



Tile Series Button Panel (KNX) User Manual

(Model: HDL-MP1-EC/TILE.48)

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Update History

The form below contains the information of every update. The latest version contains all the updates of all former versions.

No.	Version	Update Information	Date
1	V1.0.0	Initial release	Nov.5, 2019



1 Introduction

This user manual offers the information on configuring Tile Series Button Panel (KNX) (Model: HDL-MP1-EC/TILE.48, hereinafter referred to as Tile), by taking "4 Buttons Panel A" as an example. The following tools might be included:

- Tile Series Button Panel (KNX) (Model: HDL-MP1-EC/TILE.48) and corresponding power interface (Model: M/PCI.1-A in conjunction with EU panel, M/PCI.3-A in conjunction with US panel)
- A computer with ETS5 software
- KNX USB interface (Model: M/USB.1)
- > KNX power supply and auxiliary power supply
- > KNX project files
- Dedicated KNX cable(s)



1.1 Import Database to ETS (.knxprod)

1. Import Catalogs: click "Catalogs" → "Import…" in the main page of ETS5 software and select local database files with the suffix of .knxprod, as shown in Figure 1-1.



Figure 1-1 Import catalog



2. Create Projects: as shown in Figure 1-2, in "Your Projects" tab from ETS5 software's "Overview" page, click "+" to create projects. After editing project name, please keep other setting items by default.

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← ジ ≵ Create New Project	Search	Q	Modern, Massive, Moscow – The 15th KNX National Group Conference kicked off with many surprises 2019/10/7	True Presence® Multisensor KNX Steinel GmbH (Germany)
Name HDL Backbone IP Topology			This year, the 15th KNX National Group Conference welcomed delegates from 20 countries. Hosting city was Moscow – Not known by many, but appreciated by all. The first day's agenda had various surprises for the delegates regarding the future of	
TP Group Address Style Free Two Level Three Level Create Project Cancel			KNX Association, Tools, and upcoming events. The day after followed with additional presentations and discussion on Social Media activites, best practices and other open subject were discussed between KNX and its National Groups Although both days required the full attention of the delegates, all delegates are anticipating the next day with high excitement.	7 senses for KNX. Welcome to the new era in building sensor technology! True Presence® provides absolutely reliable information on human presence and absence. The revolutionary technology is based on ultra-sensitive high-
			NETx Multi Protocol Server	Certified KNX Products See a list of all certified KNX products here.
			ETS Version ETS 5.6.4 (Build 8	342) 1 License Demo Apps 0 active

Figure 1-2 Create projects



3. Add Devices to Projects:

① After creating a project, the project page will show up by default. Click "Buildings" and select "Topology", as shown in Figure 1-3.

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Figure 1-3 Select topology



② Figure 1-4 shows "Topology" page, click the arrow beside "Add Areas" and select "Devices", and the catalog page will show up below.

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Figure 1-4 Open catalog page



③ As shown in Figure 1-5, click "HDL" in "Manufactures" column and select devices to be added to the project on the right. Drag devices to the above area (Method 1) or click "Add" button to add devices after clicking the location needed to add projects below (Method 2).

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Figure 1-5 Add devices to projects



1.2 Import Projects (.knxproj/.pr5)

As shown in Figure 1-6. Open ETS5 and click "Import project" button of "Your Project" tab of "Overview" page and import obtained KNX project files with the suffix of .knxproj/.pr5. After importing projects, added/created projects will be listed below. Double click to edit.



Figure 1-6 Import projects



1.3 Open Configuration Window

Double click the project to be configured. Click "Workspace" \rightarrow "Open New Panel" \rightarrow "Topology" to open the window, as shown in Figure 1-7.



Figure 1-7 Open configuration window



1.4 Button Number Instruction

All button numbers in this user manual are subject to Figure 1-8.



Figure 1-8 Button number



2 General Setting

In topology skeleton on the left side of topology page, click devices to be set and select "General" in "Parameter" option, as shown in Figure 2-1.

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> 1 1 1 M/PT4RA 1 > General								
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General	System delay(0255s)	0	÷ 0					
> Status led brightness	Heartbeat telegram	Disable						
TT4RA Poduch	Enable buttons is triggered via EIB	◎ No ○ Yes						
Kockeria	Enable locking button	O No Ves						
>Compined button	Read the object status of the rockers	O Disable O Enable						
Rocker B	T							
	The local temperature correction(-5C.,							
>Up & down button	+5C)	0C	•					
Rocker C	Local temperature report	O No Ves						
> Combined button	Led light:							
	LED Brightness change via bus	O Disable C Enable						
Rocker D	LED Brightness automatic adjust	O Disable O Enable						
>Combined button	Proximity sensor	O Disable O Enable						
	- Brovimity concor consitive	70%						
	>Proximity sensor sensitive	79%						
	>Recovery the LED bightness	O Disable U Enable						
	>Enable send to bus	Disable Enable						
	Panel scene:		Default Value: Disable					
	Panel scene A	🔵 Enable 🔘 Disable						
	Panel scene B	O Disable C Enable						
Group Objects Parameter								
HDL USB Interface 🔺 1.1 New line	1.1.1 M/PT4RA.1		Last used workspace					

Figure 2-1 General Setting

The setting items are explained below:

- 1. System delay: time-delay function, namely a delay time between powering on the device and activating the system, range from 1 to 255s.
- 2. Heartbeat telegram: to choose to send "1", "0", or "1, 0" cyclically.
 - > Telegram is sent time interval: to set the interval of sending heartbeat telegram.



- 3. Enable buttons is triggered via EIB: to enable triggering buttons via EIB.
 - > The button trigger condition: to trigger buttons when receiving 0 or 1.
 - Enable rocker A/B/C/D buttons is triggered via EIB: to enable triggering button A/B/C/D via EIB.
- 4. Enable locking button: to enable locking buttons.
- 5. Read the object status of the rockers: to enable reading button object status. After enabled, users may set the delay time of reading object status in "Delay for read the object status" below, range from 5 to 255s.
- 6. The local temperature correction: to choose to correct local temperature, range from -5 $^\circ C$ to +5 $^\circ C$.
- 7. Local temperature report: to choose whether to send local temperature report.
 - Temperature report mode: to select the mode of sending temperature signal, including "Report when changed" and "Report cyclic". When the former is selected, users may change the deviation value of checking temperature, range from 1 to 50°C. While the latter is selected, users may change the period of sending, range from 1 to 255s.
- 8. LED Brightness change via bus: to enable changing LED brightness via the bus.
- 9. Brightness automatic adjust: to enable adjusting brightness automatically.
 - Automatic adjust after a delay: to set the delay time of adjusting background light brightness automatically, range from 3 to 255s.
 - The operation of first time press the button: to select the operation of buttons pressed for the first time, including "Normal operation" and "The brightness of ON status".
- 10. Proximity sensor: to enable proximity sensor.
 - > Proximity sensor sensitive: to change proximity sensor sensitivity.
 - Recovery the LED brightness: to enable recovering the LED brightness after sensing human body.
 - Enable send to bus: to enable sending sensor status to the bus. Toggle is to take the negation operation (for example: When the sensor senses human bodies for the first time, the system sends ON. When human bodies are sensed for the second time, the system sends OFF). ON is to turn on, OFF is to turn off.
 - Send to bus after delay time: to send sensor status to the bus after the delay time. Toggle is to take the negation operation, (for example: When the sensor senses human bodies for the first time, the system sends ON. When human bodies are sensed for the second time, the system sends OFF.) ON is to turn on, OFF is to turn



- off.
- > Delay time: to set the delay time of feedback to the bus, range from 5 to 255s.
- 11. Panel scene A/B: to enable panel scene A/B.

2.1 Status Light Brightness Adjustment

Select "Status light brightness" in "Parameter" tab, as shown in Figure 2-2.

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1	Rocker A	->Blue	Level (100%)	-
	>Combined button	->Automatic adjust brightness	O Disable C Enable	
	Rocker B	Default status led brightness OFF		
	s Llo & deurs button	->Red	Level (00%)	Ŧ
		->Green	Level (00%)	-
	Rocker C	->Blue	Level (00%)	-
	>Combined button	->Automatic adjust brightness	O Disable C Enable	
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Figure 2-2 Adjust status light color

The setting items are explained below:

- 1. Default status light brightness ON/OFF is to set the default brightness of button status lights when objects of buttons are opened/closed, the brightness can be set by changing the level value of RGB below.
- 2. "Automatic adjust brightness" is to set the value of adjusting brightness automatically.



After enabled, the value can be set by changing the level value of RGB below.

3. Button select the led color enable: to enable selecting LED color via buttons. After enabled, the LED color of open/closed buttons can be set below. (Please refer to the datasheet attached to the product for the operation instruction of adjusting LED color).

2.2 Panel Scene Setting

The chapter takes "Panel scene A" as an example to introduce the way of configuring panel scenes.

2.2.1 Enable Panel Scenes

Click "General" in the parameter list to enable/disable panel scene A/B at the bottom.

