

1 Using the application program

Product family: Control Panels
Product type: Push Buttons
Manufacturer: IPAS GmbH
Name: ETS_8121x_PiazzaT_V1.0.0.knxprod

The application program can be used for different Piazza products, including the following push buttons:

Piazza with temperature sensor	Order number
Piazza 2 RGB-T	81213-02
Piazza 4 RGB-T	81213-04
Piazza 6 RGB-T	81213-06
Piazza 8 RGB-T	81213-08
Piazza 2 T	81211-02
Piazza 4 T	81211-04
Piazza 6 T	81211-06
Piazza 8 T	81211-08

and in connection with the NTC temperature sensor 81971-00.

2 General product information

The KNX operating devices of the IPAS push button series Piazza can perform all KNX standard switching and setting functions. Piazza push buttons are available with or without RGB status LEDs in the button elements. IPAS offers Piazza switches with 2, 4, 6 or 8 buttons. A labelling field, in which individually printed signs can be inserted, allows a labelling that allows an intuitive operation.
All devices have two orientation LEDs, which can be controlled in different RGB colours and are located at the upper and lower edge of the labelling field.
The Piazza devices of the Piazza 2/4/6/8 RGB series also have a status LED in each button. These are also RGB LEDs that can be set in different colours.

On the back of the Piazza T devices is the connector for the temperature sensor. The measured temperature values are sent to the KNX bus via a corresponding communication object.

The push buttons can be mounted in all common switch boxes with a diameter of 55-60mm via two mounting screws. They can be combined with many 55mm socket outlet programs from various manufacturers (e.g. with frames from Gira Standard 55). It is also possible to arrange several Piazza push buttons within a frame combination.

The bus coupler for connection to the KNX bus is integrated directly in the device and the connection is made via a standard bus terminal. Programming LED and programming button are accessible at the rear. The programming mode can be switched on for all push buttons of the Piazza Push Button series in the installed state with the help of a magnet via the operating front in the area of the labelling surface.

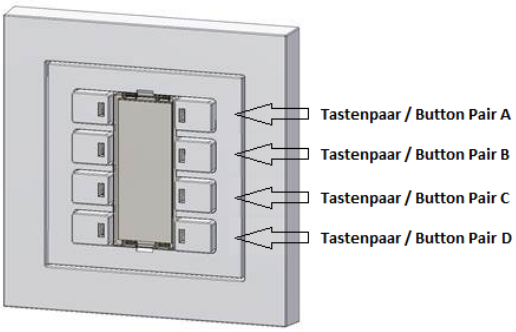
Example: Front view Piazza 8 T RGB

Front view Piazza 8 T

3 Function of the application program

The application program can be used for a range of push buttons. It is therefore important that you determine the correct device type first.
Once you have set the type, all available objects and parameters are automatically adjusted to this particular type. If you load an application program onto a device with a wrong type setting, the device will still work but the LEDs and buttons may be assigned incorrectly. There is no mechanism to check whether ETS setting and device type match.
Please also remember that if you change the device type setting subsequently, already configured parameters may be reset to the default status and links to already assigned objects may be removed.

The application program is set up in such a way that by default it works with button pairs. However, each button can also be configured as a single button. In case of an 8-button panel, the names used in the ETS are assigned to the different pairs as follows:



In the Piazza versions 2/4/6 the last pair or pairs do not exist. Otherwise the assignment is exactly the same.

The following options are available for the button pairs:

- Switch On/Off
- Switching/ dimming with stop telegram
- Shutter
- Set value fix
- Set value in steps
- Scene invoke/program
- Effects start/stop
- Room mode setting heating
- Presence On/Off
- Fan-coil setting
- Single buttons

If a button pair is configured for single button control, the following functions are available for both buttons independent of each other:

- On
- Off
- Toggle
- Press: On → Off
- Value setting
- Value toggle
- One button dimming
- One button shutter

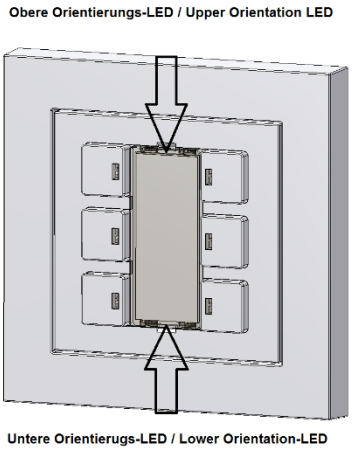
In the Piazza versions 2/4/6/8 RGB-T each button is equipped with a status LED. The status LED can be permanently switched on or off. It can be directly linked to the function of the button or it can be controlled via communication objects independently of the function of the button. Like the orientation LEDs, the status LEDs on the buttons can also be illuminated in different RGB colours.

The following colours are available:

- Red
- Green
- Blue
- Yellow
- Purple
- Turquoise

If the LED function is linked directly to the function of the button, no object is available for the LED. In this case the LED status results from the value of the button object. However, for the following functions, no direct link between LED status and button object is possible: Set value fix and set value in steps, scenes, effects, room modes and fan setting. If you choose direct link in the parameters for any of these functions, the LED simply remains switched off irrespective of the object value.

All Piazza T devices have two orientation/status LEDs at the top and bottom of the description field in the central part of the panel.



Like the status LEDs on each button, the orientation LEDs can also be permanently switched on or off or linked to a communication object. A direct link with the status of a button is not possible for the orientation LEDs.

