

SEPTEMBER 2020

ABB RoomTouch® KNX

Webinar – Competence Center Europe – Smart Buildings

Thorsten Reibel, Jürgen Schilder, Stefan Grosse, Martin Wichary & Olaf Stutzenberger

Agenda

ABB RoomTouch®

Introduction

Mounting and Installation

UX – Operating Concept

Commissioning with DCA

Overview DCA Tool

System Settings

Pages and Functions

UX
DESIGN
AWARDS

nominated
2020



reddot winner 2020



Webinar “ABB RoomTouch® KNX”

Introduction

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Introduction

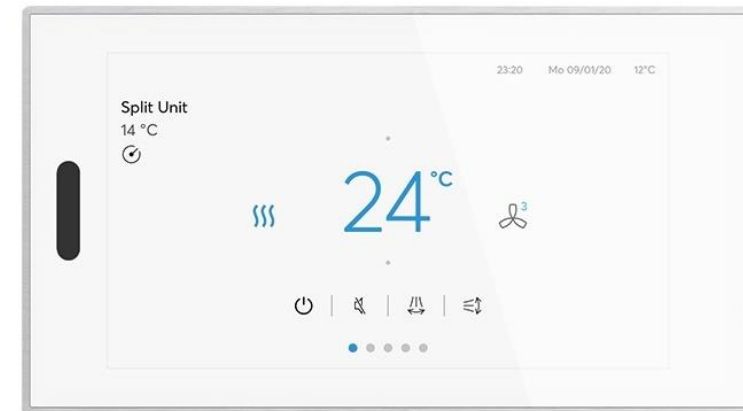
Motivation and goals

ABB RoomTouch®

Easy operation, easy commissioning, easy installation according to customer desire, regardless of private home, meeting room or hotel

– What are the issues we deal with again and again with our KNX control elements and panels?

- Labeling
- Operation
- Individualization
- Angle of view
- Mounting space



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Introduction

Motivation and goals

- Small touch displays to control rooms are upcoming
- A touch panel is more flexible than a static push-button
- Lots of functions on a small space
- High quality of material:
 - Glass
 - Metal
- Known smartphone control concept by wiping up/down left/right



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Introduction

USPs

- ABB RoomTouch® will expand our range by an additional high-quality KNX Touch panel
- One Panel that can be mounted portrait and landscape
- New operating concept for quick operation of your lights, blinds, temperature, scenes and audio
- Flat, good looking device with enough functions for a room and for the right price
- Integrated temperature sensor
- Proximity sensor will switch on the device when I am near to it
- Quick switch off when the room is dark (bedroom application)



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Introduction

Individual Houses



Residential



Commercial



Hotel

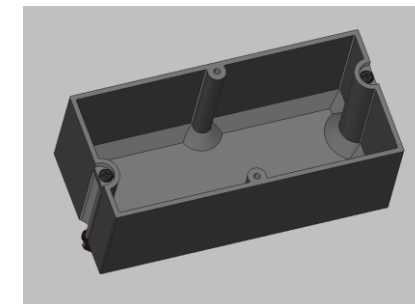
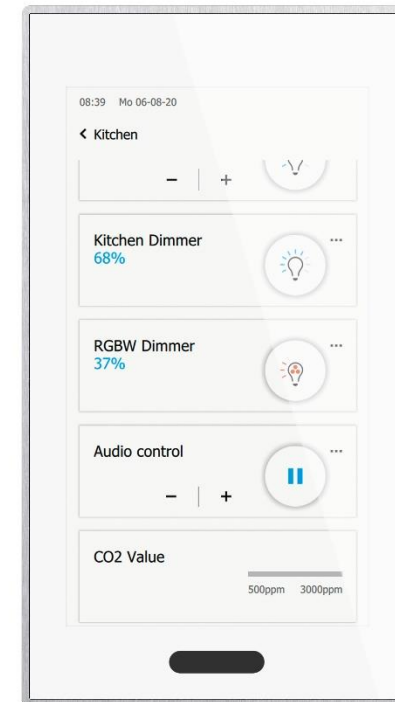


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Introduction

Product information

- 1 Device; 2 colors
 - black
 - white
- 1 flush-mounting box
- Integrated room temperature controller with internal sensor
- Integrated proximity and brightness sensor
- Binary input (e.g. conventional switch)
- Analog input for external temperature sensor PT1000 / 6226T / DP4-T-1
- Can be mounted in portrait or landscape (must be selected during commissioning)



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Introduction

Functions – Landscape mode

- Primary function (whole hand will trigger the primary function)
 - 1-bit
 - 1-byte value [0..100%]
 - 1-byte value [0..255]
 - Light scene number [1..64]
 - RTC operation mode [1-byte]
- Maximum of **30** controls spread over max. **10** pages
 - Switch
 - Dimmer (4-bit and 8-bit)
 - Shutter
 - RTC
 - Scene
 - Value
 - RGB(W) | White colour control
 - Fan speed control
 - Display element
 - Audio control
 - Split unit control
- Time programs (10 timer with 6 time slots)
- Scene actuators (4 actuators with each 15 participants)
- 20 Notifications divided in 3 groups (alarm, hint, fault)
- 1 Internal RTC
- 10 Logical functions
 - AND | OR | NAND | NOR
 - Multiplexer
 - Multiplier
 - Gate
 - Temperature comparator
 - State converter
 - Time function

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Introduction

Functions – Portrait mode

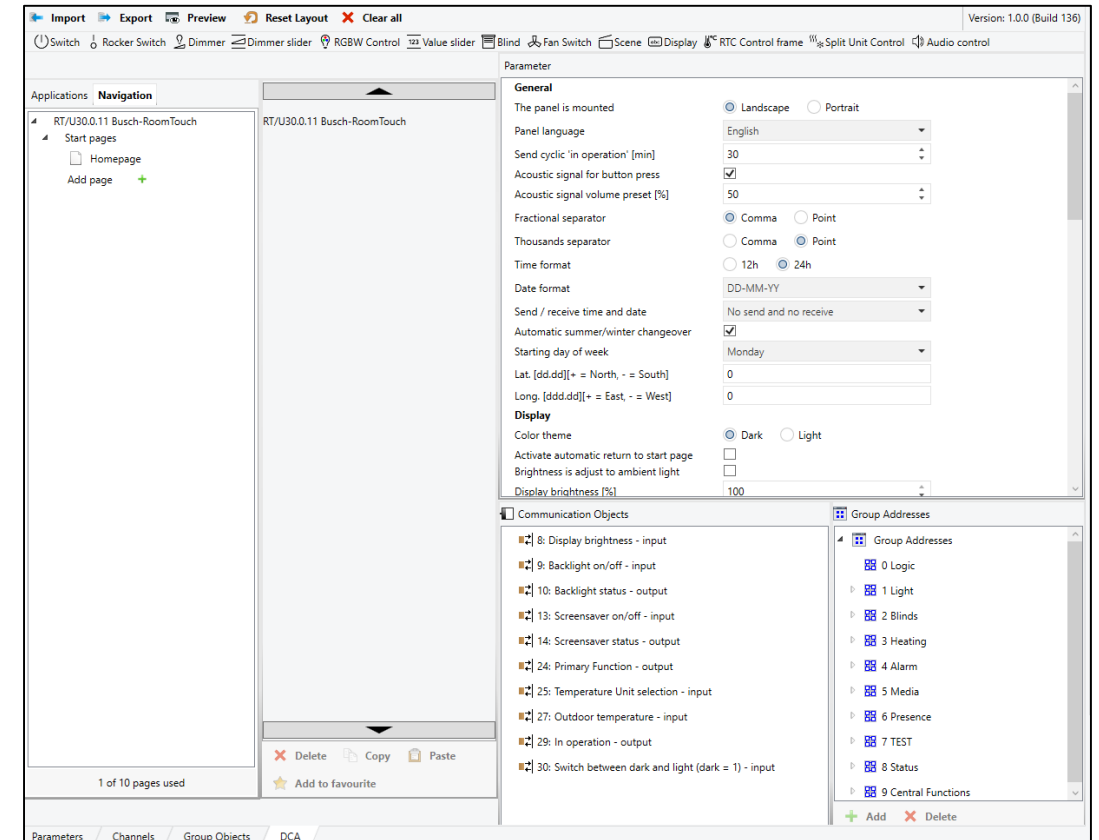
- Primary function (whole hand will trigger the primary function)
 - 1-bit
 - 1-byte value [0..100%]
 - 1-byte value [0..255]
 - Light scene number [1..64]
 - RTC operation mode [1-byte]
- Maximum of **30** controls spread over max. **6** pages
 - Switch
 - Dimmer (4-bit and 8-bit)
 - Shutter
 - RTC
 - Scene
 - Value
 - RGB(W) | White colour control
 - Fan speed control
- Display element
- Audio control
- Split unit control
- Time programs (10 timer with 6 time slots)
- Scene actuators (4 actuators with each 15 participants)
- 20 Notifications divided in 3 groups (alarm, hint, fault)
- 1 Internal RTC
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 - AND | OR | NAND | NOR
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Introduction

Commissioning

- Commissioning is done with the ETS and an DCA, like all other panels:
- SmartTouch
- IP touch 7
- IP touch 10



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Introduction

Functions at a glance

- Multifunctional HD IPS KNX touch display as a room control element for visualisation and control of all functions in a KNX system
- For the display and intuitive control of the following standard KNX functions: Switching, rocker switch, dimming (4-bit and 8-bit), slider, blind, RGBW control element, room temperature control element, Split Unit control element, step switch, scene switch, display element or audio control element
- Additional functions: 20 fault and alarm messages, 10 logic functions, 10 timers each with 6 switching times, 4 scene actuators, 1 room temperature controller and individual pages can be protected with a PIN code
- Status display, display of date and time, as well as inside and outside temperature
- Installed temperature sensor, proximity sensor and brightness sensor
- With a push-button/switch input and external temperature sensor input
- Page display with a maximum of 30 touch surfaces on 6 or 10 pages (dependent on the mounting method)

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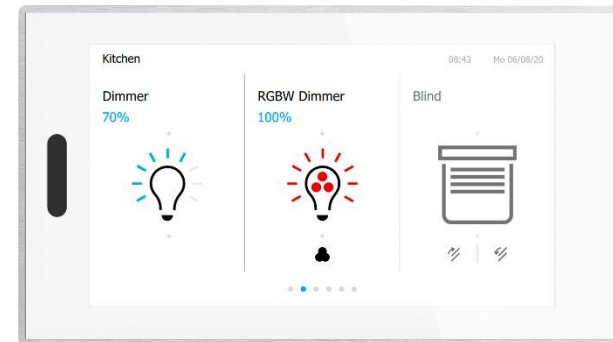
Introduction

Summary

- Can be mounted landscape or portrait
- Real material:
 - Glass (black/white)
 - Metal
- Flat design (11 mm)
- Mechanical anti-theft protection
- Quick shut off when room becomes dark
- Switch between Light mode and Dark mode depending of the brightness
- Color of frame well adjusted to background color (white/black)
- Commission via ETS and DCA
- Binary and analog input
- Control of the device optimized for room control



RT/U30.0.1-825 / 2TMA200050B0005



RT/U30.0.1-811 / 2TMA200050W0007

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Mounting and installation

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Mounting and Installation

Additional equipment



Temperature sensor

Article No.: 6226/T

Order No.: 2CKA006220A0720



Removal protection tool

Article No.: TZW/U.0.1.CK

Order No.: 2CKA006300A1611



External power supply

Article No.: CP-D 24/xxx

Order No.: 1SVR427044R0200



Flush-mounted installation box

Article No.: BOX/U5.11

Order No.: 2TMA200160B0003

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Mounting and Installation

Technical details

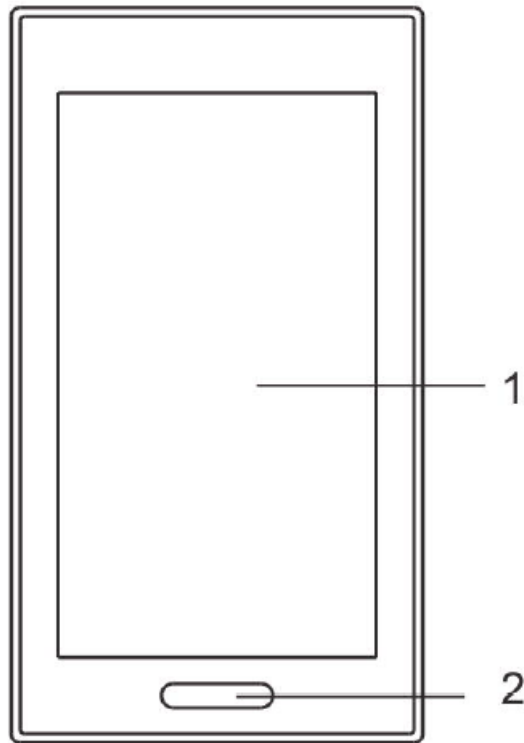
- Viewing angle display: up to 160°
- Mounting via a separate flush-mounted box
- External power supply: 20-32 VDC (SELV)
- Display elements: capacitive touch display 720 x 1280 pixels
- Rating current: 24 V $\overline{=}$, 250 mA
- Protection class (device): IP 20
- Temperature range (device): 0°C ... 45°C
- Storage/Transport temperature range: -20°C ... 60°C
- Dimensions: (L x W x D): 144 mm x 80 mm x 40 mm
- Mounting depth: 11 mm
- Position for installation: Horizontal / vertical
- Mounting height: 150 cm



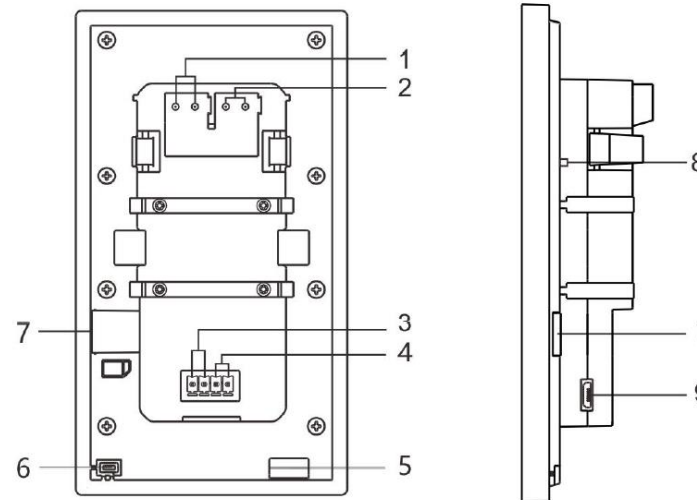
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Mounting and Installation

