 Byte
219	Text 2	Text message	14 Byte
220	Acknowledge	Alarm	1 Bit

Obj	Object name	Function	Type	Flags
214	Alarm 1	Alarm	1 Bit	CWU
215	Alarm 2	Alarm	1 Bit	CWU
216	Alarm 3	Alarm	1 Bit	CWU
217	Alarm 4	Alarm	1 Bit	CWU
The corresponding alarms are activated via these communication objects in the event of a '1' telegram.				
218	Text 1	Text message	14 Byte	CWU
219	Text 2	Text message	14 Byte	CWU
Text (e.g. from event module N341) can be received via these two objects and is then displayed as an alarm at the bottom.				
220	Acknowledge	Alarm	1 Bit	CWTU
When acknowledging an alarm, a '0' telegram is sent via this object so that e.g. a siren can be reset.				

Parameters of "Alarm 1"

General	General 2	Texts	Alarm 1	Alarm 2	P1	P2	P3	P4	P5	P6	P7
Description of alarm 1											
.	Alarm text when 1										
.	Alarm text when 0										
Description of alarm 2											
.	Alarm text when 1										
.	Alarm text when 0										
Description of alarm 3											
.	Alarm text when 1										
.	Alarm text when 0										

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Parameters of "Alarm 2"

General	General 2	Texts	Alarm 1	Alarm 2	P1	P2	P3	P4	P5	P6	P7
Description of alarm 4											
- Alarm text when 1											
- Alarm text when 0											
Description of message 1											
Description of message 2											
Max. time for acoustic alarm signal	1 minute										

Parameters	Settings
Description of alarm 1	Text: 10 characters
	The descriptive text of the first alarm function is entered with this parameter.
- Alarm text when 1	Text: 12 characters
	The text that is displayed in the event of an alarm ('1' in the alarm object) is entered with this parameter.
- Alarm text when 0	Text: 12 characters
	The text that is displayed in the normal state ('0' in the alarm object) is entered with this parameter.
Description text message 1	Text: 10 characters
	The descriptive text of the first text message is entered with this parameter.
Description text message 2	Text: 10 characters
	The descriptive text of the second text message is entered with this parameter.
Max. time for acoustic alarm signal	no acoustic feedback 1 minute 2 minutes 5 minutes 10 minutes 30 minutes 1 hour
	The duration of the acoustic signal in the event of an alarm is set with this parameter.

Note:

The parameters of alarms 1-4 are identical.

Time schedules

Communication objects

Phys. Addr		Program		
no.	Object name	Function	Type	
01.01.001	01 07 Touch-Panel vision 802103			
0	Timer	Master time clock	3 Byte	
1	Date	Master time clock	3 Byte	
221	Switch object	Time schedule 1	1 Bit	
222	Blocking object	Time schedule 1	1 Bit	
223	Switch object	Time schedule 2	1 Bit	
224	Blocking object	Time schedule 2	1 Bit	
225	Switch object	Time schedule 3	1 Bit	
226	Blocking object	Time schedule 3	1 Bit	
227	Switch object	Time schedule 4	1 Bit	
228	Blocking object	Time schedule 4	1 Bit	
229	Switch object	Time schedule 5	1 Bit	
230	Blocking object	Time schedule 5	1 Bit	

Obj	Object name	Function	Type	Flags
0	Timer	Master time clock	3 Byte	CWTU
1	Date	Master time clock	3 Byte	CWTU
The date and time of the Touch-Panel vision must be updated by a master clock at least once in 24 hours via the group addresses of these objects. Otherwise, the display of the date and time as well as the execution of the time programs is deactivated.				
221	Switch object	Time schedule 1	1 Bit	CTU
223	Switch object	Time schedule 2	1 Bit	CTU
225	Switch object	Time schedule 3	1 Bit	CTU
227	Switch object	Time schedule 4	1 Bit	CTU
229	Switch object	Time schedule 5	1 Bit	CTU
The switching commands of the corresponding time programs are sent via these communication objects.				
222	Blocking object	Time schedule 1	1 Bit	CWU
224	Blocking object	Time schedule 2	1 Bit	CWU
226	Blocking object	Time schedule 3	1 Bit	CWU
228	Blocking object	Time schedule 4	1 Bit	CWU
230	Blocking object	Time schedule 5	1 Bit	CWU
The execution of the corresponding time programs can be enabled (object value 0) or disabled (object value 1) via these communication objects.				

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Parameters: "Time schedules"

General	General 2	Time Schedules	Texts	P1	P2	P3	P4	P5	P6	P7
Description of time schedule 1		Programm 1								
Description of time schedule 2		Programm 2								
Description of time schedule 3		Programm 3								
Description of time schedule 4		Programm 4								
Description of time schedule 5		Programm 5								

Parameters	Settings
Description of time schedules 1 - 5	Text: 12 characters
The descriptive text for the schedules is entered with this parameter.	

Scenes

Communication objects

Phys. Addr	Program			
no.	Object name	Function	Type	
01.01.001	01 07 Touch-Panel vision 802103			
231	Scene 1/2	Scene	1 Bit	
232	Scene 3/4	Scene	1 Bit	
233	Scene 5/6	Scene	1 Bit	
234	Scene 7/8	Scene	1 Bit	

Obj	Object name	Function	Type	Flags
231	Scene 1/2	Scene	1 Bit	CW
Scene 1 can be retrieved via this communication object with a "0" telegram while scene 2 is retrieved with a "1" telegram.				
232	Scene 3/4	Scene	1 Bit	CW
Scene 3 can be retrieved via this communication object with a "0" telegram while scene 4 is retrieved with a "1" telegram.				
233	Scene 5/6	Scene	1 Bit	CW
Scene 5 can be retrieved via this communication object with a "0" telegram while scene 6 is retrieved with a "1" telegram.				
234	Scene 7/8	Scene	1 Bit	CW
Scene 7 can be retrieved via this communication object with a "0" telegram while scene 8 is retrieved with a "1" telegram.				

