07B0 A6 Universal dimmer 982101

Use of the application program

Product family: Lighting
Product type: Dimmer
Manufacturer: Siemens

Name: N 527/31 Universal dimmer, main module
Order no.: 5WG1 527-1AB31

Name: N 528/31 Universal dimmer, main module
Order no.: 5WG1 528-1AB31

Contents overview

1. Functional description

The universal dimmer main module **N 527/31** is a 3 MU-wide device for DIN-rail mounting with N-system dimensions. It is designed for lighting control, i.e. for switching and dimming resistive, inductive or capacitive loads ranging from **20-500 VA** with 230V AC, 50-60 Hz. The universal dimmer main module **N 528/31** is a 3 MU-wide device for DIN-rail mounting with N-system dimensions, also designed for lighting control, i.e. for switching and dimming resistive, inductive or capacitive loads ranging from **20-300 VA** with 230V AC, 50-60 Hz. Connecting mixed loads (both inductive and capacitive loads, e.g. a group of low voltage halogen lamps with magnetic transformer, together with a group of low voltage halogen lamps with electronic transformer or together with dimmable energy-saving lamps) to the same output (channel) of a main module or submodule is not permitted.
A main module is connected to the KNX bus with a bus terminal. The power supply of the electronics is carried out over an integrated power supply unit for 230V AC input voltage.

Connecting universal dimmer submodules
You can connect a universal dimmer submodule N 528/41 (dimmable load 20-300 VA), a universal dimmer submodule N 527/41 (dimmable load 20-500 VA) or a universal dimmer submodule N 527/51 (dimmable load 20-1,000 VA) with the 2-pin interface T+, T- (see, for example, device B in figure 1) using a twisted pair of wires. Up to 5 universal dimmer submodules can be connected to a universal dimmer main module, in which the twisted pair T+ / T- is also to be looped from interface to interface. In this way, a main module can be extended if required from a KNX dimmer with one output to a KNX dimmer with up to 6 outputs (channels).
When connecting a new universal dimmer submodule to a universal dimmer main module, it is essential that you connect their 2-pin interfaces T+ / T- first before applying the mains voltage to the submodule(s). This is the only way to guarantee that the communication between main module and submodule(s) takes place correctly.

Device address
You set to which channel (B...F) of the main module the relevant submodule is to be assigned with a rotary switch on the underside of the housing. A universal dimmer main module must always be set on channel A. If two or more devices are set incorrectly to the same address, then the light emitting diodes (LEDs) for the relevant channels will flash (see figure 1, B8).

Dimming loads from 40-2,000VA
To dim a load in the range from 40-2,000 VA, the outputs of two universal dimmer submodules N 527/51 (dimmable load in each case 20-1,000 VA) have to be connected in parallel. You must not connect the outputs from more than

07B0 A6 Universal dimmer 982101

two N 527/51 devices in parallel. Parallel operation of the outputs of universal dimmer main modules with each other or with a submodule, as well as of any other universal dimmer submodules, is not permitted!
Whereas any universal dimmer submodule can work stand-alone even without a main module, two N 527/51 dimmers connected in parallel can only work if connected to a main module.

LED indications
6 bi-color LEDs (red / green illumination) on the top of the main module (see B8, figure 1) indicate the switching status of all channels (LED is green if the channel is switched off and red if it is switched on). If any of the LEDs A...F flashes, then an error has been detected on this module. This is the case, for example, if more modules are configured than are actually connected, the configured module type is incompatible with the module type actually connected, the same address has been set more than once or if a module has been detected as defective.

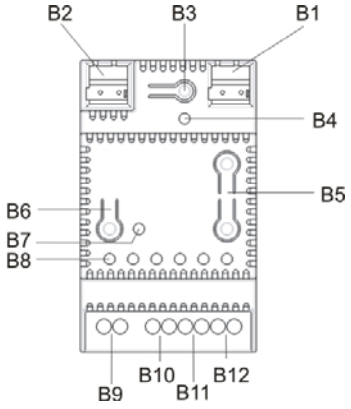


Figure 1: Indicating/operating elements, connection type

Switching between bus mode and direct mode
You use the "Direct mode" pushbutton (see figure 1, B6) to switch between "Bus mode" and "Direct mode". If this button is held down for at least 3 seconds, then the yellow LED (see figure 1, B7) comes on permanently to indicate direct mode.
In direct mode, you select a module (channel) and switch and dim it with the two pushbuttons (see figure 1, B5) on the top of the main module. A module (channel) is selected if the "Direct mode" pushbutton (see figure 1, B6) is tapped several times until the LED for the wanted module A...F flashes (red or green according to the current switching status). Modules in which an error is indicated in bus mode by a green flashing LED A...F cannot be switched or dimmed in direct mode. The corresponding LED goes out when switching on the direct mode.

You use a parameter to set whether direct mode can be switched on permanently or for a limited time. At the factory, direct mode is set to a timed on-time of 15 minutes. Each time the pushbutton is operated in direct mode, the timer for on-time limiting is restarted. After the on-time has elapsed without a further press of the pushbutton, direct mode switches off automatically and thus "Bus mode" is re-enabled (if communication over the bus is possible). Alternatively, direct mode can be ended at any time by pressing the "Direct mode" pushbutton again for at least 3 seconds. The yellow LED for indicating direct mode then goes out and the actuator is again in bus mode. In bus mode, pressing the push-button to switch an output on or off directly has no effect. When direct mode is switched on, switching, dimming value and scene recall commands received via the bus are buffered and will be executed automatically after the return to bus mode, i.e. the last received switch-/ dimming command received is then executed and the scenes are recalled in the received sequence.

Pushbutton inputs E1, E2
A conventional pushbutton can be connected each to the E1 and E2 inputs of the main module for direct switching and dimming of the output A. Tapping the pushbutton on the E1 input leads to switching on, holding it down to dimming brighter, tapping the pushbutton on the E2 input leads to switching off, holding it down to dimming darker. You use a parameter to set whether pressing one of the buttons is also to lead to sending switching and dimming telegrams via the bus to other actuators.
Each submodule also has the inputs E1 and E2 for direct switching and dimming of the respective module. It is essential for electrical safety reasons that the pushbuttons connected to a module are connected to the same phase conductor as the respective module.

Short-circuit / overload protection
Each universal dimmer main module and each universal dimmer submodule has an electronic protection system which switches off the dimmer channel if short-circuit protection is needed or there is an overload situation. After rectifying the short-circuit or overload, the dimmer module can be switched on again no earlier than 2 minutes after automatic switching off by switching it off and on again or by breaking and re-connecting the power supply.

Overheating protection
Each universal dimmer main module and each universal dimmer submodule also has electronic protection against overheating. If the maximum permitted temperature is exceeded, the relevant module dims automatically to the minimum dimming value. As soon as the module has

cooled down and the temperature is again below the threshold, the module dims automatically back to the current nominal value after 2 minutes.

Behavior at voltage failure / recovery
Because the power for each dimmer module's electronics is supplied via an integrated 230V AC power supply unit, a mains voltage failure means that the affected module also fails. In the event of a mains voltage failure at the main module, night mode is ended if it is active and the current switching states and dimming values of all modules (channels) are stored permanently, in order that they can be regenerated automatically after mains voltage recovery. You use a parameter to configure the behavior after mains voltage recovery: switching on all channels, switching off all channels, restoring the switching / dimming states of all channels before mains voltage failure. However, if night mode was active before mains voltage failure, this will not be re-enabled.
A mains voltage failure exclusively at a submodule results as well in switching off this channel as in the complete failure of this module. The submodule will remain switched off after mains voltage recovery if the main module didn´t receive any switching or dimming commands for this module during mains voltage failure at it. Otherwise the main module will transmit the last meanwhile received switching / dimming command to the submodule after mains voltage recovery at this module.
In contrast, a bus voltage failure results only in a communication failure via the KNX bus. But communication between the main module and all connected submodules via the interface T+ / T- is unaffected by this. Each module retains its current status. If pushbuttons for direct switching and dimming are connected to a module's pushbutton inputs E1, E2, you can use these connected buttons to switch and dim this module. You can also select each module (i.e. each channel) with the pushbuttons on the top of the universal dimmer main module and switch and dim in direct mode. Parameters are used to set the behavior in each case on bus voltage failure and on bus voltage recovery.