Frontside – Operation



Backside – Connection



Legend



Operation

1	Touch screen
2	Proximity sensor and brightness sensor

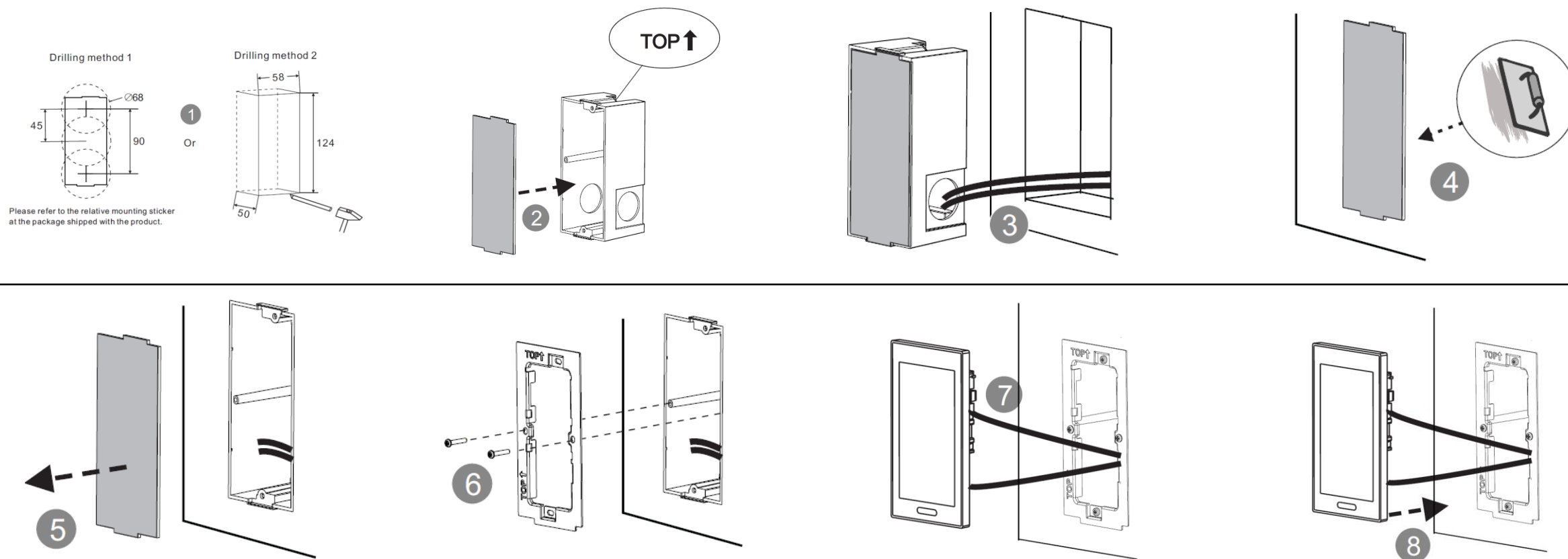


Connection

1	KNX connector
2	Power input connector
3	Temperature sensor connector
4	Binary input connector
5	Speaker
6	Temperature sensor
7	Micro SD card connector
8	Upgrade button (only for factory use)
9	USB connector for firmware upgrade (only for factory use)

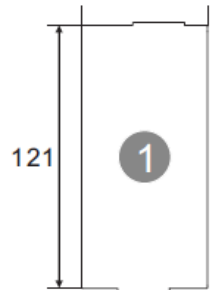
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Flush-mounted installation

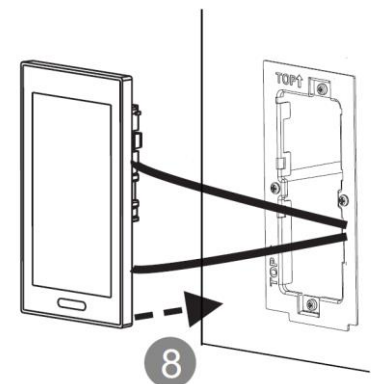
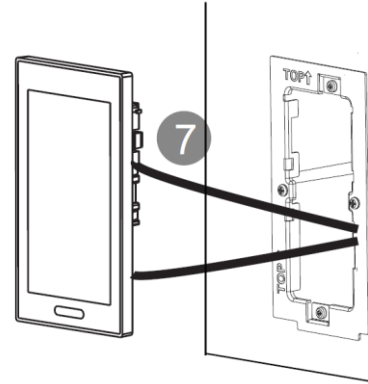
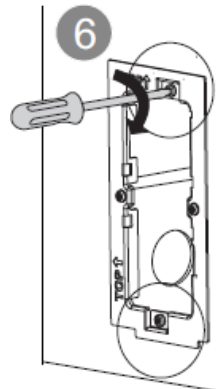
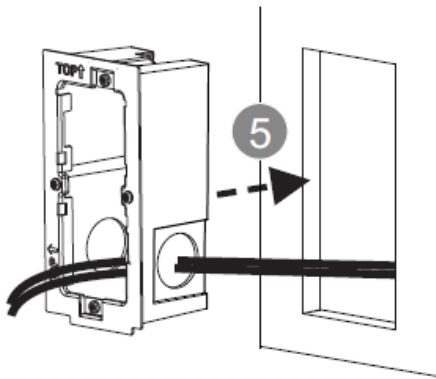
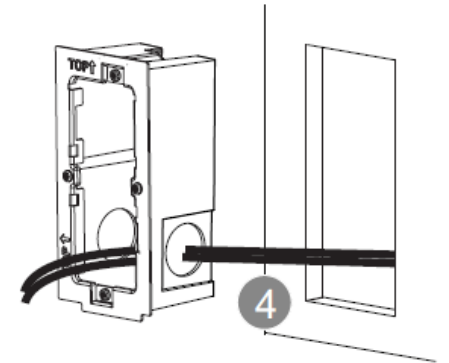
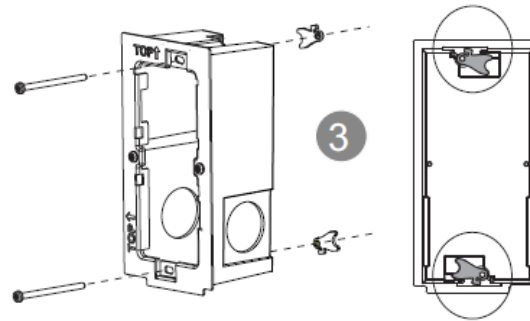
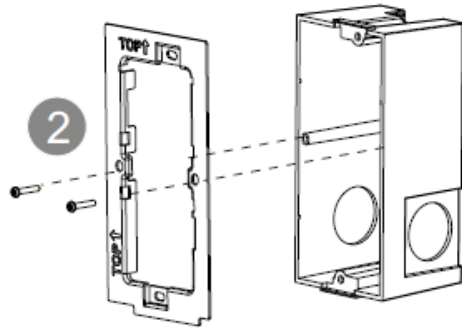


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Cavity wall installation

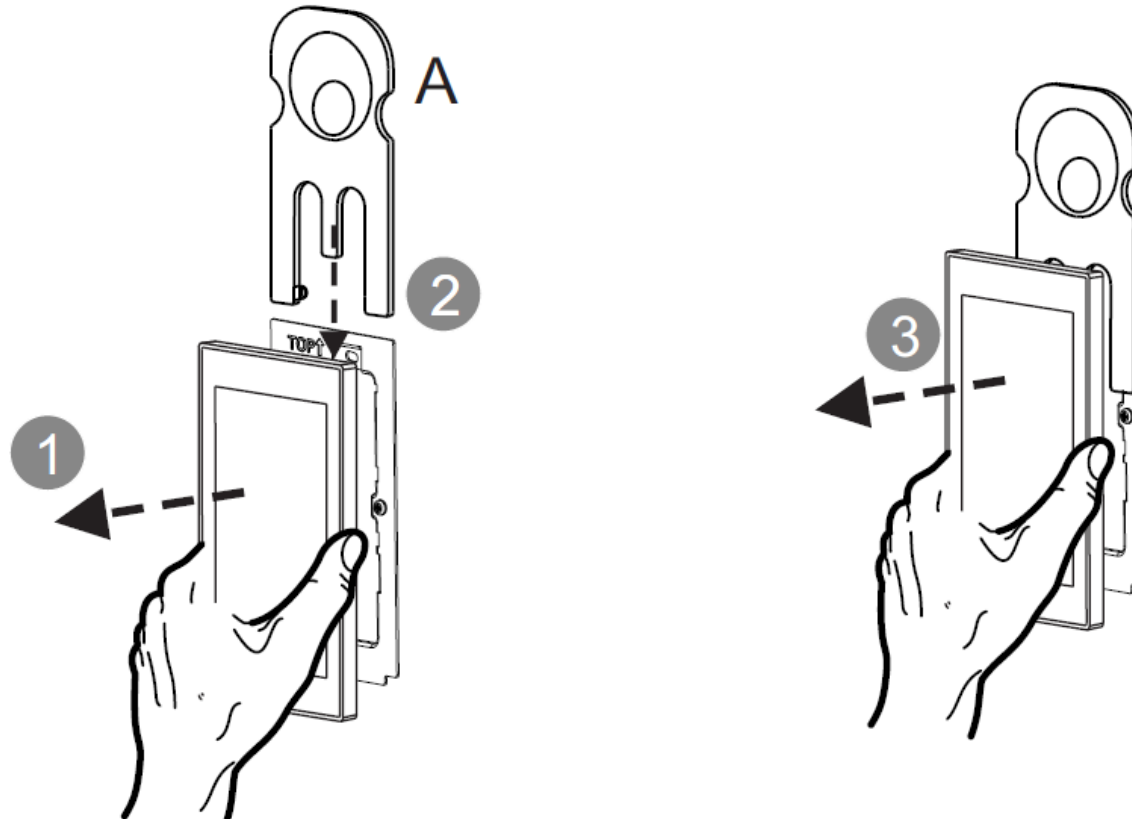


Please refer to the relative mounting sticker at the package shipped with the product.



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Dismantling



A = TZW/U.0.1(1).CK

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UX – Operating Concept

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UX – Operating Concept

User Experience

- New and intuitive operating concept to generate a user-friendly handling
- Modern and timeless interface with new icons
- Nominated for the “UX Design Award” 2020 – global competition for user and customer experience
- With ABB RoomTouch® users can easily control functionality, from swiping up to open the blinds or swiping down to shut them
- The panel can also be controlled by sliding through the menu or tapping to confirm an operation like switching on the lights
- Different navigation concept for landscape and portrait mode

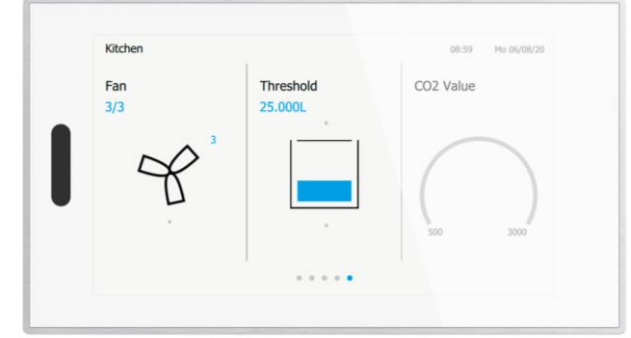
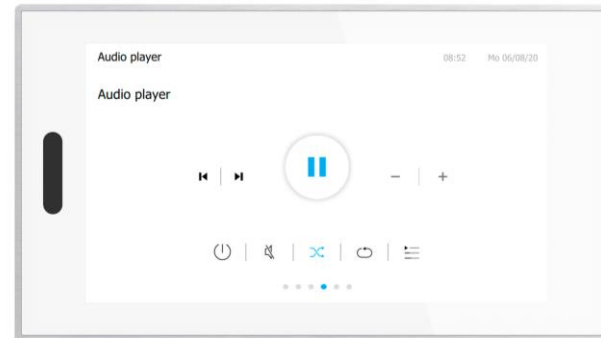
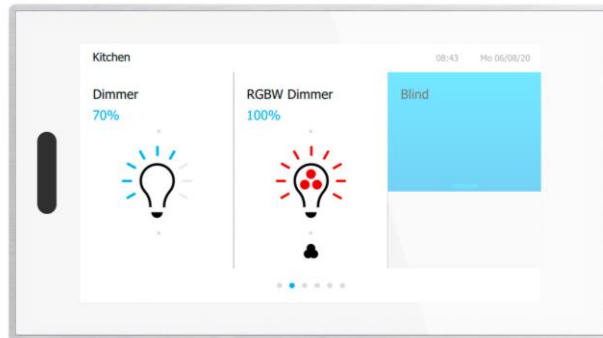
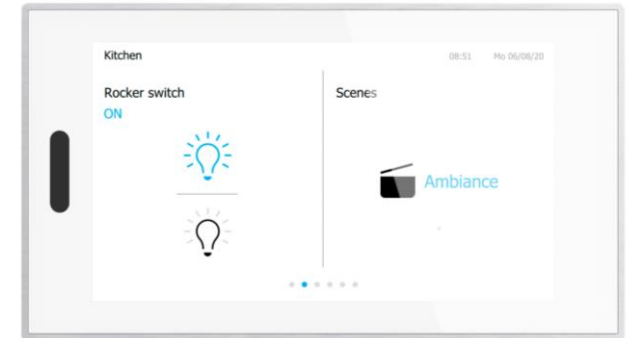


nominated
2020

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Introduction

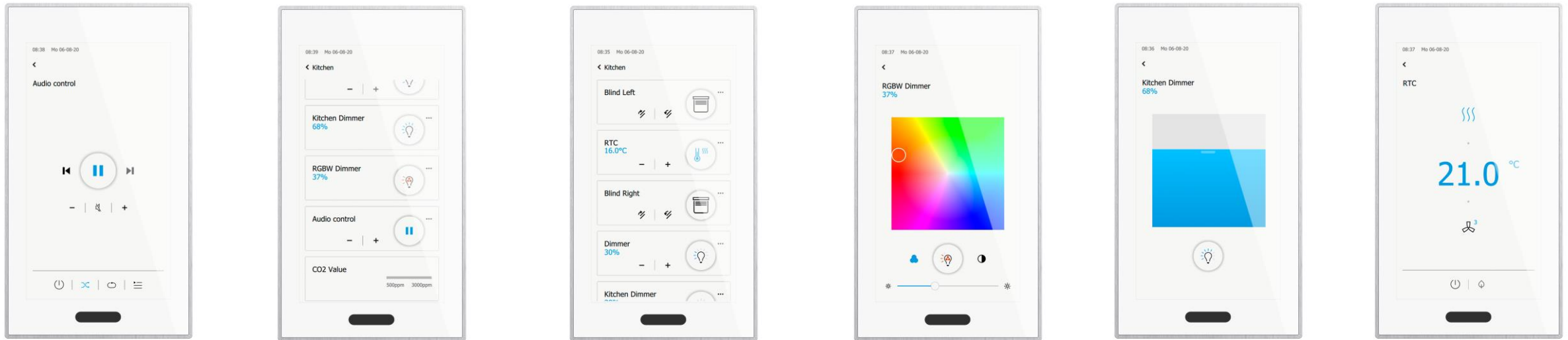
Examples of the UI – light scheme, landscape



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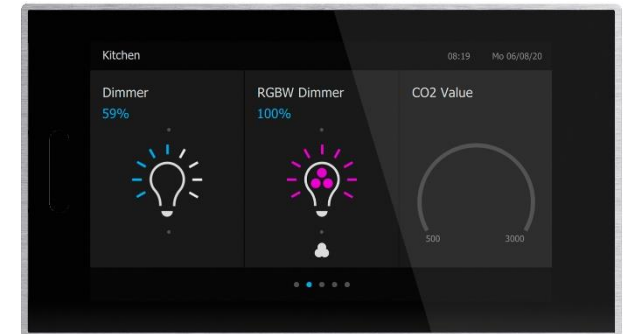
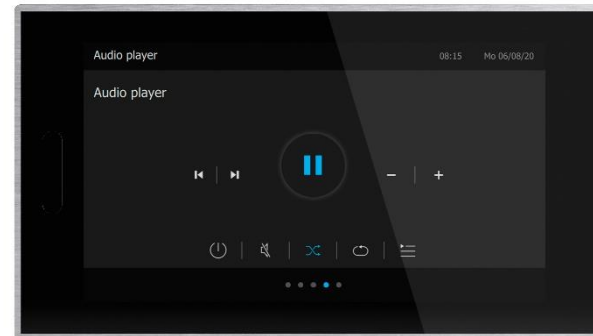
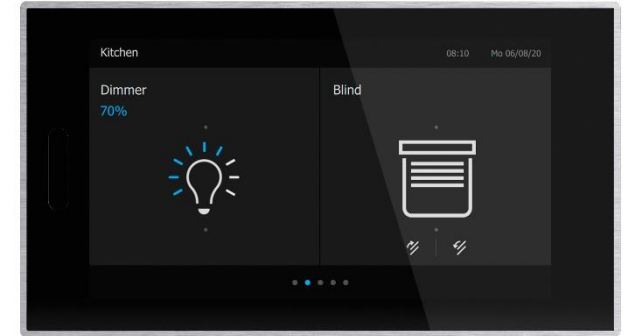
Examples of the UI – light scheme, portrait