Piazza T panels can be set to night mode via a communication object. In night mode all LEDs are dimmed to a reduced light level or switched off altogether. In a dark room bright LEDs may be disturbing. Dimmable LEDs make it possible to adjust the light level to the surrounding environment.

A wake-up function is available for LEDs in night mode. If you press any button during night mode, the LEDs “wake up for a configurable length of time and temporarily operate at normal levels of brightness. Once the configured time expires, the LEDs return automatically to the reduced light level.

The alarm module makes it possible to use LEDs as alarm signals by making them blink. Up to three different alarms can be displayed. An alarm is triggered via a 1-telegram to one of the 1-Bit alarm objects. To signal the alarm, you can select an individual status LED (only for panels Piazza 2/4/6/8 RGB), one or both of the orientation LEDs or an LED pattern. You can also choose which colour you want the LED to signal the alarm with. Alarm notifications override the “normal“ LED status. This means that if an LED is usually green, the

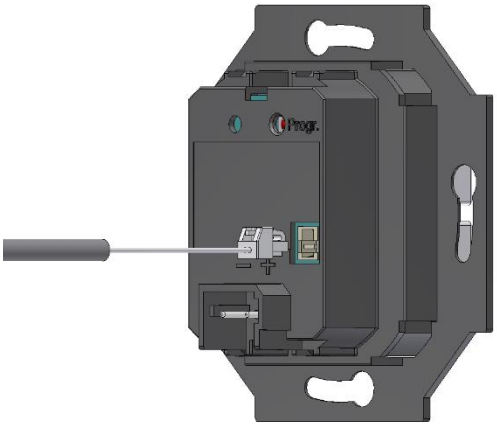
arrival of an alarm might make it flash in red. If the alarm is reset or acknowledged, the LED shows again the normal status and returns to its green light.

Alarms can be acknowledged externally via a communication object. Alternatively, you may also configure the parameters in such a way that an alarm can be acknowledged by pressing any of the buttons on the panel. If you choose this setting, pressing the button only acknowledges the alarm. To activate the actual function that is assigned to the button, you need to press it again. An acknowledgement (either via object or push button) acknowledges all outstanding alarms at the same time. It is not necessary to acknowledge several alarms individually.

The alarms are prioritised. This means that in case of several alarms, only the most recent one is displayed. Once this alarm has been reset to its normal status via the alarm object, the previously received alarm is displayed again. This is the case even if the alarm has previously been acknowledged.
Overriding alarms can be symbolised with different colours. For example, alarm 1 could cause all LEDs to blink in yellow, alarm 2 changes all LEDs to blue and alarm 3 causes all LEDs to blink in red.

As an optional accessory, an NTC temperature sensor is available for all push buttons of the Piazza x-T and Piazza X RGB-T series with a 1m long connection cable and a suitable connector plug. The sensor can be connected to a socket on the back and allows the measurement of the room temperature. A temperature range of 5..45°C is covered. The measured value is available as a KNX object and can provide the actual value to a KNX controller, for example.

The connection is made via the socket on the back. Please note that the latch engages audibly when plugged in.



4 Overview of ETS communication objects

Total number of communication objects: 32
Maximum number of group addresses: 64
Maximum number of links: 64

Number	Name	Object Function
0	Button Pair A	Switch, On/Off
4	Button Pair B	Switch, On/Off
8	Button Pair C	Switch, On/Off
12	Button Pair D	Switch, On/Off
16	Button Pair A, LED left	Status On/Off
17	Button Pair A, LED right	Status On/Off
18	Button Pair B, LED left	Status On/Off
19	Button Pair B, LED right	Status On/Off
20	Button Pair C, LED left	Status On/Off
21	Button Pair C, LED right	Status On/Off
22	Button Pair D, LED left	Status On/Off
23	Button Pair D, LED right	Status On/Off
24	LEDs scene control	Scene, activate LED
27	Night Mode	active / not active
28	Alarm 1	active / not active
29	Alarm 2	active / not active
30	Alarm 3	active / not active
31	Alarm Confirmation	On / Off
36	Temperature Sensor	Value
37	Temperature External	Value
38	Temperature Weighted	Value

4.1 Communication objects for button functions

Parameter function button pair: Switch On/Off				
Obj	Object name	Function	Type	Flags
0	Button pair A	Switch, On/Off	1 Bit DPT: 1.001	CWTU
Press the right button to send an on-telegram and the left button to send an off-telegram. The direction of the buttons can be changed via a parameter.				

Parameter function button pair: switching / dimming				
Obj	Object name	Function	Type	Flags
0	Button pair A	Switch, On/Off	1 Bit DPT: 1.001	CWTU
Briefly press the right button to send an on-telegram and briefly press the left button to send an off-telegram. The direction of the buttons can be changed via a parameter.				
1	Button pair A	Dimming bright/dark	4 Bit DPT: 3.007	CT
A long keypress of the right button sends a dim-up telegram and a long keypress on the left button a dim-down telegram. The direction of the buttons can be changed via a parameter				

Parameter function button pair: Shutter				
Obj	Object name	Function	Type	Flags
0	Button pair A	Slats step	1 Bit DPT: 1.008	CWT
A long keypress of the right button sends a slat-up telegram and a long keypress on the left button a slat-down telegram. The direction of the buttons can be changed via a parameter.				
1	Button pair A	Shutters up/down	1 Bit DPT: 1.008	CWTU
A long keypress of the right button sends a move up telegram and a long keypress on the left button a move down telegram. The direction of the buttons can be changed via a parameter.				