2. Application program

Both the universal dimmer main modules N 527/31 and N 528/31 respectively need the application program "07B0 A6 Universal dimmer 982101", which is configured and loaded with the Engineering Tool Software (ETS) from Version ETS 3.0 f upwards. This controls the outputs both from the main module and all connected submodules. *Inter alia*, it includes monitoring of each output (channel) for short circuit, overload and overheating, switching and dimming status reporting, a warning before switching off, time functions, blocking and releasing a channel, a configurable behavior at bus voltage failure and recovery, as well as at mains voltage recovery, and an integrated 8-bit scene control in which each channel can be integrated in up to 8 scenes.

"Device Overview" parameter window
This parameter window serves for indicating and setting the number and type of connected submodules. Ex works, the parameter "Number of connected submodules" in the main module is set to "5". This ensures that each submodule can be switched and dimmed in direct mode even via a main module that has still not been connected to the bus cable or is as yet not configured. For all unconnected submodules, the corresponding green LED on the front panel of the main module for indicating the selected channel (see figure 1, A5) flashes to signal that the number configured is not the same as the actual number of submodules connected.

"Functions, Objects" parameter window
This parameter window serves for enabling supplementary functions and additional communication objects. These include:
- sending a pushbutton-press at one of the pushbutton inputs as a command telegram,
- supplementing of night mode with limited on-time,
- warning before switching off in night and timer modes,
- enabling the integrated 8-bit scene control,
- supplementing of objects to block / release the channels,
- supplementing of status objects for switching and dimming status,
- supplementing of objects for error messages and fault diagnosis,
- supplementing of a transmission blocking time and a transmission delay time to status objects in the event of mains / bus voltage recovery.

"General" parameter window
You use this parameter window to set both the on-time in direct mode and to determine the time from when a press on a pushbutton, which is connected to a pushbutton input, is to be interpreted as "long", mainly to set the behavior on bus voltage failure and recovery and the behavior on mains voltage recovery.

"Channel X" parameter window
This parameter window is used to set the mode of a channel (or of a number of channels jointly) and its (their) switching and dimming behavior with the following parameters:
- operating mode (normal mode, 1-level or 2-level timer mode, blinking),

07B0 A6 Universal dimmer 982101

- load adaptation (automatically, leading- or trailing-edge control),
- minimal dimming value 1,
- maximal dimming value 1,
- minimal dimming value 2,
- maximal dimming value 2,
- dimming time for switching On / Off,
- dimming time for dimming brighter / darker from 0...100 %,
- dimming time 1 from 0...100 % for dimming value 1,
- time base for dimming time 2 (seconds, minutes),
- factor dimming time 2 from 0...100 % for dimming value 2,
- starting value for switching on,
- switching via dimming brighter / darker,
- switching via dimming value 1,
- switching via dimming value 2,
- ON delay,
- OFF delay,
- ON period 1,
- ON period 2,
- dimming value during ON period 2,
- ON period blinking,
- OFF period blinking.

"8-bit scenes" parameter window
Use this parameter for each channel to set in which scenes it is integrated.
If two channels are connected in parallel, then scene control is configured via the parameter window to the first of the two channels.
If the "Operating mode" parameter for a channel is set to "Blinking", this channel cannot be incorporated in a scene control.

3. Communication objects

Maximum number of group addresses: 255
Maximum number of assignments: 383

The following table shows the maximal available communication objects.

No.	Object name	Function	No. of bits	Flags
1	Status direct mode	On / Off	1	CRT
2	8-bit scene	recall / program	8	CRWT
3	A, Locking	On / Off	1	CW
4	A, Night mode	On / Off	1	CW
5	A, Switching	On / Off	1	CW
6	A, Dimming	brighter / darker	4	CW
7	A, Dimming value 1	8-bit value	8	CW
8	A, Dimming value 2	8-bit value	8	CW
9	A, Status switching	On / Off	1	CRT
10	A, Status dimming value	8-bit value	8	CRT
11	A, Transmit switching	On / Off	1	CT
12	A, Transmit dimming	brighter / darker	4	CT
13	A, Defect	1 = Yes / 0 = No	1	CRT
14	A, Overload / Short circuit	1 = Yes / 0 = No	1	CRT
15	A, Temperature rise	1 = Yes / 0 = No	1	CRT
17	A, Diagnostics	8-bit value	8	CRT
19	B, Locking	On / Off	1	CW
20	B, Night mode	On / Off	1	CW
21	B, Switching	On / Off	1	CW
22	B, Dimming	Brighter / darker	4	CW
23	B, Dimming value 1	8-bit value	8	CW
24	B, Dimming value 2	8-bit value	8	CW
25	B, Status switching	On / Off	1	CRT
26	B, Status dimming value	8-bit value	8	CRT
27	B, Transmit switching	On / Off	1	CT
28	B, Transmit dimming	brighter / darker	4	CT
29	B, Defect	1 = Yes / 0 = No	1	CRT
30	B, Overload / Short circuit	1 = Yes / 0 = No	1	CRT
31	B, Temperature rise	1 = Yes / 0 = No	1	CRT
33	B, Diagnostics	8-bit value	8	CRT
35	C, Locking	On / Off	1	CW
36	C, Night mode	On / Off	1	CW
37	C, Switching	On / Off	1	CW
38	C, Dimming	brighter / darker	4	CW
39	C, Dimming value 1	8-bit value	8	CW
40	C, Dimming value 2	8-bit value	8	CW
41	C, Status switching	On / Off	1	CRT
42	C, Status dimming value	8-bit value	8	CRT
43	C, Transmit switching	On / Off	1	CT
44	C, Transmit dimming	brighter / darker	4	CT
45	C, Defect	1 = Yes / 0 = No	1	CRT
46	C, Overload / Short circuit	1 = Yes / 0 = No	1	CRT
47	C, Temperature rise	1 = Yes / 0 = No	1	CRT
49	C, Diagnostics	8-bit value	8	CRT

Siemens AG
Industry Sector, Building Technologies
Electrical Installation Technology
P.O. Box 10 09 53, D-93009 Regensburg