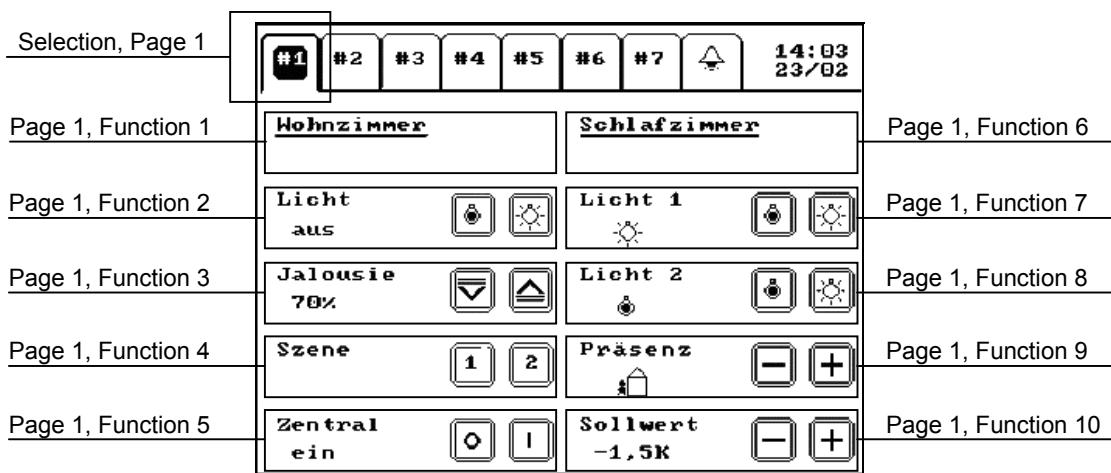
Parameters "Scenes"

General	General 2	Texts	Scenes	P1	P2	P3	P4	P5	P6	P7
Description scene 1			Scene 1:							
Description scene 2			Scene 2:							
Description scene 3			Scene 3:							
Description scene 4			Scene 4:							
Description scene 5			Scene 5:							
Description scene 6			Scene 6:							
Description scene 7			Scene 7:							
Description scene 8			Scene 8:							

Parameters	Settings
Description scene 1-8	Text: 12 characters
The descriptive text for the scenes is entered with this parameter.	

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Basic functions



The Touch-Panel vision can represent up to 10 functions on 7 display pages.
The position of the individual functions is shown in the diagram above.
Each function can thus be freely selected from the 31 basic functions outlined below.

Basic function 1: no function (empty field)

Parameters	Settings
Selection of function #x	no function
This function produces an empty area in the corresponding position of the associated page.	

Objects: none

Basic function 2: Text

Parameters	Settings
Selection of function #x	Text
Titles or dividing lines can be inserted with this function to improve the structure of a page.	
- Functional description	max. 12 characters
The descriptive text is entered here.	
- Presentation	normal underlined
The type of display is selected here.	

Objects: none

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Basic function 3: Status display 1 bit

Parameters	Settings
Selection of function x	Status display 1 bit
The status of a 1 bit object can be displayed as a symbol or as clear text with this function.	
- Functional description	max. 10 characters
The descriptive text for the function is entered here.	
- Status display	Symbol general Symbol light Symbol shutter Symbol arrow Symbol presence Symbol window Text for Switch Light Text for Shutter Text for Presence Text 1 general Text 2 general
"symbol": The status display is carried out with the selected symbol (see page 2). "text": The status display is shown in the clear text that was entered on the "Texts" parameter page.	

Object name	Function	Type	Flags
Status 1 bit	Page no., position on page	1 Bit	CWU
The 1 bit status signal is received via the group address of this object.			

Basic function 4: Status display 1 byte

Parameters	Settings
Selection of function x	Status display 1 byte
The status of a 1 byte object is represented as a value of 0..100% with this function.	
- Functional description	max. 10 characters
The descriptive text for the function is entered here.	

Object name	Function	Type	Flags
Status 1 byte	Page no., position on page	1 Byte	CWU
A 1 byte status which is represented in the display as 0..100% is received via this object.			

Basic function 5: Status display temperature

Parameters	Settings
Selection of function x	Status display temperature
A temperature value can be displayed in °C with this function.	
- Functional description	max. 10 characters
The descriptive text for the function is entered here.	

Object name	Function	Type	Flags
Status temperature	Page no., position on page	2 Byte	CWU
A temperature value is received via the group address of this object in °C and then represented in the display.			

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Parameters	Settings
Selection of function x	Status display pressure
With this function, it is possible to represent a pressure in hPa.	
- Functional description	max. 10 characters
The descriptive text for the function is entered here.	

Object name	Function	Type	Flags
Status pressure	Page no., position on page	2 Byte	CWU
A pressure value is received via the group address of this object in hPa and then represented in the display.			

Basic function 7: Status display wind speed

Parameters	Settings
Selection of function x	Status display wind speed
A wind speed can be represented in m/s with this function.	
- Functional description	max. 10 characters
The descriptive text for the function is entered here.	

Object name	Function	Type	Flags
Status wind speed	Page no., position on page	2 Byte	CWU
A wind speed value is received via the group address of this object in m/s and then represented in the display.			

Basic function 8: Status display wind direction

Parameters	Settings
Selection of function x	Status display wind direction
A wind direction can be represented in ° (angular degree) with this function.	
- Functional description	max. 10 characters
The descriptive text for the function is entered here.	

Object name	Function	Type	Flags
Status wind direction	Page no., position on page	2 Byte	CWU
A wind direction value is received via the group address of this object in ° (angular degree) and then represented in the display.			

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Basic function 9: Status display brightness

Parameters	Settings
Selection of function x	Status display brightness
The brightness value can be represented in lux with this function.	
- Functional description	max. 10 characters
The descriptive text for the function is entered here.	

Object name	Function	Type	Flags
Status brightness	Page no., position on page	2 Byte	CWU
The brightness value that is indicated on the display in lux is received via the group address of this object.			

Basic function 10: Status display counter

Parameters	Settings
Selection of function x	Status display counter
A count/event value can be represented with this function.	
- Functional description	max. 10 characters
The descriptive text for the function is entered here.	
- Type of Counter	8 bit unsigned 16 bit unsigned 32 bit unsigned 8 bit signed 16 bit signed 32 bit signed
The data type of the count value is set with this parameter (8 bit, 16 bit, 32 bit signed and unsigned).	