Parameter function button pair: Set value fix				
Obj	Object name	Function	Type	Flags
0	Button pair A	Value setting, value	8 Bit DPT: 5.001	CT
Briefly press the right button to send the first fixed value and the left button to send the second fixed value.				

Parameter function button pair: Set value in steps				
Obj	Object name	Function	Type	Flags
0	Button pair A	Value setting, value	8 Bit DPT: 5.001	CWTU
Briefly press the right button to send a higher value and the left button to send a lower value. The increment size per keypress can be configured.				

Parameter function button pair: Scene invoke/program				
Obj	Object name	Function	Type	Flags
0	Button pair A	Scene invoke/ program	8 Bit DPT:18.001	CT
Briefly press the right button to invoke the first configured scene and the left button to invoke the second configured scene. A value between 0 and 63 is sent in accordance with scene 1 - 64. If you press the button a very long time the highest bit is set and a scene programming command is sent.				

Parameter function button pair: Effects start/stop				
Obj	Object name	Function	Type	Flags
0	Button pair A	Effects start/stop	8 Bit DPT:18.001	CT
Briefly press the right button to stop the first configured effect and press it longer to start the configured effect. Briefly press the left button to stop the second configured effect and longer to start the configured effect. A value between 0 and 63 is sent in accordance with effect 1 - 64. If you press the button a very long time the highest bit is also set.				

Parameter function button pair: Room mode setting				
Obj	Object name	Function	Type	Flags
0	Button pair A	Room mode	8 Bit DPT: 20.102	CWTU
Briefly press the right button to scroll one mode forward and the left button to scroll one mode back. The buttons scroll through the following room modes: Comfort mode: Value 1 Pre-comfort mode: Value 2 Energy saving mode: Value 3 Protection mode: Value 4				

Parameter function button pair: Presence on/off				
Obj	Object name	Function	Type	Flags
0	Button pair A	Presence on/off	1 Bit DPT: 1.001	CWTU
Briefly press the right button to send an on telegram and the left button to send an off telegram. The direction of the buttons can be changed via a parameter				

Parameter function button pair: Fan-Coil setting				
Obj	Object name	Function	Type	Flags
0	Button pair A	Fan, Auto/Manual	1 Bit DPT:1.001	CWT
Use this object to set the automatic / manual mode of a fan. Value 1 corresponds to automatic mode and value 0 to manual mode. Pressing the left button sends automatic when fan value = 0%. Pressing the left button sends manual when operating mode = automatic.				
1	Button pair A	Fan, rotation speed value	8 Bit DPT:5.001	CWTU
This object sends the rotation speed of a fan in %. Use the right button to increase the rotation speed and the left button to reduce it. The increment size is: Fan 1 step: 0 / 100% Fan 2 steps: 0 / 50% / 100% Fan 3 steps: 0 / 33% / 66% / 100%				

Parameter function button pair: Single buttons Button function: On				
Obj	Object name	Function	Type	Flags
0	Button pair A	Switch, On	1 Bit DPT: 1.001	CWTU
Briefly press the button to send an on-telegram.				

Parameter function button pair: Single buttons Button function: Off				
Obj	Object name	Function	Type	Flags
0	Button pair A	Switch, off	1 Bit DPT: 1.001	CWTU
Briefly press the button to send an off-telegram.				

Parameter function button pair: Single buttons Button function: Toggle				
Obj	Object name	Function	Type	Flags
0	Button pair A	Switch, on/off	1 Bit DPT: 1.001	CWTU
Briefly press the button to toggle between object values 0 and 1 and to send the value.				

Parameter function button pair: Single buttons Button function: Press: On → Off				
Obj	Object name	Function	Type	Flags
0	Button pair A	Switch, on/off	1 Bit DPT: 1.001	CTU
Briefly press the button to send value 1 and release the button to send value 0.				

Parameter function button pair: Single buttons

Button function: Value setting				
Obj	Object name	Function	Type	Flags
0	Button pair A	Value setting, value	8 Bit DPT: 5.001	CWTU
Briefly press the button to send the configured value.				

Parameter function button pair: Single buttons Button function: Value toggle				
Obj	Object name	Function	Type	Flags
0	Button pair A	Value setting, value	8 Bit DPT: 5.001	CWTU
Briefly press the button to toggle between two configured values and to send the new value.				

Parameter function button pair: Single buttons Button function: one button dimming				
Obj	Object name	Function	Type	Flags
0	Button pair A	Switch on/off	1 Bit DPT: 1.001	CWTU
Briefly press the button to toggle between the values 0 and 1 and send the value.				
1	Button pair A	Dimming bright/dark	4 Bit DPT: 3.007	CT
A long keypress sends an up/down telegram. Each keypress toggles the dim direction. If a 1 telegram has previously been sent via a short keypress, a long keypress dims the lights down. If a 0 telegram has previously been sent, a long keypress dims the lights up.				

Parameter function button pair: Single buttons Button function: one button shutter control				
Obj	Object name	Function	Type	Flags
0	Button pair A	Slats step	1 Bit DPT: 1.009	CWT
Briefly press the button to toggle between a slats up and a slats down telegram.				
1	Button pair A	Shutters up/down	1 Bit DPT: 1.008	CWTU
A long keypress sends a move shutters telegram. The direction of the movement changes with each keypress.				

