

Z35 Family

KNX Capacitive Touch Panel

ZVI-Z35 / ZVIZ35V2 / ZVIZ35V3 / ZVIZ40 / ZVIZ28

Application Program Version: [3.9]
User Manual Version: [3.9]_a

www.zennio.com

USER MANUAL

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DOCUMENT UPDATES

Version	Changes	Page(s)
[3.9]_a	**Changes in the application program:** • CO2 sensor and control.	-
[3.8]_a	**Changes in the application program:** • New functionalities on the thermostat page: relative setpoints, variable limits, ECO Indicator, more window and door objects, improvements in fan control and a new tab for the vertical on/off button. • Access to hidden page with a long press on the header. • Object to change the default page. • Delay for hiding pop-up messages. • Minimum increment in sliders. • Selection of the number of decimal places in float indicators.	-
[3.7]_a	**Changes in the application program:** • Internal optimisation	

1 INTRODUCTION

1.1 Z35 FAMILY

Z35 / Z35 v2 / Z35 v3[1] **/ Z40 / Z28 screens** from Zennio are high-performance **touchscreens** that can be controlled easily and intuitively. The built-in features and functions make them the ideal solution for integral room control in hotels, offices, or any other environments where controlling climate systems, lighting systems, shutters, scenes, etc. is required.

The features that differ on the touch screens are:

Feature	Z35	Z35 v2	Z35 v3	Z40	Z28
Backlit capacitive touch panel	3.5''	3.5''	3.5''	4.1''	2.8''
	320 x 240 px	320 x 240 px	320 x 240 px	320 x 240 px	240 x 320 px
Customisable pages	7	7	7	7	5
Number of controls	56	56	56	56	35
Customisable background colour and header	✓	✓	✓	✓	✓
Orientation	Horizontal	Horizontal	Horizontal	Both	Vertical
Temperature sensor	✓	✓	✓	✓	✗
Humidity sensor	✗	✓	✓	✗	✗
CO_2 dongle compatible	✗	✗	✓	✗	✗
KNX Secure	✗	✗	✓	✗	✗

Table 1. Differences between models

- Multiple **direct-action functions**, fully customisable.
- **Configuration page**.
- **Customised icons.**
- Full **climate** management.
- Programmable **timers**.
- **Scene** control.

[1] Throughout this document, Z35 v1, Z35 v2 and Z35 v3 will be referred to as **Z35** when referring to functionality common to all three devices. If not, the model will be specified.

- **Alarm** control.
- **Screensaver** with customisable image.
- **Direct links** to other pages.
- **Multi-Language**.
- 2 independent **thermostats**.
- Built-in **temperature** sensor.
- **Ambient luminosity sensor** for brightness automatic adjustment.
- **Proximity sensor** for quick start.
- **Humidity** sensor (exclusive to Z35 v2 and Z35 v3).
- **Buzzer** for an audible acknowledgement of user actions (with the possibility of disabling it either by parameter or by object).
- Possibility of **locking / unlocking the touch panel** through binary orders or scenes, and of setting a timed/automatic locking of the device (**cleaning function**).
- **Pop-ups** and **Welcome Back object** (binary or scene).
- **Celsius and Fahrenheit** temperature scales for the on-screen indicators, being possible to select them in parameters or through communication object.
- 4 customisable **analog-digital inputs**.
- **Heartbeat** or periodic “still-alive” notification.
- **Elegant** design, available in various **colours.**
- **KNX Secure** (exclusive to Z35 v3).

1.2 FUNCTIONALITY

The application program for the Z35 family offers the following functions:

- Configuration up to **7 pages** on Z35 and Z40 with up to 6 boxes each in horizontal view, or up to 4 boxes on Z40 vertical orientation. In the case of Z28, it is possible to have up to **5 pages** with a maximum of 7 boxes per page. These pages can be configured as regular pages or thermostat pages.

Box	Functionality	Horizontal Page		Vertical Page
		Regular	Thermostat	Regular / Thermostat
Indicators	Binary (icon, text)	✓	✓	✓
	Enumerated (icon, text)			
	Unsigned integer (1 / 2 bytes)			
	Signed integer (1 / 2 / 4 bytes)			
	Scaling (percentage)			
	Temperature			
	Float (2 / 4 bytes)			
	Text (14 bytes)			
1-Button Control	Switch	✓	✓	✓
	Two Objects (Short Press / Long Press)			
	Hold & Release			
	Scene (run / save)			
	Constant (counter, scaling, float)			
	Enumeration			
	Shutter			
	Dimmer			
	Room State			
2-Button Control	Switch (icon, text).	✓	✗	✓
	Switch + Indicator (counter, scaling, temperature)			
	Two Objects (Short Press / Long Press)			
	Constant (counter, scaling, float)			
	Enumeration			
	Shutter			
	Dimmer			
	Multimedia			
	Room State			

Box	Functionality	Horizontal Page		Vertical Page
		Regular	Thermostat	Regular / Thermostat
Climate Specific Control	Temperature Setpoint	✓	✗	✓
	Mode (cool/heat, extended)			
	Special Modes			
	Fan			
Other Controls	RGB Control	✓	✗	✓
	RGBW Control			
	Daily / Weekly Timer (not available on Z28)			
	Alarm			
	Page Direct Link	✓	✓	
	Alarm Clock			
Boxes on thermostat pages	On / Off Button	✗	✗	✓
	Setpoint Control		✓	
	Fan Control			
	ECO Indicator			

Table 2. Controls available in each type of page.

- **1 Configuration Page** (optional), which contains the brightness and sounds settings, the calibration of the built-in temperature probe, the programming button, Hour/Date settings and Reset configuration.

1.3 START-UP AND POWER LOSS

After download or device reset it is necessary **to wait for about 2 minutes without performing any action** in order to allow proper calibration of the proximity sensor and luminosity sensor. It is recommended to remain at least 50 cm away from the device during this time and to avoid direct light falling on the device.

After download or power failure, the date and time flash to indicate that they may not be correct. The flashing stops when a value is received through the bus or it is set from the configuration page control.

For detailed information about the technical features, as well as on security and installation procedures, please refer to the device **Datasheet**, bundled within the device packaging and also available at www.zennio.com.

2 UPDATE OBJECTS AFTER RESET

The aim of this functionality is allow the integrator to send read request for the status objects after a reset. There are two situations in which this functionality may be useful:

- In case of a screen reset, if there have been changes in the bus while the screen was off, after the reset, objects keep the same value as before the reset, but not their actual value in the installation.
- In addition, after programming from ETS, all objects are initialized to their default values, but not to their actual values in the installation.

When a bus failure or ETS programming occurs, read requests of all the following objects will be sent gradually (to prevent bus overload):

- **General objects**: date and time, disabling pushbuttons, external temperature, and temperature scale.
- **Indicator objects**.
- **Timer** enabling objects.
- **Alarm confirmation** object.
- **Ventilation control:** Auto mode dedicated object.
- **RGB and RGBW** objects.

Objects that will NOT be updated are:

- **Control objects**.
- **Alarm trigger**.
- 4-Bit **Light Dimming**.
- **Shutter: Stop/Step**.
- **All other objects.**

The time and date objects of the device will be read from the bus always after a reset, regardless of whether this functionality is active or not.

3 CONFIGURATION

After importing the corresponding database in ETS and adding the device into the topology of the desired project, the configuration process begins by entering the Parameters tab of the device. Generally, Z35 v3 captures are included. However, there are certain parameters that may vary for Z40 and Z28, which will be mentioned where applicable.

3.1 MAIN CONFIGURATION

This tab is divided into multiple screens, all of which contain a set of global parameters regarding the general functionality of the device, and therefore not specifically related to a particular page of the user interface.

3.1.1 GENERAL

The "General" tab contains general settings. Most are checkboxes for enabling / disabling other functionalities.

ETS PARAMETERISATION

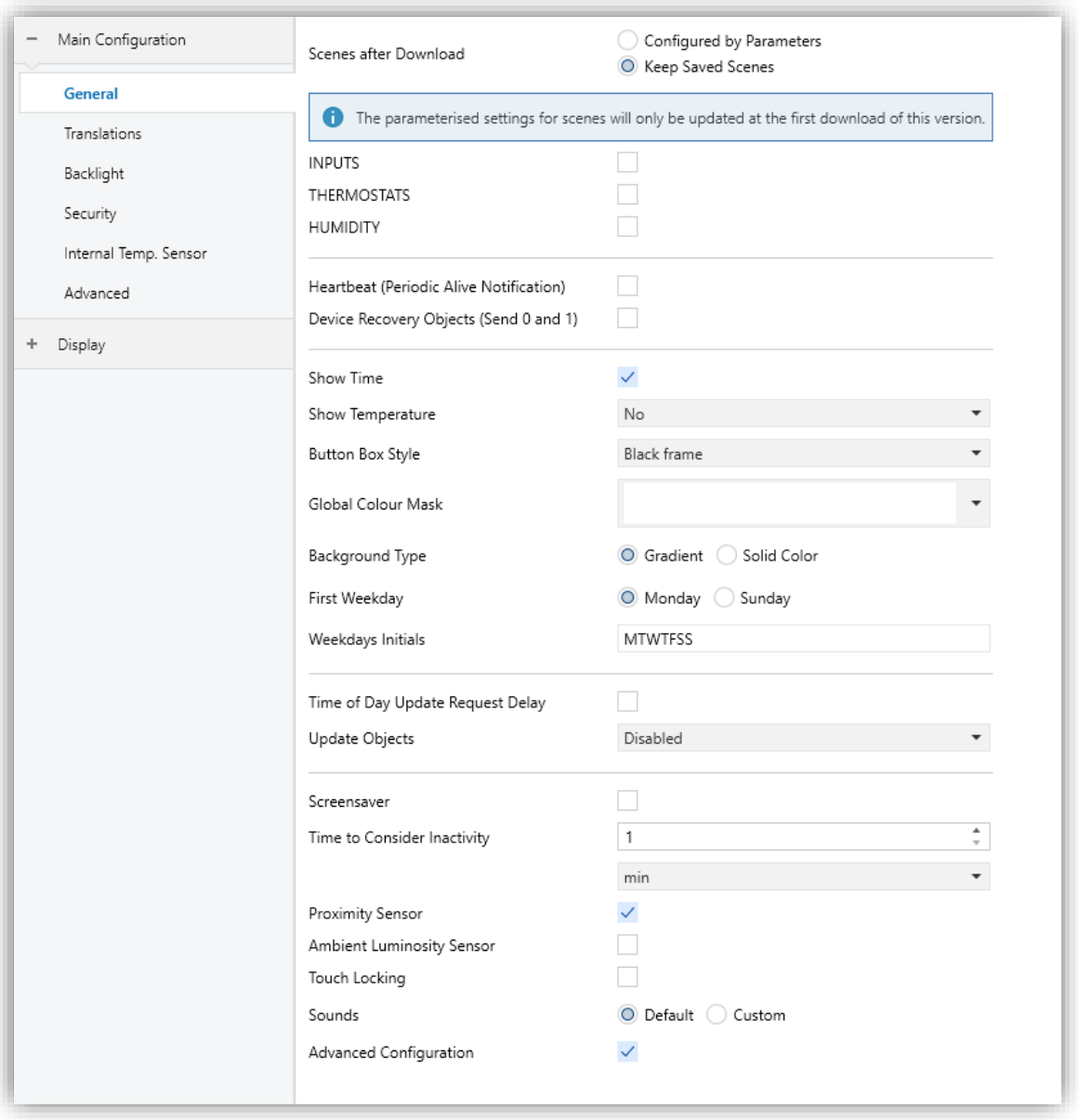


Figure 1. Main Configuration - General.

The following parameters are shown:

- **Scene after Download** [*Configured by Parameters / Keep Saved Scenes*][2]: allows defining whether the scene values are those configured by parameter or whether the previously saved value is kept after download.

  Note: *if "Keep Saved Scenes" option has been configured, but it is the first download of the device or a different version from the current one, the values configured by parameter will be adopted. If new scenes are added in successive*

[2] The default values of each parameter will be highlighted in blue in this document, as follows: [*default / rest of options*].

downloads, it will be necessary to perform a download by checking the option "Configured by Parameters" to ensure the correct operation of these scenes.

- **Inputs** [*disabled / enabled*]: enables or disables the "Inputs" tab in the tree on the left, depending on whether the device will or will not be connected to any external accessories. For more information, see section 3.3.

- **Thermostats** [*disabled / enabled*]: enables or disables the "Thermostat" tab in the tree on the left. For more information, see section 3.4.

- **Humidity** [*disabled / enabled*] (only available for Z35 v2 and Z35 v3): enables or disables the "Humidity" tab in the tree on the left. For more information, see section 3.5

- **Heartbeat (Periodic Alive Notification)** [*disabled / enabled*]: incorporates a one-bit object to the project ("**[Heartbeat] Object to Send '1'**") that will be sent periodically with value "1" to notify that the device is still working (*still alive*).

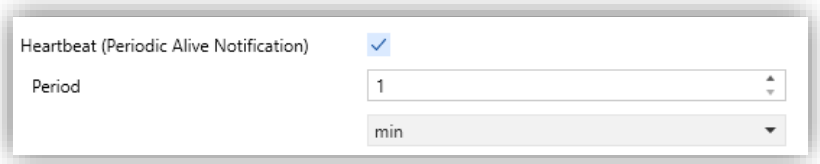


Figure 2. Heartbeat.

Note: *the first sending after download or bus failure takes place with a delay of up to 255 seconds, to prevent bus overload. Subsequent transmissions follow the configured period.*

- **Device Recovery Objects (Send 0 and 1)** [*disabled / enabled*]: this parameter lets the integrator activate two new communication objects ("**[Heartbeat] Device Recovery**"), which will be sent to the KNX bus with values "0" and "1" respectively whenever the device begins operation (for example, after a bus power failure). It is possible to parameterise a certain **delay** [*0…255*] for their transmission.

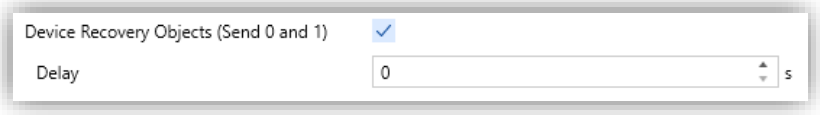


Figure 3. Sending of Indication objects on bus voltage recovery.

Note: *after download or bus failure, the sending takes place with a delay of up to 6.35 seconds plus the parameterised delay, to prevent overload*.

- **Display Orientation** [*Horizontal / Vertical*] (exclusive to Z40): defines the orientation in which items will be displayed on the screen. In case of Z35, only horizontally layout is available, and for Z28 only vertical layout is available.

- **Show Time** [*disabled / enabled*]: enables setting whether the current time (according to the internal clock) is displayed in the upper-left corner of any page or not.

- **Show Temperature** [*No / Internal Temperature Probe / External Value*]: sets whether the current temperature should be shown or not in the upper right corner of every page, being necessary in such case to choose the source of the temperature value: "Internal temperature probe" or "External value". If the latter is chosen, an object named "**[General] External temperature**" will be enabled, so that it can be grouped with any other object that sends temperature values.

- **Button Box Style** [*No frame / Coloured frame / Black frame*]: selects a frame for the buttons of controls and pages, in order to distinguish them from the indicators.



Figure 4. Button box (black, white Colour, no box).

- **Global Colour Mask** [*White / Colour select by dropdown*]: selects the colour that will be applied to all the elements of the screen in a general way.

  Note: *setting a different Colour in the desired boxes and buttons by using a specific parameter in their configuration tab is possible (see section 3.2.2)*.

- **Background Type** [*Gradient / Solid Color*]: sets the style of the background. When selecting "Solid color" two new parameters appear:

  - **Box Color [***White / Grey / Black***]**: sets the background color of the boxes.

  - **Header Color** [*disabled / enabled*]: if enabled, the header will have a slightly different color than the background color.

- **First Weekday** [*Monday / Sunday*]: sets the first day of week on calendar.

- **Weekdays initials** [*MTWTFSS*]: permits customising the label that will represent each of the weekdays on the screen. A seven-character string (including letters

or numbers), ordered according to the above First Weekday parameter, must be entered – each of the characters will represent one weekday.

- **Time of Day Update Request Delay** [*disabled / enabled*]: sets a sending **delay** [*1…65535*] [*s / min / h*] for the date/time request when the device starts up.

- **Update Objects**: enables the sending of read requests to update status objects and indicators (see section 2 for further details). There are four options available, some of them with a configurable **delay**:

  - [*Disabled*]: no read request, therefore objects are not updated.

  - [*After Programming*]: read requests are sent after a complete or partial download (or when pressing the reset button in the configuration page, if set as "Parameters Reset", see section 3.2.1.1), after the parameterised **delay** ([*0…10…65535*] [*s / min / h*]).

  - [*After Reset*]: read requests are sent when a reset occurs (bus failure, the Reset Device ETS option or when pressing the reset button in the configuration page, if set as "Z35 / Z40 / Z28 Reboot", see section 3.2.1.1), after the parameterised **delay** ([*0…10…65535*] [*s / min / h*]).

  - [*After Programming and Reset*]: combination of the two above options.

- **Screensaver** [*disabled / enabled*]: enables or disables the "Screensaver" tab in the tree on the left. See section 3.1.6 for details.

- **Time to Consider Inactivity** [*1…65535*] [*min / h*], [*5… 30…65535*] [*s*]: time that must elapse since the last press and/or proximity detection to consider inactivity state. Then the display backlight will dim. See section 3.1.3.

- **Proximity Sensor** [*disabled / enabled*]: enables the proximity sensor. This functionality permits "waking up" the device display when detecting presence through the proximity sensor.

  Please refer to the user manual **"Proximity and Luminosity Sensor"** (available in the product section at the Zennio homepage, www.zennio.com) for detailed information about the functionality and the configuration of the related parameters.

- **Ambient Luminosity Sensor** [*disabled / enabled*]: enables or disables the ambient luminosity sensor. When enabled, a new tab is added in the tree on the left (see section 3.1.7).

- **Touch Locking** [*disabled / enabled*]: enables or disables the possibility of locking the touch by object. When enabled, a new tab is added in the tree on the left (see section 3.1.8).

- **Sounds** [*Default / Custom*]: sets whether the sound functions (button beeps, alarm and doorbell) should work according to the pre-defined configuration ("*Default*") or to a user-defined configuration ("*Custom*") (see section 3.1.9).

- **Advanced Configuration** [*enabled / disabled*]: enables or disables the "Advanced" tab in the tree on the left (see section 3.1.10).

The project topology shows the following objects by default:

- "**[General] Time of Day**": 3-byte object for setting the internal time of the device, for example, by linking it to a KNX clock. This object also allows read requests, so the current time of the device can be checked. It is also automatically sent after time changes made by the user from the screen itself.

  Note: *although the DPT of this object considers a field for setting the day of the week, screens from the Z35 family calculate it from the date and therefore ignores that field.*

  > **Important**: *screens from the Z35 family **do not have an RTC** or battery to keep track of the time in the absence of power. Therefore, it is important to **receive the time periodically** from a device that obtains it through NTP and/or has a battery to prevent delays during bus failures*.

- "**[General] Date**": 3-byte object for setting the internal date of the device, for example, by linking it to a KNX clock. This object also allows read requests, so the current date of the device can be checked. It is also automatically sent after date changes made by the user from the screen itself.

- "**[General] Scene: Receive**" and "**[General] Scene: Send**": objects for respectively receiving and sending scene values from/to the KNX bus whenever it is necessary (e.g., when the user touches a button that has been configured to send scene commands; see section 3.2.2.3.4).

- "**[General] Activity**"**:** 1-bit object to force activity/inactivity state on the device. For further information, please refer to the user manual "**Proximity and Luminosity Sensor**" and "**Brightness**" (available in the Z35 / Z40 / Z28 product section at the Zennio homepage, www.zennio.com).

- "**[General] Translations - Select Language**": 1 and 2-byte objects for changing the language shown on the screen when receiving a value through the bus (see section 0).

- "**[General] Translations - Main Language**": 1-bit object that, after the reception of the value "1" from the bus, will load the main language (see section 0).

- "**[General] Temperature Scale**": 1-bit object which permits changing in runtime the scale of the temperatures that may show on the screen (see section 3.1.10).

- "**[General] Default Page**": 1-byte object that allows the default page to be modified (see section 3.2.1).

- **[C1][] Switch - Status:** object associated with Control 1, enabled by default. The second brackets, now empty, will contain the text written on the parameter **Label** of the control. See section 3.2.2.

- "**[General] Proximity Sensor**", "**[General] External Proximity Detection**" and "**[General] Proximity Detection**"**:** 1-bit object whose functionality is tied to the proximity sensor.

  For further information, please refer to the user manual "**Proximity and Luminosity Sensor**" (available in the Z35 / Z40 / Z28 product section at the Zennio homepage, www.zennio.com).

- "**[General] Display – Brightness**": 1-byte percentage object for changing the display brightness level.

- "**[Internal Temp. Probe] Current Temperature**": 2-byte object through which the value of the current measurement of the built-in sensor will be sent to the bus, according to the parameterisation (see section 3.1.5).

3.1.2 TRANSLATIONS

Texts shown on the screen can be translated into up to **five different languages**.

Texts of page titles, box titles, indicators, etc. are entered by parameter in the corresponding configuration tab. For each language enabled, an additional textbox is displayed to enter the translation.

Note: *depending on the space occupied by the characters on the screen, the full text entered may not be displayed*.

Switching from one language to another can be done through three types of communication objects:

- **Up to five 1-bit objects**, one for each language. If this is enabled, when a "1" is received through any of these, the corresponding language is activated in the device.

- **A 1-Byte object**. The expected values in this object are fixed, from 0 to 4, to select the language. If the value received does not correspond to any language, the texts will be displayed in the main language.

- **A 2-Byte ASCII object**. The expected values for this object are two characters of the ASCII code, corresponding to ISO 639-1. If the received character pair does not correspond to any enabled language but is in range, the texts will be represented in the main language, if an out-of-range value is received, it does not change the active language.

  Notes:

  - *Not case sensitive*.
  - *Please refer to https://en.wikipedia.org/wiki/List_of_ISO_639-1_codes for a table with the language codes*.
  - If a language change is made via communication object while a pop-up message is active, the change will not be effective until the pop-up message is hidden.

On the other hand, screens from the Z35 family allow the use of Latin, Greek and Cyrillic characters for the texts displayed on the screen.

Additionally, the character sets for Arabic and Hebrew languages, and other special characters from the Asian font sets Chinese and Thai, can be downloaded. Please refer

to the specific manual "**Zxx Image Downloader**", available in the product section at the Zennio website, www.zennio.com, for detailed information.

ETS PARAMETERISATION

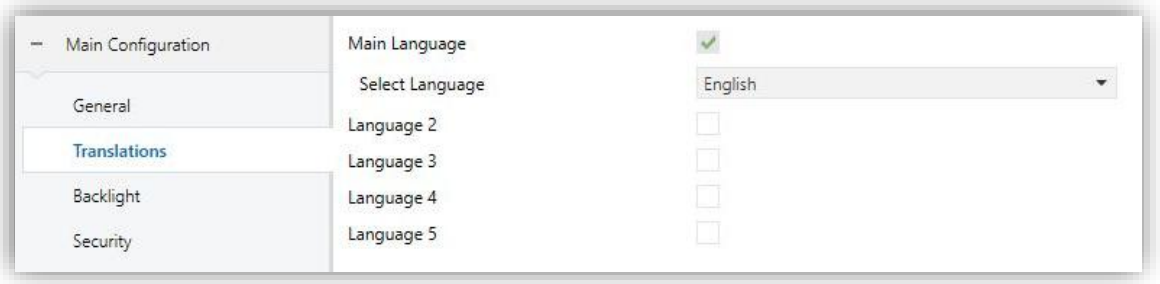


Figure 5. Main Configuration - Translations.

- **Main language** [*enabled*]**:** read-only parameter to make it evident that the main language is always enabled.
  - **Select language:** list of the available languages.
- **Language X** [*disabled / enabled*]**:** enables the additional language X.
  - **Select language**: list of available languages to select the language X.

Only the Main language is enabled by default.

While Translations stays enabled, the following objects are visible:

- "**[General] Translations – Select language**" (one-byte).
- "**[General] Translations – Main language**" (one-bit).
- "**[General] Translations – Select language**" (two-byte).

Up to four specific objects for the additional languages will be also shown, if required:

- "**[General] Translations – Language X**" (one bit).

These objects work accordingly to the behaviour mentioned above.

3.1.3 BACKLIGHT

Screens from the Z35 family allow managing the brightness of the display according to two operating modes: normal mode and night mode.

Note: *contrast is not a configurable feature in the device.*

Please refer to the specific manual "**Brightness**" (available in the Z35 / Z40 / Z28 product section at the Zennio website, www.zennio.com) for detailed information about the functionality and the configuration of the related parameters.

3.1.4 SECURITY

Any control or page can be protected by a **password** to restrict access. Setting one or two different passwords is possible, so the integrator can afterwards configure whether the access to a page or box will be protected by one password or another or remain unprotected – every page can be independently configured.

Buttons that lead to a protected page or box will show a little **lock** icon overlaid on their lower left corner.

Figure 6 shows the "enter password" dialog shown to the user when trying to access a protected page.



Figure 6. Security Pop up.

In case of setting up **two levels**, the first one is assumed to be *enclosed* by the second one. This means that whenever the device asks the user to type password #1 (to enter a certain page); password #2 will also be accepted (even when changing passwords). On the contrary, password #1 cannot be used instead of password #2. This behaviour permits, therefore, making password #2 available to users with further privileges while password #1 is assigned to users with fewer privileges.

Moreover, when accessing a protected page, all the boxes and pages with the same or lower access level than the entered password are automatically unlocked. It can be set if the elements are relocked after a time period or a page switch.

ETS PARAMETERISATION

This screen permits selecting how many security levels (one or two) will be available for the configuration of the access to the control pages or the boxes.

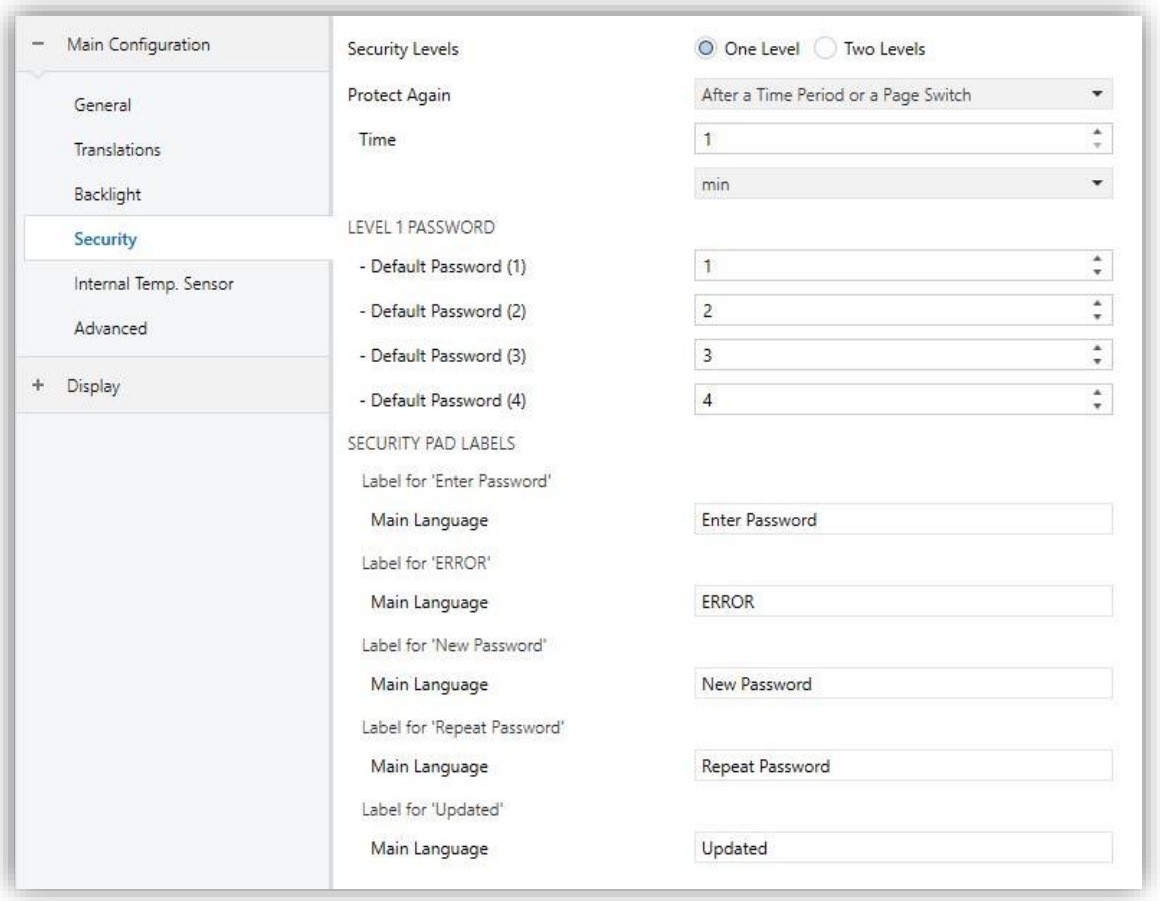


Figure 7. Main Configuration - Security.

- **Security Levels** [*One Level / Two Levels*]: selects whether one or two security levels will be available.

  Note: *with independence of the option selected here, it will be necessary to establish the security level desired for each specific page of controls.*

- **Protect Again** [*After a Time Period / After a Page Switch / After a Time Period or a Page Switch*]**:** sets when security is reactivated for unlocked pages or boxes. When selecting the first or the last option, a new parameter **Time** [*10…65535*] [*s*] [*1…65535*] [*min / h*] appears to set the time period.

- **Password** [*Level 1: 1234; Level 2: 5678*]: parameter made of four additional textboxes, each of which should contain one of the four consecutive digits [*0…9*] that will compose the password.

In case of enabling "two levels" of security, the Password parameter is shown twice, being the first one referred to the password of Level 1, and the second one to the password of Level 2.

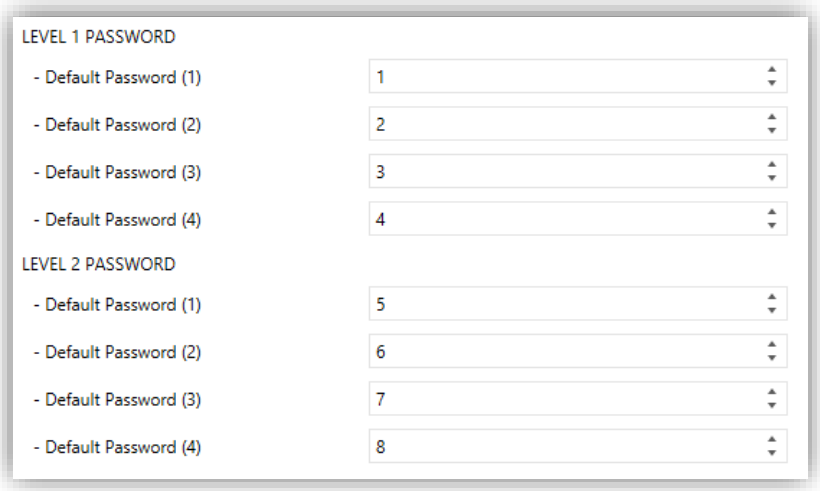


Figure 8. Two security levels.

Important: *the password insertion dialog features a specific option (lower left button) that lets the user change, in runtime, the passwords originally set by parameter. After accessing this option and prior to typing the new password, the user will be required to type the corresponding old password (level 1 or level 2). Note that although it will be possible to type password 2 even if the device asks for password 1, the new password typed afterwards will be anyway stored as the new password for level 1.*

- **Security Pad Labels:** parameter consisting in six additional textboxes, intended for the customisation of the messages that the device shows (or may show) when the user interacts with the password insertion dialog.

  - **Label for 'Enter Password 1'** [*Enter Password 1*]: message shown when the user is required to type in the password for level 1.
  - **Label for 'Enter Password 2'** [*Enter Password 2*]**:** message shown when the user is required to type in the password for level 2.
  - **Label for 'ERROR'** [*ERROR*]**:** message shown to the user when the typed password is not valid.
  - **Label for 'New Password'** [*New Password*]**:** message shown to ask the user for a new password, during the password change process.
  - **Label for 'Repeat Password'** [*Repeat Password*]**:** message shown when the user is required to re-type the new password.

- **Label for 'Updated'** [*Updated*]**:** message shown to the user as a confirmation of the password change.

3.1.5 INTERNAL TEMPERATURE SENSOR

Z35 and Z40 are equipped with **an internal temperature sensor** for monitoring the ambient temperature of the room, so that the device can report it to the KNX bus and trigger several actions when the temperature reaches certain values.

Please refer to the specific documentation of the **"Temperature Probe"** available at the Zennio homepage, www.zennio.com, for detailed information about the functionality and the configuration of the related parameters.

3.1.6 SCREENSAVER

The screensaver is a special page that will only be shown after a **period of inactivity**, configurable by parameter. It can show the current **Time**, the current **Temperature,** selecting as temperature measurement source the internal temperature sensor or an external value, or **both,** indicating which will be the main one**.**



Figure 9. Screensaver Pop up. Main Indicator – Time/Date.

There will also be an option to show an **image** on the screensaver. This image will be loaded from a tab called DCA that will appear at the bottom of ETS. In addition, in order to minimize download time, downloading or not the image with each programming can be chosen.

If the image and another screensaver option are enabled, both pages will alternate, each of them being active during 15 seconds.

The screensaver will disappear when touching the screen or the HOME button or, if the proximity sensor is activated, when it detects presence.

Notes:

- *If a Pop-Up is being displayed (see section 3.1.10.2), screensaver will not become active.*
- *If a pop-up is activated when the screensaver is active (see touch locking 3.1.8, cleaning function 3.1.10.1 or Pop-Ups 3.1.10.2) this pop-up will be shown over the screensaver.*

ETS PARAMETERISATION

After enabling "**Screensaver**" from "General" screen (see section 3.1.1), a new tab will be incorporated into the tree on the left.

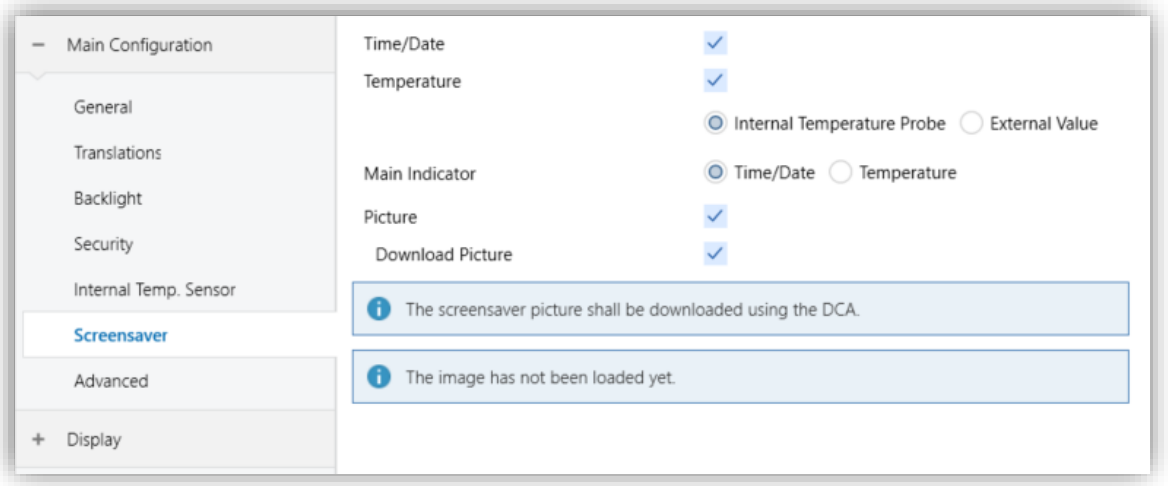


Figure 10. Main Configuration - Screensaver.

- **Time/Date** [*disabled / enabled*]: sets whether to show the current time or not.
- **Temperature** [*disabled / enabled*]: sets whether to show the current temperature or not. When enabled, it is possible to select the source of the temperature value [*Internal Temperature Probe / External Value*] only for Z35 and Z40. The latter option will enable a new two-byte object **"[General] External Temperature"** through which the device can receive the required values from the bus.
- **Main indicator** [*Time/Date / Temperature*]: in case both **date and time** and **temperature** are enabled, this parameter allows to choose which of them shall be displayed in a larger font size.
- **Picture** [*disabled / enabled*]: sets whether to show an image in the screensaver. This image will be selected using the ETS App Axx Image Downloader.

- **Download Picture** [*disabled / enable*]: sets if the selected picture is updated with each download.

Please refer to the specific manual **"Zxx Image Downloader"** (available in the Z35 / Z40 / Z28 product section at the Zennio homepage, www.zennio.com) for detailed information about the functionality and the configuration of the related parameters.

3.1.7 AMBIENT LUMINOSITY SENSOR

Screens from the Z35 family include a sensor to measure the ambient luminosity level, so that the brightness of the display can be adjusted according to the current luminosity of the room.

Please refer to the specific manual **"Luminosity and Proximity Sensor"** (available in the Z35 / Z40 / Z28 product section at the Zennio homepage, www.zennio.com) for detailed information about the functionality and the configuration of the related parameters.

3.1.8 TOUCH LOCKING

The touch panel of each screen can be optionally locked and unlocked anytime by writing a configurable one-bit value to a specific object provided for this purpose. It can also be done through scene values.

While locked, user presses on the touch buttons will be ignored: no actions will be performed when the user presses on any of the controls. However, if configured, a message will be shown on the display for three seconds if the user touches a button during the lock state.



Figure 11. Touch Locking message.

Note: *if an alarm with active lock is activated, it will be disabled and the display can be pressed as normal. After confirming the alarm, the screen will be locked again.*

ETS PARAMETERISATION

After enabling **Touch Locking** from "General" screen (see section 3.1.1), a new tab will be incorporated into the tree on the left.

