01 07 Display/Control Unit 801501

Use of the application program

Product family: Display
Product type: Display unit
Manufacturer: Siemens

DELTA profil

Name: Display/Control Unit UP 585 pearl grey
Order no.: 5WG1 585-2AB01

Name: Display/Control Unit UP 585 titanium white
Order no.: 5WG1 585-2AB11

Name: Display/Control Unit UP 585 anthracite
Order no.: 5WG1 585-2AB21

Name: Display/Control Unit UP 585 silver
Order no.: 5WG1 585-2AB71

DELTA ambiente

Name: Display/Control Unit UP 586 arctic white
Order no.: 5WG1 586-2AB01

DELTA style

Name: Display/Control Unit UP 586 basalt black
Order no.: 5WG1 584-2AB21

Name: Display/Control Unit UP 586 titanium white
Order no.: 5WG1 585-2AB11

Functional description

The graphical display unit is able to indicate up to 16 different messages about the status of bus devices using various fonts or symbols and to actively modify these states.
The display unit has backlighting available as well as a buzzer for the acoustic signalling of alarms.

In the event of an alarm, a signal is sent on the bus and the selected message simultaneously flashes in the centre of the display unit (frequency can be selected). It can also be set whether the buzzer should be activated in the event of an alarm (continuously ON or intermittent).

The alarm can be acknowledged by pressing a button on the display unit. The acknowledgement is sent on the bus for display units with identical parameters so that the alarm can also be acknowledged on these units. After the acknowledgement, all the messages become visible again and the signalling device is switched off if present.
The optical alarm signal continues to flash until the reason for the alarm has been rectified.

Note:
The application program can be loaded only via version 1.2 or version 1.3 of ETS 2.

Operation as a single unit

Max. number of group addresses: 100
Max. number of associations: 150

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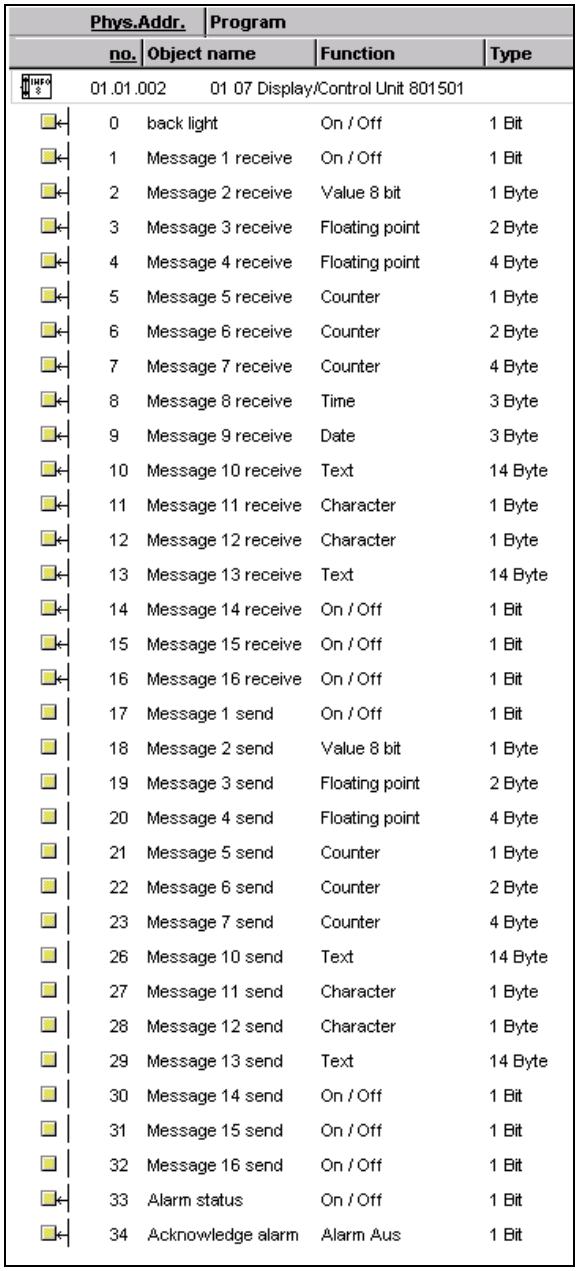
Communication objects



Phys.Addr.	Program		
no.	Object name	Function	Type
01.01.002	01 07 Display/Control Unit 801501		
0	back light	On / Off	1 Bit
1	Message 1 receive	On / Off	1 Bit
2	Message 2 receive	Value 8 bit	1 Byte
3	Message 3 receive	Floating point	2 Byte
4	Message 4 receive	Floating point	4 Byte
5	Message 5 receive	Counter	1 Byte
6	Message 6 receive	Counter	2 Byte
7	Message 7 receive	Counter	4 Byte
8	Message 8 receive	Time	3 Byte
9	Message 9 receive	Date	3 Byte
10	Message 10 receive	Text	14 Byte
11	Message 11 receive	Character	1 Byte
12	Message 12 receive	Character	1 Byte
13	Message 13 receive	Text	14 Byte
14	Message 14 receive	On / Off	1 Bit
15	Message 15 receive	On / Off	1 Bit
16	Message 16 receive	On / Off	1 Bit
17	Message 1 send	On / Off	1 Bit
18	Message 2 send	Value 8 bit	1 Byte
19	Message 3 send	Floating point	2 Byte
20	Message 4 send	Floating point	4 Byte
21	Message 5 send	Counter	1 Byte
22	Message 6 send	Counter	2 Byte
23	Message 7 send	Counter	4 Byte
26	Message 10 send	Text	14 Byte
27	Message 11 send	Character	1 Byte
28	Message 12 send	Character	1 Byte
29	Message 13 send	Text	14 Byte
30	Message 14 send	On / Off	1 Bit
31	Message 15 send	On / Off	1 Bit
32	Message 16 send	On / Off	1 Bit
33	Alarm status	On / Off	1 Bit
34	Acknowledge alarm	Alarm Aus	1 Bit

Obj	Object name	Function	Type	Flags
0	Back light	On / Off	1 Bit	CWU
The backlighting is switched on and off via this object.				
1..16	Message 1-16 receive	On / Off	1 Bit	CWTU
1..16	Message 1-16 receive	Value 8 bit	1 Byte	CWTU
1..16	Message 1-16 receive	Time	3 Byte	CWTU
1..16	Message 1-16 receive	Date	3 Byte	CWTU
1..16	Message 1-16 receive	Floating point	2 Byte	CWTU
1..16	Message 1-16 receive	Floating point	4 Byte	CWTU
1..16	Message 1-16 receive	Counter	8 Bit	CWTU
1..16	Message 1-16 receive	Counter	16 Bit	CWTU
1..16	Message 1-16 receive	Counter	32 Bit	CWTU
1..16	Message 1-16 receive	Character	1 Byte	CWTU
1..16	Message 1-16 receive	Text	14 Byte	CWTU
Objects 1 to 16 receive the status for messages 1 to 16. The type is dependent on the parameter settings.				
17..32	Message 1-16 send	On / Off	1 Bit	CTU
17..32	Message 1-16 send	Value 8 bit	1 Byte	CTU
17..32	Message 1-16 send	Floating point	2 Byte	CTU
17..32	Message 1-16 send	Floating point	4 Byte	CTU
17..32	Message 1-16 send	Counter	1 Byte	CTU
17..32	Message 1-16 send	Counter	2 Byte	CTU
17..32	Message 1-16 send	Counter	4 Byte	CTU
17..32	Message 1-16 send	Character	1 Byte	CTU
17..32	Message 1-16 send	Text	14 Byte	CTU
Objects 17 to 32 send the required user modifications for messages 1-16. The type is dependent on the parameter settings.				
33	Alarm status	On / Off	1 Bit	CWTU
When the object value is modified, this object sends its current value on the bus i.e. if an alarm occurs, the object value is set to “1”. The object value is only set to “0” if the reason which triggered the alarm has been rectified and not once the alarm has been acknowledged.				
34	Acknowledge alarm	Alarm Off	1 Bit	CWTU
A “1” is sent via this object as soon as alarms are present which have not been acknowledged. A “0” is sent when all the alarms have been acknowledged. If several display units have identical parameters, alarms can be acknowledged on all the display units on the bus via this object. The display unit can only be used normally again once all the alarms have been acknowledged.				

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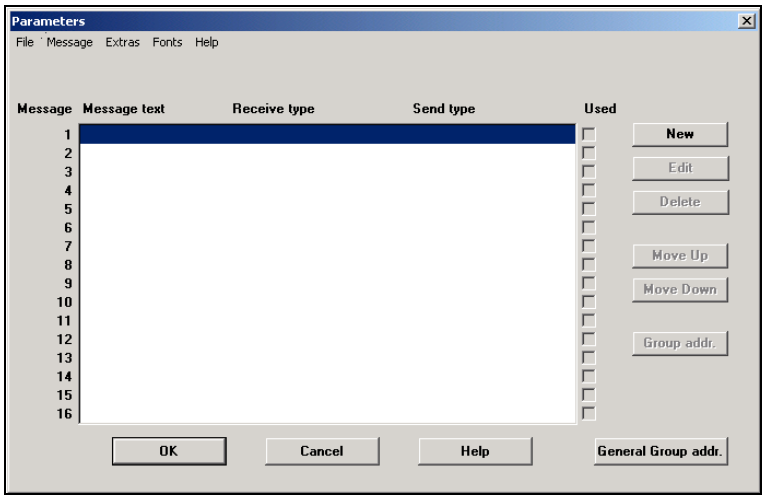
Central list field

All the defined messages can be viewed in a central list field together with their send and receive types. The message text appears with the specified character set for the selected message (see also “Settings for message”). The message number makes it possible to find the communication objects that belong to a message in the ETS main window (Project Design or Commissioning/Test modules) (e.g. “Message 1 receive”).