Object name	Function	Type	Flags
Counter	Page no., position on page	1 Byte 2 Byte 4 Byte	CWU
The value of a counter is received via the group address of this object and then represented in the display. The object type can be set (length and sign).			

Basic function 11: Status display operating hours

Parameters	Settings
Selection of function x	Status display operating hours
An elapsed time value can be represented in hours with this function. The input value required is a 32 bit count value via the object. The conversion into hours is carried out internally.	
- Functional description	max. 10 characters
The descriptive text for the function is entered here.	

Object name	Function	Type	Flags
Operating Hours	Page no., position on page	4 Byte	CWU
Operating hours are received via the group address of this object in 32 bit count format. The value is converted internally and represented in operating hours on the display.			

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Basic function 12: Status display energy value [kWh]

Parameters	Settings
Selection of function x	Status display energy value [kWh]
An energy value can be represented in kWh with this function. The input value required in Wh is in 32 bit floating format. The conversion into kWh is carried out internally.	
- Functional description	max. 10 characters
The descriptive text for the function is entered here.	

Object name	Function	Type	Flags
Energy value	Page no., position on page	4 Byte	CWU
A 4 byte energy value in Wh and 32 bit floating format is received via the group address of this object. The value is converted internally and shown in kWh on the display.			

Basic function 13: Status display power

Parameters	Settings
Selection of function x	Status display power
A power value can be displayed in W with this function. The input value is required in 32 bit floating format.	
- Functional description	max. 10 characters
The descriptive text for the function is entered here.	

Object name	Function	Type	Flags
Status power	Page no., position on page	4 Byte	CWU
A 4 byte power value in 32 bit floating format is received via the group address of this object.			

Basic function 14: Status display volume [m³]

Parameters	Settings
Selection of function x	Status display volume [m³]
A volume (e.g. water consumption) can be displayed in m³ with this function. The input value is required in 32 bit floating format.	
- Functional description	max. 10 characters
The descriptive text for the function is entered here.	

Object name	Function	Type	Flags
Status volume	Page no., position on page	4 Byte	CWU
A 4 byte power value in 32 bit floating format is received via the group address of this object.			

Basic function 15: Status display EIS 5 general

Parameters	Settings
Selection of function x	Status display EIS 5 gen.
A 2 byte EIS 5 value is displayed without a unit of measurement with this function.	
- Functional description	max. 10 characters
The descriptive text for the function is entered here.	

Object name	Function	Type	Flags
Status EIS 5 gen.	Page no., position on page	2 Byte	CWU
A 2 byte value is received via the group address of this object.			

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Basic function 16: Status display EIS 9 general

Parameters	Settings
Selection of function x	Status display EIS 9 gen.
A 4 byte EIS 9 value is displayed without a unit of measurement with this function.	
- Functional description	max. 10 characters
The descriptive text for the function is entered here.	

Object name	Function	Type	Flags
Status EIS 9 gen.	Page no., position on page	4 Byte	CWU
A 4 byte value is received via the group address of this object.			

Basic function 17: Switch Toggle

Parameters	Settings
Selection of function x	Switch Toggle
This function is used to toggle with a wide push button. The push button is denoted with the respective symbol "General ON" or "General OFF" (depending on the switching state).	
- Status display	none Symbol Text 1 general Text 2 general
<p>"none": The status display is not activated. "Symbol": The status display is carried out with the respective symbol "General ON" or "General OFF" (depending on the switching state, see page 2). "Text 1 / 2 general": In this setting, the text that was entered on the "Texts" parameter page is shown as the status.</p>	

Object name	Function	Type	Flags
Switch general Toggle	Page no., position on page	1 Bit	CWT
A 1 bit switching telegram is sent via this object whose value changes at each push button action.			
Status	Page no., position on page	1 Bit	CWU
The status feedback is received via the group address of this object. If "none" is selected, the object is not displayed.			

Basic function 18: Switch Off

Parameters	Settings
Selection of function x	Switch Off
This function is used for switching off with a wide push button. The push button is denoted with the symbol "General OFF".	
- Status display	none Symbol Text 1 general Text 2 general
<p>"none": The status display is not activated. "Symbol": The status display is carried out with the respective symbol "General ON" or "General OFF" (depending on the switching state, see page 2). "Text 1 / 2 general": In this setting, the text that was entered on the "Texts" parameter page is shown as the status.</p>	

Object name	Function	Type	Flags
Switch general Off	Page no., position on page	1 Bit	CWT
A 1 bit switching telegram is sent with the value '0' via this object.			
Status	Page no., position on page	1 Bit	CWU
The status feedback is received via the group address of this object. If "none" is selected, the object is not displayed.			

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Parameters	Settings
Selection of function x	Switch On
This function is used for switching on with a wide push button. The push button is denoted with the symbol "General ON".	
- Status display	none Symbol Text 1 general Text 2 general
<p>"none": The status display is not activated. "Symbol": The status display is carried out with the respective symbol "General ON" or "General OFF" (depending on the switching state, see page 2). "Text 1 / 2 general": In this setting, the text that was entered on the "Texts" parameter page is shown as the status.</p>	

Object name	Function	Type	Flags
Switch general On	Page no., position on page	1 Bit	CWT
A 1 bit switching telegram with the value '1' is sent via this object.			
Status	Page no., position on page	1 Bit	CWU
The status feedback is received via the group address of this object. If "none" is selected, the object is not displayed.			

Basic function 20: Switch Light Toggle

Parameters	Settings
Selection of function x	Switch Light Toggle
This function is used for toggling with a wide push button. The push button is denoted with the respective symbol "Light ON" or "Light OFF" (depending on the switching state).	
- Functional description	max. 10 characters
The descriptive text for the function is entered here.	
- Status display	none Symbol Text for Switch Light
<p>"none": The status display is not activated. "Symbol": The status display is carried out with the respective symbol "Light ON" or "Light OFF" (depending on the switching state, see page 2). "Text for Switch Light": In this setting, the text that was entered on the "Texts" parameter page is shown as the status.</p>	

Object name	Function	Type	Flags
Switch Light Toggle	Page no., position on page	1 Bit	CWT
A 1 bit switching telegram is sent via this object whose value changes after each push button action.			
Status	Page no., position on page	1 Bit	CWU
The status feedback is received via the group address of this object. If "none" is selected, the object is not displayed.			