The functions of objects 2 to15 for button pairs B, C and D (or in case of single button control the left-hand side button) are exactly the same as those above.

4.2 Communication objects for status LEDs

Parameter function LED: Status via object 1 Bit				
Obj	Object name	Function	Type	Flags
16	Button pair A, LED on the right	Status on/off	1 Bit DPT: 1.001	CWTU
Use this object to set the 1 Bit status of the LED on the button. You can configure the LED colours Off, red, green, blue, yellow, purple and turquoise via parameters.				

Parameter function LED: Status via object 1 Byte				
Obj	Object name	Function	Type	Flags
16	Button pair A, LED on the right	Scene, activate LED colour	1 Byte DPT:17.001	CWTU
Use this object to set the status of the LED on the button. The LED colours red, green, blue, yellow, purple, turquoise or Off can be configured via parameters in relation to a certain scene value (0 - 63 → Scene 1 - 64).				

The functions of objects 17 to 23 for the status LEDs on button pairs B, C and D or (for single button control) the LEDs on the left-hand side are exactly the same as in the object descriptions above.

Parameter function LED: Status via object 1 Byte				
Obj	Object name	Function	Type	Flags
24	LEDs Scene control	Scene, activate LED colour	1 Byte DPT:17.001	CTU
The general scene object turns on status LEDs on the whole panel in configurable colours when a particular scene has been invoked.				

4.3 Communication objects for orientation LEDs

Parameter function LED: Status via object 1 Bit				
Obj	Object name	Function	Type	Flags
25	Upper orientation LED	Status on/off	1 Bit DPT: 1.001	CWTU
Use this object to set the 1 Bit status of the upper orientation LED. The displayed LED colours red, green, blue, yellow, purple, turquoise or Off can be configured via parameters.				

Parameter function LED: Status via object 1 Byte				
Obj	Object name	Function	Type	Flags
25	Upper orientation LED	Scene, activate LED colour	1 Byte DPT:17.001	CWTU
Use this object to set the status of the upper orientation LED. The LED colours red, green, blue, yellow, purple, turquoise or Off can be configured via parameters in relation to a certain scene value (0 - 63 → Scene 1 - 64).				

The function of object 26 for the lower orientation LED is exactly the same as the one described above for the upper orientation LED.

4.4 General communication objects and alarms

Obj	Object name	Function	Type	Flags
27	Night mode	Active / not active	1 Bit DPT: 1.001	CTU
On receipt of a 1-telegram this object activates the night mode and on receipt of a 0-telegram it de-activates the night mode. In night mode all LEDs are either switched off or dimmed down.				
28	Alarm 1	Active / not active	1 Bit DPT: 1.001	CTU
On receipt of a 1-telegram this object activates an alarm. On receipt of a 0-telegram it resets the alarm status to normal status.				
29	Alarm 2	Active / not active	1 Bit DPT: 1.001	CTU
On receipt of a 1-telegram this object activates the alarm status 2. On receipt of a 0-telegram it resets the alarm status to normal status.				

Obj	Object name	Function	Type	Flags
30	Alarm 3	Active / not active	1 Bit DPT: 1.001	CTU
On receipt of a 1-telegram this object activates the alarm status 3. On receipt of a 0-telegram it resets the alarm status to normal status.				
31	Alarm acknowledgement	On/off	1 Bit DPT: 1.001	CTU
Use this object to simultaneously acknowledge all outstanding alarms on receipt of a 1-telegram.				

4.5 Communication objects for locking pairs of buttons

Obj	Object name	Function	Type	Flags
32	Button pair A	Lock / Unlock	1 Bit DPT: 1.003	KSA
This object is used to lock the button pair A when a telegram is received. The blocking can be done by a 1-telegram as well as by a 0-telegram (function parameterizable).				
33	Button pair B	Active / not active	1 Bit DPT: 1.003	KSA
This object is used to lock the button pair B when a telegram is received. The blocking can be done by a 1-telegram as well as by a 0-telegram (function parameterizable).				
34	Button pair C	Lock / Unlock	1 Bit DPT: 1.003	KSA
This object is used to lock the key pair C when a telegram is received. The blocking can be done by a 1-telegram as well as by a 0-telegram (function parameterizable).				
35	Button pair D	Lock / Unlock	1 Bit DPT: 1.003	KSA
This object is used to lock the D button pair when a telegram is received. The blocking can be done by a 1-telegram as well as by a 0-telegram (function parameterizable).				

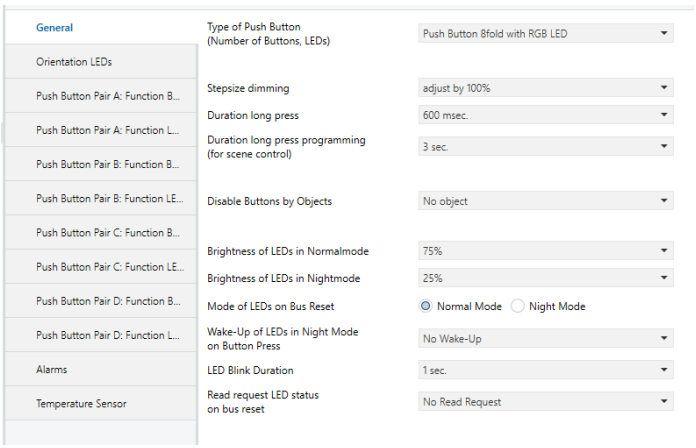
4.6 Communication objects for temperature measurement

Obj	Object name	Function	Type	Flags
36	Temperature sensor	value	2 Byte DPT: 9.001	KLÜ
The value measured at the connected temperature sensor is sent via this object. The measuring range is 5..45°C. The object is sent automatically when the device is reset or restarted.				
37	External temperature	value	2 Byte DPT: 9.001	KS
A temperature value from another bus device is read in via this object. With the help of this value and the measured value, a weighted average value can be formed, which is available at object 38.				
38	Weighted temperature	value	2 Byte DPT: 9.001	KLÜ
This object is used to send the weighted average of the temperature measured at the connected temperature sensor and the temperature value received via object 37. The weighting factor can be set via parameters. The object is sent automatically when the device is reset or restarted.				