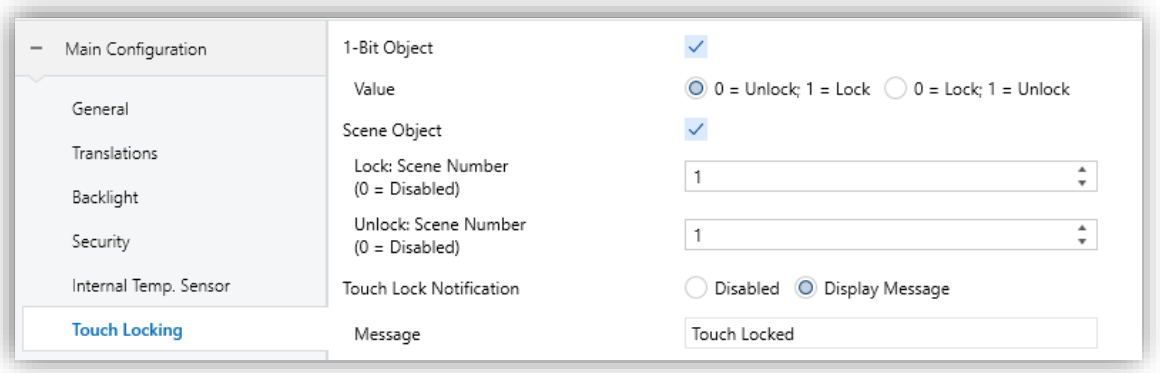


Figure 12. Main Configuration - Touch Locking.

In this tab you can configure the blocking of the presses on the display.

- **1-Bit Object** [*disabled / enabled*]: enables the 1-bit object "**[General] Touch Locking**" to trigger the touch lock.
  - **Value** [*0 = Unlock; 1 = Lock / 0 = Lock; 1 = Unlock*]: parameter to select which value should trigger which action when received through the indicated object.
- **Scene Object** [*disabled / enabled*]: enables the touch locking and unlocking when receiving the configured scene value through the object ("**[General] Scene: Receive**").
  - **Lock: Scene Number (0 = Disabled)** [*0…1…64*]: scene number that locks the touch.
  - **Unlock: Scene Number (0 = Disabled)** [*0…1…64*]: scene number that unlocks the touch.
- **Touch Lock Notification** [*Disabled / Display Message*]: sets whether to display a message on the screen or not when the device is locked and the user attempts to touch a button. When the first one is selected, one textbox (**Message**) appears to enter the desired message.

3.1.9 SOUNDS

Screens from the Z35 family emit **3 types of sounds**, depending on the action performed:

- **Press Confirmation:** short beep indicating that the user has pressed a button. This only applies to step controls, i.e., controls that walk through a certain range of values and that do not send a value after every touch, but only the final value after the last press. The user can choose between two different sounds.
- **Sending Confirmation**: a slightly longer and sharper beep than the previous one. It indicates the sending of an object to the bus as a result of a press.
- **Alarm:** a sharp and longer beep than the previous one, high intensity, which is typically used as alarm or bell.

The range of sounds emitted when these actions are performed will be different depending on the sound type selected.

Enabling and disabling the button sounds can be done in parameters or through an object, being also possible to define in parameters whether the button sounds should be initially enabled or not.

Pressing and sending confirmation sounds can be silenced using one of the following methods:

- Parameterisation after ETS download.
- 1-bit communication object.
- Checkbox in "Configuration Page".

Note: *Under no circumstances will the alarm or ringtone be muted..*

ETS PARAMETERISATION

After enabling the "*Custom*" configuration of **Sounds** from "General" screen (see section 3.1.1), a new tab will be incorporated into the tree on the left.

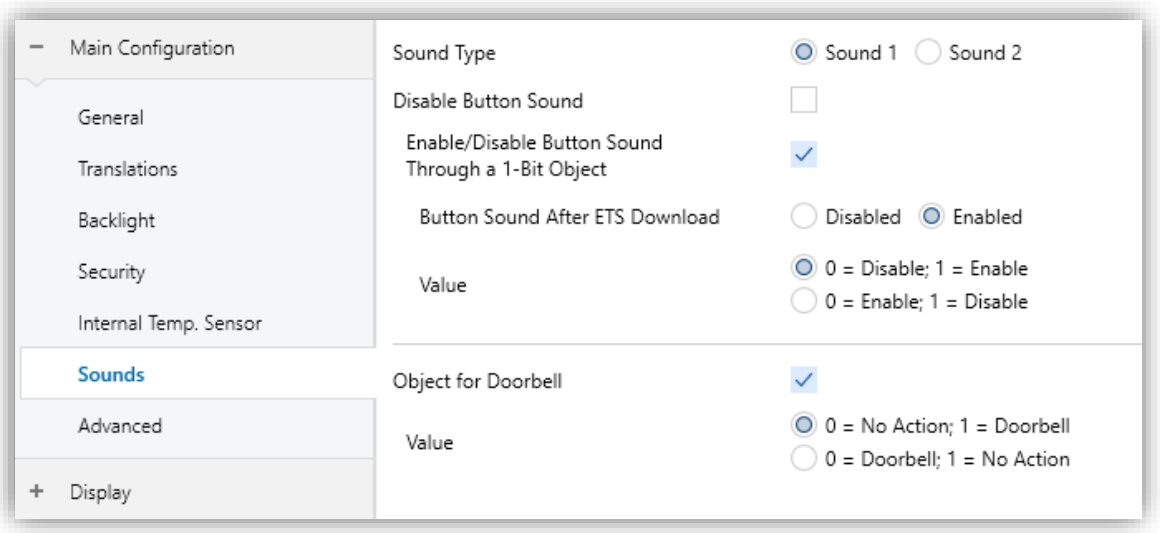


Figure 13. Main Configuration - Sounds.

The initial configuration of this screen is equivalent to the default option. However, the following parameters will be configurable.

- **Sound Type** [*Sound 1* / *Sound 2*]: sets which range of sounds is used by the device.

- **Disable Button Sounds** [*disabled* / *enabled*]: allows the user to disable the press and sending confirmation sounds.

  - **Enable/Disable Button Sound Through a 1-Bit Object** [*disabled* / *enabled*]: enables the button beeping function to be disabled/resumed in runtime by writing to a specific object ("**[General] Sounds – Disabling button Sound**").

    - **Button Sound After ETS Download** [*Disabled* / *Enabled*]: sets whether the button beeping function should start up enabled (default option) or disabled after an ETS download.

    - **Value** [*0 = Disable; 1 = Enable* / *0 = Enable; 1 = Disable*]: parameter to select which value should trigger which action when received through the indicated object.

- **Object for Doorbell** [*disabled* / *enabled*]: enables or disables the doorbell function. If enabled, a specific object ("**[General] Sounds - Doorbell**") will be included into the project topology.

  - **Value** [*0 = No Action; 1 = Doorbell* / *0 = Doorbell; 1 = No Action*]: parameter to select which value should trigger which action when received through the indicated object.

3.1.10 ADVANCED

Tab for the parameterisation of some advanced functions is shown in ETS if enabled from the "Configuration" tab. These functions are explained next.

ETS PARAMETERISATION

After enabling the **Advanced configuration** from "General" screen (see section 3.1.1), a new tab will be incorporated into the tree on the left.

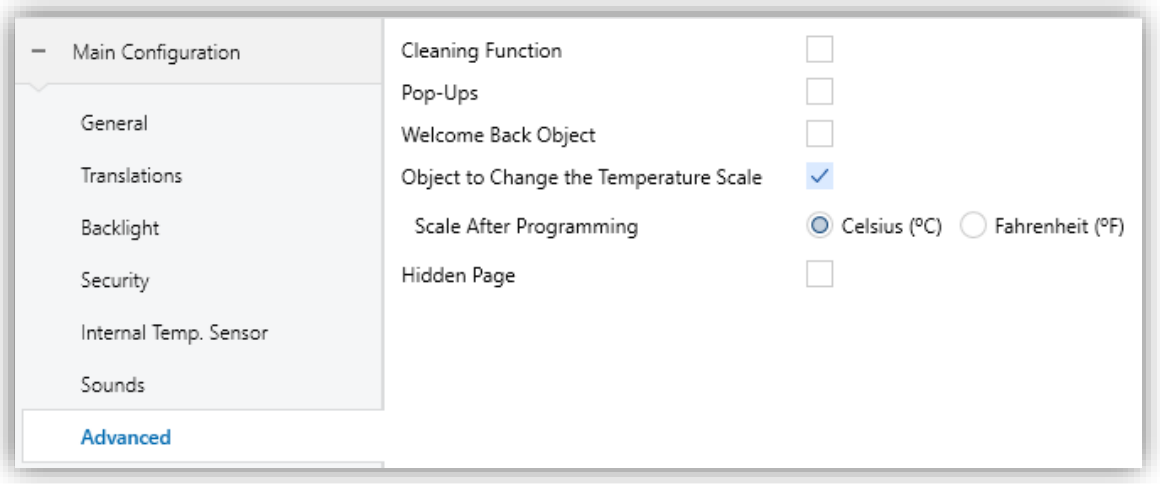


Figure 14. Main Configuration - Advanced.

- **Cleaning Function** [*disabled / enabled*]: enables or disables the "Cleaning Function" tab. See section 3.1.10.1 for details.

- **Pop-Ups** [*disabled / enabled*]: enables or disables the "Pop-Ups" tab. See section 3.1.10.2 for details.

- **Welcome Back Object** [*disabled / enabled*]: enables or disables the "Welcome Back Object" tab. See section 3.1.10.3 for details.

- **Object to Change the Temperature Scale** [*disabled / enabled*]: enables or disables the 1-bit object **"[General] Temperature Scale"°**, whi°h permits changing in runtime the scale of the temperatures that may show on the screen. By receiving one '0' through this object, the scale will switch to Celsius, while after receiving one '1' it will switch to Fahrenheit.

  The selected scale applies to any temperatures shown on the screen, such as:

  - The **screensaver** temperature.
  - Indicators of **temperature controls** linked to a box in the display.

- **Temperature indicators**.
- Temperature shown on the thermostat page **setpoint**.

In this functionality, the following parameter will also appear:

- **Scale After Programming** [*Celsius (ºC) / Fahrenheit (ºF)*]: sets the scale in use after download.

- **Hidden Page** [*disabled / enabled*]: enables access control to a hidden page with a long press on the header bar.

  - **Press Threshold Time** [*1 … 6 … 60*] [*x 1 s*]: time in seconds required for a keystroke to be considered valid for accessing the hidden page.

  - **Page** [*Menu / Configuration Page / Page 1 / … / Page 7*]: selects the page to access after the long press.

  - **Protect** [*No / Yes*]: sets whether the page will be password-protected or not.

3.1.10.1 CLEANING FUNCTION

This feature is very similar to the touch locking, that is, it locks the touch area, thus discarding further button touches. The difference is that this function remains active only during a parameterisable time and then stops. During this function, the brightness will be at 100%.

This function is intended to let the user clean the touch area with the certainty of not triggering unwanted actions. A message can be shown during the cleaning state and, when the timeout is about to end, it is also possible to make this message blink or to make the device beep (or both).



Figure 15. Cleaning Function Pop up.

ETS PARAMETERISATION

After enabling **Cleaning Function** from "Advanced" screen (see section 3.1.10), a new tab will be incorporated into the tree on the left.

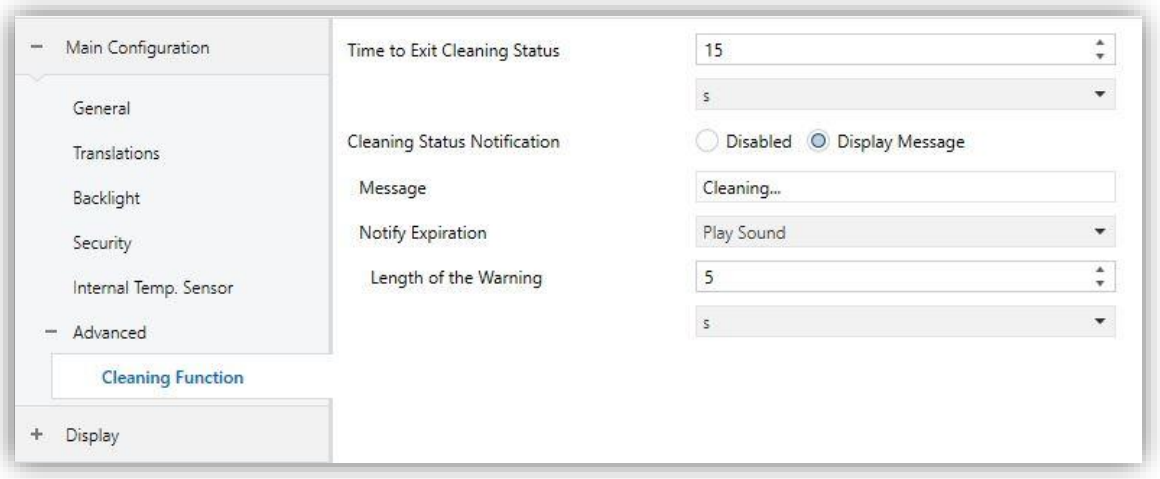


Figure 16. Advanced - Cleaning Function.

- **Time to Exit Cleaning Status** *[5...15…65535] [s] / [1…65535] [min / h]*: timeout to deactivate the cleaning function once triggered.

- **Cleaning Status Notification** [*Disabled / Display Message*]: sets whether to show a message during the cleaning state. When "*Display Message*" is selected, the following parameters appear:

  - **Message** [*Cleaning…*]: textbox to enter the desired message.

  - **Notify Expiration** [*No / Blink Message / Play Sound / Both*]: sets whether to notify the timeout expiration or not. When any of the three latter options is selected, a new parameter shows up:

    - **Length of the Warning** [*1...5…65535*] [*s / min / h*]: sets the ahead-time to start the notification prior to the end of the cleaning function.

"**[General] Cleaning Function**" one-bit object, triggers the cleaning function when it receives a "1" from the KNX bus.

3.1.10.2 POP-UPS

This function is intended to show the user up to 6 different **Pop-Ups** of up to four lines of text on the display, each of which can be object-dependent or set in parameters.

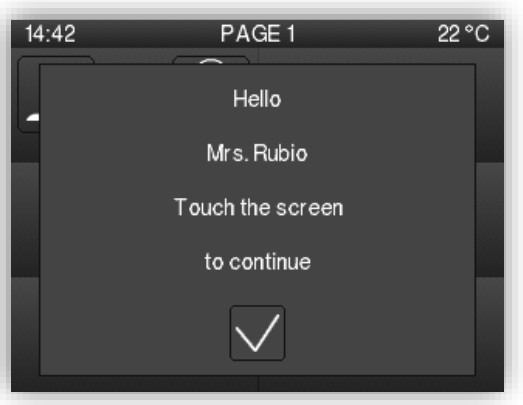


Figure 17. Pop up.

Pop-ups can be shown/hidden through three types of communication objects:

- **1 Bit Object**. The display will show the pop-up when receiving a value of 1 bit and will be hidden when receiving the opposite value.
- **1 Byte Object**. The display will show the pop-up when receiving a value between 0 and 255 and will be hidden with another value between 0 and 255.
- **Changes in 14 bytes Objects** that define the text lines.

The Pop-Up displays a confirmation button to hide the Pop-Up with one click.

Notes:

- *Pop-Ups take precedence over screensaver. When a pop-ups is displayed, the screensaver will be disabled until the first one disappears.*
- *If, while a pop-up message is showing another one is enabled, the first one closes and only the last activated message will be shown.*
- *If the same value is set to show and to hide the message, only the order to show will be effective.*

ETS PARAMETERISATION

After enabling **Pop-Ups** from “Advanced” screen (see section 3.1.10) a new tab will be incorporated into the tree on the left to enable up to 6 Pop-ups.

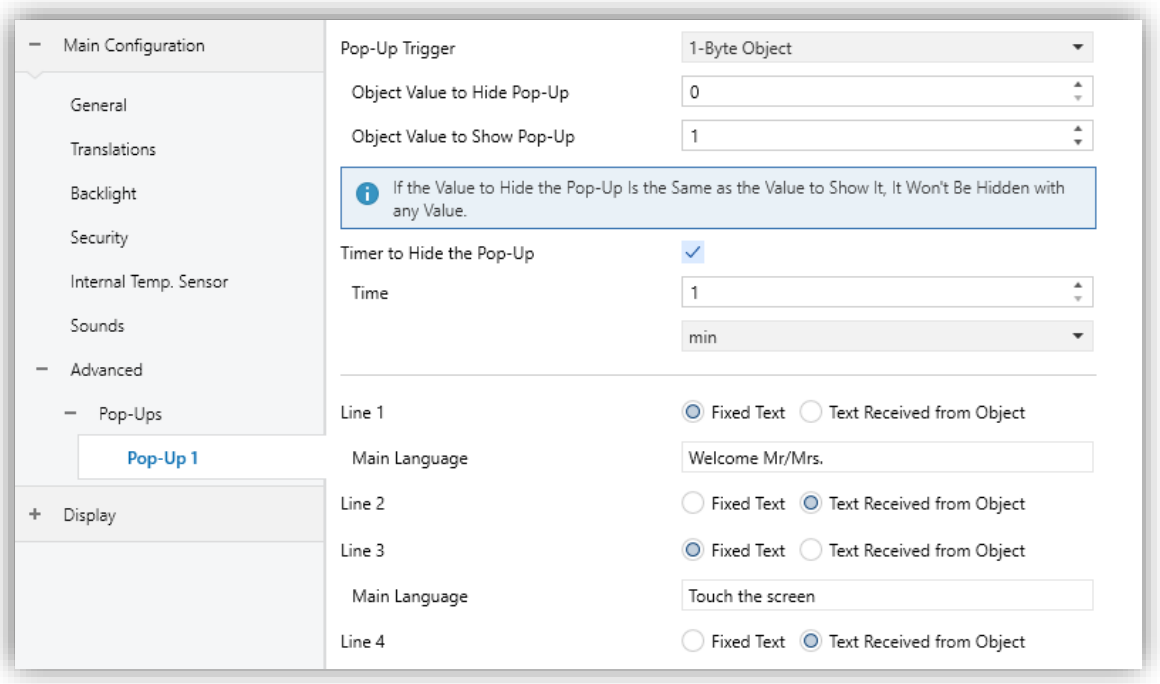


Figure 18. Advanced- Pop-Ups.

For each Pop-up enabled a new tab “Pop-up n” is added with the following parameters:

- **Pop-Up Trigger**:
  - [*1-Bit Object*]: enables the 1-bit object “**[General] [Pop-Up X] 1-Bit**” to show/hide the Pop-Up. The desired value should be set in:
    - **Values to Hide/Show the Pop-Up** [*0 = Hide Pop-Up, 1 = Show Pop-Up / 0 = Show Pop-Up, 1 = Hide Pop-Up*].
  - [*1-Byte Object*]: enables the 1- byte object “**[General][Pop-Up X] 1-Byte**” to show the Pop-Up. The desired value should to be set in:
    - **Object Value to Hide Pop-Up** [*0…255*].
    - **Object Value to Show Pop-Up** [*0…255*].
  - [*Changes in 14-Byte Objects*]: the pop-up message will be displayed when a value is received in one of the 14-byte objects that define the message text.
- **Timer to Hide the Pop-Up** [*disable / enable*]: enables a timer that will close the Pop-Up message once the set time has elapsed.
  - **Time** [*1 … 30 … 65535*] [*s*] / [*1 … 65535*] [*min / h*]: configurable time to hide the Pop-Up message.

- **Line [1,4]** [*Fixed Text / Text Received from Object*]: sets whether the corresponding text line will be pre-defined or object-dependent. If "*Fixed Text*" is selected, the following parameter will appear:

  - **Text**: textbox to enter the desired text for the corresponding line. A box will appear with up to a maximum of 5, one for each language configured.

  Up to four 14-byte objects called "**[General] [Pop-Up. X] Line X**" will appear, depending on how many lines of text have been assigned the "*Text Received from Object*" option.

3.1.10.3 WELCOME BACK

Screens from the Z35 family can send a specific object (a **one-bit** value, a **scene** value or both, depending on the parameterisation) to the KNX bus when the user presses a touch button or a proximity detection occurs after a significant amount of time since the last press or presence detection. Sending it or not can also depend on an **additional, configurable condition** consisting in the evaluation of up to five binary objects.

Normal actions will not be executed when the Welcome Back object is sent. Thus, if the user presses a button and this causes the welcome back object to be sent, the normal action of that button will not be triggered.

ETS PARAMETERISATION

After enabling **Welcome Back Object** from "Advanced" screen (see section 3.1.10), a new tab will be incorporated into the tree on the left.

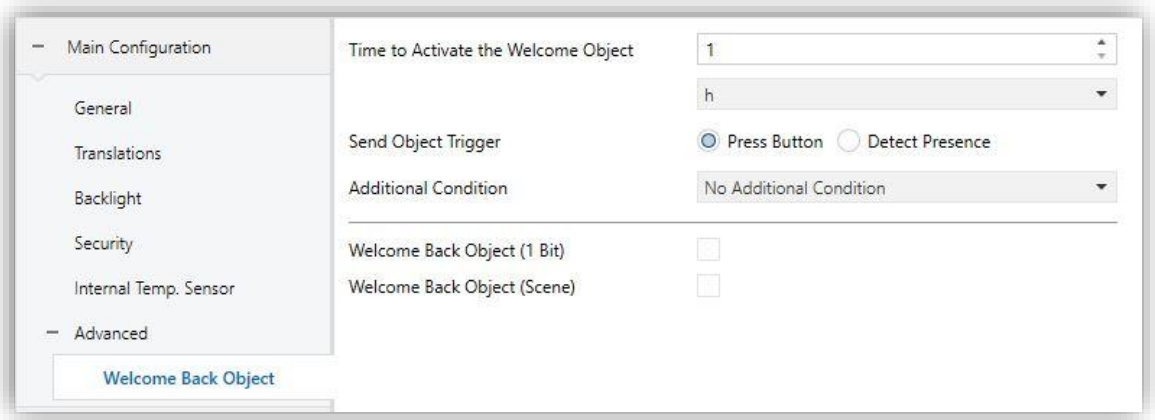


Figure 19. Advanced - Welcome Back Object.

- **Time to Activate the Welcome Object** [*1…65535*] [*s / min / h*]: sets the minimum time that should elapse after the last button touch (or presence detection, when

the proximity sensor is enabled) before the next one triggers the execution of the welcome back function.

- **Send Object Trigger** [*Press Button / Detect Presence*]: sets whether the welcome back object is sent after a touch in the screen or when the proximity sensor detects presence.

- **Additional Condition** [*No Additional Condition / Do not Send Unless All Additional Conditions are 0 / Do not Send Unless All Additional Conditions are 1 / Do not Send at Less One of the Additional Conditions is 0 / Do not Send at Less One of the Additional Conditions is 1*]: condition that must be fulfilled for sending the welcome object. When selecting any condition, the following parameter appears:

  - **Number of Condition Objects** [*1…5*]: up to 5 objects can be selected for the additional condition.

- **Welcome Back Object (1 Bit)** [*disabled / enabled*]: checkbox to enable the sending of a 1-bit value (through "**[General] Welcome Back Object**") when the welcome back function is triggered and the condition (if any) evaluates to true. The desired value should to be set in **Value** [*Send 0 / Send 1*].

- **Welcome Back Object (Scene)** [*disabled / enabled*]: checkbox to enable the sending of a scene run request (through "**[General] Scene: Send**") when the welcome back function is triggered and the condition (if any) evaluates to true. The desired value should to be set in **Scene Number** [*1…64*].

3.2 DISPLAY

3.2.1 PAGES

The user interface is organised into **pages** (up to **seven** different pages, **five** for Z28, in addition to the "Configuration Page"), each of which can be accessed from the menu page, which (unless the contrary has been parameterised) is automatically shown after the start-up.



Figure 20. Menu.

Password-protected pages (see section 3.1.4) will display a small icon with a lock next the lower-left corner of the associated button. On the other hand, if a page contains a box with an active alarm (see section 3.2.2.6.5), a small alarm icon will be displayed next to the lower right corner.



Figure 21. Menu with protection and alarms.

The **pages** of general purpose can be set to:

- **Normal page:**

  - In Z35 and Z40, there will be six **general-purpose boxes**, in which up to six controls/indicators with different functionalities can be included, making it possible to combine alarm, climate and any other type of controls on the same page.

    It is also possible to configure two individual boxes in the last row as indicators, 1-button controls, direct page access or alarm clocks.



Figure 22. General-purpose Z35 / Z40 page.

  - In Z28, there will be three rows of controls that can be configured as general-purpose boxes or as two individual boxes. In addition, the last row on Z28 can be configured with up to three individual boxes.



Figure 23. General-purpose Z28 page.

- **Thermostat:** page intended exclusively for the control of an external thermostat. Its distribution will depend on the screen orientation:

  - **Horizontal layout**: (available for Z35 and Z40). It will be distributed into three zones:

    - Left side area: up to four **individual boxes** can be configured as indicator, 1-button control, page direct link or alarm clock. In case of enabling the **ECO Indicator**, one of these boxes will disappear to give space to the indicator.
    - Central area: control of the **setpoint**.
    - Right side area: zone intended, depending on the parameterisation, to control the **fan speed** or two **individual boxes** configurable as indicator, 1-button control, page direct link or alarm clock.



Figure 24. Thermostat page.



Figure 25. Thermostat page with Thermostatic Wheel

  - **Vertical layout:** (available for Z28 and Z40). It will be distributed into three zones:

    - Upper zone: if enabled, **On/Off Button** and **Fan control** will appear.
    - Middle zone: control of the setpoint.
    - Lower zone: area designated, according to settings, for **general-purpose** box of any type of control, or **two/three individual boxes** in which the use of 2-Button Controls is limited.



Figure 26. Thermostat page with slider (Z40 vertical and Z28).

- **Thermostat + 2 boxes:** page for controlling an external thermostat with additional general-purpose boxes, only available for Z35 and Z40 horizontal. 4 areas can be distinguished:

  - Left side area: up to two **individual boxes** can be configured as indicator, 1-button control, page direct link or alarm clock.
  - Central area: control of the **setpoint**.
  - Right side area: control of the **fan speed**.
  - Bottom area: up two **general-purpose boxes**, with the same formatting as the normal page boxes or up to 4 **individual boxes** configurable as indicator, 1- button control, page direct link or alarm clock.



Figure 27. Thermostat + 2 boxes page.



Figure 28. Thermostat + 2 boxes page with Thermostatic Wheel

The **Configuration Page** is intended for a **specific purpose**, as it is provided for user customisation of the device.

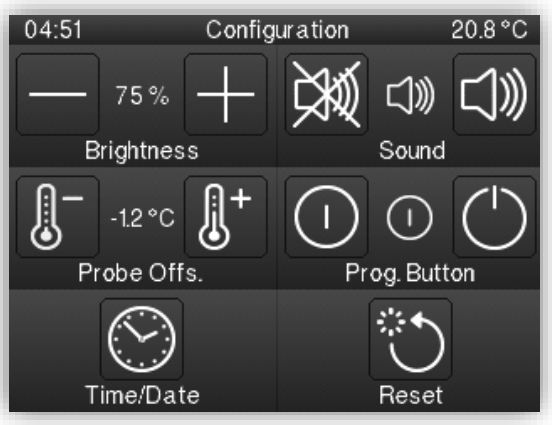


Figure 29. Configuration page.

The user interface will always show on top the title of the current page.

In addition, there is a button on one of the edges of the screen, which, if enabled, allows the user to return to the home page. This button is known as the **'Home'** button.

ETS PARAMETERISATION

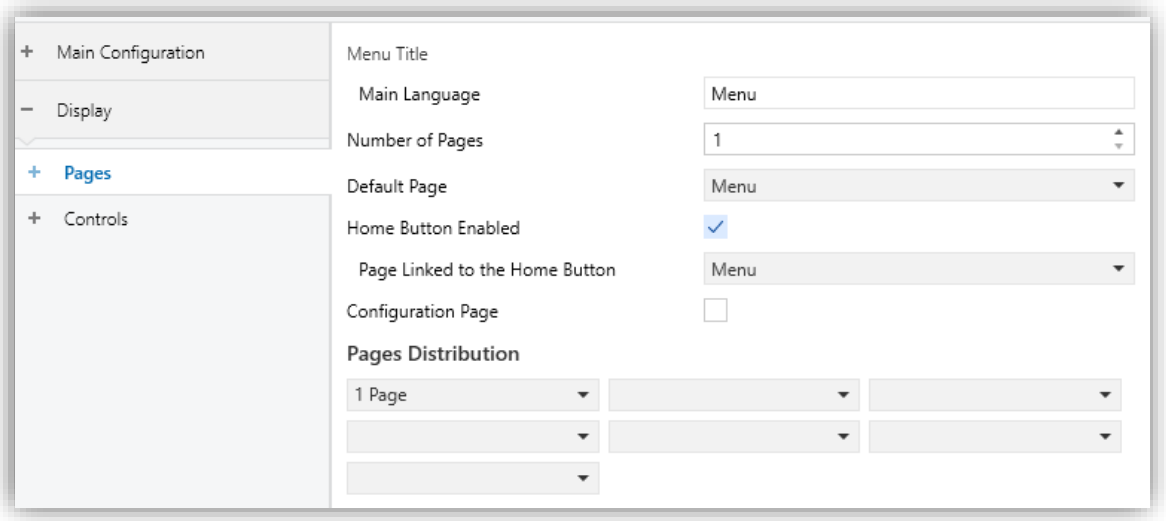


Figure 30. Pages - Configuration.

The parameters available are:

- **Menu Title:**
  - **Language X** [*Menu*]: text field that defines the title that will be shown on the top of the Menu page for the corresponding language.

- **Number of Pages** [*1…7*] (up to 5 in case of Z28): number of general-purpose pages that will be activated on the device. For each page a dedicated ETS tab will be shown for configuration.

- **Default Page** [*Menu / Configuration Page / Page 1 / … / Page 7*] (up to 5 in case of Z28)**:** dropdown list that sets the page (Menu, or any of the general-purpose pages) that will behave as the default page. This page will be the one shown after one minute of inactivity, assuming that such page has been enabled and it is not protected with password.

- **Home Button Enabled** [*disabled / enabled*]: enables or disables the home button to access the menu page. If enabled, the following parameter appears:

  - **Page Linked to the Home Button**: [*Menu / Configuration Page / Page 1 / … / Page 7*] (up to 5 in case of Z28): sets a shortcut to the indicated page when pressing on the Home Button.

- **Configuration Page** [*disabled / enabled*]: if enabled, direct access to the configuration page from the menu page will be allowed.

- **Pages Distribution** [*Empty / 1 Page / … / 7 Page*] (up to 5 in case of Z28)**:** set which page, from a list of 7, will be placed in each of the seven possible boxes on the screen.

3.2.1.1 CONFIGURATION PAGE

The Configuration page lets the user to know or adjust certain technical details about the device, as well as to configure the visual and sound settings.

ETS PARAMETERISATION

After enabling the **Configuration Page** from “Pages” screen (see section 3.2.1), a new tab will be incorporated into the tree on the left.

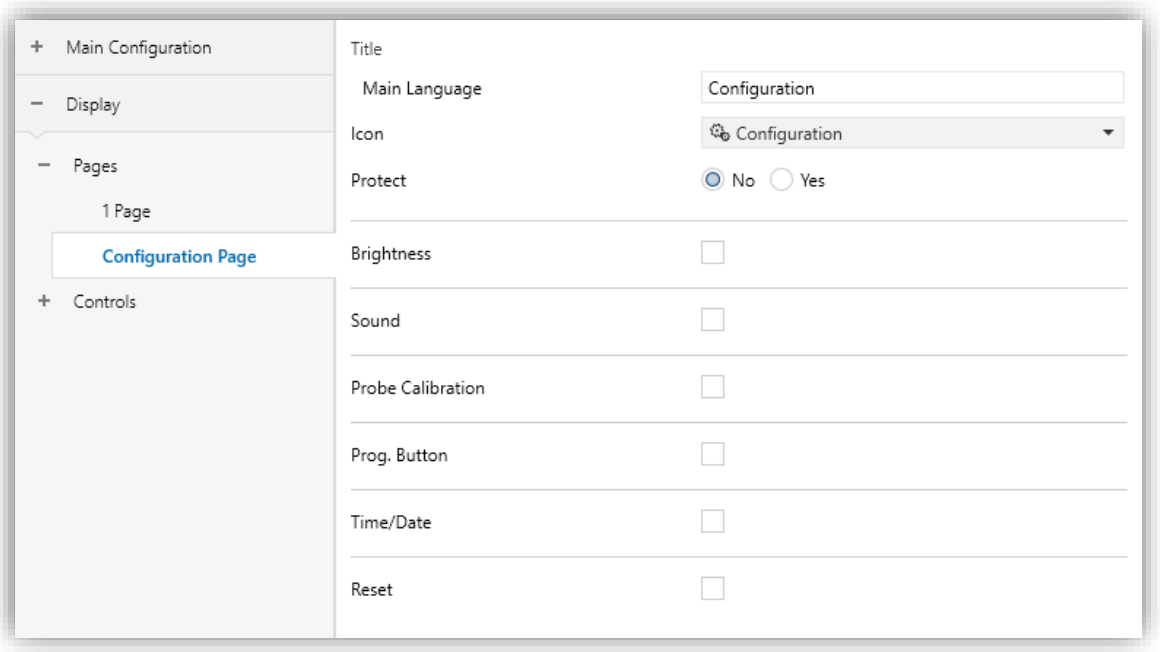


Figure 31. Configuration Page.

The parameters of the page itself are:

Title:

- **Language X** [*Configuration*]: text field that defines the title that will be shown on the top of the Configuration Page for the corresponding language.

- **Icon**: will represent the configuration page in the Menu page.

  The list includes 24 custom icons to be downloaded in the device through the ETS App Zxx Image Downloader. For more information, please refer to the specific "**Zxx Image Downloader**" manual, available in the Z35 / Z40 / Z28 product section of the Zennio web portal (www.zennio.com).

- **Protect:** sets whether the page will be password-protected or not. Depending on the security levels configured (one or two; see section 3.1.4) this list will contain the following options:

  - **One Level**:

    - [*No*]: the page will not be protected by password. All users can access it.
    - [*Yes*]: the page will be protected by password. Users will be asked to type the password when trying to access it.

➢ **Two Levels**:

- [*No*]: the page will not be protected by password. All users can access it.
- [*Level 1*]: the page will implement security level 1. To access it, users will be required to enter password 1 or password 2.
- [*Level 2*]: the page will implement security level 2. To access it, users will be required to enter password 2.

In addition, the specific controls that can be enabled for the Configuration page are:

- **Brightness** [*disabled / enabled*]: enables or disables the box to adjust the brightness of the display.
- **Sound** [*disabled / enabled*]: enables or disables the box to deactivate/activate the device sounds.
- **Probe Calibration** [*disabled / enabled*]: enables or disables the box to configure the offset of the internal temperature probe. It is only available in Z35 and Z40.
- **Prog. Button** [*disabled / enabled*]: enables or disables the control/indicator that shows the status of the Prog./Test LED of the device. In particular, it permits entering/leaving the programming mode as by pressing the actual programming button of the device.
- **Time/Date** [*disabled / enabled*]: enables or disables the box to configure time and date.

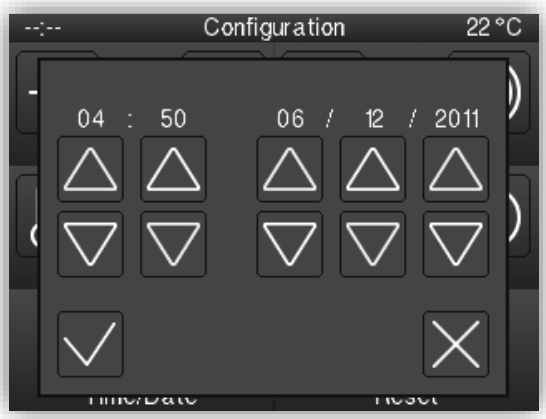


Figure 32. Time and Date pop-up in horizontal view.



Figure 33. Date pop-up in vertical view.

- **Reset** [*disabled / enabled*]: enables or disables the box to perform a reset on the device, by pressing and holding the button for more than 3 seconds:

  - **Reset Type**: sets the reset type required:

    - [*Parameters Reset*]: similar to restoring the device to the just-parameterised state, with the subsequent reset of the object values, alarm controls, timers, etc.

    - [*Z35 / Z40 / Z28 Reboot*]: simple device reset, with no data loss.

Note: *The order of the controls on the configuration page will change in case of vertical orientation. The screen will be divided into 4 rows (3 for Z28), with Probe Calibration (exclusive for Z40) at the top; Brightness and Sound settings in the second row, a box for setting the date and another for setting the time in the third row, separated unlike in horizontal mode; and the Programming Button and Reset controls in the last row.*

Moreover, for all these controls, the following parameters can be configured:

- **Label:** text that will appear to identify the box. Again, new parameters will appear if several translations get enabled.

- **Protection** [*No / Yes*] / [*No / Level 1 / Level 2*]**:** exactly the same as the page protection explained previously. In this case, the user can enable the protection of the box.

- **Object to Show/Hide the Box** [*disabled / enabled*]: When this option is enabled, a new 1-bit object appears ("**[Config.][Bi] Show/Hide Box**") that allows hiding / displaying the box through the KNX bus.

3.2.1.2 *N* PAGE

Z35 and Z40 have up to seven general purpose pages and Z28 has up to 5 pages, that can be enabled from the "Pages" tab (see section 3.2.1). Thus, a new tab called "*N* Page" will be displayed for each of the n enabled pages.

Within this tab, the parameters for the definition of the page are available, according to which new tabs can be displayed, and the distribution of their boxes.