07B0 A6 Universal dimmer 982101

No.	Object name	Function	No. of bits	Flags
51	D, Locking	On / Off	1	CW
52	D, Night mode	On / Off	1	CW
53	D, Switching	On / Off	1	CW
54	D, Dimming	brighter / darker	4	CW
55	D, Dimming value 1	8-bit value	8	CW
56	D, Dimming value 2	8-bit value	8	CW
57	D, Status switching	On / Off	1	CRT
58	D, Status dimming value	8-bit value	8	CRT
59	D, Transmit switching	On / Off	1	CT
60	D, Transmit dimming	brighter / darker	4	CT
61	D, Defect	1 = Yes / 0 = No	1	CRT
62	D, Overload / Short circuit	1 = Yes / 0 = No	1	CRT
63	D, Temperature rise	1 = Yes / 0 = No	1	CRT
65	D, Diagnostics	8-bit value	8	CRT
67	E, Locking	On / Off	1	CW
68	E, Night mode	On / Off	1	CW
69	E, Switching	On / Off	1	CW
70	E, Dimming	brighter / darker	4	CW
71	E, Dimming value 1	8-bit value	8	CW
72	E, Dimming value 2	8-bit value	8	CW
73	E, Status switching	On / Off	1	CRT
74	E, Status dimming value	8-bit value	8	CRT
75	E, Transmit switching	On / Off	1	CT
76	E, Transmit dimming	brighter / darker	4	CT
77	E, Defect	1 = Yes / 0 = No	1	CRT
78	E, Overload / Short circuit	1 = Yes / 0 = No	1	CRT
79	E, Temperature rise	1 = Yes / 0 = No	1	CRT
81	E, Diagnostics	8-bit value	8	CRT
83	F, Locking	On / Off	1	CW
84	F, Night mode	On / Off	1	CW
85	F, Switching	On / Off	1	CW
86	F, Dimming	brighter / darker	4	CW
87	F, Dimming value 1	8-bit value	8	CW
88	F, Dimming value 2	8-bit value	8	CW
89	F, Status switching	On / Off	1	CRT
90	F, Status dimming value	8-bit value	8	CRT
91	F, Transmit switching	On / Off	1	CT
92	F, Transmit dimming	brighter / darker	4	CT
93	F, Defect	1 = Yes / 0 = No	1	CRT
94	F, Overload / Short circuit	1 = Yes / 0 = No	1	CRT
95	F, Temperature rise	1 = Yes / 0 = No	1	CRT
97	F, Diagnostics	8-bit value	8	CRT

Object	Object name	Function	Type	Flags
1	Status direct mode	On / Off	1 bit	CRT
This object is used to report that the main module has been switched with the "Direct mode" pushbutton on its top from bus mode to direct mode (Direct mode = On) or that it has been switched back from direct mode to bus mode (Direct mode = Off). If direct mode is switched on (the yellow "direct mode" LED on the main module is lit), selecting a channel and direct switching and dimming of this channel with the pushbuttons on the top of the main module is enabled. The main module does not execute immediately switching, dimming or scene control commands received via the bus, but stores them as a wanted set point state. After reverting to bus mode (the yellow LED for indicating direct mode on the main module is switched off) the main module compares the current states of the channel with the stored set point states and corrects differences automatically.				
2	8-bit scene	recall / program	8 bits	CW
This object recalls (i.e. restores) or programs (stores) the 8-bit scene with the number x. Bits 0...5 contain (in binary code) the number x of the wanted scene as a decimal number between 1 and 64 (in which the decimal number 1 corresponds to the binary number 0, the decimal number 2 corresponds to the binary number 1, etc.). If bit 7 is set to logical 1, then scene x is programmed and if bit 7 is set to logical 0, then scene x is recalled. Bit 6 is currently spare and must be set to logical 0.				
3 (19, 35, 51, 67, 83)	A (B, C, D, E, F), Locking	On / Off	1 bit	CW
This object is used to lock (disable) or release (enable) the corresponding channel.				
4 (20, 36, 52, 68, 84)	A (B, C, D, E, F), Night mode	On / Off	1 bit	CW
This object serves to enable or disable "Night mode" for the corresponding channel via the bus. This object can also be sent by a pushbutton, a timer or a building management system, for example. If a logical 1 is received, then the corresponding output is switched to night mode. In "Night mode" the channel can no longer be switched on permanently, but only for a limited time (for example, lighting for cleaning for 30 minutes). If the parameter "Warning before switching OFF" (see "Functions, Objects" parameter window) is set to "Yes", then after the configured time, the dimming value of the channel is set first to 50% of the prior value for safety reasons and then within about 30 seconds it is dimmed darker and the channel switched off. This lets a user of the room know the end of the ON time, and by pressing the light switch again, the lighting will be left ON for a further 30 minutes, for example. If the "Night Mode" object is not used with a channel, then this channel can be switched on permanently.				

07B0 A6 Universal dimmer 982101

Object	Object name	Function	Type	Flags
5 (21, 37, 53, 69, 85)	A (B, C, D, E, F), Switching	On / Off	1 bit	CW
Via this object the telegrams are received to switch the load connected to the respective channel on or off.				
6 (22, 38, 54, 70, 86)	A (B, C, D, E, F), Dimming	brighter / darker	4 bits	CW
Via this object the dimming telegrams for the relevant channel are received.				
7 (23, 39, 55, 71, 87)	A (B, C, D, E, F), Dimming value 1	8-bit value	8 bits	CW
Via this object the dimming value 1 is received for the relevant channel which is to be dimmed with the dimming time 1.				
8 (24, 40, 56, 72, 88)	A (B, C, D, E, F), Dimming value 2	8-bit value	8 bits	CW
Via this object the dimming value 2 is received for the relevant channel which is to be dimmed with the dimming time 2. This object may be used to dim to the dimming value 2 with a dimming time different to that with the dimming value 1 (e.g. for constant brightness control).				
9 (25, 41, 57, 73, 89)	A (B, C, D, E, F), Status switching	On / Off	1 bit	CRT
Depending on the selected parameter setting, this object is used to query the switching status of the relevant channel and if configured to send it automatically after a change.				
10 (26, 42, 58, 74, 90)	A (B, C, D, E, F), Status dimming value	8-bit value	8 bits	CRT
Depending on the selected parameter setting, this object is used to query the current dimming state (dimming value) of the relevant channel and if configured to send it automatically after a change of value.				
11 (27, 43, 59, 75, 91)	A (B, C, D, E, F), Transmit switching	On / Off	1 bit	CT
This object is used to send the corresponding switching command (on or off) over the bus after switching the channel with one of the pushbuttons connected to the inputs E1, E2 of the relevant module,.				
12 (28, 44, 60, 76, 92)	A (B, C, D, E, F), Transmit dimming	brighter / darker	4 bits	CT
This object is used to send the corresponding dimming command over the bus after dimming the channel brighter / darker with one of the pushbuttons connected to the inputs E1, E2 of the relevant module.				

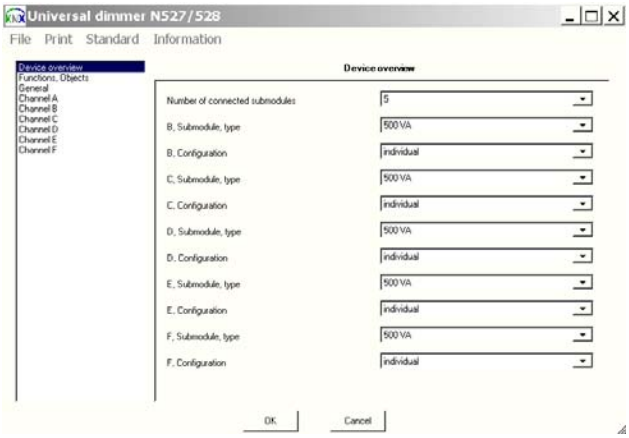
Object	Object name	Function	Type	Flags
13 (29, 45, 61, 77, 93)	A (B, C, D, E, F), Defect	1 = Yes / 0 = No	1 bit	CRT
This object is used to report a fault of the corresponding channel. The cause can be that the configured number of channels is not the same as that of the actual channels or that the channel cannot be controlled because the communication cable between main module and submodule is broken or that there is a fault in the submodule´s electronics.				
14 (30, 46, 62, 78, 94)	A (B, C, D, E, F), Overload / Short circuit	1 = Yes / 0 = No	1 bit	CRT
This object is used to report an overload or a short circuit of the channel in question automatically. This is done only after the channel has been switched off automatically.				
15 (31, 47, 63, 79, 95)	A (B, C, D, E, F), Temperature rise	1 = Yes / 0 = No	1 bit	CRT
This object is used to report an overheating of the relevant channel automatically. This is done already at a time when the channel has not yet been switched off but first is dimmed to minimum brightness.				
17 (33, 49, 65, 81, 97)	A (B, C, D, E, F), Diagnostics	8-bit value	8 bits	CRT
This communication object can be read via the bus. In the event of a fault, this helps to detect the reason. Meanings of the individual bits: Bit 0 (=1) overload / short circuit Bit 1 (=1) 1st level overheating (dimmer dims to minimum brightness) Bit 2 (=1) 2nd level overheating (dimmer switches off) Bit 3 (=1) load not dimmable Bit 4 (=1) trailing edge control (=0) leading edge control Bit 5 (=1) channel defective Bit 6 spare Bit 7 spare				

07B0 A6 Universal dimmer 982101

4. Parameter windows

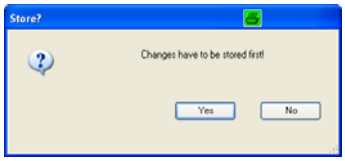
4.1. Header

The following picture shows the parameter window which pops up after you choose the ETS function "Edit parameters..." with a not yet configured main module.