A defined message can be set to *unused* by deselecting the checkbox next to the selected message. In this case, the relevant message is not displayed on the device and moved below the used messages in the central list field.



Description of the individual menu items:

File	Import texts	Imports a previously exported configuration. Both character sets, the messages with individual settings and the general parameters of the display unit are imported but no group addresses. All the data for the current configuration is overwritten.
	Export texts	Exports the complete configuration with both character sets, the messages with individual settings and the general parameters (apart from the group addresses) of the display unit into a file. The name of the file can be freely selected with a maximum length of 8 characters.
Message	New	Records a new message, provided that the maximum number of messages has not been reached (identical to the “New” button or a double click on an empty message line).
	Edit	Edits the message selected in the central list field (identical to the “Edit” button or a double click on an existing message line).
	Delete	Deletes the message selected in the central list field (identical to the “Delete” button).
	Group addr.	Activates the “Group addresses” dialog box for the selected message (identical to the “Group addr.” button).
Extras	General parameter	Activates the “General parameter” dialog box for setting the global device parameters of the display unit.
	Print document	The parameterisation can be printed out by selecting the menu item “Print document” in the “Extras” menu.

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Fonts	1. Font	The first or second character set can be configured via “1. Font” or “2. Font”. All the characters in a character set can be freely edited or copied in this dialog and complete character sets can be reloaded.
	2. Font	
Help	Help	The device-specific help file is opened by selecting “Help” from the “Help” menu and the relevant chapter is accessed via the main menu (identical to the “Help” button).
	About	An information dialog with the version and copyright data is opened by selecting “Help” -> ”About”.

Special buttons

New	Records a new message (identical to the menu entry “Message” -> “New” or a double click on an empty message line).
Edit	For configuring the message selected in the central list field (identical to the menu entry “Message” -> “Edit” or a double click on an empty message line).
Delete	Deletes the message selected in the central list field (identical to the menu entry “Message” -> “Delete”).
Move Up	The order of the messages on the display unit is determined with these buttons.
Move Down	
Group addr.	The “Group addr.“ button opens the “Group addresses” dialog which is used to create and modify the group addresses that are assigned to the respective message.
General Group addr.	This button opens the “Group addresses” dialog which is used to create and modify the group addresses assigned to the global functions of “Back light”, “Alarm state” and “Alarm confirm.”. The use of these functions is optional.

The central message window

Message	The message number makes it possible to find the communication objects that belong to a message in the ETS main window (Project Design or Commissioning/Test modules) (e.g. “Message 1 receive”).
Message text	The message text appears with the specified character set for the selected message.
Receive type	Indicates the selected receive type of the message. The type can only be modified when a message is created.
Send type	Indicates the selected send type of the message. The type can only be modified when a message is created.
Used	A defined message can be set to “unused” by deselecting the checkbox next to the selected message. In this case, the relevant message is not displayed on the device and is moved under the used messages in the central list field.

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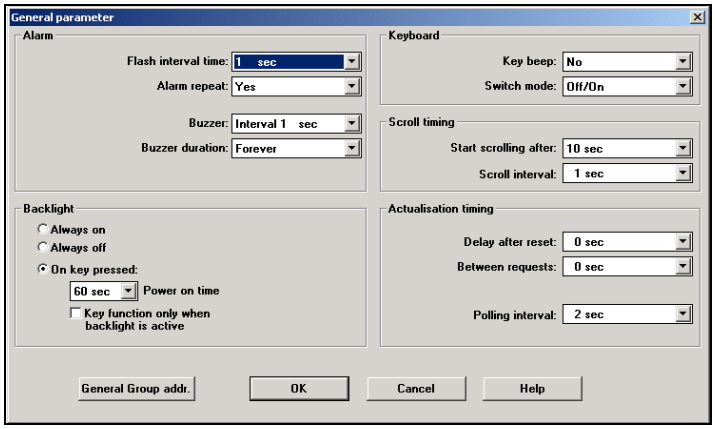
General parameter



Alarm	Flash interval time	The flash rate for alarm signals or messages which have been set to flash.
	Alarm repeat	If an alarm signal is received several times without the alarm having been acknowledged and the operating time has not been met, this parameter determines whether the alarm should be activated repeatedly.
	Buzzer	In the event of an alarm, the buzzer can either be activated continuously or intermittently (1-3 sec.).
	Buzzer duration	This period indicates how long the alarm buzzer should be active if the alarm has not been previously acknowledged or goes.
Back light	General	The backlighting of the display unit can be always switched on, always switched off or only switched on for a certain period after a push button action. If the communication object “Back light” is linked with a group address, the bus signal (On / Off) has priority in every eventuality.
	Power on time	If the lighting is only switched on after a push button action, the operating time can be specified here.
	Key function only when back light is active	If the lighting is only switched on after a push button action and the lighting has just been switched off when the button was pressed, it is possible to select via this parameter whether only the lighting is switched on after the first push button action or whether the function of the respective push button should be carried out simultaneously.
Keyboard	Key beep	It is set via this parameter whether a short beep should be emitted after a push button action.
	Switch mode	It is possible to switch on or off in binary circuits. As the device always has a specific status, this can also be inverted with both push buttons (Toggle/Toggle). The other option is that the right push button only switches on while the left only switches off (Off/On).
Scroll timing	Start scrolling after	If no push buttons are pressed during this period, the message is shown in the centre of the display with an active scroll flag selected.
	Scroll interval	If several messages are assigned with an active scroll flag, they are displayed alternately. The time specified here sets the useful life of the individual messages.
Actualisation timing	Delay after reset	Once this period has elapsed, the objects enabled for polling are scanned on bus voltage recovery.
	Between requests	Once a polling telegram has been sent, the next telegram is not sent until this period has elapsed.
	Polling interval	If the polling interval is enabled for a message, it is carried out once after the restart within the polling interval.
General Group Addr.		This button opens the “Group addresses” dialog which is used to create and modify the group addresses assigned to the global functions of “Back light”, “Alarm state” and “Alarm confirm.”. The use of these functions is optional.

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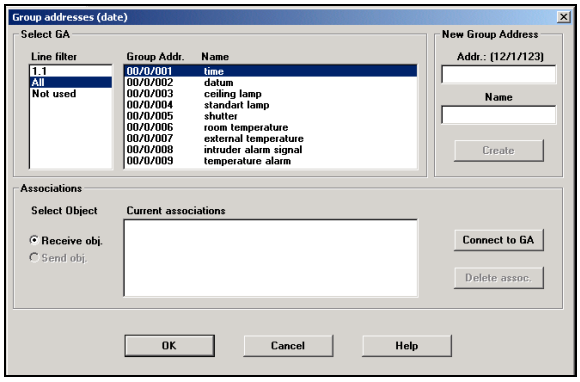
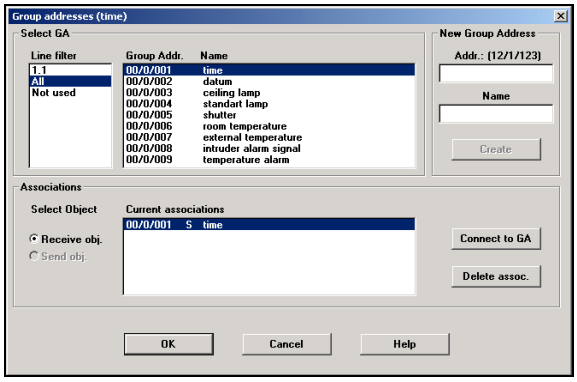
Group addresses





Select GA	Line filter	It is possible to select a subset for the group addresses which corresponds to the area and line addresses defined in the project. It is also possible to display only the group addresses that have not yet been used.
	Group Addr.	The existing group addresses in the current project are listed here by name. Via the line filter, it is possible to specify that only a selection of the group addresses is displayed. The group addresses are represented in the format set in ETS (2 or 3 level).
	Name	The name of the subgroup of the selected group address is displayed here.
New Group Address	Addr.: (12/1/123)	The required new group address is indicated in the format set in ETS (2 or 3 level).
	Name	The desired name of the new group address can be entered here.
	Create	The group address is created within ETS by pressing the button. The entry is checked by ETS and only valid group addresses are created. The new group address then appears in the list field (depending on the filter, select “All” or “Not used”).
Associations	Select Object	The communication object is selected here whose current associations should be displayed. If this dialog was opened for a message, it is possible to choose between a send and receive object. The relevant group address must be indicated for both objects even if both objects are linked with the same address. If no telegrams are sent for this message, only the receive object can be selected. If this dialog was opened for the global functions of “Back light”, “Alarm state” and “Alarm confirm.”, one of these communication objects can be chosen.
	Current associations	The current associations for the selected object are displayed in this list field. A link can be added or deleted with the “Connect to GA” and “Delete assoc.” buttons described below.
	Connect to GA	The selected group address is linked with the specified communication object by pressing this button or by double clicking on a group address. Only one group address can be linked to a send object and to the function “Alarm state” as it is only possible to send to one address.
	Delete assoc.	The selected link is removed from the specified communication object by pressing this button or by double clicking on a current association.