ETS PARAMETERISATION

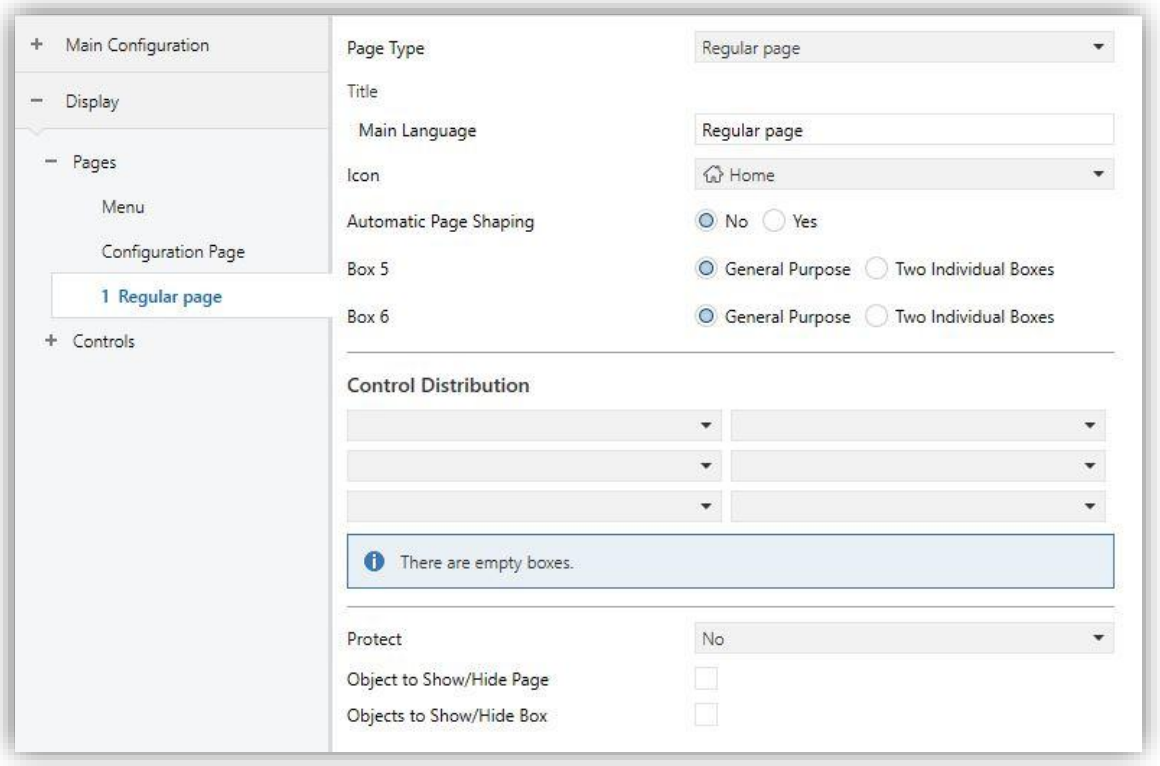


Figure 34. Regular page *n* - Configuration.

This screen contains the following parameters:

- **Page Type** [*Regular page / Thermostat / Thermostat + 2 Boxes*]: allows choosing the display format and functionality of the pages. The following figures show the appearance of each type of page.

  Note: *Thermostat + 2 Boxes page is not available in vertical orientation.*

The **parameters common** to all page types are as follow:

- **Title**:

  Language X [*n Page*]: text field that defines the title that will be shown under each Page box for the corresponding language. In addition, this field allows changing the name of the tab in ETS tree view.

- **Icon** [*Home*]: will represent the page *n* in the Menu page.

  Among the list there will be available 24 custom icons to be downloaded into the screen through the ETS App Zxx Image Downloader. For more information, please refer to the specific "**Zxx Image Downloader**" manual, available in the Z35 / Z40 / Z28 product section of the Zennio web portal (www.zennio.com).

- **Control Distribution** [*Nothing / 1 Control / … / 56 Control*] (only up to 35 controls in Z28): selects which control will be placed in each of the possible boxes on the screen. Depending on the type of page, the number of boxes, their distribution and size will be different.

  Notes:

  - *If a control that needs a general-purpose box is selected in an individual checkbox, after downloading, that control will appear as unavailable, indicated by the icon ⊘, and when pressed, the following message will be displayed: "A 2-Button control cannot be assigned to an individual box".*
  - *Warnings will be shown if any box is empty or divided into individual boxes and/or if the selected control is not enabled.*

- **Protect**: sets whether the page will be password-protected or not. Depending on the security levels configured (one or two; see section 3.1.4) this list will contain the following options:

  - **One Level**:
    - [*No*]: the page will not be protected by password. All users can access it.
    - [*Yes*]: the page will be protected by password. Users will be asked to type the password when trying to access it.
  - **Two Levels**:
    - [*No*]: the page will not be protected by password. All users can access it.
    - [*Level 1*]: the page will implement security level 1. To access it, users will be required to enter password 1 or password 2.
    - [*Level 2*]: the page will implement security level 2. To access it, users will be required to enter password 2.

- **Object to Show/Hide Page** [*disabled / enabled*]: enables or disables a 1-bit object (**"[Pn] Show/Hide Page"**) to show or hide the corresponding page.

- **Object to Show/Hide Box** [*disabled / enabled*]: enables or disables a 1-bit object (**"[Pn][Cx] Show/Hide Box"**) to show or hide the corresponding box.

The following sections will describe the **specific parameters** for each type of page.

3.2.1.2.1 Regular Page

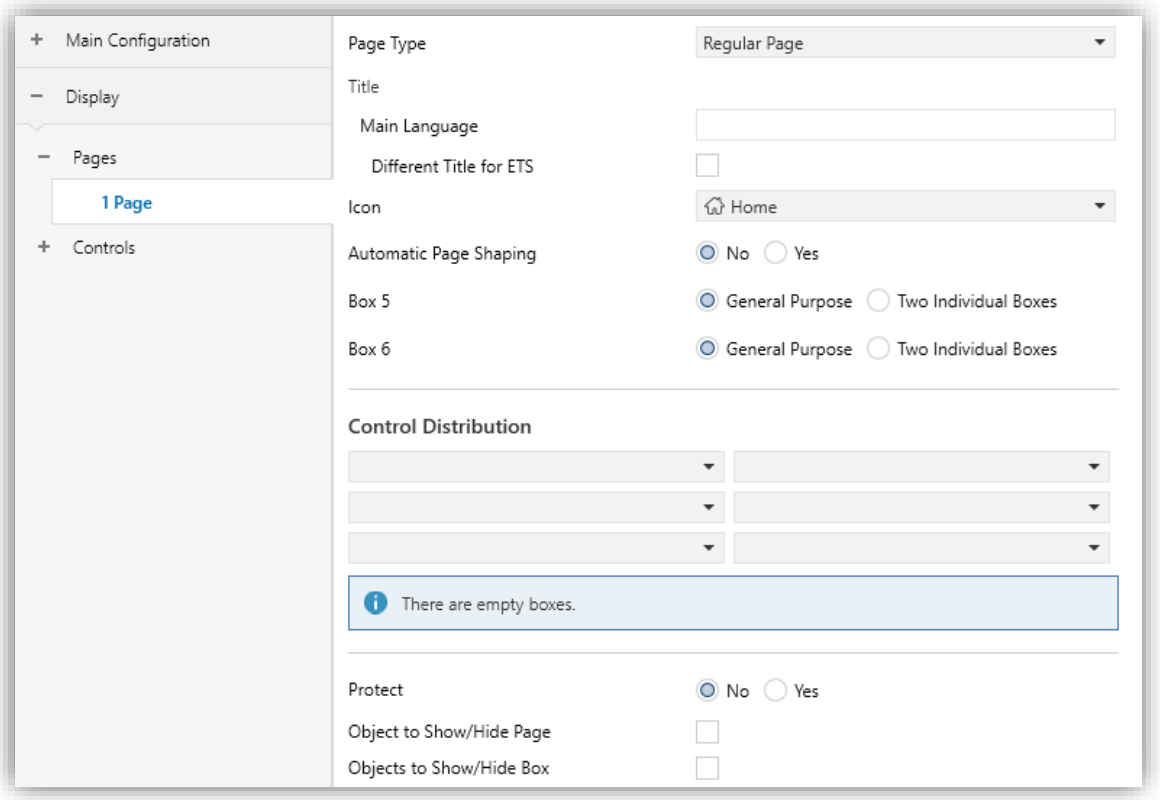


Figure 35. Regular page horizontal orientation.

The following parameters will only be available on normal type pages:

- **Automatic Page Shaping** [*No / Yes*]: enables to choose whether the available boxes should be automatically distributed ("Yes") dynamically according to the number of boxes configured or be displayed as a static 3x2 grid ("*No*").

  Note: *only available for pages with all boxes configured as general-purpose.*

- **Box 5 / 6** [*General Purpose / Two Individual Boxes*] (only for horizontal orientation): set the two lower boxes as general-purpose boxes or separate each of them into two individual boxes configurable as indicator, 1-button control, page direct link or alarm clock.

- **Row 1 / 2 / 3 / 4** [*General Purpose / Two Individual Boxes*] (only for vertical orientation): configure the boxes in each row individually as general purpose boxes or divide each one into two individual boxes.

3.2.1.2.2 Thermostat Pages

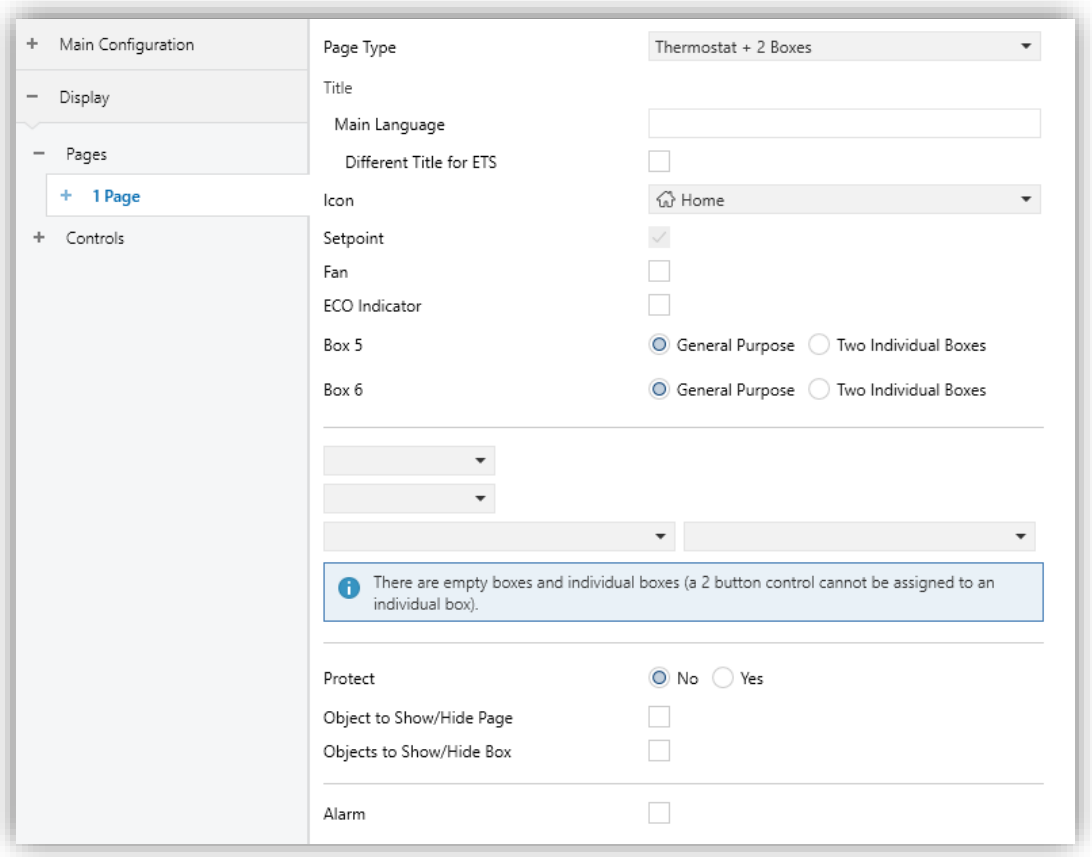


Figure 36. Thermostat + 2 Boxes page

The following parameters will only be available on thermostat type pages:

- **On/Off Button** [*disabled / enabled*]: only available for vertical orientation. Enables or disables the “On/Off Button” parameter sub-tab. See section 3.2.1.2.2.1

- **Setpoint** [*enabled*]: enables the "Setpoint" parameter sub-tab in the "*n* Page" tab. See section 3.2.1.2.2.2.

- **Fan** [*disabled / enabled*]: enables or disables the "Fan" parameter sub-tab in the "*n* Page" tab. See section 3.2.1.2.2.4.

- **ECO Indicator** [*disabled / enabled*]: when enabled, one of the controls will disappear to make way for the ECO mode indicator. It will be configured in the “Setpoint” parameter sub-tab in the “*n* Page” tab. See section 3.2.1.2.2.2.

- **Box 5 / 6** (only available for page type "Thermostat + 2 boxes") [*General Purpose / Two Individual Boxes*]: set the two lower boxes as general-purpose boxes or

separate each of them into two individual boxes configurable as indicator, 1-button control, page direct link or alarm clock.

- **Alarm** [*disabled / enabled*]: enables an alarm for opening a window, door or both. Its activation will cause the setpoint control of the thermostat page to disappear and the corresponding alarm icon to be displayed.

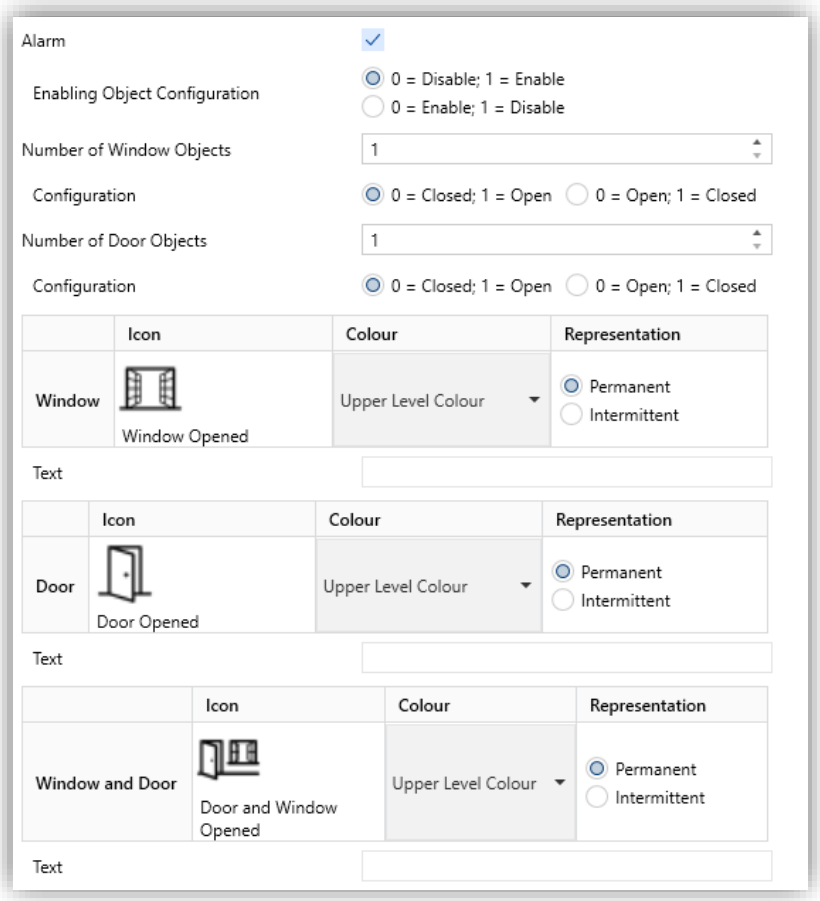


Figure 37. Alarm.

- **Enabling Object Configuration** [*0 = Disabled, 1 = Enabled / 0 = Enabled, 1 = Disabled*]: sets the polarity of objects that will enable or disable the alarm at runtime ("**[Pn] Window Alarm - Enable**" and "**[Pn] Door Alarm - Enable**").

- **Number of Window Objects** [*1 … 4*]: enables up to 4 objects for the open window alarm, the object "**[Px] Window X – Status**" appear.

  - **Configuration** [*0 = Closed, 1 = Open / 0 = Open, 1 = Closed*]: determines the polarity of window objects.

- **Number of Door Objects** [*1 … 2*]: enables up to 2 objects for the open door alarm, the object "**[Px] Door X – Status**" appear.

- **Configuration** [*0 = Closed, 1 = Open / 0 = Open, 1 = Closed*]: determines the polarity of door objects.

For each of the three possible alarm options (window only, door only, or window and door), the following parameters are available:

- **Icon:** when the alarm is activated, the setpoint control will disappear and an icon and text will appear. This icon will be fixed and larger than the other icons, and there will be one for each type of alarm.
- **Colour** [*Upper Level Colour / Colour select by drop-down*]: determines the colour of the corresponding icon.
- **Representation** [*Permanent / Intermittent*]: determines how the corresponding icon is displayed.
- **Text**: text that appears in the display when the alarm is activated. If translations are enabled, a box will appear for each language configured, up to a maximum of 5 languages.

3.2.1.2.2.1 On/Off Button

In vertical mode on the Z40 and Z28, it is possible to configure a button to switch the thermostat on and off, which can be set up in a new sub-tab.

ETS PARAMETERISATION

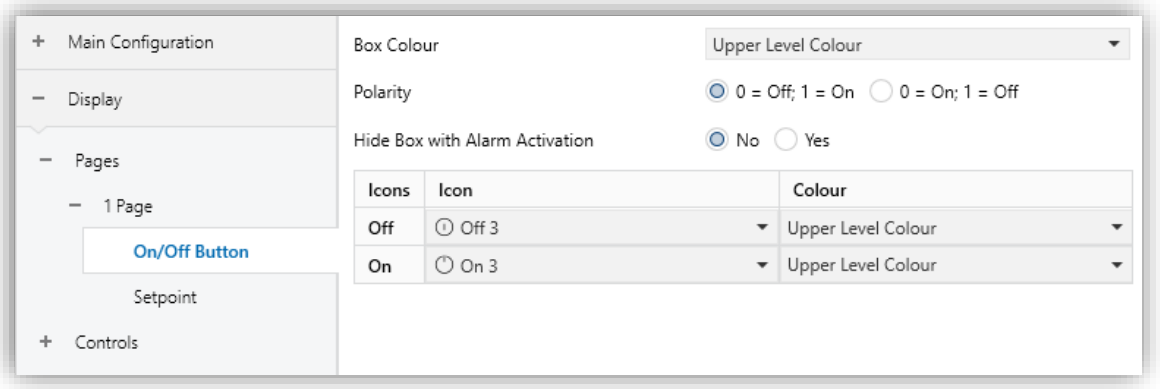


Figure 38. On/Off Button control of thermostat page.

- **Box Colour** [*Upper Level Colour / Colour select by drop-down*]: colour mask applicable to the box, unless another colour is specified in these elements. If "Upper Level Colour" is selected, the global colour mask will be used (see section 3.1.1).

- **Polarity** [*0 = Off; 1 = On / 0 = On; 1 = Off*]: it allows to configure the polarity of the thermostat's switch-on and switch-off through the object "**[Px][Setpoint] On/Off – Status**".

- **Hide Box with Alarm Activation** [*No / Yes*]: defines whether the box is hidden or not when a door and/or window alarm is triggered.

- **Icon:** will represent the state of the button.

  Among the list there will be available 24 custom icons to be downloaded into the screen through the ETS App Zxx Image Downloader. For more information, please refer to the specific "**Zxx Image Downloader**" manual, available in the Z35 / Z40 / Z28 product section of the Zennio web portal (www.zennio.com).

- **Colour** [*Upper Level Colour / Colour select by drop-down*]: determines the colour of the corresponding icon.

3.2.1.2.2.2 Setpoint

Pages configured as a thermostat will have a larger central box (always enabled) with two buttons or thermostatic wheel **for controlling the temperature of an external thermostat** through the communication objects enabled to that effect: "**[Pn][Setpoint] Temperature Setpoint**" for the control and "**[Pn][Setpoint] Temperature Indicator**" for the status.

ETS PARAMETERISATION

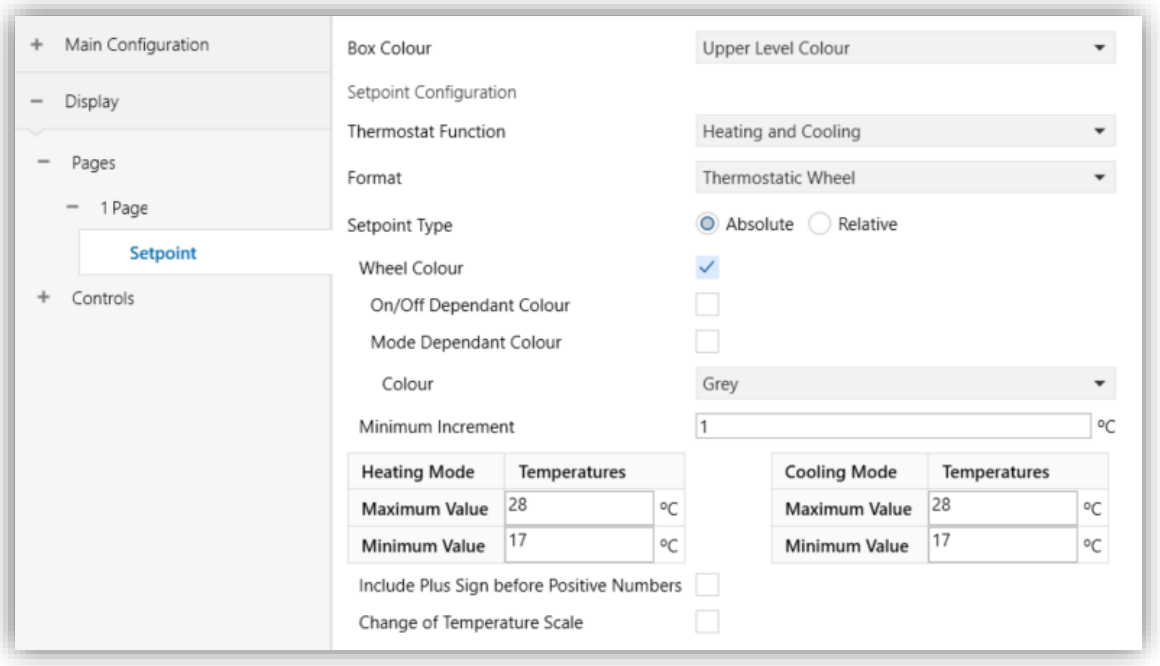


Figure 39. Setpoint Control.

- **Box Colour** [*Upper Level Colour / Colour select by drop-down*]: colour mask applicable to the box, unless another Colour is specified for these items. In case of selecting "*Upper Level Colour*", the global mask is applied (see section 3.1.1).

- **Thermostat Function** [*Heating / Cooling / Heating and Cooling*]: defines the mode of operation in which the thermostat will function.

- **Format** [*Arrows / Thermostatic Wheel / Slider*]: determines how the setpoint is represented. In Z40 the "*Slider*" option is added, while in Z28 only the latter option exists.

- **Setpoint Type**: defines the type of setpoint used. Determines the display of input and output objects.

  In case of choosing the **arrows** format, the values available are:

  - [*Absolute*]: The setpoint temperature will be displayed using absolute variables. The maximum and minimum setpoint values can be configured in the tables that appear in the tab. The increment can be selected using the short and long presses:

    - **Increment on Short Press** [*0.1 … 0.5 … 10*] [*ºC*]
    - **Increment on Long Press** [*0.1 … 1 … 10*] [*ºC*]

  - [*Relative (step)*]: From a basic setpoint, a temperature can be configured within an offset range. When the arrows on the thermostat are pressed, the 1-bit "**[Pn][Setpoint] Step – Control**" object will be sent via the KNX bus. The following parameters can be set:

    - **Offset: Maximum Value** [*0… 5 … 20*] [*ºC*]
    - **Offset: Minimum Value** [*-20… -5 … 0*] [*ºC*]
    - **Setpoint Step** [*0.1 … 0.5 … 10*] [*ºC*]
    - **Value to Show** [*Setpoint / Offset*]: Defines the value displayed on the thermostat. When the "*Offset*" option is selected, the parameter **Include Plus Sign before Positive Numbers** disappears, as the sign will always be displayed for a positive offset.

  - [*Relative (offset)*]: From a basic setpoint, a temperature can be configured within an offset range. When the arrows on the thermostat are pressed, the

2-byte "[Pn][Setpoint] Offset – Control/Status" object will be sent via the KNX bus. The following parameters can be set:

- **Offset: Maximum Value** [*0… 5 … 20*] [*ºC*]
- **Offset: Minimum Value** [*-20… -5 … 0*] [*ºC*]
- **Increment on Short Press** [*0.1 … 0.5 … 10*] [*ºC*]
- **Increment on Long Press** [*0.1 … 1 … 10*] [*ºC*]
- **Value to Show** [*Setpoint / Offset*]: Defines the value displayed on the thermostat. When the "*Offset*" option is selected, the parameter **Include Plus Sign before Positive Numbers** disappears, as the sign will always be displayed for a positive offset.

If the **thermostatic wheel** or **slider** is selected:

- [*Absolute*]: the parameter **Minimum increment** appears [*0.1 … 0.5 … 10*] [*ºC*], which represents the minimum change that must occur to send a new transmission to the bus.
- [Relative]: the parameters **Basic Setpoint**, **Offset: Maximum Value**, **Offset: Minimum Value**, **Minimum Increment** and **Value to Show** appear, explained above.

- **Wheel Colour / Slider Colour** [*disabled / enabled*]: enable the parameters to determine the colour of the wheel or slider.

  - **Control Variable Dependant Colour** [*disabled / enabled*]: sets the colour to depend on the control variable through the object "**[Px][Setpoint] On/Off - Status**". This means that only *Red* and *Blue* can be selected. If the thermostat function is heat mode or cool mode (not both), this parameter will not appear and red or blue will be automatically assigned, respectively.

  - **Mode Dependant Colour** [*disabled / enabled*]: automatically sets the colour *Red* for heat mode and the colour *Blue* for cold mode, causing the **Colour** parameter to disappear.

    - **Colour** [*Grey / Red / Blue*]: determines the colour of the wheel or slider. If the thermostat function is set to heating mode, only grey and red will appear, whereas if it is set to cooling mode, grey and blue will appear.

For both cooling and heating modes, when the setpoint is absolute, the following parameters can be parameterised:

- **Maximum Value** [*-99…28…199*] [*ºC*]: maximum value that can be reached by the control after a number of presses on the increase button (exclusive for absolute setpoint).

- **Minimum Value** [*-99 … 17 … 199*] [*ºC*]: minimum value than can be reached by the control after a number of presses on the decrease button (exclusive for absolute setpoint).

- **Include Plus Sign before Positive Number** [*disabled / enabled*]: sets whether showing or not the "+" sign before positive temperature values.

- **Change of Temperature Scale** [*disabled / enabled*]: replaces the unit indicator with a button/indicator that permits changing the scale of the temperatures shown on the screen. One press on the button/indicator toggles between Celsius scale and Fahrenheit scale.

  Note: *Long and short increments are applied in ºC regardless of the scale used.*

3.2.1.2.2.3 ECO Indicator

If ECO mode is enabled in the *n* Page tab, limit values are included to classify how environmentally friendly the current setpoint value is, both in cooling and heating mode.

Heating Mode	Temperatures		Cooling Mode	Temperatures	
Maximum Value	28	ºC	Maximum Value	28	ºC
ECO: Low to Medium	24	ºC	ECO: Medium to High	23	ºC
ECO: Medium to High	21	ºC	ECO: Low to Medium	20	ºC
Minimum Value	17	ºC	Minimum Value	17	ºC

Figure 40. Temperature values for ECO mode.

- **ECO: Medium to High** [*-99 … 21 … 199*] [*ºC*]: indicates the temperature at which, when exceeded, it is considered to be operating in high ECO mode. In cooling mode, the default value is 23ºC.

- **ECO: Low to Medium** [*-99 … 24 … 199*] [*ºC*]: indicates the temperature at which, when the value decreases, it is considered to be operating in low ECO mode. In cooling mode, the default value is 20ºC.

3.2.1.2.2.4 Fan

This box, in turn, is divided into several boxes in vertical arrangement **for controlling the fan speed**. The number of boxes depends on the speed levels selected and whether the auto mode is enabled.

When this box is enabled, a certain control object, depending on the control type selected, as well as the "**[Pn][Fan] Fan Indicator"** 1-byte status object appear. The status object (which needs to be linked to the status object of the fan actuator) will express, as a percentage, the value of the current fan level, which will be represented with a variable icon on the box.

ETS PARAMETERISATION

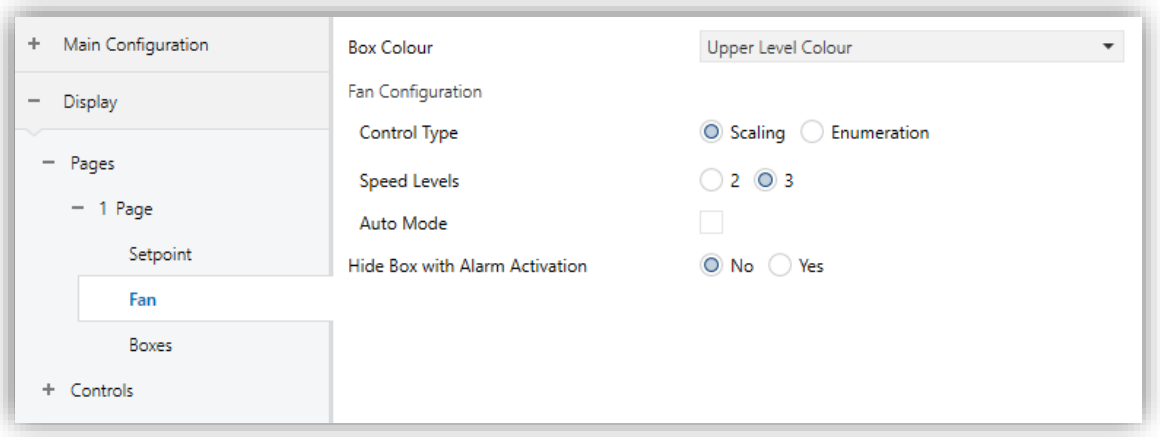


Figure 41. Fan Control.

- **Box Colour** [*Upper Level Colour / Colour select by drop-down*]: colour mask applicable to the box, unless another Colour is specified for these items. In case of selecting "*Upper Level Colour*", the global mask is applied (see section 3.1.1).

- **Fan Configuration:**

  - **Control Type** [*Scaling / Enumeration*]: depending on the selected option, the fan will be controlled by percentage values or by an enumeration (through the objects **"[Pn][Fan] Percentage Control"** or **"[Pn][Fan] Enumeration Control"** respectively).

  - **Speed Levels** [*2 / 3*]: sets how many speed levels will be available in the control.

- **Auto Mode** [*disabled / enabled*]**:** sets whether the fan Auto mode will be available or not. If checked, the Auto fan mode will be activated by switching to fan level 0 and the following parameter shows up:

  - **Dedicated Object for Auto Mode:** marking the checkbox enables the 1-bit object **"[Pn][Fan] Auto Mode"**, which will trigger the **Auto mode** when it receives the corresponding value (**Value to Set Auto Mode** [*Send 0 to Set Auto Mode / Send 1 to Set Auto Mode*]) and an arrow will be displayed next to the AUTO icon (as well as next to the currently activated speed).

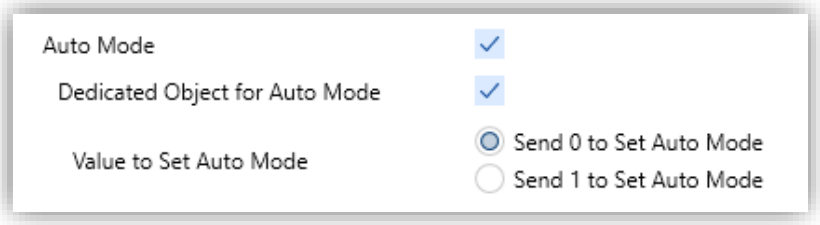


Figure 42. Fan – Dedicated Object for Auto Mode.

- **Hide Box with Alarm Activation** [*No / Yes*]: enables the fan boxes to remain hidden while the alarm is active. This parameter is only available if the alarm functionality is enabled (see section 3.2.1.2.2).

3.2.1.2.2.5 Boxes

When configuring the **controls distribution** in thermostat type pages (see section 3.2.1.2), the "Boxes" subtab appears. The appearance of each of the individual and general-purpose boxes included in the page are set in this tab.

ETS PARAMETERISATION

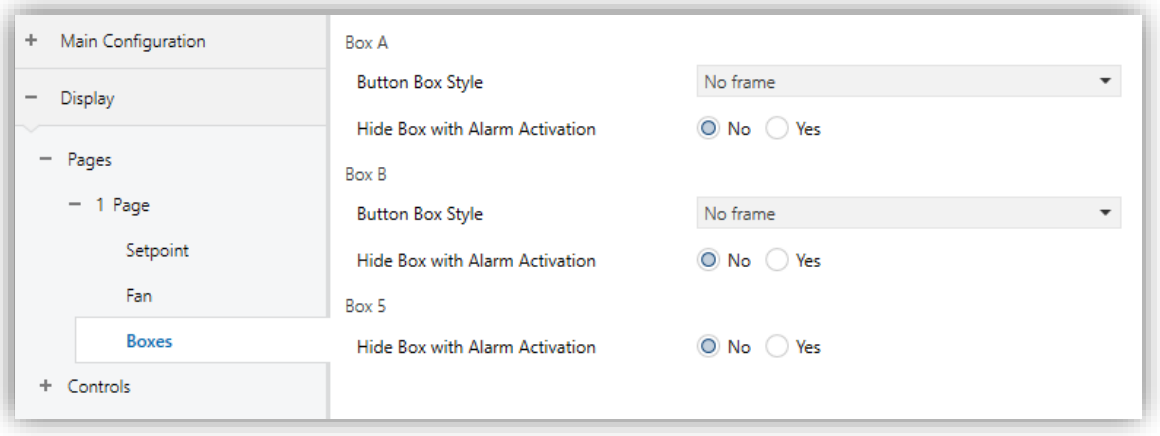


Figure 43. Boxes.

- **Button Box Style** [*No frame / Coloured frame / Black frame*]: selects a frame colour for the corresponding box, in order to distinguish it from the indicators. In case of selecting "Upper Level Colour", the global mask is applied (see section 3.1.1).

  Note: *boxes 5 and 6, available for the thermostat + 2 boxes page, will have the frame type set in the "General" tab (see section 3.1.1).*

- **Hide Box with Alarm Activation** [*No / Yes*]: enables the box to remain hidden while the alarm is active. This parameter is only available if the alarm functionality is enabled from the thermostat page where the corresponding box is located (see section 0).

3.2.2 CONTROLS

Z35 and Z40 have up to 56 controls that can be enabled from this tab, while Z28 has up to 35 controls. Thus, a new tab called "*i* Control" will be displayed for each of the *i* enabled controls. The controls are grouped into groups of up to 8 controls (7 in Z28), each of which will have its own configuration tab, where it is possible to assign a group name. There will be a maximum of 7 groups of 8 controls each (5 groups of 7 controls for Z28). As the number of controls increases, different tabs will be generated for each of the groups.

ETS PARAMETERISATION

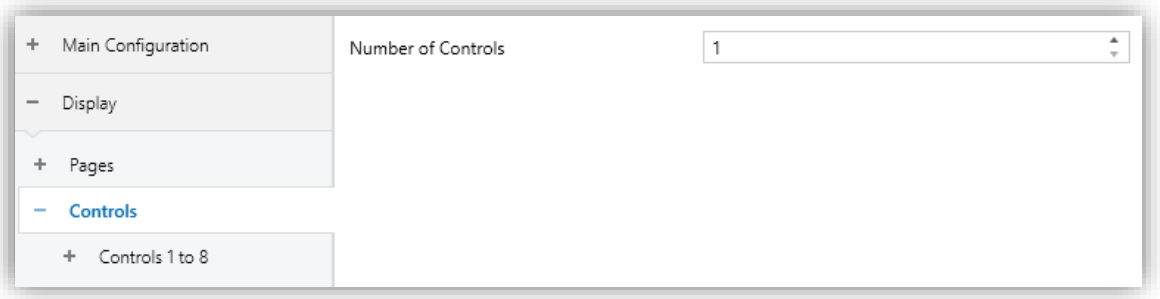


Figure 44. Regular page *n* - Configuration.

- **Number of Controls** [*1…56*] (only up to 35 in Z28): number of controls that will be available to be configured. For each control a dedicated ETS tab will be shown for configuration.

- **Group Title:** indicates the name of the corresponding group tab in ETS. This parameter will appear on each tab.

3.2.2.1 *i* CONTROL

This screen contains the following parameters common to all type of controls:

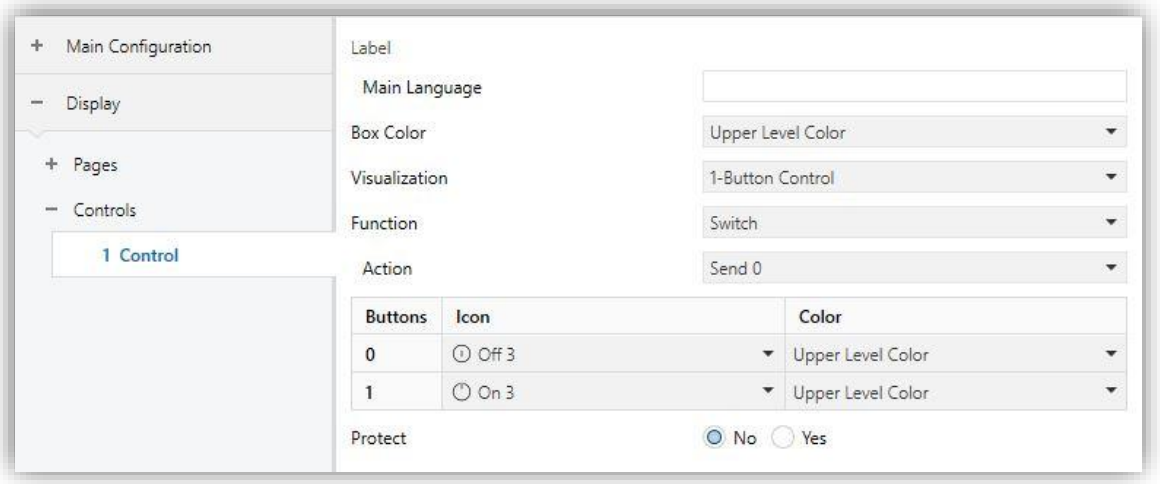


Figure 45. / Control.