5 ETS parameter overview

The ETS parameters of the device are spread across different parameter pages. Depending on the parameter settings some pages may or may not be displayed.

5.1 General settings



Parameter	Settings
Type of push button (number of buttons, LEDs)	Push button 2fold with RGB LED Push button 4fold with RGB LED Push button 6fold with RGB LED **Push button 8fold with RGB LED** Push button 2fold without LED Push button 4fold without LED Push button 6fold without LED Push button 8fold without LED
Use this parameter to adjust the application to the right type of push button.	

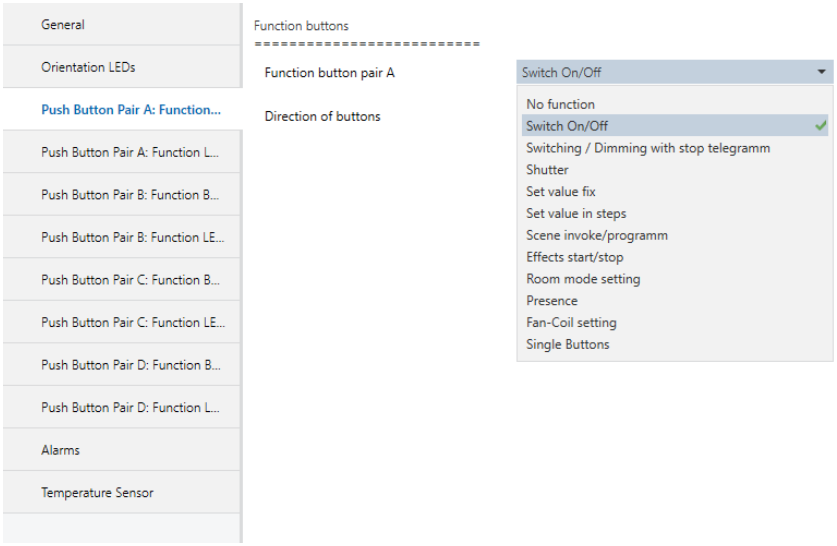
Parameter	Settings
Stepsize dimming	Adjust by 100% 1/2 1/4 1/8 1/16 1/32 1/64
Use this parameter to set the step size for relative dimming (4Bit).	
Duration long press	**600msec.** 800msec. 1 Sec. 1,2 Sec.
Configures the time after which a keypress is recognised as a long press. (E.g. for dimming or moving shutters).	

Parameter	Settings
Duration long press programming (for scene control)	**2 Sec.** 3 Sec. 4 Sec. 5 Sec.
Determines the time after which a keypress is recognised as a long press for programming scenes.	
Brightness of LEDs in normal mode	100% **75%** 50% 25% 10% 5% 2% 1%
Sets the brightness level of LEDs in normal mode and when an alarm occurs.	
Brightness of LEDs in night mode	100% 75% 50% **25%** 10% 5% 2% 1% LEDs Off
Sets the brightness level of LEDs in night mode.	
Mode of LEDs on bus reset	**Normal mode** Night mode
Use this parameter to set the operating mode of the LEDs following a bus reset.	

Parameter	Settings
Wake-up of LEDs in night mode on button press	**No wake up** for 10 seconds for 20 seconds for 30 seconds for 1 minute for 2 minutes
Use this parameter to configure if and for how long LEDs in night mode are to be woken up and illuminated at the normal level of brightness.	
LED blink duration	0.5 Sec. **1 Sec.** 2 Sec. 4 Sec.
Sets the blink duration for LEDs in blink status. (e.g. during an alarm)	

Parameter	Settings
Read request LED status on bus reset	**No read request** 2 seconds after bus reset 3 seconds after bus reset 4 seconds after bus reset 5 seconds after bus reset 6 seconds after bus reset 7 seconds after bus reset 8 seconds after bus reset 9 seconds after bus reset 10 seconds after bus reset 12 seconds after bus reset 15 seconds after bus reset 20 seconds after bus reset
Determines if and after what time the LED status is read following a bus reset.	

5.2 Button pair A: Button function



Parameter	Settings
Function Button pair A	No function **Switch On/Off** Switching / dimming with stop telegram Shutter Set value fix Set value in steps Scene invoke/program Effects start/stop Room mode setting Presence Fan-coil setting Single buttons
Use this parameter to set the function of the button pair.	

Parameter function button pair: Switch On/off Switching/dimming Shutter Presence	
Parameter	Settings
Direction of buttons	**Left: Off/Down, Right: On/Up** Left: On/Up, Right: Off/Down
This parameter sets the telegram type for buttons right/left (direction of buttons)	

Parameter function button pair: Shutter	
Parameter	Settings
Special function Shutter	**Up/down (normal function)** Long keypress: only down (always 1) Long keypress: only up (always 0)
Determines whether to only send a telegram of the same type following a long keypress.	