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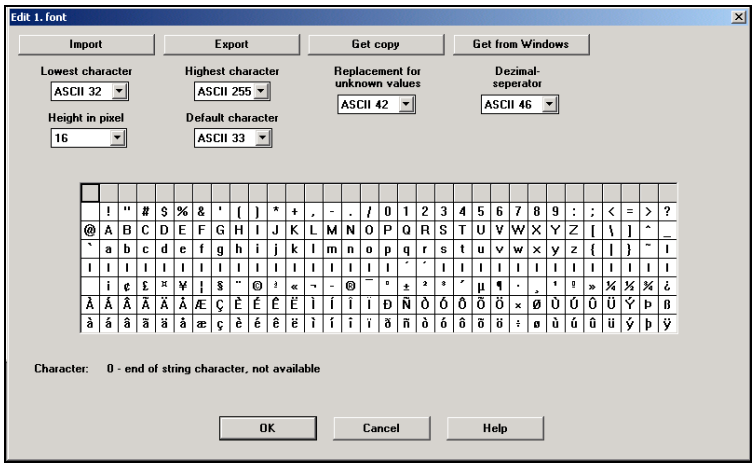
Editing character sets

The character height (height in pixels) and the scope of the character set (lowest / highest character) is set via the input fields outlined below. The character height applies to all the characters of this set. The width of each character can be individually defined when editing a symbol. The greater the number of characters covered by a character set and the greater the height and width of the individual characters, the greater the memory location required in the display/control unit. During programming, the existing memory location is checked and a warning is issued if the second character set could no longer be loaded. If this set has been used in messages, these are automatically switched to the first character set. The application is however still able to run.

The height of the default character set in supplied state is 16 pixels. Using this character set leads to the display of three complete message lines. Further available messages are indicated by a half visible line at the top and the bottom of the display.

If you don't like this feature just use a bigger or smaller font size. A font with 20 pixels for example leads to the display of three lines, using a font with 14 pixels however means that five complete lines are visible. Lines with only partly visible characters will not occur using this font sizes.



Import	Loads a previously saved character set file. This overwrites the complete character set which is currently being edited. All input fields maintain the values of the downloaded character set.
Export	Stores the selected character set in a character set file. The name can be freely selected with a maximum length of 8 characters. The complete character set that was being edited is stored.
Get copy	Copies a character set into another character set. Character set 1 that has just been edited for example is overwritten by character set 2. All the input fields receive the values of character set 2.
Get from Windows	Loads a Windows character set. The required character set and the size of the characters can be selected in the standard Windows dialog. This overwrites the complete character set which has just been edited. The input field "Height in pixel" is automatically adapted. The character attributes of bold or italics are however not taken into consideration.
Lowest character	The ASCII values of the smallest and largest characters are entered in these two fields. Memory location can be spared by selecting the necessary characters.
Highest character	
Height in pixel	The required character height for the complete character set can be set here. The height is normally taken from the source when copying the character set or retrieving a character set from Windows and should not be modified.

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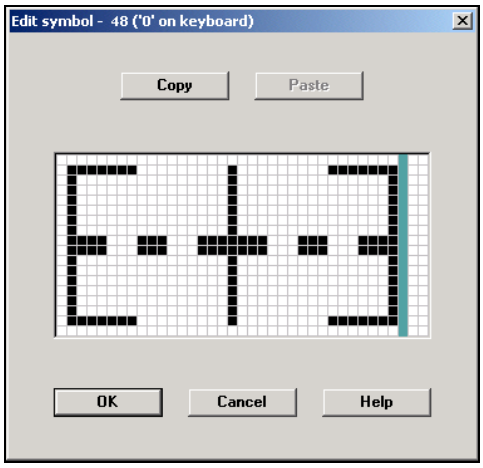
Default character	Enter the ASCII value of a valid character here. This character is used in the device if a character should be required which is not present in the available character set (i.e. a character with an ASCII value smaller than the “Lowest character” or larger than the “Highest character”).
Replacement for unknown values	The ASCII value of a required character is entered here which is displayed if a variable must be indicated in the display but a valid value is not yet present on the bus.
Decimal separator	The ASCII value of a required character which is entered here is displayed as a separator if a variable should be displayed with decimal places.

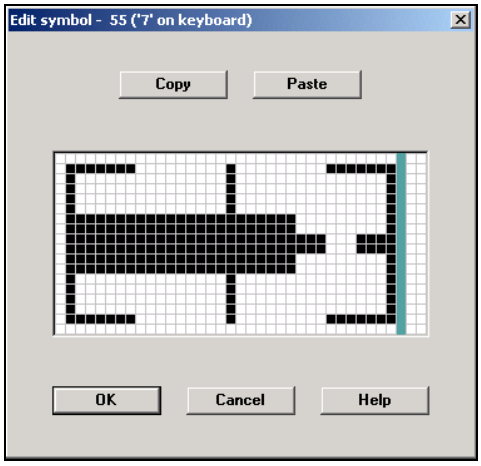
Editing a character

By double clicking on a selected character, the “Edit symbol” dialog window is opened where characters can be edited or new characters can be created. You can for example use a bar for status display when dimming by replacing the numbers 0 to 9 by a bar chart.

The selected character is displayed in a pixel grid whose size corresponds to the current settings.
The height of the grid can be modified in the “Edit symbol” dialog. The height applies to all the characters in the character set.
The individual width of this character can be modified by moving the boundary line (green bar) with the mouse.

The individual pixels of the character can be changed by clicking with the mouse.





Copy	Complete characters are copied to a clipboard with these buttons and can be pasted in other positions as well as in another character set.
Paste	

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Printing the documentation

The individual parameterised messages can be printed out with their relevant settings using the “Print document” command.

Note: Special characters are not printed out!

Device Info

Display/Control Unit UP 58x / Siemens
Physical address: 1.1.1

Message: 1

Text: Lounge lamp
Normal font: 0
Selected font: 0

Receive object: 1
Type: switch on/off
Text for “1”: switch off
Text for “0”: switch on
Group addresses: 00/0/010 S lounge lamp;

Send object: 17
Type: switch on/off
Binary send value: “0” and “1”
Group addresses: 00/0/010 S lounge lamp;

Scroll message: No
Request object value: Polling
Activate alarm: No

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New message

When creating a new message, the send and receive types must be selected first. This is carried out in this dialog field. The types used are the currently defined EIS types. They must be compatible with the device that is to be linked (also see the type column of the communication object in the ETS main window).

The selection of the send types is dependent on the selected receive type.

With some types, it is possible to choose between positive and negative values or only positive values.
In this case, the setting option “Signed values” appears in the dialog.

switch on/off	EIS type 1 – Switch (On/Off, Up/Down, enable/disable, alarm/no alarm, correct/incorrect, 1 bit)
value 8 bit	EIS type 6 – Scaling (value range 0..255, brightness, humidity,...)
float value 16 bit	EIS type 5 – Physical value (value range –671.088,64..0..+670.760,96, brightness, wind direction, voltage,...)
float value 32 bit	EIS type 9 – Physical value (value range in display unit limited to -16.500.000..0..+16.500.000, brightness, wind direction, voltage,...)
counter 8 bit	EIS type 14 – Count values (value range -128..0..+127, or 0..255)
counter 16 bit	EIS type 10 – Count values (value range –32.768..0..+32.767, or 0.. 65.535)
counter 32 bit	EIS type 11 – Count values (value range in display unit limited to -16.500.000..0..+16.500.000, or 0.. 16.500.000)
time	EIS type 3 – Time values (special format)
date	EIS type 4 – Date value (special format)
static text	No EIS type, no receive values from the bus, purely a textual display. It is however possible to set a send type and transmit bus telegrams (for example “Central Off” commands etc.). In this case, confirmation text can be displayed after sending.
character	EIS type 13 – ASCII character (ASCII table 0..255)
text (14 char)	EIS type 15 – Text with maximum 14 ASCII characters (ASCII table 0..255)

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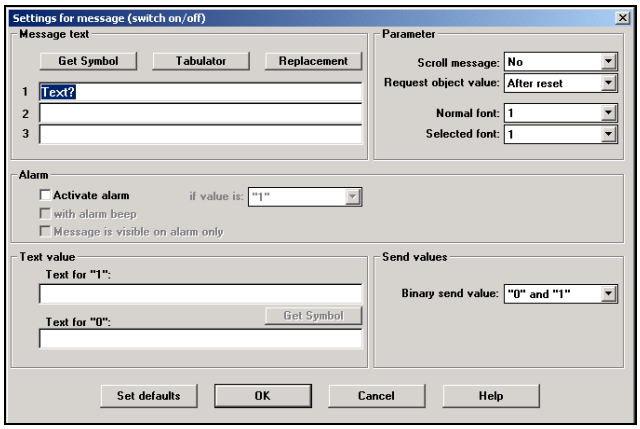
Settings for message (switch on/off)



Message text	1...3	A message text consists of 1 to 3 lines, each with max. 30 characters (including tab and placeholder for variable text/values). Lines without text are not displayed. The text input can however be carried out via the keyboard or by pressing the “Get Symbol” button.
	Get Symbol	By pressing the “Get Symbol” button, characters can be taken from the character set and inserted in the text.
	Tabulator	A tab can be inserted per line of text with this button. The text is indicated in the display after the tab with right justification.
	Replacement	A placeholder can be inserted per message with this button. This symbol indicates the position where variable text or values will later be inserted.
Alarm	Activate alarm	If this field is activated, the message is classified as an alarm signal. If a bus telegram occurs with a value which triggers an alarm, this message automatically flashes in the middle of the display. The alarm must first be acknowledged by pressing a button on the display before other messages can be shown.
	if value is	This field determines whether an alarm should be triggered after a bus telegram with the value “1” (On, active) or “0” (Off, passive). This field can only be modified if the checkbox “Activate alarm” has been selected.
	with alarm beep	It is specified here whether the signal tone should be switched on as well in the event of an alarm. This field can only be modified if the checkbox “Activate alarm” has been selected.
	Message is visible on alarm only	If this field is activated, the message text is only displayed in the event of an active alarm. If the alarm is acknowledged, the message is no longer shown. This field can only be modified if the checkbox “Activate alarm” has been selected.
Text value	Text for “1”	Text (max. 30 characters) which is displayed on receipt of a bus telegram with “1” (On, active).
	Text for “0”	Text (max. 30 characters) which is displayed on receipt of a bus telegram with “0” (Off, passive).
	Get Symbol	Characters can be selected from the character set with this button.
Parameter	Scroll message	“Yes” or “No” indicates whether this message should be automatically moved in the idle state to the middle of the display once the delay period has elapsed. This can be used for example so that the basic setting for the messages is always visible when entering the room. If several messages are set to “Yes”, they are shown alternately in the centre of the display. See also “Scroll timing” under “General parameter”.
	Request object value	This field sets whether the value of a communication object should be queried by the display unit. This can either be “Never”, only “After reset” of the device or “Polling”. See also “Scroll interval” under “General parameter”.
	Normal font	The selection of the font number (1 or 2) determines the character set which is used to show this message when it is not in the middle of the display.
	Selected font	The selection of the font number (1 or 2) determines the character set which is used to show this message when it is in the middle of the display.