- **Label**:
  - **Language X**: text field that identifies for the corresponding language each of the enabled controls and their communication objects, which are designated with the prefix "**[Cx][Title]**".

    In addition, this field enables changing the name of the tab in ETS left menu.

- **Box Colour** [*Upper Level Colour / Colour select by drop-down*]: colour mask applicable to the indicators, controls and labels of the box, unless another Colour is specified for these items. In case of selecting "*Upper Level Colour*", the global mask is applied (see section 3.1.1).

- **Visualization:** box format. The available box formats in screens are:
  - [*Indicator*]: the box will work as a status indicator.
  - [*1-Button Control*]: the box will work as a one-button control.
  - [*2-Button Control*]: the box will work not only as a status indicator, but also as a two-button control.
  - [*Climate Control*]: the box will act as a climate indicator and a climate control.
  - [*Other*]: the box will implement some other special functionality.

- **Function:** depending on the "Visualization" type selected, the parameters below will change. The following sections explain the available parameters depending on the visualization type selected.

A table appears in which it can be configured:

- **Icon** or **Button**: drop-down list with the available icons to show in the indicator(s) and/or button(s) of the box.
- **Colour** [*Upper Level Colour / Colour select by drop-down*]**:** Colour mask applicable to the indicator(s) and/or button(s) of the box. In case of selecting "*Upper Level Colour*", the box mask is used.
- **Representation** [*Permanent / Intermittent*]: sets the icon representation.

  Note: *this parameter is only available for indicators with an icon.*

Moreover, it is possible to protect with password boxes that are not indicators:

- **Protect**: sets whether the control will be password-protected or not. This function works in the same way as Page *n* security.
  - **One Level**:
    - [*No*]: the box will not be protected by password. All users can access it.
    - [*Yes*]: the box will be protected by password. Users will be asked to type the password when trying to access it.
  - **Two Levels**:
    - [*No*]: the box will not be protected by password. All users can access it.
    - [*Level 1*]: the box will implement security level 1. To access it, users will be required to enter password 1 or password 2.
    - [*Level 2*]: the box will implement security level 2. To access it, users will be required to enter password 2.

3.2.2.2 INDICATORS

Boxes designed for displaying statuses, showing a numeric or text value, or displaying an icon permanently or intermittently representing the current value of a communication object.

The functions and the related parameters available are:

3.2.2.2.1 Binary Indicator (Icon)

The box will behave as a binary state indicator. Each of the two states will be shown in the box through the selected icon.

When this function is assigned to the box, the **"[Cx][] Switch - Status"** communication object become available, as well as a table that permit selecting the icon to be displayed when the object acquires the value "0" (**Icon Off**) and the icon to be displayed when it acquires the value "1" (**Icon On**) will be displayed, the Colour and the representation.

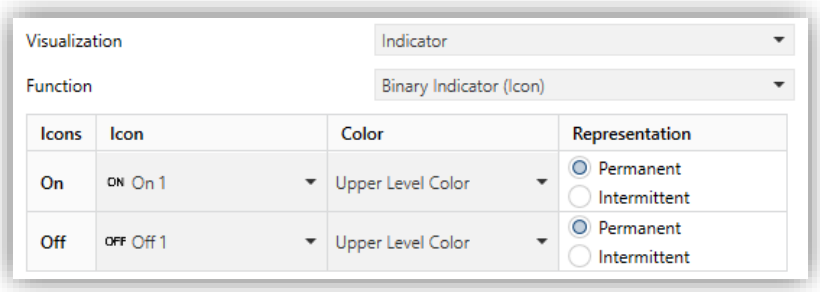


Figure 46. Binary Indicator (Icon).

Therefore, when the device receives the values "0" or "1" through the aforementioned object, the box will show one icon or another.

3.2.2.2.2 Binary Indicator (Text)

The box will behave as a binary state indicator. Each of the two states will be shown in the box through a different label.

When the box is assigned this function, the **"[Cx][] Switch - Status"** object will become available, as well as the parameters that permit typing the text to be shown when the object receives a "0" (**Off Text**) and that to be shown when it becomes "1" (**On Text**) will be displayed.

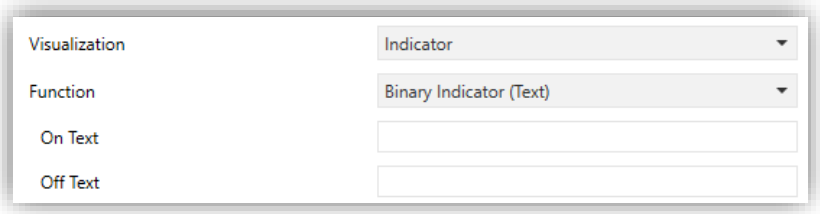


Figure 47. Binary Indicator (Text).

Therefore, when the device receives the values "0" or "1" through the aforementioned object, the box will show one text or another.

3.2.2.2.3 Enumerated Indicator (Icon)

The box will behave analogously to the case of the Binary indicator, (Icon) however, it will be possible to distinguish up to 6 states (configurable through the **# Enums** parameter) instead of only two. The states will be determined by the reception of any values between 0 and 255.

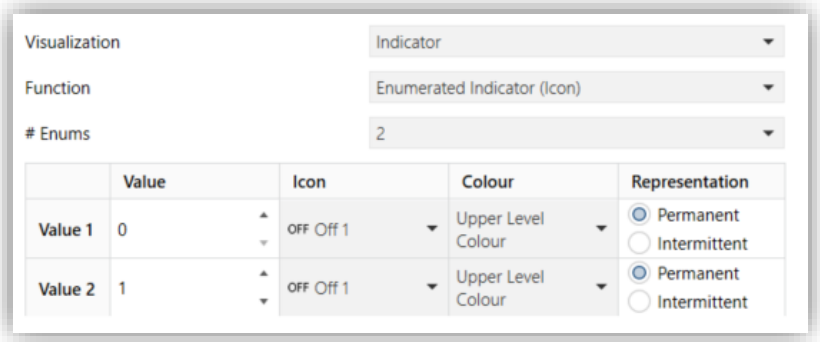


Figure 48. Enumerated Indicator (Icon).

When this function is assigned to the box, a 1-byte communication object, **"[Cx][] Enumeration - Status"**, will become available as well as a series of parameters (**Value**, **Icon**, **Colour** and **Representation**) for each of the states to be distinguished will be available too. This allows setting which icon will be shown in the box, with a specific Colour and representation, upon the reception of which value through the communication object.

3.2.2.2.4 Enumerated Indicator (Text)

The box will behave analogously to the case of the Binary indicator (Text) however it will be possible to distinguish up to 6 states (configurable through the **# Enums** parameter) instead of only two. The states will be determined by the reception of any values between 0 and 255.

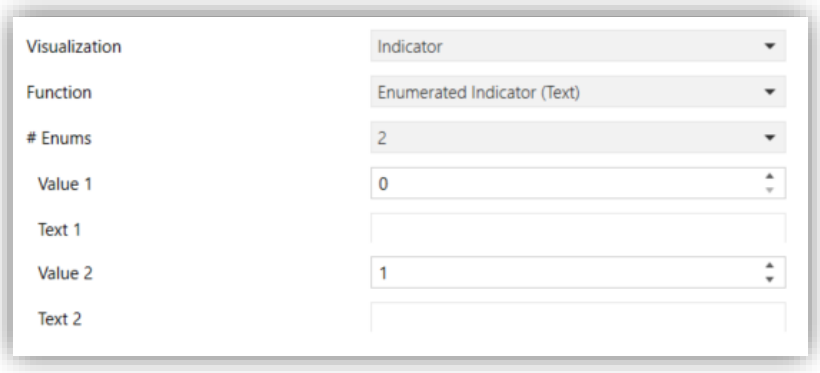


Figure 49. Enumerated Indicator (Text).

When this function is assigned to the box, one 1-byte communication object, **"[Cx][] Enumeration - Status"**, will become available as well as two additional parameters (**Value** and **Text**) will be displayed for each of the states to be distinguished. This allows setting which texts will be displayed in the box upon the reception of which values through the communication object.

3.2.2.2.5 Numerical Indicators

The box will behave as a numerical state indicator that displays the value of the communication object enabled when the function is assigned to the box.

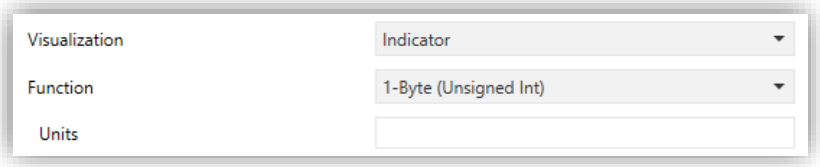


Figure 50. Numerical Indicator.

The range of values allowed for each type and the name of the corresponding object are included in the following table.

Function	Range	Related Object
1-Byte (Unsigned Int)	0 – 255	[Cx][] Integer – 1-Byte Unsigned Status
1-Byte (Signed Int)	-128 – 127	[Cx][] Integer – 1-Byte Signed Status
Percentage	0 – 100	[Cx][] Percentage – Status
Temperature	-99 – 199	[Cx][] Temperature – Status
2-Byte (Unsigned Int)	0 – 65535	[Cx][] Integer – 2-Byte Unsigned Status
2 -Byte (Signed Int)	-32768 – 32767	[Cx][] Integer – 2-Byte Signed Status
2 -Byte (Float)	-671088.64 – 670433.28	[Cx][] Float – 2-Byte Status
4-Byte (Signed Int)	-2147483648 – 2147483647	[Cx][] Integer – 4-Byte Signed Status
4-Byte (Float)	-2147483647 – 2147483647	[Cx][] Float – 4-Byte Status

Table 3. Numerical Indicators.

In all cases (except percentage and temperature indicators) the integrator will be shown a text field (**Units**), empty by default that permits specifying the measuring units of the displayed value.

For percentage indicators, the symbol % always will be displayed as unit. Temperature indicators will be displayed in ºC or ºF depending on the selected scale (by the object to change scale, see section 3.1.10).

Moreover, the following parameter is included for the temperature indicator:

- **Include Plus Sign before Positive Number** [*disabled / enabled*]: sets whether showing or not the "+" sign before the positive temperature values.

3.2.2.2.6 14-byte Text Indicator

The box will show the text received through the object "**[Cx][] Text - Status**".

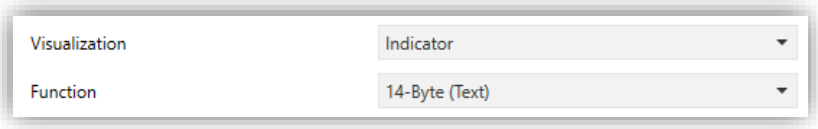


Figure 51. 14-byte text indicator.

Note: *objects associated to the text indicators are stored in salved area, so its value will be maintained after a restart.*

3.2.2.3 1-BUTTON CONTROL

Boxes configured as 1-button controls show one centred button and a title. There is a parameter (**Function**) that will select the specific function that the box will play.

3.2.2.3.1 Switch

The central button of the box will react to user presses by sending a binary value to the bus through the **"[Cx][] Switch - Control"** object, which turns visible as soon as this function is assigned to the box. In addition, this control will have associated a dedicated object for the box indicator ("**[Cx][] Switch - Status**"), which is automatically updated after the control order is sent and can also receive values from the bus.

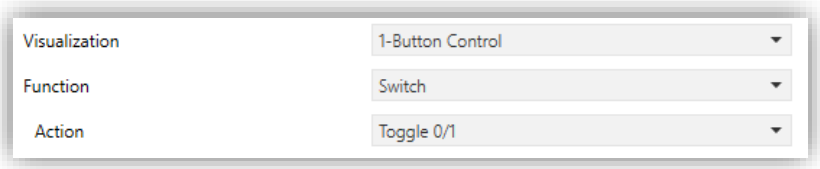


Figure 52. 1-Button Control - Switch.

On the other hand, **Action** permits setting what value will be sent to the bus through the mentioned object, and on what events. The options are:

- [*Send 0*]: one "0" will be sent whenever the button is pressed.
- [*Send 1*]: one "1" will be sent whenever the button is pressed.
- [*Toggle 0/1*]: alternate sending of the values "1" and "0".

3.2.2.3.2 Two Objects (Short Press/Long Press)

The central button in the box will react differently to a short press and to a long press, setting a time threshold to distinguish both types of press by parameter. The control responds to these presses by sending a binary value to the bus.

Different objects are used to send values for short and long pulsations: **"[Cx][] Two Objects - Short Press Control"** and **"[Cx][] Two Objects - Long Press Control"**.

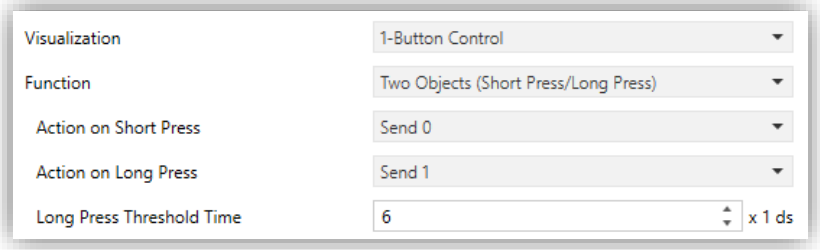


Figure 53. 1-Button Control - Two Objects (Short Press/Long Press).

On the other hand, the parameter called **Action** permits setting what value will be sent to the bus through the mentioned objects, and on what events. The actions available for each type of press are:

- [*Send 0*]: a “0” will be sent whenever the button is pressed.
- [*Send 1*]: a “1” will be sent whenever the button is pressed.
- [*Toggle 0/1*]: alternate sending of the values “1” and “0”.
- [*Send 1-Byte Unsigned Int Value*]: the 1-Byte Unsigned Integer value indicated in **Value** will be sent whenever the button is pressed.
- [*Send 1- Byte Signed Int Value*]: the 1-Byte Signed Integer value indicated in **Value** will be sent whenever the button is pressed.
- [*Send 2- Byte Unsigned Int Value*]: the 2-Byte Unsigned Integer value indicated in **Value** will be sent whenever the button is pressed.
- [*Send 2- Byte Signed Int Value*]: the 2-Byte Signed Integer value indicated in **Value** will be sent whenever the button is pressed.

If the option chosen is *Send 0*/*Send 1*/*Toggle 0/1*, the object "**[Cx][] Two Objects – Switch Status**" will appear for the box indicator. The button icon will change with the value sent by the short press and/or the one received by this indicator object.

To distinguish optimally a short press and a long press, the parameter called **Long Press Threshold Time** [*4…6…50*] [*ds*] is provided, that sets the minimum time the user should hold the button in order to consider it a long press.

3.2.2.3.3 Hold & Release

This control function allows the user to configure sending a binary value on pressing and a different binary value on releasing the button, through the 1-bit object **"[Cx][] Hold & Release – Switch Control"**. In addition, this control will have associated a dedicated object for the indicator (“**[Cx][] Hold & Release – Switch Status**”). The button icon will change with the value sent by the short press and/or the one received by this indicator object.

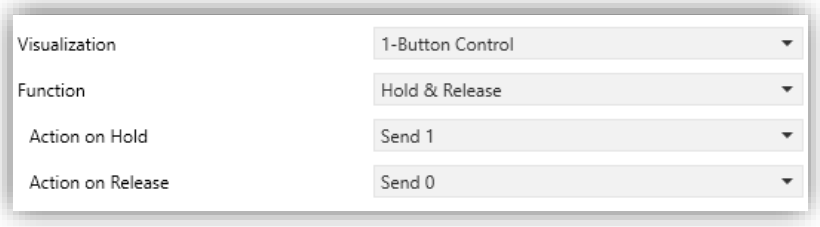


Figure 54. 1-Button Control - Hold & Release.

Through the parameters:

- **Action on Hold** [*Send 0 / Send 1 / Send 1-Bit Unsigned Int Value / Send 1-Bit Signed Int Value / Send 2-Bit Unsigned Int Value / Send 2-Bit Signed Int Value*].
- **Action on Release** [*Send 0 / Send 1 / Send 1-Bit Unsigned Int Value / Send 1-Bit Signed Int Value / Send 2-Bit Unsigned Int Value / Send 2-Bit Signed Int Value*]

It is possible to specify which value will be sent to the bus via the object mentioned in each case.

3.2.2.3.4 Scene

The central button of the box will react to the different pulses by sending a scene value to the KNX bus through the **"[General] Scene: Send"** object or through an individual scene object **"[Cx][] Scene: Send Scene Control"** for this box depending on the option selected in the parameter **Object to Use** [*General Scene Object / Individual Box Scene Object*].

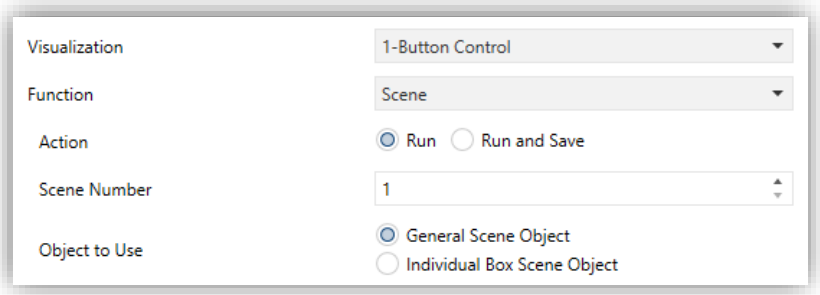


Figure 55. 1-Button Control - Scene.

Parameter **Scene number** [*1…64*] permits specifying the number of the scene to be sent. Moreover, through the parameter called **Action** [*Run Scene / Run and Save*] sets whether the device will only send scene execution orders (after a short press) or if it will be possible, in addition to sending execution orders upon short presses, to send scene save orders in the case of a long press.

3.2.2.3.5 Numerical Constant Controls

Whether the box is assigned any of the remaining "constant" control options, the central button in the box will react to user presses by sending a certain numerical value, which is required to be specified under **Constant value**. This numerical value will depend on the constant control type selected to the box (**Function).**

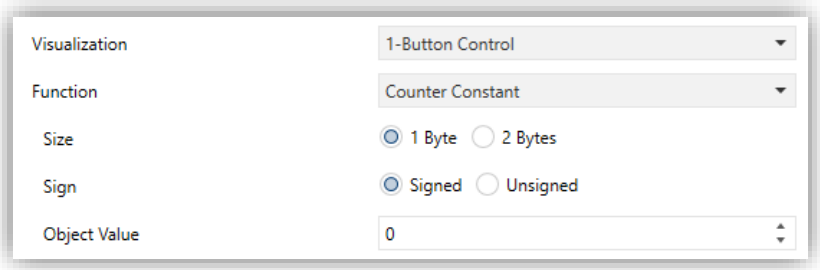


Figure 56. 1-Button Control - Numerical Constant.

Table 4 shows, for every available Function, the permitted value range and the name of the object through which the values are sent to the bus.

Function	Size	Sign	Range	Related Object
Counter	1-Byte	Signed	[-128...0…127]	[Cx][] Integer – 1-Byte Signed Control
		Unsigned	[0…255]	[Cx][] Integer – 1-Byte Unsigned Control
	2-Byte	Signed	[-32768...0…32767]	[Cx][] Integer – 2-Byte Signed Control
		Unsigned	[0…65535]	[Cx][] Integer – 2-Byte Unsigned Control
Scaling	1-Byte		[0... 100]	[Cx][] Percentage – Control
Float	2-Byte		[-671088.64…0…670433.28]	[Cx][] Float – Control

Table 4. Numerical Constant Control.

3.2.2.3.6 Enumeration

The box will be provided with two communication objects, control object "**[Cx][] Enumeration - Control**" and the status "**[Cx][] Enumeration - Status**", both of 1-byte and with the possibility of distinguishing up to six statuses.

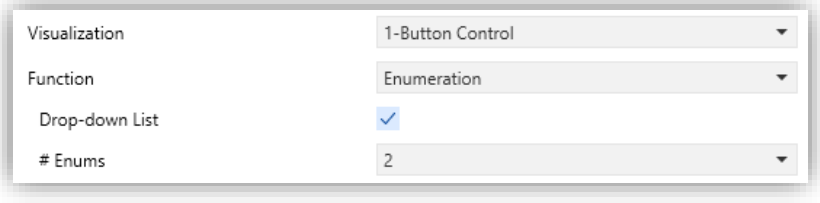


Figure 57. 1-Button Control - Enumeration

- **Drop-down List** [*disabled / enabled*]**:** if disabled, the behaviour of the box that contains this control is similar to the switch control, but with up to 6 states instead of 2. If, on the other hand, is enabled, a drop-down list will appear with all the options enabled in the **# Enums** parameter.

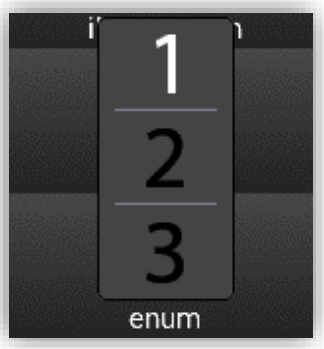


Figure 58. 1-Button Control - Enumeration - Droplist

- **# Enums** [*1…2…6*]: sets the number of states in the enumerated list. For every distinguished state, the parameter **Value** [*0…255*] will become available together with the corresponding indicator.

3.2.2.3.7 Shutter

If this function is assigned to the box, precise control of shutter movements can be performed. If the control button is pressed, the following pop-up is launched:



Figure 59. 1-Button Control – Shutter Pop-up

The control has a numeric indicator that shows the current position, corresponding to last value received through the object "**[Cx][] Shutter – Percentage Status**". This position can be modified through the control sent through the object "**[Cx][] Shutter – Percentage Control**".

The movement of the shutter will be stopped by clicking on the button in the lower right corner of the pop-up. The command to be sent, through the object "**[Cx][] Shutter -**

Stop/Step Control", will depend on the shutter position at the moment (*0% → 1 = Stop/Step Down; 1%-100% → 0 = Stop/Step Up)*.

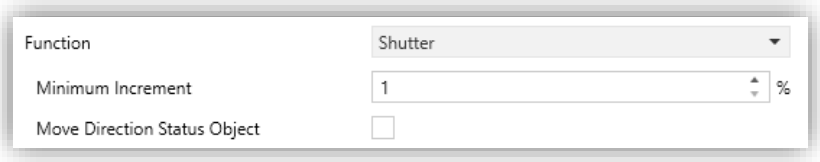


Figure 60. 1-Button Control – Shutter.

It can be parameterised:

- **Minimum Increment** [*1 … 100*] [*%*]: minimum percentage difference for a change to occur in the slider.
- **Move Direction Status Object** [*disable / enable*]: when enabled, the object "**[Cx][] Shutter – Move Direction Status**" appears, which allows to know the direction of movement of the blind.

3.2.2.3.8 Dimmer

Enables precise lighting control, being able to control both the brightness level and the colour temperature of a luminaire.

Clicking on the box button will launch a control pop-up. This dialog always has a slider for controlling the lighting level and, depending on the parameterisation, an additional slider for the colour temperature, as shown in Figure 61. The control commands are sent via the objects "**[Cx][] Light – 1-Byte Percentage Control**" and "**[Cx][] Light - Colour Temperature Control**".

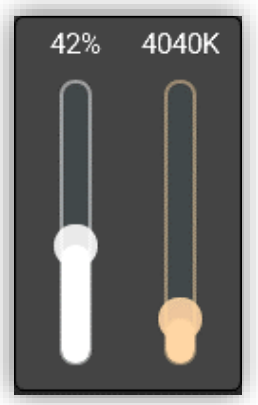


Figure 61. 1-Button Control - Dimmer Pop-up.

Both sliders feature an indicator showing the current value of the dimming and colour temperature, corresponding to the last value received through the objects "**[Cx][] Light – Percentage Status**" and "**[Cx][] Light - Colour Temperature Status**" respectively.

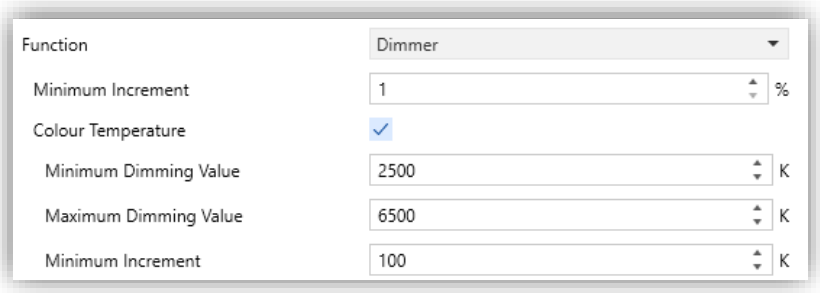


Figure 62. 1-Button Control - Dimmer

- **Minimum Increment** [*1 … 100*] [*%*]: minimum percentage difference for a change to occur in the slider.

- **Colour Temperature** [*disabled / enabled*]: enables a second slider for the Colour temperature, depending on the temperature selected, the warmth of the Colour will be different.

  - **Minimum Dimming Value** [*1000 …2500… 20000*] [*K*]

  - **Maximum Dimming Value** [*1000 … 6500 … 20000*] [*K*]

  - **Minimum Increment** [*1 … 100 … 1000*] [*K*]

3.2.2.3.9 Room State

Configuring with this function the box, controlling the states of the room will be possible. Thus, pressing on the button will cause the room status to switch between *Normal*, *Make Up Room* and *Do Not Disturb.* The switched values are sent to the bus via the 1-byte object "**[Cx][] Room State - Control**".

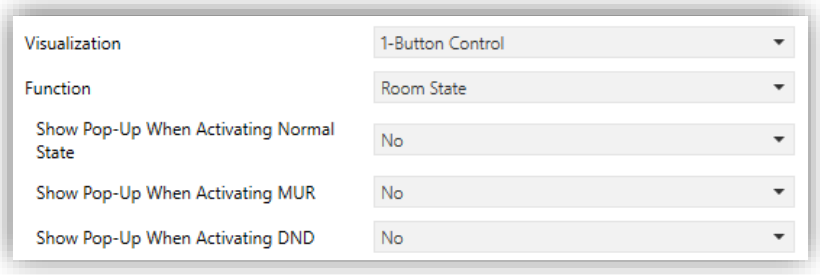


Figure 63. 1-Button Control - Room State.

- **Show Pop-Up When Activating Normal**: [*No / Pop-Up 1/… / Pop-Up 6*]: allows to select the pop-up to be displayed when the Normal mode is activated.

- **Show Pop-Up When Activating MUR**: [*No / Pop-Up 1/… / Pop-Up 6*]: allows to select the pop-up to be displayed when the Make Up Room mode is activated.

- **Show Pop-Up When Activating DND**: [*No / Pop-Up 1/… / Pop-Up 6*]: allows to select the pop-up to be displayed when the Do Not Disturb mode is activated.

  Note: *the pop-ups selected must be activated (see section 3.1.10.2).*

This control will have associated a dedicated object for the indicator ("**[Cx][] Room State - Status**"), which is automatically updated after the control order is sent and when values are received from the bus.

3.2.2.4 2-BUTTON CONTROL

Boxes configured as 2-button controls consist of an indicator and two buttons that, when touched, trigger the sending of an action to the KNX bus through a certain object.

As a general rule, most of the 2-button controls permit configuring a pair of parameters, **Left button** and **Right button**, each containing a dropdown list for the selection of the icons to be displayed inside the buttons in the box.

Note: *when multiple presses are made consecutively on the buttons of a control that regulates (e.g. increases / decreases) the value of a certain variable, only the final value selected by the user will be sent to the bus, to prevent an unnecessary bus traffic due to all the intermediate values.*

On the other hand, the **Function** parameter contains a dropdown list for the selection of the two-button control type to be assigned to the box. The available options (and their related parameters) are:

3.2.2.4.1 Switch

When the user presses any of the buttons, the device will send a parameterised binary value to the bus through the object **"[Cx][] Switch - Control"**, while the status object "**[Cx][] Switch - Status**" will determine the icon or text shown in the box. The indicator will be updated automatically after each control order and when receiving values from the bus.

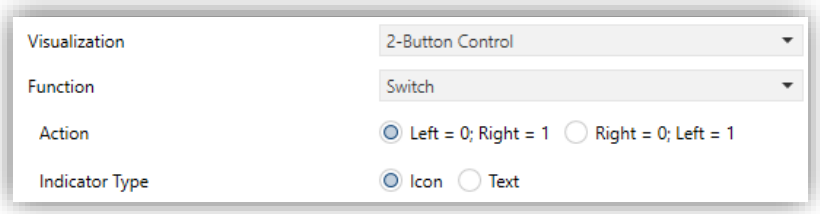


Figure 64. 2-Button Control - Switch.

The parameters available are:

- **Action** [*Left = 0; Right = 1* / *Right = 0; Left = 1*]: sets the value to be sent when pressing each of the two buttons.

- **Indicator Type** [*Icon* / *Text*]: sets whether the indicator of the control will be a text indicator (two text fields will be displayed to introduce the corresponding texts for "0" and "1") or an icon indicator (two drop-down lists will be displayed to select the corresponding icons for "0" and "1").

3.2.2.4.2 Switch + Indicator

Like the previous control, when the user presses any of the buttons, the device will send a parameterised binary value to the bus through the object **"[Cx][] Switch - Control"**. However, the indicator is independent; it will be updated according to the value received by the dedicated object.

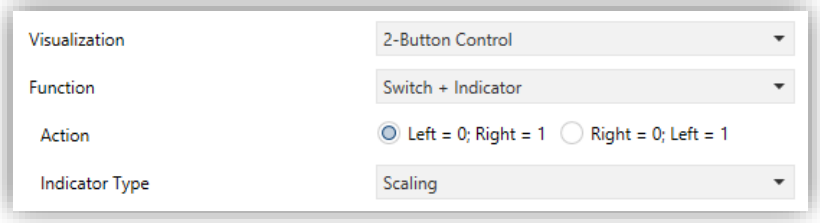


Figure 65. 2-Button Control - Switch + Indicator.

- **Action** [*Left = 0; Right = 1* / *Right = 0; Left = 1*]: sets the value to be sent when pressing each of the two buttons.

- **Indicator Type** [*Counter* / *Scaling* / *Temperature*]: sets the indicator type. According to the selected indicator the objects "**[Cx][] x-Byte Signed/Unsigned Int Indicator**", "**[Cx][] Percentage Indicator**", "**[Cx][] Temperature Indicator**" will be enabled respectively.

  When selecting "Counter" type, the following parameters appear:

- **Size** [*1 Byte / 2 Bytes / 4 Bytes*]: size of the indicator object. In case of selecting the last option, the following parameter will always take the value "*Signed*".
  - **Sign** [*Signed / Unsigned*]**:** sign of the indicator object.
- **Units**: text field to set the measurement unit displayed next to the indicator.

If the indicator is of the "Temperature" type, the following parameter will appear:

- **Include Plus Sign before Positive Numbers** [*disabled / enabled*]

3.2.2.4.3 Two Objects (Short Press/Long Press)

Control for sending specific binary values both after a short or a long press on any of the two buttons (i.e., they will work as a joint control; for independent buttons, please configure them as 1-button controls). Two different objects are used to send values for short and long pulsations, "**[Cx][] Two Objects - Short Press Control**" and "**[Cx][] Two Objects - Long Press Control**".

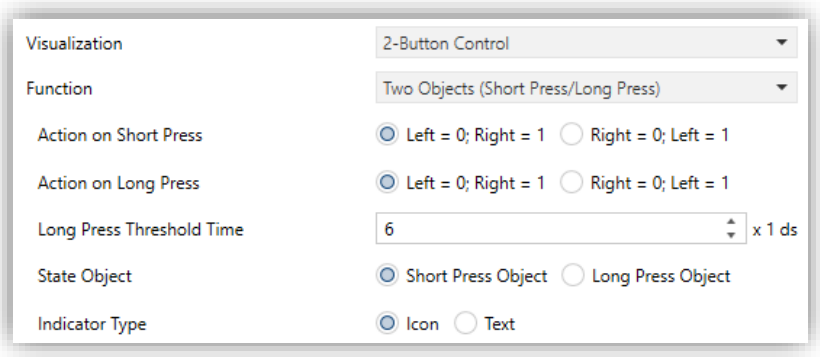


Figure 66. 2-Button Control - Two Objects (Short Press/Long Press).

- **Action on Short / Long press** [*Left = 0; Right = 1 / Right = 0; Left = 1*]: sets the value to be sent when short / long pressing each of the two buttons.
- **Long Press Threshold Time** [*4…6…50*] [x 1 *ds*], sets the minimum time the user should hold the button in order to consider it a long press.
- **State Object** [*Short Press Object / Long Press Object*]: allows setting the control command to which the status indicator, "**[Cx][] Two Objects – Switch Status**", will obey. This object can also receive values from the bus.
- **Indicator Type** [*Icon / Text*]: sets whether the indicator of the control will be a text indicator (two text fields wild be displayed to introduce the corresponding

texts for “0” and “1”) or an icon indicator (two drops lists will be displayed to select the corresponding icons for “0” and “1”).

3.2.2.4.4 Numerical Controls (Counter, Scaling and Float)

If the box is assigned any of the numerical functions “Counter”, “Scaling” or “Float”, user touches over the buttons will trigger the sending of a certain numerical value to the bus. This value will be progressively increased or decreased with every touch on one button or the other, through the control object, while the box itself will permanently reflect the current value of the control object and/or the corresponding status object. This object can also receive values from the bus.

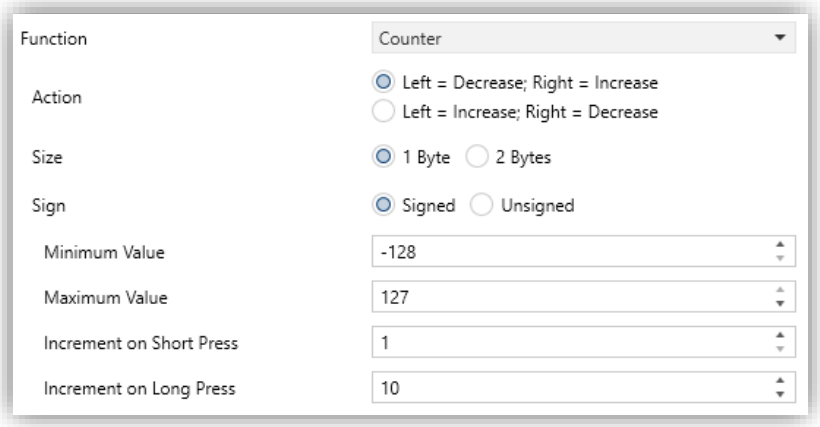


Figure 67. 2-Button Control - Numeric.

The parameters available are:

- **Action** [*Left = Decrease; Right = Increase* / *Left = Increase; Right = Decrease*]**:** sets which of the two buttons will increase the current numerical value and which will decrease it on user presses.
- **Minimum Value**: sets which value from the available range will be the minimum value permitted by the control after a number of presses on the decrease button.
- **Maximum Value**: sets which value from the available range will be the maximum value permitted by the control after a number of presses on the increase button.
- **Increment on Short Press**: sets the increase or decrease to be applied to the current value on every short press over the increase or decrease buttons, respectively.

- **Increment on Long Press**: sets the increase or decrease to be applied to the current value on every long press over the increase or decrease buttons, respectively.

Whether the selected **function** is counter type, two additional options will be enabled:

- **Size** [*1 Byte / 2 Bytes*]: size of the indicator object.
- **Sign** [*Signed / Unsigned*]**:** sets whether the range includes negative values or only positive values.

The different types of configurable 2-buttons controls are listed in the following table:

Function	Size	Sign	Minimum Value	Maximum Value	Increment on short press	Increment on long press	Related Object
Counter	*1 Byte*	*Signed*	[*-128…127*]	[*-128…127*]	[*1…127*]	[*1…10…127*]	[Cx][] Integer - 1-Byte Signed Int Control [Cx][] Integer - 1-Byte Signed Int Status
		Unsigned	[*0…255*]	[*0…255*]	[*1…255*]	[*1…10…255*]	[Cx][] Integer - 1-Byte Unsigned Int Control [Cx][] Integer - 1-Byte Unsigned Int Status
	2 Byte	*Signed*	[*-32768…32767*]	[*-32768…32767*]	[*1…32767*]	[*1…10…32767*]	[Cx][] Integer - 2-Byte Signed Int Control [Cx][] Integer - 2-Byte Signed Int Status
		Unsigned	[*0…65535*]	[*0…65535*]	[*1…65535*]	[*1…10…65535*]	[Cx][] Integer - 2-Byte Unsigned Int Control [Cx][] Integer - 2-Byte Unsigned Int Status
Scaling	1 Byte		[*0… 100*]	[*0… 100*]	[*1…100*]	[*1…10…100*]	[Cx][] Percentage – Control [Cx][] Percentage – Status
Float	2 Byte		[*-671088.64… …670433.28*]	[*-671088.64… …670433.28*]	[*0.1…0.5… …670433.28*]	[*0.1…1… …670433.28*]	[Cx][] Float – Control [Cx][] Float – Status

Table 5. 2-buttons Numeric Control.

3.2.2.4.5 Enumeration

The box will behave analogously to the case of the switch control, however the communication objects (control object "**[Cx][] Enumeration - Control**" and the status "**[Cx][] Enumeration - Status**") will be 1-byte. Up to six discrete states can be distinguished depending on the value that the status object acquires from the control or receives from the bus.

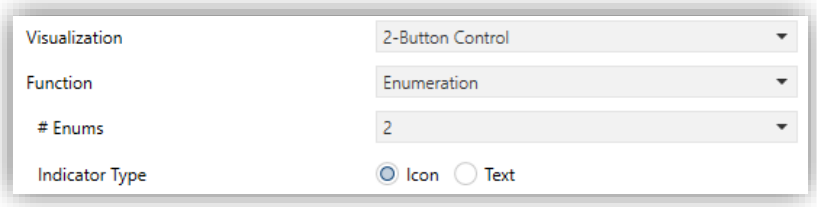


Figure 68. 2-Button Control - Enumeration.

The parameters available are:

- **# Enums** [*1…2…6*]: number of states that will be distinguished. For every distinguished state, the parameter **Value** [*0…255*] will become available together with the corresponding indicator (either **Text** or **Icon**).