Basic function 21: Switch Light Off

Parameters	Settings
Selection of function x	Switch Light Off
This function is used for switching off with a wide push button. The push button is denoted with the symbol "Light OFF".	

Object name	Function	Type	Flags
Switch Light Off	Page no., position on page	1 Bit	CWT
A 1 bit switching telegram with the value '0' is sent via this object.			

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Parameters	Settings
- Functional description	max. 10 characters
The descriptive text for the function is entered here.	
- Status display	none Symbol Text for Switch Light
"none": The status display is not activated. "Symbol": The status display is carried out with the respective symbol "Light ON" or "Light OFF" (depending on the switching state, see page 2). "Text for Switch Light": In this setting, the text that was entered on the "Texts" parameter page is shown as the status.	

Object name	Function	Type	Flags
Status	Page no., position on page	1 Bit	CWU

The status feedback is received via the group address of this object. If "none" is selected, the object is not displayed.

Basic function 22: Switch Light On

Parameters	Settings
Selection of function x	Switch Light On
This function is used for switching on with a wide push button. The push button is denoted with the symbol "Light ON".	
- Functional description	max. 10 characters
The descriptive text for the function is entered here.	
- Status display	none Symbol Text for Switch Light
"none": The status display is not activated. "Symbol": The status display is carried out with the respective symbol "Light ON" or "Light OFF" (depending on the switching state, see page 2). "Text for Switch Light": In this setting, the text that was entered on the "Texts" parameter page is shown as the status.	

Object name	Function	Type	Flags
Switch Light On	Page no., position on page	1 Bit	CWT
A 1 bit switching telegram with the value '1' is sent via this object.			
Status	Page no., position on page	1 Bit	CWU

The status feedback is received via the group address of this object. If "none" is selected, the object is not displayed.

Basic function 23: Presence Toggle

Parameters	Settings
Selection of function x	Presence Toggle
This function is used for toggling a presence object with a push button. The push button is denoted with the respective symbol "Presence" or "No presence" (depending on the switching state).	
- Functional description	max. 10 characters

The descriptive text for the function is entered here.

Object name	Function	Type	Flags
Presence Toggle	Page no., position on page	1 Bit	CWT
A 1 bit switching telegram is sent via this object whose value changes after each push button action.			

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Parameters	Settings
- Status display	none Symbol Text for Presence

“none”: The status display is not activated.
 “Symbol”: The status display is carried out with the respective symbol “Presence” or “No presence” (depending on the switching state, see page 2).
 “Text for Presence”: In this setting, the text that was entered on the “Texts” parameter page is shown as the status.

Object name	Function	Type	Flags
Status	Page no., position on page	1 Bit	CWU

The status feedback is received via the group address of this object. If “none” is selected, the object is not displayed.

Basic function 24: Switch On / Off

Parameters	Settings
Selection of function x	Switch On / Off
	This function is used for switching on and off with a push button per operation. The push buttons are denoted with the symbol “General ON” or “General OFF”.
- Functional description	max. 10 characters
	The descriptive text for the function is entered here.
- Status display	none Symbol Text 1 general Text 2 general
	“none”: The status display is not activated. “Symbol”: The status feedback is carried out with the respective symbol “General ON” or “General OFF” (see page 2). “Text 1 / 2 general”: In this setting, the text that was entered on the “Texts” parameter page is shown as the status.

Object name	Function	Type	Flags
Switch general On / Off	Page no., position on page	1 Bit	CWT
A 1 bit switching telegram is sent via this object.			
Status	Page no., position on page	1 Bit	CWU

The status feedback is received via the group address of this object. If “none” is selected, the object is not displayed.

Basic function 25: Switch On / Off (arrow symbol)

Parameters	Settings
Selection of function x	Switch On / Off (arrow symbol)
	This function is used for switching on and off with one push button per operation. The push buttons are denoted with the symbol “Arrow UP” or “Arrow DOWN”.

Object name	Function	Type	Flags
Switch general On / Off	Page no., position on page	1 Bit	CWT
A 1 bit switching telegram is sent via this object.			

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Parameters	Settings
- Functional description	max. 10 characters
The descriptive text for the function is entered here.	
- Status display	none Symbol Text for Switch Light Text for shutter Text 1 general Text 2 general
"none": The status display is not activated. "Symbol": The status feedback is carried out with the respective "Arrow UP" or "Arrow DOWN" symbol (see page 2). "Text": In this setting, the text that was entered on the "Texts" parameter page is shown as the status.	

Object name	Function	Type	Flags
Status	Page no., position on page	1 Bit	CWU

The status signal is received via the group address of this object. If "none" is selected, the object is not displayed.

Basic function 26: Switch Light On / Off

Parameters	Settings
Selection of function x	Switch Light On / Off
This function is used for switching on and off with one push button per operation. The push buttons are denoted with the symbol "Light ON" or "Light OFF".	
- Functional description	max. 10 characters
The descriptive text for the function is entered here.	
- Status display	none Symbol Text for Switch Light
"none": The status display is not activated. "Symbol": The status display is carried out with the respective symbol "Light ON" or "Light OFF" (see page 2). "Text": In this setting, the text that was entered on the "Texts" parameter page is shown as the status.	

Object name	Function	Type	Flags
Switch Light On / Off	Page no., position on page	1 Bit	CWT

A 1 bit switching telegram is sent via this object.

Status	Page no., position on page	1 Bit	CWU
The status feedback is received via this object. If "none" is selected, the object is not displayed.			

Basic function 27: Presence On / Off

Parameters	Settings
Selection of function x	Presence On / Off
This function is used for switching a presence object on/off with a push button. The push buttons are denoted with the "Presence" or "No presence" symbol (see page 2).	

Object name	Function	Type	Flags
Presence On / Off	Page no., position on page	1 Bit	CWT

A 1 bit switching telegram is sent via this object.

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Parameters	Settings
- Functional description	max. 10 characters
The descriptive text for the function is entered here.	
- Status display	none Symbol Text for Presence
"none": The status display is not activated. "Symbol": The status feedback is carried out with the respective "Presence" or "No presence" symbol (depending on the switching state, see page 2). "Text for Presence": In this setting, the text that was entered in the "Texts" parameter page is shown as a status.	