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Send values	Binary send value	If a binary message type is be modified by the user, the value that is to be sent can be set here. It is only possible to modify this field if this message contains a send type.
Set defaults		All the input fields in this dialog are reset to their default values by pressing this button.

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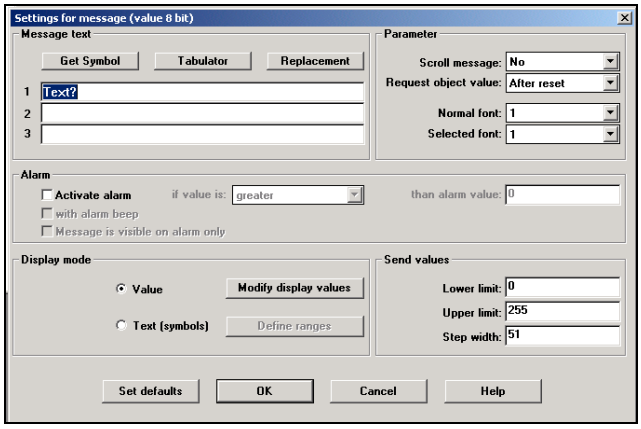
Settings for message (value 8 bit)



Message text	1...3	A message text consists of 1 to 3 lines, each with max. 30 characters (including tab and placeholder for variable text/values). Lines without text are not displayed. The text input can however be carried out via the keyboard or by pressing the “Get Symbol” button.
	Get Symbol	By pressing the “Get Symbol” button, characters can be taken from the character set and inserted in the text.
	Tabulator	A tab can be inserted per line of text with this button. The text is indicated in the display after the tab with right justification.
	Replacement	A placeholder can be inserted per message with this button. This symbol indicates the position where variable text or values will later be inserted.
Alarm	Activate alarm	If this field is activated, the message is classified as an alarm signal. If a bus telegram occurs with a value which triggers an alarm, this message automatically flashes in the middle of the display. The alarm must first be acknowledged by pressing a button on the display before other messages can be shown.
	if value is	With “if value is” and “than alarm value”, it is possible to specify a range or a direct value which triggers the alarm.
	than alarm value	
	with alarm beep	It is specified here whether the signal tone should be switched on as well in the event of an alarm. This field can only be modified if the checkbox “Activate alarm” has been selected.
	Message is visible on alarm only	If this field is activated, the message text is only displayed in the event of an active alarm. If the alarm is acknowledged, the message is no longer shown. This field can only be modified if the checkbox “Activate alarm” has been selected.
Display mode	Value	If this option is selected, the bus telegram values are inserted as numerical values in the message text. If the numerical values should be modified prior to the display, this can be carried out via the “Modify display values” button. The value can be divided or multiplied here for example by 100 or the telegram value can be scaled in a percentage display format.
	Text (symbols)	If this option is selected, the bus telegram values are inserted as text or symbols in the message text. Two limit values can be preset via the “Define ranges” button and text can be entered for each of the three ranges. One of these text elements is shown in the message text depending on the telegram value.

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Parameter	Scroll message	"Yes" or "No" indicates whether this message should be automatically moved in the idle state to the middle of the display once the delay period has elapsed. This can be used for example so that the basic setting for the messages is always visible when entering the room. If several messages are set to "Yes", they are shown alternately in the centre of the display. See also "Scroll timing" under "General parameter".
	Request object value	This field sets whether the value of a communication object should be queried by the display unit. This can either be "Never", only "After reset" of the device or "Polling". See also "Scroll interval" under "General parameter".
	Normal font	The selection of the font number (1 or 2) determines the character set which is used to show this message when it is not in the middle of the display.
	Selected font	The selection of the font number (1 or 2) determines the character set which is used to show this message when it is in the middle of the display.
Send values	Lower limit	Indicates the minimum send value. It is not possible to send a smaller value. If the received values have been converted before the display ("Modify display values"), these values refer to the display values instead of the object values. It is only possible to modify this field if this message contains a send type.
	Upper limit	Indicates the maximum send value. It is not possible to send a larger value. If the received values have been converted before the display ("Modify display values"), these values refer to the display values instead of the object values. It is only possible to modify this field if this message contains a send type.
	Step width	Indicates the step width of a send value if the user has pressed the "less/greater" button. For example, if the "Lower limit" equals 20, the "Upper limit" equals 80, the "Step width" equals 10 and the current value equals 13, the send value will jump to 20, 30, 40 etc. up to 80, if the user presses the "greater" button several times. If the received values are converted by the display ("Modify display values"), these values refer to the display values instead of the object values. It is only possible to modify this field if this message contains a send type.
Set defaults		All the input fields in this dialog are reset to their default values by pressing this button.

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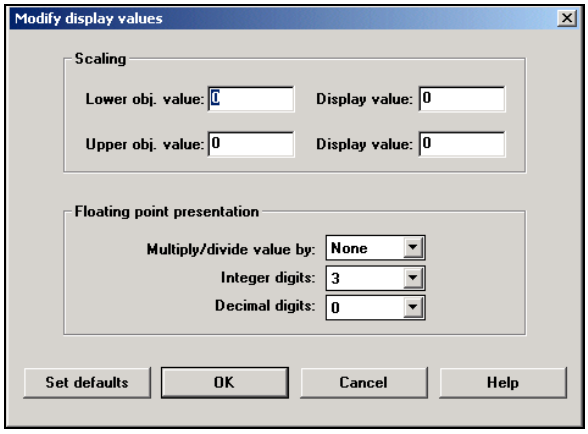
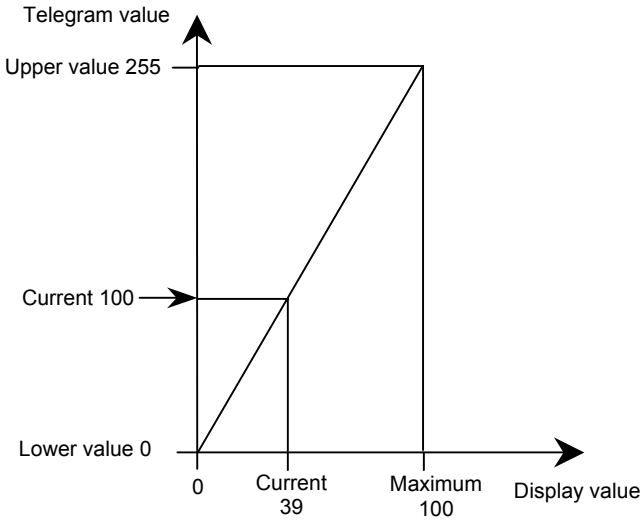
Modify display values

If “Value” is selected for the display mode of a message with receive type “value 8 bit”, it is possible to define in this dialog field how the object values should be converted into display values.
There are two methods: scaling and/or floating point calculation.





Scaling	Lower obj. value	The smallest object value which should be evaluated on receipt is indicated in this field. The relevant display value is given under “Display value”. Values outside the selected range are marked as invalid with “E”. This value must match the set receive type. The limits are checked when the dialog is closed. If the upper and lower object value = 0, the scaling is deactivated.
	Upper obj. value	The largest object value which should be evaluated on receipt is indicated in this field. The relevant display value is given under “Display value”. Values outside the selected range are marked as invalid with “E”. This value must match the set receive type. The limits are checked when the dialog is closed. If the upper and lower object value = 0, the scaling is deactivated.
	Display value	The required display value for the respective object value is entered in this field. The limits are only dependent on the maximum limits of the display unit and are checked when the dialog is closed. The upper display value can also be smaller than the lower display value.
Floating point presentation	Multiply/divide value by	The (scaled) object value can be multiplied/divided by a factor here. The limits are checked when the dialog is closed. Default setting: None.
	Integer digits	This field specifies the number of places displayed before the decimal point (1..3..8).
	Decimal digits	This option defines the number of places displayed after the decimal point (0..3).