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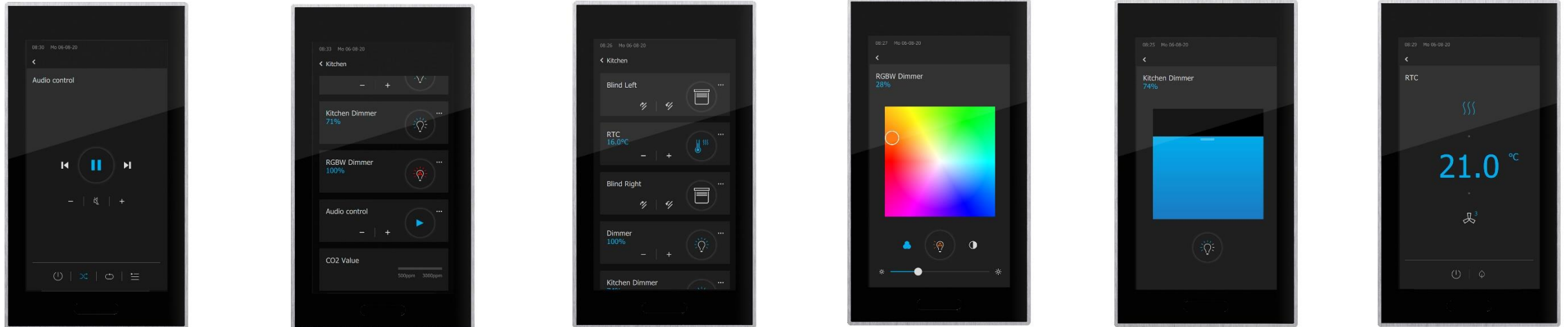
Examples of the UI – dark scheme, landscape



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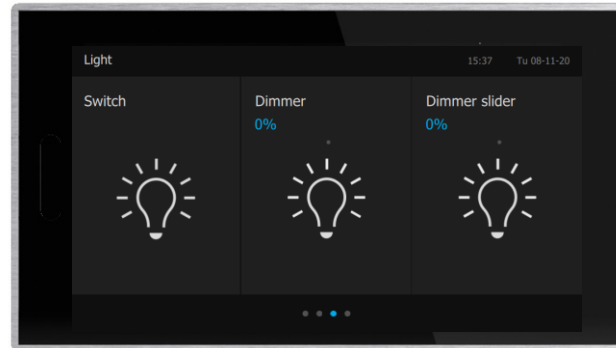
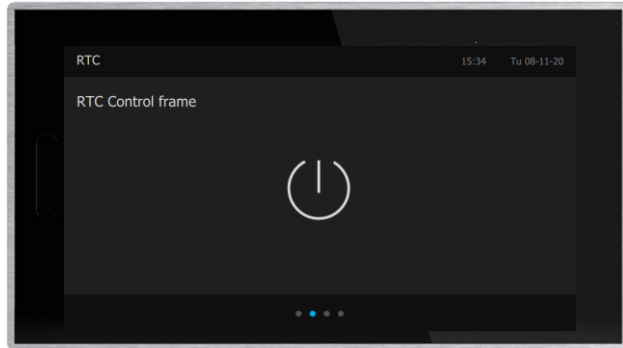
Examples of the UI – dark scheme, portrait



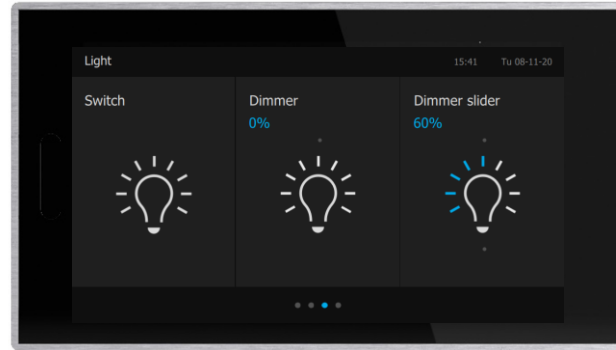
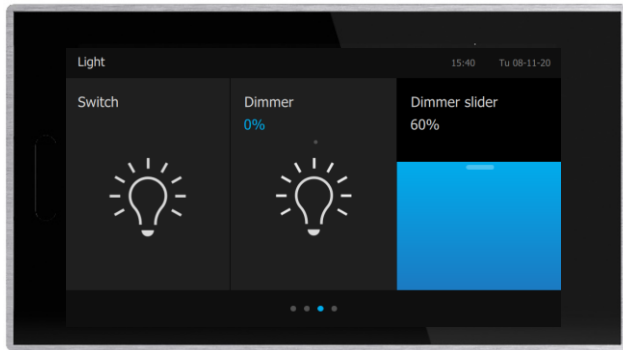
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UX – Operating Concept

Landscape – Navigation and Control



- Navigation via the menu by sliding swiping to the left or right

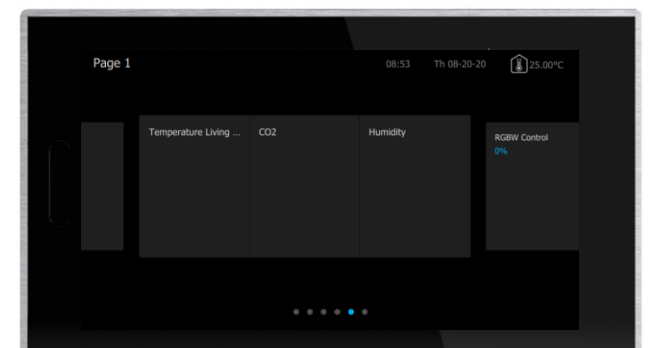
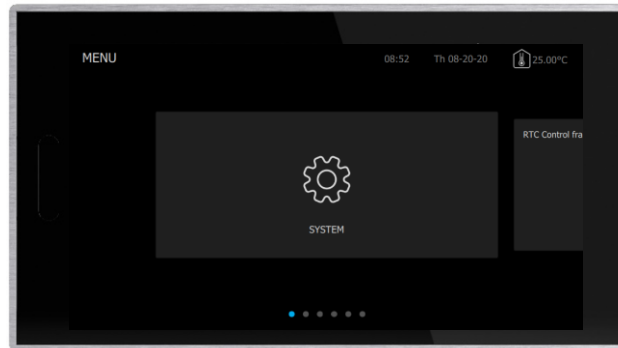
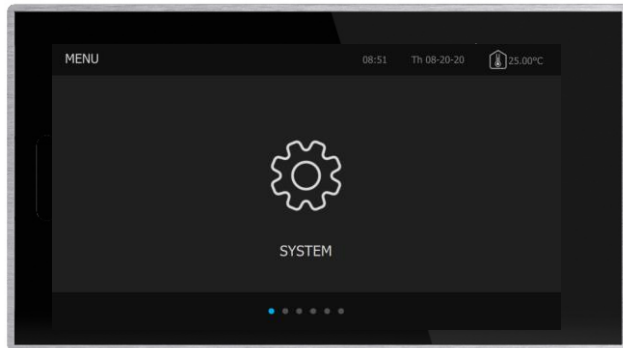


- Dimming up/down a light by swiping the slider to the top/bottom
- Status of the dimmer visible on the icon and with %-value
- On/off by tapping the icon

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UX – Operating Concept

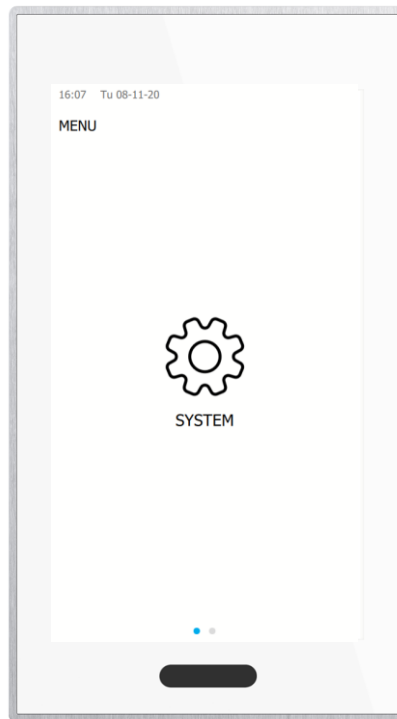
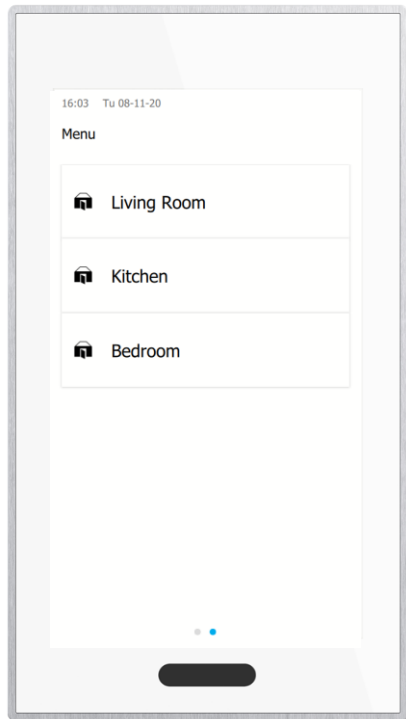
Landscape – Fast Navigation



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UX – Operating Concept

Portrait – Navigation

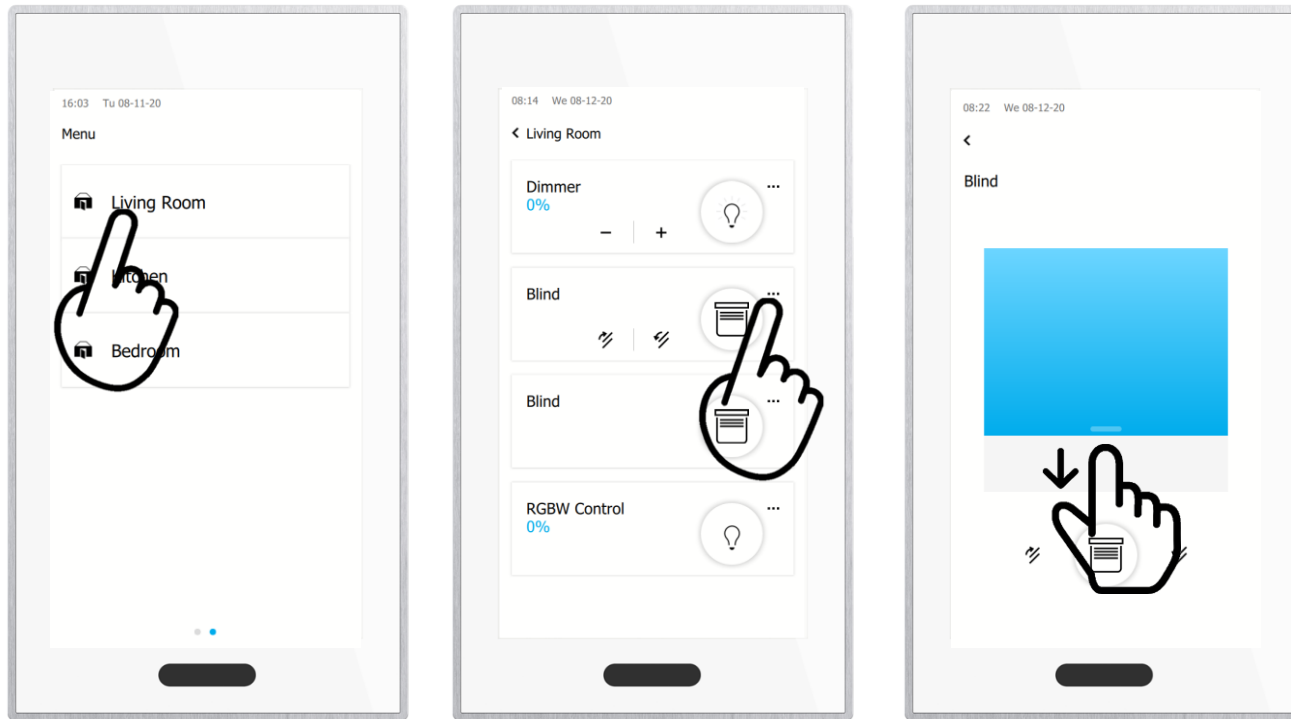


- Navigation via the menu by sliding swiping to the left or right
- All pages are displayed on the “menu” page

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UX – Operating Concept

Portrait – Control



- Navigation to the pages by tapping a page and using the “back” arrow on the top left side
- Control by tapping the icon on the page (on/off) or entering the detailed settings with the three dots and using the “swiping” method

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Commissioning with DCA

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Commissioning with DCA

Overview DCA Tool – Preperation

- The ABB RoomTouch® is commissioned with the “ABB/BJE Touch DCA” (device configuration app)
- DCA tool must be downloaded on <https://my.knx.org/de/shop/ets-apps> and activated in the ETS5
- All settings, parameters and group addresses will be adjusted in the DCA tool

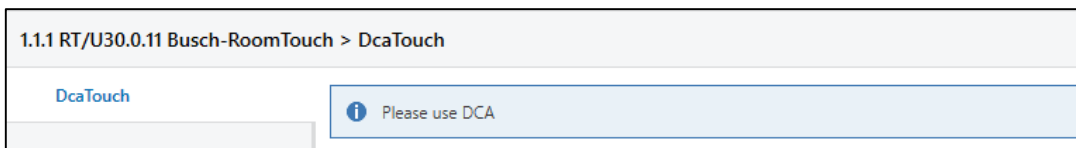
Apps  					10 active / 18 installed	
	Name	Vendor	Version	License		
	 ABB IoT Dashboard ETS App	ABB	1.0.2.0			
	 ABB KNX Bus Update	ABB	1.0.37.0			
	 ABB SUG/U1.1 Configuration App	ABB	1.0.23.0			
	 ABB Touch DCA	ABB	1.0.136.0			

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Commissioning with DCA

Overview DCA Tool – Get started

- After successful installation of the DCA tool the ABB RoomTouch can be added to the ETS project
- Tool will start by clicking on the tab “DCA”
- In the parameters no settings can be done



Topology Backbone	Number	Name	Object Function	Description	Group	Length	C	R	W	T	U	Data Type	Priority
Dynamic Folders	13	Block all timeprograms	input			1 bit	C	-	W	-	U	enable	Low
1 Area 1	14	Activate vacation	input			1 bit	C	-	W	-	U	start/stop	Low
1.1 Line 1	15	Status vacation	output			1 bit	C	-	W	T	U	start/stop	Low
1.1.1 RT/U30.0.11 Busch-RoomTouch	18	Display brightness	input			1 byte	C	-	W	-	U	percentag...	Low
	19	Backlight on/off	input			1 bit	C	-	W	-	U	switch	Low
1.1.2 SA/S4.16.6.1 Switch Actuator,4-fold,16...	10	Backlight status	output			1 bit	C	-	-	T	-	switch	Low
1.1.3 UD/S2.300.2 Universal Dim Act,2-fold,...	13	Screensaver on/off	input			1 bit	C	-	W	-	U	switch	Low
1.1.4 6127/02 c. elem., solo® conf. 4gang, f...	14	Screensaver status	output			1 bit	C	-	-	T	-	switch	Low
1.1.5 6127/02 c. elem., solo® conf. 4gang, f...	24	Primary Function	output			1 bit	C	-	W	T	U	switch	Low
1.1.6 SBC/U6.0 HVAC/CO2 device, 6gang BE	25	Temperature Unit selection	input			1 bit	C	-	W	-	U	switch	Low
1.1.7 RT/U30.0.11 Busch-RoomTouch	27	Outdoor temperature	input			2 bytes	C	-	W	-	U	temperatu...	Low
	29	In operation	output			1 bit	C	-	-	T	-	switch	Low