Object name	Function	Type	Flags
Status	Page no., position on page	1 Bit	CWU
The status signal is received via the group address of this object. If "none" is selected, the object is not displayed.			

Basic function 28: Dimming

Parameters	Settings
Selection of function x	Dimming
This function is used for dimming with two push buttons. A short push button action switches on and off (right: ON, left: ON), while a long push button action generates 4 bit dimming telegrams (right: dim brighter, left: dim darker). The push buttons are denoted with the respective symbol "Light ON" or "Light OFF".	
The type of dimming (dimming with stop telegram or dimming with cyclical sending) and likewise the increment for dimming can be set on the "General" page with the parameter "Increment for dimming". With the setting "Change value by 100%", a 4 bit stop telegram is produced after a long push button action when the push button is released.	
- Functional description	max. 10 characters
The descriptive text for the function is entered here.	
- Status display	none Value
"none": The status display is not activated. "Value": In this setting, the relative dimming value is shown in % (0..100%, only for actuators with an 8 bit status signal).	

Object name	Function	Type	Flags
Switch	Page no., position on page	1 Bit	CWT
A 1 bit switching telegram is sent via this object after a short push button action.			
Dimming	Page no., position on page	4 Bit	CWT
A 4 bit dimming telegram is sent via this object after a long push button action together with the stop telegram, if required.			
Value	Page no., position on page	1 Byte	CWTU
The status response is received via the group address of this object.			
In the parameter setting "Value", the "Value" status object is displayed for the 8 bit status response.			
In the setting "none", the object is not displayed.			

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Basic function 29: Shutter

Parameters	Settings
Selection of function x	Shutter
This function is used for shutter movement with two push buttons. A long push button action raises and lowers the shutter (right: UP, left: DOWN) while a short push button action enables louvre adjustment. The push buttons are denoted with the symbol "Shutter UP" or "Shutter DOWN".	
- Functional description	max. 10 characters
The descriptive text for the function is entered here.	
- Status display	none Value
"none": The status display is not activated. "value": In this setting, the relative opening value is displayed in % (0..100%, only for actuators with an 8 bit status signal).	

Object name	Function	Type	Flags
Shutter	Page no., position on page	1 Bit	CWT
A 1 bit switching telegram for shutter movement is sent via this object after a long push button action.			
Louvres	Page no., position on page	1 Bit	CWT
A 1 bit switching telegram for louvre adjustment is sent via this object after a short push button action.			
Value	Page no., position on page	1 Byte	CWTU
The status feedback is received via the group address of this object. If "none" is selected, the object is not displayed.			

Basic function 30: Scene by object

Parameters	Settings
Selection of function x	recall scene by object
This function is used to recall scenes that are stored in a scene module (e.g. scene module N 300). A scene can be retrieved with the two push buttons. The push buttons are denoted with the respective scene number.	
- Functional description	max. 10 characters
The descriptive text for the function is entered here.	
- Marking of buttons	1/2 3/4 5/6 7/8
The labelling of the push button is defined with this parameter. "1/2": The two push buttons are labelled 1 and 2. "3/4": The two push buttons are labelled 3 and 4. "5/6": The two push buttons are labelled 5 and 6. "7/8": The two push buttons are labelled 7 and 8.	

Object name	Function	Type	Flags
Scene	Page no., position on page	1 Bit	CWT
A 1 bit switching telegram is sent via this object. Scenes 1, 3, 5 and 7 are recalled with a "0" telegram while scenes 2, 4, 6 and 8 are recalled with a "1" telegram.			

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Parameters	Settings
Selection of function x	recall internal scene
	One of the eight internal scenes can be recalled via a push button if the correct parameter settings have been selected. The retrieval is carried out without sending any external telegrams. The descriptive text is entered under the "Scene" parameters and is a maximum of 12 characters.
-Call of	Scene 1 Scene 2 Scene 3 Scene 4 Scene 5 Scene 6 Scene 7 Scene 8
It is defined here which scene should be retrieved.	

Objects: none**Basic function 32: Set value (0%..100%)**

Parameters	Settings
Selection of function x	Set value (0%..100%)
	It is possible to set a value between 0 and 100% via two push buttons with this function. The value can be adjusted stepwise upwards or downwards via the push buttons. The set value is displayed as a status signal. The increment of 5%, 10% or 20% can be parameterised. After a push button action, the set value is sent via an 8 bit telegram. Any received 8 bit values are displayed.
- Functional description	max. 10 characters
	The descriptive text for the function is entered here.
- Increment	5% 10% 20%
	The percentage change in the value (e.g. of a dimming value) per push button action can be entered here.

Object name	Function	Type	Flags
Set value (EIS 6)	Page no., position on page	1 Byte	CWTU
The set 1 byte value is sent or an external 1 byte value is received via the group address of this object.			

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Basic function 33: Set value (0°C..40°C)

Parameters	Settings
Selection of function x	Set value (0°C..40°C)
	<p>It is possible to set a temperature value between 0 and 40°C via two push buttons with this function. The value can be adjusted stepwise upwards or downwards via the push buttons. The set value is displayed as a status signal. The increment of 0.5 K, 1 K, 2 K or 5 K can be parameterised. 3 seconds after the last adjustment, the set value is sent via a 2 byte telegram.</p> <p>Any received 2 byte values are displayed.</p>
- Functional description	max. 10 characters
	The descriptive text for the function is entered here.
- Increment	0.5 K 1 K 2 K 5 K
	The change in the temperature in K per push button action can be entered here.

Object name	Function	Type	Flags
Set value (EIS 5)	Page no., position on page	2 Byte	CWTU
The set 2 byte value is sent or an external 2 byte value is received via the group address of this object.			

Basic function 34: Adjust set value

Parameters	Settings
Selection of function x	Adjust set value
	<p>It is possible to adjust a temperature value by 3 steps each time above and below the value '0' via two push buttons with this function. The value can be adjusted stepwise upwards or downwards via the push buttons. The set adjustment is displayed as a status signal. The increment for the adjustment by 0.5 K, 1 K or 5 K can be parameterised. 3 seconds after the last adjustment, the set value is sent via a 2 byte telegram.</p> <p>Any received 2 byte values are displayed.</p>
- Functional description	max. 10 characters
	The descriptive text for the function is entered here.
- Increment (7 steps)	0.5 K 1 K 1.5 K
	The temperature change in K per push button action can be entered here.