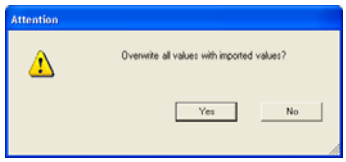
This window contains the following selections in the header:

File
If you select the "File" tab in the header, then you can choose one of the following actions:
Export,
Import.
Export: The export function is used to export the device's current configuration in XML format from the ETS project database and save it on any drive in a file to be defined by the operator. The following window pops up after you select this action:

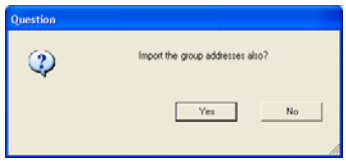


At this point, you should remember that all final parameter settings entered are to be saved first in the project database before exporting the data. Only when this prompt has been answered with "Yes" does a new window open for selecting the drive and file to which the file export is to be made.

Import: The import function is used to load the programmed settings / group addresses for an N 527/31 or N 528/31 universal dimmer into another device via the export function. This is how to copy configurations / group addresses into additional devices or in a new device. The following window pops up after you select this action:



Only when this prompt has been answered with "Yes" does a new window open for selecting the drive and the xml file to be imported. After selecting the file to be imported, you will be prompted in the following window to confirm whether the allocated group addresses are also to be imported:



If you answer "Yes" to this prompt, then the allocated group addresses are imported.

Printing
If you select the "Print" tab in the header, then you can choose one of the following actions:
Printer,
Preview.
Printer: After you select "Printer", a window opens for you to choose the printer on which the device settings are to be printed out for documentation purposes.
Preview: After selecting "Preview", a window opens with the print view of the device parameters.

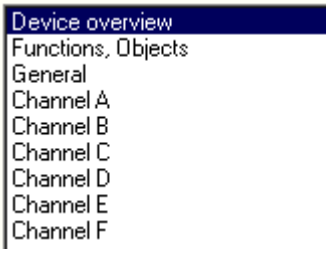
Standard
After selecting this button, the following window opens:

If you select the "Yes" button, then all parameters are reset to their standard factory setting. This causes the loss of all settings that have not been archived via the export function.

07B0 A6 Universal dimmer 982101

Info
After this button is selected, a window opens with information about the current release of the application program and an Internet link to Siemens Building Control Systems.
Clicking on the open Info window closes it.

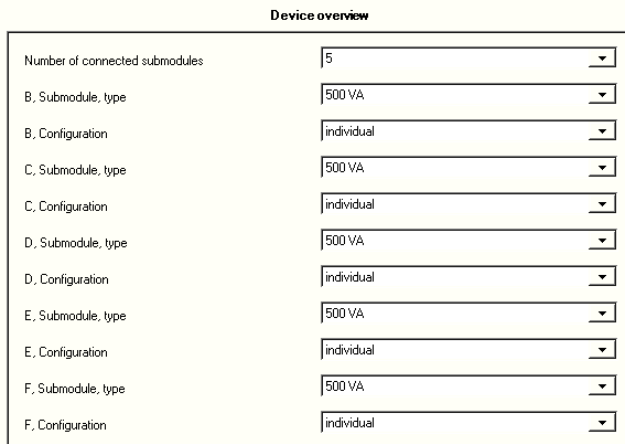
Parameter windows
The next picture shows all parameter windows ex works in the overview on the left of the ETS parameter window.
Ex works, the number of connected submodules is set to "5", the type of all submodules to "500 VA" and their configuration to "individual". This ensures that, even without prior configuration of the main module and without communication via the bus, you can switch all submodules (dimmer channels) in direct mode with the pushbuttons on top of the main module on and off and dim them brighter / darker.



The next picture shows on the left of the ETS parameter window an overview of all parameter windows for a main module with a 300 VA submodule connected as channel B, with a 500 VA submodule connected as channel C, with a 1,000 VA submodule connected as channel D, plus two connected submodules (channels E and F), each rated at 1,000 VA, their outputs connected in parallel, in order to control a load of up to 2,000 VA.
The number and type of parameter windows is determined by the number of submodules (channels) connected, the selected parameter settings, the selected functions and the operation mode set for each channel. In the example shown, there are no parameter windows for channels E and F, because the configuration of channel E has been set to be identical with that of channel D, channel F is connected in parallel with channel E and therefore the configuration of channel F is automatically identical to that of channel E. Because channels E and F, which are connected in parallel, are considered as one common channel, neither is there a parameter window for 8-bit scenes for channel F.

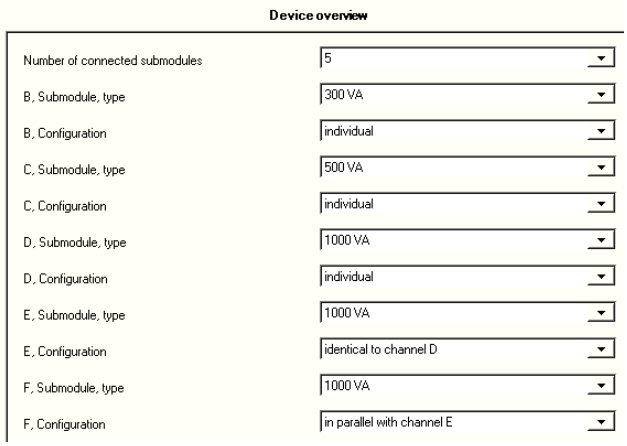
All parameter windows and the parameters contained in them are listed and explained below.

4.2. "Device overview" parameter window



Ex works, the number of connected submodules is set to "5", the type of all submodules to "500 VA" and their configuration to "individual" (see picture above). This ensures that, even without prior configuration of the main module and without communication via the bus, you can switch all submodules (dimmer channels) in direct mode with the pushbutton on top of the main module on and off and dim them brighter / darker.

07B0 A6 Universal dimmer 982101



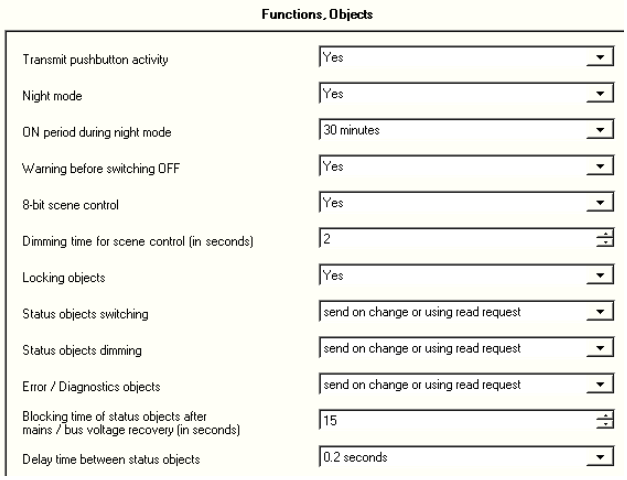
The above picture shows the "Device overview" parameter window for a main module with a 300 VA submodule connected (channel B), a 500 VA submodule connected (channel C), a 1,000 VA submodule connected (channel D), plus two connected submodules, each rated at 1,000 VA (channels E and F), whose outputs are connected in parallel, in order to control a load of up to 2,000 VA.