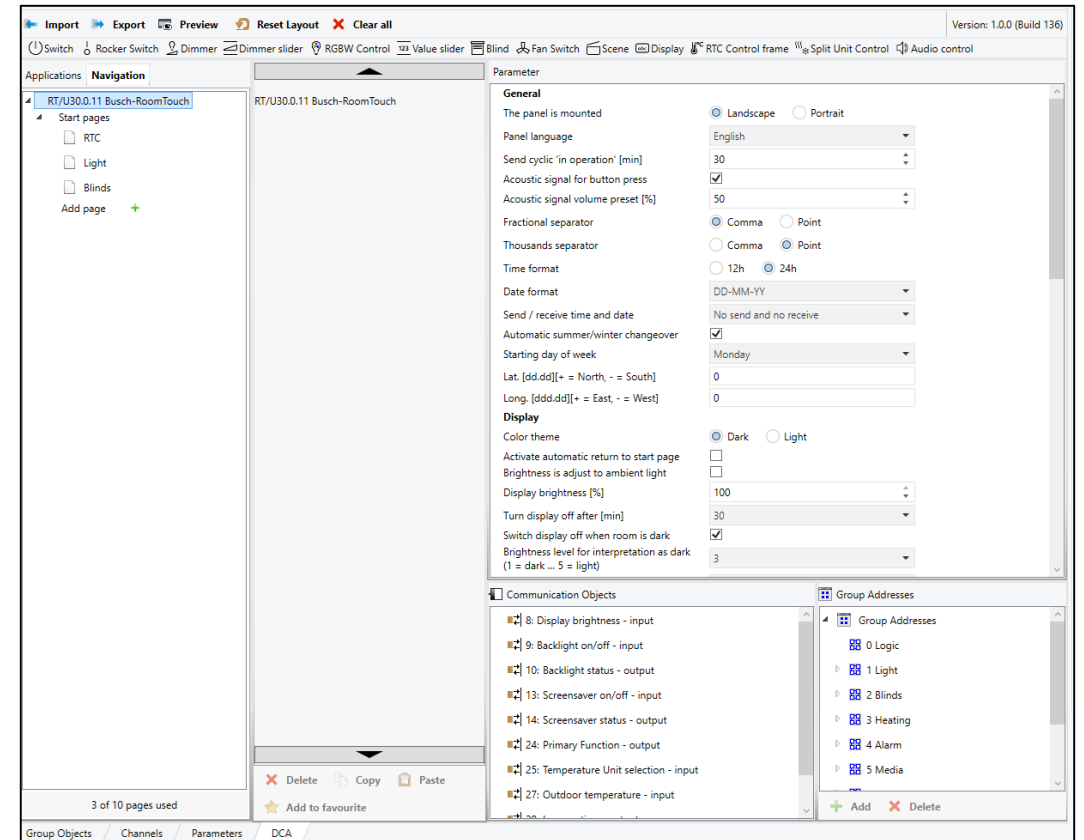
Group Objects Channels Parameters **DCA**

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Commissioning with DCA

Overview DCA Tool – General setup

- The working area is separated into 5 blocks
 - Application/Navigation – internal functions and pages
 - Pages – setup of the control elements
 - Parameter
 - Communication Objects
 - Group Addresses
- Tool bar: All essential functions for the panel
- Hint: While first startup of the DCA tool the landscape/portrait mode must be selected. This can be adjusted in the general parameter of the device later. Configuration will be deleted after change

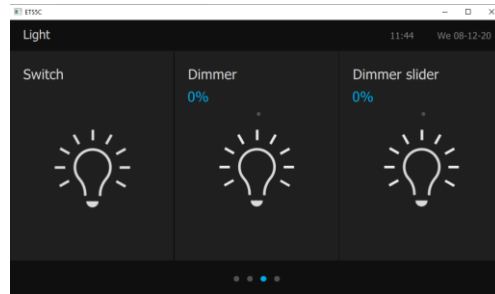


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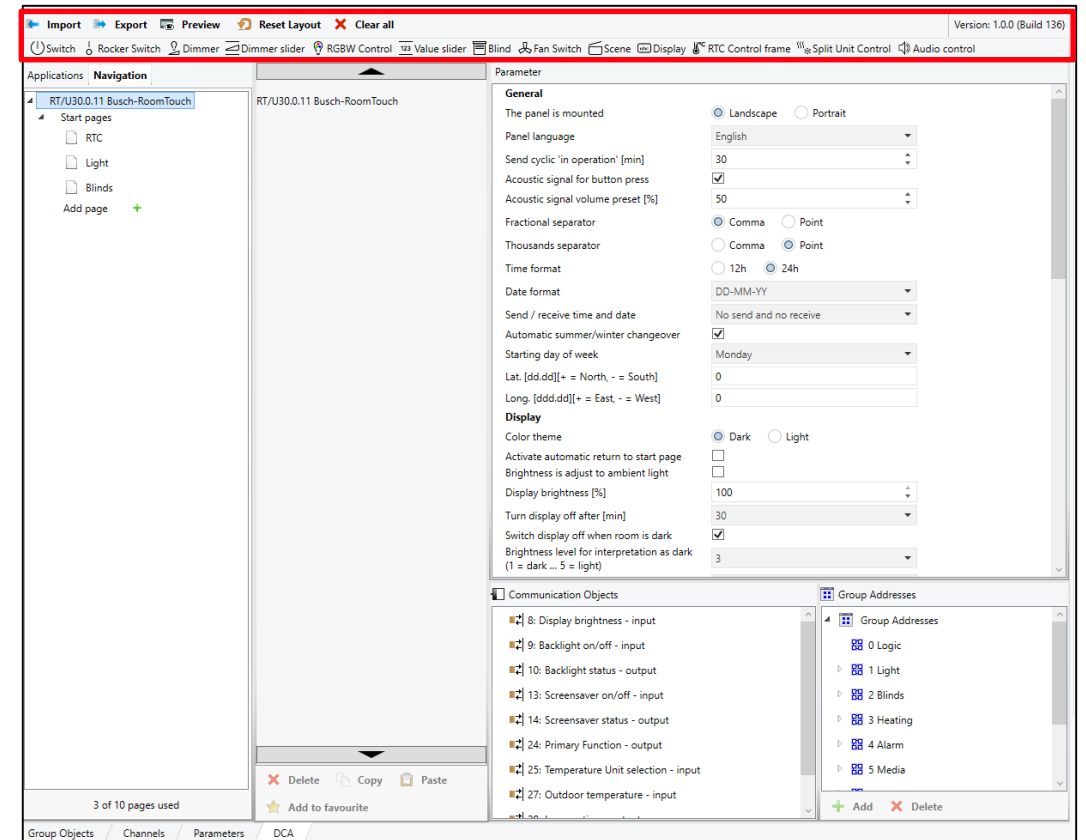
Commissioning with DCA

Overview DCA Tool – Tool Bar

- Import building structure (.stpl-file)
- Export
 - .pid-file: to import configuration via SD-card
 - .stpl-file: to create backup of the configuration
- Preview:



- Reset Layout: reset layout of the DCA tool
- Clear all: Reset of all functions, pages, parameter, etc.
- 2nd line: all available control elements

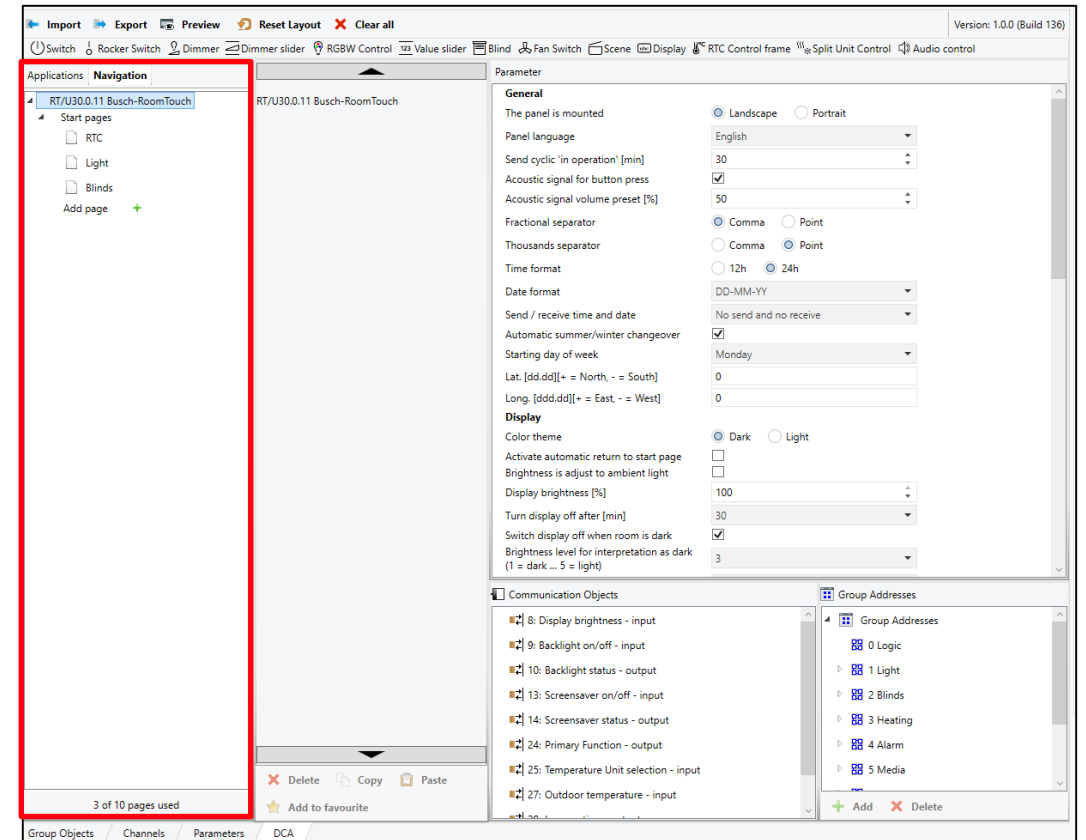


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Commissioning with DCA

Overview DCA Tool – Application/Navigation

- Application:
 - System settings
 - Activation of inputs
 - Fault and alarm messages
 - Scenes, time programs, logic functions
 - RTC
 - Favorites
- Navigation:
 - Creation of pages
 - Overview of used pages and control elements (only portrait mode)

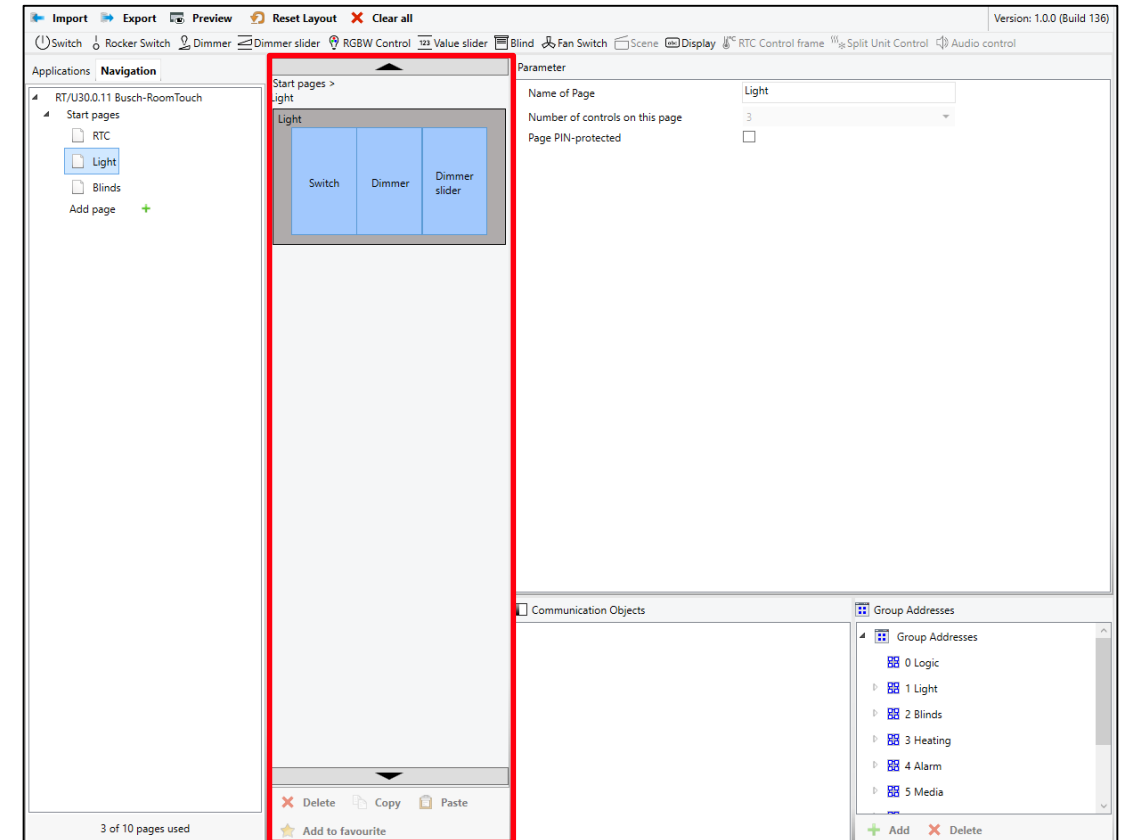


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Commissioning with DCA

Overview DCA Tool – Pages

- Setup for each page
- Control elements can be dragged from the task bar to the field of the page
- Each added control element can be deleted, copied or add to the favorites
- Copied control elements can be pasted on an empty spot