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1.1.1	General	Read the object status of the rockers	O Disable C Enable		
M/PT-	>Status led brightness	Temperature:			
4RA.1	>Panel scene A	The local temperature correction(-5C +5C)	OC	•	
	>Panel scene B	Local temperature report	No Ves		
	Packer A	Led light:			
		LED Brightness change via bus	O Disable Enable		
	>Combined button	LED Brightness automatic adjust	Disable Enable		
	Rocker B	Proximity sensor	O Disable O Enable		
	>Up & down putton	>Proximity sensor sensitive	79%	•	
	Rocker C	>Recovery the LED bightness	🔵 Disable 🔘 Enable		
	Nocker c	>Enable send to bus	O Disable C Enable		
	>Combined button	Panel scene:			
	Rocker D	Panel scene A	Enable Disable		
	>Combined button	Panel scene B	🔵 Disable 🔘 Enable		v
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	HDL USB Interface 🔺 1.1 New line	1.1.1 M/PT4RA.1		Last used workspace	

Figure 2-3 Enable/disable panel scenes



2.2.2 Scene Setting

After enabling panel scenes, click the panel scene to be configured on the left, as shown in Figure 2-4.

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+	Add Channels 🔹 🗙 Delete 🛨 Dow	vnload 🔹 🕜 Help 🥒 Highlight Changes	Default Parameters	
> =	1.1.1 M/PT4RA.1 >>Panel scer	ne A		
1.1.	General	Output assigned to(scene164)	Scene 01	- O
L M/PT	>Status led brightness	1 bit object control	O Disable O Enable	<u>م</u>
4RA.1	>Panel scene A	Entry delay time(0255s)	0	* *
		Output object <1> type	Invaild	-
	> Panel scene B	Output object <2> type	Invaild	•
	Rocker A	Output object <3> type	Invaild	•
	>Combined button	Output object <4> type	Invaild	•
	Rocker B	Output object <5> type	Invaild	-
		Output object <6> type	Invaild	•
	>Up & down button	Output object <7> type	Invaild	-
	Rocker C	Output object <8> type	Invaild	-
	>Combined button	Output object <9> type	Invaild	.
	Rocker D	Output object <10> type	Invaild	•
	>Combined button			
	Group Objects Parameter			
	HDL USB Interface 🔺 1.1 New line	1.1.1 M/PT4RA.1		Last used workspace

Figure 2-4 Scene Setting

The setting items are explained below:

- 1. Output assigned to: to choose to output corresponding scene number (Up to 64 scene numbers available).
- 2. 1 bit object control: to enable turning on/off devices via 1-bit object.
 - 1 bit object trigger: to enable turning on/off devices in scenes by selecting "0", "1" or "1/0".
 - I bit object save: to choose whether to save object switch status in current scene to overwrite scene setting when objects are changed by the panel.
- 3. Entry delay time: to set the delay time of triggering scenes.



4. Output object <n> type: to set object <n> status in scenes. A scene includes up to 10 object status. For example, "1 bit value" is to control the relay and "3 byte value" is to control RGB dimmer, etc.



3 Button Setting

This chapter takes "Rocker A" as an example to introduce the way of configuring buttons.

Click "Rocker A" in the button list to open the setting menu, as shown in Figure 3-1.

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То	opology 🔻			∧ □ × <			
+	Add Channels 🛛 🛪 🗙 Delete 🛨 Dow	vnload 🔻 🕜 Help 🥒 Highlight Chang	ges Default Parameters				
> =	1.1.1 M/PT4RA.1 > Rocker A						
1.1.1	General	Rocker A work mode	Combined button mode	ŏ			
M/PT4	>Status led brightness	Status led setting:	O Independent button mode				
RA.1	>Panel scene A	LED color and brightness	Default Custom				
	> Panel scene B						
	Rocker A						
	>Combined button						
	Rocker B						
	>Up & down button						
	Rocker C						
	>Combined button						
	Rocker D						
	>Combined button						
	Group Objects Parameter						
	HDL USB Interface 🔺 1.1 New line	1.1.1 M/PT4RA.1		Last used workspace			

Figure 3-1 Button setting

- 1. Rocker A work mode
 - Independent button mode: the up/down button of "Rocker A" can control objects independently.
 - Combined button mode: objects can be controlled by the combination of the up button and down button of "Rocker A".
- 2. LED Color and Brightness Adjustment
 - > Default: to keep the default settings.



Custom: to customize items. When selecting "Custom", users may click "A: LED color" on the left and set LED color and brightness of the up and down button on/off independently, which is achieved by changing the corresponding level value of RGB. In the meantime, "Automatic adjust brightness" option can be enabled, the details can be set below.

3.1 Combined Button Mode

3.1.1 Select Operation Mode

The operation mode of combined buttons can be selected at the top of "Combined button" tab, as shown in Figure 3-2.

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pology 🔻			▲ 🗆 🗙	<	
Add Channels 🔹 🗙 Delete 🛨 Dow	vnload 🔻 🕜 Help 🌛 Highlight Changes 🛛	Default Parameters		Eì	
1.1.1 M/PT4RA.1 >>Combined	button				
General	Rocker A : operation mode	Combination controller	•	Ö	
>Status led brightness	Object type 1	Switch controller		\$	
>Panel scene A	Object type 2	Shutter controller			
>Panel scene B	Object type 3	Scene controller			
Rocker A	Object type 5	Sequence controller Percentage controller			
>Combined button	Object type 6	Threshold controller String(14bytes) controller			
Rocker B	Object type 7	Alternate controller RGB controller			
	Object type 8	Fan controller			
>Up & down button	Object type 9	Combination controller	~		
Rocker C	Object type 10	Invalid	-		
>Combined button	Status light display settings				
Rocker D	LED status source		•		
	LED status	Flashing, then ON UP Flashing, then OFF			
>Combined button					
IDL USB Interface IDL USB Interface	1.1.1 M/PT4RA.1	Last used	workspace		
	TSS™ - New project222 S Edit Vology Add Channels Close Project V Undo V Add Channels V Luss Panel scene B Rocker A >Combined button Rocker C >Combined button Rocker D >Combined button	TS5 [™] - New project222 S Edit Workplace Commissioning Diagnostics Extras Window Close Project Image: Commissioning Diagnostics Extras Window close Project Parameter close Project Image: Commissioning Diagnostics Extras Window General Rocker A : operation mode Object type 1 Object type 2 Object type 3 Object type 4 Rocker A Object type 5 >Combined button Object type 1 Rocker C Object type 1 Object type 10 Status light display settings LED status source LED status >Combined button 111	TS5 ^m - New project222 Solid Workplace Commissioning Diagnostics Extras Window Close Project	TS5" - New project222 Image: Section of the s	

Figure 3-2 Select operation mode



3.1.2 Switch Controller Setting

Figure 3-3 shows switch controller setting page.

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	🔉 关闭项目 🇳 撤消 🛝 恢复	🚔 报告 🔛 工作区 🔻 🚺 产品目录	诊断					
拓	¥ -			<u>^</u>	i ×	<		
+	增加频道 🖃 🗙 删除 붗 下載 🖿	🕜 帮助 🤌 高亮显示更改 默认参数 授	权用户访问					
> =	1.1.1 M/PT4RA.1 >>Combined	button						
1.1.1	General	Rocker A : operation mode	Switch controller	•				
M/PT2	>Status led brightness	->Reaction on short button	Toggle	•				
4RA.1	Rocker A	->Reaction on long button	Invalid	•				
		->Delay for button	🗌 No 🔘 Yes					
	>Combined button	Delay for switch ON of short button (0255s)	0	* *				
	>A:Led color	Delay for switch OFF of short button	0	* *				
	Rocker B	Delay for switch ON of long button	0					
	>Combined button	(0255s)	0	Ŧ				
	 Combined battom 	Delay for switch OFF of long button (0255s)	0	* *				
	Rocker C	Long button time after	1s	•				
	>Combined button	Delay send another object function						
	Rocker D	Delay send function	🔵 Disable 🔘 Enable					
	>Combined button	Delay send for short button	🔵 Disable 🔘 Enable					
		Delay send for long button	🔵 Disable 🔘 Enable					
	参数 组对会	ы	01	_		•		
	HDL USB Interface 11 新建支线	111 M/PT4RA 1		使用的工作区				

Figure 3-3 Switch controller setting

- 1. Reaction on short/long button: to set the control type of "short/long press". The up and down button can be set independently, including:
 - > Invalid: buttons have no response.
 - > Toggle: to select buttons to turn on closed objects, and vice versa.
 - > ON: to turn on objects.
 - > OFF: to turn off objects.
- 2. Delay for button: to enable activating buttons after the delay time.

Delay for switch ON/OFF of short/long button: to set the delay time between "short/long



press" and turning on/off objects, range from 0 to 255s.

- 3. Long button time after: the time for system to identify "long press". For example, if the time is set to 3s, keeping pressing for more than 3s will be identified as "long press" while less than 3s will be identified as "short press".
- 4. Delay send function: to enable "Delay send function".

Delay send for short/long button: to enable "Delay send for short/long button".

Delay send when button object value: to enable "Delay send function" when button object is on/off/on or off.