Parameter function button pair: Set value fix	
Parameter	Settings
Value on left button press 0..255 = 0..100%	**0** [0..255]
Use this parameter to set the value you want to send when pressing the left button.	
Value on right button press 0..255 = 0..100%	**255** [0..255]
Use this parameter to set the value you want to send when pressing the right button.	

Parameter function button pair: Set value in steps	
Parameter	Settings
Step size when pressing the button:	**10%** 20% 25% 33% 50%
This parameter determines the step size by which the value is increased or decreased when a button is pressed.	

Parameter function button pair: Scene invoke/program	
Parameter	Settings
Scene on left button press:	**Scene 1 / Value 0** Scene 2 / Value 1 …. Scene 64 / Value 63
This parameter sets the scene that is either invoked after briefly pressing the left button or re-programmed after a very long keypress.	
Scene on right button press	**Scene 1 / Value 0** Scene 2 / Value 1 …. Scene 64 / Value 63
This parameter sets the scene that is invoked after briefly pressing the right button or re-programmed after a very long keypress.	

Parameter function button pair: Effects start/stop	
Parameter	Settings
Effect on left button press	**Effect 1 / Value 0** Effect 2 / Value 1 …. Effect 16 / Value 15
This parameter determines which effect is stopped after a short press of the left button and started after a long press. The effect is started by sending the value with the top Bit. For example: Effect 1: Stop 0 Start 128 Effect 2: Stop 1 Start 129 Effect 3: Stop 2 Start 130	
Effect on right button press	Effect 1 / Value 0 **Effect 2 / Value 1** …. Effect 16 / Value 15
This parameter determines which effect is stopped after a short press of the right button and started after a long press. The effect is started by sending the value with the top Bit. For example: Effect 1: Stop 0 Start 128 Effect 2: Stop 1 Start 129 …..	

Parameter function button pair: Room mode setting	
Parameter	Settings
Possible room modes	Comfort / Energy saving mode Comfort / Energy saving / Protection mode **All modes**
Use this parameter to set which room modes can be selected with the push buttons. The modes are represented in the object by the following values: Comfort mode: Value 1 Pre-comfort mode: Value 2 Energy saving mode: Value 3 Protection mode: Value 4	

Parameter function button pair: Fan-Coil setting	
Parameter	Settings
Number of fan steps	1 step (0/100%) 2 steps (0/50/100%) **3 steps (0/33/66/100%)**
Use this parameter to configure how many steps can be selected with the push buttons.	

Parameter function button pair: Single button	
Parameter	Settings
Function of the left button	On Off **Toggle** Press: On->Off Set value Value toggle One-button dimming One-button shutter
Use this parameter to assign a function to the left button.	
Function of the right button	On Off **Toggle** Press: On->Off Set value Value toggle One-button dimming One-button shutter
Use this parameter to assign a function to the right button.	

Parameter: Function button pair: Single button Function of the left button: Set value	
Parameter	Settings
Value on left button press 0..255 = 0..100%	**0** [0..255]
Sets the value that will be sent when pressing the left button.	

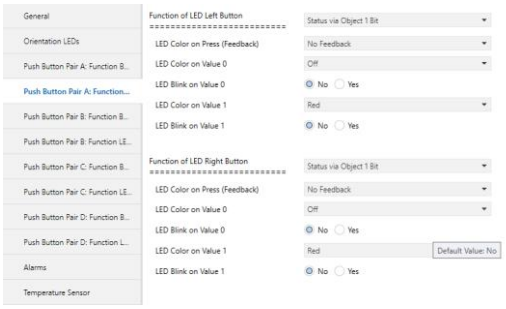
Parameter: Function button pair: Single button Function of the right button: Set value	
Parameter	Settings
Value on right button press 0..255 = 0..100%	**255** [0..255]
Sets the value that will be sent when pressing the right button.	

Parameter: Function button pair: Single button Function of the right button: Value toggle	
Parameter	Settings
1st value on button press 0..255 = 0..100%	**0** [0..255]
Sets the value that is sent after the first button press. Each time the button is pressed the value toggles between the first and the second configured value.	
2nd value on button press 0..255 = 0..100%	**0** [0..255]
Sets the value that is sent after the second button press. Each time the button is pressed the value toggles between the first and the second configured value.	

Parameter: Function button pair: Single button Function of the left button: Value toggle	
Parameter	Settings
1. value on button press 0..255 = 0..100%	**0** [0..255]
Sets the value that is sent after the first button press. Each time the button is pressed the value toggles between the first and the second configured value.	
2nd value on button press 0..255 = 0..100%	**0** [0..255]
Sets the value that is sent after the second button press. Each time the button is pressed the value toggles between the first and the second configured value.	

The functions of the parameters for button pairs B, C and D are exactly the same as in the parameter descriptions above.

5.3 Button pair A: LED function



Parameter	Settings
Function of LED right button	Always off Always on Status button (if available) Status via object 1 Bit Status via object 1 Byte Status via central scene object
Sets the LED function on the right button of a button pair.	

Parameter	Settings
LED colour on press (Feedback)	No Feedback Off Red Green Blue Yellow Purple Turquoise
Each status LED on a button can be used as feedback for a keypress. Use this parameter to configure the colour / status that is displayed during the keypress.	