Parameter	Settings
Number of connected submodules	0; 1; 2; 3; 4; **5**
The operator must use this parameter to set how many submodules are actually connected to the universal dimmer main module. Depending on the number set, 0 to 5 of the following parameter pairs "X, Submodule, type" and "X, Configuration" will be added as well.	
B (C, D, E, F), Submodule, type	300 VA; **500 VA;** 1000 VA
This parameter sets for which dimmable power the output of the connected submodule is rated.	
B, Configuration	**individual**; identical to channel A
This parameter sets how channel B is to be configured. individual: The dimming behavior of channel B is to be configured individually. identically to channel A: The parameter setting from channel A is adopted for channel B.	

Parameter	Settings
C, Configuration	**individual**; identical to channel A; identical to channel B; in parallel with channel B
This parameter sets how channel C is to be configured. in parallel with channel B: This option is visible only if a submodule rated for 1,000 VA is connected to each of channels B and C. You must select this setting if the outputs from channels B and C are connected in parallel, in order to be able to dim a load of up to 2,000 VA.	
D, Configuration	**individual**; identical to channel A; identical to channel B; identical to channel C; in parallel with channel C
This parameter sets how channel D is to be configured. in parallel with channel C: This option is visible only if a submodule rated for 1,000 VA is connected to each of channels C and D. You must select this setting if the outputs from channels C and D are connected in parallel, in order to be able to dim a load of up to 2,000 VA.	
E, Configuration	**individual**; identical to channel A; identical to channel B; identical to channel C; identical to channel D; in parallel with channel D
This parameter sets how channel E is to be configured. in parallel with channel D: This option is visible only if a submodule rated for 1,000 VA is connected to each of channels D and E. You must select this setting if the outputs from channels D and E are connected in parallel, in order to be able to dim a load of up to 2,000 VA.	
F, Configuration	**individual**; identical to channel A; identical to channel B; identical to channel C; identical to channel D; identical to channel E; in parallel with channel E
This parameter sets how channel F is to be configured. in parallel with channel E: This option is visible only if a submodule rated for 1,000 VA is connected to each of channels E and F. You must select this setting if the outputs from channels E and F are connected in parallel, in order to be able to dim a load of up to 2,000 VA.	

07B0 A6 Universal dimmer 982101

4.3. "Functions, Objects" parameter window



This parameter window is used to add supplementary functions and additional communication objects.

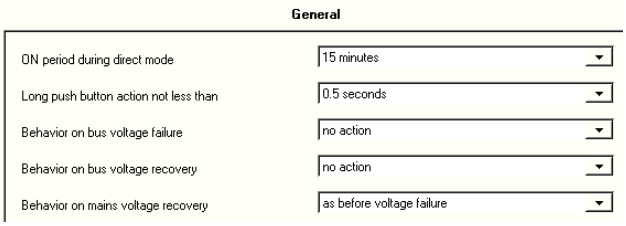
Parameter	Settings
Transmit pushbutton activity	**No**; Yes
This parameter sets whether, after a switching or dimming with one of the pushbuttons connected to the inputs E1, E2 of the module, the new switching or dimming value status of the channel is also to be sent to other dimmers as a command via the KNX bus. If the parameter is set to "Yes", then the relevant command objects are added for the main module and for each connected submodule.	
Night mode	**No**; Yes
This parameter sets whether the lighting can be switched on by night for limited periods only (e.g. as lighting for cleaning) or whether it can also be switched on at any time permanently (Night Mode = No). If you select "Night Mode = Yes", then a "Night Mode On / Off" object is added for each channel, via which night mode can be enabled or disabled for the relevant channel and the next parameter "ON period during night mode" is added.	

Parameter	Settings
ON period during night mode	5 minutes; 10 minutes; 15 minutes; 20 minutes; **30 minutes;** 45 minutes; 60 minutes
This parameter sets how long the channel is to remain switched on in night mode. If a switching value, dimming value or scene recall command is received before this period ends, the switching on period is restarted - in other words, it is extended by the configured period. If "Warning before switching OFF" is enabled then, when switching on ends, the channel in question is dimmed for approximately 30 seconds to half the previous dimming value, in order to tell the user of the room that the lighting will soon be switched off. Pressing the button again immediately dims the channel to the switching value and the timer restarts.	
Warning before switching OFF	**No**; Yes
This parameter sets in common for all channels whether a channel (in night mode or 1-level timer mode) is to warn before automatic switching off at the end of the set on-time by reducing the brightness (dimming to 50% of the previous dimming value) for approximately 30 seconds.	
8-bit scene control	**No**; Yes
If this parameter is set to "Yes", then an "8-bit scene" communication object is added. A parameter window "X, 8-bit scenes" is also added for each channel, via which the relevant channel can be incorporated individually in up to 8 scenes. Note: If two channels, each rated for 1,000 VA dimming power are connected in parallel, then only one parameter window "X, 8-bit scenes" is added for the first of the two channels.	
Dimming time for scene control (in seconds)	0...255, **2**
This parameter is visible only if the previous parameter "8-bit scene control" is set to "Yes". This parameter sets in common for all channels after which time when recalling a scene all channels incorporated in the scene will be dimmed together to the new value.	
Locking objects	**No**; Yes
If this parameter is set to "Yes", then a "Locking" object is added for each channel, via which switching and dimming can be locked (disabled) and released (enabled) for the relevant channel.	

07B0 A6 Universal dimmer 982101

Parameter	Settings
Status objects switching	**No;** send on read request only; send on change or using read request
This parameter sets whether an "X, Status switching" communication object is to be added for each channel and when these objects are to be sent. If "send on change or using read request" is selected, then every change of status is sent. If "send on read request only" is selected, the switching status is not sent automatically.	
Status objects dimming	**No;** send on read request only; send on change or using read request
This parameter sets whether an "X, Status dimming value" communication object is to be added for each channel and when these objects are to be sent. If "send on change or using read request" is selected, then every change of status is sent. If "send on read request only" is selected, the switching status is not sent automatically.	
Error / Diagnostics objects	**No;** send on read request only; send on change or using read request
This parameter sets whether the communication objects "X, Defect", "X, Overload / Short-circuit", "X, Temperature rise" and "X, Diagnostics" are to be added for each channel and when these objects are to be sent. If "send on change or using read request" is selected, then every change of status is sent. If "send on read request only" is selected, the error / diagnostics objects are not sent automatically.	
Blocking time of status objects after mains / bus voltage recovery (in seconds)	1...60, **15**
This parameter ensures that no unnecessary bus load is generated by large numbers of successive status telegrams directly after a mains / bus voltage recovery or after a restart of the main module.	
Delay time between status objects	none; **0.2 seconds;** 0.3 seconds; 0.5 seconds; 1 second; 2 seconds; 3 seconds; 5 seconds
"Delay time between status objects" sets whether and which delay is to be kept between two successive status telegrams, in order that other devices can send on the KNX bus during the interval.	

4.4. "General" parameter window



You use this parameter window to set both the on-time in direct mode and to determine the time from when a press on a pushbutton, which is connected to one of the inputs E1, E2 is to be interpreted as "long", and to set the behavior on bus voltage failure / recovery and on mains voltage recovery.

