

Manual

KNX Visualization

Additional Explanation

Touch IT V2

Widgets (detailed)

2 Description Widgets – Additional Explanation

Touch_IT V2

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Chapter 2 – Description widgets (detailed)

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2.4 Description Widgets (1 Bit Elements)

Touch_IT V2




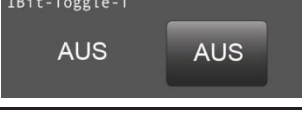

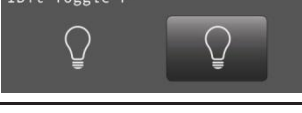











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2.4 Overview 1-Bit Elements

Image	Element Number	Element Type	Details Page
	Range of Values	Format	
	1	1-bit-ON/OFF-Toggle-Text	
	0/1	B0,B1,AL,AH,NOBG,LOGIC,BSWAP,RDRQ,PIN	
	2	1-bit-ON/OFF-Toggle-Picture	
	0/1	IMGSET,AL,AH,NOBG,LOGIC,BSWAP,RDRQ,PIN	
	3	1-bit-ON/OFF-Toggle-Text with Value	
	0/1	W,L0,L1,B0,B1,AL,AH,NOBG,LOGIC,BSWAP,LSWAP,RDRQ,PIN	
	4	1-bit-ON/OFF-Toggle-Picture with Value	
	0/1	W,IMGSET,L0,L1,B0,B1,AL,AH,NOBG,LOGIC,BSWAP,LSWAP,RDRQ,PIN	
	5	1-bit-ON/OFF-Text with Value	
	0/1	W,L0,L1,B0,B1,AL,AH,NOBG,LOGIC,BSWAP,LSWAP,RDRQ,PIN	
	6	1-bit-ON/OFF-Picture with Value	
	0/1	W,L0,L1,B0,B1,IMGSET,AL,AH,NOBG,LOGIC,BSWAP,LSWAP,RDRQ,PIN	
	40	1-Bit-Value-Pushbutton	
	0/1	IMG,PRESS,RELEASE,LABEL,NOBG,JUMP,LOGIC,LOGICR,PIN	
	62	1-Bit-Timer-Profile	
	0/1	W,L0,L1,OVRT0,NOBG,IMG,RDRQ,PIN,PPIN	
	85	1-bit-Quad-ON/OFF-Status/Toggle-Text	
	4x 0/1	LABELS,N,W,NOBG,ALARM,RDRQ,PIN	
	86	1-bit-Quad-ON/OFF-Status/Toggle-Picture	
	4x 0/1	IMGSETS,N,W,NOBG,ALARM,RDRQ,PIN	
	87	1-bit-Quad-Value-Pushbutton-Text	
	4x 1	LABELS,N,W,NOBG,PRESS,PIN	
	88	1-bit-Quad-Value-Pushbutton-Picture	
	4x 1	IMGSETS,N,W,NOBG,PRESS,PIN	

2.4.1 1-bit-ON/OFF-Toggle-Text

ETS Objects		
Range of values	0/1	
Input	Feedback	1 Bit
Output	Switching	1 Bit

Format	
B0	Text default for button on "0"
B1	Text default for button on "1"
NOBG	No button background
BSWAP	Switch between display of the current state and the subsequent state (button)
LOGIC	Function call or direct incorporation of a logical function
RDRQ	Read Request
PIN	In case "Use PIN" is selected, an individual password can be assigned using PIN
AL	Alarm lower limit
AH	Alarm upper limit

Simple circuit element to send/receive a 1-bit value 0/1.

Set the displayed texts on the buttons using **B0** and **B1**.

NOBG eliminates the button's surface and the display is visualized directly on the background.

BSWAP is used to switch between the states of the buttons: display of subsequent state (standard display) or display of the current state.

Using **LOGIC**, LUA functions can be activated or manually incorporated in a LUA syntax-based logical function.

RDRQ sent a read request at start-up for the used widgets. This parameter only works when Communication Address and Receive Flag are set.

If "Use PIN" is selected, the default master password will be used in case **PIN** is not set. Using **PIN**, an individual password can be assigned.

AL/AH They serve as a limit setting the temporal point from which an alarm is detected. **AL/AH** can only be used on alarm page. They serve as a limit setting the temporal point from which an alarm is detected.

Examples	Element Name; Format
	<p>Default: B0=OFF; B1=ON</p>
<p>ELEMENT 1</p> <p>ELEMENT 1</p>	<p>Example: ELEMENT 1;ICO=TERRACE;B0=CLOSE; B1=OPEN</p>

2.4.2 1-bit-ON/OFF-Toggle-Picture

ETS Objects		
Range of values	0/1	
Input	Feedback	1 Bit
Output	Switching	1 Bit

Format	
IMGSET	Choosing set of images
NOBG	No button background
BSWAP	Switch between display of the current state and the subsequent state (button)
LOGIC	Function call or direct incorporation of a logical function
RDRQ	Read Request
PIN	In case "Use PIN" is selected, an individual password can be assigned using PIN
AL	Alarm lower limit
AH	Alarm upper limit

Simple circuit element to send/receive a 1-bit value 0/1.

Use **IMGSET** to chose the set of images you want to use.

NOBG eliminates the button's surface and the display is visualized directly on the background.

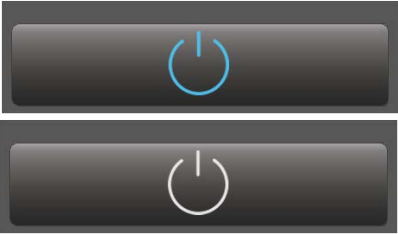


BSWAP is used to switch between the states of the buttons: display of subsequent state (standard display) or display of the current state.

Using **LOGIC**, LUA functions can be activated or manually incorporated in a LUA syntax-based logical function.

RDRQ sent a read request at start-up for the used widgets. This parameter only works when Communication Address and Receive Flag are set.

If "Use PIN" is selected, the default master password will be used in case **PIN** is not set. Using **PIN**, an individual password can be assigned.

AL/AH They serve as a limit setting the temporal point from which an alarm is detected.

Examples	Element Name; Format
	<p>Default ;IMGSET=ONOFF</p>
<p>ELEMENT 2</p>  <p>ELEMENT 2</p> 	<p>Example: ELEMENT 2 ;ICO=KITCHEN;IMGSET=LIGHT</p>

2.4.3 1-bit-ON/OFF-Toggle-Text with Value

ETS Objects		
Range of values	0/1	
Input	Feedback	1 Bit
Output	Switching	1 Bit

Format	
W	Determines width of button's surface
B0	Text default for button on "0"
B1	Text default for button on "1"
L0	Text default for display on "0"
L1	Text default for display on "1"
NOBG	No button background
BSWAP	Switch between display of the current state and the subsequent state (button)
LSWAP	Switch between display of the current state and the subsequent state (display)
LOGIC	Function call or direct incorporation of a logical function
RDRQ	Read Request
PIN	In case "Use PIN" is selected, an individual password can be assigned using PIN
AL	Alarm lower limit
AH	Alarm upper limit

Simple circuit element to send/receive a 1-bit value 0/1.

W (in Pixel) determines the width of the button's surface.

Use **B0** and **B1** to determine the button's texts.

Use **L0** and **L1** to determine the texts to be displayed.

NOBG eliminates the button's surface and the display is visualized directly on the background.

BSWAP is used to switch between the states of the buttons: display of subsequent state (standard display) or display of the current state.



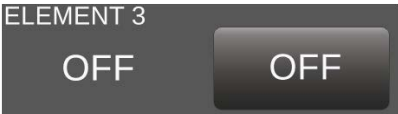

LSWAP is used to switch between the states of the display: display of subsequent state (standard display) or display of the current state.

Using **LOGIC**, LUA functions can be activated or manually incorporated in a LUA syntax-based logical function.

RDRQ sent a read request at start-up for the used widgets. This parameter only works when Communication Address and Receive Flag are set.

If "Use PIN" is selected, the default master password will be used in case **PIN** is not set. Using **PIN**, an individual password can be assigned.

AL/AH They serve as a limit setting the temporal point from which an alarm is detected.

Examples	Element Name; Format
	Default: ;B0=OFF ;B1=ON; L0=OFF; L1=ON
	Example: Element 3;B0=OFF; B1=ON; L0=OFF; L1=ON;BSWAP
	Example: Element 3;B0=OFF; B1=ON; L0=OFF; L1=ON;LSWAP
	Example: Element 3;B0=OFF; B1=ON; L0=OFF; L1=ON ;NOBG

2.4.4 1-bit-ON/OFF-Toggle-Picture with Value

ETS Objects		
Range of values	0/1	
Input	Feedback	1 Bit
Output	Switching	1 Bit

Format	
W	Determines width of button's surface
IMGSET	Choosing set of images
B0	Text default for button on "0"
B1	Text default for button on "1"
L0	Text default for display on "0"
L1	Text default for display on "1"
NOBG	No button background
BSWAP	Switch between display of the current state and the subsequent state (button)
LSWAP	Switch between display of the current state and the subsequent state (display)
LOGIC	Function call or direct incorporation of a logical function
RDRQ	Read Request
PIN	In case "Use PIN" is selected, an individual password can be assigned using PIN
AL	Alarm lower limit
AH	Alarm upper limit

Simple circuit element to send/receive a 1-bit value 0/1.

W (in Pixel) determines the width of the button's surface.

Use **IMGSET** to chose the set of images you want to use.

Use **B0** and **B1** to determine the button's texts.

Use **L0** and **L1** to determine the texts to be displayed.

NOBG eliminates the button's surface and the display is visualized directly on the background.

BSWAP is used to switch between the states of the buttons: display of subsequent state (standard display) or display of the current state.




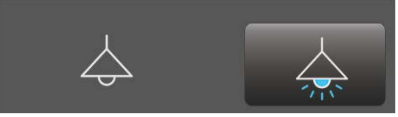
LSWAP is used to switch between the states of the display: display of subsequent state (standard display) or display of the current state.

Using **LOGIC**, LUA functions can be activated or manually incorporated in a LUA syntax-based logical function.

RDRQ sent a read request at start-up for the used widgets. This parameter only works when Communication Address and Receive Flag are set.

If "Use PIN" is selected, the default master password will be used in case **PIN** is not set. Using **PIN**, an individual password can be assigned.

AL/AH They serve as a limit setting the temporal point from which an alarm is detected.

Examples	Element Name; Format
	Default: ;IMGSET=ONOFF
ELEMENT 4 	Examples: ELEMENT 4 ;IMGSET=LIGHTT1
ELEMENT 4 	ELEMENT 4 ;IMGSET=DOOR
	;IMGSET=LIGHT;W=80

2.4.5 1-bit-ON/OFF-Text with Value

ETS Objects		
Range of values	0/1	
Input	Feedback	1 Bit
Output	Switching	1 Bit

Format	
W	Determines width of display's surface
B0	Text default for button on "0"
B1	Text default for button on "1"
L0	Text default for display on "0"
L1	Text default for display on "1"
NOBG	No button background
BSWAP	Switch between display of the current state and the subsequent state (button)
LSWAP	Switch between display of the current state and the subsequent state (display)
LOGIC	Function call or direct incorporation of a logical function
RDRQ	Read Request
PIN	In case "Use PIN" is selected, an individual password can be assigned using PIN
AL	Alarm lower limit
AH	Alarm upper limit

Simple circuit element to send/receive a 1-bit value 0/1.

W (in Pixel) determines the width of the display's surface.

Use **B0** and **B1** to determine the button's texts.

Use **L0** and **L1** to determine the texts to be displayed.

NOBG eliminates the button's surface and the display is visualized directly on the background.

BSWAP is used to switch between the states of the buttons: display of subsequent state (standard display) or display of the current state.




LSWAP is used to switch between the states of the display: display of subsequent state (standard display) or display of the current state.

Using **LOGIC**, LUA functions can be activated or manually incorporated in a LUA syntax-based logical function.

RDRQ sent a read request at start-up for the used widgets. This parameter only works when Communication Address and Receive Flag are set.

If "Use PIN" is selected, the default master password will be used in case **PIN** is not set. Using **PIN**, an individual password can be assigned.

AL/AH They serve as a limit setting the temporal point from which an alarm is detected.

Examples	Element Name; Format
	<p>Default: ;B0=OFF ;B1=ON ;L0=OFF ;L1=ON</p>
<p>ELEMENT 5</p> 	<p>Examples: ELEMENT 5 ;B0=OUT ;B1=IN ;L0=OUT ;L1=IN</p>
	<p>;B0=OFF ;B1=ON ;L0=OFF ;L1=ON ;NOBG</p>



2.4.6 1-bit-ON/OFF-Picture with Value

ETS Objects		
Range of values	0/1	
Input	Feedback	1 Bit
Output	Switching	1 Bit

Format	
W	Determines width of display's surface
IMGSET	Choosing set of images
B0	Text default for button on "0"
B1	Text default for button on "1"
L0	Text default for display on "0"
L1	Text default for display on "1"
NOBG	No button background
BSWAP	Switch between display of the current state and the subsequent state (button)
LSWAP	Switch between display of the current state and the subsequent state (display)
LOGIC	Function call or direct incorporation of a logical function
RDRQ	Read Request
PIN	In case "Use PIN" is selected, an individual password can be assigned using PIN
AL	Alarm lower limit
AH	Alarm upper limit

Simple circuit element to send/receive a 1-bit value 0/1.

W (in Pixel) determines the width of the display surface.

Use **IMGSET** to chose the set of images you want to use.

Use **B0** and **B1** to determine the button's texts.

Use **L0** and **L1** to determine the texts to be displayed.

NOBG eliminates the button's surface and the display is visualized directly on the background.

BSWAP is used to switch between the states of the buttons: display of subsequent state (standard display) or display of the current state.


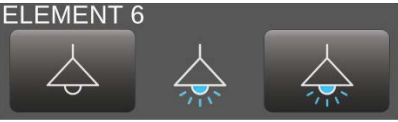

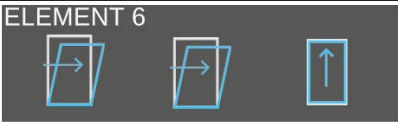
LSWAP is used to switch between the states of the display: display of subsequent state (standard display) or display of the current state.

Using **LOGIC**, LUA functions can be activated or manually incorporated in a LUA syntax-based logical function.

RDRQ sent a read request at start-up for the used widgets. This parameter only works when Communication Address and Receive Flag are set.

If "Use PIN" is selected, the default master password will be used in case **PIN** is not set. Using **PIN**, an individual password can be assigned.

AL/AH They serve as a limit setting the temporal point from which an alarm is detected.

Examples	Element Name; Format
	<p>Default: ;IMGSET=ONOFF</p>
<p>ELEMENT 6</p> 	<p>Examples: ELEMENT 6 ;IMGSET=LIGHT</p>
<p>ELEMENT 6</p> 	<p>ELEMENT 6 ;IMGSET=LIGHT3</p>
<p>ELEMENT 6</p> 	<p>;IMGSET=WINDOW ;NOBG</p>

2.4.7 1-Bit-Value-Pushbutton

ETS Objects		
Range of values	0/1	
Input	-	-
Output	Value	1 Bit
	Value B	1 Bit

Format	
IMG	Choosing an image
PRESS	Value that will be sent when pressing button
RELEASE	Value that will be sent when releasing button
LABEL	Text default for button
NOBG	No button background
JUMP	Command to jump to any side
LOGIC	Function call or direct incorporation of a logical function
LOGICR	Function call or direct incorporation of a logical function
PIN	In case "Use PIN" is selected, an individual password can be assigned using PIN

Simple button element to send a 1-bit value 0/1.

Using **LABEL**, you can define the text, or else an image using **IMG**, on the button.

PRESS determines the value that will be sent when pressing the button.

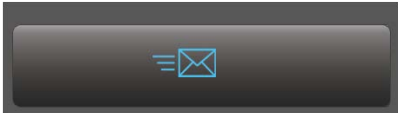
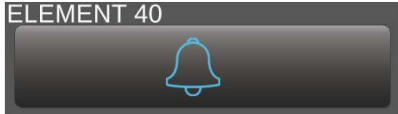
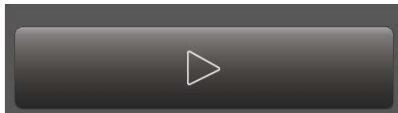

RELEASE determines the value that will be sent when releasing the button.

NOBG eliminates the button's surface and the display is visualized directly on the background.

Using **LOGIC**, LUA functions can be activated or manually incorporated in a LUA syntax-based logical function which is triggered when pressing the button.

Using **LOGICR**, LUA functions can be activated or manually incorporated in a LUA syntax-based logical function which is triggered when releasing the button.

If "Use PIN" is selected, the default master password will be used in case **PIN** is not set. Using **PIN**, an individual password can be assigned.

Examples	Element Name; Format
	Default: PRESS=1;IMG=SEND
ELEMENT 40 	Examples: ELEMENT 40 ;PRESS=1 ;IMG=BELL_b_on
	;RELEASE=0; IMG=PLAY
	;RELEASE=1; LABEL=STOP

2.4.8 1-Bit-Timer-Profile

ETS Objects		
Range of values	0/1	
Input	-	-
Output	Profile	1 Bit
Input/Output	Profile Enable	1 Bit

Format	
W	Determines width of display's surface
L0	Text default for display on "0"
L1	Text default for display on "1"
IMG	Choosing an image
OVRTO	Determines the time (in minutes) until manual settings are overwritten
NOBG	No button background
RDRQ	Read Request
PIN	In case "Use PIN" is selected, an individual password can be assigned using PIN
PPIN	In case "Use PIN" is selected, an individual password for the secondary function can be assigned using PPIN

Complex element to send a 1-bit value 0/1 in a set time allowance.

W (in Pixel) determines the width of the display's surface.

Use **L0** and **L1** to determine the texts to be displayed.




OVRTO determines the span of time, after which the settings made manually by the user are overwritten by the values set in the time table. (in minutes)

NOBG eliminates the button's surface and the display is visualized directly on the background.

Mit **RDRQ** werden bei Spannungswiederkehr die aktuellen Werte gelesen. Jedoch nur die Werte, die mit Adressen verknüpft und die entsprechenden Flags gesetzt sind.

If "Use PIN" is selected, the default master password will be used in case **PIN** is not set. Using **PIN**, an individual password can be assigned.

In case "Use PIN" is selected, an individual password can be assigned using **PPIN**, which protects the secondary functions of this object.

Examples	Element Name; Format
	<p>Default: ;OVRTO=1</p>
	<p>Pressing the options button will open a dialog box where time allowances can be set, according to which the ETS object is then controlled.</p>
	<p>It is possible to determine up to 6 times for each weekday, at which freely selectable values out of the object value range can be sent.</p>

2.4.9 1-bit-Quad-ON/OFF-Status/Toggle-Text

ETS Objects		
Range of values	0/1	
Input/Output	4x IO Switching	4x 1 Bit

Format	
W	Determines width of display's surface
LABELS	Labeling of buttons
N	Number of buttons displayed
NOBG	No button background
ALARM	Occurs when the transition from "0" to "1".
RDRQ	Read Request
PIN	In case "Use PIN" is selected, an individual password can be assigned using PIN

Simple element to send/receive 4x 1-bit values 0/1.

W (in Pixel) determines the width of the button's surface.

LABELS determines the button's labels.


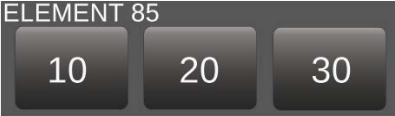

N determines how many buttons are displayed. (A maximum of 4)

NOBG eliminates the button's surface and the display is visualized directly on the background.

ALARM is triggered during the transition from "0" to "1". All other bits are locked for the alarm function. The alarm can only be cleared by triggering bit.

RDRQ sent a read request at start-up for the used widgets. This parameter only works when Communication Address and Receive Flag are set.

If "Use PIN" is selected, the default master password will be used in case **PIN** is not set. Using **PIN**, an individual password can be assigned.

Examples	Element Name; Format
	<p>Default: ;LABELS=ON,OFF,ON,OFF,ON,OF,ON,OFF</p>
<p>ELEMENT 85</p> 	<p>Examples: ELEMENT 85 ;LABELS=10,11,20,21,30,31; N=3</p>
	<p>;LABELS=OFF 1,ON 1,OFF 2,ON 2; N=2; ALARM</p>

2.4.10 1-bit-Quad-ON/OFF-Status/Toggle-Picture

ETS Objects		
Range of values	0/1	
Input/Output	4x IO Switching	4x 1 Bit

Format	
W	Determines width of display's surface
IMGSETS	Choosing set of images
N	Number of buttons displayed
NOBG	No button background
ALARM	Occurs when the transition from "0" to "1".
RDRQ	Read Request
PIN	In case "Use PIN" is selected, an individual password can be assigned using PIN

Simple element to send/receive 4x 1-bit values 0/1.

W (in Pixel) determines the width of the button's surface.

Use **IMGSETS** to chose the set of images you want to use.




N determines how many buttons are displayed.
(A maximum of 4)

NOBG eliminates the button's surface and the display is visualized directly on the background.

ALARM is triggered during the transition from "0" to "1". All other bits are locked for the alarm function. The alarm can only be cleared by triggering bit.

RDRQ sent a read request at start-up for the used widgets. This parameter only works when Communication Address and Receive Flag are set.

If "Use PIN" is selected, the default master password will be used in case **PIN** is not set. Using **PIN**, an individual password can be assigned.

Examples	Element Name; Format
	Default: ;IMGSETS=ONOFF
ELEMENT 86 	Examples: ELEMENT 86 ;IMGSETS=BELL,AL,LIGHT3 ;N=3
	;IMGSETS=WINDOW,DOOR ;N=2 ;ALARM

2.4.11 1-bit-Quad-Value-Pushbutton-Text

ETS Objects		
Range of values	1	
Output	4x Switching	4x 1 Bit

Format	
W	Determines width of display's surface
LABELS	Labeling of buttons
N	Number of buttons displayed
NOBG	No button background
PRESS	Value that will be sent when pressing button
PIN	In case "Use PIN" is selected, an individual password can be assigned using PIN

<p>Simple element to send 4x 1-bit values "1".</p> <p>W (in Pixel) determines the width of the button's surface.</p> <p>LABELS determines the button's labels.</p> <p>N determines how many buttons are displayed. (A maximum of 4)</p> <p>NOBG eliminates the button's surface and the display is visualized directly on the background.</p> <p>PRESS indicates which logic state is transmitted when pressing the button.</p> <p>If "Use PIN" is selected, the default master password will be used in case PIN is not set. Using PIN, an individual password can be assigned.</p>

Examples	Element Name; Format
	<p>Default: ;LABELS=ON,ON,ON,ON</p>
<p>ELEMENT 87</p>	<p>Examples: ;LABELS=1,2,3 ;N=3</p>
	<p>;LABELS=OFF1,OFF2 ;N=2; PRESS=01</p>

2.4.12 1-bit-Quad-Value-Pushbutton-Picture

ETS Objects		
Range of values	1	
Output	4x Switching	4x 1 Bit

Format	
W	Determines width of display's surface
IMGSETS	Choosing set of images
N	Number of buttons displayed
NOBG	No button background
PRESS	Value that will be sent when pressing button
PIN	In case "Use PIN" is selected, an individual password can be assigned using PIN

Simple element to send 4x 1-bit values "1".