Delay send value: to set the value sent after the delay time.

Send after a delay: to set the delay time of sending, range from 0 to 255s.

- 5. LED status source: the source of LED status, including "Local", "From bus" and "Mutually exclusive display".
 - If "Local" is selected:

LED status: to select LED status, including "Flashing, then ON", "Flashing, then OFF", "Flashing, then status" and "ON/OFF status".

If "From bus" is selected:

LED status reaction: to select the reaction of LED when the bus information is received. For example, LED is on when receiving 1 and is off when receiving 0.

Button status reaction (1 bit): to toggle object value received from the bus and update the value to button value.

Delay read LED status after power on: to set the delay time between powering on the device and reading LED status, range from 1 to 255s. 0 is set to have no response.

If "Mutually exclusive display" is selected: to set that the selected button and other buttons are mutually exclusive.



3.1.3 Dimming Controller Setting

Figure 3-4 shows dimming controller setting page.

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	ETS Edit Workplace Commission	ing Diagnostics Extras Window		^ ?		
	👩 Close Project 🛛 🎸 Undo 🛛 🛝 R	Reports Workplace •	Catalogs Diagnostics			
Т	opology 🔻			▲ 🗇 🗙 <		
+	Add Channels 🛛 🛪 🗙 Delete 🛨 Dow	nload 🛛 🔻 🕜 Help 🤌 Highlight Changes	Default Parameters			
>	1.1.1 M/PT4RA.1 >>Combined	button				
1.1.1	General	Rocker A : operation mode	Dimming controller	- 0		
M/PT	>Status led brightness	->Reaction on short button	Toggle	•		
4RA.1	>Panel scene A	->Reaction on long button	Dim->Brighter/Darker	*		
	>Panel scene B	(0255s)	0	* *		
	Rocker A	Delay for switch OFF of short button (0255s)	0	* *		
	>Combined button	Dimming steps	Step1 (100%)	•		
	Rocker B	Long button time after Status light display settings	1s	÷		
	>Up & down button	LED status source	Local	•		
	Rocker C	LED status	ON/OFF status	•		
	Rocker D					
	>Combined button					
	Group Objects Parameter					
	HDL USB Interface 🔺 1.1 New line	1.1.1 M/PT4RA.1		Last used workspace		

Figure 3-4 Dimming controller setting

The setting items are explained below:

1. Reaction on short/long button: to select the operation of "short/long press" ("short press" only controls turning on/off, "long press" controls dimming).

Delay for switch ON/OFF of short button: to set the delay time between short pressing and turning on/off objects, range from 0 to 255s.

- 2. Dimming steps: there are 7 dimming steps. For example, if selecting Step3 (25%), objects will be up to 25% brighter (The maximum object brightness is 100%).
- 3. Long button time after: the time for system to identify "long press". For example, if the time is set to 3s, keeping pressing for more than 3s will be identified as "long press" while



less than 3s will be identified as "short press".

- 4. LED status source: the source of LED status, including "Local", "From bus" and "Mutually exclusive display".
 - ➢ If "Local" is selected:

LED status: to select LED status, including "Flashing, then ON", "Flashing, then OFF", "Flashing, then status" and "ON/OFF status".

➢ If "From bus" is selected:

LED status reaction: to select the reaction of LED when the bus information is received. For example, LED is on when receiving 1 and is off when receiving 0.

Button status reaction (1 bit): to toggle object value received from the bus and update the value to button value.

Delay read LED status after power on: to set the delay time between powering on the device and reading LED status, range from 1 to 255s. 0 is set to have no response.

If "Mutually exclusive display" is selected: to set that the selected button and other buttons are mutually exclusive.

3.1.4 Shutter Controller Setting

Figure 3-5 shows shutter controller setting page.

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	👩 Close Project 🎸 Undo 🔷 Redo 🚔 Reports 📰 Workplace 🔻 🎚 Catalogs 📰 Diagnostics							
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+	Add Channels 🔹 🗙 Delete 🛨 Dov	vnload 🔹 🕜 Help 🥒 Highlight Changes	Default Parameters					
>	1.1.1 M/PT4RA.1 >>Combined	button						
1.1.1	General	Rocker A : operation mode	Shutter controller	- 0				
M/PT	>Status led brightness	->Reaction on short button	Stepping->Toggle/Stop					
4RA.1	>Panel scene A	->Reaction on long button	Moving->Toggle	•				
	>Panel scene B	->Stop moving automatically Long button time after	1s	-				
	Rocker A	Status light display settings						
	>Combined button	LED status source	Local	~				
	Rocker B	LED status	ON/OFF status	•				
	>Up & down button							
	Rocker C							
	>Combined button							
	Rocker D							
	>Combined button							
	Group Objects Parameter							
	HDL USB Interface 🔺 1.1 New line	1.1.1 M/PT4RA.1		Last used workspace				

Figure 3-5 Shutter controller setting

The setting items are explained below:

- 1. Reaction on short button: to select the operation of "short press" on the panel, including:
 - > Stepping \rightarrow Toggle/Stop: to switch between rolling up/down via short pressing the up/down button and stop via short pressing again.
 - Stepping → Increase/Decrease/Stop: to open/close curtain via short pressing the up/down button and stop via short pressing again.
 - ➤ Moving → Toggle: to switch between rolling up/down via short pressing the up/down button.
 - > Moving \rightarrow Up/Down: to switch between rolling up/down roller shutter via short pressing the up/down button.
- 2. Reaction on long button: to select the operation of "long press" on the panel, including:



- Stepping → Increase/Decrease/Stop: to open/close curtain constantly via long pressing the up/down button and stop via releasing.
- > Stepping \rightarrow Toggle/Stop: to switch between rolling up/down via long pressing the up/down button and stop via pressing again.
- > Moving \rightarrow Up/Down: to rolling up/down via long pressing the up/down button.
- ➢ Moving → Toggle: to switch between rolling up/down via long pressing the up/down button.
- ➢ Press: Move → Up/Down; Release: Stop: to roll up/down via long pressing the up/down button and stop via releasing.
- ➢ Press: Move → Toggle; Release: Stop: to switch between rolling up/down via long pressing the up/down button and stop via pressing again.
- 3. Stop moving automatically: to enable opening/closing curtain automatically.
- 4. Long button time after: the time for system to identify "long press". For example, if the time is set to 3s, keeping pressing for more than 3s will be identified as "long press" while less than 3s will be identified as "short press".
- 5. LED status source: the source of LED status, including "Local", "From bus" and "Mutually exclusive display".

If "Local" is selected:

LED status: to select LED status, including "Flashing, then ON", "Flashing, then OFF", "Flashing, then status" and "ON/OFF status".

If "From bus" is selected:

LED status reaction: to select the reaction of LED when the bus information is received. For example, LED is on when receiving 1 and is off when receiving 0.

Button status reaction (1 bit): to toggle object value received from the bus and update the value to button value.

Delay read LED status after power on: to set the delay time between powering on the device and reading LED status, range from 1 to 255s. 0 is set to have no response.

If "Mutually exclusive display" is selected: to set that the selected button and other buttons are mutually exclusive.



3.1.5 Flexible Controller Setting

Figure 3-6 shows flexible controller setting page.

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+	🛚 Add Channels 🔹 🗙 Delete 🛨 Dov	vnload 🔹 🕜 Help 🥒 Highlight Changes	Default Parameters					
>	1.1.1 M/PT4RA.1 >>Combined	Ibutton						
1.1.3	General	Rocker A : operation mode	Flexible controller	- O				
L M/PT4R	>Status led brightness	->Operation mode	No Short & Long button Short & Long button	¥1				
tA.1	>Panel scene A	Operation of the button	Press="ON",Release="OFF"	•				
	>Panel scene B	Status light display settings						
	Rocker A	LED status source		•				
	>Combined button	LED status	ON/OFF Status					
	Rocker B							
	>Up & down button							
	Rocker C							
	>Combined button							
	Rocker D							
	>Combined button							
	Group Objects Parameter							
	HDL USB Interface 🔺 1.1 New line	1.1.1 M/PT4RA.1		Last used workspace				

Figure 3-6 Flexible controller setting

The setting items are explained below:

- 1. Operation mode: to select the operation mode of flexible controller, including "No Short & Long button" and "Short & Long button".
- 2. ("No Short & Long button" is selected) Operation of the button: to select the operation of the up/down button, including:

Press/Release=ON/OFF: to send ON/OFF after long pressing/releasing.

3. ("Short & Long button" is selected) Operation of short button: to select the operation of "short press".

Operation of long button: to select the operation of "long press".

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- 4. LED status source: the source of LED status, including "Local", "From bus" and "Mutually exclusive display".
 - If "Local" is selected:

LED status: to select LED status, including "Flashing, then ON", "Flashing, then OFF", "Flashing, then status" and "ON/OFF status".

➢ If "From bus" is selected:

LED status reaction: to select the reaction of LED when the bus information is received. For example, LED is on when receiving 1 and is off when receiving 0.

Button status reaction (1 bit): to toggle object value received from the bus and update the value to button value.