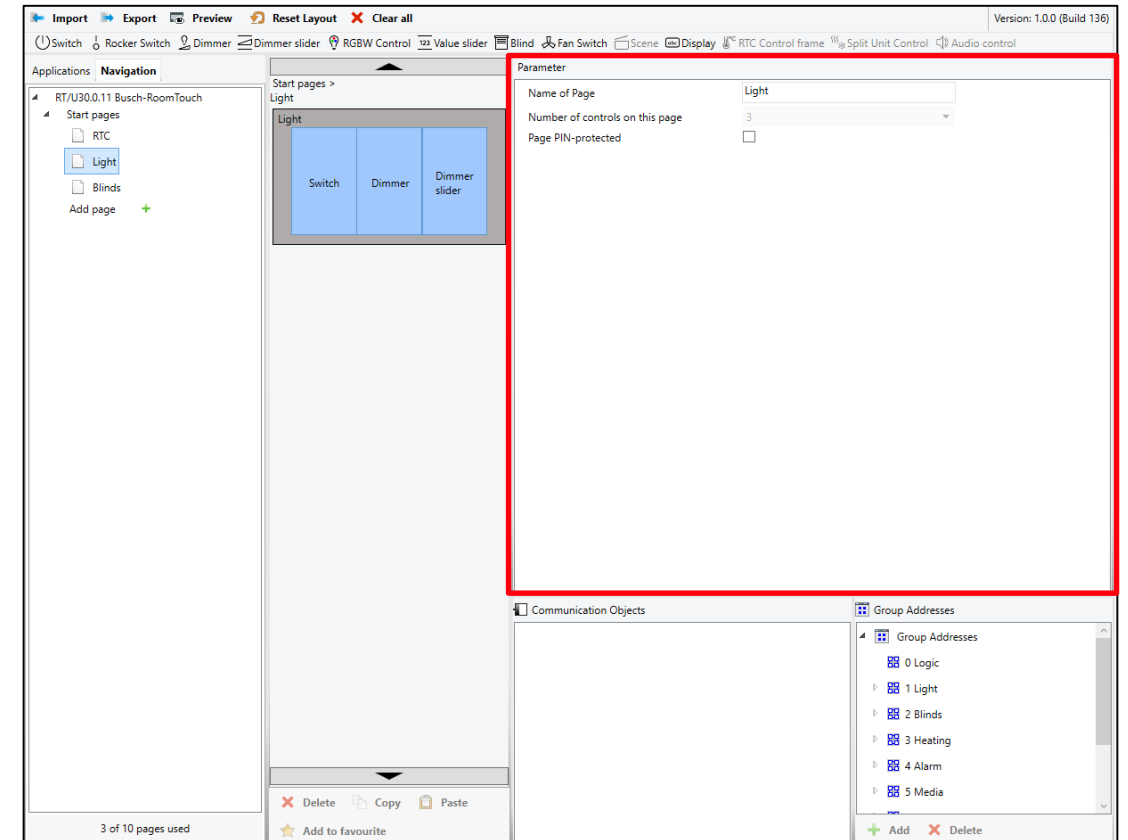


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Commissioning with DCA

Overview DCA Tool – Parameter

- General parameter for the panel itself, all pages and control elements
- Can only be adjusted in the DCA tool

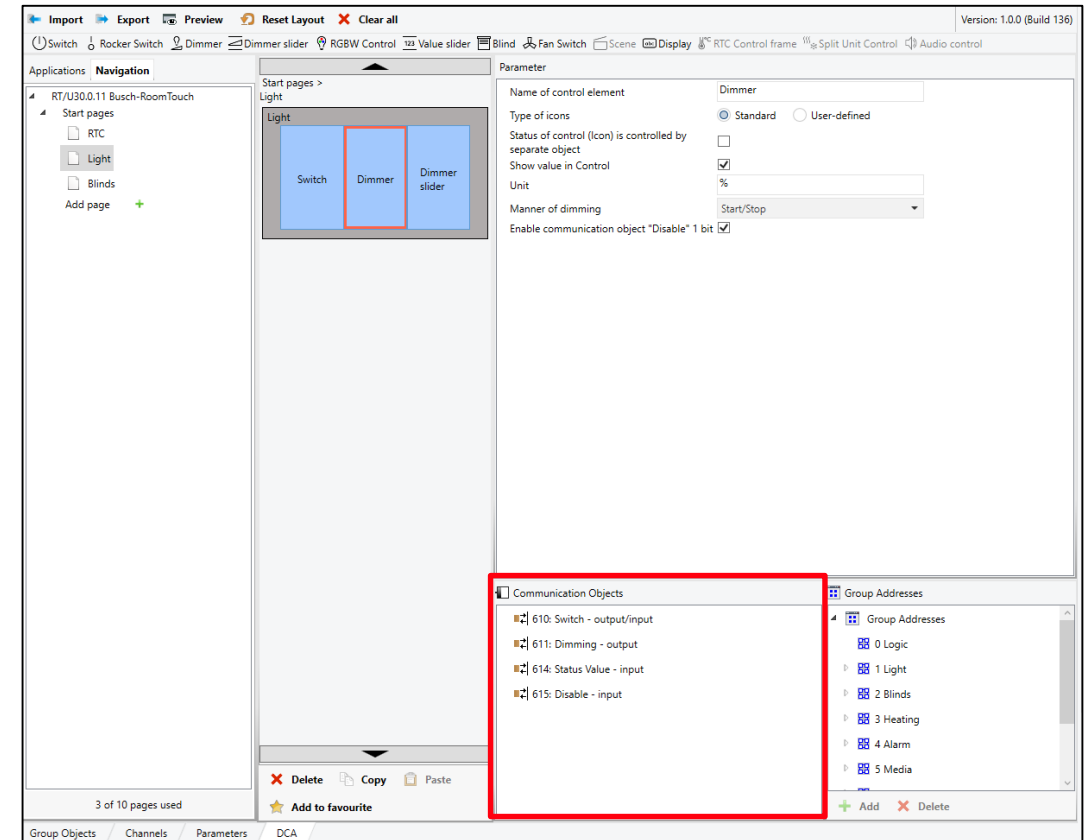


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Commissioning with DCA

Overview DCA Tool – Communication objects

- All available communication objects for the selected control element
- Can be linked also via the tab “Group Objects”

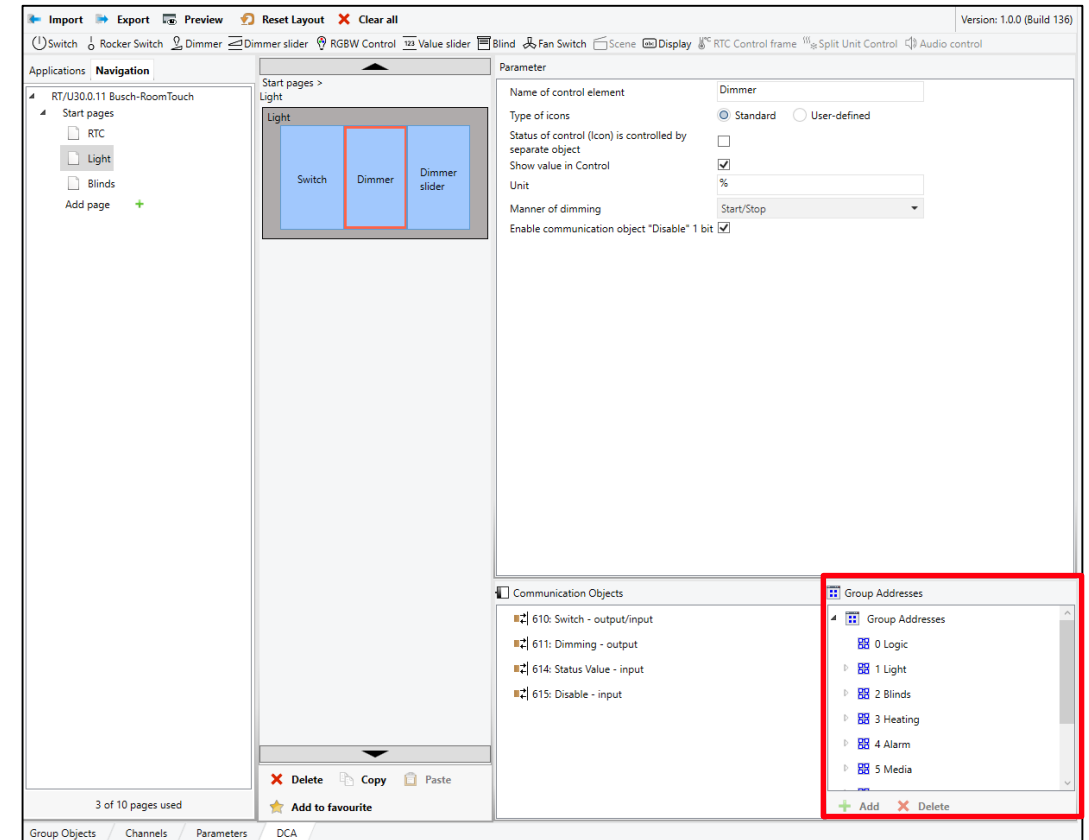


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Commissioning with DCA

Overview DCA Tool – Communication objects

- All available group addresses in the project
- To link the communication objects with the group addresses
- New group addresses can be created here
- Can be linked also via the tab “Group Objects”



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Commissioning with DCA

System settings – General

- General settings for the panel
- Landscape/Portrait (configuration will be deleted when changed)
- Language (18 different languages available)
- Send cyclic “In operation”
- Acoustic signal
- Separator
- Time/Date settings
- Geo data

Applications Navigation or Applications Navigation

System settings RT/U30.0.11 Busch-RoomTouch

Parameter

General

The panel is mounted	<input checked="" type="radio"/> Landscape <input type="radio"/> Portrait
Panel language	English
Send cyclic 'in operation' [min]	30
Acoustic signal for button press	<input checked="" type="checkbox"/>
Acoustic signal volume preset [%]	50
Fractional separator	<input checked="" type="radio"/> Comma <input type="radio"/> Point
Thousands separator	<input type="radio"/> Comma <input checked="" type="radio"/> Point
Time format	<input type="radio"/> 12h <input checked="" type="radio"/> 24h
Date format	DD-MM-YY
Send / receive time and date	No send and no receive
Automatic summer/winter changeover	<input checked="" type="checkbox"/>
Starting day of week	Monday
Lat. [dd.dd][+ = North, - = South]	0
Long. [ddd.dd][+ = East, - = West]	0

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Commissioning with DCA

System settings – Display

- Color theme: Dark/Light
 - Light color theme can be automatically switched to dark depending on the brightness
 - Measured with the internal sensor
- Automatic return to start point (after 10-3600 seconds)
- Display brightness can be adjusted via communication object or in the parameters
- Display can be switched off, when the room is dark
 - Interpretation for “dark” can be adjusted from 1 to 5
 - Minimum minutes for switch off in status dark (1/2/5/10)

Parameter	
Display	
Color theme	<input checked="" type="radio"/> Dark <input type="radio"/> Light
Activate automatic return to start page	<input type="checkbox"/>
Brightness is adjust to ambient light	<input type="checkbox"/>
Display brightness [%]	100
Turn display off after [min]	30
Switch display off when room is dark	<input checked="" type="checkbox"/>
Brightness level for interpretation as dark (1 = dark ... 5 = light)	3
Switch off after [min] dark	1

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Commissioning with DCA

System settings – Proximity, Haptic feedback and Screensaver

- Proximity sensor:
 - Display will be switched on as soon as the proximity sensor detects movement
 - Sensitivity can be adjusted
 - 1-bit output can be used, if proximity sensor is activated
 - 1 = on → proximity function activated
 - 0 = off → when display is switched off
- Haptic feedback and screensaver settings can be adjusted in the parameters or in the device settings

Parameter	
Proximity sensor	
Use proximity to switch the display on	<input checked="" type="checkbox"/>
Sensitivity of the proximity function (1 = nearby ... 3 = max. distance)	3
Use 1-bit output object from proximity function	<input type="checkbox"/>
Enable communication object "Disable Proximity" 1 bit	<input type="checkbox"/>
Haptic feedback	
Sensitivity of the haptic feedback	Middle
Screensaver	
Show screensaver [min]	10
Screensaver mode	Clock
Clock type	<input checked="" type="radio"/> Analog <input type="radio"/> Digital
Show seconds	<input checked="" type="checkbox"/>

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Commissioning with DCA

System settings – Starting page and Primary function

- Information starting page
 - Displayed, as soon as proximity sensor is activated
 - Will be displayed only one time (reactivation needed)
 - Up to 4 lines can be used
 - Will be displayed, if the screensaver is active
 - Static text or 14-byte object
- Primary function
 - Can be activated by touching the panel with at least 3 fingers
 - 1-bit / 1-byte / scene / RTC operation mode

Parameter	
Information starting page	
Use information starting page	<input checked="" type="checkbox"/>
Use line 1	No
Use line 2	No
Use line 3	No
Use line 4	No
Primary function	
Use Primary function	<input checked="" type="checkbox"/>
Icon for Primary function	Lightbulb icon
Object type	1 bit
Reaction on press	Value 1
Reaction on release	Inactive
Value 1	<input type="radio"/> Off <input checked="" type="radio"/> On

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Commissioning with DCA

System settings – Temperature and Security

- Internal temperature sensor
 - Switchover between °C and °F
 - Show temperature on RoomTouch yes/no
 - Internal measured temperature can be sent
- Security
 - Security options for settings and pages
 - PIN-Codes 4,5 or 6 digits
 - One code for system settings
 - 3 different levels available
 - PIN-code level can be adjusted for each page
 - Example:

Page PIN-protected	<input checked="" type="checkbox"/>
PIN-code level	<div>Level 1</div> <div>Level 1</div> <div>Level 2</div> <div>Level 3</div>

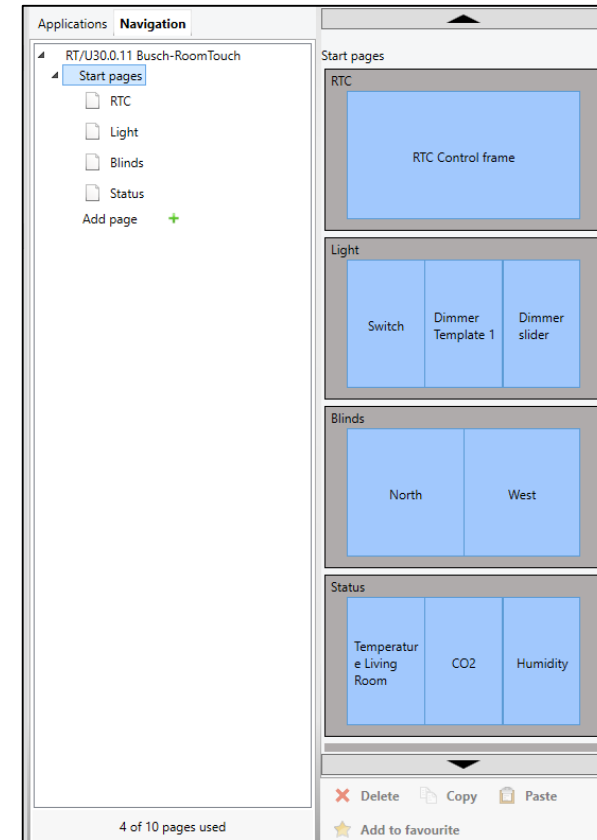
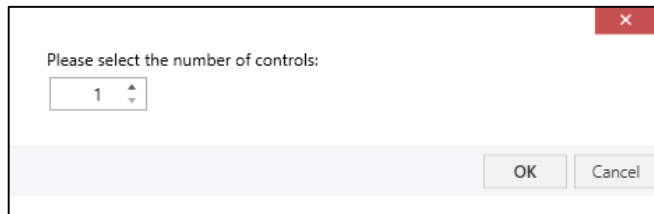
Parameter	
Temperature	
Temperature unit	<input checked="" type="radio"/> °C <input type="radio"/> °F
Show room temperature	<input type="checkbox"/>
Show outdoor temperature	<input type="checkbox"/>
For room temperature sensor use	<input checked="" type="radio"/> Internal sensor <input type="radio"/> External sensor
Offset for temperature measurement (x 0,1K) [K]	<div>0</div>
Send internal sensor temperature	<div>Do not send</div>
Security	
Length of PIN-Code	<div>4 digits</div>
PIN-Codes can be changed by end customer	<input checked="" type="checkbox"/>
Enable system settings for end customer	<input checked="" type="radio"/> Yes <input type="radio"/> With code
Code for system settings [0000..9999]	<div>0000</div>
PIN-Code Level 1	<div>1111</div>
PIN-Code Level 2	<div>2222</div>
PIN-Code Level 3	<div>3333</div>