Object name	Function	Type	Flags
Set value adjustment	Page no., position on page	2 Byte	CWTU
The set 2 byte value is sent or an external 2 byte value is received via the group address of this object.			

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01 07 Touch-Panel vision 802103**Basic function 35: Change operating mode of heating (standard)****Thermostat 1: Objects**

Parameters	Settings
Selection of function x	Change operating mode of heating (standard)
This function makes it possible to toggle cyclically between the operating modes of comfort, standby and night operation via two push buttons. The respective symbol of the selected operating mode is displayed as the status feedback.	
	The function can be adapted to two different types of thermostats with the parameter "Type of thermostat".
- Functional description	max. 10 characters
The descriptive text for the function is entered here.	
- Type of thermostat	Thermostat 1 Thermostat 2
<p>"Thermostat 1": Thermostat 1 operates with 3 x 1 bit objects (comfort, standby, night e.g. UP 231).</p> <p>"Thermostat 2": Thermostat 2 operates with a combined comfort/standby object and a night object as well as an 8 bit status object for the status display (e.g. UP 25x).</p> <p>See also the "Functional description".</p>	

Object name	Function	Type	Flags
Comfort	Page no., position on page	1 Bit	CWT
Comfort mode is set via the group address of this object.			
Standby	Page no., position on page	1 Bit	CWT
Standby mode is set via the group address of this object.			
Night	Page no., position on page	1 Bit	CWT
Night operation is set via the group address of this object.			

Thermostat 2: Objects

Object name	Function	Type	Flags
Comfort/Standby	Page no., position on page	1 Bit	CWT
Comfort mode (object value 1) or standby mode (object value 0) is set via the group address of this object.			
Night	Page no., position on page	1 Bit	CWT
Night operation is set via the group address of this object.			
Status	Page no., position on page	1 Byte	CWT
The current status of the controller is transmitted in 8 bit floating format via the group address of this object. The relevant operating mode is shown in the display.			

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Basic function 36: Change operating mode of heating (with timer)

Parameters	Settings
Selection of function x	Change operating mode of heating (with timer)
This function makes it possible to toggle cyclically between comfort mode, night operation and timer mode via two push buttons. The respective symbol of the selected operating mode is displayed for the setting. The corresponding objects are sent 3 seconds after the last operation. If the comfort object is set to '0', the comfort symbol is displayed. If both the comfort and night object is set to '0', the standby symbol is displayed. If the comfort mode is set to '0' and the night object to '1', the night symbol is displayed.	
- Functional description	max. 10 characters
The descriptive text for the function is entered here.	

Object name	Function	Type	Flags
Comfort	Page no., position on page	1 Bit	CWT
Comfort mode is set via the group address of this object.			
Night	Page no., position on page	4 Bit	CWT
Night operation is set via the group address of this object.			
Time control	Page no., position on page	1 Bit	CWT
Time control is disabled or activated via the group address of this object. Object value = 0: time control: activated. Object value = 1: time control disabled.			

Basic function 37: Reset value

Parameters	Settings
Selection of function x	Reset value
A value can be reset via a push button. The reset is carried out by sending a telegram with the value "0".	
- Functional description	max. 10 characters
The descriptive text for the function is entered here.	
- typ of reset object	EIS 14 (8 Bit) EIS 5, EIS 10 (2 Byte) EIS 9, EIS 11 (4 Byte)
This parameter defines the object type which should be reset.	

Object name	Function	Type	Flags
Reset value	Page no., position on page	1 Byte	CT
		2 Byte	CT
		4 Byte	CT
A "0" value is sent via the group address of this object.			

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Notes

Note:

The subsequent pages represent the installation instructions for the customer.

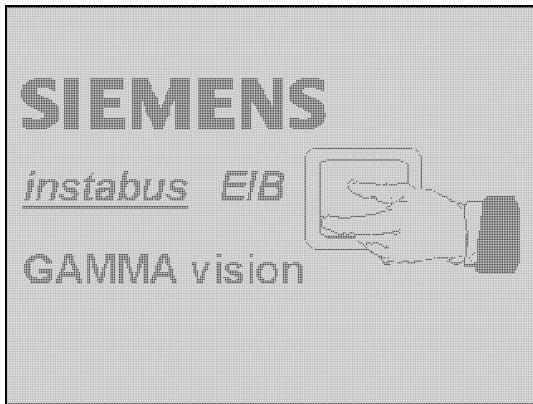
Functional description

The Touch-Panel vision is a multi-functional display/control unit. The display has green or white backlighting available which is activated during operation and is switched off automatically after an adjustable period.

The display unit can be used for the following functions: the display and operation of up to 70 standard functions on 7 display pages, the display of an alarm page with 4 alarm signals and 2 text messages as well as the execution of time-controlled tasks and scene control.

Start page

The start page appears first when the display unit is switched on or off after a bus reset. The backlighting is also activated.

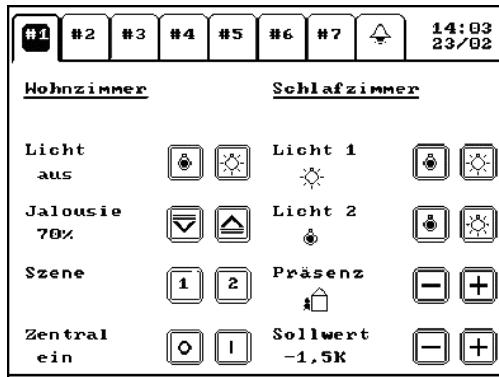


The standard page #1 is activated by pressing anywhere on the start page. In principle, the backlighting of the display is deactivated once an adjustable period has elapsed. In the default parameter setting, the display changes back to the start screen when the backlighting is switched off. The period is restarted by the user with each push button action.

Apart from switching to an active page or switching on the backlighting, pressing the display when the backlighting is switched off or the start page is active causes a 1 bit telegram to be sent to object no. 2 ("Touch" object). This object can be used for example to switch on the background lighting.