- **Indicator Type** [*Icon / Text*]: sets whether the indicator of the control will be a text or an icon. If a **text indicator** is selected, a textbox will be added for each state. In the case of an **icon indicator**, a drop list will be added for each state to set the corresponding icon.

3.2.2.4.6 Shutter

Shutter control permits sending move up, move down (**"[Cx][] Shutter – Move Control"**) or stop (**"[Cx][] Shutter – Stop/Step Control"**) to control a shutter actuator connected to the bus by pressing the buttons in the box. In addition, the box will contain an indicator that will permanently show, as a percentage, the value of the status object (**"[Cx][] Shutter – Percentage Control"**).

The central indicator can also behave as a button, so that clicking on it launches a dialog for **precise control**. The precise positioning commands will be sent through the object **"[Cx][] Shutter – Percentage Status"**.

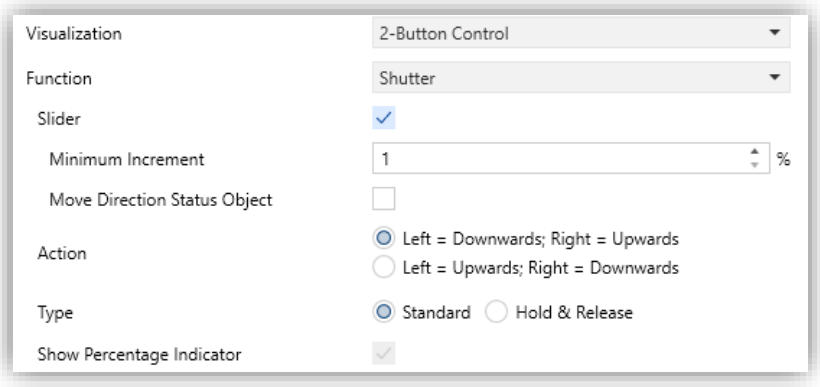


Figure 69. 2-Button Control - Shutter.

- **Slider** [*disabled / enabled*]: if enabled, the central indicator will behave as a button that will open a pop-up, similar to the one mentioned for the one-button shutter control (see Figure 59), which will allow precise control of the shutter position.

  - **Minimum Increment** [*1 … 100*] [*%*]: mínimum percentage difference for a change to occur in the slider.

- **Move Direction Status Object** [*disabled / enabled*]: when enabled, the object "**[Cx][] Shutter – Move Direction Status**" appears, which indicates the direction of movement of the shutter.

- **Action** [*Left = Downwards; Right = Upwards / Right = Upwards; Left = Downwards*]: sets which of the two buttons will send the move up orders and which the move down orders.

- **Type**:
  - [*Standard*]: a long press will make the device send to the KNX bus an order to start moving the shutter (up or down, depending on the button), while a short press will make it send a stop (or step up / step down) order.
  - [*Hold & Release*]: as soon as the button is held, the device will send the KNX bus an order to start moving the shutter (up or down, depending on the button). Once the button is released, it will send an order to stop and step up / step down.

- **Show Percentage indicator** [*disabled / enabled*]**:** enables or disables the shutter position indicator (in percentage) in the box. If the **Slider** is active, disabling it will not be possible.

3.2.2.4.7 Dimmer

The light control function permits making use of the two buttons in the box to send orders to a light dimmer, either through a binary object ("**[Cx][] Light – Switch Control**") or through a 4-bit object ("**[Cx][] Light – 4-bits Dimming Control**"). Moreover, the box will permanently display the current value of the dimming status object ("**[Cx][] Light – 1-Byte Percentage Control**"), which needs to be linked to the analogous object from the dimmer (as it does not get automatically updated on button presses).

The central indicator can also behave as a button, so that pressing it launches a pop-up for precise dimming of the lighting and colour temperature. These dimming commands are sent through the objects "**[Cx][] Light – Percentage Status**" and "**[Cx][] Light – Colour Temperature Status**", respectively.

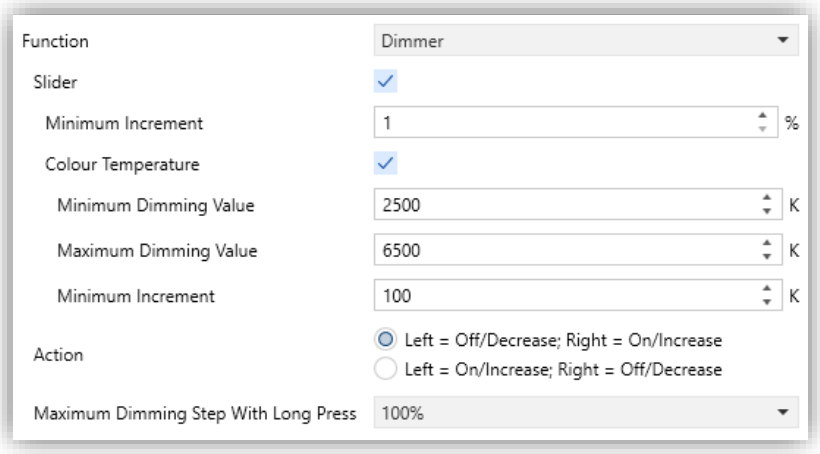


Figure 70. 2-Button Control – Dimmer.

The parameters available are:

- **Control Type** [*disable / enable*]: when enabled, the lighting percentage can be adjusted using a slider by clicking on the percentage indicator. In addition, with this option selected, the following functionality will be enabled:

  - **Minimum Increment** [*1 … 100*] [*%*]: mínimum percentage difference for a change to occur in the slider.

  - **Colour Temperature** [*disabled / enabled*]: enables the second slider within the Dimmer control dialog. This slider indicates the colour temperature, which, depending on the defined limits, will set the warmth of the Colour.

    - **Minimum Dimming Value** [*1000 …2500… 20000*] [*K*]
    - **Maximum Dimming Value** [*1000 ... 6500 … 20000*] [*K*]
    - **Minimum Increment** [*1 …100… 1000*] [*K*]

- **Action** [*Left = Off/Decrease; Right = On/Increase / Left = On/Increase; Right = Off/Decrease*]**:** sets which of the two buttons will send the “turn on” orders and which the “turn off” orders. Options are “Left Off, Right On” (default) and “Left On, Right Off”.

- **Maximum Dimming Step With Long Press** [*100% / 50% / 25% / 12.5% / 6.25% / 3.1% / 1.5%*]: sets the increase or decrease in the light level that will be requested, via object “**[Cx][] Light – 4-bits Dimming Control**”, from the dimmer with each long press on the right or left button respectively.

After a short press on the "turn on" button the value "1" will be sent through the "**[Cx][] Light – Switch Control**" binary object, while a short press on the "turn off" button will trigger the sending of the value "0".

Note: *most light dimmers implement light step dimming progressively (i.e., sending a dimmer a step order of 25% typically does not imply that the light level is suddenly incremented/decremented by 25%, but a progressive increment or decrement of the light level by 25% which is in fact interrupted if a stop order arrives (such order is sent by the device when the user releases the button). Due to this behaviour, it is advised to parameterise dimming steps of 100%, so that the user can perform a complete dimming (from totally off to totally on, or vice versa) or a partial dimming by simply holding the button and then releasing it as soon as he gets the desired light level, therefore with no need of performing successive long presses for regulations greater than the parameterised step*.

3.2.2.4.8 Multimedia

Tapping on one of the two buttons will make the device send a binary value to the bus, while pressing on the other will make it send the inverse binary value.

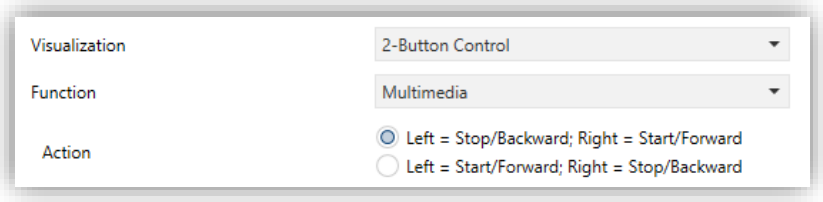


Figure 71. 2-Button Control - Multimedia.

- **Action** [*Left = Stop/Backward; Right = Start/Forward / Left = Start/Forward; Right = Stop/Backward*]: sets which of the two buttons will send the Stop/Backward orders and which one the Start/Forward orders.

The orders will be sent to the bus through the 1-bit object "**[Cx][] Multimedia - Control**", while the indicator values should be received through the object "**[Cx][] Multimedia - Status**".

3.2.2.4.9 Room State

Configuring with this function the box, controlling the states of the room will be possible, as well as show the associated pop-up. Thus, pressing on the top button will cause the room status to switch between *normal* and *Make Up Room*, while with the bottom button, the state will be switched between *normal* and *Do Not Disturb.* The switched values are sent to the bus via the 1-byte object "**[Cx][] Room State – Control**".

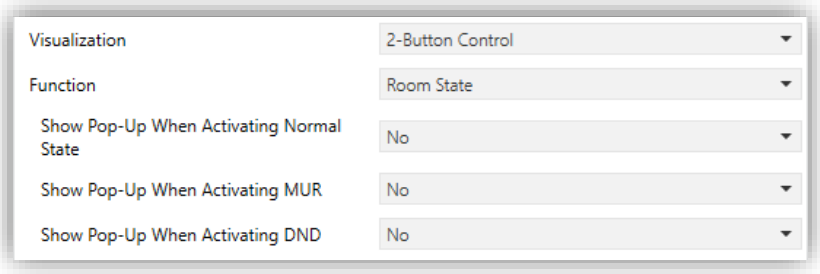


Figure 72. 2-Buttons Control - Room State.

- **Show Pop-Up When Activating Normal State** [*No / Pop-Up 1 / … / Pop-Up 6*]: allows to select the pop-up to be displayed when *normal* mode is activated.

- **Show Pop-Up When Activating MUR** [*No / Pop-Up 1 / … / Pop-Up 6*]: allows to select the pop-up to be displayed when *Make Up Room* mode is activated.

- **Show Pop-Up When Activating DND** [*No / Pop-Up 1 / … / Pop-Up 6*]: allows to select the pop-up to be displayed when *Do Not Disturb* mode is activated.

  Note: *the pop-ups selected must be activated (see section 3.1.10.2)*.

This control will have associated a dedicated object for the indicator ("**[Cx][] Room State - Status**"), which is automatically updated after the control order is sent and when values are received from the bus. It will also have two 1-bit objects that will indicate whether each status (MUR or DND) is activated or not: **"[CX][] Room State – Make Up Room (Status)"** and **"[CX] [] Room State – Do Not Disturb (Status)".**

3.2.2.5 CLIMATE CONTROL

This category covers a set of functions related to the climate control. The available options for **Function (**and for the dependent parameters) are detailed in the following sections.

3.2.2.5.1 Temperature Setpoint

This function permits **controlling the temperature setpoint of an external thermostat** by means of a two-button box and of the objects enabled to that effect: "**[Cx][] Setpoint – Temperature Control**" for the control and "**[Cx][] Setpoint – Temperature Status** " for the status.

In addition, the box itself will permanently reflect the value in ºC (or ºF) of the status object, whose value gets automatically updated after sending control orders (that is, after

pressing the buttons), being even possible to receive values from the bus, for example, from the corresponding setpoint status object from the external thermostat.

Therefore, after every press on the temperature increment button, the bus will be sent (through the control object) a certain value, progressively increased on every button press until the parameterisable maximum setpoint value has been reached. Analogously, after every press on the temperature decrement button, the bus will be sent a progressively decreased value until the parameterisable minimum setpoint value has been reached.

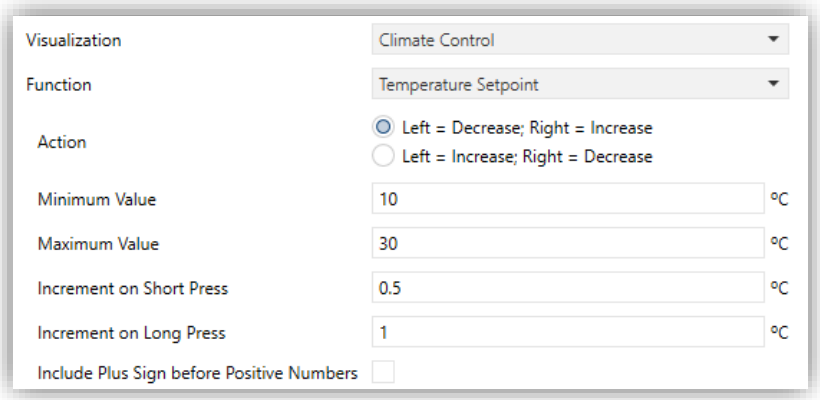


Figure 73. Climate Control - Temperature Setpoint.

The available parameters are:

- **Action** [*Left = Decrease; Right = Increase* / *Right = Increase; Left = Decrease*]: sets which of the two buttons will permit increasing the setpoint value and which one will permit decreasing it.

- **Minimum Value** [*-99…10…199*]: minimum value that can be reached by the control after a number of presses on the decrease button

- **Maximum Value** [*-99…30…199*]: maximum value that can be reached by the control after a number of presses on the increase button.

- **Increment on Short Press** [*0.1…0.5…10*]: sets the increase or decrease step to be applied to the current value on every short press over the increase or decrease buttons, respectively.

- **Increment on Long Press** [*0.1…1…10*]: sets the increase or decrease step to be applied to the current value on every long press over the increase or decrease buttons, respectively.

  Note: *long and short increments are applied in ºC regardless of the scale used.*

- **Include Plus Sign before Positive Number** [*disabled / enabled*]: sets whether showing or not the "+" sign before positive temperature values.

3.2.2.5.2 Mode

This function turns the box into a climate mode control. When this type of mode control is assigned to the box, two communication objects are enabled: the "**[Cx][] Mode - Control**" control object, and the "**[Cx][] Mode - Status**" status object. Depending on the mode selected by the user, the control object will be sent to the bus a certain value, after which the box will display the icon that corresponds to the new mode.

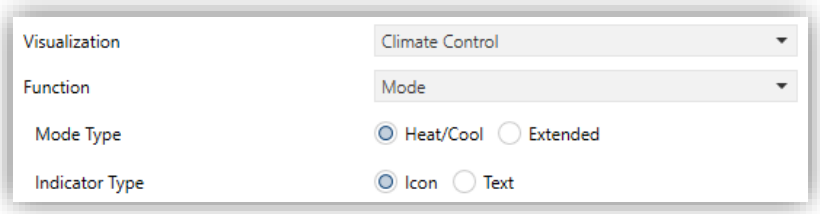


Figure 74. Climate Control - Mode (Heat/Cool).

- **Mode Type:**

  - [*Heat/Cool*]**:** selecting this type of mode control turns the box into a 2-button control one of which will activate the Heat mode, while the other one will activate the Cool mode. A centred indicator will reflect, as an icon, the currently active mode.

    Depending on the mode selected by the user, the control object will be sent to the bus a certain value (see Table 6). Also, the box indicator will automatically alternate between one icon and another when a mode change is performed.

Mode	Icon	Sent Value
Cool		0
Heat		1

Table 6. Heat/Cool Mode vs. Icons vs. Object Value.

  - [*Extended*]**:** selecting this type of mode control turns the box into a 2-button control, which permit sequentially commuting among the different HVAC climate modes. A centred indicator will reflect, as an icon, the currently active mode.

Up to five modes [*Auto / Heat / Cool / Fan / Dry*] are available, each of which can be in ETS by means of the proper checkbox, which permits setting which of all the five extended modes will be included into the sequential scrolling implemented by the buttons.

Depending on the mode selected by the user, the control object will be sent to the bus a certain value (see Table 7), after which the box will display the icon that corresponds to the new mode. Additionally, if the status object receives from the bus a value that represents any of the modes, the box will adopt the corresponding icon, while if an unrecognised value is received, no icon will be shown.

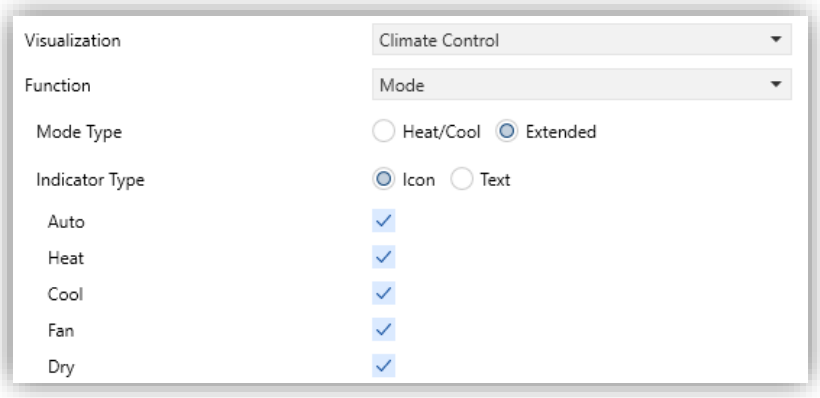


Figure 75. Climate Control - Mode Extended.

Mode	Icon	Sent Value
Auto		0 (0x00)
Heat		1 (0x01)
Cool		3 (0x03)
Fan		9 (0x09)
Dry		14 (0x0E)

Table 7. HVAC Mode vs. Icon vs. Object Value.

- **Indicator Type** [*Icon / Text*]: allows selecting whether the status indicator which each value is represented will be text type or icon type. If text type is set, as many text boxes will be displayed as modes have been enabled. The icons are fixed (see Table 6 and Table 7).

3.2.2.5.3 Fan

This function implements a 2-button (increase/decrease) fan control, as well as an icon indicator. When this function is assigned to the box, a control object and a 1-byte status object "**[Cx][] Fan – Percentage Status**" are enabled. The status object (which needs to be linked to the status object of the fan actuator) will express, as a percentage, the value of the current fan level, which will be represented with a variable icon on the box.

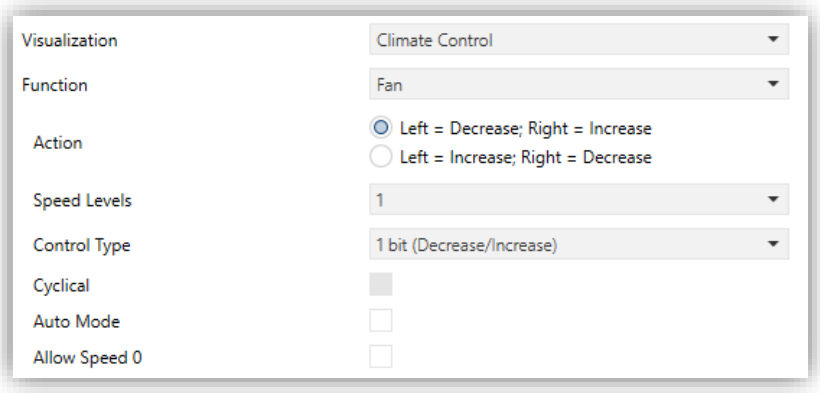


Figure 76. Climate Control - Fan.

- **Action** [*Left = Decrease; Right = Increase* / *Left = Increase; Right = Decrease*]**:** permits setting the increase or decrease actions to one button or another.

- **Speed Levels** [*1…5*]**:** sets how many speed levels will be available in the control.

- **Control Type**: sets the type of communication objects that will control the fan level.

  - [*1 bit (Decrease/Increase)*]: orders of speed increase/decrease are sent through the one-bit object **"[Cx][] Fan – Binary Control"**.

  - [*Scaling*]: scaling values are sent through the one-byte object **"[Cx][] Fan – Percentage Control"**.

  - [*Enumeration*]: integer values are sent through the one-byte object **"[Cx][] Fan – Enumeration Control"**.

- **Cyclical** [*disabled* / *enabled*]: sets whether scrolling through the speed levels is circular or not. If checked, an increase order in the maximum level switches to the minimum and vice versa (in the minimum level a decrease order switches to the maximum). If the control is 1 bit, it will not be possible to enable this parameter.

- **Auto Mode** [*disabled / enabled*]: sets whether the fan Auto mode will be available or not. If checked, the following parameters are also shown.

  - **Dedicated Object for Auto Mode:** sets how the Auto mode should be activated. In the absence of a dedicated object, the Auto fan mode will be activated by switching to fan level 0.

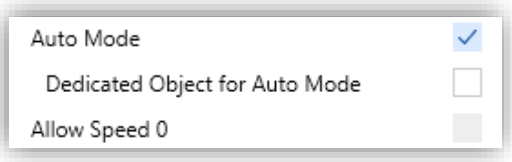


Figure 77. Climate - Fan – Auto mode.

In this case (supposing that Speed Levels has been set to "3"), the fan levels that can be navigated through short presses are:

Auto (0)	Minimum	Medium	Maximum

On the other hand, marking the checkbox enables the 1-bit object **"[Cx][] Fan– Auto Mode"**, which will trigger the **Auto mode** when it receives the corresponding value (**Value to Set Auto Mode** [*Send 0 to Set Auto Mode / Send 1 to Set Auto Mode*])**.**

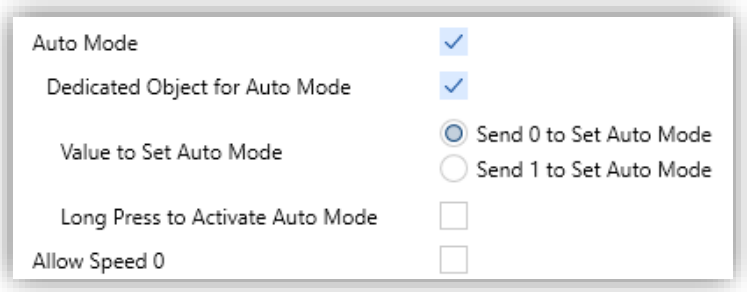


Figure 78. Climate - Fan – Dedicated Object for Auto mode.

However, two alternative (and mutually exclusive) methods are possible to activate this mode:

- By short press: Auto mode can be reached as a further level above the maximum one. In this case the fan levels activated by short presses are (note that speed 0 is optional):

(0)	Minimum	Medium	Maximum	Auto

- By long press on any of the buttons of the control (requires checking "**Long Press to Activate Auto Mode** [*disabled / enabled*]:").
- A further long press deactivates back the Auto mode and sends the minimum fan level. Instead, a short press deactivates the Auto mode and switches to the next level (or previous, depending on the button). In this case the fan levels reachable through short presses are (speed 0 is optional):

(0)	Minimum	Medium	Maximum

- **Allow speed 0** [*disabled / enabled*]: sets whether the speed level 0 will be present or not. When Auto **Mode without a dedicated object** has been configured, this option will be necessarily disabled.

3.2.2.5.4 Special Modes

Boxes configured as **Special Modes** controls include two buttons that let the user sequentially commute between the different special climate modes, as well as an icon indicator of the the currently active special mode.

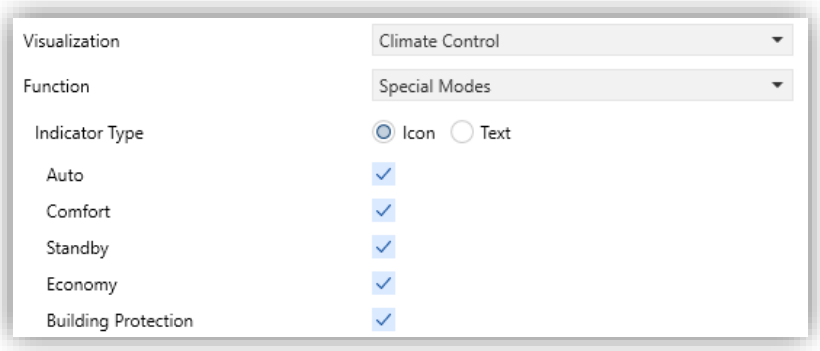


Figure 79. Climate Control - Special Mode.

When this function is assigned to the box, two 1-Byte objects "**[Cx] Special Mode - Control**" and "**[Cx] Special Mode - Status**" will be enabled. Through the former object will be sending the bus the value that corresponds to the mode that the user selects by touching the buttons (see Table 8). The box itself will permanently reflect the current value of the control object and/or the corresponding status object. This status object can also receive values from the bus.

If this object receives an unrecognised value from the bus, no icon will be displayed in the indicator.

Special Mode	Icon	Sent Value
Auto Mode		0 (0x000)
Comfort		1 (0x001)
Standby		2 (0x002)
Economy		3 (0x003)
Protection		4 (0x004)

Table 8. Special Modes vs. Icon vs. Object Value.

- **Indicator Type** [*Icon / Text*]: allows selecting whether the status indicator which each value is represented will be text type or icon type. If text type is set, as many text boxes will be displayed as modes have been enabled. The icons are fixed (see Table 8).

3.2.2.6 OTHER CONTROL TYPES

This category involves the following functions, which can be selected through the **Function** parameter:

3.2.2.6.1 RGB Control

This function is intended for sending orders to three-colour LED light regulators.

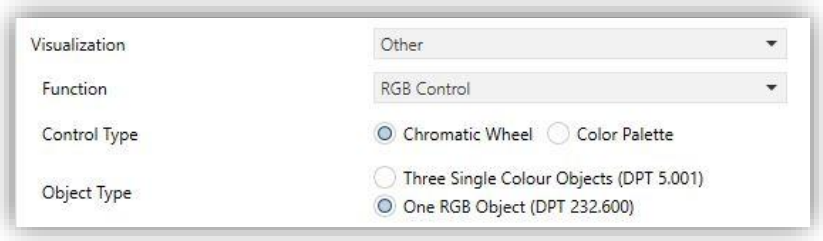


Figure 80. RGB Control.

When the function is assigned to the box, the following parameters come up:

- **Control Type** [*Chromatic Wheel / Colour Palette*]: sets the type of pop-up for selecting the RGB colour. The colour palette consists of a 5x6 grid with 30 predefined colours, while the chromatic wheel enables precise selection of both colour and brightness.

- **Object Type** [*Three Single Colour Objects (DPT 5.001) / One RGB Object (DPT 232.600)*]: permits selecting what type of object will be used for controlling the light level of the RGB channels.

  If "*Three Single Colour Objects (DPT 5.001)*" is selected, three 1-byte objects will be enabled (with their Write and Read flags activated, so they can both send regulation orders and receive the status from the regulator) named: "**[Cx] RGB - Red Channel**", "**[Cx] RGB - Green Channel**" and "**[Cx] RGB - Blue Channel**". Control orders will consist in sending the light level (as a percentage) of the different channels through the corresponding objects.

  If "*One RGB Object (DPT 232.600)*" is selected, only one 3-byte object will be enabled: "**[Cx] RGB - RGB Colour**". In this case, the light levels of the three channels are sent (and received) concatenated into the above 3-byte object.

  Note: *if statuses are received while the luminaire performs a regulation, this control may become hardly serviceable until such regulation ends*.

Regarding the RGB control boxes themselves, a central label will permanently show, as a percentage, the current light level (which is determined by the channel with the highest current light level). This **indicator** gets updated automatically as the user interacts with the box but is also conditioned by the values received from the bus through the already described objects.



Figure 81. RGB Control (Box).

Moreover, two buttons can be found in the box:

- **Short-pressing** on the left button permits commuting between a total absence of light in the three channels, and their respective states previous to the switch-off. **Long-pressing** it, on the other hand, will make the device send a 4-bit dimming order through object **"[Cx][] RGB – Light Dimming Control"**, analogously as the light dimming control.

- The right button, when pressed, launches a pop-up that depends on the Control Type parameter:

- **Chromatic wheel:** provides a circular slider for colour selection and, on the right, a linear slider to select the brightness. On the left 4 boxes to store the last 4 colours selected and a button to switch between the colour wheel and the greyscale wheel.

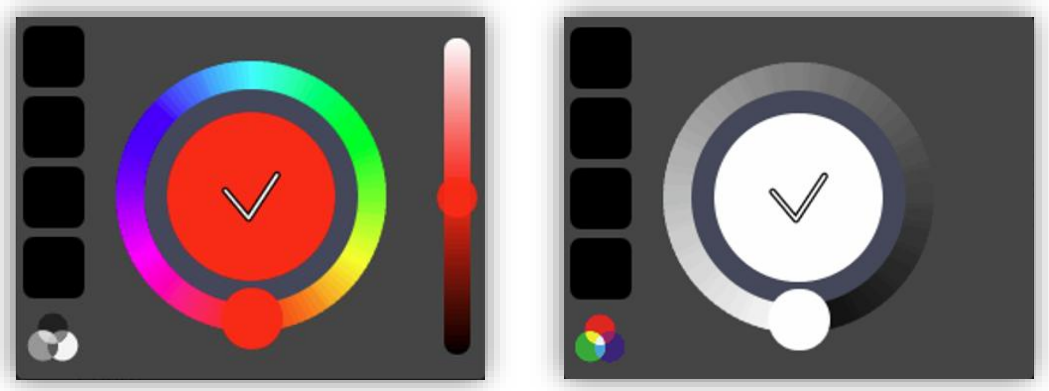


Figure 82. RGB/RGBW Control - Colour wheel / Grey scale

- **Colour palette:** 5x6 grid of predefined colours that permits the selection of a light level for every channel by touching on any of them.

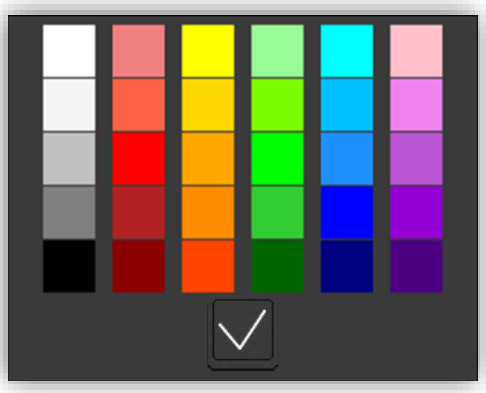


Figure 83. 2-Button Control RGB / RGBW Colour Palette

3.2.2.6.2 RGBW Control

The RGBW control **is analogous to the above RGB control**, although it also lets controlling a specific fourth channel for white ("**[Cx][] RGBW - White Channel**"), in case such feature is supported by the dimmer.

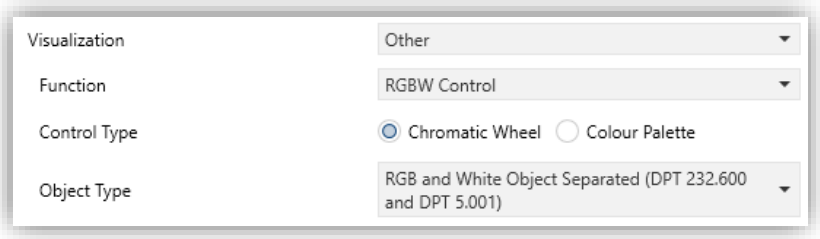


Figure 84. RGBW Control.

- **Control Type** [*Chromatic Wheel / Colour Palette*]: analogous to the RGB control.

- **Object Type** [*Four Single Colour Objects (DPT 5.001) / RGB and White Object Separated (DPT 232.600 and DPT 5.001) / One RGBW Object (DPT 251.600)*]: selects what type of object will be used for controlling the light level of the RGBW channels.

  The options "*Four Single Colour Objects (DPT 5.001)*" and "*RGB and White Object Separated (DPT 232.600 and DPT 5.001)*" are analogous to the RGB control.

  If "*One RGBW Object (DPT 251.600)*" is selected a 6-bytes object will be enabled: "**[Cx][] RGBW - RGBW Colour**" through which the light levels of the four channels are sent and received concatenated.

3.2.2.6.3 Daily Timer

Boxes configured as daily timers let the final user program a timed sending of a value to the bus, being possible to send binary or scene values (according to the parameterisation) at a certain time (either every day or only once) or at the end of a countdown. Hence, when the user presses on the box, a window containing the necessary controls for setting up a timed sending (either at a specific time or after a countdown) will pop up.



Figure 85. Daily Timer Pop-up.

This window contains the following elements:

- Timer Type Selector: two-button selector to step through the following options:

			
Timer inactive.	Timer active (every day).	Timer active (no repetition).	Timer active (countdown).

Table 9. Timer Type.

- Time Selector: depending on the selected timer type, permits setting the time for the automated sending, or the length of the countdown.

- Value to be Sent: in case of having parameterised the sending of a binary value, this control lets the user determine the concrete value to be sent (“OFF” or “ON”). In the case of the sending of a scene, this control is not shown, as the scene number is set by parameter.

Hence, at the time set by the user or once the countdown ends, the bus will be automatically sent the corresponding value, through the **“[Cx][] Daily Timer – Switch Control”** object (for binary values) or through the **“[General] Scene: Send”** object (in case of scene values).

In both cases the **“[Cx][] Daily Timer - Enable”** binary object will be available, making it possible to disable (by sending the value “0”) or to enable (value “1”) the execution of the timed sending set by the user. By default, timed sending is always enabled.

Note:

- *In case of disabling a sending through **“[Cx] Daily Timer - Enable”**, the corresponding box will show the “forbidden” icon, although the box will not lose the configuration previously set by the user.*

- *If a download or bus failure has occurred and the time has not yet been set, the active timings configured as "Daily timer" or "Daily timer without repetition" will not be executed. If, once the time has been set, the execution condition of any of the daily timings is restored, the daily timings will be executed.*

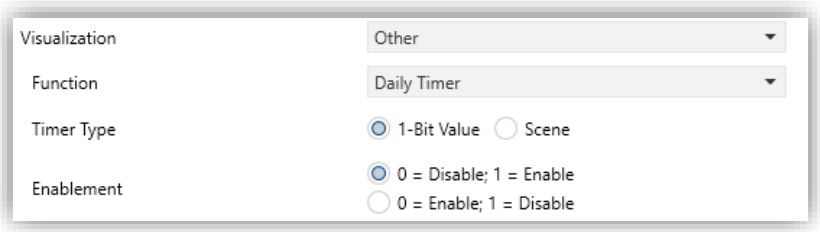


Figure 86. Daily Timer.

- **Timer Type** [*1-Bit Value / Scene*]: allows the user to select how the timer will be controlled.

  - **Scene Number** [*1…64*]: shown only after selecting "Scene" for the above parameter. This field defines the number of the scene that will be sent to the bus on the execution of the timed sending.

- **Enablement** [*0 = Disable; 1 = Enable / 0 = Enable; 1 = Disable*]: sets the value to enable and disable the timer through the object "**[Cx][] Daily Timer - Enable"**.

3.2.2.6.4 Weekly Timer

Boxes configured as weekly timers let the final user program a timed sending of a binary or scene value to the bus (according to the parameterisation) at a certain time on certain days (on a weekly basis).

The difference between the daily and the weekly timers is that the latter does not permit the countdown-based sending, although it does permit that a time-based sending takes place every week, on the days selected by the user

Hence, when the user presses on the box, a window similar to Figure 87 will pop up.



Figure 87. Weekly Timer Pop-up.

This window contains the following elements:

- Day Selector: lets the user select the days the timed sending will take place on. The first day of the week depends on the parameterisation of the "General" tab (see section 3.1.1).

- Value to be Sent (ON / OFF): lets the user set the value to be sent. It can be "ON" or "OFF", or even both at different times. Once selector is provided for each of the two values.

  Note: *if instead of the sending of a binary value, the sending of a scene value has been parameterised, only one checkbox and once selector will be shown, so the user can enable/disable the sending of the scene value and, if enabled, set the desired time.*

- Time Selector: let the user set the time at which the automatic sending will take place.

Hence, at the specified time on the days selected by the user, the bus will be automatically sent the corresponding value through the **"[Cx][] Weekly Timer – Switch Control"** object (in the case of sending a binary value) or through the **"[General] Scene: Send"** object (in the case of sending a scene number).

In both cases the **"[Cx][] Weekly Timer - Enable"** binary object will be available, making it possible to disable (by sending the value "0") or to enable (value "1") the execution of the timings set by the user. By default, user timings are always enabled.

Note:

- *In case of disabling a sending through **"[Cx][] Weekly Timer - Enable"**, the corresponding box will show the "forbidden" icon, although the box will not lose the configuration previously set by the user.*
- *If a download or bus failure has occurred and the time has not yet been set, the active weekly timings will not be executed. If, once the time has been set, the execution condition of any of the weekly timings is restored, the weekly timings will be executed.*

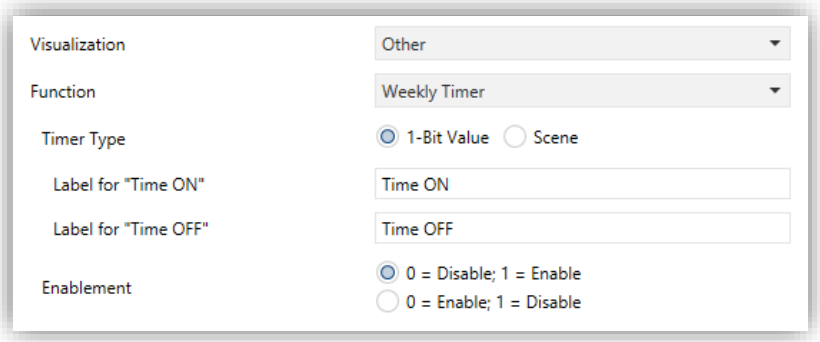


Figure 88. Weekly Timer.

This function offers the following parameters in ETS:

- **Timer Type**: [*1-Bit Value / Scene*]: allows the user to select how the timer will be controlled.
- **Scene Number** [*1…64*]: shown only after selecting "*Scene*" for the above parameter. This field defines the number of the scene that will be sent to the bus on the execution of the timed sending.
- **Label for "Scene"** [*Scene*]: permits customising the label shown next to the checkbox that enables/disables the scene sending.
- **Label for "Time ON"** [*Time ON*]: permits customising the label shown next to the checkbox that enables/disables the sending of the switch-on order.
- **Label for "Time OFF"** [*Time OFF*]: permits customising the label shown next to the checkbox that enables/disables the sending of the switch-off order.
- **Enablement** [*0 = Disable; 1 = Enable / 0 = Enable; 1 = Disable*]: sets the value to enable and disable the timer through the object **"[Cx][] Weekly Timer - Enable"**.