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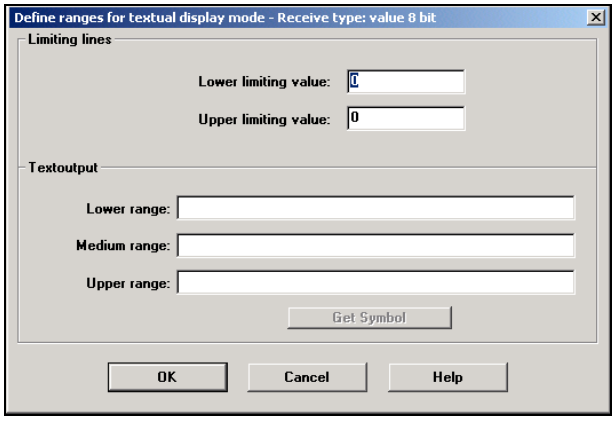
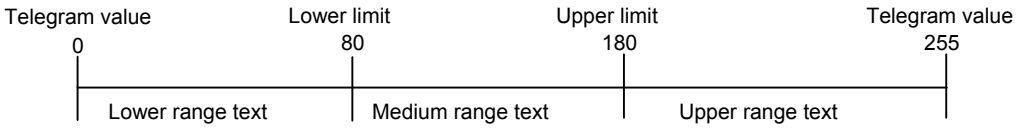
Value ranges for textual display mode

If “Text (symbols)” is selected for the display mode, it is possible to define 3 value ranges in this dialog field with the associated text (up to 30 characters). The value ranges must correspond to the current value type (8, 16, 32 bit values, with or without sign) and may not intersect each other. The value for the upper limit must be greater than the value for the lower limit. If only two ranges are required, the same text can be used for two ranges.





Example: Minimum value = 0, maximum value = 255,
Lower limit = 80, upper limit = 180

For telegram values of 0... 79 the lower range text is used
For telegram values of 80... 180 the medium range text is used
For telegram values of 181... 255 the upper range text is used

Limiting lines	Lower limiting value	For entering the value for the lower limit. This value must match the set receive type. The limits are checked when the dialog is closed.
	Upper limiting value	For entering the value for the upper limit. This value must match the set receive type. The limits are checked when the dialog is closed.
Text output	Lower range	It is possible to enter here the text that will be displayed for telegram values below the lower limit.
	Medium range	It is possible to enter here the text that will be displayed for telegram values between the lower and upper limits.
	Upper range	For entering the text which is used for telegram values above the upper limit.

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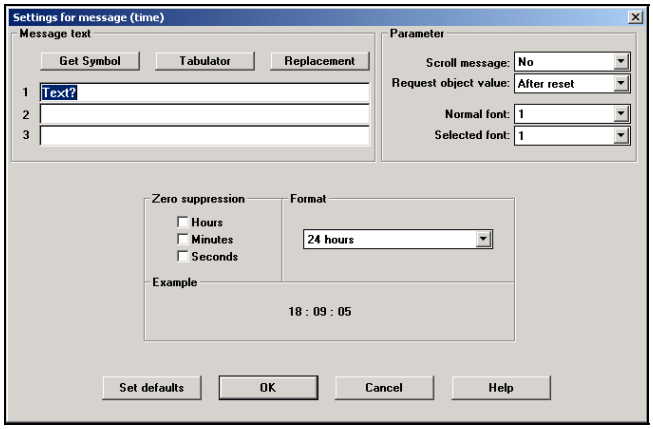
Settings for message (time)



Message text	1...3	A message text consists of 1 to 3 lines, each with max. 30 characters (including tab and placeholder for variable text/values). Lines without text are not displayed. The text input can however be carried out via the keyboard or by pressing the “Get Symbol” button.
	Get Symbol	By pressing the “Get Symbol” button, characters can be taken from the character set and inserted in the text.
	Tabulator	A tab can be inserted per line of text with this button. The text is indicated in the display after the tab with right justification.
	Replacement	A placeholder can be inserted per message with this button. This symbol indicates the position where variable text or values will later be inserted.
Parameter	Scroll message	“Yes” or “No” indicates whether this message should be automatically moved in the idle state to the middle of the display once the delay period has elapsed. This can be used for example so that the basic setting for the messages is always visible when entering the room. If several messages are set to “Yes”, they are shown alternately in the centre of the display. See also “Scroll timing” under “General parameter”.
	Request object value	This field sets whether the value of a communication object should be queried by the display unit. This can either be “Never”, only “After reset” of the device or “Polling”. See also “Scroll interval” under “General parameter”.
	Normal font	The selection of the font number (1 or 2) determines the character set which is used to show this message when it is not in the middle of the display.
	Selected font	The selection of the font number (1 or 2) determines the character set which is used to show this message when it is in the middle of the display.
Zero suppression	Hours	It can be specified whether the hours are displayed in the format 00..01..10.. or 0..1..10..
	Minutes	It can be specified whether the minutes are displayed in the format 00..01..10.. or 0..1..10..
	Seconds	It can be specified whether the seconds are displayed in the format 00..01..10.. or 0..1..10..
Format	Time display	Three different display formats are possible for the time: 24 hours / 12 hours with AM/PM / 12 hours without AM/PM.
Set defaults		All the input fields in this dialog are reset to their default values by pressing this button.

Example: The time (hour, minute, second) is displayed according to the current settings.

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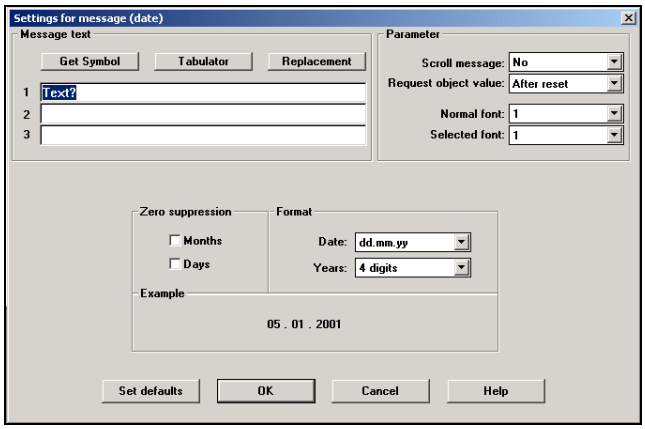
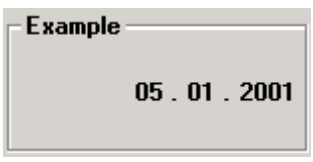
Settings for message (date)



Message text	1...3	A message text consists of 1 to 3 lines, each with max. 30 characters (including tab and placeholder for variable text/values). Lines without text are not displayed. The text input can however be carried out via the keyboard or by pressing the “Get Symbol” button.
	Get Symbol	By pressing the “Get Symbol” button, characters can be taken from the character set and inserted in the text.
	Tabulator	A tab can be inserted per line of text with this button. The text is indicated in the display after the tab with right justification.
	Replacement	A placeholder can be inserted per message with this button. This symbol indicates the position where variable text or values will later be inserted.
Parameter	Scroll message	“Yes” or “No” indicates whether this message should be automatically moved in the idle state to the middle of the display once the delay period has elapsed. This can be used for example so that the basic setting for the messages is always visible when entering the room. If several messages are set to “Yes”, they are shown alternately in the centre of the display. See also “Scroll timing” under “General parameter”.
	Request object value	This field sets whether the value of a communication object should be queried by the display unit. This can either be “Never”, only “After reset” of the device or “Polling”. See also “Scroll interval” under “General parameter”.
	Normal font	The selection of the font number (1 or 2) determines the character set which is used to show this message when it is not in the middle of the display.
	Selected font	The selection of the font number (1 or 2) determines the character set which is used to show this message when it is in the middle of the display.
Zero suppression	Months	It can be specified whether the months are displayed in the format 01..02..10.. or 1..2..10..
	Days	It can be specified whether the days are displayed in the format 01..02..10.. or 1..2..10..
Format	Date	Three different display formats are possible for the date: dd – day, mm – month, yy – year: dd.mm.yy / yy.mm.dd / yy/mm/dd
	Year	The year number can be displayed as 4 or 2 digits.
Set defaults		All the input fields in this dialog are reset to their default values by pressing this button.



Example: The date (day, month, year) is displayed according to the current settings.

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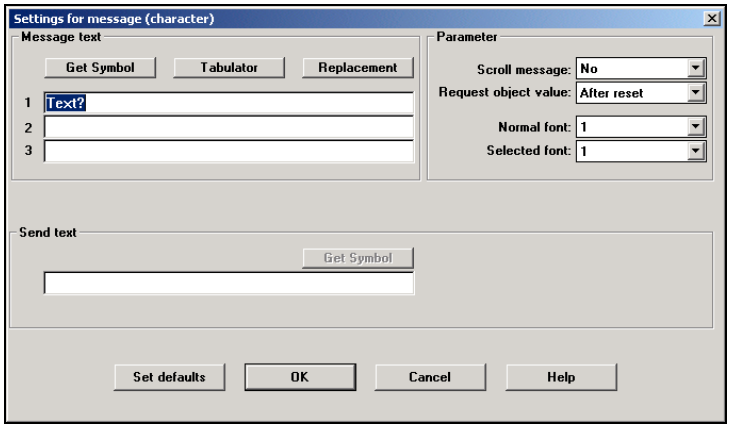
Settings for message (character)



Message text	1...3	A message text consists of 1 to 3 lines, each with max. 30 characters (including tab and placeholder for variable text/values). Lines without text are not displayed. The text input can however be carried out via the keyboard or by pressing the “Get Symbol” button.
	Get Symbol	By pressing the “Get Symbol” button, characters can be taken from the character set and inserted in the text.
	Tabulator	A tab can be inserted per line of text with this button. The text is indicated in the display after the tab with right justification.
	Replacement	A placeholder can be inserted per message with this button. This symbol indicates the position where variable text or values will later be inserted.
Parameter	Scroll message	“Yes” or “No” indicates whether this message should be automatically moved in the idle state to the middle of the display once the delay period has elapsed. This can be used for example so that the basic setting for the messages is always visible when entering the room. If several messages are set to “Yes”, they are shown alternately in the centre of the display. See also “Scroll timing” under “General parameter”.
	Request object value	This field sets whether the value of a communication object should be queried by the display unit. This can either be “Never”, only “After reset” of the device or “Polling”. See also “Scroll interval” under “General parameter”.
	Normal font	The selection of the font number (1 or 2) determines the character set which is used to show this message when it is not in the middle of the display.
	Selected font	The selection of the font number (1 or 2) determines the character set which is used to show this message when it is in the middle of the display.
Send text	Get Symbol	A maximum of 14 characters can be entered for the text that is to be sent. The text input can either be carried out via the keyboard or by pressing the “Get Symbol” button. It is only possible to modify this field if this message contains a send type.
Set defaults		All the input fields in this dialog are reset to their default values by pressing this button.