W (in Pixel) determines the width of the button's surface.




Use **IMGSETS** to chose the images you want to use.
(In case sets of images are chosen only the ON images will be used)

N determines how many buttons are displayed.
(A maximum of 4)

NOBG eliminates the button's surface and the display is visualized directly on the background.

PRESS indicates which logic state is transmitted when pressing the button.

If "Use PIN" is selected, the default master password will be used in case **PIN** is not set. Using **PIN**, an individual password can be assigned.

Examples	Element Name; Format
	<p>Default: IMGSETS=ONOFF ;PRESS=1010</p>
<p>ELEMENT 88</p> 	<p>Examples: IMGSETS=BELL,AL,HC; N=3 ;NOBG</p>
	<p>IMGSETS=window,door; N=2 ;PRESS=01</p>

2.5 Description Widgets (1-Byte Elements)

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2.5 Overview 1-Byte Elements

- 2.5.1 1-Byte-Value-Text-Button 0 .. 255
- 2.5.2 1-Byte-Value-Picture-Button 0 .. 255
- 2.5.3 1-Byte-Value-Slider 0 .. 255
- 2.5.4 1-Byte-Value-Text-Button -128 .. 127
- 2.5.5 1-Byte-Value-Picture-Button -128 .. 127
- 2.5.6 1-Byte-Value-Slider -128 .. 127
- 2.5.7 1-Byte-Value-Text-Button 0 .. 100%
- 2.5.8 1-Byte-Value-Picture-Button 0 .. 100%
- 2.5.9 1-Byte-Value-Slider 0 .. 100%
- 2.5.10 1-Byte-Value-Text-Button 0 .. 360°
- 2.5.11 1-Byte-Value-Picture-Button 0 .. 360°
- 2.5.12 1-Byte-Value-Slider 0 .. 360°
- 2.5.13 1-Byte-Value-Pushbutton
- 2.5.14 1-Byte-Timer-Profile 0 .. 100%
- 2.5.15 1-Byte-Timer-Profile 0 .. 255
- 2.5.16 1-Byte-Quad-Value/Change 0 .. 255
- 2.5.17 1-Byte-Quad-Value/Change -128 .. 127
- 2.5.18 1-Byte-Quad-Value/Change 0 .. 100%
- 2.5.19 1-Byte-Quad-Value/Change 0 .. 360°

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2.5 Overview 1-Byte Elements

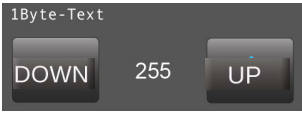

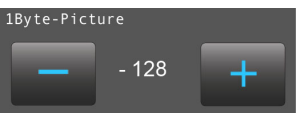

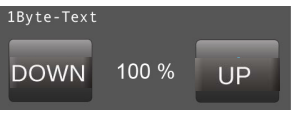

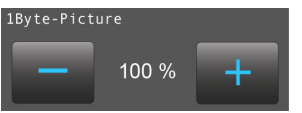

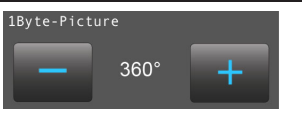

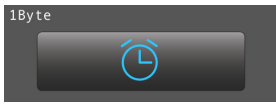



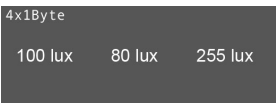

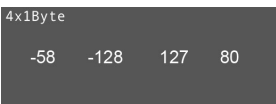

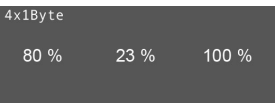

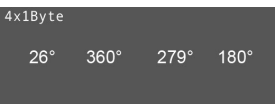

Image	Element Number	Element Type	Details Page
	Range of Values	Format	
	10	1-Byte-Value-Text-Button 0 .. 255	
	0 .. 255	W,B-,B+,PF,STEPS,MIN,MAX,AL,AH,NOBG,REP,RDRQ,PIN	
	11	1-Byte-Value-Picture-Button 0 .. 255	
	0 .. 255	W,PF,IMGSET,STEPS,MIN,MAX,AL,AH,NOBG,REP,IMGVAL,RDRQ,PIN	
	12	1-Byte-Value-Slider 0 .. 255	
	0 .. 255	W,PF,IMGSET,STEPS,MIN,MAX,AL,AH,NOBG,REP,RDRQ,PIN	
	13	1-Byte-Value-Text-Button -128 .. 127	
	-128 .. 127	W,B-,B+,PF,STEPS,MIN,MAX,AL,AH,NOBG,REP,RDRQ,PIN	
	14	1-Byte-Value-Picture-Button -128 .. 127	
	-128 .. 127	W,PF,IMGSET,STEPS,MIN,MAX,AL,AH,NOBG,REP,IMGVAL,RDRQ,PIN	
	15	1-Byte-Value-Slider -128 .. 127	
	-128 .. 127	W,PF,IMGSET,STEPS,MIN,MAX,AL,AH,NOBG,REP,RDRQ,PIN	
	16	1-Byte-Value-Text-Button 0 .. 100%	
	0 .. 255	W,B-,B+,PF,STEPS,MIN,MAX,AL,AH,NOBG,REP,RDRQ,PIN	
	17	1-Byte-Value-Picture-Button 0 .. 100%	
	0 .. 255	W,PF,IMGSET,STEPS,MIN,MAX,AL,AH,NOBG,REP,IMGVAL,RDRQ,PIN	
	18	1-Byte-Value-Slider 0 .. 100%	
	0 .. 255	W,PF,IMGSET,STEPS,MIN,MAX,AL,AH,NOBG,REP,RDRQ,PIN	
	19	1-Byte-Value-Text-Button 0 .. 360°	
	0 .. 255	W,B-,B+,PF,STEPS,MIN,MAX,AL,AH,NOBG,REP,RDRQ,PIN	
	20	1-Byte-Value-Picture-Button 0 .. 360°	
	0 .. 255	W,PF,IMGSET,STEPS,MIN,MAX,AL,AH,NOBG,REP,IMGVAL,RDRQ,PIN	
	21	1-Byte-Value-Slider 0 .. 360°	
	0 .. 255	W,PF,IMGSET,STEPS,MIN,MAX,AL,AH,NOBG,REP,RDRQ,PIN	

Image	Element Number	Element Type	Details Page
	Range of Values	Format	
	41	1-Byte-Value-Pushbutton	
	0 .. 255	IMG,PRESS,RELEASE,LABEL,NOBG,JUMP,LOGIC,LOGICR,PIN	
	63	1-Byte-Timer-Profile 0 .. 100%	
	0 .. 255	W,PF,MIN,MAX,STEP,OVRTO,NOBG,IMG,RDRQ,PIN,PPIN	
	64	1-Byte-Timer-Profile 0 .. 255	
	0 .. 255	W,MIN,MAX,STEP,OVRTO,NOBG,IMG,RDRQ,PIN,PPIN	
	89	1-Byte-Quad-Value/Change 0 .. 255	
	4x (0 .. 255)	W,PF,N,RDRQ	
	90	1-Byte-Quad-Value/Change -128 .. 127	
	4x (-128 .. 127)	W,PF,N,RDRQ	
	91	1-Byte-Quad-Value/Change 0 .. 100%	
	4x (0 .. 255)	W,PF,N,RDRQ	
	92	1-Byte-Quad-Value/Change 0 .. 360°	
	4x (0 .. 255)	W,PF,N,RDRQ	

2.5.1 1-Byte-Value-Text-Button 0 .. 255

ETS Objects		
Range of values	0 .. 255	
Input	Feedback	1 Byte
Output	Switching	1 Byte

Format	
W	Determines width of button's surface
B+	Text default for button on incrementing
B-	Text default for button on decrementing
NOBG	No button background
PF	Declaration of the unit
STEPS	Setting step quantity
MIN	Default setting of lower limit
MAX	Default setting of upper limit
REP	Setting repetition rate
RDRQ	Read Request
PIN	In case "Use PIN" is selected, an individual password can be assigned using PIN
AL	Alarm lower limit
AH	Alarm upper limit

Simple circuit element to send/receive a 1-byte value 0 .. 255.

Set the displayed texts on the buttons using **B-** and **B+**. **NOBG** eliminates the button's surface and the display is visualized directly on the background.

Using **PF**, a unit of measurement can be adjusted according to the measured value.

STEPS determines the step quantity for adjusting the value between MIN and MAX.

MIN determines lower limit.

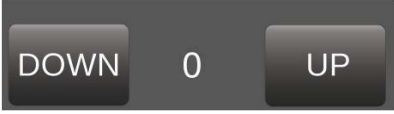
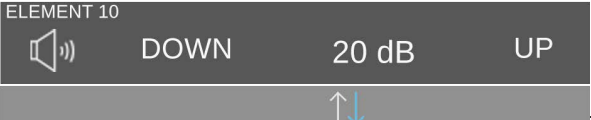

MAX determines upper limit.

When pressing the buttons a little longer, **REP** sets the interval by which the values are sent (in milliseconds).

RDRQ sent a read request at start-up for the used widgets. This parameter only works when Communication Address and Receive Flag are set.

If "Use PIN" is selected, the default master password will be used in case **PIN** is not set. Using **PIN**, an individual password can be assigned.

AL/AH They serve as a limit setting the temporal point from which an alarm is detected.

Examples	Element Name; Format
	<p>Default: ;B+=UP ;B-=DOWN ;MIN=0 ;MAX=255 ;STEPS=37 ;REP=1000;</p>
<p>ELEMENT 10</p> 	<p>Example (Expand horizontal : Yes) Element 10 ;ICO= VOLUME ;PF=dB ;B+=UP ;B-=DOWN ;NOBG ;MIN=20; MAX=100 ;STEPS=16 ;REP=500;</p>
<p>ELEMENT 10</p> 	

2.5.2 1-Byte-Value-Picture-Button 0 .. 255

ETS Objects		
Range of values	0 .. 255	
Input	Feedback	1 Byte
Output	Switching	1 Byte

Format	
W	Determines width of button's surface
IMGSET	Choosing set of images
NOBG	No button background
PF	Declaration of the unit
STEPS	Setting step quantity
MIN	Default setting of lower limit
MAX	Default setting of upper limit
REP	Setting repetition rate
IMGVAL	measured value-oriented image incorporation
RDRQ	Read Request
PIN	In case "Use PIN" is selected, an individual password can be assigned using PIN
AL	Alarm lower limit
AH	Alarm upper limit

Simple circuit element to send/receive a 1-byte value 0 .. 255.

Use **IMGSET** to choose the set of images you want to use.

NOBG eliminates the button's surface and the display is visualized directly on the background.

Using **PF**, a unit of measurement can be adjusted according to the measured value.

STEPS determines the step quantity for adjusting the value between MIN and MAX.

MIN determines lower limit.

MAX determines upper limit.

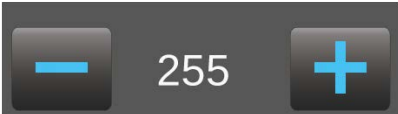
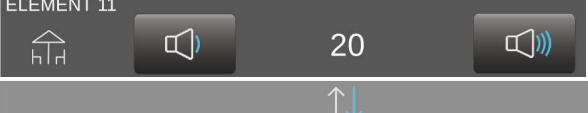
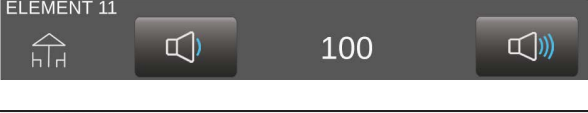
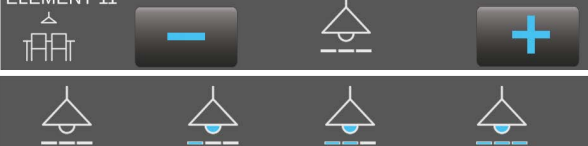
When pressing the buttons a little longer, **REP** sets the interval by which the values are sent. (in milliseconds)

Use **IMGVAL** to visualize the measured value. The labeling of the images limits the choice. (see chapter 8, **User-defined features**)

RDRQ sent a read request at start-up for the used widgets. This parameter only works when Communication Address and Receive Flag are set.

If "Use PIN" is selected, the default master password will be used in case **PIN** is not set. Using **PIN**, an individual password can be assigned.

AL/AH They serve as a limit setting the temporal point from which an alarm is detected.

Examples	Element Name; Format
	<p>Default: IMGSET=PLUSMINUS; MIN=0; MAX=255; ;STEPS=37 ;REP=1000;</p>
<p>ELEMENT 11</p> 	<p>Example (Expand horizontal: Yes) ELEMENT 11 ;ICO=TERRACE ;IMGSET=VOLUME ;MIN=20; MAX=100 ;STEPS=16; REP=500;</p>
<p>ELEMENT 11</p> 	
<p>ELEMENT 11</p>  <p>LIGHT2_0 LIGHT2_85 LIGHT2_170 LIGHT2_255</p>	<p>ELEMENT 11 ;ICO=DINING;IMGVAL= LIGHT2 ;MIN=0 ;MAX=255 ;STEPS=3;</p>

2.5.3 1-Byte-Value-Slider 0 .. 255

ETS Objects		
Range of values	0 .. 255	
Input	Feedback	1 Byte
Output	Switching	1 Byte

Format	
W	Determines width of button's surface
IMGSET	Choosing set of images
NOBG	No button background
PF	Declaration of the unit
STEPS	Setting step quantity
MIN	Default setting of lower limit
MAX	Default setting of upper limit
REP	Setting repetition rate
RDRQ	Read Request
PIN	In case "Use PIN" is selected, an individual password can be assigned using PIN
AL	Alarm lower limit
AH	Alarm upper limit

Simple circuit element to send/receive a 1-byte value 0 .. 255.

Use **IMGSET** to choose the set of images you want to use.

NOBG eliminates the button's surface and the display is visualized directly on the background.

Using **PF**, a unit of measurement can be adjusted according to the measured value.

STEPS determines the step quantity for adjusting the value between MIN and MAX.

MIN determines lower limit.

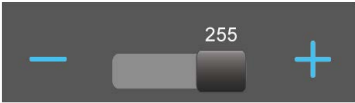

MAX determines upper limit.

When pressing the buttons a little longer, **REP** sets the interval by which the values are sent. (in milliseconds)

RDRQ sent a read request at start-up for the used widgets. This parameter only works when Communication Address and Receive Flag are set.

If "Use PIN" is selected, the default master password will be used in case **PIN** is not set. Using **PIN**, an individual password can be assigned.

AL/AH They serve as a limit setting the temporal point from which an alarm is detected.

Examples	Element Name; Format
	Default: ;IMGSET=PLUSMINUS
	ELEMENT 12 ;ICO=SOUND ;W=200 ;MIN=20 ;MAX=100 ;REP=500

2.5.4 1-Byte-Value-Text-Button -128 .. 127

ETS objects		
Range of values	-128 .. 127	
Input	Feedback	1 Byte
Output	Switching	1 Byte

Format	
W	Determines width of button's surface
B+	Text default for button on incrementing
B-	Text default for button on decrementing
NOBG	No button background
PF	Declaration of the unit
STEPS	Setting step quantity
MIN	Default setting of lower limit
MAX	Default setting of upper limit
REP	Setting repetition rate
RDRQ	Read Request
PIN	In case "Use PIN" is selected, an individual password can be assigned using PIN
AL	Alarm lower limit
AH	Alarm upper limit

Simple circuit element to send/receive a 1-byte value -128 .. 127.

Set the displayed texts on the buttons using B- and B+.

NOBG eliminates the button's surface and the display is visualized directly on the background.

Using **PF**, a unit of measurement can be adjusted according to the measured value.

STEPS determines the step quantity for adjusting the value between MIN and MAX.

MIN determines lower limit.

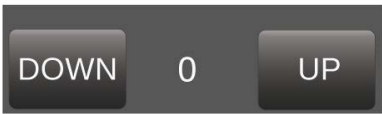


MAX determines upper limit.

When pressing the buttons a little longer, **REP** sets the interval by which the values are sent. (in milliseconds)

RDRQ sent a read request at start-up for the used widgets. This parameter only works when Communication Address and Receive Flag are set.

If "Use PIN" is selected, the default master password will be used in case **PIN** is not set. Using **PIN**, an individual password can be assigned.

AL/AH They serve as a limit setting the temporal point from which an alarm is detected.

Examples	Element Name; Format
	<p>Default: ;B+=UP ;B-=DOWN ;MIN=-128 ;MAX=128 ;STEPS=37 ;REP=1000;</p>
<p>ELEMENT 13</p> 	<p>Example (Expand horizontal: Yes) ELEMENT 13 ;ICO=VOLUME ;PF=Pos ;MIN=-40; MAX=40 ;STEPS=16; REP=500;</p>
<p>ELEMENT 13</p> 	

2.5.5 1-Byte-Value-Picture-Button -128 .. 127

ETS Objects		
Range of values	-128 .. 127	
Input	Feedback	1 Byte
Output	Switching	1 Byte

Format	
W	Determines width of button's surface
IMGSET	Choosing set of images
NOBG	No button background
PF	Declaration of the unit
STEPS	Setting step quantity
MIN	Default setting of lower limit
MAX	Default setting of upper limit
REP	Setting repetition rate
IMGVAL	measured value-oriented image incorporation
RDRQ	Read Request
PIN	In case "Use PIN" is selected, an individual password can be assigned using PIN
AL	Alarm lower limit
AH	Alarm upper limit

Simple circuit element to send/receive a 1-byte value -128 .. 127.

Use **IMGSET** to choose the set of images you want to use.

NOBG eliminates the button's surface and the display is visualized directly on the background.

Using **PF**, a unit of measurement can be adjusted according to the measured value.

STEPS determines the step quantity for adjusting the value between MIN and MAX.

MIN determines lower limit.

MAX determines upper limit.




When pressing the buttons a little longer, **REP** sets the interval by which the values are sent. (in milliseconds)

Use **IMGVAL** to visualize the measured value. The labeling of the images limits the choice. (see chapter 8, **User-defined features**)

RDRQ sent a read request at start-up for the used widgets. This parameter only works when Communication Address and Receive Flag are set.

If "Use PIN" is selected, the default master password will be used in case **PIN** is not set. Using **PIN**, an individual password can be assigned.

AL/AH They serve as a limit setting the temporal point from which an alarm is detected.

Examples	Element Name; Format
	Default: ;IMGSET=PLUSMINUS; MIN=-128 ; MAX=+128 ;STEPS=37; REP=1000;
ELEMENT 14 	Example (Expand horizontal: Yes) ELEMENT 14 ;ICO=SOUND ;MIN=-40; MAX=40; ;STEPS=16 ;REP=500
ELEMENT 14 	

2.5.6 1-Byte-Value-Slider -128 .. 127

ETS Objects		
Range of values	-128 .. 127	
Input	Feedback	1 Byte
Output	Switching	1 Byte

Format	
W	Determines width of button's surface
IMGSET	Choosing set of images
NOBG	No button background
PF	Declaration of the unit
STEPS	Setting step quantity
MIN	Default setting of lower limit
MAX	Default setting of upper limit
REP	Setting repetition rate
RDRQ	Read Request
PIN	In case "Use PIN" is selected, an individual password can be assigned using PIN
AL	Alarm lower limit
AH	Alarm upper limit

Simple circuit element to send/receive a 1-byte value -128 .. 127.

Use **IMGSET** to choose the set of images you want to use.

NOBG eliminates the button's surface and the display is visualized directly on the background.

Using **PF**, a unit of measurement can be adjusted according to the measured value.

STEPS determines the step quantity for adjusting the value between MIN and MAX.

MIN determines lower limit.

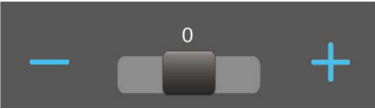


MAX determines upper limit.

When pressing the buttons a little longer, **REP** sets the interval by which the values are sent. (in milliseconds)

RDRQ sent a read request at start-up for the used widgets. This parameter only works when Communication Address and Receive Flag are set.

If "Use PIN" is selected, the default master password will be used in case **PIN** is not set. Using **PIN**, an individual password can be assigned.

AL/AH They serve as a limit setting the temporal point from which an alarm is detected.

Examples	Element Name; Format
	Default: ;IMGSET=PLUSMINUS; MIN=-128 ; MAX=+128 ;STEPS=37; REP=1000;
	Example (Expand horizontal: Yes) ELEMENT 15 ;ICO=SOUND ;MIN=-40; MAX=40 ;STEPS=16 ;REP=500
	

2.5.7 1-Byte-Value-Text-Button 0 .. 100%

ETS Objects		
Range of values	0 .. 255	
Input	Feedback	1 Byte
Output	Switching	1 Byte

Format	
W	Determines width of button's surface
B+	Text default for button on incrementing
B-	Text default for button on decrementing
NOBG	No button background
PF	Declaration of the unit
STEPS	Setting step quantity
MIN	Default setting of lower limit
MAX	Default setting of upper limit
REP	Setting repetition rate
RDRQ	Read Request
PIN	In case "Use PIN" is selected, an individual password can be assigned using PIN
AL	Alarm lower limit
AH	Alarm upper limit

Simple circuit element to send/receive a 1-byte value 0 .. 255.

Set the displayed texts on the buttons using **B-** and **B+**. **NOBG** eliminates the button's surface and the display is visualized directly on the background.

Using **PF**, a unit of measurement can be adjusted according to the measured value.

STEPS determines the step quantity for adjusting the value between MIN and MAX.

MIN determines lower limit.


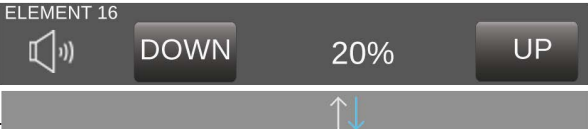

MAX determines upper limit.

When pressing the buttons a little longer, **REP** sets the interval by which the values are sent. (in milliseconds)

RDRQ sent a read request at start-up for the used widgets. This parameter only works when Communication Address and Receive Flag are set.

If "Use PIN" is selected, the default master password will be used in case **PIN** is not set. Using **PIN**, an individual password can be assigned.

AL/AH They serve as a limit setting the temporal point from which an alarm is detected.

Examples	Element Name; Format
	<p>Default: ;B+=UP ;B-=DOWN ;MIN=0 ;MAX=100 ;PF=% ;STEPS=37 ;REP=1000;</p>
<p>ELEMENT 16</p> 	<p>Example (Expand horizontal: Yes) ELEMENT 16 ;ICO= VOLUME ;MIN=20 ;MAX=100 STEPS=99 ;REP=500</p>
<p>ELEMENT 16</p> 	

2.5.8 1-Byte-Value-Picture-Button 0 .. 100%

ETS Objects		
Range of values	0 .. 255	
Input	Feedback	1 Byte
Output	Switching	1 Byte

Format	
W	Determines width of button's surface
IMGSET	Choosing set of images
NOBG	No button background
PF	Declaration of the unit
STEPS	Setting step quantity
MIN	Default setting of lower limit
MAX	Default setting of upper limit
REP	Setting repetition rate
IMGVAL	measured value-oriented image incorporation
RDRQ	Read Request
PIN	In case "Use PIN" is selected, an individual password can be assigned using PIN
AL	Alarm lower limit ONLY ON ALARM PAGE
AH	Alarm upper limit ONLY ON ALARM PAGE

Simple circuit element to send/receive a 1-byte value 0 .. 255.