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Commissioning with DCA

Pages and Functions – New pages

- All pages and their functions are displayed in the “Navigation” tab
- New pages can be created by clicking on the plus icon next to “Add page”
 - Maximum 10 pages in horizontal mode
 - Maximum 6 pages in portrait mode
- The new page will be displayed in the list
- With the first click on the new page, the amount of controls has to be defined (only for horizontal mode)

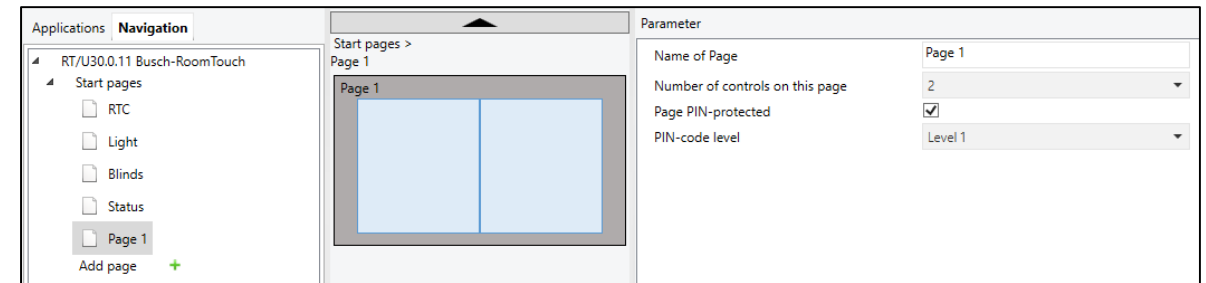


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Pages and Functions – Page settings

- Page settings:
 - Name of Page
 - Number of controls on this page (can be only changed, when page is empty)
 - Maximum 3/10 controls (horizontal/portrait)
 - Page PIN-protected (default: no)
 - PIN-code level: 1, 2 or 3 (see system settings “Security”)
- The order of the pages can be changed by drag and drop
- The first page of the list is the homepage

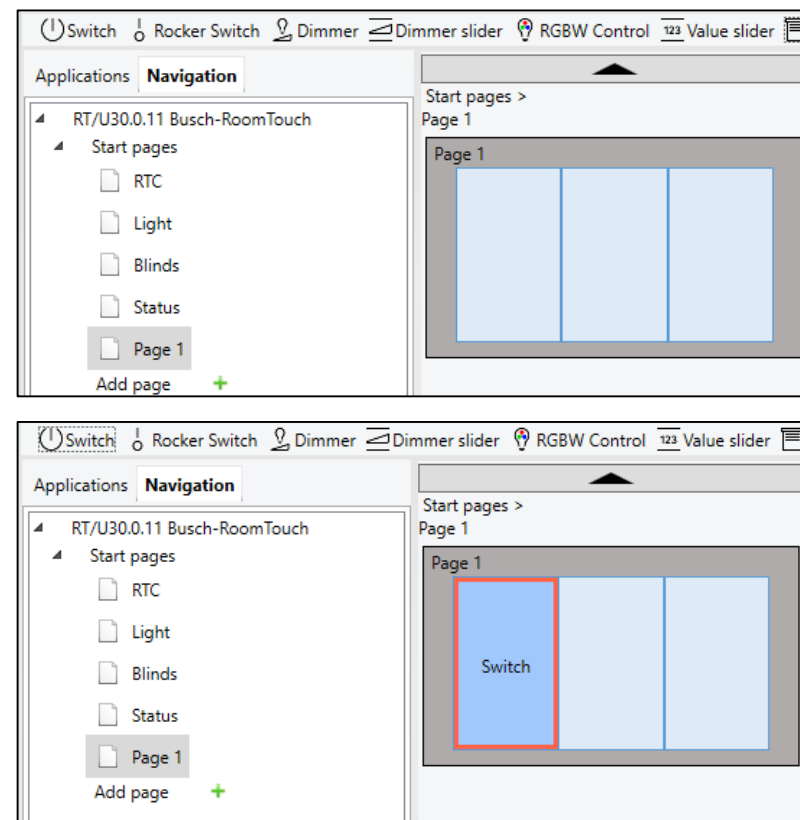
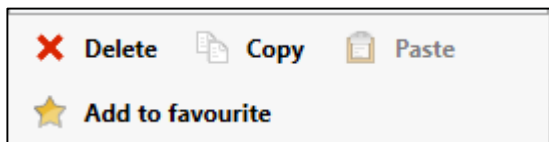


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Commissioning with DCA

Pages and Functions – Adding functions

- New functions can be added to a page by dragging the needed function from the tool bar to a free field of the page
- Available functions: switch, rocker switch, dimmer, dimmer slider, RGBW control, value slider, blinds, fan switch, display (all minimum size 1), scene (minimum size 2), RTC control frame, split unit control, audio control (minimum size 3)
- Each control element can be deleted, copied or add to the favorites, when it is selected



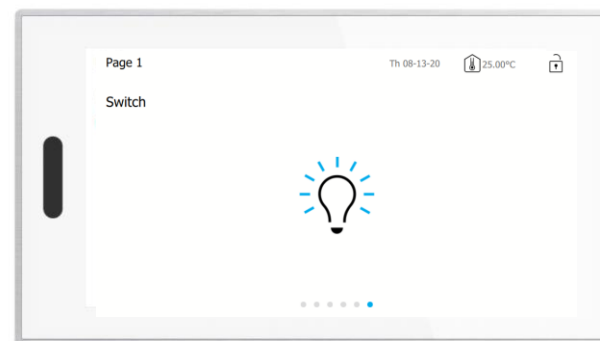
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Pages and Functions – Switch

- Name of control element: will be displayed on the RoomTouch
- Kind of switch:
 - Toggle → switch between 1 and 0 (1-bit)
 - Press/Release → e.g. garage opener: press = 1 / release = 0 (different object types possible)
 - Short/Long → separate function for long and short press (different object types)
- Status can be controlled by separate object
- Icon can be changed
- Alternatively texts can be used instead of icons

The screenshot shows the 'Parameter' configuration window for a 'Switch' control element. The 'Name of control element' is set to 'Switch'. The 'Kind of Switch' is set to 'Toggle'. The 'Status of control (Icon/Text) is controlled by separate object' checkbox is unchecked. The 'Type of Icon' is set to 'Icons'. The 'Icon for On' is a lightbulb icon with rays, and the 'Icon for Off' is a simple lightbulb icon. The 'Enable communication object "Disable" 1 bit' checkbox is unchecked. On the left, a preview shows 'Page 1' with a blue rectangular area labeled 'Switch'.

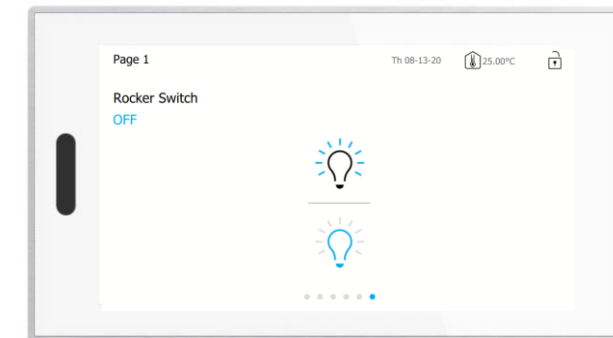
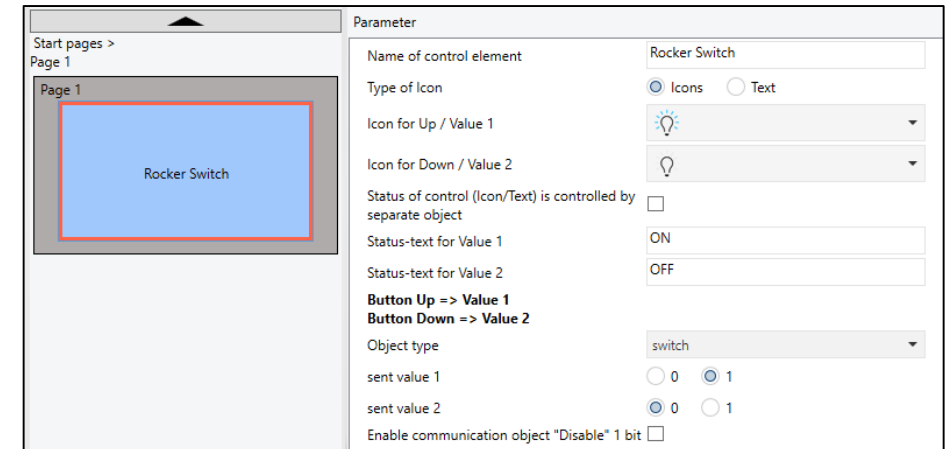
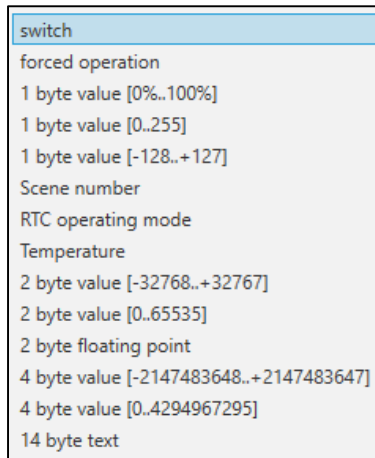


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Pages and Functions – Rocker switch

- “Button up” and “Button down” control element
- Name, icon/text, type of icon and status-text (visable on the top left side) can be adjusted
- Object type can be chosen individually

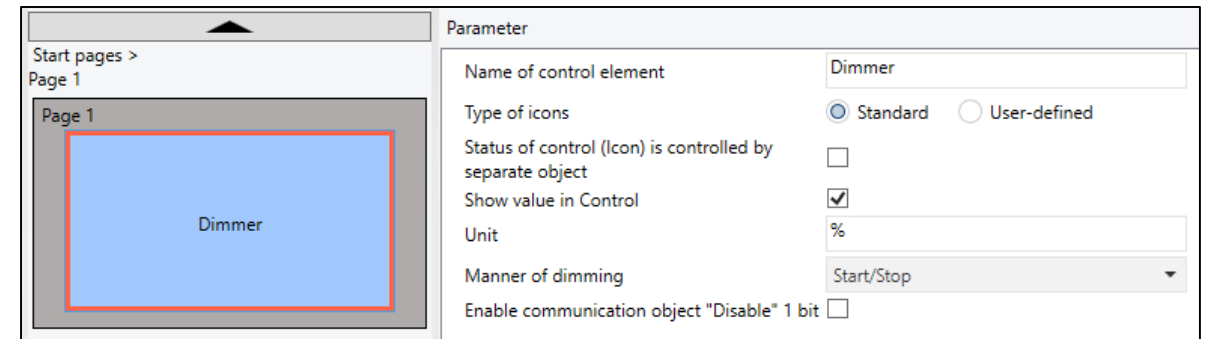


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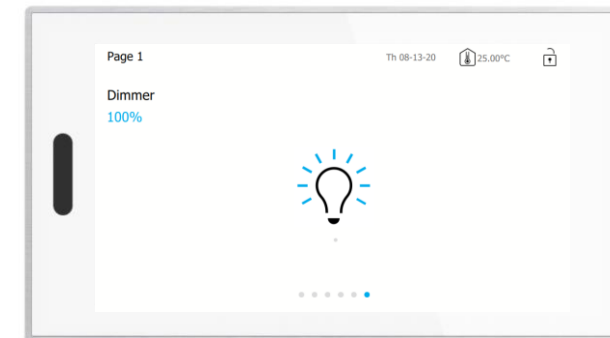
Pages and Functions – Dimmer

- Freely adjustable dimming control element
- Operation similar to push-button/sensor
- Manner of dimming:
 - Start/Stop (4-bit relative dimming)
 - Stepwise (4-bit)
 - Value (1-byte)
- Name, icons and unit can be changed
- Status of control can be controlled by separate object



The screenshot shows the 'Parameter' configuration window for a 'Dimmer' control element. The left pane shows a hierarchy: 'Start pages > Page 1' with a preview of a blue rectangular button labeled 'Dimmer'. The right pane contains the following settings:

Parameter	
Name of control element	Dimmer
Type of icons	<input checked="" type="radio"/> Standard <input type="radio"/> User-defined
Status of control (Icon) is controlled by separate object	<input type="checkbox"/>
Show value in Control	<input checked="" type="checkbox"/>
Unit	%
Manner of dimming	Start/Stop
Enable communication object "Disable" 1 bit	<input type="checkbox"/>



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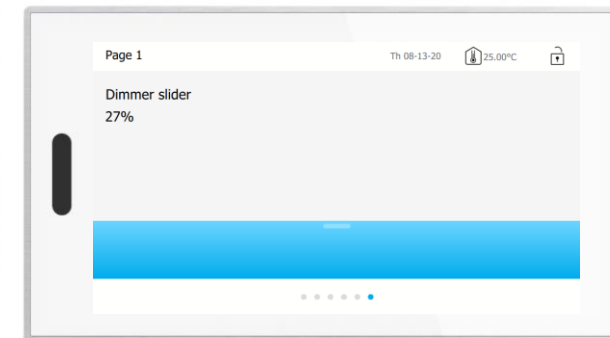
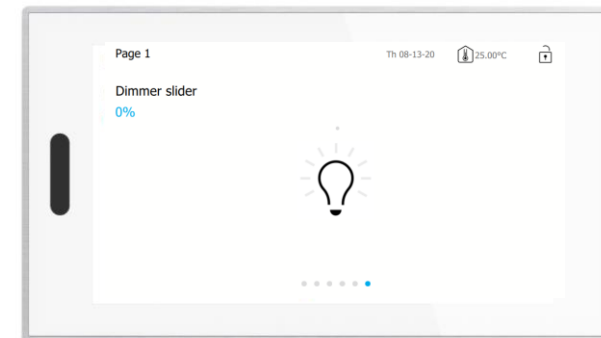
Commissioning with DCA

Pages and Functions – Dimmer slider

- Freely adjustable dimming control element
- Value sender (when released or cyclically)
- Unit can be defined
- Status dim and status icon can be separated

The screenshot shows the configuration window for a 'Dimmer slider' control element. On the left, a preview shows 'Page 1' with a blue rectangular slider control. The right pane, titled 'Parameter', contains the following settings:

Parameter	
Name of control element	Dimmer slider
Type of icons	<input checked="" type="radio"/> Standard <input type="radio"/> User-defined
Status of control (Icon) is controlled by separate object	<input type="checkbox"/>
Show value in Control	<input checked="" type="checkbox"/>
Status dim value is controlled by separate object	<input type="checkbox"/>
Unit	%
Slider sends	<input type="radio"/> When slider is released <input checked="" type="radio"/> cyclically
Brightness change [%]	1
Telegram is repeated every [s]	0.5s
Enable communication object "Disable" 1 bit	<input type="checkbox"/>



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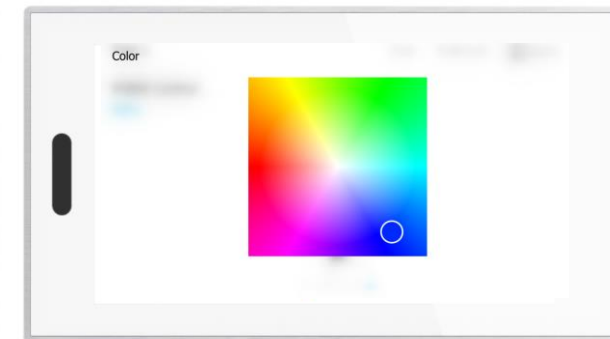
Commissioning with DCA