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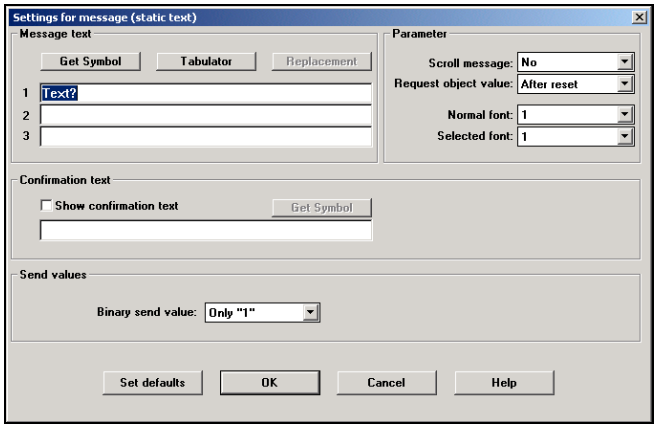
Settings for message (static text)



Message text	1...3	A message text consists of 1 to 3 lines, each with max. 30 characters (including tab and placeholder for variable text/values). Lines without text are not displayed. The text input can however be carried out via the keyboard or by pressing the “Get Symbol” button.
	Get Symbol	By pressing the “Get Symbol” button, characters can be taken from the character set and inserted in the text.
	Tabulator	A tab can be inserted per line of text with this button. The text is indicated in the display after the tab with right justification.
	Replacement	A placeholder can be inserted per message with this button. This symbol indicates the position where variable text or values will later be inserted.
Parameter	Scroll message	“Yes” or “No” indicates whether this message should be automatically moved in the idle state to the middle of the display once the delay period has elapsed. This can be used for example so that the basic setting for the messages is always visible when entering the room. If several messages are set to “Yes”, they are shown alternately in the centre of the display. See also “Scroll timing” under “General parameter”.
	Request object value	This field sets whether the value of a communication object should be queried by the display unit. This can either be “Never”, only “After reset” of the device or “Polling”. See also “Scroll interval” under “General parameter”.
	Normal font	The selection of the font number (1 or 2) determines the character set which is used to show this message when it is not in the middle of the display.
	Selected font	The selection of the font number (1 or 2) determines the character set which is used to show this message when it is in the middle of the display.
Confirmation text	Show confirmation text	If this box is activated, the confirmation text is shown for two seconds when a send telegram is triggered so that the user can confirm the sending of the telegram. Once the confirmation text has been indicated briefly, the static receive text is displayed again automatically.
	Get Symbol	The confirmation text can be entered here. The text input can either be carried out via the keyboard or by pressing the “Get Symbol” button. The field is only active if “Show confirmation text” has been selected.
Send values	Binary send value	If a binary message type needs to be modified by the user, the authorisation can be limited here (Only “0” / Only “1”). It is only possible to modify this field if this message contains a binary send type.
Set defaults		All the input fields in this dialog are reset to their default values by pressing this button.

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Examples:

- **Programming a date message (message type: date)**

1. Define the message type: Click on “New” in the parameter window or open the window by double clicking on an empty message line. The send and receive types can be defined for the message in this dialog.
   Now select the receive type as “date”. The send type is automatically set to “unused” and cannot be modified.
   Note: The send and receive types defined here cannot be modified at a later date.
2. After confirming the settings in the “Message types” window, the parameter window “Settings for message” opens automatically.
   Enter message text: Now enter the message text which can incorporate 1 to 3 lines, each with a maximum of 30 characters (including tab and placeholders for variable text/values). If you have selected a large font size, it may not be possible to display the message text fully.
   Now insert a placeholder in the position where the date should be displayed by pressing the “Replacement” button.
3. If this message should be shown in the middle of the display while the display is in the idle state, the setting “Yes” must be selected for “Scroll message”.
   Note: If several messages are set to “Scroll message”, these messages are alternated at an interval specified under “General parameter”.
4. The character sets can also be defined which are used in the middle of the display (“Selected font”) and elsewhere (“Normal font”).
5. You can modify the representation of the date with “Zero suppression” and “Format”.
   The changes that you make are indicated under “Example”.
6. Create the message by pressing “OK”.
7. Opening the group address window: The “Group addresses” window is opened by selecting the corresponding message and then clicking on the “Group addr.” button.
   Linking the receive object with group addresses:
   The existing group addresses in the project are displayed in the “Select GA” window. If the created group address does not appear, set the line filter to “All” or to the correct line.
   New group addresses can be created under “New Group Address” and with the “Create” button.
   Select a group address and click on “Connect to GA” to link the message with the specified group address. You can also link the message by double clicking on the corresponding group address.
   Note: Only identical EIS types can be linked with each other.
   All the group addresses that are linked to the receive object are shown in the “Current associations” window.
   If you wish to delete a link, select the corresponding group address in the “Current associations” window and click on the “Delete assoc.” button or double click on the corresponding group address.
8. You can conclude the process by pressing “OK”.

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- **Programming a time message (message type: time)**

1. Define the message type: Click on “New” in the parameter window or open the window by double clicking on an empty message line. The send and receive types can be defined for the message in this dialog.
   Now select the receive type as “time”. The send type is automatically set to “unused” and cannot be modified.
   Note: The send and receive types defined here cannot be modified at a later date.
2. After confirming the settings in the “Message types” window, the parameter window “Settings for message” opens automatically.
   Enter message text: Now enter the message text which can incorporate 1 to 3 lines, each with a maximum of 30 characters (including tab and placeholders for variable text/values). If you have selected a large font size, it may not be possible to display the message text fully.
   Now insert a placeholder in the position where the time should be displayed by pressing the “Replacement” button.
3. If this message should be shown in the middle of the display while the display is in the idle state, the setting “Yes” must be selected for “Scroll message”.
   Note: If several messages are set to “Scroll message”, these messages are alternated at an interval specified under “General parameter”.
4. The character sets can also be defined which are used in the middle of the display (“Selected font”) and elsewhere (“Normal font”).
5. You can modify the representation of the time with “Zero suppression” and “Format”.
   The changes that you make are indicated under “Example”.
6. Create the message by pressing “OK”.
7. Opening the group address window: The “Group addresses” window is opened by selecting the corresponding message and then clicking on the “Group addr.” button.
   Linking the receive object with group addresses:
   The existing group addresses in the project are displayed in the “Select GA” window. If the created group address does not appear, set the line filter to “All” or to the correct line.
   New group addresses can be created under “New Group Address” and with the “Create” button.
   Select a group address and click on “Connect to GA” to link the message with the specified group address. You can also link the message by double clicking on the corresponding group address.
   Note: Only identical EIS types can be linked with each other.
   All the group addresses that are linked to the receive object are shown in the “Current associations” window.
   If you wish to delete a link, select the corresponding group address in the “Current associations” window and click on the “Delete assoc.” button or double click on the corresponding group address.
8. You can conclude the process by pressing “OK”.

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- **Programming a dimmable ceiling lamp (message type: value 8 bit)**

1. Define the message type: Click on “New” in the parameter window or open the window by double clicking on an empty message line. The send and receive types can be defined for the message in this dialog.
   Now select the send and receive types as “value 8 bit”.
   Note: The send and receive types defined here cannot be modified at a later date.
2. After confirming the settings in the “Message types” window, the parameter window “Settings for message” opens automatically.
   Enter message text: Now enter the message text which can incorporate 1 to 3 lines, each with a maximum of 30 characters (including tab and placeholders for variable text/values). If you have selected a large font size, it may not be possible to display the message text fully.
3. If this message should be shown in the middle of the display while the display is in the idle state, the setting “Yes” must be selected for “Scroll message”.
   Note: If several messages are set to “Scroll message”, these messages are alternated at an interval specified under “General parameter”.
4. The character sets can also be defined which are used in the middle of the display (“Selected font”) and elsewhere (“Normal font”).
5. Parameterise alarm: If an alarm should be triggered on receipt of a specific value, select “Activate alarm”.
   With “if value” and “than alarm value”, you can determine a range or a direct value which triggers the alarm. If the function “Message is visible on alarm only” is activated, the message is only visible in the event of an alarm and not in normal mode.
   Note: The value for the alarm should be entered as it should appear in the display.
6. Setting the display mode: You can show the bus telegram values as numerical values or as text (symbols) in the message text. If you wish to display the telegram values as numbers, you can click on the “Modify display values” button to open the “Modify display values” parameter window.
   If a scaling of the upper and lower object value should be carried out on a display value, the upper and lower limits can be defined under “Lower obj. value” and “Upper obj. value”. Enter the corresponding display value which should be displayed instead. The display value is scaled linearly between these two limits. If the display unit receives values outside the range specified by the limit values, the number of “E” symbols shown depends on the number of digits selected.
   If the bus telegram value should be displayed as text (symbols), you can open the parameter window for setting the value ranges by clicking on the “Define ranges” button. You can define the start and end value of the medium range with the “Lower limiting value” and “Upper limiting value”. You can now enter text with max. 30 characters for the three ranges. If special characters are to appear in the text output, these can be inserted with “Get Symbol”. If the character set does not contain an appropriate symbol, you can define a symbol yourself (see “Edit symbol”).
7. Setting the send values: If the display values are scaled, the lower limit may not be less than the lower display value and the upper limit may not be greater than the upper display value. It can be indicated under “Step width” which grading is used for sending the values.
8. Create the message by pressing “OK”.
9. Opening the group address window: The “Group addresses” window is opened by selecting the corresponding message and then clicking on the “Group addr.” button.
   Linking the receive object with group addresses:
   The existing group addresses in the project are displayed in the “Select GA” window. If the created group address does not appear, set the line filter to “All” or to the correct line.
   New group addresses can be created under “New Group Address” and with the “Create” button.
   Select a group address and click on “Connect to GA” to link the message with the specified group address. You can also link the message by double clicking on the corresponding group address.
   Note: Only identical EIS types can be linked with each other.
   All the group addresses that are linked to the send or receive object are shown in the “Current associations” window. Under “Select object”, you can choose whether you wish to display receive or send objects.
   If you wish to delete a link, select the corresponding group address in the “Current associations” window and click on the “Delete assoc.” button or double click on the corresponding group address.
10. You can conclude the process by pressing “OK”.