Delay read LED status after power on: to set the delay time between powering on the device and reading LED status, range from 1 to 255s. 0 is set to have no response.

If "Mutually exclusive display" is selected: to set that the selected button and other buttons are mutually exclusive.

3.1.6 Scene Controller Setting

Figure 3-7 shows scene controller setting page.

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E	ETS Edit Workplace Commissioning Diagnostics Extras Window							
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+	Add Channels 🔹 🗙 [Delete 🛨 Dowr	nload 🛛 🔻 🕜 Help 🌛 Highlight Changes 🛛	Default Parameters				
>	1.1.1 M/PT4RA.1 >	>Combined	button					
1.1.1	General		Rocker A : operation mode	Scene controller	•	0		
M/PT	>Status led bright	tness	->Call scene number of the short button	Scene NO.01	-	*		
4RA.1	>Panel scene A		->Call scene toggled	O Disable C Enable				
	>Panel scene B		->Long button operation as Delay operation for short button	Invalid 0	*			
	Rocker A		(0255s) Long button time after	1s	•			
	>Combined butt	ton	Status light display settings					
	Rocker B		LED status source	Local	•			
	>Up & down butt	ton	LED status	Flashing, then OFF	•			
	Rocker C							
	>Combined butto	on						
	Rocker D							
	>Combined butto	on						
	Group Objects / P	arameter						
H	HDL USB Interface	1.1 New line	1.1.1 M/PT4RA.1		Last used workspace			

Figure 3-7 Scene controller setting

The setting items are explained below:

- 1. Call scene number of the short button: to select corresponding scene number of short pressing (Up to 64 scene numbers available).
- 2. Call scene toggled: to enable toggling scenes. After enabled, the number of scenes to be toggled can be selected in "Toggled scene number" below.
- 3. Long button operation as: to select the operation of "long press", including:
 - Scene dimming
 - Scene saving: to save current scene to overwrite scene setting when current scene changes.
- 4. Delay operation for short button: to set the delay time of "short press", range from 0 to 255s.



- 5. Long button time after: the time for system to identify "long press". For example, if the time is set to 3s, keeping pressing for more than 3s will be identified as "long press" while less than 3s will be identified as "short press".
- 6. LED status source: the source of LED status, including "Local", "From bus" and "Mutually exclusive display".
 - ➢ If "Local" is selected:

LED status: to select LED status, including "Flashing, then ON", "Flashing, then OFF", "Flashing, then status" and "ON/OFF status".

➢ If "From bus" is selected:

LED status reaction: to select the reaction of LED when the bus information is received. For example, LED is on when receiving 1 and is off when receiving 0.

Button status reaction (1 bit): to toggle object value received from the bus and update the value to button value.

Delay read LED status after power on: to set the delay time between powering on the device and reading LED status, range from 1 to 255s. 0 is set to have no response.

If "Mutually exclusive display" is selected: to set that the selected button and other buttons are mutually exclusive.

3.1.7 Sequence Controller Setting

Figure 3-8 shows sequence controller setting page.



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+	Add Channels 💌 🗙 Delete 🛨 Dow	vnload 🔹 🕜 Help 🥒 Highlight Changes	Default Parameters					
> =	1.1.1 M/PT4RA.1 >>Combined	button						
1.1.1	General	Rocker A : operation mode	Sequence controller	- O				
M/PT	>Status led brightness	->Reaction on short button	Toggle(Start-"1"-,Stop-"0")	- ¥1				
4RA.1	>Panel scene A	->Reaction on long button	Invalid	•				
	>Panel scene B	Long button time after	1s	-				
		Status light display settings	l e sel	-				
	Rocker A	LED status source	Local	•				
	>Combined button	LED status	ON/OFF status	-				
	Rocker B							
	>Up & down button							
	Rocker C							
	>Combined button							
	Rocker D							
	>Combined button							
	Group Objects Parameter							
	HDL USB Interface 🔺 1.1 New line	1.1.1 M/PT4RA.1		Last used workspace				

Figure 3-8 Sequence controller setting

The setting items are explained below:

- 1. Reaction on short/long button: to select the operation of "short/long press", including:
 - > Toggle (Start-1, Stop-0): to toggle the up/down button.
 - Start/Stop with 0/1: the up/down button starts/ends with 0 or 1.
- 2. Long button time after: the time for system to identify "long press". For example, if the time is set to 3s, keeping pressing for more than 3s will be identified as "long press" while less than 3s will be identified as "short press".
- 3. LED status source: the source of LED status, including "Local", "From bus" and "Mutually exclusive display".
 - ➢ If "Local" is selected:

LED status: to select LED status, including "Flashing, then ON", "Flashing, then OFF", "Flashing, then status" and "ON/OFF status".



If "From bus" is selected:

LED status reaction: to select the reaction of LED when the bus information is received. For example, LED is on when receiving 1 and is off when receiving 0.

Button status reaction (1 bit): to toggle object value received from the bus and update the value to button value.

Delay read LED status after power on: to set the delay time between powering on the device and reading LED status, range from 1 to 255s. 0 is set to have no response.

If "Mutually exclusive display" is selected: to set that the selected button and other buttons are mutually exclusive.

3.1.8 Percentage Controller Setting

Figure 3-9 shows percentage controller setting page.

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l	ETS Edit Workplace Commissioning Diagnostics Extras Window 🔨 🔇						
	🔞 Close Project 🎸 Undo 🗛 Redo 🚔 Reports 📰 Workplace 🔻 🎚 Catalogs 📰 Diagnostics						
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+	Add Channels 💌 🗙 Delete ± Dow	vnload 🔹 🕜 Help 🤌 Highlight Changes 🛛	Default Parameters				
>	1.1.1 M/PT4RA.1 >>Combined	button					
1.1.1	General	Rocker A : operation mode	Percentage controller	- 0			
. M/PT	>Status led brightness	->Percentage on short button	100%(255)				
4RA.1	>Panel scene A	->Percentage toggled	🔵 Disable 🔘 Enable				
	>Panel scene B	Toggled percentage value	0%(0)	•			
		->Percentage on long button	Invalid O To one value				
	Rocker A	Delay on short button(0255s)	0	* *			
	>Combined button	Long button time after	1s	•			
	Rocker B	Status light display settings					
		LED status source	Local	•			
	>Up & down button	LED status	Flashing,then OFF	-			
	Rocker C						
	>Combined button						
	Rocker D						
	>Combined button						
	Group Objects Parameter						
	HDL USB Interface 🔺 1.1 New line	1.1.1 M/PT4RA.1		Last used workspace			

Figure 3-9 Percentage controller setting



The setting items are explained below:

- 1. Percentage on short/long button: to select the percentage operation of "short press".
- 2. Percentage toggled: to enable toggling percentage. After enabled, the percentage value to be toggled can be selected in "Toggled percentage value".
- 3. Delay on short/long button: to set the delay time of "short/long press", range from 0 to 255s.
- 4. Long button time after: the time for system to identify "long press". For example, if the time is set to 3s, keeping pressing for more than 3s will be identified as "long press" while less than 3s will be identified as "short press".
- 5. LED status source: the source of LED status, including "Local", "From bus" and "Mutually exclusive display".
 - If "Local" is selected:

LED status: to select LED status, including "Flashing, then ON", "Flashing, then OFF", "Flashing, then status" and "ON/OFF status".

If "From bus" is selected:

LED status reaction: to select the reaction of LED when the bus information is received. For example, LED is on when receiving 1 and is off when receiving 0.

Button status reaction (1 bit): to toggle object value received from the bus and update the value to button value.

Delay read LED status after power on: to set the delay time between powering on the device and reading LED status, range from 1 to 255s. 0 is set to have no response.

If "Mutually exclusive display" is selected: to set that the selected button and other buttons are mutually exclusive.


3.1.9 Threshold Controller Setting

Figure 3-10 shows threshold controller setting page.

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	ETS Edit Workplace Commission	ing Diagnostics Extras Window		^	0
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+	• Add Channels 🔹 🗙 Delete 🛨 Dow	mload 🔹 🕜 Help 🥒 Highlight Changes	Default Parameters		
>	1.1.1 M/PT4RA.1 >>Combined	button			
1.1.1	General	Rocker A : operation mode	Threshold controller	•	0
M/PT	>Status led brightness	Threshold value type	1byte threshold	-	*1
4RA.1	>Panel scene A	->Threshold on short button	255	¥	
	>Panel scene B	-> Inresnold toggled	0	* *	
	Rocker A	->Threshold on long button	Invalid		
	>Combined button	Delay on short button(0255s)	0	▲ ▼	
	Rocker B	Long button time after	1s	•	
	>Up & down button	Status light display settings LED status source	Local	-	
	Rocker C	LED status	Flashing, then OFF	•	
	>Combined button				
	Rocker D				
	>Combined button				
	Group Objects Parameter				
	HDL USB Interface 🔺 1.1 New line	1.1.1 M/PT4RA.1		Last used workspace	

Figure 3-10 Threshold controller setting

The setting items are explained below:

- 1. Threshold value type: to select threshold type, including 1-byte threshold, 2-byte threshold and 2-byte floating threshold.
- 2. Threshold on short/long button: to set the threshold sent via short/long pressing, which depends on the type selected in the first point.
- 3. Threshold toggled: to enable toggling threshold. After enabled, the threshold value to be toggled can be set in "Toggled threshold value" below.
- 4. Delay on short button: to set the delay time of "long press", range from 0 to 255s.
- 5. Long button time after: the time for system to identify "long press". For example, if the

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time is set to 3s, keeping pressing for more than 3s will be identified as "long press" while less than 3s will be identified as "short press".