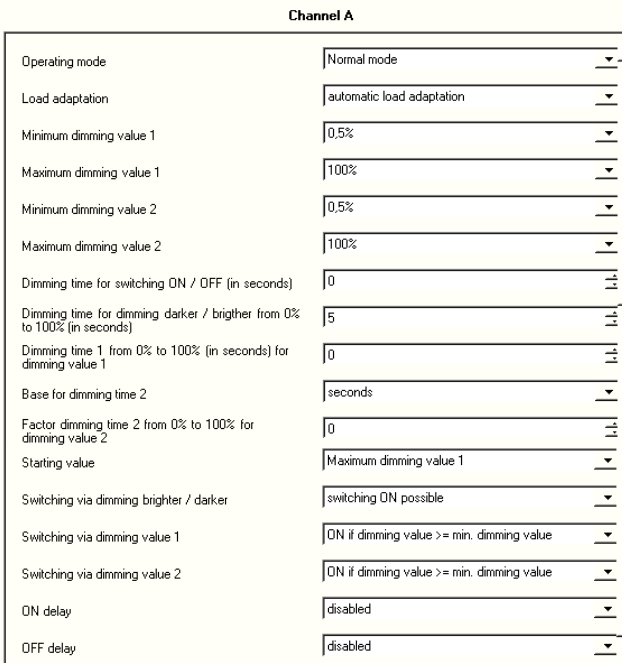
Parameter	Settings
ON period during direct mode	5 minutes; 10 minutes; **15 minutes;** 20 minutes; 30 minutes; 45 minutes; 60 minutes; unlimited
This parameter is used to set whether direct mode is switched on permanently with the direct mode pushbutton and must be switched off by pressing this pushbutton again ("unlimited"), or whether it is switched on for a limited period and switches off automatically when the set time has elapsed. Timed switching on of direct mode ensures that bus mode cannot be blocked permanently by direct mode. Whenever a pushbutton is pressed to switch or dim a channel during direct mode, direct mode is always extended by the set on-time.	
Long pushbutton action not less than	0.3; 0.4; **0.5**; 0.6; 0.8; 1.0; 1.2; 1.5; 2.0; 2.5; 3.0; 4.0; 5.0; 6.0; 7.0 **seconds**
This parameter sets the threshold for differentiating between tapping a pushbutton and holding it down. If a pushbutton is pressed for longer than the set time, then the software interprets this as holding the pushbutton down.	
Behavior on bus voltage failure	**no action;** all channels OFF; set all channels to starting value
This parameter sets the behavior of the dimmer on failure of the KNX bus voltage. no action: The status of all channels remains unchanged. all channels OFF: All channels are switched off. set all channels to starting value: Each channel is dimmed to the starting value set for it (i.e. the value when switching-on the channel). Note: If the bus voltage fails, none of the dimmer channels can be switched via the KNX bus, but either in direct mode or via the pushbuttons connected to the inputs E1, E2 of the relevant submodule.	

07B0 A6 Universal dimmer 982101

Parameter	Settings
Behavior on bus voltage recovery	**no action;** all channels OFF; set all channels to starting value; as before voltage failure
This parameter sets the behavior of the dimmer on recovery of the KNX bus voltage. no action: The status of all channels remains unchanged. all channels OFF: All channels are switched off. set all channels to starting value: Each channel is dimmed to the starting value set for it (i.e. the value when switching-on the channel). as before voltage failure: Each channel is set to its dimming value directly before bus voltage failure.	
Behavior on mains voltage recovery	all channels OFF; set all channels to starting value; **as before voltage failure**
This parameter sets the behavior of the dimmer on recovery of the mains voltage. Note: Because the power supply for the electronics in each module is taken from the mains voltage, each module is out of service if the connected L-conductor fails. A mains voltage failure at the main module means that night mode will be ended automatically. The current switching and dimming value statuses for all channels are stored permanently, so that they can be reproduced if necessary after mains voltage recovery.	

4.5. "Channel X" parameter window in normal mode

This parameter window is used to set the operating mode of a channel (or of a number of channels jointly) and its (their) switching and dimming behavior.
Note: This parameter window is available only for one channel, for which the parameter "X, Configuration" in the "Device overview" parameter window is set to "individual".
The next picture shows the parameter window if the "Operating mode" parameter is set to "Normal mode".



Parameter	Settings
Operating mode	**Normal mode;** 1-level timer mode; 2-level timer mode; Blinking
This parameter sets whether the channel is to work as a "normal" dimming channel or in 1-level timer mode (which can be switched on only via a switching, dimming, dimming value or scene recall command and is switched off automatically after the end of the configured on-time) or whether it is to work in 2-level timer mode or whether it is to "flash". A 2-level timer mode is to be set for corridor and stairwell lighting if complete switching off of the lighting after the on-time 1 has elapsed is to be avoided. A 2-level timer mode is also set for control of colored lighting effects. If a light (e.g. a warning lamp) is to flash, then this parameter is to be set to "Blinking". (Note: If a light would be controlled in "Blinking" mode by the output of a switching actuator instead of by a dimmer output, i.e. switched on an off perpetually, then there is a risk that the maximum permitted number of switching cycles for the relay in the switching actuator will be exceeded in a short time and the corresponding actuator channel will fail.)	

07B0 A6 Universal dimmer 982101

Parameter	Settings
Load adaptation	**automatic load adaptation;** trainling edge control; leading edge control
This parameter sets the type of load matching. With automatic load adaptation, the microprocessor in each module checks the type of load when the mains voltage is switched on and decides whether to select leading or trailing edge control. Note: With energy-saving lamps, we recommend in principle that you do not set this mode to "Automatic load adaptation", but to "leading edge control" or "trailing edge control" as recommended by the manufacturer of the lamp.	
Minimum dimming value 1	**0.5%**, 1%, 2%, 3%, 4%, 5%, 7%, 10%, 15%, 20%, 30%, 40%, 50%
This parameter sets the minimum dimming value 1, which cannot be under-run when "dimming darker" (i.e. it can only be dimmed down to the minimum dimming value 1). If the parameter "Switching via dimming brighter / darker" is set to "Switching OFF possible", then a "Dimming darker" below the minimum dimming value 1 means that the channel in question will be switched off. If a dimming value 1 received via the bus is below the minimum dimming value 1, then the behavior of the channel is determined by the setting of the parameter "Switching via dimming value 1".	
Maximum dimming value 1	20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, **100%**
This parameter sets the maximum dimming value 1, which cannot be exceeded when "dimming brighter". If a dimming value 1 is received via the bus which is above the maximum dimming value 1, then only up to the maximum dimming value 1 is dimmed or "jumped" to.	
Minimum dimming value 2	**0.5%**, 1%, 2%, 3%, 4%, 5%, 7%, 10%, 15%, 20%, 30%, 40%, 50%
This parameter sets the minimum dimming value 2, which cannot be under-run, i.e. by dimming to a dimming value 2 it can only be dimmed down to the minimum dimming value 2). The minimum dimming value 2 does not affect "Dimming brighter / darker". If a dimming value 2 below the minimum dimming value 2 is received via the bus, then the behavior of the channel is determined by the setting of the parameter "Switching via dimming value 2".	

Parameter	Settings
Maximum dimming value 2	20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, **100%**
This parameter sets the maximum dimming value 2, which cannot be exceeded when dimming to a dimming value 2. If a dimming value 2 is received via the bus which is above the maximum dimming value 2, then only up to the maximum dimming value 2 is dimmed or "jumped" to.	
Dimming time for switching ON / OFF (in seconds)	0...255, **0**
This parameter sets whether it will be "jumped" (dimming time = 0) to the configured ON value respectively to the OFF value 0% or in what time it will be dimmed to the relevant value.	
Dimming time for dimming darker / brighter from 0% to 100% (in seconds)	1...255, **5**
This parameter sets the time in which dimming is to dim from 0% to 100% (or from 100% to 0%) with manual (relative) dimming.	
Dimming time 1 from 0% to 100% (in seconds) for dimming value 1	0...255, **0**
This parameter sets whether a new dimming value 1 is to be jumped to (dimming time = 0) or in what time it will be dimmed from 0% to 100% (or from 100% to 0%).	
Base for dimming time 2	**seconds;** minutes
This parameter sets the time base for dimming time 2 in seconds or minutes.	
Factor dimming time 2 from 0% to 100% for dimming value 2	0...255, **0**
This parameter sets whether a new dimming value 2 is to be jumped to (dimming time = 0) or in what time it will be dimmed from 0% to 100% (or from 100% to 0%).	