Pages and Functions – RGBW Control

- Control for RGBW control
 - RGB
 - RGBW
 - RGBW + WW/CW
 - WW/CW
- Advanced settings for each control mode

Communication Objects	
796: Switch - output/input	
798: Value Red - output/input	
799: Value Green - output/input	
800: Value Blue - output/input	
801: Value RGB [3 byte] - output/input	
803: Value Cold White - output/input	
804: Value Warm White - output/input	

Start pages > Page 1	Parameter
Page 1	Name of control element RGBW Control
RGBW Control	Show value in Control <input checked="" type="checkbox"/>
	Type of Color/White lamp RGB
	Switching On/Off via <input checked="" type="radio"/> Switch object <input type="radio"/> RGB Feedback
	Brightness change [%] 1
	Telegram is repeated every [s] 0.5s
	Switched on -> preset value <input type="checkbox"/>
	Switched off -> RGB value 0,0,0 <input type="checkbox"/>
	Enable communication object "Disable" 1 bit <input type="checkbox"/>



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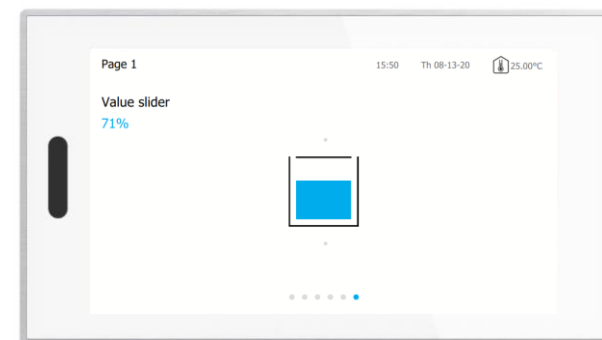
Pages and Functions – Value slider

- Value slider for 1/2/4-byte objects

1 byte value [0..100%]
1 byte value [0..255]
1 byte value [-128..+127]
2 byte value [0..65535]
2 byte value [-32768..+32767]
2 byte floating point
4 byte value [0..4294967295]
4 byte value [-2147483648..+2147483647]
4 byte floating point

- Minimum and maximum value must be defined
- Controlled by swiping up and down

Parameter	
Name of control element	Value slider
Show value in Control	<input checked="" type="checkbox"/>
Status value is controlled by separate object	<input checked="" type="checkbox"/>
Unit	%
Decimal places	0
Slider sends	<input type="radio"/> When slider is released <input checked="" type="radio"/> cyclically
Telegram is repeated every [s]	0.5s
Object type	1 byte value [0..100%]
Value change [%]	1
Minimum object value	0
Maximum object value	100
Minimum displayed value	0
Maximum displayed value	100
Enable communication object "Disable" 1 bit	<input type="checkbox"/>



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Commissioning with DCA

Pages and Functions – Blinds

- Predefined icons for blinds, shutter, marquee and hang
- Slat adjustment can be turned off

The screenshot shows the configuration window for a 'Blind' control element. On the left, a preview shows 'Page 1' with a blue rectangular area labeled 'Blind'. The right side, titled 'Parameter', contains the following settings:

- Name of control element: Blind
- Type of control: ☒ With Slat adjustment ☐ Without Slat adjustment
- Use 1 byte positioning: ☒
- Type of icons: Blind Animation
- Position for Slat Up icon: ☒ Left ☐ Right
- Icon for Up / Open: [Icon]
- Icon for Down / Close: [Icon]
- Status of control (Icon) is controlled by separate object: ☐
- Telegram "Slat adjustment" is repeated every: 0.4 s
- Enable communication object "Disable" 1 bit: ☐



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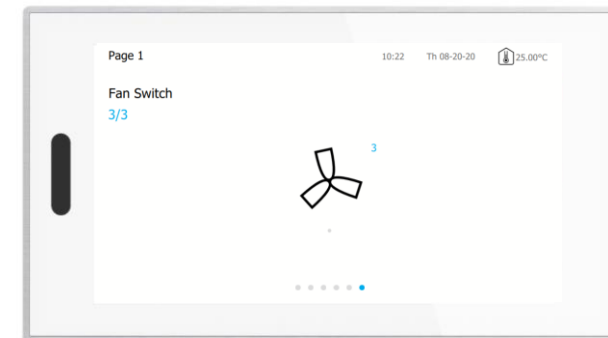
Commissioning with DCA

Pages and Functions – Fan Switch

- Number of steps can be adjusted (1-8)
- Object type can be 1-bit or 1-byte
- Value for each step can be adjusted (1-byte → 0 – 255)
- Separated communication objects for 1-bit operation
- 1-bit switch pattern:
 - 1 of n
 - X of n
 - Gray-code

The screenshot shows the configuration window for a 'Fan Switch' in the ABB RoomTouch DCA software. The left pane shows 'Page 1' with a blue 'Fan Switch' icon. The right pane, titled 'Parameter', contains the following settings:

Parameter	Value
Name of control element	Fan Switch
Disable Off control	<input type="checkbox"/>
Type of icons	<input checked="" type="radio"/> Standard <input type="radio"/> User-defined
Telegram is repeated every [s]	0.5s
Number of steps	3
Object type	<input type="radio"/> 1 bit [0/1] <input checked="" type="radio"/> 1 byte unsigned [0..255]
Value Off	0
Value step 1	1
Value step 2	2
Value step 3	3
Display Status	Default
Text Out of range	Fault
Enable communication object "Disable" 1 bit	<input type="checkbox"/>



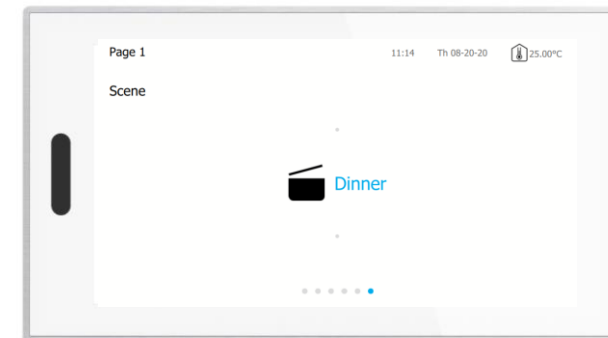
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Pages and Functions – Scene

- Up to 10 Scenes in one control element
- Easy adjustment of each scene (name, scene number)
- Scenes can be stored/overwritten by long press

Parameter	
Name of control element	Scene
Start the scene as it is selected	<input checked="" type="checkbox"/>
Long operation after ...	0.6 s
Number of scenes [1..10]	1
Scene number 1 [1..64]	1
Name of scene 1	<Scene 1>
Store scene 1 by long press	<input type="checkbox"/>
Enable communication object "Disable" 1 bit	<input type="checkbox"/>

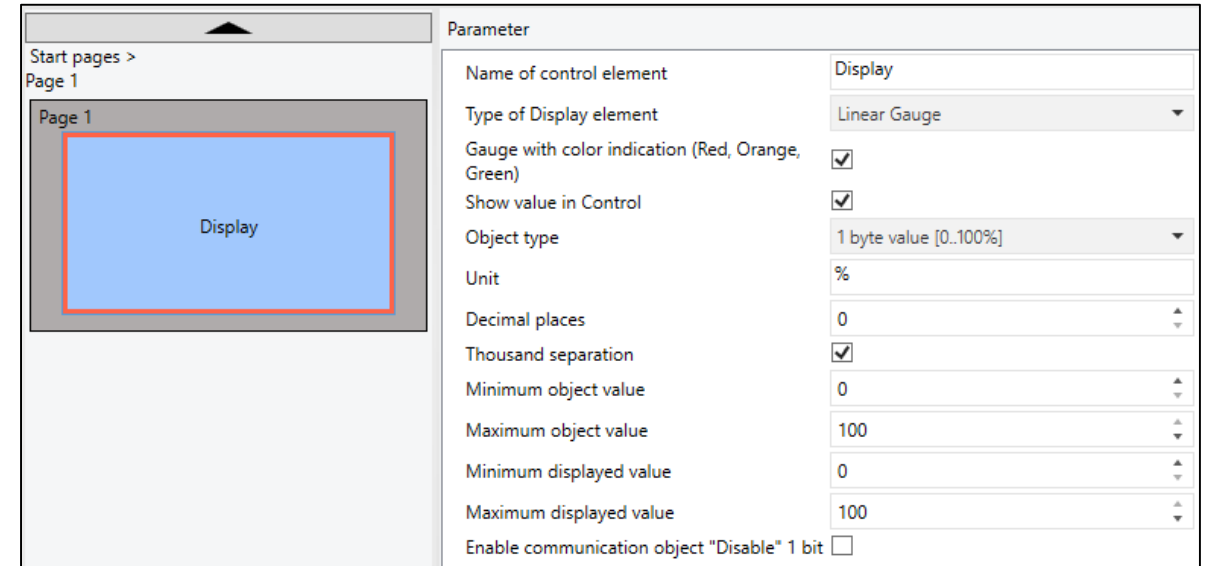


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Commissioning with DCA

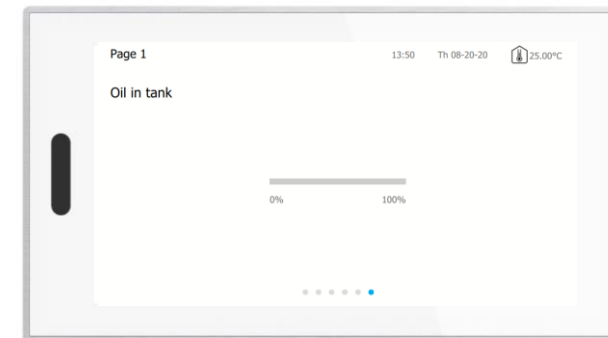
Pages and Functions – Display

- Display different values like energy data, temperature, CO2, ppm,...
- 13 different display types
 - 9 predefined types
 - 4 types, which can be adjusted individually
- Display of energy data with 4-byte object possible
- Can be used for many different applications



The screenshot shows the configuration interface for a 'Display' element. On the left, a preview of 'Page 1' shows a blue rectangular area labeled 'Display'. On the right, the 'Parameter' table lists the following settings:

Parameter	
Name of control element	Display
Type of Display element	Linear Gauge
Gauge with color indication (Red, Orange, Green)	<input checked="" type="checkbox"/>
Show value in Control	<input checked="" type="checkbox"/>
Object type	1 byte value [0..100%]
Unit	%
Decimal places	0
Thousand separation	<input checked="" type="checkbox"/>
Minimum object value	0
Maximum object value	100
Minimum displayed value	0
Maximum displayed value	100
Enable communication object "Disable" 1 bit	<input type="checkbox"/>

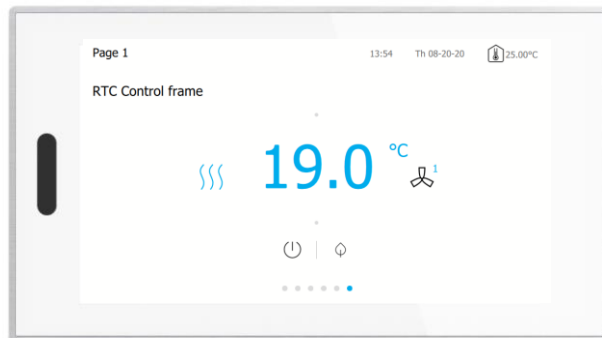


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Commissioning with DCA

Pages and Functions – RTC Control Frame

- Unified RTC 2.0
- Slave control element
- Comprehensive settings for display and function of the RTC control frame



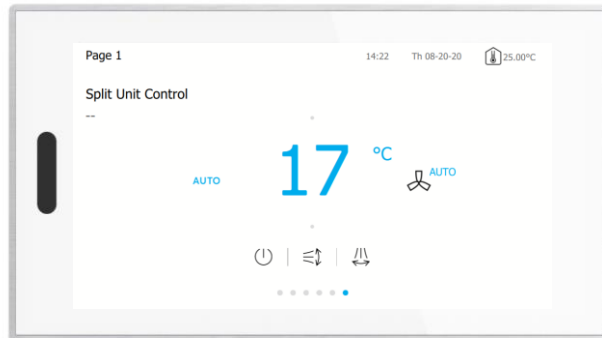
Parameter	
General	
Name of control element	RTC Control frame
Additional functions/objects	<input type="checkbox"/>
Operating functions	
Show actual temperature value	<input type="checkbox"/>
Display indicates	<input checked="" type="radio"/> Actual setpoint <input type="radio"/> Relative setpoint
Hide temperature unit	<input type="checkbox"/>
Temperature unit	<input checked="" type="radio"/> °C <input type="radio"/> °F
Adjusting the temperature unit via object	<input type="checkbox"/>
Switchover heating/cooling	<input checked="" type="checkbox"/>
Fan coil control during heating mode	<input checked="" type="checkbox"/>
Fan coil control during cooling mode	<input checked="" type="checkbox"/>
Changing setpoint	
Step size of setpoint adjustment	0.5 °C
Setpoint adjustment master/slave via communication object	Absolute temperature value
Master uses "Summer compensation"	<input type="checkbox"/>
Enable communication object "Disable" 1 bit	<input type="checkbox"/>
Fan Coil settings	
Number of fan devices	<input checked="" type="radio"/> Heating/cooling via one system <input type="radio"/> Heating/cooling via two systems
Fan speed data format Master-Slave	<input type="radio"/> Counter values (e.g. 0 - 5) <input checked="" type="radio"/> Percentage values
Fan speed levels	
Number of fan speeds	3 speeds
Lowest manually adjustable fan speed level	<input type="radio"/> Speed 0 <input checked="" type="radio"/> Speed 1
Fan coil settings	
Step values	<input checked="" type="radio"/> According to standard values table <input type="radio"/> Specify single

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Commissioning with DCA

Pages and Functions – Split Unit Control

- Easy to use and commission control element for Split Units
- Configuration by choosing the supported functions of the split unit
- Setpoint can be adjusted
- Additional features like silent mode, boost, forced operation, etc. can be controlled