Parameter: LED function: Always on	
Parameter	Settings
LED colour	Off **Red** Green Blue Yellow Purple Turquoise
Sets the colour/status of the LED.	

Parameter	Settings
LED blink	Yes **No**
Determines whether the LED is to blink or not.	

Parameter: LED function: Status button Status via object 1 Bit	
Parameter	Settings
LED colour on value 0	**Off** Red Green Blue Yellow Purple Turquoise
Configures the colour / status of the LED when the object value is 0.	
LED blink on value 0	Yes **No**
This parameter determines whether the LED is to blink when the object value is 0.	

Parameter: LED function: Status button Status via object 1 Bit	
Parameter	Settings
LED colour on value 1	Off Red Green Blue Yellow Purple Turquoise
Configures the colour / status of the LED when the object value is 1.	
LED blink on value 1	Yes **No**
This parameter determines whether the LED is to blink when the object value is 1.	

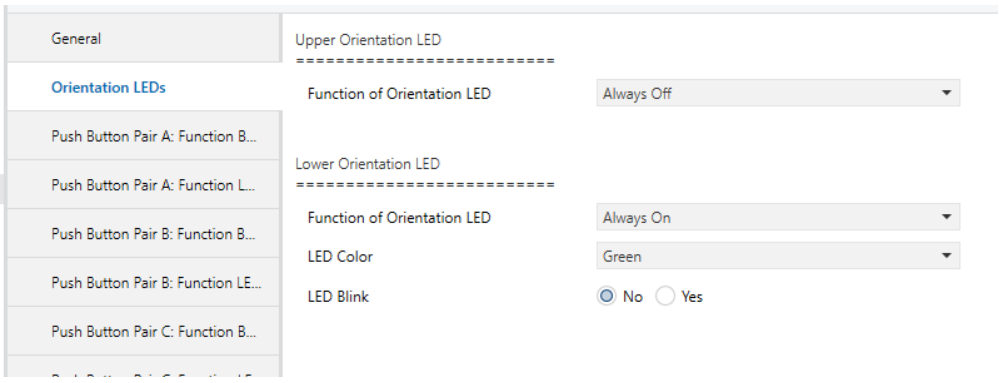
Parameter: LED function: Status button Status via object 1 Byte	
Parameter	Settings
LED Off for scene/value	**Scene 1 / Value 0** Scene 2 / Value 1 …
This parameter determines for which object value the LED is turned off.	
LED red for scene/ value	**Scene 1 / Value 0** Scene 2 / Value 1 …
This parameter determines for which object value the LED is red.	
LED green for scene/ value	… **Scene 3 / Value 2** …
This parameter determines for which object value the LED is green.	
LED blue for scene/ value	… **Scene 4 / Wert 3** …
This parameter determines for which object value the LED is blue.	
LED yellow for scene/ value	… **Scene 5 / Wert 4** …
This parameter determines for which object value the LED is yellow.	
LED purple for scene/ value	… **Scene 6 / Wert 5** …
This parameter determines for which object value the LED is purple.	

Parameter: LED function: Status via central scene object	
Parameter	Settings
LED colour for scene	Off **Red** Green Blue Yellow Purple Turquoise
Use this parameter to set the colour/status of the LED when the central scene object has the value set below. For each other object value the LED remains switched off.	
LED blink	Yes **No**
Determines whether the LED is to blink when the central scene object has the value set below.	

Parameter	Settings
LED active for scene	**Scene 1 / Value 0** Scene 2 / Value 1 Scene 3 / Value 3 …. Scene 64 / Value 63
Use this parameter to configure the scene that needs to be invoked in the central scene object in order for the LED in the respective button to be selected.	

The parameter functions for the LEDs in button pairs B, C and D are exactly the same as in the parameter descriptions above.

5.4 Orientation LEDs



Parameter	Settings
Function of upper orientation LED	Always Off Always On Status via object 1 Bit Status via object 1 Byte
Sets the function of the upper orientation LED.	

Parameter: LED function: Always On	
Parameter	Settings
LED colour	**Off** Red Green Blue Yellow Purple Turquoise
Sets the colour/status of the upper orientation LED.	
LED blink	Yes **No**
Determines whether the upper orientation LED is to blink or not.	

Parameter: LED function: Status button Status via object 1 Bit	
Parameter	Settings
LED colour on value 0	**Off** Red Green Blue Yellow Purple Turquoise
Configures the colour / status of the LED when the object value is 0.	
LED blink on value 0	Yes **No**
This parameter determines whether the LED is to blink when the object value is 0.	

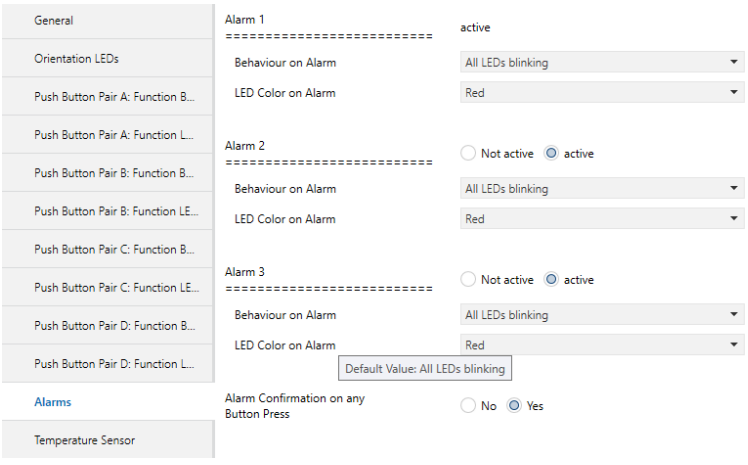
Parameter: LED function: Status button Status via object 1 Bit	
Parameter	Settings
LED colour on value 1	Off Red Green Blue Yellow Purple Turquoise
Configures the colour / status of the LED when the object value is 1.	
LED blink on value 1	Yes **No**
This parameter determines whether the LED is to blink when the object value is 1.	