Standard pages

A variety of standard functions can be implemented with the Touch-Panel vision. There is a maximum of 7 display pages available for the standard functions. One of your pages could look like the following diagram:

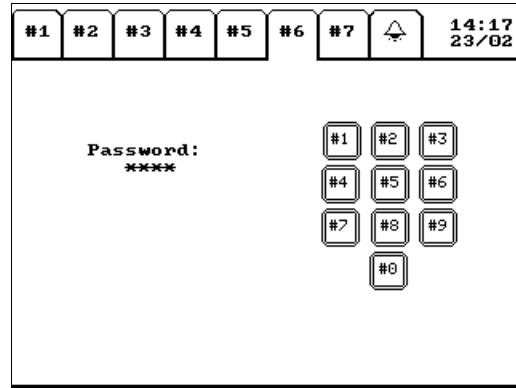


Please agree the exact definition of the function of the Touch-Panel vision with your installer.

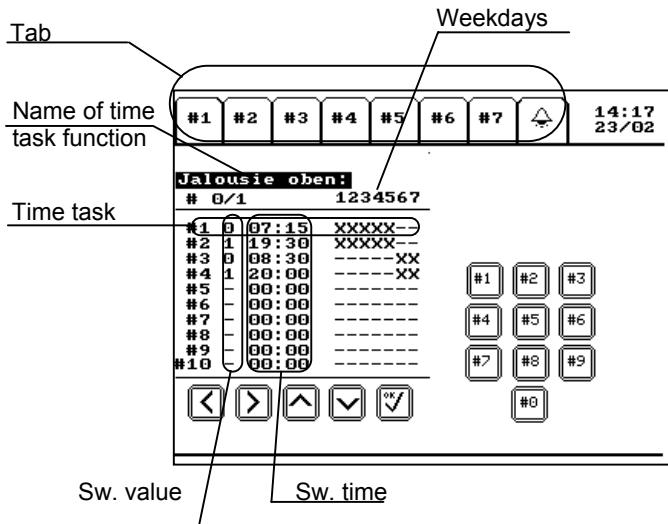
Entering and modifying time tasks

A total of 5 time programs are available each with 10 time tasks (switching times within a week) which can be used for switching on/off. The time tasks are entered or modified directly on the Touch-Panel vision. The changes are maintained even after a power failure. A prerequisite for the execution of time tasks is the regular updating of the date and time by a master clock (indicated by the representation of the time and date on the display).

The password page appears once you have pressed the display for a long period (> 1 second) in the area of the clock display:



A 4-digit password must now be entered via the keypad. The password is defined in the ETS parameter settings. Agree this with your installer. Once you have entered the password, the entry page for the time tasks appears:



With the "Next" button and "Previous" button (> symbol or < symbol), it is possible to run through the individual time programs with the lists of time tasks. Text (max. 12 characters) can be assigned to each program during the parameterisation in ETS. This text is displayed above the respective list (e.g. Shutter GF). If the displayed list is to be amended with time tasks, the "Down" button (v symbol) or "OK" button (✓ symbol) must be pressed. The descriptive text is then shown as inverted and the first time task (#1) is selected. Further time tasks of this object can be selected stepwise with the "Down" button (v symbol) or the "Up" button (^ symbol). If a selected time task should be edited, the "Down" button (v symbol) or "OK" button (✓ symbol) must be pressed. The required switching value can then be set by pressing the "1" or "0" button. Any other number deactivates this time task. After pressing the "Next" button again, the cursor marks the first digit of the time. Now enter the individual digits of the time and press the "Next" button after each number. The respective digit can be set by pressing the required number on the keypad. Once the time has been entered, you can scroll through the individual days of the week by pressing the "Next" button (> symbol). The day denoted by a '1' at the top of the table corresponds to Monday, 2 corresponds to Tuesday, 3 corresponds to Wednesday etc. When the required day of the week is selected, the time task can be activated for the respective day (denoted by an X in the display) by pressing the "1" button. The operation of the "0" button deletes the time task for this day (denoted by -).

In the example shown, a '0' causes a "Shutter UP" telegram to be sent on Monday to Friday at 7:15 (#1) while a '1' causes a "Shutter DOWN" telegram to be sent on Monday to Friday at 19:30 (#2), as well as a "Shutter UP" on Saturdays and Sundays at 8:30 (#3) and a "Shutter DOWN" on Saturdays and Sundays at 20:00 (#4).

In the same way:

- Switch lighting: - 1: Light On
- 0: Light Off.
- Heating control: - 1: Disable time control
- 0: Enable time control

If you run through all the days of the week with the "Next" button (> symbol), the set task is permanently stored (program maintained on voltage failure) and the programming mode of the page with time task objects changes to display mode. As when entering the password, it is now possible to scroll through the list of time task objects and lists using the "Next" button.

In principle, the time task page is exited 60 seconds after the last push button operation and the display activates the last visible standard or alarm page. When you press the index tab, the display changes to the required page and exits the time task page.

Note

Any change to a time task that has not yet been concluded is lost in both of the cases above.

Each time task object can be deactivated by the respective disable object. The time task object is not sent while the disable object is set to the value '1'. If it is reset to '0', the current value of the time object is sent immediately. The information is therefore not lost if a change in the value by a corresponding time task should take place during this period.

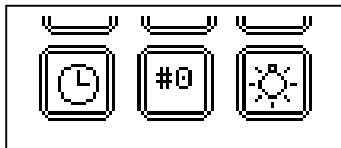
A time task is disabled e.g. by deactivating the appropriate time control for the heating (changing to comfort/standby mode) or by pressing a button with the appropriate configuration.

The so-called "fast tracking" mode can be set during the parameterisation of the device. During normal operation, any newly received time and date values are directly adopted by the internal clock and displayed. During fast tracking mode however, on receipt of a new time telegram which deviates from the internal time, the internal clock advances very quickly to the new value. If there are time tasks between the old and the new time, they are executed during the fast tracking phase. No time tasks are lost. The fast tracking mode is only activated if the internal clock is running slowly compared to the newly received time. If the internal clock is running fast, the new value is adopted directly. Fast tracking (if parameterised) is also carried out in the event of a bus voltage failure. The internal time is saved on bus voltage failure. If the device then receives a new time and date on bus voltage recovery, the fast tracking is reactivated and the clock advances from the stored time to the new time. If the received time deviates from the stored time, a change in the date occurred during the voltage failure. In this case, the clock advances from 0:00 hours to the newly received value.