- 6. LED status source: the source of LED status, including "Local", "From bus" and "Mutually exclusive display".
 - If "Local" is selected:

LED status: to select LED status, including "Flashing, then ON", "Flashing, then OFF", "Flashing, then status" and "ON/OFF status".

➢ If "From bus" is selected:

LED status reaction: to select the reaction of LED when the bus information is received. For example, LED is on when receiving 1 and is off when receiving 0.

Button status reaction (1 bit): to toggle object value received from the bus and update the value to button value.

Delay read LED status after power on: to set the delay time between powering on the device and reading LED status, range from 1 to 255s. 0 is set to have no response.

If "Mutually exclusive display" is selected: to set that the selected button and other buttons are mutually exclusive.

3.1.10 14-byte String Controller Setting

Figure 3-11 shows 14-byte string controller setting page.

HDL

	ETS5™ - New project222					
E	ETS Edit Workplace Commission	ing Diagnostics Extras Window		^ ()		
	🗞 Close Project 🖍 Undo 📣 Redo 🚔 Reports 📰 Workplace 🔻 🔢 Catalogs 🌉 Diagnostics					
Тс	Topology 🔹 🔿 🖉 🗙 🗸					
+	Add Channels 💌 🗙 Delete ± Dow	mload 🛛 🔻 🕜 Help 🥒 Highlight Changes	Default Parameters			
>	1.1.1 M/PT4RA.1 >>Combined	button				
1.1.1	General	Rocker A : operation mode	String(14bytes) controller	- O		
M/PT	>Status led brightness	->String on short button	Hello world!			
4RA.1	>Panel scene A	->String on long button	Hello world!			
	>Panel scene B	Delay on short button(0255s) Delay on long button(0255s)	0	* *		
	Rocker A	Long button time after	1s	•		
	>Combined button	Status light display settings				
	Rocker B	LED status source LED status	Local Flashing,then OFF	• •		
	>Up & down button					
	Rocker C					
	>Combined button					
	Rocker D					
	>Combined button					
	Group Objects Parameter					
	HDL USB Interface 🔺 1.1 New line	1.1.1 M/PT4RA.1	Last	used workspace		

Figure 3-11 14-byte string controller setting

The setting items are explained below:

- 1. String on short/long button: to set the string sent via short/long pressing.
- 2. Delay on short/long button: to set the delay time of "short/long press", range from 0 to 255s.
- 3. Long button time after: the time for system to identify "long press". For example, if the time is set to 3s, keeping pressing for more than 3s will be identified as "long press" while less than 3s will be identified as "short press".
- 4. LED status source: the source of LED status, including "Local", "From bus" and "Mutually exclusive display".
 - If "Local" is selected:

LED status: to select LED status, including "Flashing, then ON", "Flashing, then OFF", "Flashing, then status" and "ON/OFF status".



If "From bus" is selected:

LED status reaction: to select the reaction of LED when the bus information is received. For example, LED is on when receiving 1 and is off when receiving 0.

Button status reaction (1 bit): to toggle object value received from the bus and update the value to button value.

Delay read LED status after power on: to set the delay time between powering on the device and reading LED status, range from 1 to 255s. 0 is set to have no response.

If "Mutually exclusive display" is selected: to set that the selected button and other buttons are mutually exclusive.

3.1.11 Alternate Controller Setting

Figure 3-12 shows alternate controller setting page.

	ETS5 [™] - New project222						
E	TS Edit Workplace Commission	ing Diagnostics Extras Window		^ ()			
	💫 Close Project 🎸 Undo 🔷 Redo 🚔 Reports 📰 Workplace 🛪 📳 Catalogs 📰 Diagnostics						
То	Topology 🔻 🔿 💭 🔨						
+	Add Channels 🔹 🗙 Delete 🛨 Dow	nload 🛛 🔹 🕜 Help 🤌 Highlight Changes 🛛	Default Parameters				
> =	1.1.1 M/PT4RA.1 >>Combined	button					
1.1.1	General	Rocker A : operation mode	Alternate controller	- ^ O			
. M/PT	>Status led brightness	Alternate <1>	1bit value	- ¥1			
4RA.1	>Panel scene A	Short button value(1bit)	η	.			
	Papal scopa P	Long button value(1bit)	'0'	•			
	>ranei scene b	Alternate <2>	1bit value	•			
	Rocker A	Short button value(1bit)	η	Ŧ			
	>Combined button	Long button value(1bit)	'0'	-			
	Rocker B	Alternate <3>	Invalid	-			
	Hocker b	Alternate <4>	Invalid	•			
	>Up & down button	->Alternate on short button	🔵 Disable 🔘 Enable				
	Rocker C	->Alternate on long button	Disable Enable				
	>Combined button	Long button time after	1s	Ŧ			
	Rocker D	Status light display settings					
		LED status source	Local	-			
	>Combined button	LED status	Flashing.then OFF	- ·			
	Group Objects / Parameter						
	HDL USB Interface 1.1 New line	1.1.1 M/PT4RA.1		Last used workspace			

Figure 3-12 Alternate controller setting



The setting items are explained below:

- 1. Alternate <1/2/3/4>: to select the control type of "Alternate <1/2/3/4>".
- 2. Short/long button value: to set the data sent via short/long pressing, whose length depends on the type selected in the first point.
- 3. Alternate on short/long button: to enable the alternate function of "short/long press".
- 4. Long button time after: the time for system to identify "long press". For example, if the time is set to 3s, keeping pressing for more than 3s will be identified as "long press" while less than 3s will be identified as "short press".
- 5. LED status source: the source of LED status, including "Local", "From bus" and "Mutually exclusive display".
 - ➢ If "Local" is selected:

LED status: to select LED status, including "Flashing, then ON", "Flashing, then OFF", "Flashing, then status" and "ON/OFF status".

➢ If "From bus" is selected:

LED status reaction: to select the reaction of LED when the bus information is received. For example, LED is on when receiving 1 and is off when receiving 0.

Button status reaction (1 bit): to toggle object value received from the bus and update the value to button value.

Delay read LED status after power on: to set the delay time between powering on the device and reading LED status, range from 1 to 255s. 0 is set to have no response.



3.1.12 RGB Controller Setting

Figure 3-13 shows RGB controller setting page.

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	ETS Edit Workplace Commission	ing Diagnostics Extras Window		^ ()	
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Т	opology 🔻			∧ ⊡ × <	
+	Add Channels 🔹 🗙 Delete 🛨 Dow	vnload 🔹 🕜 Help 🥒 Highlight Changes	Default Parameters		
>	1.1.1 M/PT4RA.1 >>Combined	button			
1.1.3	General	Rocker A : operation mode	RGB controller	· · ·	
L M/PT4F	>Status led brightness	->object type	 three objects(DPT 5.001) one object(DPT 232.600) 	40 1	
λΑ.1	>Panel scene A	Short button color R brightness	100%(255)	•	
	>Panel scene B	Short button color G brightness	100%(255)	•	
	Rocker A	Short button color B brightness	100%(255)	•	
	>Combined button	->RGB short button toggled	Inactive Active		
		->RGB on long button	to one RGB value	•	
	Rocker B	long button color R brightness	0%(0)	•	
	>Up & down button	long button color G brightness	0%(0)	•	
	Rocker C	long button color B brightness	0%(0)	-	
	Combined button	Delay on short button(0255s)	0	* *	
	>combined button	Delay on long button(0255s)	0	* *	
	Rocker D	Long button time after	1s	•	
	>Combined button	Status light display settings		J	
	Group Objects Parameter				
	HDL USB Interface 🔺 1.1 New line	1.1.1 M/PT4RA.1		Last used workspace	

Figure 3-13 RGB controller setting

The setting items are explained below:

- 1. Object type: to select dimming object type. "3 objects" is to control dimming via R, G, and B independently, while "1 object" is to control dimming via RGB.
- 2. Short button color R/G/B brightness: to set the dimming value of short pressing.
- RGB short button toggled: to enable toggling RGB dimming via short pressing. After enabled, RGB to be toggled can be set in "Short button toggled color R/G/B brightness".
- 4. RGB on long button: to select the dimming operation of long pressing, including "to one RGB value" and "adjust short button color".

If the former is selected, the RGB value of long pressing can be set in "long button color



R/G/B brightness" below. If the latter is selected, the minimum, maximum and increment value can be set below.