07B0 A6 Universal dimmer 982101

Parameter	Settings
Starting value	**maximum dimming value 1;** dimming value at switching OFF; last received dimming value 1; last received dimming value 2
This parameter defines to which value this channel is to be "jumped" or dimmed on receiving a telegram with an "ON" switching command. If the setting "dimming value at switching OFF" is selected, then it switches to the last dimming value before switching off. If the channel is switched off by a dimming value below the minimum dimming value 1 or dimming value 2 or by a dimming darker below the minimum dimming value 1 or by a limited on-time (timer mode or lighting for cleaning in night mode), then the lighting switches on again at that last dimming value in each case. The setting "dimming value at switching OFF" is beneficial in a child's room or bedroom, where pressing the switch briefly for the first time then switches to the dimming value at switching off and pressing the switch briefly a second time dims or jumps to the max. dimming value 1. The setting "last received dimming value 1 or 2" is, for example needed for constant brightness control, if the lighting is not to be switched off by dimming values sent by a constant brightness controller which are below the minimum and not to be switched on by a dimming value above it. The parameter "Switching via dimming value n" must also be set to "not possible" for this.	
Switching via dimming brighter / darker	not possible; **switching ON possible;** switching OFF possible; switching ON and switching OFF possible
If switching on is to be possible in the off state by receiving a relative dimming value "brighter", this parameter must be set to "Switching ON possible". In this case, the channel is always switched on first, jumped to the minimum dimming value 1 and then dimmed brighter to the received relative dimming value using the configured dimming time for dimming brighter / darker. Switching off with dimming brighter /darker is impossible with this setting. If the channel is to be switched off in the switched on status by dimming to a value below the minimum dimming value, then this parameter must be set to "switching OFF possible". Switching on with dimming brighter / darker is impossible with this setting. If switching the channel on and off, as explained above, shall be possible, then this parameter must be set to "switching ON and OFF possible".	

Parameter	Settings
Switching via dimming value 1	not possible; **ON if dimming value >= min. dimming value;** OFF if dimming vale < min. dimming value; switching ON and switching OFF possible; ON if dimming value > 0% / OFF if dimming value = 0%
If switching on in the off state shall be possible by receiving a dimming value 1, which is the same as or greater than the minimum dimming value 1, then this parameter must be set to "ON if dimming value ≥ min. dimming value". The channel is then switched on and either jumped or dimmed to the dimming value with the configured dimming time for dimming value setting. If the received dimming value is below the minimum dimming value 1, then the channel remains off. Switching off via dimming value setting is impossible with this setting. If the channel is switched on and this parameter is set to "OFF if dimming value < min. dimming value", then receiving a telegram with a dimming value < the minimum dimming value 1 leads to dimming (with the configured dimming time for dimming value setting) down to the minimum dimming value 1 and then to switching off of the channel. Switching on with dimming value setting is impossible with this setting. If this parameter is set to "switching ON and switching OFF possible", then the channel is switched on if the received dimming value is ≥ the minimum dimming value 1 and it is switched off if the received dimming value is < min. dimming value 1. If the parameter is set to "ON if dimming value > 0% / OFF if dimming value = 0%", then any dimming value > 0% switches the channel on. If the dimming value is below the min. dimming value 1, the channel is set to the min. dimming value 1. The channel is switched off only after receipt of a dimming value 0%.	
Switching via dimming value 2	not possible; **ON if dimming value >= min. dimming value;** OFF if dimming vale < min. dimming value; switching ON and switching OFF possible; ON if dimming value > 0% / OFF if dimming value = 0%
See explanations for the parameter "Switching via dimming value 1".	

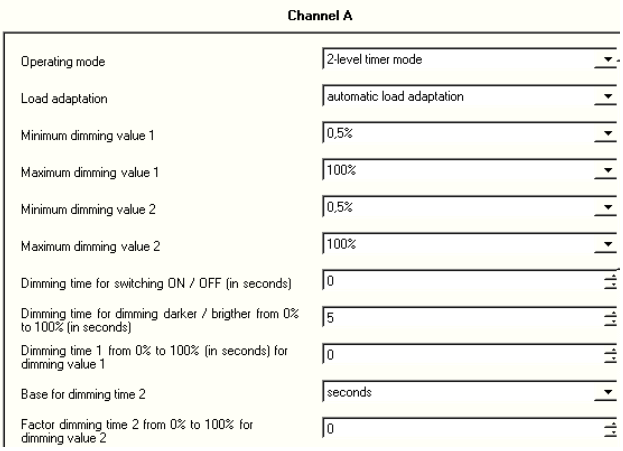
Siemens AG
Industry Sector, Building Technologies
Electrical Installation Technology
P.O. Box 10 09 53, D-93009 Regensburg

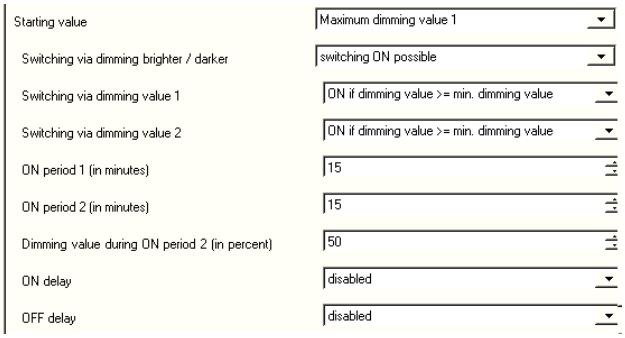
07B0 A6 Universal dimmer 982101

Parameter	Settings
ON delay	**disabled;** 0.5 s; 1 s; 2 s; 3 s; 4 s; 5 s; 8 s; 10 s; 12 s; 15 s; 20 s; 25 s; 30 s; 45 s; 60 s; 1.5 min.; 2 min.; 3 min.; 5 min.; 8 min.; 10 min.; 15 min.; 20 min.; 30 min.; 45 min.; 60 min.; 90 minutes
This parameter sets the wanted ON delay time. A set ON delay acts only on the object "X, Switching". The default setting "disabled" means that ON commands are executed immediately.	
OFF delay	**disabled;** 0.5 s; 1 s; 2 s; 3 s; 4 s; 5 s; 8 s; 10 s; 12 s; 15 s; 20 s; 25 s; 30 s; 45 s; 60 s; 1.5 min.; 2 min.; 3 min.; 5 min.; 8 min.; 10 min.; 15 min.; 20 min.; 30 min.; 45 min.; 60 min.; 90 minutes
This parameter sets the wanted OFF delay time. A set OFF delay acts only on the object "X, Switching". The default setting "disabled" means that OFF commands are executed immediately.	

4.6. "Channel X" parameter window in timer mode

The next picture shows the "Channel X" parameter window if the "Operating mode" parameter is set to "2-level timer mode".