Use **IMGSET** to choose the set of images you want to use.

NOBG eliminates the button's surface and the display is visualized directly on the background.

Using **PF**, a unit of measurement can be adjusted according to the measured value.

STEPS determines the step quantity for adjusting the value between MIN and MAX.

MIN determines lower limit.

MAX determines upper limit.

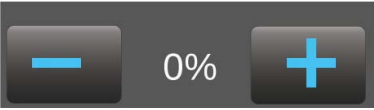
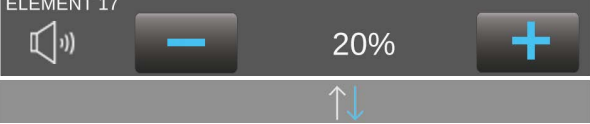

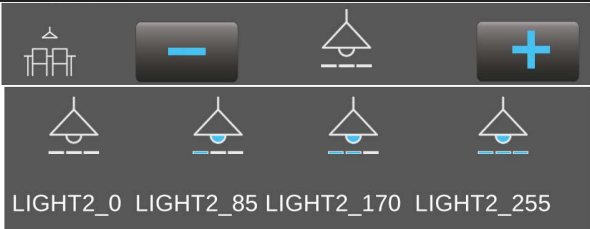
When pressing the buttons a little longer, **REP** sets the interval by which the values are sent. (in milliseconds)

Use **IMGVAL** to visualize the measured value. The labeling of the images limits the choice. (see chapter 8, **User-defined features**)

RDRQ sent a read request at start-up for the used widgets. This parameter only works when Communication Address and Receive Flag are set.

If "Use PIN" is selected, the default master password will be used in case **PIN** is not set. Using **PIN**, an individual password can be assigned.

AL/AH can only be used on alarm page. They serve as a limit setting the temporal point from which an alarm is detected.

Examples	Element Name; Format
	Default: ;IMGSET=PLUSMINUS ;PF=% ;MIN=0; MAX=100; ;STEPS=37; REP=1000
ELEMENT 17 	Example (Expand horizontal: Yes) ELEMENT 17 ;ICO=SOUND ;MIN=20 ;MAX=100 ;STEPS=16 ;REP=500;
ELEMENT 17 	
	;ICO=DINING;IMGVAL= LIGHT2 ;MIN=0 ;MAX=100 ;STEPS=3

2.5.9 1-Byte-Value-Slider 0 .. 100%

ETS Objects		
Range of values	0 .. 255	
Input	Feedback	1 Byte
Output	Switching	1 Byte

Format	
W	Determines width of button's surface
IMGSET	Choosing set of images
NOBG	No button background
PF	Declaration of the unit
STEPS	Setting step quantity
MIN	Default setting of lower limit
MAX	Default setting of upper limit
REP	Setting repetition rate
RDRQ	Read Request
PIN	In case "Use PIN" is selected, an individual password can be assigned using PIN
AL	Alarm lower limit
AH	Alarm upper limit

Simple circuit element to send/receive a 1-byte value 0 .. 255.

Use **IMGSET** to choose the set of images you want to use.

NOBG eliminates the button's surface and the display is visualized directly on the background.

Using **PF**, a unit of measurement can be adjusted according to the measured value.

STEPS determines the step quantity for adjusting the value between MIN and MAX.

MIN determines lower limit.

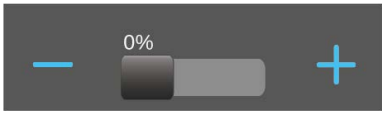


MAX determines upper limit.

When pressing the buttons a little longer, **REP** sets the interval by which the values are sent. (in milliseconds)

RDRQ sent a read request at start-up for the used widgets. This parameter only works when Communication Address and Receive Flag are set.

If "Use PIN" is selected, the default master password will be used in case **PIN** is not set. Using **PIN**, an individual password can be assigned.

AL/AH They serve as a limit setting the temporal point from which an alarm is detected.

Examples	Element Name; Format
	Default: IMGSET=PLUSMINUS ;PF=% ;MIN=0 ;MAX=100; STEPS=37; REP=1000
	Example (Expand horizontal: Yes) ELEMENT 18 ;ICO=SOUND ;MIN=20 ;MAX=100 ;STEPS=16 ;REP=500
	

2.5.10 1-Byte-Value-Text-Button 0 .. 360°

ETS Objects		
Range of values	0 .. 255	
Input	Feedback	1 Byte
Output	Switching	1 Byte

Format	
W	Determines width of button's surface
B+	Text default for button on incrementing
B-	Text default for button on decrementing
NOBG	No button background
PF	Declaration of the unit
STEPS	Setting step quantity
MIN	Default setting of lower limit
MAX	Default setting of upper limit
REP	Setting repetition rate
RDRQ	Read Request
PIN	In case "Use PIN" is selected, an individual password can be assigned using PIN
AL	Alarm lower limit
AH	Alarm upper limit

Simple circuit element to send/receive a 1-byte value 0 .. 255.

Set the displayed texts on the buttons using **B-** and **B+**. **NOBG** eliminates the button's surface and the display is visualized directly on the background.

Using **PF**, a unit of measurement can be adjusted according to the measured value.

STEPS determines the step quantity for adjusting the value between MIN and MAX.

MIN determines lower limit.

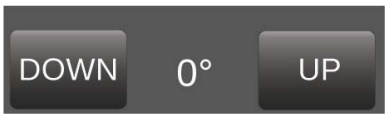


MAX determines upper limit.

When pressing the buttons a little longer, **REP** sets the interval by which the values are sent. (in milliseconds)

RDRQ sent a read request at start-up for the used widgets. This parameter only works when Communication Address and Receive Flag are set.

If "Use PIN" is selected, the default master password will be used in case **PIN** is not set. Using **PIN**, an individual password can be assigned.

AL/AH They serve as a limit setting the temporal point from which an alarm is detected.

Examples	Element Name; Format
	<p>Default: ;B+=UP ;B-=DOWN ;PF=° ;MIN=0 ;MAX=360 ;STEPS=37 ;REP=1000;</p>
<p>ELEMENT 19</p> 	<p>Example (Expand horizontal: Yes) ELEMENT 19 ;MIN=20; MAX=100; ;STEPS=16 ;REP=500;</p>
<p>ELEMENT 19</p> 	

2.5.11 1-Byte-Value-Picture-Button 0 .. 360°

ETS Objects		
Range of values	0 .. 255	
Input	Feedback	1 Byte
Output	Switching	1 Byte

Format	
W	Determines width of button's surface
IMGSET	Choosing set of images
NOBG	No button background
PF	Declaration of the unit
STEPS	Setting step quantity
MIN	Default setting of lower limit
MAX	Default setting of upper limit
REP	Setting repetition rate
IMGVAL	measured value-oriented image incorporation
RDRQ	Read Request
PIN	In case "Use PIN" is selected, an individual password can be assigned using PIN
AL	Alarm lower limit
AH	Alarm upper limit

Simple circuit element to send/receive a 1-byte value 0 .. 255.

Use **IMGSET** to choose the set of images you want to use.

NOBG eliminates the button's surface and the display is visualized directly on the background.

Using **PF**, a unit of measurement can be adjusted according to the measured value.

STEPS determines the step quantity for adjusting the value between MIN and MAX.

MIN determines lower limit.

MAX determines upper limit.

When pressing the buttons a little longer, **REP** sets the interval by which the values are sent. (in milliseconds)

Use **IMGVAL** to visualize the measured value. The labeling of the images limits the choice. (see chapter 8, **User-defined features**)

RDRQ sent a read request at start-up for the used widgets. This parameter only works when Communication Address and Receive Flag are set.

If "Use PIN" is selected, the default master password will be used in case **PIN** is not set. Using **PIN**, an individual password can be assigned.

AL/AH They serve as a limit setting the temporal point from which an alarm is detected.



Examples	Element Name; Format
	Default: ;IMGSET=PLUSMINUS ;PF=° MIN=0 ;MAX=360 ;STEPS=37 ;REP=1000;
ELEMENT 20 	Example (Expand horizontal: Yes) ;IMGSET=UPDOWN3 ;MIN=10 ;MAX=180 ;STEPS=18 ;REP=500
ELEMENT 20 	
ELEMENT 20 	;ICO=WIND IMGSET= UPDOWN3 ;IMGVAL= DIR1 ;STEPS=8

2.5.12 1-Byte-Value-Slider 0 .. 360°

ETS Objects		
Range of values	0 .. 255	
Input	Feedback	1 Byte
Output	Switching	1 Byte

Format	
W	Determines width of button's surface
IMGSET	Choosing set of images
NOBG	No button background
PF	Declaration of the unit
STEPS	Setting step quantity
MIN	Default setting of lower limit
MAX	Default setting of upper limit
REP	Setting repetition rate
RDRQ	Read Request
PIN	In case "Use PIN" is selected, an individual password can be assigned using PIN
AL	Alarm lower limit
AH	Alarm upper limit

Simple circuit element to send/receive a 1-byte value 0 .. 255.

Use **IMGSET** to choose the set of images you want to use.

NOBG eliminates the button's surface and the display is visualized directly on the background.

Using **PF**, a unit of measurement can be adjusted according to the measured value.

STEPS determines the step quantity for adjusting the value between MIN and MAX.

MIN determines lower limit.

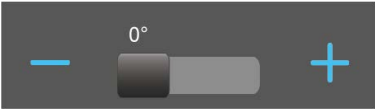


MAX determines upper limit.

When pressing the buttons a little longer, **REP** sets the interval by which the values are sent. (in milliseconds)

RDRQ sent a read request at start-up for the used widgets. This parameter only works when Communication Address and Receive Flag are set.

If "Use PIN" is selected, the default master password will be used in case **PIN** is not set. Using **PIN**, an individual password can be assigned.

AL/AH They serve as a limit setting the temporal point from which an alarm is detected.

Examples	Element Name; Format
	Default: ;IMGSET=PLUSMINUS ;PF=° ;MIN=0 ;MAX=360; ;STEPS=37 ;REP=1000
	Example: ELEMENT 18 ;ICO=WIND ;MIN=10 ;MAX=180 ;STEPS=18 ;REP=500
	

2.5.13 1-Byte-Value-Pushbutton

ETS Objects		
Range of values	0 .. 255	
Input	-	-
Output	Value	1 Byte
	Value B	1 Byte

Format	
IMG	Choosing an image
PRESS	Value that will be sent when pressing button
RELEASE	Value that will be sent when releasing button
LABEL	Text default for button
NOBG	No button background
JUMP	Command to jump to any side
LOGIC	Function call or direct incorporation of a logical function
LOGICR	Function call or direct incorporation of a logical function
PIN	In case "Use PIN" is selected, an individual password can be assigned using PIN

Simple button element to send/receive a 1-byte value 0 .. 255.

Using **LABEL**, you can define the text, or else an image using **IMG**, on the button.

PRESS determines the value that will be sent when pressing the button.

RELEASE determines the value that will be sent when releasing the button.

NOBG eliminates the button's surface and the display is visualized directly on the background.

Using **LOGIC**, LUA functions can be activated or manually incorporated in a LUA syntax-based logical function which is triggered when pressing the button.

Using **LOGICR**, LUA functions can be activated or manually incorporated in a LUA syntax-based logical function which is triggered when releasing the button.

If "Use PIN" is selected, the default master password will be used in case **PIN** is not set. Using **PIN**, an individual password can be assigned.



Examples	Element Name; Format
	Default: ;IMG=SEND ;PRESS=115
ELEMENT 40 	Examples: ;ICO=DINING ;IMG=RING ;PRESS=112
ELEMENT 40 	;ICO=DINING ;LABEL=SEND ;RELEASE=71

2.5.14 1-Byte-Timer-Profile 0 .. 100%

ETS Objects		
Range of values	0 .. 255	
Input	-	-
Output	Profile	1 Byte
Input/Output	Profile Enable	1 Bit

Format	
W	Determines width of display's surface
IMG	Choosing an image
OVRTO	Determines the time (in minutes) until manual settings are overwritten
NOBG	No button background
STEP	Setting step size
MIN	Default setting of lower limit
MAX	Default setting of upper limit
RDRQ	Read Request
PIN	In case "Use PIN" is selected, an individual password can be assigned using PIN
PPIN	In case "Use PIN" is selected, an individual password for the secondary function can be assigned using PPIN

Complex element to send a 1-byte value 0 .. 255 in a set time allowance.

W (in Pixel) determines the width of the display's surface.

OVRTO determines the span of time, after which the settings made manually by the user are overwritten by the values set in the time table. (in minutes)

NOBG eliminates the button's surface and the display is visualized directly on the background.

STEP in this special case the step size is defined as described below.

STEP $\approx 2,55 \times$ step size in %

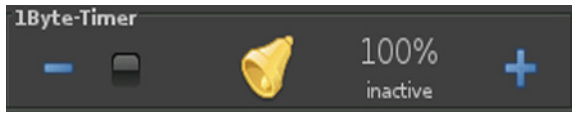
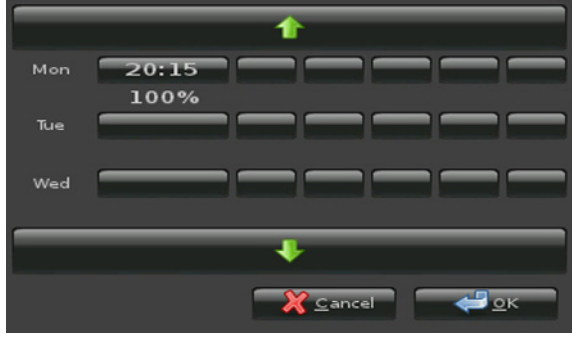

STEP is not given, step size set automatically to 1%.

MIN determines lower limit and **MAX** determines upper limit, in which 0 --> 0% and 255 --> 100%.

RDRQ sent a read request at start-up for the used widgets. This parameter only works when Communication Address and Receive Flag are set.

If "Use PIN" is selected, the default master password will be used in case **PIN** is not set. Using **PIN**, an individual password can be assigned.

In case "Use PIN" is selected, an individual password can be assigned using **PPIN**, which protects the secondary functions of this object.

Examples	Element Name; Format
	<p>1Byte-Timer; IMG=bell_b_on.png; NOBG; OVRTO=1;</p>
	<p>Pressing the options button will open a dialog box where time allowances can be set, according to which the ETS object is then controlled.</p>
	<p>It is possible to determine up to 6 times for each weekday, at which freely selectable values out of the object value range can be sent.</p>

2.5.15 1-Byte-Timer-Profile 0 .. 255

ETS Objects		
Range of values	0 .. 255	
Input	-	-
Output	Profile	1 Byte
Input/Output	Profile Enable	1 Bit

Format	
W	Determines width of display's surface
IMG	Choosing an image
OVRTO	Determines the time (in minutes) until manual settings are overwritten
NOBG	No button background
STEP	Setting step size
MIN	Default setting of lower limit
MAX	Default setting of upper limit
RDRQ	Read Request
PIN	In case "Use PIN" is selected, an individual password can be assigned using PIN
PPIN	In case "Use PIN" is selected, an individual password for the secondary function can be assigned using PPIN

Complex element to send a 1-byte value 0 .. 255 in a set time allowance.

W (in Pixel) determines the width of the display's surface.

OVRTO determines the span of time, after which the settings made manually by the user are overwritten by the values set in the time table. (in minutes)

NOBG eliminates the button's surface and the display is visualized directly on the background.

STEP determines the step size for adjusting the value between MIN and MAX.

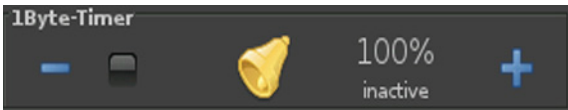
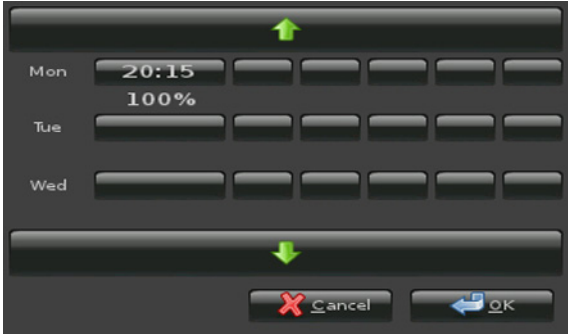

MIN determines lower limit.

MAX determines upper limit.

RDRQ sent a read request at start-up for the used widgets. This parameter only works when Communication Address and Receive Flag are set.

If "Use PIN" is selected, the default master password will be used in case **PIN** is not set. Using **PIN**, an individual password can be assigned.

In case "Use PIN" is selected, an individual password can be assigned using **PPIN**, which protects the secondary functions of this object.




Examples	Element Name; Format
	<p>1Byte-Timer; IMG=bell_b_on.png; NOBG; OVRTO=1;</p>
	<p>Pressing the options button will open a dialog box where time allowances can be set, according to which the ETS object is then controlled.</p>
	<p>It is possible to determine up to 6 times for each weekday, at which freely selectable values out of the object value range can be sent.</p>

2.5.16 1-Byte-Quad-Value/Change 0 .. 255

ETS Objects		
Range of values	4x 0 .. 255	
Input	4x Feedback	4x 1 Byte

Format	
W	Determines width of display's surface
PF	Declaration of the unit
N	Number of buttons displayed
RDRQ	Read Request

Simple element to receive 4x 1-byte values 0 .. 255.
W (in Pixel) determines the width of the button's surface.
N determines how many buttons are displayed.
 (A maximum of 4)
 Using **PF**, a unit of measurement can be adjusted according to the measured value.
RDRQ sent a read request at start-up for the used widgets.
 This parameter only works when Communication Address and Receive Flag are set.




Examples	Element Name; Format												
<table border="1"> <tr> <td>NIL</td> <td>NIL</td> <td>NIL</td> <td>NIL</td> </tr> <tr> <td colspan="4">ELEMENT 89</td> </tr> <tr> <td></td> <td>23</td> <td>29</td> <td>36 79</td> </tr> </table>	NIL	NIL	NIL	NIL	ELEMENT 89					23	29	36 79	<p>Default ;N=4 Example: ELEMENT 89 ;ICO=TERRACE ;N=4</p>
NIL	NIL	NIL	NIL										
ELEMENT 89													
	23	29	36 79										

2.5.17 1-Byte-Quad-Value/Change -128 .. 127

ETS Objects		
Range of values	4x -128 .. 127	
Input	4x Feedback	4x 1 Byte

Format	
W	Determines width of display's surface
PF	Declaration of the unit
N	Number of buttons displayed
RDRQ	Read Request

Simple element to receive 4x 1-byte values -128 .. 127.
W (in Pixel) determines the width of the button's surface.
N determines how many buttons are displayed.
 (A maximum of 4)
 Using **PF**, a unit of measurement can be adjusted according to the measured value.
RDRQ sent a read request at start-up for the used widgets. This parameter only works when Communication Address and Receive Flag are set.

Examples	Element Name; Format												
<table border="1"> <tr> <td>NIL</td> <td>NIL</td> <td>NIL</td> <td>NIL</td> </tr> <tr> <td>ELEMENT 90</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td>-113</td> <td>36</td> <td>79</td> </tr> </table>	NIL	NIL	NIL	NIL	ELEMENT 90					-113	36	79	<p>Default ;N=4 Example: Element 90 ;ICO= TERRACE ;N=3</p>
NIL	NIL	NIL	NIL										
ELEMENT 90													
	-113	36	79										

2.5.18 1-Byte-Quad-Value/Change 0 .. 100%

ETS Objects		
Range of values	4x 0 .. 255	
Input	4x Feedback	4x 1 Byte

Format	
W	Determines width of display's surface
PF	Declaration of the unit
N	Number of buttons displayed
RDRQ	Read Request


Simple element to receive 4x 1-byte values 0 .. 255

W (in Pixel) determines the width of the button's surface.

N determines how many buttons are displayed.
(A maximum of 4)

Using **PF**, a unit of measurement can be adjusted according to the measured value.

RDRQ sent a read request at start-up for the used widgets.
This parameter only works when Communication Address and Receive Flag are set.




Examples	Element Name; Format
<p>ELEMENT 91</p> 	<p>Default: ;PF=% ;N=4</p> <p>Example: ELEMENT 91 ;ICO=KITCHEN ;N=3</p>

2.5.19 1-Byte-Quad-Value/Change 0 .. 360°

ETS Objects		
Range of values	4x 0 .. 255	
Input	4x Feedback	4x 1 Byte

Format	
W	Determines width of display's surface
PF	Declaration of the unit
N	Number of buttons displayed
RDRQ	Read Request

Simple element to receive 4x 1-byte values 0 .. 255.
W (in Pixel) determines the width of the button's surface.
N determines how many buttons are displayed.
 (A maximum of 4)
 Using **PF**, a unit of measurement can be adjusted according to the measured value.
RDRQ sent a read request at start-up for the used widgets.
 This parameter only works when Communication Address and Receive Flag are set.