- 5. Delay on short/long button: to set the delay time of "short/long press", range from 0 to 255s.
- 6. Long button time after: the time for system to identify "long press". For example, if the time is set to 3s, keeping pressing for more than 3s will be identified as "long press" while less than 3s will be identified as "short press".
- 7. LED status source: the source of LED status, including "Local", "From bus" and "Mutually exclusive display".
 - If "Local" is selected:

LED status: to select LED status, including "Flashing, then ON", "Flashing, then OFF", "Flashing, then status" and "ON/OFF status".

➢ If "From bus" is selected:

LED status reaction: to select the reaction of LED when the bus information is received. For example, LED is on when receiving 1 and is off when receiving 0.

Button status reaction (1 bit): to toggle object value received from the bus and update the value to button value.

Delay read LED status after power on: to set the delay time between powering on the device and reading LED status, range from 1 to 255s. 0 is set to have no response.



3.1.13 Fan Controller Setting

Figure 3-14 shows fan controller setting page.

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	ETS Edit Workplace Commission	ing Diagnostics Extras Window		^ ()				
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Т	opology 🔻			∧ ∂ × <				
+	🕂 Add Channels 🔻 🗙 Delete 붗 Download 🔻 🕜 Help 🤌 Highlight Changes Default Parameters 🗉							
>	1.1.1 M/PT4RA.1 >>Combined	button						
1.1.1	General	Rocker A : operation mode	Fan controller	O				
M/PT	>Status led brightness	->Total number of fan speed	3					
4RA.1	>Panel scene A	Speed 1 objects settings Object 1 value set	ON	•				
	>Panel scene B	Object 2 value set	OFF	Ţ				
	Rocker A	Object 3 value set	OFF	•				
	>Combined button	Speed 2 objects settings	OFF					
	Rocker B	Object 2 value set	ON	•				
	>Up & down button	Object 3 value set	OFF	•				
	Rocker C	Speed 3 objects settings						
		Object 1 value set	OFF	•				
	>Combined button	Object 2 value set	OFF	•				
	Rocker D	Object 3 value set	ON	•				
	>Combined button	Speed off objects settings		v				
	Group Objects Parameter							
	HDL USB Interface 🔺 1.1 New line	1.1.1 M/PT4RA.1		Last used workspace				

Figure 3-14 Fan controller setting

The setting items are explained below:

- 1. Total number of fan speed: select the number of fan speed levels, range from 2 to 4.
- 2. Speed 1/2/3/4 object settings: the details of fan speed levels can be set. "Object1/2/3/4 value set" corresponds to the value of object 1/2/3/4.
- 3. Speed off objects settings: to set object value when fan is off.
- 4. Reaction on short button: to enabling adjusting fan speed via short/long pressing. After enabled, the details can be set below:
 - Switch speed direction: to adjust wind direction, "FWD" means forward wind while "RWD" means backward wind.



- Speed 1/2/3/4: to enable the fan speed of correspond level.
- ➤ Turn off fan
- 5. Delay to send ON after OFF: to set the delay time between sending OFF command and sending ON command again, range from 0 to 255s.
- 6. Long button time after: the time for system to identify "long press". For example, if the time is set to 3s, keeping pressing for more than 3s will be identified as "long press" while less than 3s will be identified as "short press".
- 7. LED status source: the source of LED status, including "Local", "From bus" and "Mutually exclusive display".
 - If "Local" is selected:

LED status: to select LED status, including "Flashing, then ON", "Flashing, then OFF", "Flashing, then status" and "ON/OFF status".

If "From bus" is selected:

LED status reaction: to select the reaction of LED when the bus information is received. For example, LED is on when receiving 1 and is off when receiving 0.

Button status reaction (1 bit): to toggle object value received from the bus and update the value to button value.

Delay read LED status after power on: to set the delay time between powering on the device and reading LED status, range from 1 to 255s. 0 is set to have no response.



3.1.14 Combination Controller Setting

Figure 3-15 shows combination controller setting page.

Notice: because combination controller only supports up 10 objects, "n" in this part is a positive integer less than 11.

ETS5™ - New project222							
	Edit Workplace Commission	ing Diagnostics Extras Window		^	0		
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Т	opology 🔻			∧ □ ×	<		
+	Add Channels 💌 🗙 Delete ± Dow	nload 🔹 🕜 Help 🌛 Highlight Changes 🛛	Default Parameters	Ī			
>	1.1.1 M/PT4RA.1 >>Combined	button					
1.1.1	General	Rocker A : operation mode	Combination controller	-	0		
M/PT	>Status led brightness	Object type 1	Invalid	-			
4RA.1	>Panel scene A	Object type 2	Invalid	•			
		Object type 3	Invalid	•			
	>Panel scene B	Object type 4	Invalid	-			
	Rocker A	Object type 5	Invalid	•			
	>Combined button	Object type 6	Invalid	-			
	Rocker B	Object type 7	Invalid	•			
		Object type 8	Invalid	•			
	>Up & down button	Object type 9	Invalid	•			
	Rocker C	Object type 10	Invalid	•			
	>Combined button	Status light display settings					
		LED status source	Local	-			
	Rocker D	LED status	🔵 Flashing,then ON 🔘 Flashing,then OFF				
	>Combined button						
	Group Objects Parameter						
	HDL USB Interface 🔺 1.1 New line	1.1.1 M/PT4RA.1	Last used v	vorkspace			

Figure 3-15 Combination controller setting

3.1.14.1 Switch Controller Setting

Switch value: to select switch controller value, including "ON/OFF" and "Toggle".

3.1.14.2 Shutter Controller Setting

Shutter value: to select shutter controller value, including "UP/DOWN" and "Toggle".



3.1.14.3 Scene Controller Setting

- 1. Scene value: to select to output corresponding scene number (Up to 64 scene numbers available).
- 2. Scene toggled: to enable exchanging scenes. After enabled, the number of scenes to be exchanged can be selected in "Toggled scene No. is".

3.1.14.4 Sequence Controller Setting

Sequence value: to select sequence value, including "Start/Stop" and "Toggle".

3.1.14.5 Percentage Controller Setting

- 1. Percentage value: to select percentage controller value.
- 2. Percentage toggled: to enable exchanging percentage. After enabled, the percentage to be exchanged can be selected in "Toggled percentage is" below.

3.1.14.6 Threshold Controller Setting

- 1. Threshold value type: to select threshold type, including 1-byte/2-byte threshold.
- 2. Threshold value: to select threshold value, whose range depends on the threshold type selected in the first point.
- 3. Threshold toggled: to enable exchanging threshold. After enabled, the threshold to be exchanged can be selected in "Toggled threshold is" below.

3.1.14.7 14-byte String Controller Setting

String (14 bytes) value: to edit items controlled by 14 bytes.

3.2 Independent Button Mode

This chapter takes "Up button" of "Rocker A" as an example to introduce the way of configuring dependent button mode.



3.2.1 Select Operation Mode

The operation mode of combined buttons can be selected at the top of "Up & down button" tab, as shown in Figure 3-16.



Figure 3-16 Select operation mode



3.2.2 Switch Controller Setting

Figure 3-17 shows switch controller setting page.

	ETS5™ - New project222			- • •
I	TS Edit Workplace Commission	ing Diagnostics Extras Window		^ 😮
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Тс	pology 🔻			∧ □ × <
+	Add Channels 🔹 🗙 Delete 🛨 Dow	nload 🔹 🕜 Help 🥜 Highlight Changes	Default Parameters	E
>	1.1.1 M/PT4RA.1 >>Up & dow	n button		
1.1.1	General	Rocker A : operation mode	Switch controller	- O
. M/PT	>Status led brightness	->Reaction on short button	Up=Toggle,Down=Toggle	- ¥1
4RA.1	>Panel scene A	->Reaction on long button	Invalid	•
	>Panel scene B	->Delay for button Long button time after	1s	•
	Rocker A	Delay send another object function		
	>Up & down button	Delay send function	Disable Enable	
	Rocker B	Status light display settings	Local	-
	>Up & down button	LED status	ON/OFF status	•
	Rocker C			
	>Combined button			
	Rocker D			
	>Combined button			
	Group Objects Parameter			
	HDL USB Interface 🔺 1.1 New line	1.1.1 M/PT4RA.1		Last used workspace

Figure 3-17 Switch controller setting

- 1. Reaction on up/down button: to set the control type of "short/long press", including:
 - Invalid: buttons have no response.
 - > Toggle: to select buttons to turn on closed objects, and vice versa.
 - ON: to turn on objects.
 - OFF: to turn off objects.
- 2. Delay for button: to enable activating buttons after the delay time.

Delay for switch ON/OFF of short/long button: to set the delay time between "short/long press" and turning on/off objects, range from 0 to 255s.



- 3. Long button time after: the time for system to identify "long press". For example, if the time is set to 3s, keeping pressing for more than 3s will be identified as "long press" while less than 3s will be identified as "short press".
- 4. Delay send function: to enable "Delay send function".

Delay send for short/long button: to enable "Delay send for short/long button".

Delay send when button object value: to enable "Delay send function" when button object is on/off/on or off.

Delay send value: to set the value sent after the delay time.

Send after a delay: to set the delay time of sending, range from 0 to 255s.