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- **Programming a standard lamp (message type: switch on/off)**

1. Define the message type: Click on “New” in the parameter window or open the window by double clicking on an empty message line. The send and receive types can be defined for the message in this dialog.
   Now select the send and receive types as “switch on/off”.
   Note: The send and receive types defined here cannot be modified at a later date.
2. After confirming the settings in the “Message types” window with “OK”, the parameter window “Settings for message” opens automatically.
   Enter message text: Now enter the message text which can incorporate 1 to 3 lines, each with a maximum of 30 characters (including tab and placeholders for variable text/values). If you have selected a large font size, it may not be possible to display the message text fully. If a value text (e.g. standard lamp on/off as status signal) should also be displayed, a placeholder should be inserted in the position where this text should be displayed by pressing the “Replacement” button. .
3. If this message should be shown in the middle of the display while the display is in the idle state, the setting “Yes” must be selected for “Scroll message”.
   Note: If several messages are set to “Scroll message”, these messages are alternated at an interval specified under “General parameter”.
4. The character sets can also be defined which are used in the middle of the display (“Selected font”) and elsewhere (“Normal font”).
5. Alarm: If an alarm should be activated for object value “1” or “0”, this can be set with “Activate alarm”. It can also be defined whether an alarm tone should be emitted in the event of an alarm or whether the message text should only be visible when an alarm has been triggered.
6. Enter value text: The text that is displayed for object value “1” and “0” is entered under “Text value”. So that the values can be displayed, a placeholder must be inserted for the message text with the “Replacement” button.
7. So that the standard lamp can be switched on and off, ““0” and “1”” must be set under “Binary send value”. If “Only “1”” or “Only “0”” is set, it is only possible to switch on or off. If “Toggle/Toggle” is set for the “Switch mode” in the “General parameter” window, it is possible to switch on and off with both function keys. If “0” or “1” is set under “Binary send value”, the “Toggle/Toggle” function is suspended.
8. Create the message by pressing “OK”.
9. Opening the group address window: The “Group addresses” window is opened by selecting the corresponding message and then clicking on the “Group addr.” button.
   Linking the receive object with group addresses:
   The existing group addresses in the project are displayed in the “Select GA” window. If the created group address does not appear, set the line filter to “All” or to the correct line.
   New group addresses can be created under “New Group Address” and with the “Create” button.
   Select a group address and click on “Connect to GA” to link the message with the specified group address. You can also link the message by double clicking on the corresponding group address.
   Note: Only identical EIS types can be linked with each other.
   All the group addresses that are linked to the send or receive object are shown in the “Current associations” window.
   Under “Select object”, you can choose whether you wish to display send or receive objects.
   If you wish to delete a link, select the corresponding group address in the “Current associations” window and click on the “Delete assoc.” button or double click on the corresponding group address.
10. You can conclude the process by pressing “OK”.

01 07 Display/Control Unit 801501

- **Programming a shutter (message type: switch on/off)**

1. If you do not simply require a shutter to move up and down but you also wish to adjust the louvre position or stop the shutter movement, you must define a message for both the shutter and the louvres.
   Define the message type: Click on “New” in the parameter window or open the window by double clicking on an empty message line. The send and receive types can be defined for the message in this dialog.
   Now select the send and receive types as “switch on/off”.
   Note: The send and receive types defined here cannot be modified at a later date.
2. After confirming the settings in the “Message types” window with “OK”, the parameter window “Settings for message” opens automatically.
   Enter message text: Now enter the message text which can incorporate 1 to 3 lines, each with a maximum of 30 characters (including tab and placeholders for variable text/values). If you have selected a large font size, it may not be possible to display the message text fully. If a value text (e.g. shutter up/down as a status signal) should also be displayed, a placeholder should be inserted in the position where this text should be displayed by pressing the “Replacement” button.
3. If this message should be shown in the middle of the display while the display is in the idle state, the setting “Yes” must be selected for “Scroll message”.
   Note: If several messages are set to “Scroll message”, these messages are alternated at an interval specified under “General parameter”.
4. The character sets can also be defined which are used in the middle of the display (“Selected font”) and elsewhere (“Normal font”).
5. Enter value text: The text that is displayed for object value “1” and “0” is entered under “Text value”. So that the values can be displayed, a placeholder must be inserted for the message text with the “Replacement” button.
   So that the shutter can be raised and lowered, ““0” and “1”” must be set under “Binary send value”. If “Only “1”” or “Only “0”” is set, it is only possible to raise or lower the shutter. If “Toggle/Toggle” is set for the “Switch mode” in the “General parameter” window, it is possible to raise and lower the shutter with both function keys. If “0” or “1” is set under “Binary send value”, the “Toggle/Toggle” function is suspended.
   The same process is followed if you also wish to adjust the louvres or stop shutter movement.
6. Create the message by pressing “OK”.
7. Opening the group address window: The “Group addresses” window is opened by selecting the corresponding message and then clicking on the “Group addr.” button.
   Linking the receive object with group addresses:
   The existing group addresses in the project are displayed in the “Select GA” window. If the created group address does not appear, set the line filter to “All” or to the correct line.
   New group addresses can be created under “New Group Address” and with the “Create” button.
   Select a group address and click on “Connect to GA” to link the message with the specified group address. You can also link the message by double clicking on the corresponding group address.
   Note: Only identical EIS types can be linked with each other.
   All the group addresses that are linked to the send or receive objects are shown in the “Current associations” window. Under “Select object”, you can choose whether you wish to display send or receive objects.
   If you wish to delete a link, select the corresponding group address in the “Current associations” window and click on the “Delete assoc.” button or double click on the corresponding group address.
8. You can conclude the process by pressing “OK”.

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01 07 Display/Control Unit 801501

- **Programming a message to display and modify the room temperature (message type: float value 16 bit)**

1. Define the message type: Click on “New” in the parameter window or open the window by double clicking on an empty message line. The send and receive types can be defined for the message in this dialog.
   Now select the send and receive type as “float value 16 bit”.
   Note: The send and receive types defined here cannot be modified at a later date.
2. After confirming the settings in the “Message types” window, the parameter window “Settings for message” opens automatically.
   Enter message text: Now enter the message text which can incorporate 1 to 3 lines, each with a maximum of 30 characters (including tab and placeholders for variable text/values). If you have selected a large font size, it may not be possible to display the message text fully.
   Now insert a placeholder in the position where the room temperature should be displayed by pressing the “Replacement” button.
3. If this message should be shown in the middle of the display while the display is in the idle state, the setting “Yes” must be selected for “Scroll message”.
   Note: If several messages are set to “Scroll message”, these messages are alternated at an interval specified under “General parameter”.
4. The character sets can also be defined which are used in the middle of the display (“Selected font”) and elsewhere (“Normal font”).
5. Setting the display mode: Click on the “Modify display values” button to open the “Modify display values” parameter window.
   If a scaling of the upper and lower object value should be carried out on a display value, the upper and lower limits can be defined under “Lower obj. value” and “Upper obj. value”. Enter the corresponding display value which should be displayed instead. The display value is scaled linearly between these two limits. If the display unit receives values outside the range specified by the limit values, the number of “E” symbols shown depends on the number of digits selected.
   If the bus telegram value should be displayed as text (symbols), you can open the parameter window for setting the value ranges by clicking on the “Define ranges” button. You can define the start and end value of the medium range with the “Lower limiting value” and “Upper limiting value”. You can now enter text with max. 30 characters for the three ranges. If special characters are to appear in the text output, these can be inserted with “Get Symbol”. If the character set does not contain an appropriate symbol, you can define a symbol yourself (see “Edit symbol”).
6. Setting the send values: If the display values are scaled, the lower limit may not be less than the lower display value and the upper limit may not be greater than the upper display value. It can be indicated under “Step width” which grading is used for sending the values.
7. Create the message by pressing “OK”.
8. Opening the group address window: The “Group addresses” window is opened by selecting the corresponding message and then clicking on the “Group addr.” button.
   Linking the receive object with group addresses:
   The existing group addresses in the project are displayed in the “Select GA” window. If the created group address does not appear, set the line filter to “All” or to the correct line.
   New group addresses can be created under “New Group Address” and with the “Create” button.
   Select a group address and click on “Connect to GA” to link the message with the specified group address. You can also link the message by double clicking on the corresponding group address.
   Note: Only identical EIS types can be linked with each other.
   All the group addresses that are linked to the send or receive objects are shown in the “Current associations” window. Under “Select object”, you can choose whether you wish to display send or receive objects.
   If you wish to delete a link, select the corresponding group address in the “Current associations” window and click on the “Delete assoc.” button or double click on the corresponding group address.
9. You can conclude the process by pressing “OK”.