Examples	Element Name; Format												
<table border="1"> <tr> <td>NIL</td> <td>NIL</td> <td>NIL</td> <td>NIL</td> </tr> <tr> <td colspan="4">ELEMENT 92</td> </tr> <tr> <td></td> <td>90°</td> <td>180°</td> <td>270° 360°</td> </tr> </table>	NIL	NIL	NIL	NIL	ELEMENT 92					90°	180°	270° 360°	<p>Default: ;PF=° ;N=4 Example: ELEMENT 92 ;ICO=KITCHEN</p>
NIL	NIL	NIL	NIL										
ELEMENT 92													
	90°	180°	270° 360°										

2.6 Description Widgets (2-Byte Elements)

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2.6 Overview 2-Byte Elements

- 2.6.1 2-Byte-Value-Text-Button 0 .. 65535
- 2.6.2 2-Byte-Value-Picture-Button 0 .. 65535
- 2.6.3 2-Byte-Value-Slider 0 .. 65535
- 2.6.4 2-Byte-Value-Text-Button -32768 .. 32767
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- 2.6.12 2-Byte-Float-Timer-Profile

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2.6 Overview 2-Byte Elements

Image	Element Number	Element Type	Details
	Range of Values	Format	Page
	22	2-Byte-Value-Text-Button 0 .. 65535	
	0 .. 65535	W,B-,B+,PF,STEPS,MIN,MAX,AL,AH,NOBG,REP,RDRQ,PIN	
	23	2-Byte-Value-Picture-Button 0 .. 65535	
	0 .. 65535	W,PF,IMGSET,STEPS,MIN,MAX,AL,AH,NOBG,REP,RDRQ,PIN	
	24	2-Byte-Value-Slider 0 .. 65535	
	0 .. 65535	W,PF,IMGSET,STEPS,MIN,MAX,AL,AH,NOBG,REP,RDRQ,PIN	
	25	2-Byte-Value-Text-Button -32768 .. 32767	
	-32768 .. 32787	W,B-,B+,PF,STEPS,MIN,MAX,AL,AH,NOBG,REP,RDRQ,PIN	
	26	2-Byte-Value-Picture-Button -32768 .. 32767	
	-32768 .. 32787	W,PF,IMGSET,STEPS,MIN,MAX,AL,AH,NOBG,REP,RDRQ,PIN	
	27	2-Byte-Value-Slider -32768 .. 32767	
	-32768 .. 32787	W,PF,IMGSET,STEPS,MIN,MAX,AL,AH,NOBG,REP,RDRQ,PIN	
	30	2-Byte-Float-Text-Button	
	-671088.64 .. 670760,96	W,B-,B+,PF,STEPS,MIN,MAX,AL,AH,NOBG,REP,RDRQ,DC,PIN,*	
	31	2-Byte-Float-Picture-Button	
	-671088.64 .. 670760,96	W,PF,IMGSET,STEPS,MIN,MAX,AL,AH,NOBG,REP,RDRQ,DC,PIN,*	
	32	2-Byte-Float-Slider	
	-671088.64 .. 670760,96	W,PF,IMGSET,STEPS,MIN,MAX,AL,AH,NOBG,REP,RDRQ,DC,PIN,*	
	42	2-Byte-Value-Pushbutton	
	0 .. 65535	IMG,PRESS,RELEASE,LABEL,NOBG,JUMP,LOGIC,LOGICR,PIN	
	43	2-Byte-Float-Value-Pushbutton	
	-671088.64 .. 670760,96	IMG,PRESS,RELEASE,LABEL,NOBG,JUMP,LOGIC,LOGICR,PIN	
	66	2-Byte-Float-Timer-Profile	
	-671088.64 .. 670760,96	W,PF,MIN,MAX,STEP,OVRTO,NOBG,IMG,RDRQ,PIN,PPIN	

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2.6.1 2-Byte-Value-Text-Button 0 .. 65535

ETS Objects		
Range of values	0 .. 65535	
Input	Feedback	2 Byte
Output	Switching	2 Byte

Format	
W	Determines width of button's surface
B+	Text default for button on incrementing
B-	Text default for button on decrementing
NOBG	No button background
PF	Declaration of the unit
STEPS	Setting step quantity
MIN	Default setting of lower limit
MAX	Default setting of upper limit
REP	Setting repetition rate
RDRQ	Read Request
PIN	In case "Use PIN" is selected, an individual password can be assigned using PIN
AL	Alarm lower limit
AH	Alarm upper limit

Simple circuit element to send/receive a 2-byte value 0 .. 65535.

Use **B-** and **B+** to determine the button's texts.

NOBG eliminates the button's surface and the display is visualized directly on the background.

Using **PF**, a unit of measurement can be adjusted according to the measured value.

STEPS determines the step quantity for adjusting the value between MIN and MAX.

MIN determines lower limit.

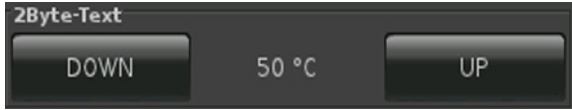
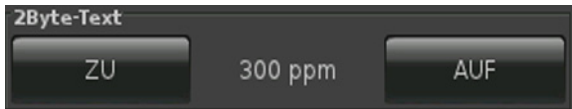
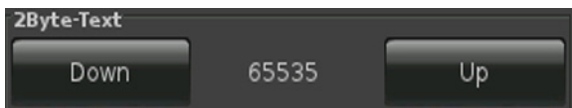
MAX determines upper limit.

When pressing the buttons a little longer, **REP** sets the interval by which the values are sent. (in milliseconds)

RDRQ sent a read request at start-up for the used widgets. This parameter only works when Communication Address and Receive Flag are set.

If "Use PIN" is selected, the default master password will be used in case **PIN** is not set. Using **PIN**, an individual password can be assigned.

AL/AH They serve as a limit setting the temporal point from which an alarm is detected.

Examples	Element Name; Format
 <p>2Byte-Text</p>	<p>2Byte-Text ;PF=°C; B+=UP ;B-=DOWN ;MIN=50 ;MAX=200 ;STEPS=75 ;REP=500</p>
 <p>2Byte-Text</p>	<p>2Byte-Text ;PF=ppm; B+=AUF; B-=ZU; MIN=300; MAX=1100 ;STEPS=400; REP=500</p>
 <p>2Byte-Text</p>	<p>2Byte-Text</p>

2.6.2 2-Byte-Value-Picture-Button 0 .. 65535

ETS Objects		
Range of values	0 .. 65535	
Input	Feedback	2 Byte
Output	Switching	2 Byte

Format	
W	Determines width of button's surface
IMGSET	Choosing set of images
NOBG	No button background
PF	Declaration of the unit
STEPS	Setting step quantity
MIN	Default setting of lower limit
MAX	Default setting of upper limit
REP	Setting repetition rate
RDRQ	Read Request
PIN	In case "Use PIN" is selected, an individual password can be assigned using PIN
AL	Alarm lower limit
AH	Alarm upper limit

Simple circuit element to send/receive a 2-byte value 0 .. 65535.

Use **IMGSET** to choose the set of images you want to use.

NOBG eliminates the button's surface and the display is visualized directly on the background.

Using **PF**, a unit of measurement can be adjusted according to the measured value.

STEPS determines the step quantity for adjusting the value between MIN and MAX.

MIN determines lower limit.

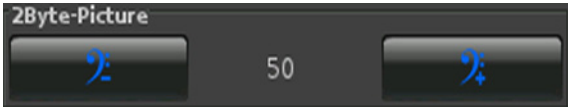
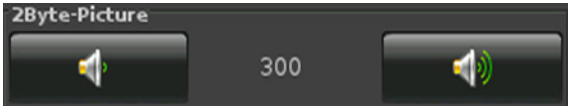
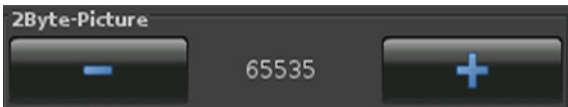
MAX determines upper limit.

When pressing the buttons a little longer, **REP** sets the interval by which the values are sent. (in milliseconds)

RDRQ sent a read request at start-up for the used widgets. This parameter only works when Communication Address and Receive Flag are set.

If "Use PIN" is selected, the default master password will be used in case **PIN** is not set. Using **PIN**, an individual password can be assigned.

AL/AH They serve as a limit setting the temporal point from which an alarm is detected.

Examples	Element Name; Format
	2Byte-Picture ;IMGSET=BASS; MIN=50; MAX=200 ;STEPS=75; REP=500
	2Byte-Picture ;IMGSET=VOLUME; MIN=300; MAX=1100 ;STEPS=400; REP=500
	2Byte-Picture

2.6.3 2-Byte-Value-Slider 0 .. 65535

ETS Objects		
Range of values	0 .. 65535	
Input	Feedback	2 Byte
Output	Switching	2 Byte

Format	
W	Determines width of button's surface
IMGSET	Choosing set of images
NOBG	No button background
PF	Declaration of the unit
STEPS	Setting step quantity
MIN	Default setting of lower limit
MAX	Default setting of upper limit
REP	Setting repetition rate
RDRQ	Read Request
PIN	In case "Use PIN" is selected, an individual password can be assigned using PIN
AL	Alarm lower limit ONLY ON ALARM PAGE
AH	Alarm upper limit ONLY ON ALARM PAGE

Simple circuit element to send/receive a 2-byte value 0 .. 65535.

Use **IMGSET** to choose the set of images you want to use.

NOBG eliminates the button's surface and the display is visualized directly on the background.

Using **PF**, a unit of measurement can be adjusted according to the measured value.

STEPS determines the step quantity for adjusting the value between MIN and MAX.

MIN determines lower limit.

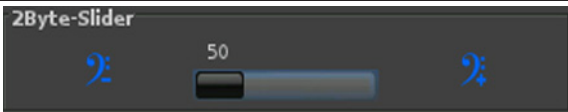
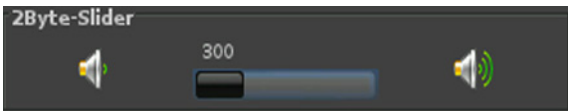
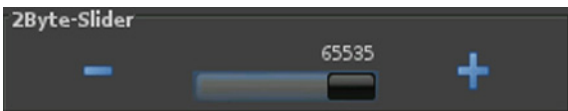
MAX determines upper limit.

When pressing the buttons a little longer, **REP** sets the interval by which the values are sent. (in milliseconds)

RDRQ sent a read request at start-up for the used widgets. This parameter only works when Communication Address and Receive Flag are set.

If "Use PIN" is selected, the default master password will be used in case **PIN** is not set. Using **PIN**, an individual password can be assigned.

AL/AH can only be used on alarm page. They serve as a limit setting the temporal point from which an alarm is detected.

Examples	Element Name ;Format
	2Byte-Slider ;IMGSET=BASS; MIN=50; MAX=200 ;STEPS=75; REP=500
	2Byte-Slider ;IMGSET=volume; MIN=300; MAX=1100 ;STEPS=400; REP=500
	2Byte-Slider

2.6.4 2-Byte-Value-Text-Button -32768 .. 32767

ETS Objects		
Range of values	-32768 .. 32767	
Input	Feedback	2 Byte
Output	Switching	2 Byte

Format	
W	Determines width of button's surface
B+	Text default for button on incrementing
B-	Text default for button on decrementing
NOBG	No button background
PF	Declaration of the unit
STEPS	Setting step quantity
MIN	Default setting of lower limit
MAX	Default setting of upper limit
REP	Setting repetition rate
RDRQ	Read Request
PIN	In case "Use PIN" is selected, an individual password can be assigned using PIN
AL	Alarm lower limit
AH	Alarm upper limit

Simple circuit element to send/receive a 2-byte value -32768 .. 32767.

Use **B-** and **B+** to determine the button's texts.

NOBG eliminates the button's surface and the display is visualized directly on the background.

Using **PF**, a unit of measurement can be adjusted according to the measured value.

STEPS determines the step quantity for adjusting the value between MIN and MAX.

MIN determines lower limit.

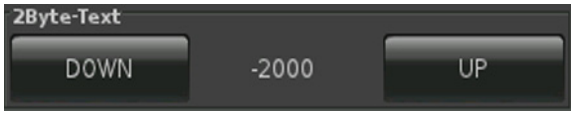
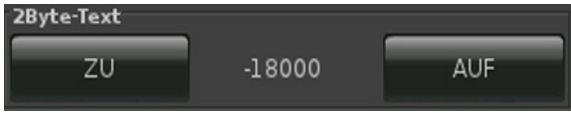
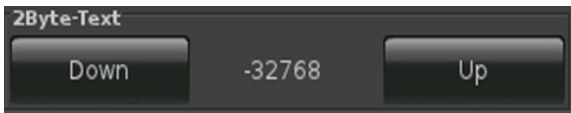
MAX determines upper limit.

When pressing the buttons a little longer, **REP** sets the interval by which the values are sent. (in milliseconds)

RDRQ sent a read request at start-up for the used widgets. This parameter only works when Communication Address and Receive Flag are set.

If "Use PIN" is selected, the default master password will be used in case **PIN** is not set. Using **PIN**, an individual password can be assigned.

AL/AH They serve as a limit setting the temporal point from which an alarm is detected.

Examples	Element Name ;Format
	2Byte-Text ;B+=UP; B-=DOWN; MIN=-2000; MAX=100
	2Byte-Text; ;B+=AUF; B-=ZU; MIN=-18000; MAX=2000
	2Byte-Text

2.6.5 2-Byte-Value-Picture-Button -32768 .. 32767

ETS Objects		
Range of values	-32768 .. 32767	
Input	Feedback	2 Byte
Output	Switching	2 Byte

Format	
W	Determines width of button's surface
IMGSET	Choosing set of images
NOBG	No button background
PF	Declaration of the unit
STEPS	Setting step quantity
MIN	Default setting of lower limit
MAX	Default setting of upper limit
REP	Setting repetition rate
RDRQ	Read Request
PIN	In case "Use PIN" is selected, an individual password can be assigned using PIN
AL	Alarm lower limit ONLY ON ALARM PAGE
AH	Alarm upper limit ONLY ON ALARM PAGE

Simple circuit element to send/receive a 2-byte value -32768 .. 32767.

Use **IMGSET** to choose the set of images you want to use.

NOBG eliminates the button's surface and the display is visualized directly on the background.

Using **PF**, a unit of measurement can be adjusted according to the measured value.

STEPS determines the step quantity for adjusting the value between MIN and MAX.

MIN determines lower limit.

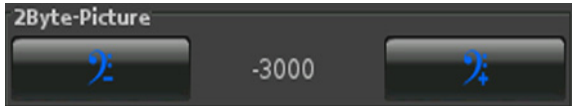
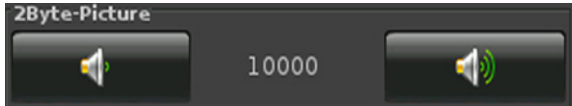
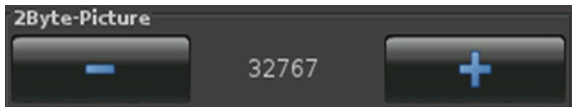
MAX determines upper limit.

When pressing the buttons a little longer, **REP** sets the interval by which the values are sent. (in milliseconds)

RDRQ sent a read request at start-up for the used widgets. This parameter only works when Communication Address and Receive Flag are set.

If "Use PIN" is selected, the default master password will be used in case **PIN** is not set. Using **PIN**, an individual password can be assigned.

AL/AH can only be used on alarm page. They serve as a limit setting the temporal point from which an alarm is detected.

Examples	Element Name ;Format
	2Byte-Picture ;IMGSET=bass ;MIN=-3000; MAX=-100
	2Byte-Picture ;IMGSET=volume; MIN=-20000; MAX=10000
	2Byte-Picture

2.6.6 2-Byte-Value-Slider -32768 .. 32767

ETS Objects		
Range of values	-32768 .. 32767	
Input	Feedback	2 Byte
Output	Switching	2 Byte

Format	
W	Determines width of button's surface
IMGSET	Choosing set of images
NOBG	No button background
PF	Declaration of the unit
STEPS	Setting step quantity
MIN	Default setting of lower limit
MAX	Default setting of upper limit
REP	Setting repetition rate
RDRQ	Read Request
PIN	In case "Use PIN" is selected, an individual password can be assigned using PIN
AL	Alarm lower limit
AH	Alarm upper limit

Simple circuit element to send/receive a 2-byte value -32768 .. 32767.

Use **IMGSET** to choose the set of images you want to use.

NOBG eliminates the button's surface and the display is visualized directly on the background.

Using **PF**, a unit of measurement can be adjusted according to the measured value.

STEPS determines the step quantity for adjusting the value between MIN and MAX.

MIN determines lower limit.

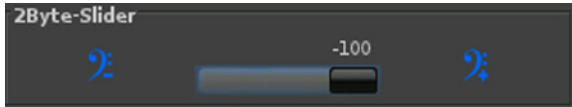
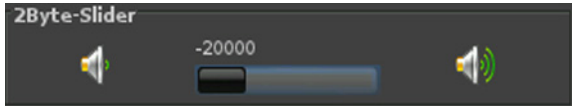
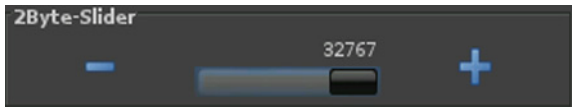
MAX determines upper limit.

When pressing the buttons a little longer, **REP** sets the interval by which the values are sent. (in milliseconds)

RDRQ sent a read request at start-up for the used widgets. This parameter only works when Communication Address and Receive Flag are set.

If "Use PIN" is selected, the default master password will be used in case **PIN** is not set. Using **PIN**, an individual password can be assigned.

AL/AH They serve as a limit setting the temporal point from which an alarm is detected.

Examples	Element Name; Format
	2Byte-Slider ;IMGSET=BASS; MIN=-3000; MAX=-100
	2Byte-Slider ;IMGSET=VOLUME; MIN=-20000; MAX=10000
	2Byte-Slider

2.6.7 2-Byte-Float-Text-Button

ETS Objects		
Range of values	2 Byte Float	
Input	Feedback	2 Byte
Output	Switching	2 Byte

Format	
W	Determines width of button's surface
B+	Text default for button on incrementing
B-	Text default for button on decrementing
NOBG	No button background
PF	Declaration of the unit
STEPS	Setting step quantity
MIN	Default setting of lower limit
MAX	Default setting of upper limit
REP	Setting repetition rate
RDRQ	Read Request
DC	Number of displayed decimal places
*	Multiplication factor
PIN	In case "Use PIN" is selected, an individual password can be assigned using PIN
AL	Alarm lower limit
AH	Alarm upper limit

Simple circuit element to send/receive a 2-byte float value.

Use **B-** and **B+** to determine the button's texts.

NOBG eliminates the button's surface and the display is visualized directly on the background.

Using **PF**, a unit of measurement can be adjusted according to the measured value.

DC defines the displayed decimal places.

Use ***** to determine a multiplication factor.

STEPS determines the step quantity for adjusting the value between MIN and MAX.

MIN determines lower limit.

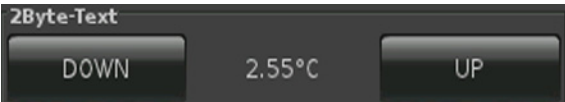
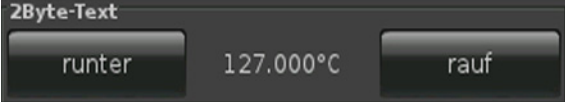
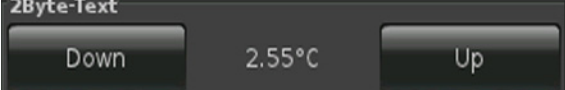
MAX determines upper limit.

When pressing the buttons a little longer, **REP** sets the interval by which the values are sent. (in milliseconds)

RDRQ sent a read request at start-up for the used widgets. This parameter only works when Communication Address and Receive Flag are set.

If "Use PIN" is selected, the default master password will be used in case **PIN** is not set. Using **PIN**, an individual password can be assigned.

AL/AH They serve as a limit setting the temporal point from which an alarm is detected.

Examples	Element Name ;Format
	2Byte-Text ;B+=UP; B-=DOWN; PF=°C; DC=2
	2Byte-Text; ;B+=rauf; B-=runter; PF=°C; DC=3; *=100
	2Byte-Text

2.6.8 2-Byte-Float-Picture-Button

ETS Objects		
Range of values	2 Byte Float	
Input	Feedback	2 Byte
Output	Switching	2 Byte

Format	
W	Determines width of button's surface
IMGSET	Choosing set of images
NOBG	No button background
PF	Declaration of the unit
STEPS	Setting step quantity
MIN	Default setting of lower limit
MAX	Default setting of upper limit
REP	Setting repetition rate
RDRQ	Read Request
DC	Number of displayed decimal places
*	Multiplication factor
PIN	In case "Use PIN" is selected, an individual password can be assigned using PIN
AL	Alarm lower limit
AH	Alarm upper limit

Simple circuit element to send/receive a 2-byte float value.

Use **IMGSET** to choose the set of images you want to use.

NOBG eliminates the button's surface and the display is visualized directly on the background.

Using **PF**, a unit of measurement can be adjusted according to the measured value.

DC defines the displayed decimal places.

Use ***** to determine a multiplication factor.

STEPS determines the step quantity for adjusting the value between MIN and MAX.

MIN determines lower limit.

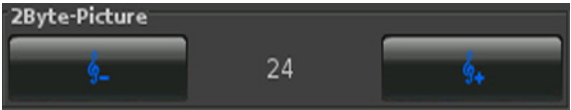
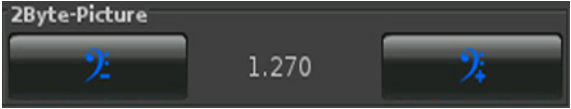
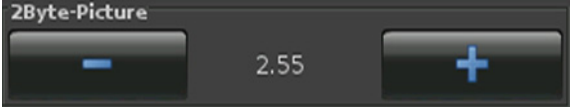
MAX determines upper limit.

When pressing the buttons a little longer, **REP** sets the interval by which the values are sent. (in milliseconds)

RDRQ sent a read request at start-up for the used widgets. This parameter only works when Communication Address and Receive Flag are set.

If "Use PIN" is selected, the default master password will be used in case **PIN** is not set. Using **PIN**, an individual password can be assigned.

AL/AH They serve as a limit setting the temporal point from which an alarm is detected.

Examples	Element Name ;Format
	2Byte-Picture ;IMGSET=treble; DC=0; PF=
	2Byte-Picture ;IMGSET=bass; DC=3; *=0,01; PF=
	2Byte-Picture ;PF=

2.6.9 2-Byte-Float-Slider

ETS Objects		
Range of values	2 Byte Float	
Input	Feedback	2 Byte
Output	Switching	2 Byte

Format	
W	Determines width of button's surface
IMGSET	Choosing set of images
NOBG	No button background
PF	Declaration of the unit
STEPS	Setting step quantity
MIN	Default setting of lower limit
MAX	Default setting of upper limit
REP	Setting repetition rate
RDRQ	Read Request
DC	Number of displayed decimal places
*	Multiplication factor
PIN	In case "Use PIN" is selected, an individual password can be assigned using PIN
AL	Alarm lower limit
AH	Alarm upper limit

Simple circuit element to send/receive a 2-byte float value.

Use **IMGSET** to choose the set of images you want to use.

NOBG eliminates the button's surface and the display is visualized directly on the background.

Using **PF**, a unit of measurement can be adjusted according to the measured value.

DC defines the displayed decimal places.

Use ***** to determine a multiplication factor.

STEPS determines the step quantity for adjusting the value between MIN and MAX.

MIN determines lower limit.

MAX determines upper limit.

When pressing the buttons a little longer, **REP** sets the interval by which the values are sent. (in milliseconds)

RDRQ sent a read request at start-up for the used widgets. This parameter only works when Communication Address and Receive Flag are set.

If "Use PIN" is selected, the default master password will be used in case **PIN** is not set. Using **PIN**, an individual password can be assigned.

AL/AH can only be used on alarm page. They serve as a limit setting the temporal point from which an alarm is detected.



Examples	Element Name; Format
	2Byte-Slider ;IMGSET=treble; DC=0; PF=
	2Byte-Slider ;IMGSET=bass; DC=3; *=0,01; PF=
	2Byte-Slider ;PF=

2.6.10 2-Byte-Value-Pushbutton

ETS Objects		
Range of values	0 .. 65535	
Input	-	-
Output	Value	2 Byte
	Value B	2 Byte

Format	
IMG	Choosing an image
PRESS	Value that will be sent when pressing button
RELEASE	Value that will be sent when releasing button
LABEL	Text default for button
NOBG	No button background
JUMP	Command to jump to a user-defined page
LOGIC	Function call or direct incorporation of a logical function
LOGICR	Function call or direct incorporation of a logical function
PIN	In case "Use PIN" is selected, an individual password can be assigned using PIN

Simple button element to send a 2-byte value 0 .. 65535.

Using **LABEL**, you can define the text, or else an image using **IMG**, on the button.

PRESS determines the value that will be sent when pressing the button.

RELEASE determines the value that will be sent when releasing the button.

NOBG eliminates the button's surface and the display is visualized directly on the background.