Note: *the execution of user-defined timers is triggered on the detection of state transitions, even if the clock does not specifically pass through the specified time. In other words, supposing one timed sending of the value "ON" at 10:00 am and one timed sending of the value "OFF" at 8:00 pm, if the internal clock is set to 9:00 pm just after 10:00 am (and therefore after having sent the value "ON"), then the "OFF" order corresponding to 8:00h pm will take place immediately after the time change.*

3.2.2.6.5 Alarm

Boxes configured as alarms perform user warnings on anomalous events. For this purpose, boxes of this type are related to the binary object **"[Cx][] Alarm - Trigger"** that permits receiving alarm messages from the bus, thus making device emit a continuous beep while the screen light blinks. In addition, the screen will automatically browse to the page containing the alarm box that has been triggered. Any pop-up, message or function that has been activated will be deactivated and the alarm will be given priority.

The **blinking warning icon** shows that the alarm is active and not confirmed. This icon will also appear in the lower right corner of the button of the page where the alarm is located.

When an alarm has been activated, there are two different ways to silence the sound notification and the luminous blinking of the display.

- Pressing the 'Home' button: it will silence the sound notification and end the flashing, but it will not confirm the alarm. The alarm box icon will continue blinking.

- Press the 'OK' button in the alarm box: this will silence the sound notification, end the flashing light, confirm the alarm, and cause the icon to stop blinking. When this button is pressed, the binary object **"[Cx][] Alarm - Confirmation"** with the value "1" will be sent through the bus. If this object receives from the bus the value "1", the alarm will also be confirmed, having the same effects.

The alarm will definitely become inactive once it has been confirmed and, in addition, once the **"[Cx][] Alarm - Trigger"** object goes back to the "no alarm" state (the order of these two events is irrelevant), after which the box icon and the page icon will finally turn off.

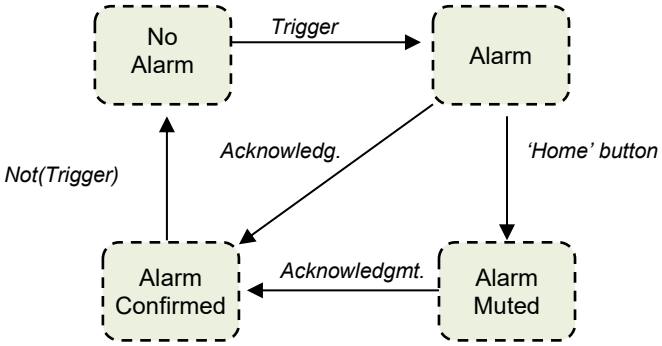


Figure 89. Alarm state diagram (case of confirmation previous to the alarm end).

There is also the possibility of **periodically monitoring** the status of the trigger object, for situations where this object is periodically received from the bus. This will let the screen automatically assume the alarm situation if the "no alarm" value does not get sent through the trigger object after a certain time, for example upon failures of the transmitter. The maximum time window can be defined by parameter.

Consequently, alarm boxes permit configuring the following parameters:

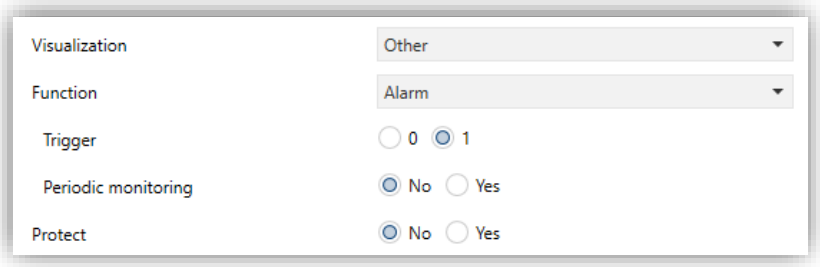


Figure 90. Alarm.

- **Trigger** [*0 / 1*]: defines the value that will trigger the alarm, i.e., the value that, when received through **"[Cx][] Alarm - Trigger"**, should be interpreted by the device as an alarm situation. Implicitly, this parameter also defines the inverse "no alarm" value.

- **Periodic Monitoring** [*No / Yes*]: activates or deactivates periodic monitoring of the alarm trigger object. When activated, the following parameter appears:

  - **Cycle Time** [*30…65535*] [*s*] [*1…65535*] [*min / h*]: sets the maximum accepted time space without receiving the "no alarm" value before the device adopts the alarm situation.

Example I: *supposing a certain sensor responsible for sending the value "1" (once) to the bus when a flood is detected, and the value "0" (again, only once) when such situation terminates, if the object sent is linked to the alarm trigger object from an alarm box in the device where no periodic monitoring has been parameterised and where the value "1" has been set as the alarm value, then the screen will notify an emergency every time a flood takes place. The notification will stop as soon as the user touches any button, although a warning icon will still blink on the screen. After that, if the user acknowledges the alarm, the icon will stop blinking; switching then off once the sensor sends a "0".*

Example II: *suppose a certain CO_2 sensor responsible for sending the value "0" to the bus every two minutes, except when it detects a dangerous CO_2 level; in such case, it will immediately send the value "1". If the object being sent is linked to the alarm trigger object from an alarm box in the device where periodic monitoring has been parameterised and where the value "1" is configured as the alarm trigger value, the screen will notify the user about the emergency both if the CO_2 level reaches a dangerous level and if the sensor stops sending the value "0". The user should proceed in the same manner as in the above example to manage the alarm notification.*

3.2.2.6.6 Page Direct Link

This control allows one or two shortcuts to the pages indicated by parameter. To configure a box as a page direct link type control, the page to be accessed and the icon and Colour of the button must be set.

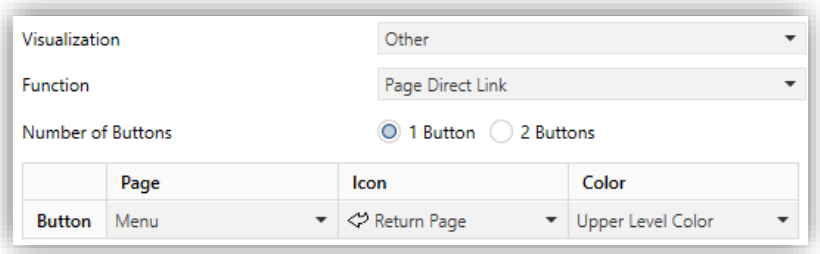


Figure 91. Page Direct Link.

- **Number of buttons** [*1 Button / 2 Buttons*]: allows setting one or two direct page links.

- **Page** [*Menu / Configuration Page / Page 1 / … / Page 7*]: page that will be accessed.

3.2.2.6.7 Alarm Clock

Controls with Alarm Clock function enable programming a single automatic sending to the bus (which may be binary or scene value, as defined by parameter) at a certain time. This is a one-button control whose icon will change to indicate whether or not the alarm clock is enabled.

When pressing on the button/indicator, a pop-up will appear, from which the user will define the time of sending through two sliders, one for the hour and other for the minutes.

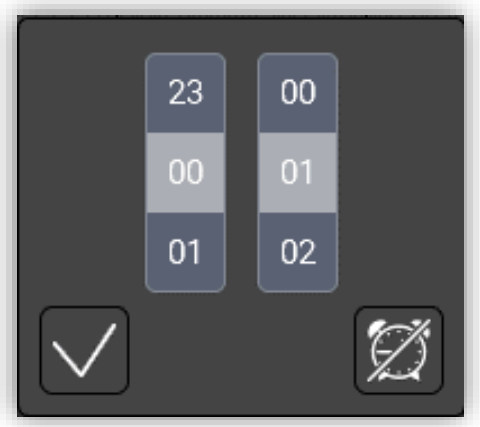


Figure 92. Other Control - Alarm Clock Pop-up

Pressing the accept button will enable the alarm clock at the set time, close the dialog and send the object "**[Cx][] Alarm Clock - Time**". On the other hand, pressing the cancel button will close the pop-up without enabling the alarm clock, or disabling it in case it has been previously enabled, clearing the configuration and closing the dialog.

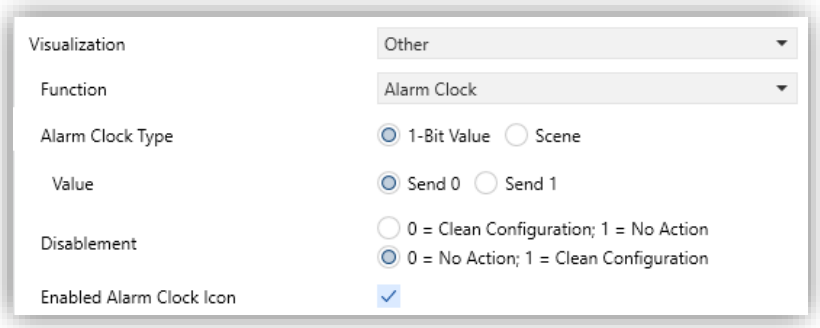


Figure 93. Other Control - Alarm Clock

The available parameters are:

- **Alarm Clock Type** [*1-Bit Value / Scene*]: at the time specified by the user, the corresponding value shall be automatically sent to the bus via the object "**[Cx][] Alarm Clock - Control**" (in case of selecting "1-Bit value") or via the object "**[General] Scene: Send**" (in case of "Scene").

  - **Value** [*Send 0 / Send 1*]: 1-Bit value to be sent.

- **Disablement** [*0 = Clean Configuration; 1 = No Action / 0 = No Action; 1 = Clean Configuration*]: sets the polarity of the binary object, "**[Cx][] Alarm Clock - Disable**", which will be sent to the bus to notify that the alarm clock is deactivated. In addition, this object may be sent externally to cancel the timing and clear the configuration set by the user through the control.

- **Enabled Alarm Clock Icon** [*disabled / enabled*]: if enabled, the box will display an icon once the alarm clock has been enabled. If not, the time set by the user will be displayed.

Note: *in the event of a download or bus failure, active timings configured as "Alarm Clock" will not be executed until the time in the screen is reset and the execution condition is met.*

3.3 INPUTS

Screens from the Z35 family incorporates **four analog/digital inputs**, each configurable as a:

- **Binary Input**, for the connection of a pushbutton or a switch/sensor.
- **Temperature Probe**, to connect a Zennio temperature probe.
- **Motion Detector**, to connect a motion detector from Zennio.

3.3.1 BINARY INPUT

Please refer to the specific user manual "**Binary Inputs**", available in the Z35 / Z40 / Z28 product section, at the Zennio website (www.zennio.com).

3.3.2 TEMPERATURE PROBE

Please refer to the specific user manual "**Temperature Probe**", available in the Z35 / Z40 / Z28 product section, at the Zennio website (www.zennio.com).

3.3.3 MOTION DETECTOR

It is possible to connect motion detectors from Zennio to the input ports of the screen. This brings the device with the possibility of monitoring motion and presence in the room. Depending on the detection, different response actions can be parameterised.

Please refer to the specific "**Motion Detector**" user manual (available in the Z35 / Z40 / Z28 product section at the Zennio website, www.zennio.com) for detailed information about the functionality and the configuration of the related parameters.

3.4 THERMOSTAT

Screens from the Z35 family implement **two Zennio thermostats** which can be enabled and fully customised.

Please refer to the specific manual "**Zennio Thermostat**" (available in the Z35 / Z40 / Z28 product section at the Zennio website, www.zennio.com) for detailed information about the functionality and the configuration of the related parameters.

3.5 HUMIDITY

Z35 v2 / Z35 v3 is capable of measuring and monitor humidity measurements, as well as **send these values to the bus** and **report high / low humidity situations**. To that end, it is necessary to configure a set of parameters.

Please refer to the "**Humidity**" user manual, available in the Z35 v2 / Z35 v3 product section, at the Zennio website (www.zennio.com).

3.6 CO_2 FUNCTIONALITY

Z35 v3 features a CO_2 functionality that enables both monitoring and control of the room's CO_2 level. Through the CO_2 sensor, the device can measure the concentration of this gas, send the measured values to the KNX bus, and trigger specific actions when the configured thresholds are reached. In addition, it incorporates a CO_2 control function that allows room ventilation to be regulated in order to maintain adequate indoor air quality.

For specific information about the operation and configuration of this functionality, please refer to the **"CO_2"** documentation, available in the Z35 v3 product section on the Zennio website (www.zennio.com).

Note: *A CO_2 dongle must be connected to the device's USB port for the CO_2 sensor functionality to operate correctly.*

ANNEX I. COMMUNICATION OBJECTS

- "**Functional range**" shows the values that, regardless of any other values permitted by the bus according to the object size, may be of any use or have a particular meaning because of the specifications or restrictions from both the KNX standard or the application program itself.

Number	Size	I/O	Flags	Data type (DPT)	Functional Range	Name	Function
1	1 Bit	O	C R - T -	DPT_Trigger	0/1	[Heartbeat] Object to Send '1'	Sending of '1' Periodically
2	1 Bit	O	C R - T -	DPT_Trigger	0/1	[Heartbeat] Device Recovery	Send 0
3	1 Bit	O	C R - T -	DPT_Trigger	0/1	[Heartbeat] Device Recovery	Send 1
4	3 Bytes	I	C - W T U	DPT_TimeOfDay	00:00:00 - 23:59:59	[General] Time of Day	Time of Day External Reference
5	3 Bytes	I	C - W T U	DPT_Date	01/01/1990 - 31/12/2089	[General] Date	Date External Reference
6	1 Byte	I	C - W - -	DPT_SceneNumber	0 - 63	[General] Scene: Receive	0-63 (Run Scene 1-64)
7	1 Byte	O	C - - T -	DPT_SceneControl	0-63; 128-191	[General] Scene: Send	0-63 / 128-191 (Run/Save Scene 1-64)
8	1 Bit	I	C - W - -	DPT_State	0/1	[General] Activity	0 = Inactivity; 1 = Activity
9	1 Bit	I	C - W T U	DPT_Enable	0/1	[General] Touch Locking	0 = Unlock; 1 = Lock
	1 Bit	I	C - W T U	DPT_Enable	0/1	[General] Touch Locking	0 = Lock; 1 = Unlock
10	1 Bit	I	C - W - -	DPT_Ack	0/1	[General] Cleaning Function	0 = Nothing; 1 = Clean Now
11	2 Bytes	I	C - W T U	DPT_Value_Temp	-273.00º - 670433.28º	[General] External Temperature	Temperature to Be Shown
12, 18, 24, 30, 36, 42	1 Bit	I	C - W - -	DPT_Switch	0/1	[General][Pop-Up x] 1-Bit	0 = Hide Pop-Up; 1 = Show Pop-Up
	1 Bit	I	C - W - -	DPT_Switch	0/1	[General][Pop-Up x] 1-Bit	0 = Show Pop-Up; 1 = Hide Pop-Up
13, 19, 25, 31, 37, 43	1 Byte	I	C - W - -	DPT_Value_1_Ucount	0 - 255	[General][Pop-Up x] 1-Byte	Hide/Show Pop-Up
14, 15, 16, 17, 20, 21, 22, 23, 26, 27, 28, 29, 32, 33, 34, 35, 38, 39, 40, 41, 44, 45, 46, 47	14 Bytes	I	C - W - -	DPT_String_UTF-8		[General][Pop-Up x] Line x	Text to Show on the Display at Line x
48	1 Byte	I	C - W - -	1.xxx	0 - 255	[General] Translations - Select Language	0 = Main; 1 = Lang. 2; ...; 4 = Lang. 5
49	1 Bit	I	C - W - -	DPT_Ack	0/1	[General] Translations - Main Language	0 = Nothing; 1 = Choose this Language
50, 51, 52, 53	1 Bit	I	C - W - -	DPT_Ack	0/1	[General] Translations - Language x	0 = Nothing; 1 = Choose this Language
54	2 Bytes	I	C - W - -	DPT_LanguageCodeAlpha2_ASCII		[General] Translations - Select Language	Language Selection Through ISO 639-1 Two Letters Code

55	1 Bit	I	C - W T U	DPT_Enable	0/1	[General] Sounds - Disabling Button Sound	0 = Disable Sound; 1 = Enable Sound
	1 Bit	I	C - W T U	DPT_Enable	0/1	[General] Sounds - Disabling Button Sound	0 = Enable Sound; 1 = Disable Sound
56	1 Bit	I	C - W - -	DPT_Ack	0/1	[General] Sounds - Doorbell	0 = Nothing; 1 = Play Doorbell Sound
	1 Bit	I	C - W - -	DPT_Ack	0/1	[General] Sounds - Doorbell	0 = Play Doorbell Sound; 1 = Nothing
57	1 Bit	O	C R - T -	DPT_Switch	0/1	[General] Welcome Back Object	Switch Object Sent on Wake Up
58, 59, 60, 61, 62	1 Bit	I	C - W - -	DPT_Switch	0/1	[General] Welcome Back Object - Additional Condition	Additional Condition Object x
63	1 Bit	I	C - W T U	DPT_Switch	0/1	[General] Temperature Scale	0 = ºC; 1 = ºF
64	1 Byte	I/O	C R W - -	DPT_Page_Selection	0 - 255	[General] Default Page	0 = Menu; 1 = Page 1; ... ; 7 = Page 7; 9 = Configuration
	1 Byte	I/O	C R W - -	DPT_Page_Selection	0 - 255	[General] Default Page	0 = Menu; 1 = Page 1; ... ; 7 = Page 7; 8 = Configuration
	1 Byte	I/O	C R W - -	DPT_Page_Selection	0 - 255	[General] Default Page	0 = Menu; 1 = Page 1; ... ; 5 = Page 5; 6 = Configuration
65, 66, 67, 68, 69, 70, 71	1 Bit	I	C - W - U	DPT_Switch	0/1	[Config.][Bx] Show/Hide Box	0 = Hide Box; 1 = Show Box
72, 98, 124, 150, 176, 202, 228	1 Bit	I	C - W - U	DPT_Switch	0/1	[Px] Show/Hide Page	0 = Hide Page; 1 = Show Page
73, 99, 125, 151, 177, 203, 229	1 Bit	I	C - W - U	DPT_Switch	0/1	[Px][B1] Show/Hide Box	0 = Hide Box; 1 = Show Box
	1 Bit	I	C - W - U	DPT_Switch	0/1	[Px][BA] Show/Hide Box	0 = Hide Box; 1 = Show Box
	1 Bit	I	C - W - U	DPT_Switch	0/1	[Px][OnOff] Show/Hide Box	0 = Hide Box; 1 = Show Box
74, 100, 126, 152, 178, 204, 230	1 Bit	I	C - W - U	DPT_Switch	0/1	[Px][B2] Show/Hide Box	0 = Hide Box; 1 = Show Box
	1 Bit	I	C - W - U	DPT_Switch	0/1	[Px][BB] Show/Hide Box	0 = Hide Box; 1 = Show Box
74, 78, 100, 104, 126, 130, 152, 156, 178, 182, 204, 208, 230, 234	1 Bit	I	C - W - U	DPT_Switch	0/1	[Px][Eco] Show/Hide Box	0 = Hide Box; 1 = Show Box
75, 101, 127, 153, 179, 205, 231	1 Bit	I	C - W - U	DPT_Switch	0/1	[Px][B3] Show/Hide Box	0 = Hide Box; 1 = Show Box
	1 Bit	I	C - W - U	DPT_Switch	0/1	[Px][Setpoint] Show/Hide Box	0 = Hide Box; 1 = Show Box
76, 102, 128, 154, 180, 206, 232	1 Bit	I	C - W - U	DPT_Switch	0/1	[Px][B4] Show/Hide Box	0 = Hide Box; 1 = Show Box
	1 Bit	I	C - W - U	DPT_Switch	0/1	[Px][Fan] Show/Hide Box	0 = Hide Box; 1 = Show Box
77, 103, 129, 155, 181, 207, 233	1 Bit	I	C - W - U	DPT_Switch	0/1	[Px][B5] Show/Hide Box	0 = Hide Box; 1 = Show Box
	1 Bit	I	C - W - U	DPT_Switch	0/1	[Px][BC] Show/Hide Box	0 = Hide Box; 1 = Show Box
	1 Bit	I	C - W - U	DPT_Switch	0/1	[Px][B5A] Show/Hide Box	0 = Hide Box; 1 = Show Box
78, 104, 130, 156, 182, 208, 234	1 Bit	I	C - W - U	DPT_Switch	0/1	[Px][B6] Show/Hide Box	0 = Hide Box; 1 = Show Box
	1 Bit	I	C - W - U	DPT_Switch	0/1	[Px][B6A] Show/Hide Box	0 = Hide Box; 1 = Show Box
	1 Bit	I	C - W - U	DPT_Switch	0/1	[Px][BD] Show/Hide Box	0 = Hide Box; 1 = Show Box
79, 105, 131, 157, 183, 209, 235	1 Bit	I	C - W - U	DPT_Switch	0/1	[Px][B5B] Show/Hide Box	0 = Hide Box; 1 = Show Box
	1 Bit	I	C - W - U	DPT_Switch	0/1	[Px][BE] Show/Hide Box	0 = Hide Box; 1 = Show Box
	1 Bit	I	C - W - U	DPT_Switch	0/1	[Px][B7] Show/Hide Box	0 = Hide Box; 1 = Show Box

80, 106, 132, 158, 184, 210, 236	1 Bit	I	C - W - U	DPT_Switch	0/1	[Px][B6B] Show/Hide Box	0 = Hide Box; 1 = Show Box
	1 Bit	I	C - W - U	DPT_Switch	0/1	[Px][BF] Show/Hide Box	0 = Hide Box; 1 = Show Box
	1 Bit	I	C - W - U	DPT_Switch	0/1	[Px][B8] Show/Hide Box	0 = Hide Box; 1 = Show Box
81, 107, 133, 159, 185, 211, 237	2 Bytes	O	C - - T -	DPT_Value_Temp	-273.00º - 670433.28º	[Px][Setpoint] Control	-99ºC ... 199ºC
	2 Bytes	I	C - W T U	DPT_Value_Temp	-273.00º - 670433.28º	[Px][Setpoint] Offset - Status	-99ºC ... 199ºC
	2 Bytes	I/O	C R W T U	DPT_Value_Temp	-273.00º - 670433.28º	[Px][Setpoint] Offset - Control/Status	-99ºC ... 199ºC
82, 108, 134, 160, 186, 212, 238	2 Bytes	I	C - W T U	DPT_Value_Temp	-273.00º - 670433.28º	[Px][Setpoint] Status	-99ºC ... 199ºC
83, 109, 135, 161, 187, 213, 239	2 Bytes	I/O	C R W T U	DPT_Value_Temp	-273.00º - 670433.28º	[Px][Setpoint] Base Temperature - Control/Status	-99ºC ... 199ºC
84, 110, 136, 162, 188, 214, 240	1 Bit	O	C - - T -	DPT_Step	0/1	[Px][Setpoint] Step - Control	0 = Decrease; 1 = Increase
85, 111, 137, 163, 189, 215, 241	1 Bit	I	C - W T U	DPT_Heat_Cool	0/1	[Px][Setpoint] Mode - Status	0 = Cool; 1 = Heat
86, 112, 138, 164, 190, 216, 242	1 Bit	I	C - W T U	DPT_Switch	0/1	[Px][Setpoint] On/Off - Status	0 = Off; 1 = On
	1 Bit	I	C - W T U	DPT_Switch	0/1	[Px][Setpoint] On/Off - Status	0 = On; 1 = Off
87, 113, 139, 165, 191, 217, 243	1 Bit	I	C - W T U	DPT_Enable	0/1	[Px][Fan] Auto Mode	Switch Auto Mode
88, 114, 140, 166, 192, 218, 244	1 Byte	O	C - - T -	DPT_Scaling	0% - 100%	[Px][Fan] Percentage Control	50%, 100%
	1 Byte	O	C - - T -	DPT_Scaling	0% - 100%	[Px][Fan] Percentage Control	33%, 67%, 100%
	1 Byte	O	C - - T -	DPT_Fan_Stage	0 - 255	[Px][Fan] Enumeration Control	1, 2
	1 Byte	O	C - - T -	DPT_Fan_Stage	0 - 255	[Px][Fan] Enumeration Control	1, 2, 3
	1 Byte	O	C - - T -	DPT_Fan_Stage	0 - 255	[Px][Fan] Enumeration Control	0, 1, 2, 3
	1 Byte	O	C - - T -	DPT_Fan_Stage	0 - 255	[Px][Fan] Enumeration Control	0, 1, 2
	1 Byte	O	C - - T -	DPT_Scaling	0% - 100%	[Px][Fan] Percentage Control	0%, 33%, 67%, 100%
	1 Byte	O	C - - T -	DPT_Scaling	0% - 100%	[Px][Fan] Percentage Control	0%, 50%, 100%
	1 Byte	O	C - - T -	DPT_Scaling	0% - 100%	[Px][Fan] Percentage Control	Auto, 33%, 67%, 100%
	1 Byte	O	C - - T -	DPT_Scaling	0% - 100%	[Px][Fan] Percentage Control	Auto, 50%, 100%
	1 Byte	O	C - - T -	DPT_Fan_Stage	0 - 255	[Px][Fan] Enumeration Control	Auto, 1, 2
	1 Byte	O	C - - T -	DPT_Fan_Stage	0 - 255	[Px][Fan] Enumeration Control	Auto, 1, 2, 3
89, 115, 141, 167, 193, 219, 245	1 Byte	I	C - W T U	DPT_Scaling	0% - 100%	[Px][Fan] Percentage Status	0% - 100%
	1 Byte	I	C - W T U	DPT_Fan_Stage	0 - 255	[Px][Fan] Enumeration Status	Enumerated Value
90, 116, 142, 168, 194, 220, 246	1 Bit	I	C - W - U	DPT_Enable	0/1	[Px] Window Alarm - Enable	0 = Disable; 1 = Enable
	1 Bit	I	C - W - U	DPT_Enable	0/1	[Px] Window Alarm - Enable	0 = Enable; 1 = Disable
91, 117, 143, 169, 195, 221, 247	1 Bit	I	C - W - U	DPT_Enable	0/1	[Px] Door Alarm - Enable	0 = Disable; 1 = Enable
	1 Bit	I	C - W - U	DPT_Enable	0/1	[Px] Door Alarm - Enable	0 = Enable; 1 = Disable
	1 Bit	I	C - W - U	DPT_Window_Door	0/1	[Px] Window 1 - Status	0 = Closed; 1 = Open

92, 118, 144, 170, 196, 222, 248	1 Bit	I	C - W - U	DPT_Window_Door	0/1	[Px] Window 1 - Status	0 = Open; 1 = Closed
93, 119, 145, 171, 197, 223, 249	1 Bit	I	C - W - U	DPT_Window_Door	0/1	[Px] Window 2 - Status	0 = Closed; 1 = Open
	1 Bit	I	C - W - U	DPT_Window_Door	0/1	[Px] Window 2 - Status	0 = Open; 1 = Closed
94, 120, 146, 172, 198, 224, 250	1 Bit	I	C - W - U	DPT_Window_Door	0/1	[Px] Window 3 - Status	0 = Closed; 1 = Open
	1 Bit	I	C - W - U	DPT_Window_Door	0/1	[Px] Window 3 - Status	0 = Open; 1 = Closed
95, 121, 147, 173, 199, 225, 251	1 Bit	I	C - W - U	DPT_Window_Door	0/1	[Px] Window 4 - Status	0 = Closed; 1 = Open
	1 Bit	I	C - W - U	DPT_Window_Door	0/1	[Px] Window 4 - Status	0 = Open; 1 = Closed
96, 122, 148, 174, 200, 226, 252	1 Bit	I	C - W - U	DPT_Window_Door	0/1	[Px] Door 1 - Status	0 = Closed; 1 = Open
	1 Bit	I	C - W - U	DPT_Window_Door	0/1	[Px] Door 1 - Status	0 = Open; 1 = Closed
97, 123, 149, 175, 201, 227, 253	1 Bit	I	C - W - U	DPT_Window_Door	0/1	[Px] Door 2 - Status	0 = Closed; 1 = Open
	1 Bit	I	C - W - U	DPT_Window_Door	0/1	[Px] Door 2 - Status	0 = Open; 1 = Closed
254, 271, 288, 305, 322, 339, 356, 373, 390, 407, 424, 441, 458, 475, 492, 509, 526, 543, 560, 577, 594, 611, 628, 645, 662, 679, 696, 713, 730, 747, 764, 781, 798, 815, 832, 849, 866, 883, 900, 917, 934, 951, 968, 985, 1002, 1019, 1036, 1053, 1070, 1087, 1104, 1121, 1138, 1155, 1172, 1189	1 Bit	O	C - - T -	DPT_Switch	0/1	[Cx][x] Switch - Control: "0"	1-Bit Generic Control
	1 Bit	O	C - - T -	DPT_Switch	0/1	[Cx][x] Switch - Control: "1"	1-Bit Generic Control
	1 Bit	O	C - - T -	DPT_Switch	0/1	[Cx][x] Switch - Control: "0/1"	1-Bit Generic Control
	1 Bit	O	C - - T -	DPT_Switch	0/1	[Cx][x] Hold & Release - Switch Control	1-Bit Generic Control
	1 Bit	O	C R - T -	DPT_Switch	0/1	[Cx][x] Two Objects - Short Press Control: "1"	1-Bit Generic Control
	1 Bit	O	C R - T -	DPT_Switch	0/1	[Cx][x] Two Objects - Short Press Control: "0"	1-Bit Generic Control
	1 Bit	O	C R - T -	DPT_Switch	0/1	[Cx][x] Two Objects - Short Press Control: "0/1"	1-Bit Generic Control
	1 Bit	O	C - - T -	DPT_Switch	0/1	[Cx][x] Switch - Control	1-Bit Generic Control
	1 Bit	O	C R - T -	DPT_Switch	0/1	[Cx][x] Light - Switch Control	0 = Off; 1 = On
	1 Bit	O	C - - T -	DPT_UpDown	0/1	[Cx][x] Shutter - Movement Control	0 = Up; 1 = Down
	1 Bit	O	C R - T -	DPT_Switch	0/1	[Cx][x] Two Objects - Short Press Control	1-Bit Generic Control
	1 Bit	O	C - - T -	DPT_Heat_Cool	0/1	[Cx][x] Mode - Control	0 = Cool; 1 = Heat
	1 Bit	O	C - - T -	DPT_Step	0/1	[Cx][x] Fan - Binary Control	0 = Decrease; 1 = Increase
	1 Bit	I	C - W T U	DPT_Enable	0/1	[Cx][x] Daily Timer - Enable	0 = Disable; 1 = Enable
	1 Bit	I	C - W T U	DPT_Enable	0/1	[Cx][x] Daily Timer - Enable	0 = Enable; 1 = Disable
	1 Bit	I	C - W T U	DPT_Enable	0/1	[Cx][x] Weekly Timer - Enable	0 = Disable; 1 = Enable
	1 Bit	I	C - W T U	DPT_Enable	0/1	[Cx][x] Weekly Timer - Enable	0 = Enable; 1 = Disable
	1 Bit	I	C - W - U	DPT_Alarm	0/1	[Cx][x] Alarm - Trigger	Trigger: 0
	1 Bit	O	C - - T -	DPT_Switch	0/1	[Cx][x] Multimedia - Control	0 = Stop/Backward; 1 = Start/Forward
	1 Bit	I	C - W - U	DPT_Alarm	0/1	[Cx][x] Alarm - Trigger	Trigger: 1

	1 Bit	I	C - W T U	DPT_Ack	0/1	[Cx][x] Alarm Clock - Disable	0 = No Action; 1 = Clean Configuration
	1 Bit	I	C - W T U	DPT_Ack	0/1	[Cx][x] Alarm Clock - Disable	0 = Clean Configuration; 1 = No Action
	1 Bit	I/O	C R W T U	DPT_Switch	0/1	[Cx][x] RGBW - On/Off	0 = Off; 1 = On
	1 Bit	I/O	C R W T U	DPT_Switch	0/1	[Cx][x] RGB - On/Off	0 = Off; 1 = On
255, 272, 289, 306, 323, 340, 357, 374, 391, 408, 425, 442, 459, 476, 493, 510, 527, 544, 561, 578, 595, 612, 629, 646, 663, 680, 697, 714, 731, 748, 765, 782, 799, 816, 833, 850, 867, 884, 901, 918, 935, 952, 969, 986, 1003, 1020, 1037, 1054, 1071, 1088, 1105, 1122, 1139, 1156, 1173, 1190	1 Bit	O	C R - T -	DPT_Switch	0/1	[Cx][x] Two Objects - Long Press Control: "1"	1-Bit Generic Control
	1 Bit	O	C R - T -	DPT_Switch	0/1	[Cx][x] Two Objects - Long Press Control: "0"	1-Bit Generic Control
	1 Bit	O	C R - T -	DPT_Switch	0/1	[Cx][x] Two Objects - Long Press Control: "0/1"	1-Bit Generic Control
	1 Bit	O	C - - T -	DPT_Step	0/1	[Cx][x] Shutter - Stop/Step Control	0 = Stop/Step Up; 1 = Stop/Step Down
	1 Bit	O	C R - T -	DPT_Switch	0/1	[Cx][x] Two Objects - Long Press Control	1-Bit Generic Control
	1 Bit	I	C - W T U	DPT_Enable	0/1	[Cx][x] Fan - Auto Mode	Switch Auto Mode on Short Press
	1 Bit	I	C - W T U	DPT_Enable	0/1	[Cx][x] Fan - Auto Mode	Switch Auto Mode on Long Press
	1 Bit	O	C - - T -	DPT_Switch	0/1	[Cx][x] Daily Timer - Switch Control	1-Bit Generic Control
	1 Bit	O	C - - T -	DPT_Switch	0/1	[Cx][x] Weekly Timer - Switch Control	1-Bit Generic Control
	1 Bit	I	C - W T U	DPT_Ack	0/1	[Cx][x] Alarm - Confirmation	0 = No Action; 1 = Confirm
	1 Bit	O	C - - T -	DPT_Switch	0/1	[Cx][x] Alarm Clock - Control	1-Bit Generic Control
256, 273, 290, 307, 324, 341, 358, 375, 392, 409, 426, 443, 460, 477, 494, 511, 528, 545, 562, 579, 596, 613, 630, 647, 664, 681, 698, 715, 732, 749, 766, 783, 800, 817, 834, 851, 868, 885, 902, 919, 936, 953, 970, 987, 1004, 1021, 1038, 1055, 1072, 1089, 1106, 1123, 1140, 1157, 1174, 1191	4 Bit	O	C - - T -	DPT_Control_Dimming	0x0/0x8 (Stop) 0x1...0x7 (Dec.) 0x9...0xF (Inc.)	[Cx][x] Light - 4-bits Dimming Control	4-Bit Dimming Control
	4 Bit	O	C - - T -	DPT_Control_Dimming	0x0/0x8 (Stop) 0x1...0x7 (Dec.) 0x9...0xF (Inc.)	[Cx][x] RGBW - Light Dimming Control	4-Bit Dimming Control
	4 Bit	O	C - - T -	DPT_Control_Dimming	0x0/0x8 (Stop) 0x1...0x7 (Dec.) 0x9...0xF (Inc.)	[Cx][x] RGB - Light Dimming Control	4-Bit Dimming Control
257, 274, 291, 308, 325, 342, 359, 376, 393, 410, 427, 444, 461, 478, 495, 512, 529, 546,	3 Bytes	I	C - W T U	DPT_Colour_RGB	[0 - 255] * 3	[Cx][x] RGB - RGB Colour	Red, Green and Blue Components
	3 Bytes	O	C - - T -	DPT_TimeOfDay	00:00:00 - 23:59:59	[Cx][x] Alarm Clock - Time	Time

563, 580, 597, 614, 631, 648, 665, 682, 699, 716, 733, 750, 767, 784, 801, 818, 835, 852, 869, 886, 903, 920, 937, 954, 971, 988, 1005, 1022, 1039, 1056, 1073, 1090, 1107, 1124, 1141, 1158, 1175, 1192	3 Bytes	I	C - W T U	DPT_Colour_RGB	[0 - 255] * 3	[Cx][x] RGBW - RGB Colour	Red, Green and Blue Components
258, 275, 292, 309, 326, 343, 360, 377, 394, 411, 428, 445, 462, 479, 496, 513, 530, 547, 564, 581, 598, 615, 632, 649, 666, 683, 700, 717, 734, 751, 768, 785, 802, 819, 836, 853, 870, 887, 904, 921, 938, 955, 972, 989, 1006, 1023, 1040, 1057, 1074, 1091, 1108, 1125, 1142, 1159, 1176, 1193	1 Byte	O	C - - T -	DPT_Value_1_Ucount	0 - 255	[Cx][x] Integer - 1-Byte Unsigned Control	0 ... 255
	1 Byte	O	C - - T -	DPT_Value_1_Count	-128 - 127	[Cx][x] Integer - 1-Byte Signed Control	-128 ... 127
	1 Byte	O	C R - T -	DPT_Value_1_Ucount	0 - 255	[Cx][x] Two Objects - Short Press Control: 1-Byte Unsigned	Send Selected 1-Byte Unsigned Value on Short Press
	1 Byte	O	C - - T -	DPT_Scaling	0% - 100%	[Cx][x] Percentage - Control	0% ... 100%
	1 Byte	O	C - - T -	DPT_HVACContrMode	0=Auto 1=Heat 3=Cool 9=Fan 14=Dry	[Cx][x] Mode - Control	Auto, Heat, Cool, Fan and Dry
	1 Byte	O	C - - T -	DPT_Scaling	0% - 100%	[Cx][x] Fan - Percentage Control	100%
	1 Byte	O	C - - T -	DPT_Scaling	0% - 100%	[Cx][x] Fan - Percentage Control	50%, 100%
	1 Byte	O	C - - T -	DPT_Scaling	0% - 100%	[Cx][x] Fan - Percentage Control	33%, 67%, 100%
	1 Byte	O	C - - T -	DPT_Scaling	0% - 100%	[Cx][x] Fan - Percentage Control	25%, 50%, 75%, 100%
	1 Byte	O	C - - T -	DPT_Scaling	0% - 100%	[Cx][x] Fan - Percentage Control	20%, 40%, 60%, 80%, 100%
	1 Byte	O	C - - T -	DPT_Fan_Stage	0 - 255	[Cx][x] Fan - Enumeration Control	1
	1 Byte	O	C - - T -	DPT_Fan_Stage	0 - 255	[Cx][x] Fan - Enumeration Control	1, 2
	1 Byte	O	C - - T -	DPT_Fan_Stage	0 - 255	[Cx][x] Fan - Enumeration Control	1, 2, 3
	1 Byte	O	C - - T -	DPT_Fan_Stage	0 - 255	[Cx][x] Fan - Enumeration Control	1, 2, 3, 4
	1 Byte	O	C - - T -	DPT_Fan_Stage	0 - 255	[Cx][x] Fan - Enumeration Control	1, 2, 3, 4, 5
	1 Byte	I	C - W T U	DPT_Scaling	0% - 100%	[Cx][x] RGB - Red Channel	0% ... 100%
	1 Byte	O	C - - T -	DPT_HVACMode	1=Comfort 2=Standby 3=Economy 4=Building Protection	[Cx][x] Special Mode - Control	Auto, Comfort, Standby, Economy and Building Protection
	1 Byte	O	C - - T -	DPT_Value_1_Ucount	0 - 255	[Cx][x] Enumeration - Control	0 ... 255
	1 Byte	O	C - - T -	DPT_Fan_Stage	0 - 255	[Cx][x] Fan - Enumeration Control	0, 1
	1 Byte	O	C - - T -	DPT_Fan_Stage	0 - 255	[Cx][x] Fan - Enumeration Control	0, 1, 2, 3, 4, 5