01 07 Display/Control Unit 801501

- **Programming a message to display the external temperature (setpoint) (message type: float value 16 bit)**

1. Define the message type: Click on “New” in the parameter window or open the window by double clicking on an empty message line. The send and receive types can be defined for the message in this dialog.
   Now select the receive type as “float value 16 bit” and the send type as “unused”.
   Note: The send and receive types defined here cannot be modified at a later date.
2. After confirming the settings in the “Message types” window, the parameter window “Settings for message” opens automatically.
   Enter message text: Now enter the message text which can incorporate 1 to 3 lines, each with a maximum of 30 characters (including tab and placeholders for variable text/values). If you have selected a large font size, it may not be possible to display the message text fully.
   Now insert a placeholder in the position where the external temperature should be displayed by pressing the “Replacement” button.
3. If this message should be shown in the middle of the display while the display is in the idle state, the setting “Yes” must be selected for “Scroll message”.
   Note: If several messages are set to “Scroll message”, these messages are alternated at an interval specified under “General parameter”.
4. The character sets can also be defined which are used in the middle of the display (“Selected font”) and elsewhere (“Normal font”).
5. Setting the display mode: Click on the “Modify display values” button to open the “Modify display values” parameter window.
   If a scaling of the upper and lower object value should be carried out on a display value, the upper and lower limits can be defined under “Lower obj. value” and “Upper obj. value”. Enter the corresponding display value which should be displayed instead. The display value is scaled linearly between these two limits. If the display unit receives values outside the range specified by the limit values, the number of “E” symbols shown depends on the number of digits selected.
   If the bus telegram value should be displayed as text (symbols), you can open the parameter window for setting the value ranges by clicking on the “Define ranges” button. You can define the start and end value of the medium range with the “Lower limiting value” and “Upper limiting value”. You can now enter text with max. 30 characters for the three ranges. If special characters are to appear in the text output, these can be inserted with “Get Symbol”. If the character set does not contain an appropriate symbol, you can define a symbol yourself (see “Edit symbol”).
6. Create the message by pressing “OK”.
7. Opening the group address window: The “Group addresses” window is opened by selecting the corresponding message and then clicking on the “Group addr.” button.
   Linking the receive object with group addresses:
   The existing group addresses in the project are displayed in the “Select GA” window. If the created group address does not appear, set the line filter to “All” or to the correct line.
   New group addresses can be created under “New Group Address” and with the “Create” button.
   Select a group address and click on “Connect to GA” to link the message with the specified group address. You can also link the message by double clicking on the corresponding group address.
   Note: Only identical EIS types can be linked with each other.
   All the group addresses that are linked to the receive object are shown in the “Current associations” window.
   If you wish to delete a link, select the corresponding group address in the “Current associations” window and click on the “Delete assoc.” button or double click on the corresponding group address.
8. You can conclude the process by pressing “OK”.

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- **Programming an intruder alarm signal (message type: switch on/off)**

1. Define the message type: Click on “New” in the parameter window or open the window by double clicking on an empty message line. The send and receive types can be defined for the message in this dialog.
   Now select the receive type as “switch on/off” and the send type as “unused".
   Note: The send and receive types defined here cannot be modified at a later date.
2. After confirming the settings in the “Message types” window, the parameter window “Settings for message” opens automatically.
   Enter message text: Now enter the message text which can incorporate 1 to 3 lines, each with a maximum of 30 characters (including tab and placeholders for variable text/values). If you have selected a large font size, it may not be possible to display the message text fully.
3. Enter value text: Under “Text for “1”” and “Text for “0””, you can enter the text which should be displayed in the position occupied by the placeholder of the received value.
4. Parameterise alarm: If an alarm should be triggered on receipt of a specific value, select “Activate alarm”.
   With “if value” and “than alarm value”, you can determine a range or a direct value which triggers the alarm. If the function “Message is visible on alarm only” is activated, the message is only visible in the event of an alarm and not in normal mode.
   Note: The value for the alarm should be entered as it should appear in the display.
5. Create the message by pressing “OK”.
6. Opening the group address window: The “Group addresses” window is opened by selecting the corresponding message and then clicking on the “Group addr.” button.
   Linking the receive object with group addresses:
   The existing group addresses in the project are displayed in the “Select GA” window. If the created group address does not appear, set the line filter to “All” or to the correct line.
   New group addresses can be created under “New Group Address” and with the “Create” button.
   Select a group address and click on “Connect to GA” to link the message with the specified group address. You can also link the message by double clicking on the corresponding group address.
   Note: Only identical EIS types can be linked with each other.
   All the group addresses that are linked to the receive object are shown in the “Current associations” window.
   If you wish to delete a link, select the corresponding group address in the “Current associations” window and click on the “Delete assoc.” button or double click on the corresponding group address.
7. You can conclude the process by pressing “OK”.

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- **Programming a temperature alarm (message type: float value 16 bit)**

1. Define the message type: Click on “New” in the parameter window or open the window by double clicking on an empty message line. The send and receive types can be defined for the message in this dialog.
   Now select the receive type as “float value 16 bit” and the send type to “unused”.
   Note: The send and receive types defined here cannot be modified at a later date.
2. After confirming the settings in the “Message types” window, the parameter window “Settings for message” opens automatically.
   Enter message text: Now enter the message text which can incorporate 1 to 3 lines, each with a maximum of 30 characters (including tab and placeholders for variable text/values). If you have selected a large font size, it may not be possible to display the message text fully.
3. Parameterise alarm: If an alarm should be triggered on receipt of a specific value, select “Activate alarm”.
   With “if value” and “than alarm value”, you can determine a range or a direct value which triggers the alarm. If the function “Message is visible on alarm only” is activated, the message is only visible in the event of an alarm and not in normal mode.
   Note: The value for the alarm should be entered as it should appear in the display.
4. Setting the display mode: You can show the bus telegram values as numerical values or as text (symbols) in the message text. If you wish to display the telegram values as numbers, you can click on the “Modify display values” button to open the “Modify display values” parameter window.
   If a scaling of the upper and lower object value should be carried out on a display value, the upper and lower limits can be defined under “Lower obj. value” and “Upper obj. value”. Enter the corresponding display value which should be displayed instead. The display value is scaled linearly between these two limits. If the display unit receives values outside the range specified by the limit values, the number of “E” symbols shown depends on the number of digits selected.
   If the bus telegram value should be displayed as text (symbols), you can open the parameter window for setting the value ranges by clicking on the “Define ranges” button. You can define the start and end value of the medium range with the “Lower limiting value” and “Upper limiting value”. You can now enter text with max. 30 characters for the three ranges. If special characters are to appear in the text output, these can be inserted with “Get Symbol”. If the character set does not contain an appropriate symbol, you can define a symbol yourself (see “Edit symbol”).
5. Create the message by pressing “OK”.
6. Opening the group address window: The “Group addresses” window is opened by selecting the corresponding message and then clicking on the “Group addr.” button.
   Linking the receive object with group addresses:
   The existing group addresses in the project are displayed in the “Select GA” window. If the created group address does not appear, set the line filter to “All” or to the correct line.
   New group addresses can be created under “New Group Address” and with the “Create” button.
   Select a group address and click on “Connect to GA” to link the message with the specified group address. You can also link the message by double clicking on the corresponding group address.
   Note: Only identical EIS types can be linked with each other.
   All the group addresses that are linked to the receive object are shown in the “Current associations” window.
   If you wish to delete a link, select the corresponding group address in the “Current associations” window and click on the “Delete assoc.” button or double click on the corresponding group address.
7. You can conclude the process by pressing “OK”.

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- **Programming a message to trigger a scene (message type: static text)**

1. Define the message type: Click on “New” in the parameter window or open the window by double clicking on an empty message line. The send and receive types can be defined for the message in this dialog.
   Now select the send type as “switch on/off” and the receive type to “static text”.
   Note: The send and receive types defined here cannot be modified at a later date.
2. After confirming the settings in the “Message types” window, the parameter window “Settings for message” opens automatically.
   Enter message text: Now enter the message text which can incorporate 1 to 3 lines, each with a maximum of 30 characters (including tab and placeholders for variable text/values) e.g. Dinner Scenario. If you have selected a large font size, it may not be possible to display the message text fully.
3. You should now enter confirmation text which appears for two seconds if you have triggered the scene. Activate the checkbox “Show confirmation text” and enter some text e.g. “Scene activated”. Special characters can be used by via the “Get Symbol” button.
4. Set the required object value as a send value which is used to trigger the scene e.g. “Only “1”” for scene 1 or “Only “0”” for scene 2 for the scene module.
5. If this message should be shown in the middle of the display while the display is in the idle state, the setting “Yes” must be selected for “Scroll message”.
   Note: If several messages are set to “Scroll message”, these messages are alternated at an interval specified under “General parameter”.
6. Create the message by pressing “OK”.
7. Opening the group address window: The “Group addresses” window is opened by selecting the corresponding message and then clicking on the “Group addr.” button.
   Linking the send object with group addresses:
   The existing group addresses in the project are displayed in the “Select GA” window. If the created group address does not appear, set the line filter to “All” or to the correct line.
   New group addresses can be created under “New Group Address” and with the “Create” button.
   Select a group address and click on “Connect to GA” to link the message with the specified group address. You can also link the message by double clicking on the corresponding group address.
   Note: Only identical EIS types can be linked with each other.
   All the group addresses that are linked to the send object are shown in the “Current associations” window.
   If you wish to delete a link, select the corresponding group address in the “Current associations” window and click on the “Delete assoc.” button or double click on the corresponding group address.
8. You can conclude the process by pressing “OK”.