Using **LOGIC**, LUA functions can be activated or manually incorporated in a LUA syntax-based logical function which is triggered when pressing the button.

Using **LOGICR**, LUA functions can be activated or manually incorporated in a LUA syntax-based logical function which is triggered when releasing the button.

If "Use PIN" is selected, the default master password will be used in case **PIN** is not set. Using **PIN**, an individual password can be assigned.



Examples	Element Name; Format
<p>2Byte</p>	<p>2Byte; PRESS=6500; LABEL=AUS;</p>
<p>2Byte</p>	<p>2Byte; PRESS=10050; IMG=BELL_b_on;</p>
<p>2Byte</p>	<p>2Byte; RELEASE=1; LABEL=EIN;</p>
<p>2Byte</p>	<p>2Byte; RELEASE=0; IMG=SOUND_b_off;</p>

2.6.11 2-Byte-Float-Value-Pushbutton

ETS Objects		
Range of values	2 Byte Float	
Input	-	-
Output	Value	2 Byte
	Value B	2 Byte

Format	
IMG	Choosing an image
PRESS	Value that will be sent when pressing button
RELEASE	Value that will be sent when releasing button
LABEL	Text default for button
NOBG	No button background
JUMP	Command to jump to a user-defined page
LOGIC	Function call or direct incorporation of a logical function
LOGICR	Function call or direct incorporation of a logical function
PIN	In case "Use PIN" is selected, an individual password can be assigned using PIN

Simple button element to send a 2-byte float value.

Using **LABEL**, you can define the text, or else an image using **IMG**, on the button.

PRESS determines the value that will be sent when pressing the button.

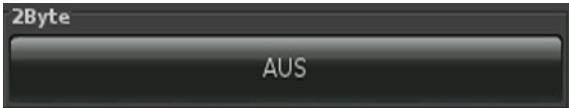
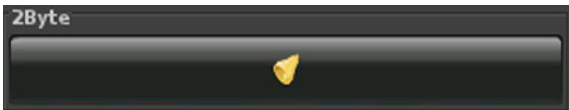
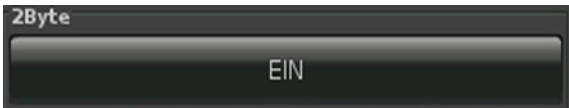

RELEASE determines the value that will be sent when releasing the button.

NOBG eliminates the button's surface and the display is visualized directly on the background.

Using **LOGIC**, LUA functions can be activated or manually incorporated in a LUA syntax-based logical function which is triggered when pressing the button.

Using **LOGICR**, LUA functions can be activated or manually incorporated in a LUA syntax-based logical function which is triggered when releasing the button.

If "Use PIN" is selected, the default master password will be used in case **PIN** is not set. Using **PIN**, an individual password can be assigned.

Examples	Element Name; Format
<p>2Byte</p> 	<p>2Byte ;PRESS=32,5 ;LABEL=AUS</p>
<p>2Byte</p> 	<p>2Byte ;PRESS=-12,25 ;IMG=BELL_b_on;</p>
<p>2Byte</p> 	<p>2Byte ;RELEASE=0,01; LABEL=EIN</p>
<p>2Byte</p> 	<p>2Byte ;RELEASE=0; IMG=sound_b_off</p>



2.6.12 2-Byte-Float-Timer-Profile

ETS Objects		
Range of values	2 Byte Float	
Input	-	-
Output	Profile	2 Byte
Input/Output	Profile Enable	1 Bit

Format	
W	Determines width of display's surface
IMG	Choosing an image
OVRTO	Determines the time (in minutes) until manual settings are overwritten
NOBG	No button background
STEP	Setting step size
MIN	Default setting of lower limit
MAX	Default setting of upper limit
RDRQ	Read Request
PIN	In case "Use PIN" is selected, an individual password can be assigned using PIN
PPIN	In case "Use PIN" is selected, an individual password for the secondary function can be assigned using PPIN

Complex element to send a 2-byte float value in a set time allowance.

W(in Pixel) determines the width of the display's surface.

OVRTO determines the span of time, after which the settings made manually by the user are overwritten by the values set in the time table. (in minutes)

NOBG eliminates the button's surface and the display is visualized directly on the background.

STEP determines the step size for adjusting the value between MIN and MAX.

MIN determines lower limit.

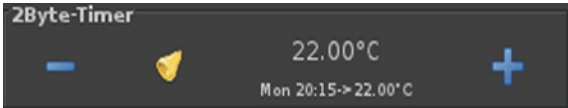
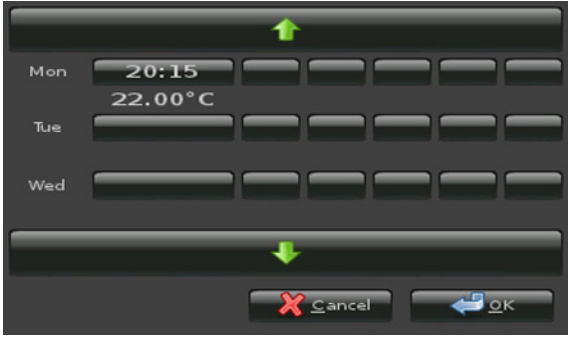

MAX determines upper limit.

RDRQ sent a read request at start-up for the used widgets. This parameter only works when Communication Address and Receive Flag are set.

If "Use PIN" is selected, the default master password will be used in case **PIN** is not set. Using **PIN**, an individual password can be assigned.

In case "Use PIN" is selected, an individual password can be assigned using **PPIN**, which protects the secondary functions of this object.



Examples	Element Name ;Format
	<p>2Byte-Timer ;IMG=bell_b_on.png; NOBG; OVRTO=1</p>
	<p>Pressing the options button will open a dialog box where time allowances can be set, according to which the ETS object is then controlled.</p>
	<p>It is possible to determine up to 6 times for each weekday, at which freely selectable values out of the object value range can be sent.</p>

2.7 - 2.16 Description Widgets

Touch_IT V2

2.7 Overview 3-Byte Time / Date Elements

- 2.7.1 3-Byte-Time
- 2.7.2 3-Byte-Date

2.8 Overview 4-Byte Elements

- 2.8.1 4-Byte-Float-Text-Button
- 2.8.2 4-Byte-Float-Picture-Button
- 2.8.3 4-Byte-Float-Slider
- 2.8.4 4-Byte-Value-Pushbutton
- 2.8.5 4-Byte-Float-Value-Pushbutton

2.9 Overview 14-Byte Elements

- 2.9.1 14-Byte-String-Pushbutton
- 2.9.2 14-Byte-String

2.10 Overview Scene Elements

- 2.10.1 Scene-Control-Recall-Save
- 2.10.2 Scene-Control-Recall-Only
- 2.10.3 Scene-Control-Save-Only
- 2.10.4 Internal-Scene

2.11 Overview RGB Elements

- 2.11.1 RGB-Dimmer-A
- 2.11.2 RGB-Dimmer-B
- 2.11.3 RGB-Dimmer-C
- 2.11.4 RGB-Dimmer-D

2.12 Overview Dimmer Elements

- 2.12.1 4-Bit-Dimmer-Start-Stop
- 2.12.2 4-Bit-Dimmer-Repeat
- 2.12.3 8-Bit-Dimmer-Repeat

2.13 Overview Shutter-Blinds Elements

- 2.13.1 Shutter-Blinds-Control-A
- 2.13.2 Shutter-Blinds-Control-B
- 2.13.3 Shutter-Blinds-Control-C

2.14 Overview HVAC Elements

- 2.14.1 HVAC Setpoint-Control
- 2.14.2 HVAC Mode-Control
- 2.14.3 HVAC Mode-Control-Text
- 2.14.4 HVAC-Fan-Control
- 2.14.5 1-Byte-Timer-Profile HVAC

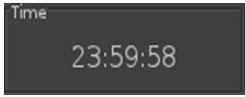

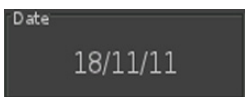

2.15 Overview Time / Date Elements

- 2.15.1 Alarmclock
- 2.15.2 Alarmtimer
- 2.15.3 Astroclock

2.16 Overview Datalogging

- 2.16.1 Telegrams
- 2.16.2 Line-Graph
- 2.16.3 Bar-Graph

2.7 Overview 3-Byte Time / Date Elements

Image	Element Number	Element Type	Details Page
	Range of Values	Format	
	50	3-Byte-Time	
	Time	LONG,NOBG,ACTUAL,RDRQ,PIN	
	51	3-Byte-Date	
	Date	LONG,NOBG,ACTUAL,RDRQ,PIN	

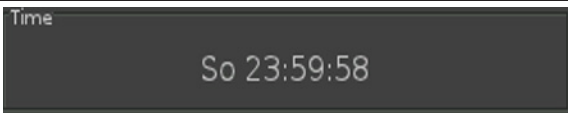
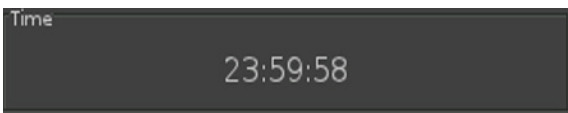
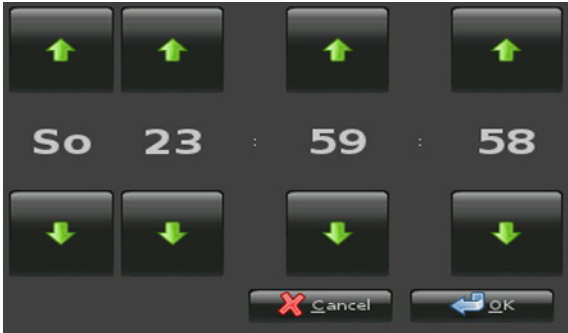


2.7.1 3-Byte-Time

ETS Objects		
Range of values	Time	
Input	Feedback	3 Byte
Input/Output	Time	3 Byte

Format	
LONG	Activating weekday statement
NOBG	No button background (only possible in special modification)
ACTUAL	Visualising internal time
RDRQ	Read Request
PIN	In case "Use PIN" is selected, an individual password can be assigned using PIN

Complex clock element to send/receive a 3-byte value.
 Use **LONG** to add weekday to time.
 Use **ACTUAL** to visualise internal time. (Without use of communication objects)
NOBG eliminates the button's surface and the display is visualized directly on the background.
RDRQ sent a read request at start-up for the used widgets. This parameter only works when Communication Address and Receive Flag are set.
 If "Use PIN" is selected, the default master password will be used in case **PIN** is not set. Using **PIN**, an individual password can be assigned.

Examples	Element Name; Format
	Time; LONG;
	Time;
	Pressing the time button will open a dialog box where time allowances can be set, according to which the ETS object is then controlled.

2.7.2 3-Byte-Date

ETS Objects		
Range of values	Date	
Input	Feedback	3 Byte
Input/Output	Date	3 Byte

Format	
LONG	Activating long year display
NOBG	No button background (only possible in special modification)
ACTUAL	Visualising internal date
RDRQ	Read Request
PIN	In case "Use PIN" is selected, an individual password can be assigned using PIN

Complex date element to send/receive a 3-byte value.

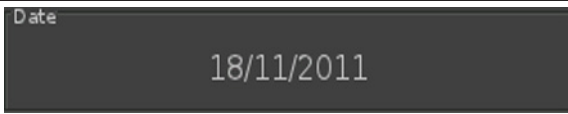
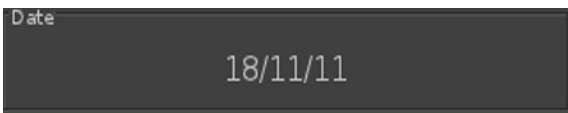
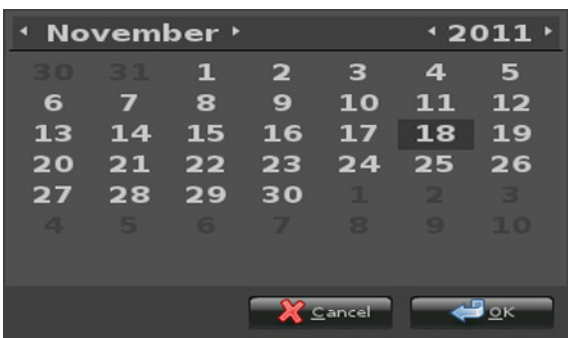
Use **LONG** to change the output of the year display from 2 into 4 digits.

Use **ACTUAL** to visualise the internal date. (Without use of communication objects)



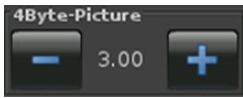

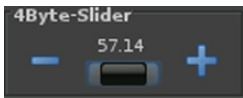

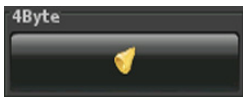

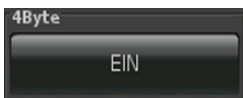

NOBG eliminates the button's surface and the display is visualized directly on the background.

RDRQ sent a read request at start-up for the used widgets. This parameter only works when Communication Address and Receive Flag are set.

If "Use PIN" is selected, the default master password will be used in case **PIN** is not set. Using **PIN**, an individual password can be assigned.

Examples	Element Name; Format
	Date; LONG;
	Date;
	Pressing the date button will open a dialog box where date allowances can be set, according to which the ETS object is then controlled.

2.8 Overview 4-Byte Elements

Image	Element Number	Element Type	Details Page
	Range of Values	Format	
	33	4-Byte-Float-Text-Button	
	IEEE 754	W,B-,B+,PF,STEPS,MIN,MAX,AL,AH,NOBG,REP,RDRQ,DC,PIN,*,INT,UINT	
	34	4-Byte-Float-Picture-Button	
	IEEE 754	W,PF,IMGSET,STEPS,MIN,MAX,AL,AH,NOBG,REP,RDRQ,DC,PIN,*,INT,UINT	
	35	4-Byte-Float-Slider	
	IEEE 754	W,PF,IMGSET,STEPS,MIN,MAX,AL,AH,NOBG,REP,RDRQ,DC,PIN,*,INT,UINT	
	44	4-Byte-Value-Pushbutton	
	IEEE 754	IMG,PRESS,RELEASE,LABEL,NOBG,JUMP,LOGIC,LOGICR,PIN	
	45	4-Byte-Float-Value-Pushbutton	
	IEEE 754	IMG,PRESS,RELEASE,LABEL,NOBG,JUMP,LOGIC,LOGICR,PIN	

2.8.1 4-Byte-Float-Text-Button

ETS Objects		
Range of values	4 Byte	
Input	Feedback	4 Byte
Output	Switching	4 Byte

Format	
W	Determines width of button's surface
B+	Text default for button on incrementing
B-	Text default for button on decrementing
NOBG	No button background
PF	Declaration of the unit
STEPS	Setting step quantity
MIN	Default setting of lower limit
MAX	Default setting of upper limit
REP	Setting repetition rate
RDRQ	Read Request
DC	Number of displayed decimal places
*	Multiplication factor
INT	Shift of number range to integer
UINT	Shift of number range to unsigned integer
PIN	In case "Use PIN" is selected, an individual password can be assigned using PIN
AL	Alarm lower limit ONLY ON ALARM PAGE
AH	Alarm upper limit ONLY ON ALARM PAGE

Simple circuit element to send/receive a 4-byte value.

Use **B-** and **B+** to determine the button's texts.

NOBG eliminates the button's surface and the display is visualized directly on the background.

Using **PF**, a unit of measurement can be adjusted according to the measured value.

DC defines the displayed decimal places.

Use ***** to determine a multiplication factor.

STEPS determines the step quantity for adjusting the value between MIN and MAX.

MIN determines lower limit.

MAX determines upper limit.

When pressing the buttons a little longer, REP sets the interval by which the values are sent. (in milliseconds)

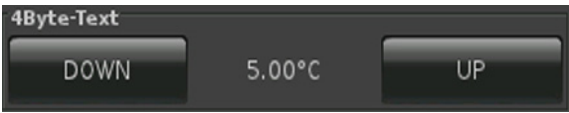
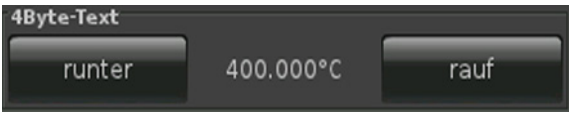
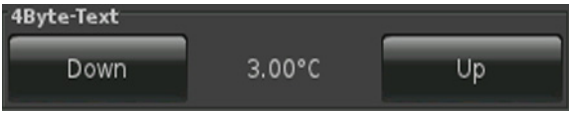
RDRQ sent a read request at start-up for the used widgets. This parameter only works when Communication Address and Receive Flag are set.

Using **INT** the number range can be changed from floating point (float) to integers (integer).

Using **UINT** the number range can be changed from floating point (float) to unsigned integers (unsigned Integer).

If "Use PIN" is selected, the default master password will be used in case **PIN** is not set. Using **PIN**, an individual password can be assigned.

AL/AH can only be used on alarm page. They serve as a limit setting the temporal point from which an alarm is detected.

Examples	Element Name; Format
<p>4Byte-Text</p> 	4Byte-Text; B+=UP; B-=DOWN; PF=°C; DC=2;
<p>4Byte-Text</p> 	4Byte-Text; B+=rauf; B-=runter; PF=°C; DC=3; *=100;
<p>4Byte-Text</p> 	4Byte-Text;

2.8.2 4-Byte-Float-Picture-Button

ETS Objects		
Range of values	4 Byte	
Input	Feedback	4 Byte
Output	Switching	4 Byte

Format	
W	Determines width of button's surface
IMGSET	Choosing set of images
NOBG	No button background
PF	Declaration of the unit
STEPS	Setting step quantity
MIN	Default setting of lower limit
MAX	Default setting of upper limit
REP	Setting repetition rate
RDRQ	Read Request
DC	Number of displayed decimal places
*	Multiplication factor
INT	Shift of number range to integer
UINT	Shift of number range to unsigned integer
PIN	In case "Use PIN" is selected, an individual password can be assigned using PIN
AL	Alarm lower limit ONLY ON ALARM PAGE
AH	Alarm upper limit ONLY ON ALARM PAGE

Simple circuit element to send/receive a 4-byte value.

Use **IMGSET** to chose the set of images you want to use.

NOBG eliminates the button's surface and the display is visualized directly on the background.

Using **PF**, a unit of measurement can be adjusted according to the measured value.

DC defines the displayed decimal places.

Use ***** to determine a multiplication factor.

STEPS determines the step quantity for adjusting the value between MIN and MAX.

MIN determines lower limit.

MAX determines upper limit.

When pressing the buttons a little longer, **REP** sets the interval by which the values are sent. (in milliseconds)

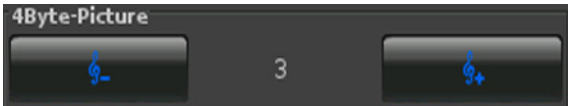
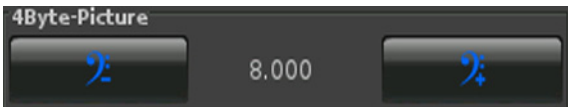
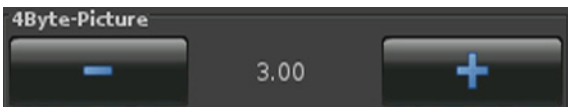
RDRQ sent a read request at start-up for the used widgets. This parameter only works when Communication Address and Receive Flag are set.

Using **INT** the number range can be changed from floating point (float) to integers (integer).

Using **UINT** the number range can be changed from floating point (float) to unsigned integers (unsigned Integer).

If "Use PIN" is selected, the default master password will be used in case **PIN** is not set. Using **PIN**, an individual password can be assigned.

AL/AH can only be used on alarm page. They serve as a limit setting the temporal point from which an alarm is detected.

Examples	Element Name; Format
	4Byte-Picture; IMGSET=treble; DC=0; PF= ;
	4Byte-Picture; IMGSET=bass; DC=3; *=0,01; PF= ;
	4Byte-Picture; PF= ;

2.8.3 4-Byte-Float-Slider

ETS Objects		
Range of values	4 Byte	
Input	Feedback	4 Byte
Output	Switching	4 Byte

Format	
W	Determines width of button's surface
IMGSET	Choosing set of images
NOBG	No button background
PF	Declaration of the unit
STEPS	Setting step quantity
MIN	Default setting of lower limit
MAX	Default setting of upper limit
REP	Setting repetition rate
RDRQ	Read Request
DC	Number of displayed decimal places
*	Multiplication factor
INT	Shift of number range to integer
UINT	Shift of number range to unsigned integer
PIN	In case "Use PIN" is selected, an individual password can be assigned using PIN
AL	Alarm lower limit ONLY ON ALARM PAGE
AH	Alarm upper limit ONLY ON ALARM PAGE

Simple circuit element to send/receive a 4-byte value.

Use **IMGSET** to chose the set of images you want to use.

NOBG eliminates the button's surface and the display is visualized directly on the background.

Using **PF**, a unit of measurement can be adjusted according to the measured value.

DC defines the displayed decimal places.

Use ***** to determine a multiplication factor.

STEPS determines the step quantity for adjusting the value between MIN and MAX.

MIN determines lower limit.

MAX determines upper limit.

When pressing the buttons a little longer, **REP** sets the interval by which the values are sent. (in milliseconds)

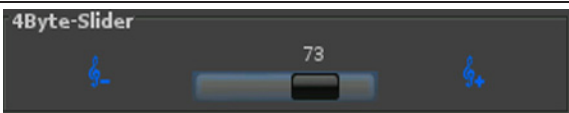
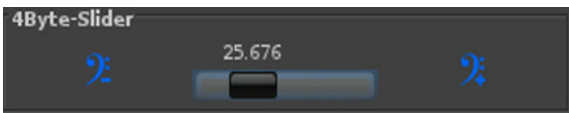
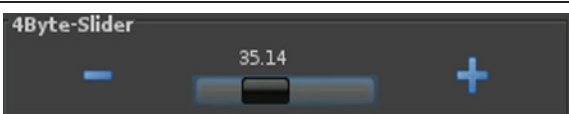
RDRQ sent a read request at start-up for the used widgets. This parameter only works when Communication Address and Receive Flag are set.

Using **INT** the number range can be changed from floating point (float) to integers (integer).

Using **UINT** the number range can be changed from floating point (float) to unsigned integers (unsigned Integer).

If "Use PIN" is selected, the default master password will be used in case **PIN** is not set. Using **PIN**, an individual password can be assigned.

AL/AH can only be used on alarm page. They serve as a limit setting the temporal point from which an alarm is detected.

Examples	Element Name; Format
	4Byte-Slider; IMGSET=treble; DC=0; PF= ;
	4Byte-Slider; IMGSET=bass; DC=3; *=0,01; PF= ;
	4Byte-Slider; PF= ;

2.8.4 4-Byte-Value-Pushbutton

ETS Objects		
Range of values	4 Byte	
Input	-	-
Output	Value	4 Byte
	Value B	4 Byte

Format	
IMG	Choosing an image
PRESS	Value that will be sent when pressing button
RELEASE	Value that will be sent when releasing button
LABEL	Text default for button
NOBG	No button background
JUMP	Command to jump to any side
LOGIC	Function call or direct incorporation of a logical function
LOGICR	Function call or direct incorporation of a logical function
PIN	In case "Use PIN" is selected, an individual password can be assigned using PIN

Simple button element to send a 4-byte value.