	1 Byte	O	C - - T -	DPT_Fan_Stage	0 - 255	[Cx][x] Fan - Enumeration Control	0, 1, 2, 3, 4
	1 Byte	O	C - - T -	DPT_Fan_Stage	0 - 255	[Cx][x] Fan - Enumeration Control	0, 1, 2, 3
	1 Byte	O	C - - T -	DPT_Fan_Stage	0 - 255	[Cx][x] Fan - Enumeration Control	0, 1, 2
	1 Byte	O	C - - T -	DPT_Scaling	0% - 100%	[Cx][x] Fan - Percentage Control	0%, 20%, 40%, 60%, 80%, 100%
	1 Byte	O	C - - T -	DPT_Scaling	0% - 100%	[Cx][x] Fan - Percentage Control	0%, 33%, 67%, 100%
	1 Byte	O	C - - T -	DPT_Scaling	0% - 100%	[Cx][x] Fan - Percentage Control	0%, 50%, 100%
	1 Byte	O	C - - T -	DPT_Scaling	0% - 100%	[Cx][x] Fan - Percentage Control	0%, 100%
	1 Byte	O	C - - T -	DPT_Scaling	0% - 100%	[Cx][x] Fan - Percentage Control	0%, 25%, 50%, 75%, 100%
	1 Byte	O	C - - T -	DPT_Scaling	0% - 100%	[Cx][x] Fan - Percentage Control	Auto, 100%
	1 Byte	O	C - - T -	DPT_Scaling	0% - 100%	[Cx][x] Fan - Percentage Control	Auto, 20%, 40%, 60%, 80%, 100%
	1 Byte	O	C - - T -	DPT_Scaling	0% - 100%	[Cx][x] Fan - Percentage Control	Auto, 25%, 50%, 75%, 100%
	1 Byte	O	C - - T -	DPT_Scaling	0% - 100%	[Cx][x] Fan - Percentage Control	Auto, 33%, 67%, 100%
	1 Byte	O	C - - T -	DPT_Scaling	0% - 100%	[Cx][x] Fan - Percentage Control	Auto, 50%, 100%
	1 Byte	O	C - - T -	DPT_Fan_Stage	0 - 255	[Cx][x] Fan - Enumeration Control	Auto, 1
	1 Byte	O	C - - T -	DPT_Fan_Stage	0 - 255	[Cx][x] Fan - Enumeration Control	Auto, 1, 2
	1 Byte	O	C - - T -	DPT_Fan_Stage	0 - 255	[Cx][x] Fan - Enumeration Control	Auto, 1, 2, 3
	1 Byte	O	C - - T -	DPT_Fan_Stage	0 - 255	[Cx][x] Fan - Enumeration Control	Auto, 1, 2, 3, 4
	1 Byte	O	C - - T -	DPT_Fan_Stage	0 - 255	[Cx][x] Fan - Enumeration Control	Auto, 1, 2, 3, 4, 5
	1 Byte	O	C - - T -	DPT_SceneNumber	0 - 63	[Cx][x] Scene - Send Scene Control	0-63 (Run Scene 1-64)
	1 Byte	O	C - - T -	DPT_SceneControl	0-63; 128-191	[Cx][x] Scene - Send Scene Control	0-63/128-191 (Run/Save Scene 1-64)
	1 Byte	O	C - - T -	DPT_Room_State	0 - 2	[Cx][x] Room State - Control	0 = Normal; 1 = Make-Up Room; 2 = Do Not Disturb
	1 Byte	O	C - - T -	DPT_Scaling	0% - 100%	[Cx][x] Light - 1-Byte Percentage Control	1-Byte Dimmer Control
	1 Byte	O	C - - T -	DPT_Scaling	0% - 100%	[Cx][x] Shutter - Percentage Control	0% ... 100%
	1 Byte	I	C - W T U	DPT_Scaling	0% - 100%	[Cx][x] RGBW - Red Channel	0% ... 100%
	1 Byte	O	C R - T -	DPT_Value_1_Count	-128 - 127	[Cx][x] Two Objects - Short Press Control: 1-Byte Signed	Send Selected 1-Byte Signed Value on Short Press
258, 260, 275, 277, 292, 294, 309, 311, 326, 328, 343, 345,	1 Byte	O	C - - T -	DPT_Value_1_Count	-128 - 127	[Cx][x] Hold & Release - Control: 1-Byte Signed	Send Selected 1-Byte Signed Value

360, 362, 377, 379, 394, 396, 411, 413, 428, 430, 445, 447, 462, 464, 479, 481, 496, 498, 513, 515, 530, 532, 547, 549, 564, 566, 581, 583, 598, 600, 615, 617, 632, 634, 649, 651, 666, 668, 683, 685, 700, 702, 717, 719, 734, 736, 751, 753, 768, 770, 785, 787, 802, 804, 819, 821, 836, 838, 853, 855, 870, 872, 887, 889, 904, 906, 921, 923, 938, 940, 955, 957, 972, 974, 989, 991, 1006, 1008, 1023, 1025, 1040, 1042, 1057, 1059, 1074, 1076, 1091, 1093, 1108, 1110, 1125, 1127, 1142, 1144, 1159, 1161, 1176, 1178, 1193, 1195	1 Byte	O	**C - - T -**	DPT_Value_1_Ucount	0 - 255	[Cx][x] Hold & Release - Control: 1-Byte Unsigned	Send Selected 1-Byte Unsigned Value
259, 276, 293, 310, 327, 344, 361, 378, 395, 412, 429, 446, 463, 480, 497, 514, 531, 548, 565, 582, 599, 616, 633, 650, 667, 684, 701, 718, 735, 752, 769, 786, 803, 820, 837, 854, 871, 888, 905, 922, 939, 956, 973, 990, 1007, 1024, 1041, 1058, 1075, 1092, 1109, 1126, 1143, 1160, 1177, 1194	1 Byte	I	**C - W T U**	DPT_Scaling	0% - 100%	[Cx][x] RGB - Green Channel	0% ... 100%
	1 Byte	I	**C - W T U**	DPT_Scaling	0% - 100%	[Cx][x] RGBW - Green Channel	0% ... 100%
260, 277, 294, 311, 328, 345, 362, 379, 396, 413, 430, 447, 464, 481, 498, 515, 532, 549, 566, 583, 600, 617, 634, 651, 668, 685, 702, 719, 736, 753, 770, 787, 804, 821, 838, 855, 872, 889, 906, 923, 940, 957, 974, 991, 1008, 1025, 1042, 1059, 1076, 1093, 1110, 1127, 1144, 1161, 1178, 1195	1 Byte	I	**C - W T U**	DPT_Scaling	0% - 100%	[Cx][x] RGB - Blue Channel	0% ... 100%
	1 Byte	I	**C - W T U**	DPT_Scaling	0% - 100%	[Cx][x] RGBW - Blue Channel	0% ... 100%
	1 Byte	O	**C R - T -**	DPT_Value_1_Ucount	0 - 255	[Cx][x] Two Objects - Long Press Control: 1-Byte Unsigned	Send Selected 1-Byte Unsigned Value on Long Press
	1 Byte	O	**C R - T -**	DPT_Value_1_Count	-128 - 127	[Cx][x] Two Objects - Long Press Control: 1-Byte Signed	Send Selected 1-Byte Signed Value on Long Press
261, 278, 295, 312, 329, 346, 363, 380, 397, 414, 431, 448, 465, 482, 499, 516, 533, 550, 567, 584, 601, 618, 635, 652, 669, 686, 703, 720, 737, 754, 771, 788, 805, 822, 839, 856, 873, 890, 907, 924, 941, 958, 975, 992, 1009, 1026, 1043, 1060, 1077, 1094, 1111, 1128, 1145, 1162, 1179, 1196	1 Byte	I	**C - W T U**	DPT_Scaling	0% - 100%	[Cx][x] RGBW - White Channel	0% ... 100%

262, 279, 296, 313, 330, 347, 364, 381, 398, 415, 432, 449, 466, 483, 500, 517, 534, 551, 568, 585, 602, 619, 636, 653, 670, 687, 704, 721, 738, 755, 772, 789, 806, 823, 840, 857, 874, 891, 908, 925, 942, 959, 976, 993, 1010, 1027, 1044, 1061, 1078, 1095, 1112, 1129, 1146, 1163, 1180, 1197	2 Bytes	O	**C - - T -**	DPT_Value_2_Ucount	0 - 65535	[Cx][x] Integer - 2-Byte Unsigned Control	0 ... 65535
	2 Bytes	O	**C - - T -**	DPT_Value_2_Count	-32768 - 32767	[Cx][x] Integer - 2-Byte Signed Control	-32768 ... 32767
	2 Bytes	O	**C - - T -**	9.xxx	-671088.64 - 670433.28	[Cx][x] Float - 2-Byte Control	-671088.64 ... 670433.28
	2 Bytes	O	**C - - T -**	DPT_Value_Temp	-273.00º - 670433.28º	[Cx][x] Setpoint - Temperature Control	-99ºC ... 199ºC
	2 Bytes	O	**C - - T -**	DPT_Absolute_Colour_Temperature	0 - 65535	[Cx][x] Light - Colour Temperature Control	1000K ... 20000K
	2 Bytes	O	**C R - T -**	DPT_Value_2_Count	-32768 - 32767	[Cx][x] Two Objects - Short Press Control: 2-Bytes Signed	Send Selected 2-Bytes Signed Value on Short Press
	2 Bytes	O	**C R - T -**	DPT_Value_2_Ucount	0 - 65535	[Cx][x] Two Objects - Short Press Control: 2-Bytes Unsigned	Send Selected 2-Bytes Unsigned Value on Short Press
262, 263, 279, 280, 296, 297, 313, 314, 330, 331, 347, 348, 364, 365, 381, 382, 398, 399, 415, 416, 432, 433, 449, 450, 466, 467, 483, 484, 500, 501, 517, 518, 534, 535, 551, 552, 568, 569, 585, 586, 602, 603, 619, 620, 636, 637, 653, 654, 670, 671, 687, 688, 704, 705, 721, 722, 738, 739, 755, 756, 772, 773, 789, 790, 806, 807, 823, 824, 840, 841, 857, 858, 874, 875, 891, 892, 908, 909, 925, 926, 942, 943, 959, 960, 976, 977, 993, 994, 1010, 1011, 1027, 1028, 1044, 1045, 1061, 1062, 1078, 1079, 1095, 1096, 1112, 1113, 1129, 1130, 1146, 1147, 1163, 1164, 1180, 1181, 1197, 1198	2 Bytes	O	**C - - T -**	DPT_Value_2_Count	-32768 - 32767	[Cx][x] Hold & Release - Control: 2-Bytes Signed	Send Selected 2-Bytes Signed Value
	2 Bytes	O	**C - - T -**	DPT_Value_2_Ucount	0 - 65535	[Cx][x] Hold & Release - Control: 2-Bytes Unsigned	Send Selected 2-Bytes Unsigned Value
263, 280, 297, 314, 331, 348, 365, 382, 399, 416, 433, 450, 467, 484, 501, 518, 535, 552, 569, 586, 603, 620, 637, 654, 671, 688, 705, 722, 739, 756, 773, 790, 807, 824, 841, 858, 875, 892, 909, 926, 943, 960, 977, 994, 1011, 1028, 1045, 1062, 1079, 1096, 1113, 1130, 1147, 1164, 1181, 1198	2 Bytes	O	**C R - T -**	DPT_Value_2_Count	-32768 - 32767	[Cx][x] Two Objects - Long Press Control: 2-Bytes Signed	Send Selected 2-Bytes Signed Value on Long Press
	2 Bytes	O	**C R - T -**	DPT_Value_2_Ucount	0 - 65535	[Cx][x] Two Objects - Long Press Control: 2-Bytes Unsigned	Send Selected 2-Bytes Unsigned Value on Long Press
264, 281, 298, 315, 332, 349, 366, 383, 400, 417, 434, 451, 468, 485, 502, 519, 536, 553, 570, 587, 604, 621, 638, 655,	1 Bit	I	**C - W T U**	DPT_Switch	0/1	[Cx][x] Switch - Status	1-Bit Indicator
	1 Bit	I	**C - W T U**	DPT_Heat_Cool	0/1	[Cx][x] Mode - Status	0 = Cool; 1 = Heat

672, 689, 706, 723, 740, 757, 774, 791, 808, 825, 842, 859, 876, 893, 910, 927, 944, 961, 978, 995, 1012, 1029, 1046, 1063, 1080, 1097, 1114, 1131, 1148, 1165, 1182, 1199	1 Bit	I	C - W T U	DPT_Switch	0/1	[Cx][x] Two Objects - Switch Status	1-Bit Indicator
	1 Bit	I	C - W T U	DPT_Switch	0/1	[Cx][x] Hold & Release - Switch Status	1-Bit Indicator
	1 Bit	I	C - W - U	DPT_UpDown	0/1	[Cx][x] Shutter - Movement Direction Status	0 = Upward; 1 = Downward
	1 Bit	O	C R - T -	DPT_Switch	0/1	[Cx][x] Room State - Do Not Disturb (Status)	0 = No Active; 1 = Active
265, 282, 299, 316, 333, 350, 367, 384, 401, 418, 435, 452, 469, 486, 503, 520, 537, 554, 571, 588, 605, 622, 639, 656, 673, 690, 707, 724, 741, 758, 775, 792, 809, 826, 843, 860, 877, 894, 911, 928, 945, 962, 979, 996, 1013, 1030, 1047, 1064, 1081, 1098, 1115, 1132, 1149, 1166, 1183, 1200	1 Bit	O	C R - T -	DPT_Switch	0/1	[Cx][x] Room State - Make Up Room (Status)	0 = No Active; 1 = Active
266, 283, 300, 317, 334, 351, 368, 385, 402, 419, 436, 453, 470, 487, 504, 521, 538, 555, 572, 589, 606, 623, 640, 657, 674, 691, 708, 725, 742, 759, 776, 793, 810, 827, 844, 861, 878, 895, 912, 929, 946, 963, 980, 997, 1014, 1031, 1048, 1065, 1082, 1099, 1116, 1133, 1150, 1167, 1184, 1201	1 Byte	I	C - W T U	DPT_Value_1_Ucount	0 - 255	[Cx][x] Enumeration - Status	0 ... 255
	1 Byte	I	C - W T U	DPT_Value_1_Ucount	0 - 255	[Cx][x] Integer - 1-Byte Unsigned Status	0 ... 255
	1 Byte	I	C - W T U	DPT_Value_1_Count	-128 - 127	[Cx][x] Integer - 1-Byte Signed Status	-128 ... 127
	1 Byte	I	C - W T U	DPT_Scaling	0% - 100%	[Cx][x] Percentage - Status	0% ... 100%
	1 Byte	I	C - W T U	DPT_Scaling	0% - 100%	[Cx][x] Light - Percentage Status	0% = Off; 100% = On
	1 Byte	I	C - W T U	DPT_Scaling	0% - 100%	[Cx][x] Shutter - Percentage Status	0% = Top; 100% = Bottom
	1 Byte	I	C - W T U	DPT_Scaling	0% - 100%	[Cx][x] Fan - Percentage Status	0% - 100%
	1 Byte	I	C - W T U	DPT_Fan_Stage	0 - 255	[Cx][x] Fan - Enumeration Status	Enumerated Value
	1 Byte	I	C - W T U	DPT_HVACContrMode	0=Auto 1=Heat 3=Cool 9=Fan 14=Dry	[Cx][x] Mode - Status	Auto, Heat, Cool, Fan and Dry
	1 Byte	I	C - W T U	DPT_HVACMode	1=Comfort 2=Standby 3=Economy 4=Building Protection	[Cx][x] Special Mode - Status	Auto, Comfort, Standby, Economy and Building Protection
	1 Byte	I	C - W T U	DPT_Room_State	0 - 2	[Cx][x] Room State - Status	0 = Normal; 1 = Make-Up Room; 2 = Do Not Disturb

267, 284, 301, 318, 335, 352, 369, 386, 403, 420, 437, 454, 471, 488, 505, 522, 539, 556, 573, 590, 607, 624, 641, 658, 675, 692, 709, 726, 743, 760, 777, 794, 811, 828, 845, 862, 879, 896, 913, 930, 947, 964, 981, 998, 1015, 1032, 1049, 1066, 1083, 1100, 1117, 1134, 1151, 1168, 1185, 1202	1 Byte	I	C - W - U	DPT_Scaling	0% - 100%	[Cx][x] Shutter - Slats Percentage Status	0% = Open; 100% = Closed
268, 285, 302, 319, 336, 353, 370, 387, 404, 421, 438, 455, 472, 489, 506, 523, 540, 557, 574, 591, 608, 625, 642, 659, 676, 693, 710, 727, 744, 761, 778, 795, 812, 829, 846, 863, 880, 897, 914, 931, 948, 965, 982, 999, 1016, 1033, 1050, 1067, 1084, 1101, 1118, 1135, 1152, 1169, 1186, 1203	2 Bytes	I	C - W T U	DPT_Value_2_Ucount	0 - 65535	[Cx][x] Integer - 2-Byte Unsigned Status	0 ... 65535
	2 Bytes	I	C - W T U	DPT_Value_2_Count	-32768 - 32767	[Cx][x] Integer - 2-Byte Signed Status	-32768 ... 32767
	2 Bytes	I	C - W T U	9.xxx	-671088.64 - 670433.28	[Cx][x] Float - 2-Byte Status	-671088.64 ... 670433.28
	2 Bytes	I	C - W T U	DPT_Value_Temp	-273.00º - 670433.28º	[Cx][x] Temperature - Status	-99ºC ... 199ºC
	2 Bytes	I	C - W T U	DPT_Value_Temp	-273.00º - 670433.28º	[Cx][x] Setpoint - Temperature Status	-99ºC ... 199ºC
	2 Bytes	I	C - W T U	DPT_Absolute_Colour_Temperature	0 - 65535	[Cx][x] Light - Colour Temperature Status	1000K ... 20000K
269, 286, 303, 320, 337, 354, 371, 388, 405, 422, 439, 456, 473, 490, 507, 524, 541, 558, 575, 592, 609, 626, 643, 660, 677, 694, 711, 728, 745, 762, 779, 796, 813, 830, 847, 864, 881, 898, 915, 932, 949, 966, 983, 1000, 1017, 1034, 1051, 1068, 1085, 1102, 1119, 1136, 1153, 1170, 1187, 1204	4 Bytes	I	C - W T U	DPT_Value_4_Count	-2147483648 - 2147483647	[Cx][x] Integer - 4-Byte Signed Status	-2147483648 ... 2147483647
	4 Bytes	I	C - W T U	14.xxx		[Cx][x] Float - 4-Byte Status	-2147483647 ... 2147483647
270, 287, 304, 321, 338, 355, 372, 389, 406, 423, 440, 457, 474, 491, 508, 525, 542, 559, 576, 593, 610, 627, 644, 661, 678, 695, 712, 729, 746, 763, 780, 797, 814, 831, 848, 865, 882, 899, 916, 933, 950, 967, 984, 1001, 1018, 1035, 1052, 1069, 1086, 1103, 1120, 1137, 1154, 1171, 1188, 1205	14 Bytes	I	C - W T U	DPT_String_UTF-8		[Cx][x] Text - Status	Text String
	14 Bytes	I	C - W T U	DPT_String_UTF-8		[Cx][x] Multimedia - Status	14-Bytes Text String
	6 Bytes	I	C - W T U	DPT_Colour_RGBW	[0 -1] *4 - [0 - 255] * 4	[Cx][x] RGBW - RGBW Colour	Red, Green, Blue and White Components
1206	1 Bit	I	C - W - -	DPT_Enable	0/1	[General] Proximity Sensor	0 = Disable; 1 = Enable
1207	1 Bit	I	C - W - -	DPT_Start	0/1	[General] External Proximity Detection	1 = Detection
1208	1 Bit	O	C - - T -	DPT_Start	0/1	[General] Proximity Detection	Send 1 When Proximity Is Detected
1209	1 Bit	O	C - - T -	DPT_Bool	0/1	[General] Luminosity (1-Bit)	0 = Over Threshold; 1 = Under Threshold

	1 Bit	O	C - - T -	DPT_Bool	0/1	[General] Luminosity (1-Bit)	0 = Under Threshold; 1 = Over Threshold
1210	1 Byte	O	C R - - -	DPT_Scaling	0% - 100%	[General] Luminosity (Percentage)	0% ... 100%
1211	2 Bytes	O	C R - - -	DPT_Value_Lux		[General] Luminosity (Lux)	0 Lux ... 670760 Lux
1212	1 Bit	I	C - W - -	DPT_DayNight	0/1	[General] Backlight Mode	0 = Night Mode; 1 = Normal Mode
	1 Bit	I	C - W - -	DPT_DayNight	0/1	[General] Backlight Mode	0 = Normal Mode; 1 = Night Mode
1213	1 Byte	I	C - W - -	DPT_Scaling	0% - 100%	[General] Display - Brightness	0% ... 100%
1214	1 Byte	I	C - W - -	DPT_Scaling	0% - 100%	[General] Display - Contrast	0% ... 100%
1215, 1219, 1223, 1227	2 Bytes	O	C R - T -	DPT_Value_Temp	-273.00º - 670433.28º	[Ix] Current Temperature	Temperature Sensor Value
1216, 1220, 1224, 1228	1 Bit	O	C R - T -	DPT_Alarm	0/1	[Ix] Overcooling	0 = No Alarm; 1 = Alarm
1217, 1221, 1225, 1229	1 Bit	O	C R - T -	DPT_Alarm	0/1	[Ix] Overheating	0 = No Alarm; 1 = Alarm
1218, 1222, 1226, 1230	1 Bit	O	C R - T -	DPT_Alarm	0/1	[Ix] Probe Error	0 = No Alarm; 1 = Alarm
1231	2 Bytes	O	C R - T -	DPT_Value_Temp	-273.00º - 670433.28º	[Internal Temp. Probe] Current Temperature	Temperature Sensor Value
1232	1 Bit	O	C R - T -	DPT_Alarm	0/1	[Internal Temp. Probe] Overcooling	0 = No Alarm; 1 = Alarm
1233	1 Bit	O	C R - T -	DPT_Alarm	0/1	[Internal Temp. Probe] Overheating	0 = No Alarm; 1 = Alarm
1234	2 Bytes	O	C R - T -	DPT_Value_Temp	-273.00º - 670433.28º	[Probe NTC] Current Temperature	Temperature Sensor Value
1235	1 Bit	O	C R - T -	DPT_Alarm	0/1	[Probe NTC] Overcooling	0 = No Alarm; 1 = Alarm
1236	1 Bit	O	C R - T -	DPT_Alarm	0/1	[Probe NTC] Overheating	0 = No Alarm; 1 = Alarm
1237, 1246, 1255, 1264	1 Bit	I	C - W - -	DPT_Enable	0/1	[Ix] Input Lock	0 = Unlock; 1 = Lock
1238, 1247, 1256, 1265	1 Bit	O	C - - T -	DPT_Switch	0/1	[Ix] [Short Press] 0	Sending of 0
	1 Bit	O	C - - T -	DPT_Switch	0/1	[Ix] [Short Press] 1	Sending of 1
	1 Bit	I	C - W T -	DPT_Switch	0/1	[Ix] [Short Press] 0/1 Switching	Switching 0/1
	1 Bit	O	C - - T -	DPT_UpDown	0/1	[Ix] [Short Press] Move Up Shutter	Sending of 0 (Up)
	1 Bit	O	C - - T -	DPT_UpDown	0/1	[Ix] [Short Press] Move Down Shutter	Sending of 1 (Down)
	1 Bit	I	C - W T -	DPT_UpDown	0/1	[Ix] [Short Press] Move Up/Down Shutter	Switching 0/1 (Up/Down)
	1 Bit	O	C - - T -	DPT_Step	0/1	[Ix] [Short Press] Stop/Step Up Shutter	Sending of 0 (Stop/Step Up)
	1 Bit	O	C - - T -	DPT_Step	0/1	[Ix] [Short Press] Stop/Step Down Shutter	Sending of 1 (Stop/Step Down)
	1 Bit	I	C - W T -	DPT_Step	0/1	[Ix] [Short Press] Stop/Step Shutter (Switched)	Switching of 0/1 (Stop/Step Up/Down)
	4 Bit	O	C - - T -	DPT_Control_Dimming	0x0/0x8 (Stop) 0x1...0x7 (Dec.) 0x9...0xF (Inc.)	[Ix] [Short Press] Brighter	Increase Brightness
	4 Bit	O	C - - T -	DPT_Control_Dimming	0x0/0x8 (Stop) 0x1...0x7 (Dec.) 0x9...0xF (Inc.)	[Ix] [Short Press] Darker	Decrease Brightness

	4 Bit	I	C - W T -	DPT_Control_Dimming	0x0/0x8 (Stop) 0x1...0x7 (Dec.) 0x9...0xF (Inc.)	[Ix] [Short Press] Brighter/Darker	Switch Bright/Dark
	1 Bit	O	C - - T -	DPT_Switch	0/1	[Ix] [Short Press] Light On	Sending of 1 (On)
	1 Bit	O	C - - T -	DPT_Switch	0/1	[Ix] [Short Press] Light On/Off	0/1
	1 Bit	O	C - - T -	DPT_Switch	0/1	[Ix] [Short Press] Light Off	Sending of 0 (Off)
	1 Byte	O	C - - T -	DPT_SceneControl	0-63; 128-191	[Ix] [Short Press] Run Scene	Sending of 0 - 63
	1 Byte	O	C - - T -	DPT_SceneControl	0-63; 128-191	[Ix] [Short Press] Save Scene	Sending of 128 - 191
	1 Byte	O	C - - T -	DPT_Value_1_Ucount	0 - 255	[Ix] [Short Press] Constant Value (Integer)	0 - 255
	1 Byte	O	C - - T -	DPT_Scaling	0% - 100%	[Ix] [Short Press] Constant Value (Percentage)	0% - 100%
	2 Bytes	O	C - - T -	DPT_Value_2_Ucount	0 - 65535	[Ix] [Short Press] Constant Value (Integer)	0 - 65535
	2 Bytes	O	C - - T -	9.xxx	-671088.64 - 670433.28	[Ix] [Short Press] Constant Value (Float)	Float Value
	1 Bit	O	C - - T -	DPT_Switch	0/1	[Ix] [Switch/Sensor] [Rising Edge] 0	Sending of 0
	1 Bit	O	C - - T -	DPT_Switch	0/1	[Ix] [Switch/Sensor] [Rising Edge] 1	Sending of 1
	1 Bit	I	C - W T -	DPT_Switch	0/1	[Ix] [Switch/Sensor] [Rising Edge] 0/1 Switching	Switching 0/1
	1 Bit	O	C - - T -	DPT_UpDown	0/1	[Ix] [Switch/Sensor] [Rising Edge] Move Up Shutter	Sending of 0 (Up)
	1 Bit	O	C - - T -	DPT_UpDown	0/1	[Ix] [Switch/Sensor] [Rising Edge] Move Down Shutter	Sending of 1 (Down)
	1 Bit	I	C - W T -	DPT_UpDown	0/1	[Ix] [Switch/Sensor] [Rising Edge] Move Up/Down Shutter	Switching 0/1 (Up/Down)
	1 Bit	O	C - - T -	DPT_Step	0/1	[Ix] [Switch/Sensor] [Rising Edge] Stop/Step Up Shutter	Sending of 0 (Stop/Step Up)
	1 Bit	O	C - - T -	DPT_Step	0/1	[Ix] [Switch/Sensor] [Rising Edge] Stop/Step Down Shutter	Sending of 1 (Stop/Step Down)
	1 Bit	I	C - W T -	DPT_Step	0/1	[Ix] [Switch/Sensor] [Rising Edge] Stop/Step Shutter (Switched)	Switching of 0/1 (Stop/Step Up/Down)
	1 Bit	O	C - - T -	DPT_Switch	0/1	[Ix] [Switch/Sensor] [Rising Edge] Light On	Sending of 1 (On)
	1 Bit	O	C - - T -	DPT_Switch	0/1	[Ix] [Switch/Sensor] [Rising Edge] Light Off	Sending of 0 (Off)
	1 Bit	O	C - - T -	DPT_Switch	0/1	[Ix] [Switch/Sensor] [Rising Edge] Light On/Off	0/1
	4 Bit	O	C - - T -	DPT_Control_Dimming	0x0/0x8 (Stop) 0x1...0x7 (Dec.) 0x9...0xF (Inc.)	[Ix] [Switch/Sensor] [Rising Edge] Brighter	Increase Brightness

	4 Bit	O	C - - T -	DPT_Control_Dimming	0x0/0x8 (Stop) 0x1...0x7 (Dec.) 0x9...0xF (Inc.)	[Ix] [Switch/Sensor] [Rising Edge] Darker	Decrease Brightness
	4 Bit	I	C - W T -	DPT_Control_Dimming	0x0/0x8 (Stop) 0x1...0x7 (Dec.) 0x9...0xF (Inc.)	[Ix] [Switch/Sensor] [Rising Edge] Brighter/Darker	Switch Bright/Dark
	1 Byte	O	C - - T -	DPT_SceneControl	0-63; 128-191	[Ix] [Switch/Sensor] [Rising Edge] Run Scene	Sending of 0 - 63
	1 Byte	O	C - - T -	DPT_SceneControl	0-63; 128-191	[Ix] [Switch/Sensor] [Rising Edge] Save Scene	Sending of 128 - 191
	1 Byte	O	C - - T -	DPT_Value_1_Ucount	0 - 255	[Ix] [Switch/Sensor] [Rising Edge] Constant Value (Integer)	0 - 255
	1 Byte	O	C - - T -	DPT_Scaling	0% - 100%	[Ix] [Switch/Sensor] [Rising Edge] Constant Value (Percentage)	0% - 100%
	2 Bytes	O	C - - T -	DPT_Value_2_Ucount	0 - 65535	[Ix] [Switch/Sensor] [Rising Edge] Constant Value (Integer)	0 - 65535
	2 Bytes	O	C - - T -	9.xxx	-671088.64 - 670433.28	[Ix] [Switch/Sensor] [Rising Edge] Constant Value (Float)	Float Value
	1 Bit	O	C - - T -	DPT_Ack	0/1	[Ix] [Pulse Counter] Counter	Send 1
	1 Byte	O	C R - T -	DPT_Value_1_Ucount	0 - 255	[Ix] [Pulse Counter] Counter	Number of Pulses
	2 Bytes	O	C R - T -	DPT_Value_2_Ucount	0 - 65535	[Ix] [Pulse Counter] Counter	Number of Pulses
	2 Bytes	O	C R - T -	DPT_Power	-671088.64 - 670433.28 kW	[Ix] [Pulse Counter] Counter	Power (kW)
	2 Bytes	O	C R - T -	DPT_Value_Volume_Flow		[Ix] [Pulse Counter] Counter	Flow (l/h)
	4 Bytes	O	C R - T -	DPT_Value_4_Ucount	0 - 4294967295	[Ix] [Pulse Counter] Counter	Number of Pulses
	4 Bytes	O	C R - T -	1.xxx	0/1	[Ix] [Pulse Counter] Counter	Flow Rate (m3/h)
	4 Bytes	O	C R - T -	DPT_ActiveEnergy	0 - 2147483647	[Ix] [Pulse Counter] Counter	Energy (Wh)
	4 Bytes	O	C R - T -	DPT_ActiveEnergy_kWh	0 - 2147483647	[Ix] [Pulse Counter] Counter	Energy (kWh)
	4 Bytes	O	C R - T -	DPT_Value_Power	-3.4E+38 W - 3.4E+38 W	[Ix] [Pulse Counter] Counter	Power (W)
	4 Bytes	O	C R - T -	DPT_Value_Volume		[Ix] [Pulse Counter] Counter	Volume (m3)
	1 Bit	I/O	C R W T -	DPT_Switch	0/1	[Ix] [Switch/Sensor] Edge	0/1
1239, 1248, 1257, 1266	1 Byte	I	C - W - -	DPT_Scaling	0% - 100%	[Ix] [Short Press] Shutter Status (Input)	0% = Top; 100% = Bottom
	1 Byte	I	C - W - -	DPT_Scaling	0% - 100%	[Ix] [Short Press] Dimming Status (Input)	0% - 100%
	1 Byte	I	C - W - -	DPT_Scaling	0% - 100%	[Ix] [Switch/Sensor] [Rising Edge] Dimming Status (Input)	0% - 100%
	1 Byte	I	C - W - -	DPT_Scaling	0% - 100%	[Ix] [Switch/Sensor] [Rising Edge] Shutter Status (Input)	0% = Top; 100% = Bottom
	1 Bit	I	C - W T -	DPT_Switch	0/1	[Ix] [Switch/Sensor] [Rising Edge] 0/1 Switching (Immediate Object)	Switching 0/1

	1 Bit	O	C - - T -	DPT_Switch	0/1	[Ix] [Switch/Sensor] [Rising Edge] 0 (Immediate Object)	Sending of 0
	1 Bit	O	C - - T -	DPT_Switch	0/1	[Ix] [Switch/Sensor] [Rising Edge] 1 (Immediate Object)	Sending of 1
	1 Bit	I/O	C R W T -	DPT_Switch	0/1	[Ix] [Switch/Sensor] Edge (Immediate Object)	0/1
1240, 1249, 1258, 1267	1 Bit	I	C - W - -	DPT_Reset	0/1	[Ix] [Pulse Counter] Reset	0 = No Action; 1 = Reset
	1 Bit	O	C R - T -	DPT_Alarm	0/1	[Ix] [Switch/Sensor] Alarm: Breakdown or Sabotage	1 = Alarm; 0 = No Alarm
1241, 1250, 1259, 1268	1 Bit	O	C - - T -	DPT_Switch	0/1	[Ix] [Double Press] 0	Sending of 0
	1 Bit	O	C - - T -	DPT_Switch	0/1	[Ix] [Double Press] 1	Sending of 1
	1 Bit	I	C - W T -	DPT_Switch	0/1	[Ix] [Double Press] 0/1 Switching	Switching 0/1
	1 Bit	O	C - - T -	DPT_UpDown	0/1	[Ix] [Double Press] Move Up Shutter	Sending of 0 (Up)
	1 Bit	O	C - - T -	DPT_UpDown	0/1	[Ix] [Double Press] Move Down Shutter	Sending of 1 (Down)
	1 Bit	I	C - W T -	DPT_UpDown	0/1	[Ix] [Double Press] Move Up/Down Shutter	Switching 0/1 (Up/Down)
	1 Bit	O	C - - T -	DPT_Step	0/1	[Ix] [Double Press] Stop/Step Up Shutter	Sending of 0 (Stop/Step Up)
	1 Bit	O	C - - T -	DPT_Step	0/1	[Ix] [Double Press] Stop/Step Down Shutter	Sending of 1 (Stop/Step Down)
	1 Bit	I	C - W T -	DPT_Step	0/1	[Ix] [Double Press] Stop/Step Shutter (Switched)	Switching of 0/1 (Stop/Step Up/Down)
	4 Bit	O	C - - T -	DPT_Control_Dimming	0x0/0x8 (Stop) 0x1...0x7 (Dec.) 0x9...0xF (Inc.)	[Ix] [Double Press] Brighter	Increase Brightness
	4 Bit	O	C - - T -	DPT_Control_Dimming	0x0/0x8 (Stop) 0x1...0x7 (Dec.) 0x9...0xF (Inc.)	[Ix] [Double Press] Darker	Decrease Brightness
	4 Bit	I	C - W T -	DPT_Control_Dimming	0x0/0x8 (Stop) 0x1...0x7 (Dec.) 0x9...0xF (Inc.)	[Ix] [Double Press] Brighter/Darker	Switch Bright/Dark
	1 Bit	O	C - - T -	DPT_Switch	0/1	[Ix] [Double Press] Light On	Sending of 1 (On)
	1 Bit	O	C - - T -	DPT_Switch	0/1	[Ix] [Double Press] Light Off	Sending of 0 (Off)
	1 Bit	O	C - - T -	DPT_Switch	0/1	[Ix] [Double Press] Light On/Off	0/1
	1 Byte	O	C - - T -	DPT_SceneControl	0-63; 128-191	[Ix] [Double Press] Run Scene	Sending of 0 - 63
	1 Byte	O	C - - T -	DPT_SceneControl	0-63; 128-191	[Ix] [Double Press] Save Scene	Sending of 128 - 191
	1 Byte	O	C - - T -	DPT_Value_1_Ucount	0 - 255	[Ix] [Double Press] Constant Value (Integer)	0 - 255
	1 Byte	O	C - - T -	DPT_Scaling	0% - 100%	[Ix] [Double Press] Constant Value (Percentage)	0% - 100%
	2 Bytes	O	C - - T -	DPT_Value_2_Ucount	0 - 65535	[Ix] [Double Press] Constant Value (Integer)	0 - 65535