- 5. LED status source: the source of LED status, including "Local", "From bus" and "Mutually exclusive display".
 - ➢ If "Local" is selected:

LED status: to select LED status, including "Flashing, then ON", "Flashing, then OFF", "Flashing, then status" and "ON/OFF status".

➢ If "From bus" is selected:

LED status reaction: to select the reaction of LED when the bus information is received. For example, LED is on when receiving 1 and is off when receiving 0.

Button status reaction (1 bit): to toggle object value received from the bus and update the value to button value.

Delay read LED status after power on: to set the delay time between powering on the device and reading LED status, range from 1 to 255s. 0 is set to have no response.



3.2.3 Dimming Controller Setting

Figure 3-18 shows dimming controller setting page.

Ħ	II ETS5™ - New project222					
	ETS Edit Workplace Commi	issioning Diagnostics Extras Window		^ 😯		
	🗴 Close Project 🛛 🏠 Undo 🖉	💊 Redo 🛛 🚔 Reports 📄 Workplace 🔻	Catalogs Diagnostics			
Т	opology 🔻			∧ □ × <		
+	🛚 Add Channels 🔹 🗙 Delete 🛨	🖸 Download 🔹 🕜 Help 🌛 Highlight Changes	Default Parameters	E		
>	1.1.1 M/PT4RA.1 >>Up &	down button				
1.1.1	General	Rocker A : operation mode	Dimming controller	- O		
M/PT	>Status led brightness	->Reaction on short button	Up=Toggle,Down=Toggle	▼		
4RA.1	>Panel scene A	->Reaction on long button	Up=Dim(Toggle),Down=Dim(Toggle)	•		
	>Panel scene B	Delay for switch ON of short button (0255s)	0	* *		
	Rocker A	Delay for switch OFF of short button (0255s)	0	* *		
	>Up & down button	Dimming steps	Step1 (100%)	-		
		Long button time after	1s	•		
	Rocker B	Status light display settings				
	>Up & down button	LED status source	Local	~		
	Rocker C	LED status	ON/OFF status	•		
	>Combined button					
	Rocker D					
	>Combined button					
	Group Objects Parameter					
	HDL USB Interface 🔺 1.1 New line	1.1.1 M/PT4RA.1		Last used workspace		

Figure 3-18 Dimming controller setting

The setting items are explained below:

1. Reaction on short button: to select the operation of "short press", including:

Toggle

On/Off: to turn on/off lights.

2. Reaction on long button: to select the operation of "long press" on the panel, including:

Dim (Toggle)

Brighter/Darker

Delay for switch ON/OFF of short/long button: to set the delay time between "short/long

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press" and turning on/off objects, range from 0 to 255s.

- 3. Dimming steps: There are 7 dimming steps. For example, if selecting Step3 (25%), objects will be up to 25% brighter (The maximum object brightness is 100%).
- 4. Long button time after: the time for system to identify "long press". For example, if the time is set to 3s, keeping pressing for more than 3s will be identified as "long press" while less than 3s will be identified as "short press".
- 5. LED status source: the source of LED status, including "Local", "From bus" and "Mutually exclusive display".
 - ➢ If "Local" is selected:

LED status: to select LED status, including "Flashing, then ON", "Flashing, then OFF", "Flashing, then status" and "ON/OFF status".

➢ If "From bus" is selected:

LED status reaction: to select the reaction of LED when the bus information is received. For example, LED is on when receiving 1 and is off when receiving 0.

Button status reaction (1 bit): to toggle object value received from the bus and update the value to button value.

Delay read LED status after power on: to set the delay time between powering on the device and reading LED status, range from 1 to 255s. 0 is set to have no response.



3.2.4 Shutter Controller Setting

Figure 3-19 shows shutter controller setting page.

I	ETS5™ - New project222			
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Т	opology 🔻			∧ □ × <
+	Add Channels 🛛 🛪 🗙 Delete 🛨 Dow	vnload 🔹 🕜 Help 🥒 Highlight Changes	Default Parameters	
>	1.1.1 M/PT4RA.1 >>Up & dow	n button		
1.1.1	General	Rocker A : operation mode	Shutter controller	- O
M/PT	>Status led brightness	->Reaction on short button	Up/Down=Stepping->Toggle/Stop	
[4RA.]	>Panel scene A	->Reaction on long button	Up/Down=Moving->Toggle	•
	>Panel scene B	->Stop moving automatically	Disable Enable	
		Long button time after	1s	-
	Rocker A	Status light display settings		
	>Up & down button	LED status source	Local	•
	Rocker B	LED status	ON/OFF status	•
	>Up & down button			
	Rocker C			
	>Combined button			
	Rocker D			
	>Combined button			
	Group Objects Parameter			
	HDL USB Interface 🔺 1.1 New line	1.1.1 M/PT4RA.1		Last used workspace

Figure 3-19 Shutter controller setting

The setting items are explained below:

- 1. Reaction on short button: to select the operation of "short press" on the panel, including:
 - Up/Down=Increase/Stop or Decrease/Stop: to roll up/down via short pressing and stop via pressing again.
 - > Up/Down=Stepping → Toggle/Stop: to toggle via short pressing and stop via pressing again.
 - > Up/Down=Up or Down: to roll up/down via short pressing.
 - > Up/Down=Moving \rightarrow Toggle: to switch between rolling up/down via short pressing.



- Up/Down=Up/Stop or Down/Stop: to roll up/down via short pressing and stop via pressing.
- ➤ Up/Down=Moving → Toggle/Stop: to switch between rolling up/down via short pressing and stop via pressing again.
- 2. Reaction on long button: to select the operation of "long press" on the panel, including:
 - Up/Down=Increase/Stop or Decrease/Stop: to roll up/down via long pressing and stop via pressing again.
 - ➤ Up/Down=Stepping → Toggle/Stop: to toggle via long pressing and stop via pressing again.
 - > Up/Down=Up or Down: to roll up/down via long pressing.
 - > Up/Down=Moving \rightarrow Toggle: to switch between rolling up/down via long pressing.
 - Press: Up/Down=Move → Up/Down; Release: Stop: to roll up/down via pressing and stop via releasing.
 - ➢ Press: Up/Down=Move → Toggle; Release: Stop: to toggle via pressing and stop via releasing.
- 3. Stop moving automatically: to enable stopping curtain automatically.
- 4. Long button time after: to select the delay time of "long press", range from 1 to 60s.
- 5. LED status source: the source of LED status, including "Local", "From bus" and "Mutually exclusive display".
 - ➢ If "Local" is selected:

LED status: to select LED status, including "Flashing, then ON", "Flashing, then OFF", "Flashing, then status" and "ON/OFF status".

➢ If "From bus" is selected:

LED status reaction: to select the reaction of LED when the bus information is received. For example, LED is on when receiving 1 and is off when receiving 0.

Button status reaction (1 bit): to toggle object value received from the bus and update the value to button value.

Delay read LED status after power on: to set the delay time between powering on the device and reading LED status, range from 1 to 255s. 0 is set to have no response.



3.2.5 Flexible Controller Setting

Figure 3-20 shows flexible controller setting page.

Ħ						
	ETS Edit Workplace Commission	ing Diagnostics Extras Window		^ ?		
	🗞 Close Project 🛛 🎸 Undo 🛛 🐴 R	Redo 🚔 Reports 🔛 Workplace 🔻	📃 Catalogs 🛛 🔤 Diagnostics			
Т	opology 🔻			∧ □ × <		
+	🛚 Add Channels 🔹 🗙 Delete 🛛 🛨 Dow	mload 🔹 🕜 Help 🥒 Highlight Changes	Default Parameters			
>	1.1.1 M/PT4RA.1 >>Up & dow	n button				
1.1.1	General	Rocker A : operation mode	Flexible controller	- 0		
M/PT	>Status led brightness	Operation of the up button	Press="ON",Release="OFF"	▼		
14RA.1	>Panel scene A	Operation of the down button	Press="ON",Release="OFF"	•		
	>Panel scene B	LED status source	Local	•		
	Rocker A	LED status	ON/OFF status	•		
	>Up & down button					
	Rocker B					
	>Up & down button					
	Rocker C					
	>Combined button					
	Rocker D					
	>Combined button					
	Group Objects Parameter					
	HDL USB Interface 🔺 1.1 New line	1.1.1 M/PT4RA.1		Last used workspace		

Figure 3-20 Flexible controller setting

The setting items are explained below:

- 1. Operation mode: to select the operation mode of flexible controller, including "No Short & Long button" and "Short & Long button".
- 2. Operation of the up/down button: to select the operation of the up/down button, including:

Press/Release=ON/OFF: to send ON/OFF after pressing/releasing.

- 3. LED status source: the source of LED status, including "Local", "From bus" and "Mutually exclusive display".
 - If "Local" is selected:



LED status: to select LED status, including "Flashing, then ON", "Flashing, then OFF", "Flashing, then status" and "ON/OFF status".

If "From bus" is selected:

LED status reaction: to select the reaction of LED when the bus information is received. For example, LED is on when receiving 1 and is off when receiving 0.