Using **LABEL**, you can define the text, or else an image using **IMG**, on the button.

PRESS determines the value that will be sent when pressing the button.

RELEASE determines the value that will be sent when releasing the button.

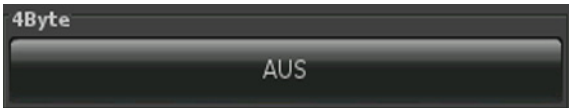
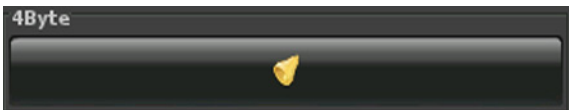
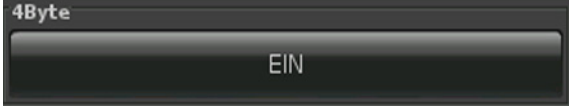
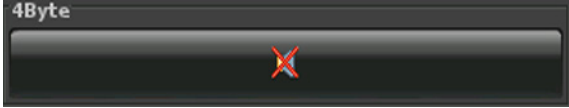
NOBG eliminates the button's surface and the display is visualized directly on the background.

Using **LOGIC**, LUA functions can be activated or manually incorporated in a LUA syntax-based logical function which is triggered when pressing the button.

Using **LOGICR**, LUA functions can be activated or manually incorporated in a LUA syntax-based logical function which is triggered when releasing the button.

If "Use PIN" is selected, the default master password will be used in case **PIN** is not set. Using **PIN**, an individual password can be assigned.



Examples	Element Name; Format
<p>4Byte</p> 	<p>4Byte; PRESS=6500; LABEL=AUS;</p>
<p>4Byte</p> 	<p>4Byte; PRESS=10050; IMG=bell_b_on;</p>
<p>4Byte</p> 	<p>4Byte; RELEASE=1; LABEL=EIN;</p>
<p>4Byte</p> 	<p>4Byte; RELEASE=0; IMG=sound_b_off;</p>

2.8.5 4-Byte-Float-Value-Pushbutton

ETS Objects		
Range of values	4 Byte Float	
Input	-	-
Output	Value	4 Byte
	Value B	4 Byte

Format	
IMG	Choosing an image
PRESS	Value that will be sent when pressing button
RELEASE	Value that will be sent when releasing button
LABEL	Text default for button
NOBG	No button background
JUMP	Command to jump to any side
LOGIC	Function call or direct incorporation of a logical function
LOGICR	Function call or direct incorporation of a logical function
PIN	In case "Use PIN" is selected, an individual password can be assigned using PIN

Simple button element to send a 4-byte float value.

Using **LABEL**, you can define the text, or else an image using **IMG**, on the button.

PRESS determines the value that will be sent when pressing the button.

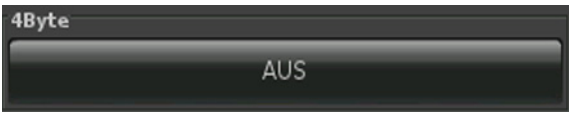
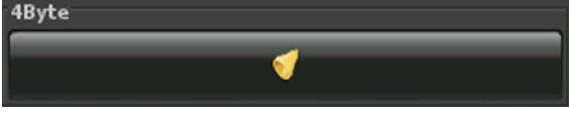
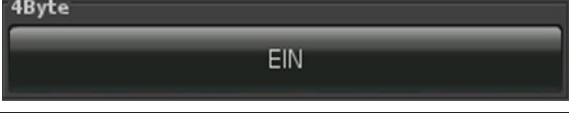

RELEASE determines the value that will be sent when releasing the button.

NOBG eliminates the button's surface and the display is visualized directly on the background.

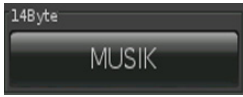



Using **LOGIC**, LUA functions can be activated or manually incorporated in a LUA syntax-based logical function which is triggered when pressing the button.

Using **LOGICR**, LUA functions can be activated or manually incorporated in a LUA syntax-based logical function which is triggered when releasing the button.

If "Use PIN" is selected, the default master password will be used in case **PIN** is not set. Using **PIN**, an individual password can be assigned.

Examples	Element Name; Format
	4Byte; PRESS=32,5; LABEL=AUS;
	4Byte; PRESS=-12,25; IMG=bell_b_on;
	4Byte; RELEASE=0,01; LABEL=EIN;
	4Byte; RELEASE=0; IMG=sound_b_off;

2.9 Overview 14-Byte Elements

Image	Element Number	Element Type	Details Page
	Range of Values	Format	
	46	14-Byte-String-Pushbutton	
	14 Byte	MG,PRESS,RELEASE,LABEL,NOBG,JUMP, LOGIC,LOGICR,PIN	
	52	14-Byte-String	
	14 Byte	NOBG,TEXT,RDRQ	



2.9.1 14-Byte-String-Pushbutton

ETS Objects		
Range of values	-	
Input	-	-
Output	Value	14 Byte

Format	
IMG	Choosing an image
PRESS	Value that will be sent when pressing button
RELEASE	Value that will be sent when releasing button
LABEL	Text default for button
NOBG	No button background
JUMP	Command to jump a user-defined page
LOGIC	Function call or direct incorporation of a logical function
LOGICR	Function call or direct incorporation of a logical function
PIN	In case "Use PIN" is selected, an individual password can be assigned using PIN

Simple button element to send a 14-byte string.

Using **LABEL**, you can define the text, or else an image using **IMG**, on the button.

PRESS determines the value that will be sent when pressing the button.

RELEASE determines the value that will be sent when releasing the button.


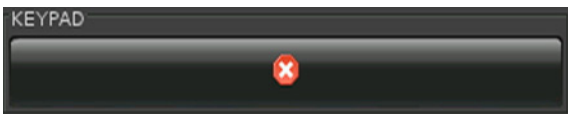

NOBG eliminates the button's surface and the display is visualized directly on the background.

Using **LOGIC**, LUA functions can be activated or manually incorporated in a LUA syntax-based logical function which is triggered when pressing the button.

Using **LOGICR**, LUA functions can be activated or manually incorporated in a LUA syntax-based logical function which is triggered when releasing the button.

If "Use PIN" is selected, the default master password will be used in case **PIN** is not set. Using **PIN**, an individual password can be assigned.



Examples	Element Name; Format
	14Byte; PRESS=PLAY; LABEL=MUSIK;
	KEYPAD; PRESS=KEYPAD; IMG=acc_cancel_b_on; KEYPAD; RELEASE=KEYPAD; IMG=acc_cancel_b_on;
	Pressing the button will open a dialog box in which an alpha numeric input will be effected, according to which the ETS object is then controlled.

2.9.2 14-Byte-String

ETS Objects		
Range of values	-	
Input	Value	14 Byte
Output	-	-



Format	
TEXT	Text default
NOBG	No button background
RDRQ	Read Request

Simple text element to receive a 14-byte string.

Using **TEXT** a text default can be effected which will be set upon the display element as a default value after every reset.





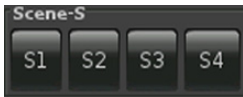



NOBG eliminates the button's surface and the display is visualized directly on the background.

RDRQ sent a read request at start-up for the used widgets. This parameter only works when Communication Address and Receive Flag are set.

Examples	Element Name; Format
<p>14Byte</p> 	<p>14Byte; TEXT=Hallo Welt;</p>
<p>14Byte</p> 	<p>14Byte; TEXT=UG;</p>



2.10 Overview Scene Elements

Image	Element Number	Element Type	Details Page
	Range of Values	Format	
	55	Scene-Control-Recall-Save	
	0 .. 63	TO,N,IMAGES,LABELS,SCENES,MOD,NOBG,PIN,PPIN	
	56	Scene-Control-Recall-Only	
	0 .. 63	TO,N,IMAGES,LABELS,SCENES,MOD,NOBG,PIN	
	57	Scene-Control-Save-Only	
	0 .. 63	TO,N,IMAGES,LABELS,SCENES,MOD,NOBG,PIN	
	58	Internal-Scene	
		SELECT,NOBG,ONSTART,SCGRP,TRIGINV,IMG,PLAYONLY,PLAYSTOP	

Until the introduction of the software version v2.18 for Touch_IT were the following element-type formats.

Element No. 55

TO,N,MOD,Nx,Sx (x = 1..4),NOBG,PIN,PPIN

Element No. 56

N,MOD,Nx,Sx (x = 1..4),NOBG,PIN

Element No. 57

N,MOD,Nx,Sx (x = 1..4),NOBG,PIN

2.10.1 Scene-Control-Recall-Save

ETS Objects		
Range of values		
Output	Scene Control 1	1 Byte
	Scene Control 2	1 Byte
	Scene Control 3	1 Byte
	Scene Control 4	1 Byte

Format		
TO	Time allowance in ms for input analysis	
N	Number of buttons displayed	
IMAGES	Imaging of the buttons	
LABELS	Labelling of buttons	
SCENES	Determination of locations in use	
MOD	Setting output parameters	
	SINGLE	Saving and activation via SC1
	DUAL	Saving control via SC2 and retrieving control via SC1
	DIFF	SC1..SC4 are working independently
NOBG	No button background	
PIN	In case "Use PIN" is selected, an individual password can be assigned using PIN	
PPIN	In case "Use PIN" is selected, an individual password for the secondary function can be assigned using PPIN	

Complex element to activate and save up to 4 external scene stores (corresponding with DPT 18.001).

Use **TO** to determine the time (in milliseconds) from which the manual input will be taken as LONG.

IMAGES, determines the imaging for each button. (only .png)

LABELS, determines the text for each button.

SCENES, define the scene memory to be used for each button.

Using **MOD**, the output control can be adjusted.

SINGLE:
Displayed buttons communicate via Scene Control 1. SC2-SC4 have no functions.

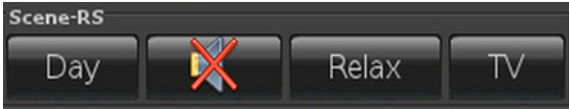
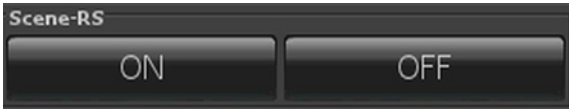
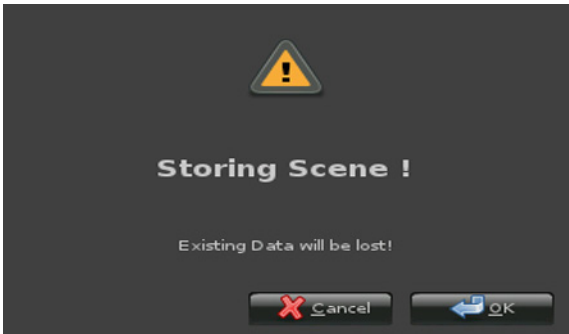
DIFF:
Displayed buttons communicate via the corresponding Scene Control objects.

DUAL:
Displayed buttons communicate via SC1 and SC2. Use SC1 to retrieve and SC2 to save scenes. SC3-SC4 have no functions.

NOBG eliminates the button's surface and the display is visualized directly on the background.

If "Use PIN" is selected, the default master password will be used in case **PIN** is not set. Using **PIN**, an individual password can be assigned.

In case "Use PIN" is selected, an individual password can be assigned using **PPIN**, which protects the secondary functions of this object.

Examples	Element Name; Format
	Scene-RS; TO=1000;IMAGES=,sound_l_off; LABELS=Day,Night,Relax,TV;SCENES=4,8,16,32; *** IMAGES overwrite LABELS ***
	Scene-RS; TO=1000;N=2;LABELS=ON,OFF;SCENES=25,50;
	After TO has elapsed, a memory dialog will open. With the confirmation and depending on the MOD position the ETS objects are set.

2.10.2 Scene-Control-Recall-Only

ETS Objects		
Range of values		
Output	Scene Control 1	1 Byte
	Scene Control 2	1 Byte
	Scene Control 3	1 Byte
	Scene Control 4	1 Byte

Format	
TO	Time allowance in ms for input analysis
N	Number of buttons displayed
IMAGES	Imaging of the buttons
LABELS	Labelling of buttons
SCENES	Determination of locations in use
MOD	Setting output parameters
	SINGLE Activation via SC1
	DIFF SC1..SC4 are working independently
NOBG	No button background
PIN	In case "Use PIN" is selected, an individual password can be assigned using PIN

Simple element to activate up to 4 external scene stores (corresponding with DPT 18.001).

Use **TO** to determine the time (in milliseconds) from which the manual input will be taken as LONG.

IMAGES, determines the imaging for each button. (only .png)

LABELS, determines the text for each button.

SCENES, define the scene memory to be used for each button.

Using **MOD**, the output control can be adjusted.

SINGLE:
Displayed buttons communicate via Scene Control 1. SC2-SC4 have no functions.

DIFF:
Displayed buttons communicate via the corresponding Scene Control objects.

NOBG eliminates the button's surface and the display is visualized directly on the background.

If "Use PIN" is selected, the default master password will be used in case **PIN** is not set. Using **PIN**, an individual password can be assigned.

Examples	Element Name; Format
	Scene-R; TO=1000;MOD=DIFF;IMAGES=,sound_l_off; LABELS=Day,Night,Relax,TV;SCENES=4,8,16,32; +++ IMAGES overwrite LABELS +++
	Scene-R; TO=1000;N=3;IMAGES=,sound_l_off; LABELS=Day,Night,Relax;SCENES=4,8,16; +++ IMAGES overwrite LABELS +++
	Scene-R; N=4;LABELS=Day,Night,Relax,TV;SCENES=1,2,3,4;NOBG;

2.10.3 Scene-Control-Save-Only

ETS Objects		
Range of values		
Output	Scene Control 1	1 Byte
	Scene Control 2	1 Byte
	Scene Control 3	1 Byte
	Scene Control 4	1 Byte

Format		
TO	Time allowance in ms for input analysis	
N	Number of buttons displayed	
IMAGES	Imaging of the buttons	
LABELS	Labelling of buttons	
SCENES	Determination of locations in use	
MOD	Setting output parameters	
	SINGLE	Saving via SC1
	DIFF	SC1..SC4 are working independently
NOBG	No button background	
PIN	In case "Use PIN" is selected, an individual password can be assigned using PIN	

Simple element to save up to 4 external scene stores (corresponding with DPT 18.001).

Use **TO** to determine the time (in milliseconds) from which the manual input will be taken as LONG.

IMAGES, determines the imaging for each button. (only .png)

LABELS, determines the text for each button.

SCENES, define the scene memory to be used for each button.

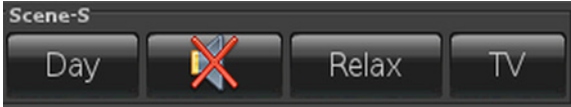
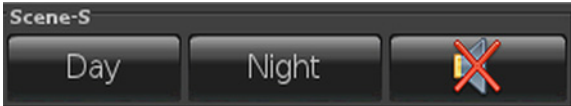
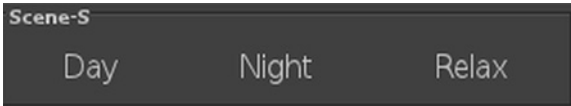
Using **MOD**, the output control can be adjusted.

SINGLE:
Displayed buttons communicate via Scene Control 1. SC2-SC4 have no functions.

DIFF:
Displayed buttons communicate via the corresponding Scene Control objects.

NOBG eliminates the button's surface and the display is visualized directly on the background.

If "Use PIN" is selected, the default master password will be used in case **PIN** is not set. Using **PIN**, an individual password can be assigned.

Examples	Element Name; Format
	Scene-S; TO=1000;MOD=DIFF;IMAGES=,sound_I_off; LABELS=Day,Night,Relax,TV;SCENES=4,8,16,32; *** IMAGES overwrite LABELS ***
	Scene-S; N=3;IMAGES=,sound_I_off;LABELS=Day,Night,Relax; SCENES=4,8,16; *** IMAGES overwrite LABELS ***
	Scene-S; N=3;LABELS=Day,Night,Relax;SCENES=4,8,16;NOBG;

2.10.4 Internal-Scene

ETS Objects		
Range of values		
Input/Output	Internal Scenes Enable	1 Bit
Input	Internal Scenes Trigger	1 Bit

Format	
SELECT	
NOBG	No button background
ONSTART	response to Power On
SCGRP	group of scenes
TRGINV	Inverts the trigger function
IMG	picture to the left edge
PLAYONLY	play only operate
PLAYSTOP	without Pause button

Internal scenes can consist of up to 32 actions, each with a delay to the previous. Each action is either a value-write to an object or a loop statement to start the sequence again.

SELECT limits the internal used object by their object number.

NOBG eliminates the button's surface and the display is visualized directly on the background.

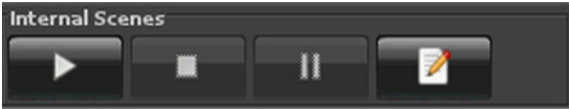

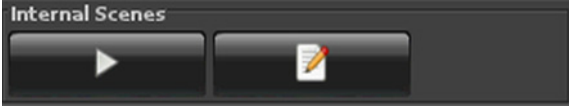

With **ONSTART**, an automatic start at Power or when the power returns are initiated.


SCGRP=a : a = 1 .. 16 defines a group of scenes. If one of the scenes in this group is enabled all other scenes are stopped.

IMG : image to set in front of the start-button. The file types PNG, JPG and BMP are allowed. The file type is specified with. Example: sound_l_on.png

PLAYONLY, only the play button is displayed. Stopped only by the bus with trigger or enable.

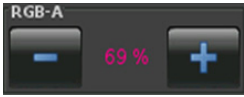

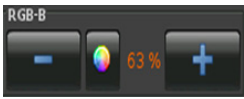

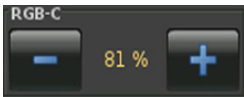

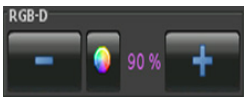

PLAYSTOP, the play and stop button will be displayed. The pause button is hidden.

Examples	Element Name; Format
	Internal Scenes;
	Internal Scenes; PLAYSTOP;
	Internal Scenes; PLAYONLY;
	After pressing of setting, the dialog for the list of actions is open (max. 32). With "+" a free action above the selected action will be inserted.

Examples	Element Name; Format
	<p>After pressing Action 2 it opens the dialog for the parameterizing.</p> <p>For convenience you can set an internal name for each used object in its parameterizing. Example: ;INAME=Temperatur;B-=Down;B+=Up;PF= °C;DC=2;</p>



2.11 Overview RGB Elements

Image	Element Number	Element Type	Details Page
	Range of Values	Format	
	76	RGB-Dimmer-A	
	4x (0 .. 255)	W,STEPS,IMGSET,B-,B+,NOBG,RGBH,RGBW,RDRQ,PIN	
	77	RGB-Dimmer-B	
	4x (0 .. 255)	W,STEPS,IMGSET,B-,B+,NOBG,RGBH,RGBW,RDRQ,PIN	
	78	RGB-Dimmer-C	
	4x (0 .. 255)	W,STEPS,IMGSET,B-,B+,NOBG,RGBH,RGBW,RDRQ,PIN	
	79	RGB-Dimmer-D	
	4x (0 .. 255)	W,STEPS,IMGSET,B-,B+,NOBG,RGBH,RGBW,RDRQ,PIN	

2.11.1 RGB-Dimmer-A

ETS Objects		
Range of values	-	
Input	-	-
Input/Output	Red	1 Byte
	Green	1 Byte
	Blue	1 Byte
	White	1 Byte

Format	
W	Determines width of display's surface
STEPS	Setting step width
IMGSET	Choosing set of images
B-	Text default for button on incrementing
B+	Text default for button on decrementing
NOBG	No button background
RGBH	RGB + brightness
RGBW	RGB + white
RDRQ	Read Request
PIN	In case "Use PIN" is selected, an individual password can be assigned using PIN

RGB element to send/receive a 3x (or 4x) 1-byte value.

Button feature:
 short activation = switching ON/OFF
 long activation = Dimming +/-

Set the displayed texts on the buttons using **B-** and **B+**.

Use **IMGSET** to choose the set of images you want to use.

NOBG eliminates the button's surface and the display is visualized directly on the background.

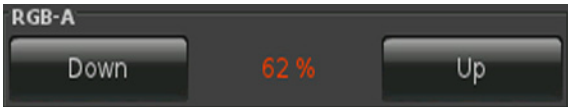
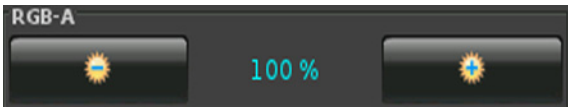
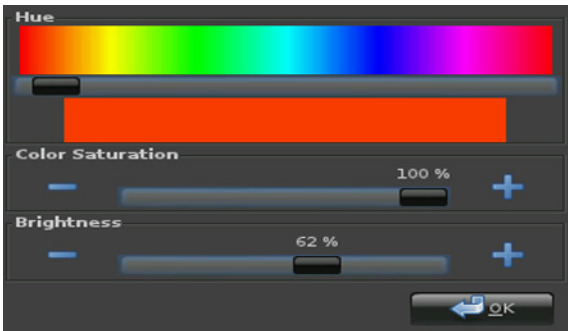
STEPS determines the step width which is required to get from the minimum to the maximum (0 .. 100%).

Using parameter **RGBH** channel 4 (White) transmits the brightness value and channels 1-3 determine the colour. (only for RGB illuminants that support this feature)

Parameter setting **RGBW** provides a 4 channel (White). Using this channel an additional white LED can be gated.

RDRQ sent a read request at start-up for the used widgets. This parameter only works when Communication Address and Receive Flag are set.

If "Use PIN" is selected, the default master password will be used in case **PIN** is not set. Using **PIN**, an individual password can be assigned.

Examples	Element Name; Format
	RGB-A; B-=Down; B+=Up; STEPS=10; RGBH;
	RGB-A; IMGSET=light; RGBW;
	Pressing the per cent button will open a dialog box where colour defaults can be set, according to which the ETS objects adjust themselves.

2.11.2 RGB-Dimmer-B

ETS Objects		
Range of values	-	
Input	-	-
Input/Output	Red	1 Byte
	Green	1 Byte
	Blue	1 Byte
	White	1 Byte

Format	
W	Determines width of display's surface
STEPS	Setting step width
IMGSET	Choosing set of images
B-	Text default for button on incrementing
B+	Text default for button on decrementing
NOBG	No button background
RGBH	RGB + brightness
RGBW	RGB + white
RDRQ	Read Request
PIN	In case "Use PIN" is selected, an individual password can be assigned using PIN

RGB element to send/receive a 3x (or 4x) 1-byte value.

Button feature:
 short activation = switching ON/OFF
 long activation = Dimming +/-

Set the displayed texts on the buttons using **B-** and **B+**.

Use **IMGSET** to choose the set of images you want to use.

NOBG eliminates the button's surface and the display is visualized directly on the background.