Parameter: LED function: Status button Status via object 1 Byte	
Parameter	Settings
LED off for scene/value	**Scene 1 / Value 0** Scene 2 / Value 1 …
This parameter determines for which object value the LED is turned off.	

Parameter	Settings
LED red for scene/value	**Scene 1 / Value 0** Scene 2 / Value 1 …
This parameter determines for which object value the LED is illuminated in red.	
LED green for scene/value	… **Scene 3 / Value 2** …
This parameter determines for which object value the LED is green.	
LED blue for scene/value	… **Scene 4 / Value 3** …
This parameter determines for which object value the LED is blue.	
LED yellow for scene/value	… **Scene 5 / Value 4** …
This parameter determines for which object value the LED is yellow.	
LED purple for scene/value	… **Scene 6 / Value 5** …
This parameter determines for which object value the LED is purple.	

The parameter functions for the lower orientation LED are the same as those described above.

5.5 Alarms

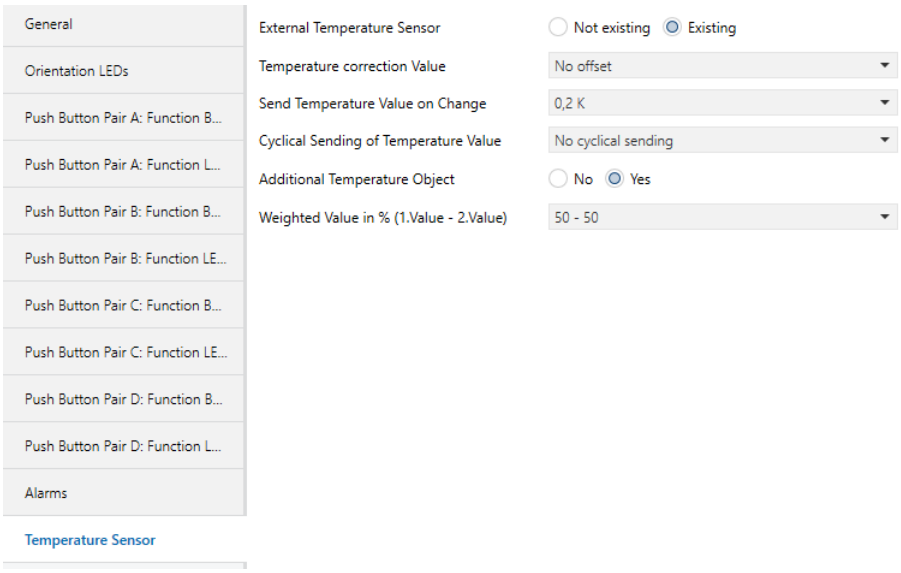


Parameter	Settings
Behaviour on Alarm 1	All LEDs blinking All status LEDs blinking All orientation LEDs blinking Status LEDs on the right blinking Status LEDs on the left blinking Upper orientation LED blinking Lower orientation LED blinking LED button pair A right blinking LED button pair A left blinking LED button pair B right blinking LED button pair B left blinking LED button pair C right blinking LED button pair C left blinking LED button pair D right blinking LED button pair D left blinking
This parameter sets how alarm 1 is to be signalised.	
LED colour on alarm	Off Red Green Blue Yellow Purple Turquoise
Sets the colour of a blinking LED during an active alarm 1	

The parameter functions for alarms 2 and 3 are the same as those described above for alarm 1.

Parameter	Settings
Alarm confirmation on any button press	Yes **No**
Configures whether an outstanding alarm is to be acknowledged when pressing any one of the buttons. The alarm can always be acknowledged via the acknowledgement object.	

5.6 Temperature sensor



Parameter	Settings
External temperature sensor	**Not available** **Available**
This parameter is used to set whether an external temperature sensor is available. The corresponding objects and other parameters are then displayed.	
Temperature offset	**No Offset** +0,1 K … +3.0 K -0,1 K … -3.0 K
This parameter is used to set an offset that is added to the measured temperature value. Measurement errors or temperature shifts due to special features of the installation can be corrected in this way.	
Send temperature value on change	**0,2 K** … 1,5 K Do not send on change
This parameter is used to set at which change of the measured value the temperature is sent.	
Cyclic transmission of temperature	10 sec. 30 sec. … 10 min. **No cyclical transmission**
This parameter is used to set whether the temperature is to be sent cyclically to the bus and with what time interval.	

Parameter	Settings
Additional temperature object	**Yes** No
This parameter is used to set whether another temperature value is made available via the bus from which a weighted average is formed.	
Weighted value in % (1st value - 2nd value)	100-0 90-10 80-20 70-30 60-40 **50-50** 40-60 30-70 20-80 10-90 0-100
This parameter is used to set the weighting factor with which the weighted value is calculated from the measured and the provided temperature.	