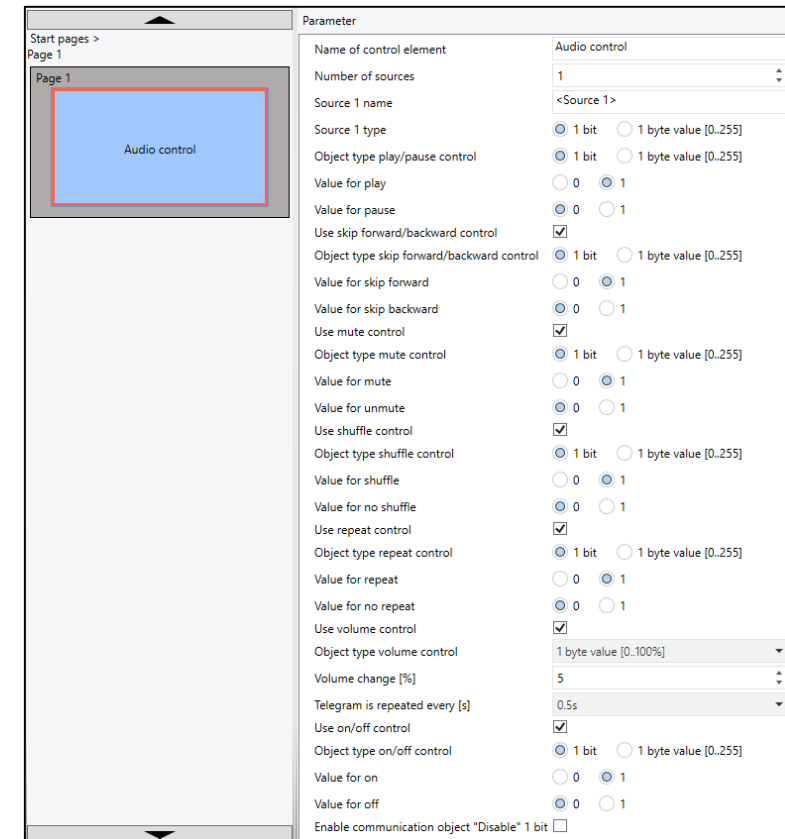
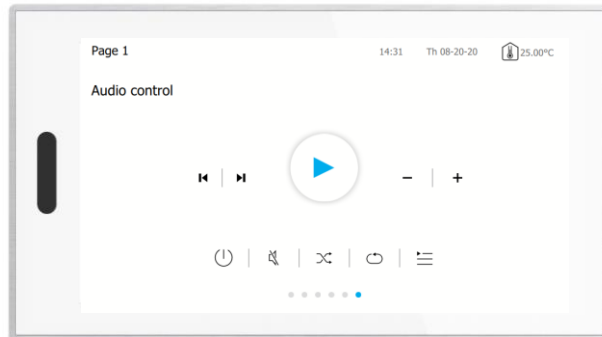
Parameter	
General	
Name of control element	Split Unit Control
Minimum Setpoint value	16
Maximum Setpoint value	32
Step size of setpoint adjustment	1.0°C
Show Actual temperature	<input checked="" type="checkbox"/>
Number of Fan speeds (without Auto)	3
Use Automatic Mode for Fan	<input checked="" type="checkbox"/>
Use modus: Automatic	<input checked="" type="checkbox"/>
Use modus: Heating	<input checked="" type="checkbox"/>
Use modus: Cooling	<input checked="" type="checkbox"/>
Use modus: Drying	<input checked="" type="checkbox"/>
Use modus: Fan	<input checked="" type="checkbox"/>
Use horizontal swing	<input checked="" type="checkbox"/>
Use vertical swing	<input checked="" type="checkbox"/>
Use extra mode: Silence Mode	<input type="checkbox"/>
Use additional modus: Boost	<input type="checkbox"/>
Use additional modus: Forced operation	<input type="checkbox"/>
Use additional modus: Scene	<input type="checkbox"/>
Use additional modus Window contact	<input type="checkbox"/>
Use additional modus Presence	<input type="checkbox"/>
Enable communication object "Disable" 1 bit	<input type="checkbox"/>

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Commissioning with DCA

Pages and Functions – Audio Control

- Flexible settings for audio control
- Can be combined with different audio sources
- Object type can be changed – depending on the needs (Example: object type for mute control: 1-bit/1-byte)

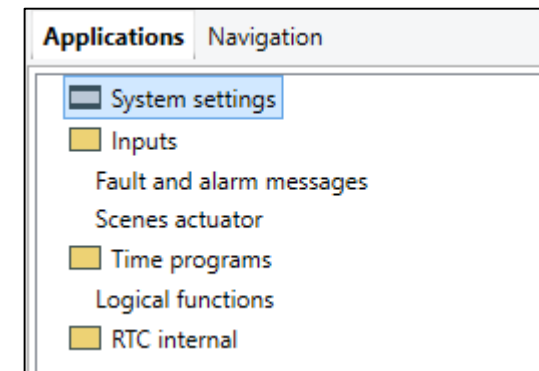


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Commissioning with DCA

Applications

- Special applications and functions of the ABB RoomTouch®
- By activating some of the functions additional application pages will be activated in the display
- Other functions will run in the background and must be configured in the ETS



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Applications – Inputs

- Binary input:
 - Binary input for one potential free switch
 - Typical application: integration of a conventional switch to turn on and off the light
 - Object type: 1-bit, 1-byte, scene number or RTC mode
- Temperature sensor input:
 - One connector for a temperature sensor
 - PT1000 or DP4-T-1
 - Line fault compensation by resistance or cable length

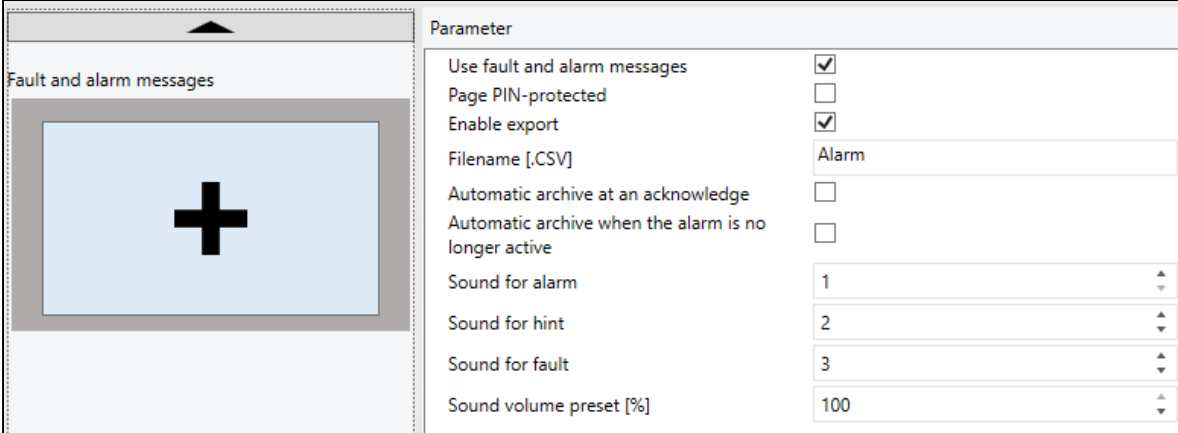
Parameter	
Use binary input	<input checked="" type="checkbox"/>
Object type	1 bit ▼
Reaction on press/close	Value 1 ▼
Reaction on release/open	Inactive ▼
Value 1	<input type="radio"/> Off <input checked="" type="radio"/> On
Use temperature sensor input	<input checked="" type="checkbox"/>
Type of sensor	<input type="radio"/> PT1000 <input checked="" type="radio"/> DP4-T-1
Temperature offset [x0.1 K]	0 ▲▼
Line fault compensation	None ▼
Filter	Inactive ▼
Send output value	Only on change ▼
Output value must change before send [x0.1° C]	5 ▲▼

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Commissioning with DCA

Applications – Fault and alarm messages

- Up to 20 fault and alarm messages can be created
- Page for alarm messages can be protected with PIN
- Export function to save all fault and alarm messages on a SD card
- 5 different sounds for 3 alarm types



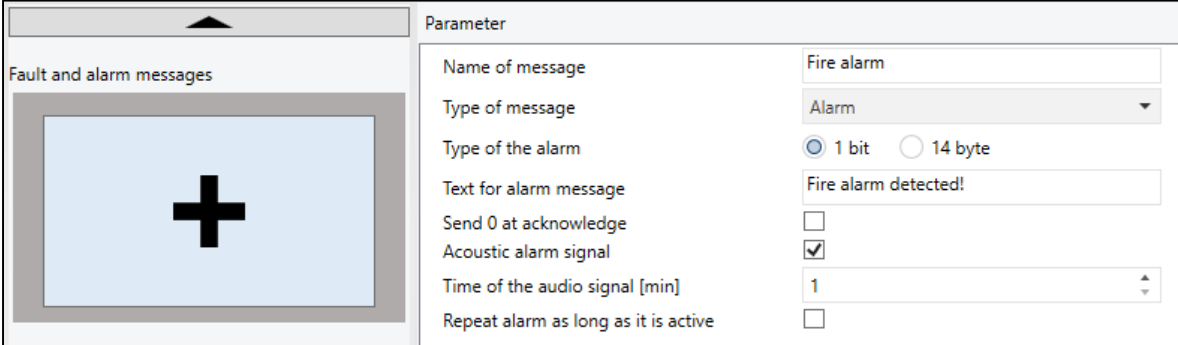
Parameter	
Use fault and alarm messages	<input checked="" type="checkbox"/>
Page PIN-protected	<input type="checkbox"/>
Enable export	<input checked="" type="checkbox"/>
Filename [CSV]	Alarm
Automatic archive at an acknowledge	<input type="checkbox"/>
Automatic archive when the alarm is no longer active	<input type="checkbox"/>
Sound for alarm	1
Sound for hint	2
Sound for fault	3
Sound volume preset [%]	100

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Commissioning with DCA

Applications – Fault and alarm messages

- Type of message: Alarm , Hint or Fault
- Type of alarm: 1-bit or 14-byte for flexible alarm messages



The screenshot displays the 'Fault and alarm messages' configuration window. On the left, there is a blue square with a black plus sign. On the right, the 'Parameter' section contains the following settings:

Parameter	
Name of message	Fire alarm
Type of message	Alarm
Type of the alarm	<input checked="" type="radio"/> 1 bit <input type="radio"/> 14 byte
Text for alarm message	Fire alarm detected!
Send 0 at acknowledge	<input type="checkbox"/>
Acoustic alarm signal	<input checked="" type="checkbox"/>
Time of the audio signal [min]	1
Repeat alarm as long as it is active	<input type="checkbox"/>

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Commissioning with DCA

Applications – Scene Actuator

- Scene actuators (4 actuators with each 15 participants)
- 4 scenes per actuator channel

The screenshot displays the 'Applications' window in the ABB RoomTouch KNX commissioning software. The 'Navigation' pane on the left shows a tree structure with 'System settings', 'Inputs', 'Fault and alarm messages', 'Scenes actuator', 'Time programs', 'Logical functions', 'RTC internal', and 'Favourite controls'. The 'Scenes actuator' folder is expanded, showing 'Actuator 1' selected. The main area shows a 'Scenes actuator' configuration for 'Actuator 1', represented by a blue rectangle with a black plus sign. The 'Parameter' pane on the right contains the following settings:

Parameter	Value
Name of scene actuator	Actuator 1
Number of participants	1
Number of scenes	1
Overwrite scenes at download	<input type="checkbox"/>
Telegram delay	200ms
Type of object 1	switch
Scene 1	
Name of scene	< Text >
Scene number	1
Scene can be startet with a	Both
Scene can be saved	<input checked="" type="checkbox"/>
Object 1 should be changed	<input checked="" type="checkbox"/>
Value for object 1	<input checked="" type="radio"/> off <input type="radio"/> on

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Commissioning with DCA

Applications – Time Programs

- Can be activated and deactivated in the ETS
- Setup of all time programs must be done on the RoomTouch
- Time programs can be protected with PIN

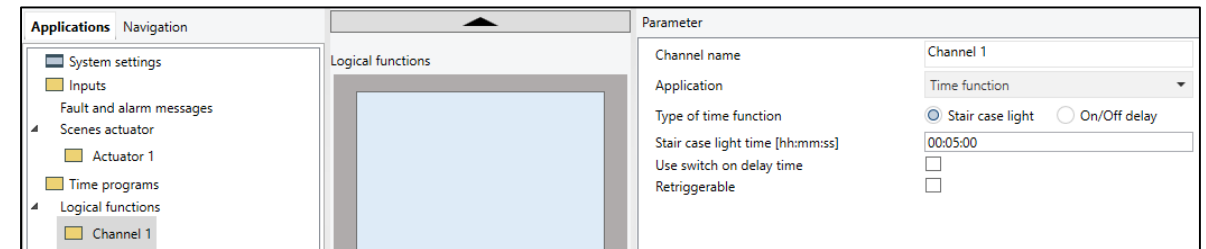


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Commissioning with DCA

Applications – Logic functions

- Up to 10 logic functions can be used
- Available functions:
 - Logic gate
 - Multiplexer
 - Multiplier
 - Gate
 - Temperature comparator
 - State converter
 - Time function



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Commissioning with DCA

Applications – Internal RTC

- One integrated Master RTC
- 6 different control functions (heating, cooling, heating and cooling, + additional stages)
- Setpoint adjustment via 1-byte, absolute or relative value

The screenshot displays the ABB RoomTouch KNX DCA interface. On the left, a navigation pane shows a tree structure with 'RTC internal' highlighted. The main area is divided into two sections: 'General' and 'Setpoint settings'. The 'General' section includes 'Control function' (set to Heating), 'Operating mode after reset' (set to Comfort), and 'Additional functions/objects' (unchecked). The 'Setpoint settings' section includes 'Control value type (heating)' (set to 2-point 1 bit, Off/On), 'Extended settings' (unchecked), 'Setpoints for standby and Eco are absolute values' (checked), 'Setpoint for heating comfort' (21), 'Setpoint for heating standby' (19), 'Heating setpoint economy' (17), 'Heating setpoint for building protection' (7), 'Setpoint adjustment via communication object (DPT 9.001)' (set to no), 'Display indicates' (radio buttons for Absolute setpoint and Relative setpoint, with Absolute selected), 'Hide temperature unit' (unchecked), and 'Send current setpoint' (radio buttons for Only during change and cyclical and for a change, with Only during change selected).

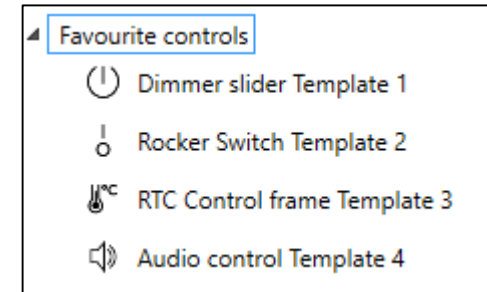
Parameter	Value
Control function	Heating
Operating mode after reset	Comfort
Additional functions/objects	<input type="checkbox"/>
Control value type (heating)	2-point 1 bit, (Off/On)
Extended settings	<input type="checkbox"/>
Setpoints for standby and Eco are absolute values	<input checked="" type="checkbox"/>
Setpoint for heating comfort	21
Setpoint for heating standby	19
Heating setpoint economy	17
Heating setpoint for building protection	7
Setpoint adjustment via communication object (DPT 9.001)	no
Display indicates	<input checked="" type="radio"/> Absolute setpoint <input type="radio"/> Relative setpoint
Hide temperature unit	<input type="checkbox"/>
Send current setpoint	<input checked="" type="radio"/> Only during change <input type="radio"/> cyclical and for a change

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Commissioning with DCA

Applications – Favorites

- Control elements can be marked as a favorite to fasten the configuration
- All adjusted parameters will be stored in the template



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 - Visualisation, Display and Signalling
 - Search Options RT/U
- Product Manual
- Installation and Operating Instructions
- Specification Text
- ETS Application
- CE & RoHS Declaration of Conformity
- ...

Detailed information for: RT/U30.0.1-825

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RT/U30.0.1-825

General Information

Extended Product Type: RT/U30.0.1-825

Product ID: 2TMA200050B0005

EAN: 6955891816190

Catalog Description: RT/U30.0.1-825 ABB RoomTouch® 5"

Long Description: Multifunctional HD IPS KNX touchdisplay as a room control element for visualisation and control of all functions in a KNX system. For the display and intuitive control of the following standard KNX functions: Switching, rocker switch, dimming (4-bit and 8-bit), slider, blind, RGBW control element, room temperature control element, Split Unit control element, step switch, scene switch, display element or audio control element. Additional functions: 20 fault and alarm messages, 10 logic functions, 10 timers each with 6 switching times, 4 scene actuators, 1 room temperature controller and individual pages can be protected with a PIN code. Status display, display of date and time, as well as inside and outside temperature. Installed temperature sensor, proximity sensor and brightness sensor. With a push-button/switch input and external temperature sensor input. Page display with a maximum of 30 touch surfaces on 6 or 10 pages (dependent on the mounting method). Viewing angle display: 160° - 160°. Mounting via a separate flush-mounted box. External power supply: 20-32 VDC (SELV).



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