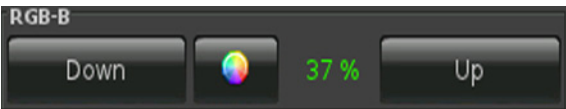
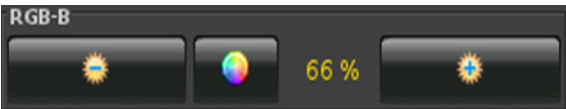
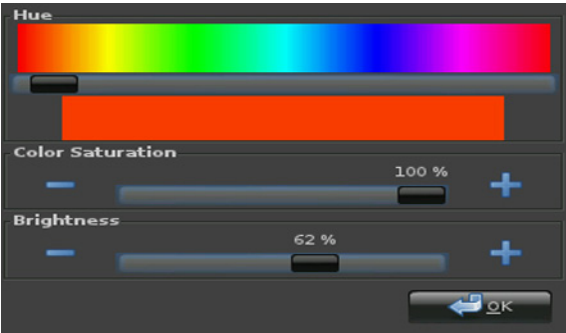
STEPS determines the step width which is required to get from the minimum to the maximum (0 .. 100%).

Using parameter **RGBH** channel 4 (White) transmits the brightness value and channels 1-3 determine the colour. (only for RGB illuminants that support this feature)

Parameter setting **RGBW** provides a 4 channel (White). Using this channel an additional white LED can be gated.

RDRQ sent a read request at start-up for the used widgets. This parameter only works when Communication Address and Receive Flag are set.

If "Use PIN" is selected, the default master password will be used in case **PIN** is not set. Using **PIN**, an individual password can be assigned.

Examples	Element Name; Format
	RGB-B; B-=Down; B+=Up; STEPS=10; RGBH;
	RGB-B; IMGSET=light; RGBW;
	Pressing the per cent button will open a dialog box where colour defaults can be set, according to which the ETS objects adjust themselves.

2.11.3 RGB-Dimmer-C

ETS Objects		
Range of values	-	
Input	-	
Input/Output	Red	1 Byte
	Green	1 Byte
	Blue	1 Byte
	White	1 Byte

Format	
W	Determines width of display's surface
STEPS	Setting step width
IMGSET	Choosing set of images
B-	Text default for button on incrementing
B+	Text default for button on decrementing
NOBG	No button background
RGBH	RGB + brightness
RGBW	RGB + white
RDRQ	Read Request
PIN	In case "Use PIN" is selected, an individual password can be assigned using PIN

RGB element to send/receive a 3x (or 4x) 1-byte value.

Button feature:
 short activation = in-/decrement +/-
 long activation = dimming +/-

Set the displayed texts on the buttons using **B-** and **B+**.

Use **IMGSET** to choose the set of images you want to use.

NOBG eliminates the button's surface and the display is visualized directly on the background.

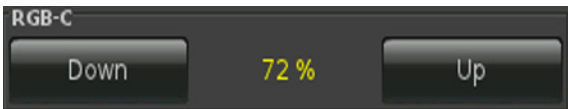
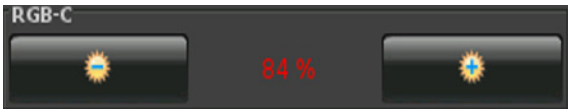
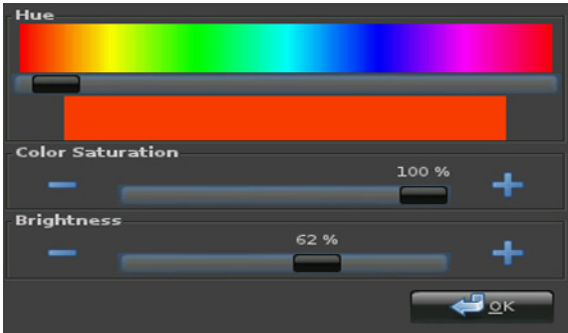
STEPS determines the step width which is required to get from the minimum to the maximum (0 .. 100%).

Using parameter **RGBH**, channel 4 (White) transmits the brightness value, and channels 1-3 determine the colour. (only for RGB illuminants that support this feature)

Parameter setting **RGBW** provides a 4th channel (White). Using this channel, an additional white LED can be gated.

RDRQ sent a read request at start-up for the used widgets. This parameter only works when Communication Address and Receive Flag are set.

If "Use PIN" is selected, the default master password will be used in case **PIN** is not set. Using **PIN**, an individual password can be assigned.

Examples	Element Name; Format
	RGB-C; B-=Down; B+=Up; STEPS=10; RGBH;
	RGB-C; IMGSET=light; RGBW;
	Pressing the per cent button will open a dialog box where colour defaults can be set, according to which the ETS objects adjust themselves.

2.11.4 RGB-Dimmer-D

ETS Objects		
Range of values	-	
Input	-	-
Input/Output	Red	1 Byte
	Green	1 Byte
	Blue	1 Byte
	White	1 Byte

Format	
W	Determines width of display's surface
STEPS	Setting step width
IMGSET	Choosing set of images
B-	Text default for button on incrementing
B+	Text default for button on decrementing
NOBG	No button background
RGBH	RGB + brightness
RGBW	RGB + white
RDRQ	Read Request
PIN	In case "Use PIN" is selected, an individual password can be assigned using PIN

RGB element to send/receive a 3x (or 4x) 1-byte value.

Button feature:
 short activation = in-/decrement +/-
 long activation = dimming +/-

Set the displayed texts on the buttons using **B-** and **B+**.

Use **IMGSET** to choose the set of images you want to use.

NOBG eliminates the button's surface and the display is visualized directly on the background.

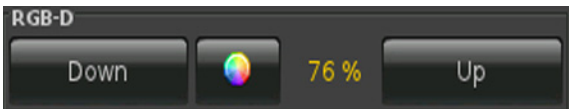
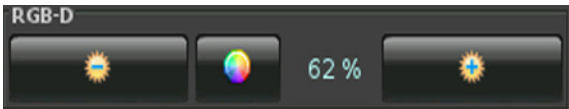
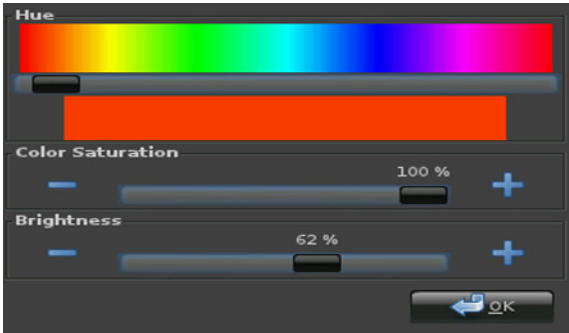
STEPS determines the step width which is required to get from the minimum to the maximum (0 .. 100%).

Using parameter **RGBH**, channel 4 (White) transmits the brightness value and channels 1-3 determine the colour. (only for RGB illuminants that support this feature)



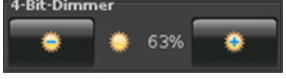

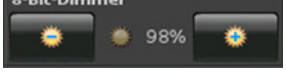

Parameter setting **RGBW** provides a 4th channel (White). Using this channel, an additional white LED can be gated.

RDRQ sent a read request at start-up for the used widgets. This parameter only works when Communication Address and Receive Flag are set.

If "Use PIN" is selected, the default master password will be used in case **PIN** is not set. Using **PIN**, an individual password can be assigned.

Examples	Element Name; Format
	RGB-D; B-=Down; B+=Up; STEPS=10; RGBH;
	RGB-D; IMGSET=light; RGBW;
	Pressing the per cent button will open a dialog box where colour defaults can be set, according to which the ETS objects adjust.

2.12 Overview Dimmer Elements

Image	Element Number	Element Type	Details Page
	Range of Values	Format	
	70	4-Bit-Dimmer-Start-Stop	
	0 .. 15	W,B-,B+,STEP,REP,TO,IMGSET,NOBG,RDRQ,PIN	
	71	4-Bit-Dimmer-Repeat	
	0 .. 15	W,B-,B+,STEP,REP,TO,IMGSET,NOBG,RDRQ,PIN	
	72	8-Bit-Dimmer-Repeat	
	0 .. 255	W,B-,B+,STEP,REP,TO,IMGSET,NOBG,RDRQ,PIN	

2.12.1 4-Bit-Dimmer-Start-Stop

ETS Objects		
Range of values	-	
Input	ON/OFF feedback	1 Bit
	Value Feedback	1 Byte
Output	ON/OFF	1 Bit
	Dimming	4 Bit

Format	
W	Determines width of display's surface
TO	Time allowance in ms for input analysis
REP	Setting repetition rate
STEP	Dimming step
IMGSET	Choosing set of images
B-	Text default for button on incrementing
B+	Text default for button on decrementing
NOBG	No button background
RDRQ	Read Request
PIN	In case "Use PIN" is selected, an individual password can be assigned using PIN

Simple 4-bit dimmer element to send/receive values.

Button feature:
 short activation = switching ON/OFF
 long activation = dimming
 (After passing of **TO** time a dimming command will be sent when releasing a stop command.)

Using **TO**, it is possible to determine from what point onwards (in milliseconds) the manual input is interpreted as holding the button down.

Set the displayed texts on the buttons using **B-** and **B+**.

Use **IMGSET** to choose the set of images you want to use.

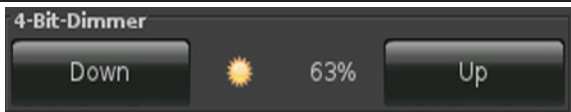
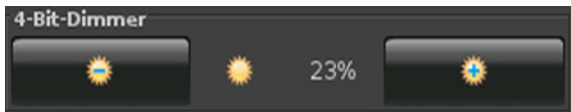
NOBG eliminates the button's surface and the display is visualized directly on the background.

STEP is the number of steps between 0 and 100%.
 (see table below)

When pressing the buttons a little longer, **REP** sets the interval by which the values are sent. (in milliseconds)

RDRQ sent a read request at start-up for the used widgets. This parameter only works when Communication Address and Receive Flag are set.

If "Use PIN" is selected, the default master password will be used in case **PIN** is not set. Using **PIN**, an individual password can be assigned.

Examples	Element Name; Format
	4-Bit-Dimmer; B-=Down; B+=Up; STEP=10; REP=1000;
	4-Bit-Dimmer;

dimming step	in %
1	100%
2	50%
4	25%
8	12%
16	6%
32	3%
64	1%



2.12.1 4-Bit-Dimmer-Repeat

ETS Objects		
Range of values	-	
Input	ON/OFF feedback	1 Bit
	Value Feedback	1 Byte
Output	ON/OFF	1 Bit
	Dimming	4 Bit

Format	
W	Determines width of display's surface
TO	Time allowance in ms for input analysis
REP	Setting repetition rate
STEP	Dimming step
IMGSET	Choosing set of images
B-	Text default for button on incrementing
B+	Text default for button on decrementing
NOBG	No button background
RDRQ	Read Request
PIN	In case "Use PIN" is selected, an individual password can be assigned using PIN

Simple 4-bit dimmer element to send/receive values.

Button feature:

- short activation = switching ON/OFF
- long activation = dimming
- (After passing of **TO** time a dimming command will be repeated, when releasing a stop command.)

Using **TO**, it is possible to determine from what point onwards (in milliseconds) the manual input is interpreted as holding the button down.

Set the displayed texts on the buttons using **B-** and **B+**.

Use **IMGSET** to choose the set of images you want to use.

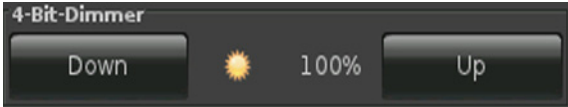
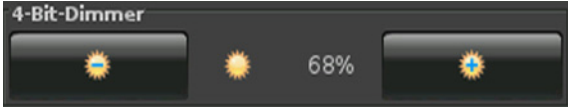
NOBG eliminates the button's surface and the display is visualized directly on the background.

STEP is the number of steps between 0 and 100%. (see table below)

When pressing the buttons a little longer, **REP** sets the interval by which the values are sent. (in milliseconds)

RDRQ sent a read request at start-up for the used widgets. This parameter only works when Communication Address and Receive Flag are set.

If "Use PIN" is selected, the default master password will be used in case **PIN** is not set. Using **PIN**, an individual password can be assigned.

Examples	Element Name; Format
	4-Bit-Dimmer; B-=Down; B+=Up; STEP=1; REP=1000;
	4-Bit-Dimmer;

dimming step	in %
1	100%
2	50%
4	25%
8	12%
16	6%
32	3%
64	1%

2.12.1 8-Bit-Dimmer-Repeat

ETS Objects		
Range of values	-	
Input	ON/OFF feedback	1 Bit
	Value Feedback	1 Byte
Output	ON/OFF	1 Bit
	Dimming	1 Byte

Format	
W	Determines width of display's surface
TO	Time allowance in ms for input analysis
REP	Setting repetition rate
STEP	Dimming step
IMGSET	Choosing set of images
B-	Text default for button on incrementing
B+	Text default for button on decrementing
NOBG	No button background
RDRQ	Read Request
PIN	In case "Use PIN" is selected, an individual password can be assigned using PIN

Simple 8-bit dimmer element to send/receive values.

Button feature:
 short activation = switching ON/OFF
 long activation = dimming
 (After passing of **TO** time a dimming command will be repeated, when releasing a stop command.)

Using **TO**, it is possible to determine from what point onwards (in milliseconds) the manual input is interpreted as holding the button down.

Set the displayed texts on the buttons using **B-** and **B+**.

Use **IMGSET** to choose the set of images you want to use.

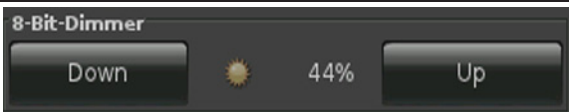
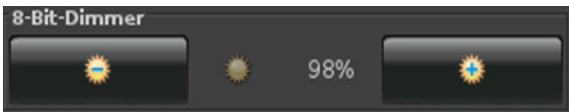
NOBG eliminates the button's surface and the display is visualized directly on the background.

STEP is the number of steps between 0 and 100%.
 (see table below)

When pressing the buttons a little longer, **REP** sets the interval by which the values are sent. (in milliseconds)

RDRQ sent a read request at start-up for the used widgets. This parameter only works when Communication Address and Receive Flag are set.

If "Use PIN" is selected, the default master password will be used in case **PIN** is not set. Using **PIN**, an individual password can be assigned.

Examples	Element Name; Format
	8-Bit-Dimmer; B-=Down; B+=Up; STEP=8; REP=1000;
	8-Bit-Dimmer;

dimming step	in %
1	100%
2	50%
4	25%
8	12%
16	6%
32	3%
64	1%



2.13 Overview Shutter-Blinds Elements

Image	Element Number	Element Type	Details Page
	Range of Values	Format	
	73	Shutter-Blinds-Control-A	
	0/1	W,B-,B+,REP,TO,IMGSET,NOBG,RDRQ,PIN	
	74	Shutter-Blinds-Control-B	
	0/1	W,B-,B+,REP,TO,IMGSET,NOBG,RDRQ,PIN	
	75	Shutter-Blinds-Control-C	
	0/1	W,B-,B+,REP,TO,IMGSET,NOBG,RDRQ,PIN	



2.13.1 Shutter-Blinds-Control-A

ETS Objects		
Range of values	-	
Input	Position Feedback	1 Byte
Output	LONG	1 Bit
	SHORT	1 Bit

Format	
W	Determines width of display's surface
TO	Time allowance in ms for input analysis
REP	Setting repetition rate
IMGSET	Choosing set of images
B-	Text default for button on incrementing
B+	Text default for button on decrementing
NOBG	No button background
RDRQ	Read Request
PIN	In case "Use PIN" is selected, an individual password can be assigned using PIN

Simple 4-bit dimmer element to send/receive values.

Button feature:

When pressed, a SHORT telegram will be sent (slat position / stop).

In case TO has passed, a LONG telegram (MOVE) will be sent and the shutter moves towards its end position, as long as the movement is not stopped by a new STOP command.

Using **TO**, it is possible to determine from what point onwards (in milliseconds) the manual input is interpreted as holding the button down.

Set the displayed texts on the buttons using **B-** and **B+**.

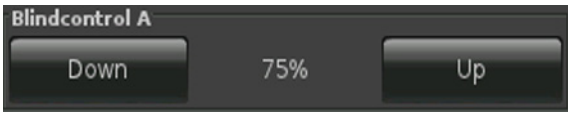
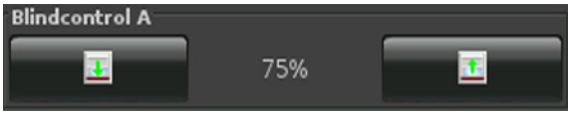
Use **IMGSET** to choose the set of images you want to use.

NOBG eliminates the button's surface and the display is visualized directly on the background.

When holding the buttons down, **REP** sets the interval by which the values are sent. (in milliseconds)

RDRQ sent a read request at start-up for the used widgets. This parameter only works when Communication Address and Receive Flag are set.

If "Use PIN" is selected, the default master password will be used in case **PIN** is not set. Using **PIN**, an individual password can be assigned.

Examples	Element Name; Format
	Blindcontrol A; B-=Down; B+=Up; STEP=10; REP=1000;
	Blindcontrol A;

2.13.2 Shutter-Blinds-Control-B

ETS Objects		
Range of values	-	
Input	Position Feedback	1 Byte
Output	LONG	1 Bit
	SHORT	1 Bit

Format	
W	Determines width of display's surface
TO	Time allowance in ms for input analysis
REP	Setting repetition rate
IMGSET	Choosing set of images
B-	Text default for button on incrementing
B+	Text default for button on decrementing
NOBG	No button background
RDRQ	Read Request
PIN	In case "Use PIN" is selected, an individual password can be assigned using PIN

Simple 4-bit dimmer element to send/receive values.

Button feature:
 When pressed, a SHORT telegram will be sent (slat position / stop).
 In case TO has passed, a LONG telegram (MOVE) will be sent and the shutter moves towards its end position, as long as the movement is not stopped by a new STOP command.

Using **TO**, it is possible to determine from what point onwards (in milliseconds) the manual input is interpreted as holding the button down.

Set the displayed texts on the buttons using **B-** and **B+**.

Use **IMGSET** to choose the set of images you want to use.

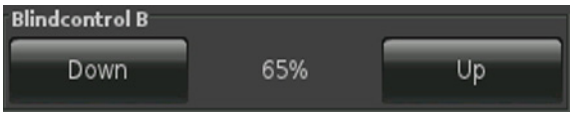
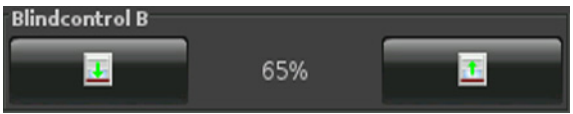
NOBG eliminates the button's surface and the display is visualized directly on the background.

STEP determines the step size for adjusting the value between 0 and 100%.

When holding the buttons down, **REP** sets the interval by which the values are sent. (in milliseconds)

RDRQ sent a read request at start-up for the used widgets. This parameter only works when Communication Address and Receive Flag are set.

If "Use PIN" is selected, the default master password will be used in case **PIN** is not set. Using **PIN**, an individual password can be assigned.

Examples	Element Name; Format
	Blindcontrol B; B-=Down; B+=Up; STEP=10; REP=1000;
	Blindcontrol B;

2.13.3 Shutter-Blinds-Control-C

ETS Objects		
Range of values	-	
Input	Position Feedback	1 Byte
Output	LONG	1 Bit
	SHORT	1 Bit

Format	
W	Determines width of display's surface
TO	Time allowance in ms for input analysis
REP	Setting repetition rate
IMGSET	Choosing set of images
B-	Text default for button on incrementing
B+	Text default for button on decrementing
NOBG	No button background
RDRQ	Read Request
PIN	In case "Use PIN" is selected, an individual password can be assigned using PIN

Simple 8-bit dimmer element to send/receive values.

Button feature:
 When pressing the button, a LONG telegram will be sent (MOVE). In case button is released during TO, a SHORT telegram (STOP) will be sent.
 (For alteration of slat position)
 in case TO has passed, the shutter moves towards its end position and no SHORT telegram (STOP) will be sent.

Using **TO**, it is possible to determine from what point onwards (in milliseconds) the manual input is interpreted as holding the button down.

Set the displayed texts on the buttons using **B-** and **B+**.

Use **IMGSET** to choose the set of images you want to use.

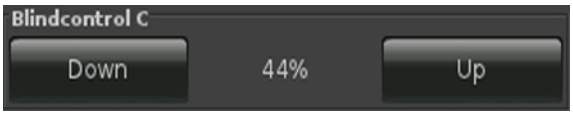
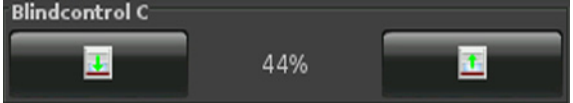
NOBG eliminates the button's surface and the display is visualized directly on the background.

STEP determines the step size for adjusting the value between 0 and 100%.



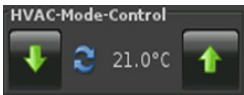

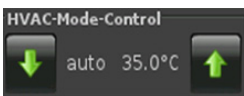





When holding the buttons down, **REP** sets the interval by which the values are sent. (in milliseconds)

RDRQ sent a read request at start-up for the used widgets. This parameter only works when Communication Address and Receive Flag are set.

If "Use PIN" is selected, the default master password will be used in case **PIN** is not set. Using **PIN**, an individual password can be assigned.

Examples	Element Name; Format
	Blindcontrol C; B-=Down; B+=Up; STEP=10; REP=1000;
	Blindcontrol C;

2.14 Overview HVAC Elements

Image	Element Number	Element Type	Details Page
	Range of Values	Format	
	80	HVAC Setpoint-Control	
	-671088.64 .. 670760,96	W,TO,DC,STEP,T,MIN,MAX,NOBG,MASK,INTERN,RDRQ,PIN	
	81	HVAC Mode-Control	
	0 .. 4	W,NOBG,MASK,INTERN,FAN,TSET RDRQ,PIN	
	82	HVAC Mode-Control-Text	
	0 .. 4	W,NOBG,MASK,INTERN,TSET, RDRQ,PIN	
	83	HVAC-Fan-Control	
	0 .. 4	W,NOBG,INTERN,RDRQ	
	65	1-Byte-Timer-Profile HVAC	
	0 .. 255	W,OVRTO,NOBG,IMG,RDRQ,PIN,PPIN	

2.14.1 HVAC Setpoint-Control

ETS Objects		
Range of values	-	
Input	-	-
Output	Protection Setpoint	2 Byte
	Night Setpoint	2 Byte
	Standby Setpoint	2 Byte
	Comfort Setpoint	2 Byte

Format	
W	Determines width of display's surface
TO	Setting, after how much time, expressed in seconds the display returns to its standard position
DC	Number of displayed decimal places
STEP	Setting step size
T	Initialization values for temperatures
MIN	Default setting of temperature's lower limit
MAX	Default setting of temperature's upper limit
NOBG	No button background
MASK	Masking displayed buttons
INTERN	Direct connection with internal RTR
RDRQ	Read Request
PIN	In case "Use PIN" is selected, an individual password can be assigned using PIN

Complex circuit element to send the set points for the room temperature control.

W (in pixels) determines the width of the button's surface.

Using **TO**, you can determine after how much time the display returns to its standard position.

DC defines the displayed decimal places.

STEP determines the step size for adjusting the value between MIN and MAX.