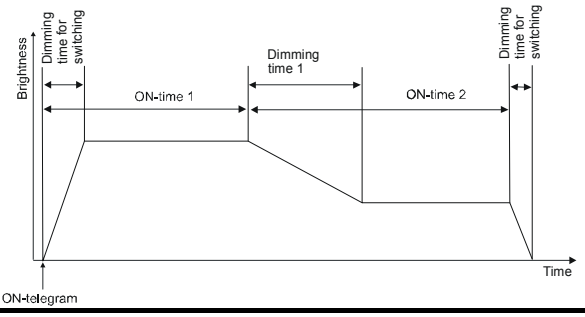




Parameter	Settings
Operating mode	Normal mode; 1-level timer mode; **2-level timer mode;** Blinking
This parameter sets whether the channel is to work as a "normal" dimming channel or in 1-level timer mode, which can be switched on only via a switching, dimming, dimming value or scene recall command and is switched off automatically after the end of the configured on-time or whether it is to work in 2-level timer mode or whether it is to "flash". A 2-level timer mode is to be set for corridor and stairwell lighting if complete switching off of the lighting after the on-time 1 has elapsed is to be avoided. A 2-level timer mode is also set for control of colored lighting effects. If "1-level timer mode" is selected, then the parameter "ON period 1 (in minutes)" is also displayed. If a switching, dimming, dimming value or scene recall command is received again while 1-level timer mode and on period 1 are running, then the timer is reset to its initial value and the on-time extended accordingly. If "2-level timer mode" is selected, then the three parameters "ON period 1 (in minutes)", "ON period 2 (in minutes)" and "Dimming value during ON period 2 (in percent)" are also shown. Whereas dimming reverts to 0% at the end of a 1-level timer mode, in 2-level timer mode it will be dimmed at the end of the first ON period to the "dimming value during ON period 2" which can be above or below the previous dimming value. Dimming reverts to 0% at the end of the 2-level timer mode. If "Warning before switching OFF" is enabled, then at the end of the ON period for the relevant channel, the dimming is reduced for approximately 30 seconds to half of the previous dimming value, in order to inform the user of the room that the lighting will soon be switched off and to give him sufficient time to press the light pushbutton again, so that the lighting is switched on again for the configured period.	

We shall now explain only the parameters "ON period 1 (in minutes)", "ON period 2 (in minutes)" and "Dimming value during ON period 2". All other parameters are the same as those in "Normal mode".

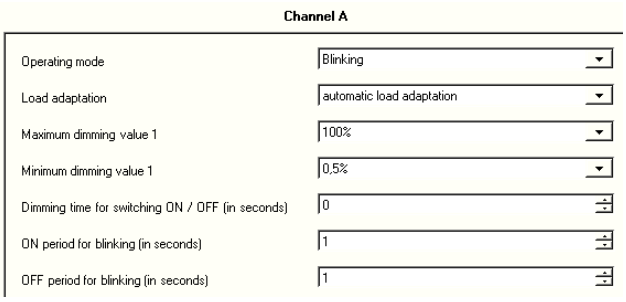
07B0 A6 Universal dimmer 982101

Parameter	Settings
ON period 1 (in minutes)	1...255, **15**
This parameter is visible only if the "Operating mode" parameter is set to "1-level timer mode" or "2-level timer mode". This parameter sets the wanted ON period 1. If a switching, dimming, dimming value or scene recall command is received again while ON period 1 is running, then this is executed, the timer reset to its initial value and the ON Period 1 restarted.	
ON period 2 (in minutes)	1...255, **15**
This parameter is visible only if the "Operating mode" parameter is set to "2-level timer mode". This parameter sets the wanted ON period 2. If a switching, dimming, dimming value or scene recall command is received again while ON period 2 is running, then this is executed, the timer loaded with ON period 1 and 2-level timer mode restarted.	
Dimming value during ON period 2 (in percent)	1...100, **50**
This parameter sets the dimming value during ON period 2 in 2-level timer mode. The diagram below exemplifies the dimming sequence in 2-level timer mode. 	

4.7. "Channel X" parameter window in Blinking mode

The next picture shows the parameter window if the "Operating mode" parameter is set to "Blinking".

Note: If the "Operating mode" parameter for a channel is set to "Blinking", this channel cannot be incorporated in a scene control.



Parameter	Settings
Operating mode	Normal mode; 1-level timer mode; 2-level timer mode; **Blinking**
This parameter sets whether the channel is to work as a "normal" dimming channel or in 1-level timer mode, which can be switched on only via a switching, dimming, dimming value or scene recall command and is switched off automatically after the end of the configured on time or whether it is to work in 2-level time switch mode or whether it is to "flash". A 2-level timer mode is to be set for corridor and stairwell lighting if complete switching off of the lighting after the on-time 1 has elapsed is to be avoided. A 2-level timer mode is also set for control of colored lighting effects. If a light (e.g. a warning lamp) shall flash, then this parameter is to be set to "Blinking" (Note: If a light would be controlled in "Blinking" mode by the output of a switching actuator instead of by a dimmer output, i.e. switched on an off perpetually, then there is a risk that the maximum permitted number of switching cycles for the relay in the switching actuator will be exceeded in a short time and the corresponding actuator channel will fail.) If "Blinking" is selected, then the two parameters "ON period during operating mode Blinking (in seconds)" and "OFF period during operating mode Blinking (in seconds)" are shown additionally, which define the blinking behavior. The switching object of the channel is used to start and end blinking.	

The parameters "ON period during operating mode Blinking (in seconds)" and "OFF period during operating mode Blinking (in seconds)" will be explained subsequently. All other parameters in the parameter window shown above are the same parameters as in "Normal mode".

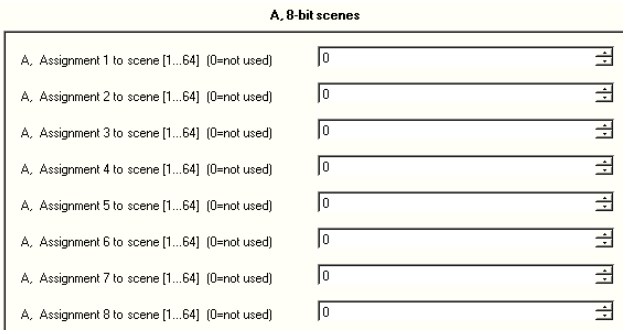
07B0 A6 Universal dimmer 982101

Parameter	Settings
ON period for blinking (in seconds)	1...255, **1**
This parameter sets the wanted blinking ON time. The object "Channel X, Switching" starts and ends blinking. You use the parameter "Dimming time for switching ON / OFF" to set whether it shall be jumped or dimmed to the switching-on value. Dimming to the switching-on value can extend the lifetime of an incandescent lamp in blinking mode.	
OFF period for blinking (in seconds)	1...255, **1**
This parameter sets the wanted blinking OFF time. This time and the set ON time can be used for calculating the blinking frequency.	

4.8. "X, 8-bit scenes" parameter window

This parameter window is used to set for each channel in which scenes it is integrated.

Note: If the "Operating mode" parameter for a channel is set to "Blinking", this channel cannot be incorporated in a scene control.



Parameter	Settings
A, Assignment 1 to scene [1...64] (0=not used)	0-64, **0**
This parameter links dimming channel A with a scene number in the range from 1 to 64. 0 in this case means "No scene assigned" (linking not used). Note: If a scene is recalled before a dimming value is programmed for this scene, then there is no reaction when the scene is recalled.	

and so on to

Parameter	Settings
A, Assignment 8 to scene [1...64] (0=not used)	0...64, **0**
This parameter links dimming channel A with a further scene number in the range from 1 to 64. 0 in this case means "No scene assigned" (linking not used). Note: If a scene is recalled before a dimming value is programmed for this scene, then there is no reaction when the scene is recalled.	

GAMMA *instabus*

Application program description

June 2009

07B0 A6 Universal dimmer 982101

Space for notices

Siemens AG
Industry Sector, Building Technologies
Electrical Installation Technology
P.O. Box 10 09 53, D-93009 Regensburg