	2 Bytes	O	C - - T -	9.xxx	-671088.64 - 670433.28	[Ix] [Double Press] Constant Value (Float)	Float Value
	1 Bit	O	C - - T -	DPT_Switch	0/1	[Ix] [Switch/Sensor] [Falling Edge] 0	Sending of 0
	1 Bit	I	C - W T -	DPT_Switch	0/1	[Ix] [Switch/Sensor] [Falling Edge] 0/1 Switching	Switching 0/1
	1 Bit	O	C - - T -	DPT_Switch	0/1	[Ix] [Switch/Sensor] [Falling Edge] 1	Sending of 1
	4 Bit	O	C - - T -	DPT_Control_Dimming	0x0/0x8 (Stop) 0x1...0x7 (Dec.) 0x9...0xF (Inc.)	[Ix] [Switch/Sensor] [Falling Edge] Brighter	Increase Brightness
	4 Bit	I	C - W T -	DPT_Control_Dimming	0x0/0x8 (Stop) 0x1...0x7 (Dec.) 0x9...0xF (Inc.)	[Ix] [Switch/Sensor] [Falling Edge] Brighter/Darker	Switch Bright/Dark
	2 Bytes	O	C - - T -	9.xxx	-671088.64 - 670433.28	[Ix] [Switch/Sensor] [Falling Edge] Constant Value (Float)	Float Value
	2 Bytes	O	C - - T -	DPT_Value_2_Ucount	0 - 65535	[Ix] [Switch/Sensor] [Falling Edge] Constant Value (Integer)	0 - 65535
	1 Byte	O	C - - T -	DPT_Value_1_Ucount	0 - 255	[Ix] [Switch/Sensor] [Falling Edge] Constant Value (Integer)	0 - 255
	1 Byte	O	C - - T -	DPT_Scaling	0% - 100%	[Ix] [Switch/Sensor] [Falling Edge] Constant Value (Percentage)	0% - 100%
	4 Bit	O	C - - T -	DPT_Control_Dimming	0x0/0x8 (Stop) 0x1...0x7 (Dec.) 0x9...0xF (Inc.)	[Ix] [Switch/Sensor] [Falling Edge] Darker	Decrease Brightness
	1 Bit	O	C - - T -	DPT_Switch	0/1	[Ix] [Switch/Sensor] [Falling Edge] Light Off	Sending of 0 (Off)
	1 Bit	O	C - - T -	DPT_Switch	0/1	[Ix] [Switch/Sensor] [Falling Edge] Light On	Sending of 1 (On)
	1 Bit	O	C - - T -	DPT_Switch	0/1	[Ix] [Switch/Sensor] [Falling Edge] Light On/Off	0/1
	1 Bit	O	C - - T -	DPT_UpDown	0/1	[Ix] [Switch/Sensor] [Falling Edge] Move Down Shutter	Sending of 1 (Down)
	1 Bit	O	C - - T -	DPT_UpDown	0/1	[Ix] [Switch/Sensor] [Falling Edge] Move Up Shutter	Sending of 0 (Up)
	1 Bit	I	C - W T -	DPT_UpDown	0/1	[Ix] [Switch/Sensor] [Falling Edge] Move Up/Down Shutter	Switching 0/1 (Up/Down)
	1 Byte	O	C - - T -	DPT_SceneControl	0-63; 128-191	[Ix] [Switch/Sensor] [Falling Edge] Run Scene	Sending of 0 - 63
	1 Byte	O	C - - T -	DPT_SceneControl	0-63; 128-191	[Ix] [Switch/Sensor] [Falling Edge] Save Scene	Sending of 128 - 191
	1 Bit	O	C - - T -	DPT_Step	0/1	[Ix] [Switch/Sensor] [Falling Edge] Stop/Step Down Shutter	Sending of 1 (Stop/Step Down)

	1 Bit	I	C - W T -	DPT_Step	0/1	[Ix] [Switch/Sensor] [Falling Edge] Stop/Step Shutter (Switched)	Switching of 0/1 (Stop/Step Up/Down)
	1 Bit	O	C - - T -	DPT_Step	0/1	[Ix] [Switch/Sensor] [Falling Edge] Stop/Step Up Shutter	Sending of 0 (Stop/Step Up)
1242, 1251, 1260, 1269	1 Byte	I	C - W - -	DPT_Scaling	0% - 100%	[Ix] [Double Press] Shutter Status (Input)	0% = Top; 100% = Bottom
	1 Byte	I	C - W - -	DPT_Scaling	0% - 100%	[Ix] [Double Press] Dimming Status (Input)	0% - 100%
	1 Byte	I	C - W - -	DPT_Scaling	0% - 100%	[Ix] [Switch/Sensor] [Falling Edge] Dimming Status (Input)	0% - 100%
	1 Byte	I	C - W - -	DPT_Scaling	0% - 100%	[Ix] [Switch/Sensor] [Falling Edge] Shutter Status (Input)	0% = Top; 100% = Bottom
	1 Bit	O	C - - T -	DPT_Switch	0/1	[Ix] [Switch/Sensor] [Falling Edge] 0 (Immediate Object)	Sending of 0
	1 Bit	O	C - - T -	DPT_Switch	0/1	[Ix] [Switch/Sensor] [Falling Edge] 1 (Immediate Object)	Sending of 1
	1 Bit	I	C - W T -	DPT_Switch	0/1	[Ix] [Switch/Sensor] [Falling Edge] 0/1 Switching (Immediate Object)	Switching 0/1
1243, 1252, 1261, 1270	1 Bit	O	C - - T -	DPT_Switch	0/1	[Ix] [Long Press] 0	Sending of 0
	1 Bit	O	C - - T -	DPT_Switch	0/1	[Ix] [Long Press] 1	Sending of 1
	1 Bit	I	C - W T -	DPT_Switch	0/1	[Ix] [Long Press] 0/1 Switching	Switching 0/1
	1 Bit	O	C - - T -	DPT_UpDown	0/1	[Ix] [Long Press] Move Up Shutter	Sending of 0 (Up)
	1 Bit	O	C - - T -	DPT_UpDown	0/1	[Ix] [Long Press] Move Down Shutter	Sending of 1 (Down)
	1 Bit	I	C - W T -	DPT_UpDown	0/1	[Ix] [Long Press] Move Up/Down Shutter	Switching 0/1 (Up/Down)
	1 Bit	O	C - - T -	DPT_Step	0/1	[Ix] [Long Press] Stop/Step Up Shutter	Sending of 0 (Stop/Step Up)
	1 Bit	O	C - - T -	DPT_Step	0/1	[Ix] [Long Press] Stop/Step Down Shutter	Sending of 1 (Stop/Step Down)
	1 Bit	I	C - W T -	DPT_Step	0/1	[Ix] [Long Press] Stop/Step Shutter (Switched)	Switching of 0/1 (Stop/Step Up/Down)
	4 Bit	O	C - - T -	DPT_Control_Dimming	0x0/0x8 (Stop) 0x1...0x7 (Dec.) 0x9...0xF (Inc.)	[Ix] [Long Press] Brighter	Long Pr. -> Brighter; Release -> Stop
	4 Bit	O	C - - T -	DPT_Control_Dimming	0x0/0x8 (Stop) 0x1...0x7 (Dec.) 0x9...0xF (Inc.)	[Ix] [Long Press] Darker	Long Pr. -> Darker; Release -> Stop
	4 Bit	I	C - W T -	DPT_Control_Dimming	0x0/0x8 (Stop) 0x1...0x7 (Dec.) 0x9...0xF (Inc.)	[Ix] [Long Press] Brighter/Darker	Long Pr. -> Brighter/Darker; Release -> Stop
	1 Bit	O	C - - T -	DPT_Switch	0/1	[Ix] [Long Press] Light On	Sending of 1 (On)

	1 Bit	O	C - - T -	DPT_Switch	0/1	[Ix] [Long Press] Light Off	Sending of 0 (Off)
	1 Bit	O	C - - T -	DPT_Switch	0/1	[Ix] [Long Press] Light On/Off	0/1
	1 Byte	O	C - - T -	DPT_SceneControl	0-63; 128-191	[Ix] [Long Press] Run Scene	Sending of 0 - 63
	1 Byte	O	C - - T -	DPT_SceneControl	0-63; 128-191	[Ix] [Long Press] Save Scene	Sending of 128 - 191
	1 Byte	O	C - - T -	DPT_Value_1_Ucount	0 - 255	[Ix] [Long Press] Constant Value (Integer)	0 - 255
	1 Byte	O	C - - T -	DPT_Scaling	0% - 100%	[Ix] [Long Press] Constant Value (Percentage)	0% - 100%
	2 Bytes	O	C - - T -	DPT_Value_2_Ucount	0 - 65535	[Ix] [Long Press] Constant Value (Integer)	0 - 65535
	2 Bytes	O	C - - T -	9.xxx	-671088.64 - 670433.28	[Ix] [Long Press] Constant Value (Float)	Float Value
	1 Bit	O	C - - T -	DPT_Step	0/1	[Ix] [Triple Press] Stop/Step Up Shutter	Sending of 0 (Stop/Step Up)
	1 Bit	I	C - W T -	DPT_Step	0/1	[Ix] [Triple Press] Stop/Step Shutter (Switched)	Switching of 0/1 (Stop/Step Up/Down)
	1 Bit	O	C - - T -	DPT_Step	0/1	[Ix] [Triple Press] Stop/Step Down Shutter	Sending of 1 (Stop/Step Down)
	1 Byte	O	C - - T -	DPT_SceneControl	0-63; 128-191	[Ix] [Triple Press] Save Scene	Sending of 128 - 191
	1 Byte	O	C - - T -	DPT_SceneControl	0-63; 128-191	[Ix] [Triple Press] Run Scene	Sending of 0 - 63
	1 Bit	I	C - W T -	DPT_UpDown	0/1	[Ix] [Triple Press] Move Up/Down Shutter	Switching 0/1 (Up/Down)
	1 Bit	O	C - - T -	DPT_UpDown	0/1	[Ix] [Triple Press] Move Up Shutter	Sending of 0 (Up)
	1 Bit	O	C - - T -	DPT_UpDown	0/1	[Ix] [Triple Press] Move Down Shutter	Sending of 1 (Down)
	1 Bit	O	C - - T -	DPT_Switch	0/1	[Ix] [Triple Press] Light On/Off	0/1
	1 Bit	O	C - - T -	DPT_Switch	0/1	[Ix] [Triple Press] Light On	Sending of 1 (On)
	1 Bit	O	C - - T -	DPT_Switch	0/1	[Ix] [Triple Press] Light Off	Sending of 0 (Off)
	4 Bit	O	C - - T -	DPT_Control_Dimming	0x0/0x8 (Stop) 0x1...0x7 (Dec.) 0x9...0xF (Inc.)	[Ix] [Triple Press] Darker	Decrease Brightness
	1 Byte	O	C - - T -	DPT_Scaling	0% - 100%	[Ix] [Triple Press] Constant Value (Percentage)	0% - 100%
	2 Bytes	O	C - - T -	DPT_Value_2_Ucount	0 - 65535	[Ix] [Triple Press] Constant Value (Integer)	0 - 65535
	1 Byte	O	C - - T -	DPT_Value_1_Ucount	0 - 255	[Ix] [Triple Press] Constant Value (Integer)	0 - 255
	2 Bytes	O	C - - T -	9.xxx	-671088.64 - 670433.28	[Ix] [Triple Press] Constant Value (Float)	Float Value
	4 Bit	I	C - W T -	DPT_Control_Dimming	0x0/0x8 (Stop) 0x1...0x7 (Dec.) 0x9...0xF (Inc.)	[Ix] [Triple Press] Brighter/Darker	Switch Bright/Dark

	4 Bit	O	C - - T -	DPT_Control_Dimming	0x0/0x8 (Stop) 0x1...0x7 (Dec.) 0x9...0xF (Inc.)	[Ix] [Triple Press] Brighter	Increase Brightness
	1 Bit	O	C - - T -	DPT_Switch	0/1	[Ix] [Triple Press] 1	Sending of 1
	1 Bit	I	C - W T -	DPT_Switch	0/1	[Ix] [Triple Press] 0/1 Switching	Switching 0/1
	1 Bit	O	C - - T -	DPT_Switch	0/1	[Ix] [Triple Press] 0	Sending of 0
1244, 1253, 1262, 1271	1 Byte	I	C - W - -	DPT_Scaling	0% - 100%	[Ix] [Long Press] Dimming Status (Input)	0% - 100%
	1 Byte	I	C - W - -	DPT_Scaling	0% - 100%	[Ix] [Long Press] Shutter Status (Input)	0% = Top; 100% = Bottom
	1 Byte	I	C - W - -	DPT_Scaling	0% - 100%	[Ix] [Triple Press] Shutter Status (Input)	0% = Top; 100% = Bottom
	1 Byte	I	C - W - -	DPT_Scaling	0% - 100%	[Ix] [Triple Press] Dimming Status (Input)	0% - 100%
1245, 1254, 1263, 1272	1 Bit	O	C - - T -	DPT_Trigger	0/1	[Ix] [Long Press/Release] Stop Shutter	Release -> Stop Shutter
1273	1 Byte	I	C - W - -	DPT_SceneNumber	0 - 63	[Motion Detector] Scene Input	Scene Value
1274	1 Byte	O	C - - T -	DPT_SceneControl	0-63; 128-191	[Motion Detector] Scene Output	Scene Value
1275, 1312, 1349, 1386	1 Byte	O	C R - T -	DPT_Scaling	0% - 100%	[Ix] Luminosity	0 - 100%
1276, 1313, 1350, 1387	1 Bit	O	C R - T -	DPT_Alarm	0/1	[Ix] Open Circuit Error	0 = No Error; 1 = Open Circuit Error
1277, 1314, 1351, 1388	1 Bit	O	C R - T -	DPT_Alarm	0/1	[Ix] Short Circuit Error	0 = No Error; 1 = Short Circuit Error
1278, 1315, 1352, 1389	1 Byte	O	C R - T -	DPT_Scaling	0% - 100%	[Ix] Presence State (Scaling)	0 - 100%
1279, 1316, 1353, 1390	1 Byte	O	C R - T -	DPT_HVACMode	1=Comfort 2=Standby 3=Economy 4=Building Protection	[Ix] Presence State (HVAC)	Auto, Comfort, Standby, Economy, Building Protection
1280, 1317, 1354, 1391	1 Bit	O	C R - T -	DPT_Switch	0/1	[Ix] Presence State (Binary)	Binary Value
	1 Bit	O	C R - T -	DPT_Start	0/1	[Ix] Presence: Slave Output	1 = Motion Detected
1281, 1318, 1355, 1392	1 Bit	I	C - W - -	DPT_Window_Door	0/1	[Ix] Presence Trigger	Binary Value to Trigger the Presence Detection
1282, 1319, 1356, 1393	1 Bit	I	C - W - -	DPT_Start	0/1	[Ix] Presence: Slave Input	0 = Nothing; 1 = Detection from slave device
1283, 1320, 1357, 1394	2 Bytes	I/O	C R W - -	DPT_TimePeriodSec	0 - 65535	[Ix] Presence: Waiting Time	0 - 65535 s
1284, 1321, 1358, 1395	2 Bytes	I/O	C R W - -	DPT_TimePeriodSec	0 - 65535	[Ix] Presence: Listening Time	1 - 65535 s
1285, 1322, 1359, 1396	2 Bytes	I/O	C R W - -	DPT_TimePeriodMin	0 - 65535	[Ix] Presence: Safety Time	0 - 1440 min
1286, 1323, 1360, 1397	1 Byte	I/O	C R W - -	DPT_Value_1_Ucount	0 - 255	[Ix] Presence: Number of Detections of the Filter	2 - 5
1287, 1324, 1361, 1398	1 Byte	I/O	C R W - -	DPT_Value_1_Ucount	0 - 255	[Ix] Presence: Filter Detection Window	15 - 60 s
1288, 1325, 1362, 1399	1 Bit	I	C - W - -	DPT_Enable	0/1	[Ix] Presence: Enable	0 = Disable; 1 = Enable
	1 Bit	I	C - W - -	DPT_Enable	0/1	[Ix] Presence: Enable	0 = Enable; 1 = Disable

1289, 1326, 1363, 1400	1 Bit	I/O	C R W - -	DPT_DayNight	0/1	[Ix] Presence: Day/Night	0 = Day; 1 = Night
	1 Bit	I/O	C R W - -	DPT_DayNight	0/1	[Ix] Presence: Day/Night	0 = Night; 1 = Day
1290, 1327, 1364, 1401	1 Bit	O	C R - T -	DPT_Occupancy	0/1	[Ix] Presence: Occupancy State (Master Output)	0 = Not Occupied; 1 = Occupied
	1 Bit	I	C - W - -	DPT_Occupancy	0/1	[Ix] Presence: Occupancy State (Master Input)	0 = Not Occupied; 1 = Occupied
1291, 1328, 1365, 1402	1 Bit	I	C - W - -	DPT_Switch	0/1	[Ix] Presence: Access Guest/Employee	0 = Guest; 1 = Employee
	1 Bit	I	C - W - -	DPT_Switch	0/1	[Ix] Presence: Access Guest/Employee	0 = Employee; 1 = Guest
1292, 1329, 1366, 1403	1 Bit	I	C - W - -	DPT_Bool	0/1	[Ix] Presence: Sold/Unsold Room	0 = Unsold; 1 = Sold
	1 Bit	I	C - W - -	DPT_Bool	0/1	[Ix] Presence: Sold/Unsold Room	0 = Sold; 1 = Unsold
1293, 1330, 1367, 1404	1 Bit	I	C - W - -	DPT_Start	0/1	[Ix] External Motion Detection	0 = Nothing; 1 = Motion detected by an external sensor
1294, 1300, 1306, 1331, 1337, 1343, 1368, 1374, 1380, 1405, 1411, 1417	1 Byte	O	C R - T -	DPT_Scaling	0% - 100%	[Ix][Cx] Detection State (Scaling)	0 - 100%
1295, 1301, 1307, 1332, 1338, 1344, 1369, 1375, 1381, 1406, 1412, 1418	1 Byte	O	C R - T -	DPT_HVACMode	1=Comfort 2=Standby 3=Economy 4=Building Protection	[Ix][Cx] Detection State (HVAC)	Auto, Comfort, Standby, Economy, Building Protection
1296, 1302, 1308, 1333, 1339, 1345, 1370, 1376, 1382, 1407, 1413, 1419	1 Bit	O	C R - T -	DPT_Switch	0/1	[Ix][Cx] Detection State (Binary)	Binary Value
1297, 1303, 1309, 1334, 1340, 1346, 1371, 1377, 1383, 1408, 1414, 1420	1 Bit	I	C - W - -	DPT_Enable	0/1	[Ix][Cx] Enable Channel	According to parameters
1298, 1304, 1310, 1335, 1341, 1347, 1372, 1378, 1384, 1409, 1415, 1421	1 Bit	I	C - W - -	DPT_Switch	0/1	[Ix][Cx] Force State	0 = No Detection; 1 = Detection
1299, 1305, 1311, 1336, 1342, 1348, 1373, 1379, 1385, 1410, 1416, 1422	1 Byte	I	C - W - -	DPT_Scaling	0% - 100%	[Ix][Cx] Luminosity Threshold	1 - 100%
1423	1 Byte	I	C - W - -	DPT_SceneControl	0-63; 128-191	[Thermostat] Scenes	0 – 63 (Execute 1 – 64); 128 – 191 (Save 1 – 64)
1424, 1475	2 Bytes	I	C - W T U	DPT_Value_Temp	-273.00º - 670433.28º	[Tx] Temperature Source 1	External Sensor Temperature
1425, 1476	2 Bytes	I	C - W T U	DPT_Value_Temp	-273.00º - 670433.28º	[Tx] Temperature Source 2	External Sensor Temperature
1426, 1477	2 Bytes	O	C R - T -	DPT_Value_Temp	-273.00º - 670433.28º	[Tx] Effective Temperature	Effective Control Temperature
1427, 1478	1 Byte	I	C - W - -	DPT_HVACMode	1=Comfort 2=Standby 3=Economy 4=Building Protection	[Tx] Special Mode	1-Byte HVAC Mode

1428, 1479	1 Bit	I	C - W - -	DPT_Ack	0/1	[Tx] Special Mode: Comfort	0 = Nothing; 1 = Trigger
	1 Bit	I	C - W - -	DPT_Switch	0/1	[Tx] Special Mode: Comfort	0 = Off; 1 = On
1429, 1480	1 Bit	I	C - W - -	DPT_Ack	0/1	[Tx] Special Mode: Standby	0 = Nothing; 1 = Trigger
	1 Bit	I	C - W - -	DPT_Switch	0/1	[Tx] Special Mode: Standby	0 = Off; 1 = On
1430, 1481	1 Bit	I	C - W - -	DPT_Ack	0/1	[Tx] Special Mode: Economy	0 = Nothing; 1 = Trigger
	1 Bit	I	C - W - -	DPT_Switch	0/1	[Tx] Special Mode: Economy	0 = Off; 1 = On
1431, 1482	1 Bit	I	C - W - -	DPT_Ack	0/1	[Tx] Special Mode: Protection	0 = Nothing; 1 = Trigger
	1 Bit	I	C - W - -	DPT_Switch	0/1	[Tx] Special Mode: Protection	0 = Off; 1 = On
1432, 1483	1 Bit	I	C - W - -	DPT_Trigger	0/1	[Tx] Comfort Prolongation	0 = Nothing; 1 = Timed Comfort
1433, 1484	1 Byte	O	C R - T -	DPT_HVACMode	1=Comfort 2=Standby 3=Economy 4=Building Protection	[Tx] Special Mode Status	1-Byte HVAC Mode
1434, 1485	1 Bit	I	C - W - -	DPT_Window_Door	0/1	[Tx] Window Status 1 (Input)	0 = Closed; 1 = Open
1435, 1486	1 Bit	I	C - W - -	DPT_Window_Door	0/1	[Tx] Window Status 2 (Input)	0 = Closed; 1 = Open
1436, 1487	1 Bit	I	C - W - -	DPT_Window_Door	0/1	[Tx] Window Status 3 (Input)	0 = Closed; 1 = Open
1437, 1488	1 Bit	I	C - W - -	DPT_Window_Door	0/1	[Tx] Window Status 4 (Input)	0 = Closed; 1 = Open
1438, 1489	2 Bytes	I	C - W - -	DPT_Value_Temp	-273.00º - 670433.28º	[Tx] Setpoint	Thermostat Setpoint Input
	2 Bytes	I	C - W - -	DPT_Value_Temp	-273.00º - 670433.28º	[Tx] Basic Setpoint	Reference Setpoint
1439, 1490	1 Bit	I	C - W - -	DPT_Step	0/1	[Tx] Setpoint Step	0 = Decrease Setpoint; 1 = Increase Setpoint
1440, 1491	2 Bytes	I	C - W - -	DPT_Value_Tempd	-671088.64º - 670433.28º	[Tx] Setpoint Shift Offset	Float Shift Offset Value
1441, 1492	2 Bytes	O	C R - T -	DPT_Value_Temp	-273.00º - 670433.28º	[Tx] Setpoint Status	Current Setpoint
1442, 1493	2 Bytes	O	C R - T -	DPT_Value_Temp	-273.00º - 670433.28º	[Tx] Basic Setpoint Status	Current Basic Setpoint
1443, 1494	2 Bytes	O	C R - T -	DPT_Value_Tempd	-671088.64º - 670433.28º	[Tx] Setpoint Shift Offset Status	Current Setpoint Shift Offset
1444, 1495	1 Bit	I	C - W - -	DPT_Reset	0/1	[Tx] Setpoint Reset	Reset Setpoint to Default
	1 Bit	I	C - W - -	DPT_Reset	0/1	[Tx] Shift Offset Reset	Reset Shift Offset
1445, 1496	2 Bytes	I/O	C R W T U	DPT_Value_Temp	-273.00º - 670433.28º	[Tx] Comfort Setpoint (Cooling)	[-20°C, 100°C]
	2 Bytes	I/O	C R W T U	DPT_Value_Tempd	-671088.64º - 670433.28º	[Tx] Comfort Shift Offset (Cooling)	[-10°C, 10°C]
1446, 1497	2 Bytes	I/O	C R W T U	DPT_Value_Temp	-273.00º - 670433.28º	[Tx] Standby Setpoint (Cooling)	[-20°C, 100°C]
	2 Bytes	I/O	C R W T U	DPT_Value_Tempd	-671088.64º - 670433.28º	[Tx] Standby Shift Offset (Cooling)	[-10°C, 10°C]
1447, 1498	2 Bytes	I/O	C R W T U	DPT_Value_Temp	-273.00º - 670433.28º	[Tx] Economy Setpoint (Cooling)	[-20°C, 100°C]
	2 Bytes	I/O	C R W T U	DPT_Value_Tempd	-671088.64º - 670433.28º	[Tx] Economy Shift Offset (Cooling)	[-10°C, 10°C]

1448, 1499	2 Bytes	I/O	C R W T U	DPT_Value_Temp	-273.00º - 670433.28º	[Tx] Comfort Setpoint (Heating)	[-20°C, 100°C]
	2 Bytes	I/O	C R W T U	DPT_Value_Tempd	-671088.64º - 670433.28º	[Tx] Comfort Shift Offset (Heating)	[-10°C, 10°C]
1449, 1500	2 Bytes	I/O	C R W T U	DPT_Value_Temp	-273.00º - 670433.28º	[Tx] Standby Setpoint (Heating)	[-20°C, 100°C]
	2 Bytes	I/O	C R W T U	DPT_Value_Tempd	-671088.64º - 670433.28º	[Tx] Standby Shift Offset (Heating)	[-10°C, 10°C]
1450, 1501	2 Bytes	I/O	C R W T U	DPT_Value_Temp	-273.00º - 670433.28º	[Tx] Economy Setpoint (Heating)	[-20°C, 100°C]
	2 Bytes	I/O	C R W T U	DPT_Value_Tempd	-671088.64º - 670433.28º	[Tx] Economy Shift Offset (Heating)	[-10°C, 10°C]
1451, 1502	2 Bytes	I/O	C R W T U	DPT_Value_Tempd	-671088.64º - 670433.28º	[Tx] Lower Dead Band (Only for Comfort Mode)	Automatic H/C Mode Changeover Band [0°C, 10°C]
	2 Bytes	I/O	C R W T U	DPT_Value_Tempd	-671088.64º - 670433.28º	[Tx] Lower Dead Band	Automatic H/C Mode Changeover Band [0°C, 10°C]
1452, 1503	2 Bytes	I/O	C R W T U	DPT_Value_Tempd	-671088.64º - 670433.28º	[Tx] Upper Dead Band (Only for Comfort Mode)	Automatic H/C Mode Changeover Band [0°C, 10°C]
	2 Bytes	I/O	C R W T U	DPT_Value_Tempd	-671088.64º - 670433.28º	[Tx] Upper Dead Band	Automatic H/C Mode Changeover Band [0°C, 10°C]
1453, 1504	1 Bit	I	C - W - -	DPT_Heat_Cool	0/1	[Tx] Simplified Mode	0 = Cool; 1 = Heat
1454, 1505	1 Bit	O	C R - T -	DPT_Heat_Cool	0/1	[Tx] Simplified Mode Status	0 = Cool; 1 = Heat
1455, 1506	1 Bit	I	C - W - -	DPT_Switch	0/1	[Tx] On/Off	0 = Off; 1 = On
1456, 1507	1 Bit	O	C R - T -	DPT_Switch	0/1	[Tx] On/Off Status	0 = Off; 1 = On
1457, 1508	1 Bit	I	C - W - -	DPT_Switch	0/1	[Tx] Force Secondary System (Cool)	0 = Off; 1 = On
1458, 1509	1 Bit	I	C - W - -	DPT_Switch	0/1	[Tx] Force Secondary System (Heat)	0 = Off; 1 = On
1459, 1510	1 Byte	I	C - W - -	DPT_ChangeoverMode		[Tx] Mode	0 = Auto; 1 = Cool; 2 = Heat
1460, 1511	1 Byte	O	C R - T -	DPT_ChangeoverMode		[Tx] Mode Status	0 = Auto; 1 = Cool; 2 = Heat
1461, 1512	1 Byte	I/O	C R W T U	DPT_System_Selector	0 - 3	[Tx] System Selector (Cool)	0 = S1 (Main) / S2 (Additional); 1 = Only S1; 2 = Only S2; 3 = S2 (Main) / S1 (Additional)
	1 Byte	I/O	C R W T U	DPT_System_Selector	0 - 3	[Tx] System Selector (Cool)	0 = S2 (Main) / S1 (Additional); 1 = Only S1; 2 = Only S2; 3 = S1 (Main) / S2 (Additional)
1462, 1513	1 Byte	I/O	C R W T U	DPT_System_Selector	0 - 3	[Tx] System Selector (Heat)	0 = S1 (Main) / S2 (Additional); 1 = Only S1; 2 = Only S2; 3 = S2 (Main) / S1 (Additional)
	1 Byte	I/O	C R W T U	DPT_System_Selector	0 - 3	[Tx] System Selector (Heat)	0 = S2 (Main) / S1 (Additional); 1 = Only S1; 2 = Only S2; 3 = S1 (Main) / S2 (Additional)
1463, 1469, 1514, 1520	1 Byte	O	C R - T -	DPT_Scaling	0% - 100%	[Tx] [Sx] Control Variable (Cool)	PI Control (Continuous)
1464, 1470, 1515, 1521	1 Byte	O	C R - T -	DPT_Scaling	0% - 100%	[Tx] [Sx] Control Variable (Heat)	PI Control (Continuous)
	1 Byte	O	C R - T -	DPT_Scaling	0% - 100%	[Tx] [Sx] Control Variable	PI Control (Continuous)

1465, 1471, 1516, 1522	1 Bit	O	C R - T -	DPT_Switch	0/1	[Tx] [Sx] Control Variable (Cool)	2-Point Control
	1 Bit	O	C R - T -	DPT_Switch	0/1	[Tx] [Sx] Control Variable (Cool)	PI Control (PWM)
1466, 1472, 1517, 1523	1 Bit	O	C R - T -	DPT_Switch	0/1	[Tx] [Sx] Control Variable (Heat)	2-Point Control
	1 Bit	O	C R - T -	DPT_Switch	0/1	[Tx] [Sx] Control Variable (Heat)	PI Control (PWM)
	1 Bit	O	C R - T -	DPT_Switch	0/1	[Tx] [Sx] Control Variable	2-Point Control
	1 Bit	O	C R - T -	DPT_Switch	0/1	[Tx] [Sx] Control Variable	PI Control (PWM)
1467, 1473, 1518, 1524	1 Bit	O	C R - T -	DPT_Switch	0/1	[Tx] [Sx] PI State (Cool)	0 = PI Signal 0%; 1 = PI Signal Greater than 0%
1468, 1474, 1519, 1525	1 Bit	O	C R - T -	DPT_Switch	0/1	[Tx] [Sx] PI State (Heat)	0 = PI Signal 0%; 1 = PI Signal Greater than 0%
	1 Bit	O	C R - T -	DPT_Switch	0/1	[Tx] [Sx] PI State	0 = PI Signal 0%; 1 = PI Signal Greater than 0%
1526	1 Byte	I	C - W - -	DPT_Percent_V8		[Hum] Sensor Calibration	-12% ... 12%
1527	2 Bytes	O	C R - T -	DPT_Value_Humidity	-12% - 12%	[Hum] Current Humidity	Humidity Sensor Value
1528	2 Bytes	O	C R - T -	DPT_Value_Temp	-273.00º - 670433.28º	[Hum] Dew Point Temperature	Dew Point Temperature Value
1529	2 Bytes	I	C - W - -	DPT_Value_Humidity	-12% - 12%	[Hum] High Humidity Alarm Threshold	Value of High Humidity Alarm Threshold
1530	2 Bytes	I	C - W - -	DPT_Value_Humidity	-12% - 12%	[Hum] Low Humidity Alarm Threshold	Value of Low Humidity Alarm Threshold
1531	2 Bytes	I	C - W - -	DPT_Value_Temp	-273.00º - 670433.28º	[Hum] Surface Temperature	Input Surface Temperature Value
1532	1 Bit	O	C R - T -	DPT_Alarm	0/1	[Hum] High Humidity	0 = No Alarm; 1 = Alarm
1533	1 Bit	O	C R - T -	DPT_Alarm	0/1	[Hum] Low Humidity	0 = No Alarm; 1 = Alarm
1534	1 Bit	O	C R - T -	DPT_Alarm	0/1	[Hum] Condensation	0 = No Alarm; 1 = Alarm
1535	2 Bytes	O	C R - T -	9.029 - DPT_Value_AbsoluteHumidity	0 – 670433.28	[Hum] Absolute Humidity	Absolute Humidity Value
1536	2 Bytes	I/O	C R W - -	9.008 - DPT_Value_AirQuality	0 – 670433.28	[CO2 Sensor] Sensor Calibration	[-1000 ... 1000] ppm
1537	2 Bytes	O	C R - T -	9.008 - DPT_Value_AirQuality	0 – 670433.28	[CO2 Sensor] Current CO2 Value	CO2 Sensor Value
1538	2 Bytes	I/O	C R W - -	9.008 - DPT_Value_AirQuality	0 – 670433.28	[CO2 Sensor] CO2 Alarm Threshold	[500 … 2000] ppm
1539	1 Bit	O	C R - T -	1.005 - DPT_Alarm	0/1	[CO2 Sensor] CO2 Alarm	0 = No Alarm; 1 = Alarm
1540	1 Bit	O	C R - T -	1.005 - DPT_Alarm	0/1	CO2 Sensor Error	0 = No Alarm; 1 = Alarm
1541	1 Bit	I	C - W - -	1.001 - DPT_Switch	0/1	[CO2 Control] On/Off	0 = Off; 1 = On
1542	1 Bit	O	C R - T -	1.001 - DPT_Switch	0/1	[CO2 Control] On/Off (Status)	0 = Off; 1 = On
1543	2 Bytes	I	C - W - -	9.008 - DPT_Value_AirQuality	0 – 670433.28	[CO2 Control] CO2 Source 1	2-Byte Float CO2 Sensor Value
1544	2 Bytes	I	C - W - -	9.008 - DPT_Value_AirQuality	0 – 670433.28	[CO2 Control] CO2 Source 2	2-Byte Float CO2 Sensor Value
1545	2 Bytes	I/O	C R W - -	9.008 - DPT_Value_AirQuality	0 – 670433.28	[CO2 Control] CO2 Threshold 1	[500 … 2000] ppm
	2 Bytes	I/O	C R W - -	9.008 - DPT_Value_AirQuality	0 – 670433.28	[CO2 Control] CO2 Setpoint	[500 … 2000] ppm
1546	2 Bytes	I/O	C R W - -	9.008 - DPT_Value_AirQuality	0 – 670433.28	[CO2 Control] CO2 Threshold 2	[500 … 2000] ppm
1547	2 Bytes	I/O	C R W - -	9.008 - DPT_Value_AirQuality	0 – 670433.28	[CO2 Control] CO2 Threshold 3	[500 … 2000] ppm
1548	2 Bytes	I/O	C R W - -	9.008 - DPT_Value_AirQuality	0 – 670433.28	[CO2 Control] CO2 Threshold 4	[500 … 2000] ppm
1549	2 Bytes	I/O	C R W - -	9.008 - DPT_Value_AirQuality	0 – 670433.28	[CO2 Control] CO2 Threshold 5	[500 … 2000] ppm
1550	1 Bit	O	C R - T -	1.001 - DPT_Switch	0/1	[CO2 Control] Ventilation Status	0 = Ventilation Off; 1 = Ventilation On

1551	1 Bit	O	C R - T -	1.001 - DPT_Switch	0/1	[CO2 Control] Control Variable (Binary): Level 0	0 = Level 0 Off; 1 = Level 0 On
	1 Bit	O	C R - T -	1.001 - DPT_Switch	0/1	[CO2 Control] Control Variable (Binary): Level 0	0 = Level 0 On; 1 = Level 0 Off
1552	1 Bit	O	C R - T -	1.001 - DPT_Switch	0/1	[CO2 Control] Control Variable (Binary): Level 1	0 = Level 1 Off; 1 = Level 1 On
	1 Bit	O	C R - T -	1.001 - DPT_Switch	0/1	[CO2 Control] Control Variable (Binary): Level 1	0 = Level 1 On; 1 = Level 1 Off
1553	1 Bit	O	C R - T -	1.001 - DPT_Switch	0/1	[CO2 Control] Control Variable (Binary): Level 2	0 = Level 2 On; 1 = Level 2 Off
	1 Bit	O	C R - T -	1.001 - DPT_Switch	0/1	[CO2 Control] Control Variable (Binary): Level 2	0 = Level 2 Off; 1 = Level 2 On
1554	1 Bit	O	C R - T -	1.001 - DPT_Switch	0/1	[CO2 Control] Control Variable (Binary): Level 3	0 = Level 3 On; 1 = Level 3 Off
	1 Bit	O	C R - T -	1.001 - DPT_Switch	0/1	[CO2 Control] Control Variable (Binary): Level 3	0 = Level 3 Off; 1 = Level 3 On
1555	1 Bit	O	C R - T -	1.001 - DPT_Switch	0/1	[CO2 Control] Control Variable (Binary): Level 4	0 = Level 4 On; 1 = Level 4 Off
	1 Bit	O	C R - T -	1.001 - DPT_Switch	0/1	[CO2 Control] Control Variable (Binary): Level 4	0 = Level 4 Off; 1 = Level 4 On
1556	1 Bit	O	C R - T -	1.001 - DPT_Switch	0/1	[CO2 Control] Control Variable (Binary): Level 5	0 = Level 5 Off; 1 = Level 5 On
	1 Bit	O	C R - T -	1.001 - DPT_Switch	0/1	[CO2 Control] Control Variable (Binary): Level 5	0 = Level 5 On; 1 = Level 5 Off
1557	1 Byte	O	C R - T -	5.001 - DPT_Scaling	0% - 100%	[CO2 Control] Control Variable (Percentage)	Control (0% … 100%)
1558	1 Byte	O	C R - T -	5.001 - DPT_Scaling	0% - 100%	[CO2 Control] PI Control Status	PI Control (Continuous)
1559	1 Bit	I/O	C R W T -	1.003 - DPT_Enable	0/1	[CO2 Control] Lock	0 = Unlock; 1 = Lock
1560	2 Bytes	O	C R - T -	9.008 - DPT_Value_AirQuality	0 – 670433.28	[CO2 Control] Effective CO2	CO2 Effective Value

Join and send us your inquiries about Zennio devices:

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