Use T to initialize the temperatures
(Syntax: T=T1:T2:T3:T4)

MIN determines lower limit of the respective temperatures
(Syntax: MIN=T1:T2:T3:T4)

MAX determines upper limit of the respective temperatures
(Syntax: MAX=T1:T2:T3:T4)

NOBG eliminates the button's surface and the display is visualized directly on the background.

The masking will be conducted as follows:
(Syntax: 0=showing; 1=masking out) masking sequence:
MASK=Comfort:StandBy:Night:Protection (in case INTERN is selected, Protection will be automatically masked out).

In case the internal control is used and the set point defaults for the Touch_IT are activated, a communication via GA is unnecessary, as soon as **INTERN** is set.

RDRQ sent a read request at start-up for the used widgets. This parameter only works when Communication Address and Receive Flag are set.

If "Use PIN" is selected, the default master password will be used in case **PIN** is not set. Using **PIN**, an individual password can be assigned.

Examples	Element Name; Format
	HVAC-Setpoint-Control; TO=5; DC=2; MIN=7:15:18:15; MAX=7:17:20:30; T=7:15:18:22; INTERN;
	HVAC-Setpoint-Control; TO=5; DC=2; MASK=0101; MIN=7:15:18:15; MAX=7:17:20:30; T=7:15:18:22;
	HVAC-Setpoint-Control; TO=5;DC=2;MASK=1000; MIN=7:15:18:15; MAX=7:17:20:30; T=7:15:18:22;
	In order to activate temperature defaults select the respective circuit element. The displayed control element changes temporarily. The user can set manual defaults.

2.14.2 HVAC Mode-Control

ETS Objects		
Range of values	-	
Input	Feedback	2 Byte
Output	HVAC-Mode	1 Byte

Format	
W	Determines width of display's surface
FAN	Controlling ventilation
TSET	Shifting set point
NOBG	No button background
MASK	Masking displayed buttons
INTERN	Direct connection with internal RTR
RDRQ	Read Request
PIN	In case "Use PIN" is selected, an individual password can be assigned using PIN

Simple circuit element to send the HVAC modi and to display the room temperature.

W (in pixels) determines the width of the button's surface.

NOBG eliminates the button's surface and the display is visualized directly on the background.

The masking will be conducted as follows:
 (Syntax:0=showing; 1=masking out) masking sequence:
MASK=Protection:Night:StandBy:Comfort:Automatic

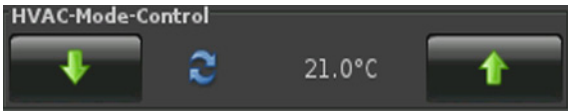


In case the internal control is used and the selection for the Touch_IT is activated, a communication via GA is unnecessary, as soon as **INTERN** is set.

FAN changes the display of the control element. Use it only in combination with **INTERN**. Use it to control the ventilation. (Depends on the parameter setting of the controller page fan.)

TSET changes the display of the control element. Use it only in combination with **INTERN**. Use it to raise or to lower the comfort temperature. (Depends on the parameter setting of the setpoint adjustment range.)

RDRQ sent a read request at start-up for the used widgets. This parameter only works when Communication Address and Receive Flag are set.

If "Use PIN" is selected, the default master password will be used in case **PIN** is not set. Using **PIN**, an individual password can be assigned.

Examples	Element Name; Format
	HVAC-Mode-Control; INTERN;
	TSET; TSET; INTERN;
	FAN; FAN; INTERN;



2.14.3 HVAC Mode-Control-Text

ETS Objects		
Range of values	-	
Input	Feedback	2 Byte
Output	HVAC-Mode	1 Byte

Format	
W	Determines width of display's surface
TSET	Shifting set point
NOBG	No button background
MASK	Masking displayed buttons
INTERN	Direct connection with internal RTR
RDRQ	Read Request
PIN	In case "Use PIN" is selected, an individual password can be assigned using PIN

Simple circuit element to send the HVAC modi and to display the room temperature.

W (in pixels) determines the width of the button's surface.

NOBG eliminates the button's surface and the display is visualized directly on the background.

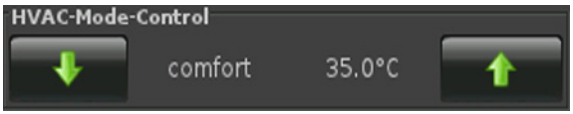
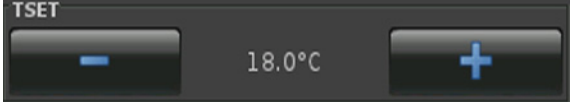
The masking will be conducted as follows:
(Syntax:0=showing; 1=masking out) masking sequence:
MASK=Protection:Night:StandBy:Comfort:Automatic

In case the internal control is used and the selection for the Touch_IT is activated, a communication via GA is unnecessary, as soon as **INTERN** is set.

TSET changes the display of the control element. Use it only in combination with **INTERN**. Use it to raise or to lower the comfort temperature. (Depends on the parameter setting of the setpoint adjustment range)

RDRQ sent a read request at start-up for the used widgets. This parameter only works when Communication Address and Receive Flag are set.

If "Use PIN" is selected, the default master password will be used in case **PIN** is not set. Using **PIN**, an individual password can be assigned.

Examples	Element Name; Format
	HVAC-Mode-Control;
	TSET; TSET; INTERN;

2.14.4 HVAC-Fan-Control

ETS Objects		
Range of values	0 .. 3	
Output	Fan Speed	1 Byte
Input/Output	Switch	1 Bit



Format	
W	Determines width of display's surface
NOBG	No button background
INTERN	Direct connection with internal RTR
RDRQ	Read Request

Element for sending a 1-byte value.
Three steps (1, 2, 3).

W (in pixels) determines the width of the button's surface.
With the 1-bit-output, you can switch to manual fan speed setting. This is also possible from the bus.

NOBG eliminates the button's surface and the display is visualized directly on the background.

RDRQ sent a read request at start-up for the used widgets. This parameter only works when Communication Address and Receive Flag are set.

Examples	Element Name; Format
	HVAC-Fan-Control;
	When you press setting, the fan can be adjusted in three steps.



2.14.5 1-Byte-Timer-Profile HVAC

ETS Objects		
Range of values	0...255	
Input	-	-
Output	Profile	1 Byte
Input/Output	Profile Enable	1 Bit

Format	
W	Determines width of display's surface
IMG	Choosing an image
OVRTO	Determines the time (in minutes) until manual settings are overwritten
NOBG	No button background
PIN	In case "Use PIN" is selected, an individual password can be assigned using PIN
PPIN	In case "Use PIN" is selected, an individual password for the secondary function can be assigned using PPIN

Complex element to send a 1-byte value 0...255 in a set time allowance.

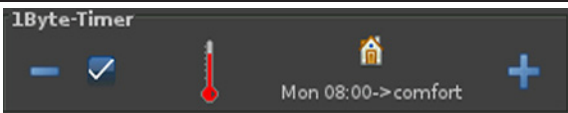

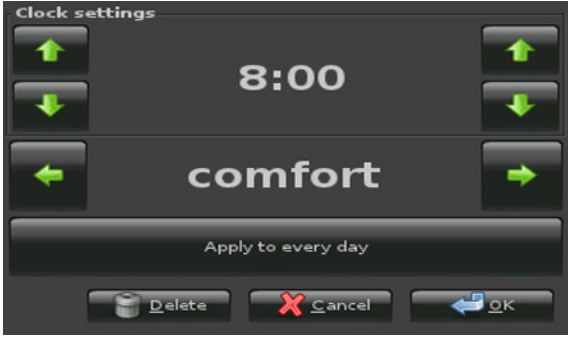
W (in pixels) determines the width of the display's surface.

OVRTO determines the span of time, after which the settings made manually by the user are overwritten by the values set in the time table. (in minutes)

NOBG eliminates the button's surface and the display is visualized directly on the background.

If "Use PIN" is selected, the default master password will be used in case **PIN** is not set. Using **PIN**, an individual password can be assigned.

In case "Use PIN" is selected, an individual password can be assigned using **PPIN**, which protects the secondary functions of this object.

Examples	Element Name; Format
	<p>1Byte-Timer; IMG=thermometer.png; NOBG; OVRTO=1;</p>
	<p>Pressing the options button will open a dialog box where time allowances can be set, according to which the ETS object is then controlled.</p>
	<p>It is possible to determine up to 6 times for each weekday, at which freely selectable values out of the object value range can be sent.</p>

2.14.5 1-Byte-Timer-Profile HVAC

ETS Objects		
Range of values	0...255	
Input	-	-
Output	Profile	1 Byte
Input/Output	Profile Enable	1 Bit

Format	
W	Determines width of display's surface
IMG	Choosing an image
OVRTO	Determines the time (in minutes) until manual settings are overwritten
NOBG	No button background
PIN	In case "Use PIN" is selected, an individual password can be assigned using PIN
PPIN	In case "Use PIN" is selected, an individual password for the secondary function can be assigned using PPIN

Complex element to send a 1-byte value 0...255 in a set time allowance.

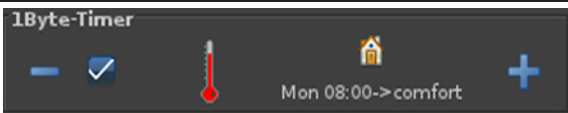

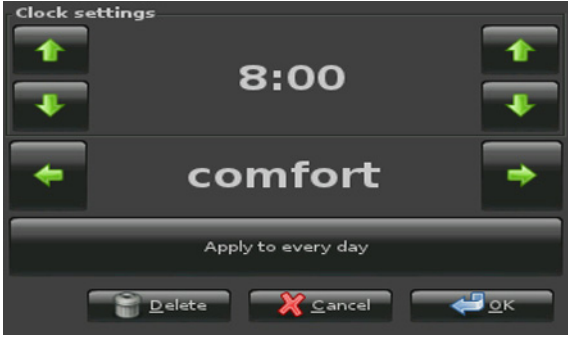
W (in pixels) determines the width of the display's surface.

OVRTO determines the span of time, after which the settings made manually by the user are overwritten by the values set in the time table. (in minutes)

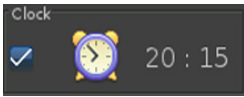

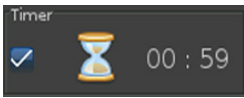



NOBG eliminates the button's surface and the display is visualized directly on the background.

If "Use PIN" is selected, the default master password will be used in case **PIN** is not set. Using **PIN**, an individual password can be assigned.







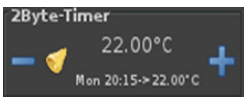



In case "Use PIN" is selected, an individual password can be assigned using **PPIN**, which protects the secondary functions of this object.

Examples	Element Name; Format
	<p>1Byte-Timer; IMG=thermometer.png; NOBG; OVRTO=1;</p>
	<p>Pressing the options button will open a dialog box where time allowances can be set, according to which the ETS object is then controlled.</p>
	<p>It is possible to determine up to 6 times for each weekday, at which freely selectable values out of the object value range can be sent.</p>

2.15 Overview Time / Date Elements

Image	Element Number	Element Type	Page
	Range of Values	Format	
	60	Alarmclock	
	0/1	W,ALTO,SILENT,NOBG,RDRQ,PIN,PPIN	
	61	Alarmtimer	
	0/1	W,ALTO,SILENT,NOBG,RDRQ,PIN,PPIN	
	59	Astroclock	
	0/1	INV,L0,L1,B0,B1,PIN,PPIN	

There are also different timer profiles.

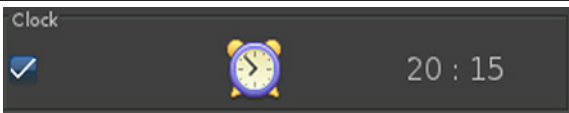


	62	1-Bit-Timer-Profile	
	63	1-Byte-Timer-Profile 0 .. 100%	
	64	1-Byte-Timer-Profile 0 .. 255	
	66	2-Byte-Float-Timer-Profile	
	65	1-Byte-Timer-Profile HVAC	

2.15.1 Alarmclock

ETS Objects		
Range of values		
Input/Output	Alarm clock Enable	1 Bit
Output	Alarm clock	1 Bit

Format	
W	Determines width of display's surface
ALTO	Time allowance for alarm duration
SILENT	Silent alarm
NOBG	No button background (only possible in special modification)
RDRQ	Read Request
PIN	In case "Use PIN" is selected, an individual password can be assigned using PIN
PPIN	In case "Use PIN" is selected, an individual password for the secondary function can be assigned using PPIN

Timer element to send a 1-bit value.
 Can additionally be activated from the bus.
 Use **ALTO** to determine length of the alarm. (in seconds)
 Use **SILENT** to trigger a silent alarm.
RDRQ sent a read request at start-up for the used widgets. This parameter only works when Communication Address and Receive Flag are set.
 If "Use PIN" is selected, the default master password will be used in case **PIN** is not set. Using **PIN**, an individual password can be assigned.
 In case "Use PIN" is selected, an individual password can be assigned using **PPIN**, which protects the secondary functions of this object.

Examples	Element Name; Format
	Clock; ALTO=5;
	Clock; SILENT;
	Pressing the time button will open a dialog box where time allowances can be set, according to which the ETS object is then controlled. Format (hh:mm)




2.15.2 Alarmtimer

ETS objects		
Range of values		
Input/Output	Alarm timer Enable	1 Bit
Output	Alarm timer	1 Bit

Format	
W	Determines width of display's surface
ALTO	Time allowance for alarm duration
SILENT	Silent alarm
NOBG	No button background (only possible in special modification)
RDRQ	Read Request
PIN	In case "Use PIN" is selected, an individual password can be assigned using PIN
PPIN	In case "Use PIN" is selected, an individual password for the secondary function can be assigned using PPIN

Timer element to send a 1-bit value.
 Can additionally be activated from the bus.
 Use **ALTO** to determine length of the alarm. (in seconds)
 Use **SILENT** to trigger a silent alarm.
RDRQ sent a read request at start-up for the used widgets. This parameter only works when Communication Address and Receive Flag are set.
 If "Use PIN" is selected, the default master password will be used in case **PIN** is not set. Using **PIN**, an individual password can be assigned.
 In case "Use PIN" is selected, an individual password can be assigned using **PPIN**, which protects the secondary functions of this object.



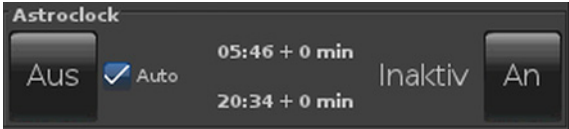

Examples	Element Name; Format
	Timer; ALTO=5;
	Timer; SILENT;
	Pressing the time button will open a dialog box where time allowances can be set, according to which the ETS object is then controlled. Format (mm:ss)

2.15.3 Astroclock

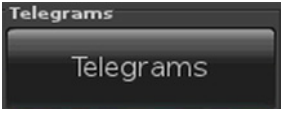



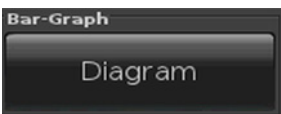

ETS objects		
Range of values		
Input/Output	Astroclock Enable	1 Bit
Output	Astroclock	1 Bit

Format	
INV	Value Output invert
L0	Text default for display on "0"
L1	Text default for display on "1"
B0	Text default for button on "0"
B1	Text default for button on "1"
PIN	In case "Use PIN" is selected, an individual password can be assigned using PIN
PPIN	In case "Use PIN" is selected, an individual password for the secondary function can be assigned using PPIN

Timer element to send a 1-bit value.
 Can additionally be activated from the bus.
 Use **INV** to invert the output.
 In the time window between sunrise and sunset (day), the default setting for the output is '0'.
 If "Use PIN" is selected, the default master password will be used in case **PIN** is not set. Using **PIN**, an individual password can be assigned.
 In case "Use PIN" is selected, an individual password can be assigned using **PPIN**, which protects the secondary functions of this object.

Examples	Element Name; Format
	Astroclock; L0=Inaktiv;L1=Aktiv;B0=Aus;B1=An;
	Astro Clock needs settings of the geographic coordinates and the defined sunset-height (-0.8° for the geometric twilight, -6° for the civil twilight, -12° for the nautic twilight). Optional settings are time-offsets for sunrise and sunset in minutes. The correct times need correct settings of the time, the timezone and the use of DST (Daylight Saving Time).

2.16 Overview Datalogging

Image	Element Number	Element Type	Details Page
	Range of Values	Format	
	95	Telegrams	
		OBJS,LABEL,PIN	
	96	Line-Graph	
		DGRM,LABEL,PIN	
	97	Bar-Graph	
		DGRM,LABEL,PIN	



2.16.1 Telegrams

ETS Objects	
Range of values	
Input	
Input/Output	

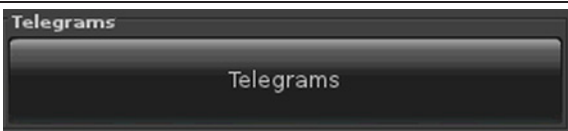
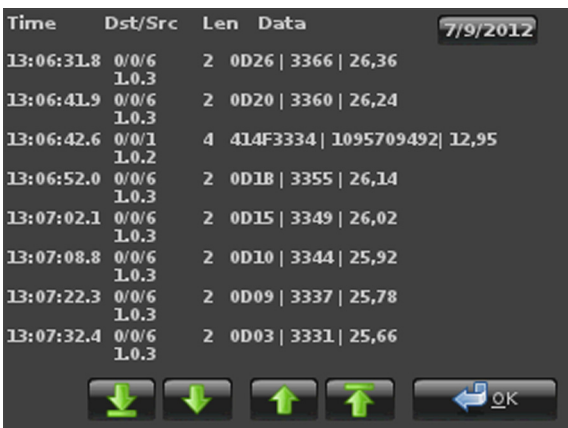
Format	
OBJS	
LABEL	Text default for button
PIN	In case "Use PIN" is selected, an individual password can be assigned using PIN

For the telegrams-function the datalogging with the SD-Card must be enabled.

OBJS filters the objects which should be visualized by their Object Number from the Log file. The item numbers are separated with a comma.

LABEL defined what is shown on the Button.

If "Use PIN" is selected, the default master password will be used in case **PIN** is not set. Using **PIN**, an individual password can be assigned.

Examples	Element Name; Format
	<p>Telegrams; LABEL=Telegrams;OBJS=64,72;</p>
	<p>In this example, object 64 with the group address 0/0/1.</p> <p>In this example, object 72 with the group address 0/0/6.</p>

2.16.2 Line-Graph

ETS Objects	
Range of values	
Input	
Input/Output	


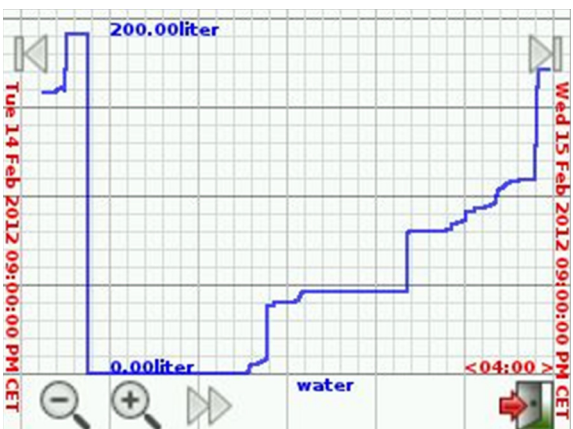
Format	
DGRM	Diagram parameters
LABEL	Text default for button
PIN	In case "Use PIN" is selected, an individual password can be assigned using PIN

For the diagram-function the datalogging with the SD-Card must be enabled.

DGRM specifies the parameters for the graphs. (see below)

LABEL defined what is shown on the Button.

If "Use PIN" is selected, the default master password will be used in case **PIN** is not set. Using **PIN**, an individual password can be assigned.

Examples	Element Name; Format
 <p>A button with a dark background and the text "Line-Graph" in white.</p>	<p>Line-Graph; LABEL=Line-Graph;DGRM=6/4/3,14,water,liter,blue;</p>
 <p>A line graph showing a step function for water consumption. The y-axis ranges from 0.00liter to 200.00liter. The x-axis shows dates from Tue 14 Feb 2012 to Wed 15 Feb 2012. The graph shows a blue line that increases in steps. A legend at the bottom right shows a blue line segment labeled "water".</p>	<p>Up to three curves can be displayed in one diagram. The data to display is defined as a list in the DGRM option separated by a ":".</p> <p>DGRM=a/b[/c],t,n,p,c:.... Object a/b or a/b/c of type is displayed t = DPTtype 12, 13 or 14 according KNX-Standard n = Name to display with the curve p = Postfix to display with the values on the coordinates. c = Color to display the curve</p> <p>Only the groupaddress and the type are mandatory, the rest can be omitted. Example: DGRM=1/2/2,12:1/2/3,12:1/2/4,12</p>

2.16.3 Bar-Graph

ETS Objects	
Range of values	
Input	
Input/Output	

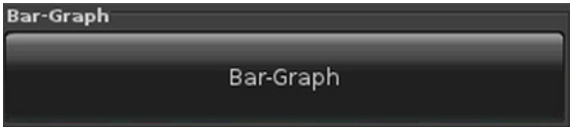
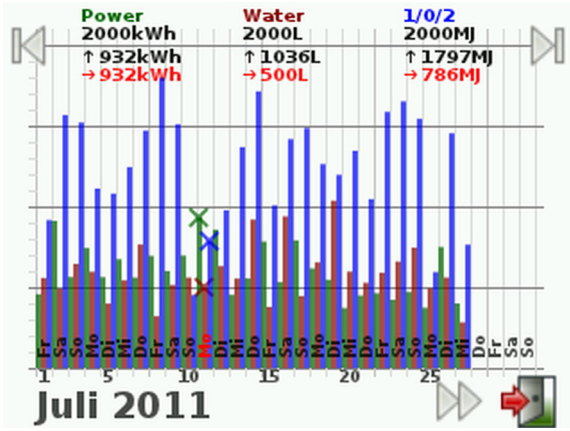
Format	
DGRM	Diagram parameters
LABEL	Text default for button
PIN	In case "Use PIN" is selected, an individual password can be assigned using PIN

For the diagram-function the datalogging with the SD-Card must be enabled.

DGRM specifies the parameters for the graphs. (see below)

LABEL defined what is shown on the Button.

If "Use PIN" is selected, the default master password will be used in case **PIN** is not set. Using **PIN**, an individual password can be assigned.

Examples	Element Name; Format
	<p>Bar-Graph; LABEL=Bar-Graph;DGRM=1/0/0,14056,Power,kWh,green: 1/0/1,14076,Water,L,red:1/0/2,14043,1/0/2,blue;</p>
	<p>Up to three curves can be displayed in one diagram. The data to display is defined as a list in the DGRM option separated by a ":".</p> <p>DGRM=a/b[/c],t,n,p,c:.... Object a/b or a/b/c of type is displayed t = DPTYPE 12, 13 or 14 according KNX-Standard n = Name to display with the curve p = Postfix to display with the values on the coordinates. c = Color to display the curve</p> <p>Only the groupaddress and the type are mandatory, the rest can be omitted. Example: DGRM=1/2/2,12:1/2/3,12:1/2/4,12</p>