Scene programs

In connection with this application program, up to 8 scenes can also be stored in the device. A scene can thereby trigger up to 10 switch, dimming and shutter control telegrams. The scenes can be recalled internally via push buttons on the standard pages or externally via bus telegrams. The triggering of scenes via telegrams is carried out via 1 bit values. A "0" telegram at the first scene object (object no. 231) triggers scene 1 while a "1" telegram triggers scene 2. A "0" telegram at the second scene object (object no. 232) triggers scene 3 while a "1" telegram triggers scene 4 etc.

The programming of the scenes (or modification of programmed scenes) is carried out on the display unit by the user. Scenes can therefore be composed of any previously defined switching, dimming and shutter control functions. The programming is carried out on a special, password-protected programming page (similar to the programming page for time programs). The activation of the programming page is carried out via a long push button action (> 1 sec.) on the programming symbol (if the time display has not been set) or on the time field in the top right-hand corner of the display (if time programs have also been parameterised). As in the case of time control, the password page appears first of all. If only scene programming has been parameterised, the device changes directly to the input page for the scenes once the password has been entered. If the programming of time tasks has been selected in addition to scene programming, two selection buttons appear to the right and left of the #0 button on the keypad after the password input.



In this case, the device only changes to the input page for scenes once the scene button (light symbol) has been pressed.

#1	#2	#3	#4	#5	#6	#7	OK	14:17 23/02
Scene 1:								
#	P	F	Type	U				
#1	1/3		1Bit:	1				
#2	2/4		8Bit:	60%				
#3	1/5			n.a.				
#4	1/7		1Bit:	0				
#5	--			n.a.				
#6	--			n.a.				
#7	--			n.a.				
#8	--			n.a.				
#9	--			n.a.				
#10	--			n.a.				
	OK							

With the "Next" button and "Previous" button (> symbol or < symbol), it is possible to run through the individual scenes with the lists of scene programs. Text (max. 12 characters) can be assigned to each scene during the parameterisation in ETS. This text is displayed above the respective list (e.g. Scene 1). If the list of scene telegrams is to be amended, the "Down" button (v symbol) or "OK" button (✓ symbol) must be pressed. The descriptive text is then no longer shown as inverted and the first task (#1) is selected. The tasks of this scene can be selected as required with the "Down"

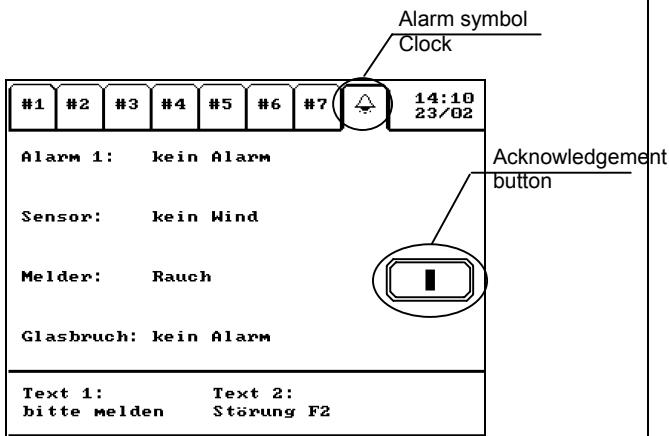
button (v symbol) or the "Up" button (^ symbol). If a selected task should be edited, the "Next" button (> symbol) or "OK" button (✓ symbol) must be pressed. One of the functions parameterised on the standard pages can then be selected and set by pressing the corresponding numeric keys. The first digit in front of the forward slash represents the page number (heading P = page) on which the required function is located while the number after the forward slash designates the number (heading F = function) of the function (e.g.: 1/3 standard page #1, function 3). Function no. 10 of a page corresponds to input value 0. When selecting a function, the assigned descriptive text is displayed below the table. The selected function is checked for its usability within a scene. All 1 bit switching, shutter, dimming and value functions (0...100%) can be used in scenes. If a switching or shutter control function is selected, the 1 bit telegram type appears after the function number (heading = Type). If a dimming or value function (0...100%) is selected, the 8 bit type appears. Any function that is not permitted within a scene is denoted by the abbreviation "n.a." (not available). It is possible to navigate within a line with the "Next" and "Previous" buttons.

If the required function is set, it is possible to change to the value setting (heading V = value) with the "Next" button (> symbol). The telegram value (0.1 for 1 bit or 0..100% for 8 bit) can be entered directly via the numeric keys. The following assignment must be noted for the shutter function: Value 0 = Shutter UP, 1 = Shutter DOWN. After entering the final digit, the set task is stored permanently (program maintained on voltage failure) and programming mode of the scene program page changes to display mode. In display mode, each scene can be triggered for testing purposes by pressing the "OK" button (✓ symbol).

If tasks that have previously been programmed within a scene should be deleted, the value "0" must be entered as a page number. If previously programmed 8 bit values should be modified, it must be ensured that the full value is entered with all the digits from left to right (e.g. enter 005 if 5% instead of 100% should be stored). If only the last digit is selected and modified with the "Next" button, an incorrect value may be displayed.

Alarm page

Apart from the standard pages (#1 to #7), it is possible to select an alarm page via the index tab. Up to 4 alarm signals and 2 text messages can be represented on the alarm page.



When an alarm occurs (object value 1 at object no. 214 to 217), the display automatically changes to the alarm page, the alarm symbol (clock) flashes and the alarm is clarified acoustically by a signal tone (adjustable). In addition, an acknowledgement button is shown on the right-hand side of the display.

It is not possible to exit the alarm page until the triggered alarm has been acknowledged. This also applies if the cause of the alarm has been rectified in the meantime and the normal state of the alarm is displayed. This guarantees that an alarm does not remain unnoticed.

Once the alarm has been acknowledged, the signal tone stops and it is possible to switch to a standard page again. The alarm symbol continues to flash for the duration of the alarm. It is possible for example to switch off a siren via the acknowledgement.

The acknowledgement button disappears after the acknowledgement.

Two text messages can also be displayed at the bottom of the page in addition to these 4 alarms.