Button status reaction (1 bit): to toggle object value received from the bus and update the value to button value.

Delay read LED status after power on: to set the delay time between powering on the device and reading LED status, range from 1 to 255s. 0 is set to have no response.

If "Mutually exclusive display" is selected: to set that the selected button and other buttons are mutually exclusive.

3.2.6 Scene Controller Setting

Figure 3-21 shows scene controller setting page.

HDL

	ETS5™ - New project222					
E	TS Edit Workplace	Commissioni	ng Diagnostics Extras Window		~	0
	🔉 Close Project 🎸 Undo 🔷 Redo 🚔 Reports 📰 Workplace 🔻 🎚 Catalogs 📰 Diagnostics					
Το	pology 🔻				∧ ⊡ ×	<
+	Add Channels 🔹 🗙 Del	lete 🛨 Down	iload 🔹 🕐 Help 🥒 Highlight Changes 🛛	Default Parameters		
>	1.1.1 M/PT4RA.1 >>	>Up & down	button			
1.1.1	General		Rocker A : operation mode	Scene controller	•	0
M/PT	>Status led brightne	ess	->Call scene number of the up	Scene NO.01	-	**
4RA.1	>Panel scene A		->Call scene number of the down	Scene NO.02	-	
ľ	>Panel scene B		->Long button operation as Ir Delay operation for up short button	Invalid	▼	
	Rocker A		(0255s) Delay operation for down short button	•	÷	
	>Up & down butto	on	(0255s)	0 1s		
	Rocker B		Status light display settings			
	>Up & down button	ı	LED status source	Local	-	
	Rocker C		LED status	Flashing,then OFF	-	
	>Combined button					
	Rocker D					
	>Combined button					
	Group Objects Para	ameter				
H	HDL USB Interface 🔺 1.11	New line	1.1.1 M/PT4RA.1		Last used workspace	

Figure 3-21 Scene controller setting

The setting items are explained below:

- 1. Call scene number of the up/down: to select corresponding scene number of short pressing the up/down button (Up to 64 scene numbers available).
- 2. Long button operation as: to select the operation of "long press", including:
 - Scene dimming
 - Scene saving: to save current scene to overwrite scene setting when current scene changes.
- 3. Delay operation for up/down short button: to set the delay time of the up/down button, range from 0 to 255s.
- 4. Long button time after: the time for system to identify "long press". For example, if the time is set to 3s, keeping pressing for more than 3s will be identified as "long press" while less than 3s will be identified as "short press".



- 5. LED status source: the source of LED status, including "Local", "From bus" and "Mutually exclusive display".
 - If "Local" is selected:

LED status: to select LED status, including "Flashing, then ON", "Flashing, then OFF", "Flashing, then status" and "ON/OFF status".

➢ If "From bus" is selected:

LED status reaction: to select the reaction of LED when the bus information is received. For example, LED is on when receiving 1 and is off when receiving 0.

Button status reaction (1 bit): to toggle object value received from the bus and update the value to button value.

Delay read LED status after power on: to set the delay time between powering on the device and reading LED status, range from 1 to 255s. 0 is set to have no response.

If "Mutually exclusive display" is selected: to set that the selected button and other buttons are mutually exclusive.

3.2.7 Sequence Controller Setting

Figure 3-22 shows sequence controller setting page.



I	ETS5™ - New project222			
	Edit Workplace Commission	ing Diagnostics Extras Window		^ (
	🔉 Close Project 🛛 🎸 Undo 🛛 🐴 R	Reports Workplace 🔻	Catalogs Diagnostics	
Т	ppology 🔻			▲ 🗇 🗙 <
+	Add Channels 🛛 🛪 🗙 Delete 🛨 Dow	nload 🛛 🔻 🕜 Help 🌛 Highlight Changes	Default Parameters	
>	1.1.1 M/PT4RA.1 >>Up & dow	n button		
1.1.1	General	Rocker A : operation mode	Sequence controller	- O
M/PT	>Status led brightness	->Reaction on short button	Up=Toggle,Down=Toggle	
4RA.1	>Panel scene A	->Reaction on long button	Invalid	•
	>Panel scene B	Long button time after Status light display settings	1s	•
	Rocker A	LED status source	Local	-
	>Up & down button	LED status	ON/OFF status	-
	Rocker B			
	>Up & down button			
	Rocker C			
	>Combined button			
	Rocker D			
	>Combined button			
	Group Objects Parameter			
	HDL USB Interface 🔺 1.1 New line	1.1.1 M/PT4RA.1		Last used workspace

Figure 3-22 Sequence controller setting

The setting items are explained below:

- 1. Reaction on short/long button: to select the operation of "short/long press", including:
 - > Toggle
 - Start with 1/0
 - ➢ Stop with 1/0
- 2. Long button time after: the time for system to identify "long press". For example, if the time is set to 3s, keeping pressing for more than 3s will be identified as "long press" while less than 3s will be identified as "short press".
- 3. LED status source: the source of LED status, including "Local", "From bus" and "Mutually exclusive display".
 - If "Local" is selected:

LED status: to select LED status, including "Flashing, then ON", "Flashing, then OFF",



"Flashing, then status" and "ON/OFF status".

➢ If "From bus" is selected:

LED status reaction: to select the reaction of LED when the bus information is received. For example, LED is on when receiving 1 and is off when receiving 0.

Button status reaction (1 bit): to toggle object value received from the bus and update the value to button value.

Delay read LED status after power on: to set the delay time between powering on the device and reading LED status, range from 1 to 255s. 0 is set to have no response.

If "Mutually exclusive display" is selected: to set that the selected button and other buttons are mutually exclusive.

3.2.8 Percentage Controller Setting

Figure 3-23 shows percentage controller setting page.

Ħ	ETS5™ - New project222			
	ETS Edit Workplace Commission	ing Diagnostics Extras Window		^ (2
	👩 Close Project 🛛 🎸 Undo 🛛 🐴 F	Redo 🚔 Reports 🔛 Workplace 🔻	Catalogs 🔤 Diagnostics	
Т	opology 🔻			∧ □ × <
+	Add Channels 🛛 🛪 🗙 Delete 🛨 Dow	nload 🔹 🕜 Help 🤌 Highlight Changes	Default Parameters	
> =	1.1.1 M/PT4RA.1 >>Up & dow	n button		
11	General	Rocker A : operation mode	Percentage controller	- O
. M/PT	>Status led brightness	->Percentage on up short button	100%(255)	- ·
4RA.1	>Panel scene A	->Percentage on up long button	0%(0)	•
	>Panel scene B	Delay on up short button(0255s) Delay on up long button(0255s)	0	÷
	Rocker A	->Percentage on down short button	100%(255)	•
	>Up & down button	->Percentage on down long button	0%(0)	•
	Rocker B	Delay on down short button(0255s)	0	÷
		Delay on down long button(0255s)	0	Ţ
	>Up & down button	Long button time after	1s	-
	Rocker C	Status light display settings		
	>Combined button	LED status source	Local	-
		LED status	Flashing,then OFF	•
	Rocker D			
	>Combined button			
	Group Objects Parameter			
	HDL USB Interface 🔺 1.1 New line	1.1.1 M/PT4RA.1		Last used workspace

Figure 3-23 Percentage controller setting



The setting items are explained below:

- 1. Percentage on up/down short/long button: to select the percentage operation of "short press".
- 2. Delay on up/down short/long button: to set the delay time of "short/long press", range from 0 to 255s.
- 3. Long button time after: the time for system to identify "long press". For example, if the time is set to 3s, keeping pressing for more than 3s will be identified as "long press" while less than 3s will be identified as "short press".
- 4. LED status source: the source of LED status, including "Local", "From bus" and "Mutually exclusive display".
 - ➢ If "Local" is selected:

LED status: to select LED status, including "Flashing, then ON", "Flashing, then OFF", "Flashing, then status" and "ON/OFF status".

If "From bus" is selected:

LED status reaction: to select the reaction of LED when the bus information is received. For example, LED is on when receiving 1 and is off when receiving 0.

Button status reaction (1 bit): to toggle object value received from the bus and update the value to button value.

Delay read LED status after power on: to set the delay time between powering on the device and reading LED status, range from 1 to 255s. 0 is set to have no response.



3.2.9 Threshold Controller Setting

Figure 3-24 shows threshold controller setting page.

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IS Edit Workplace Commission	ing Diagnostics Extras Window		/	<u> </u>
🕽 Close Project 🛛 🏠 Undo 🛛 🐴 R	Redo 🚔 Reports 📰 Workplace 🔻	📃 Catalogs 🛛 🔤 Diagnostics		
pology 🔻			∧ ⊡ ×	<
Add Channels 📼 🗙 Delete 🛨 Dow	mload 🛛 🔹 🕜 Help 🥒 Highlight Changes	Default Parameters		
1.1.1 M/PT4RA.1 >>Up & dow	n button			
General	Rocker A : operation mode	Threshold controller	•	0
>Status led brightness	Threshold value type	1byte threshold	•	*
>Panel scene A	->Threshold on up short button	255	×	
>Panel scene B	-> I hreshold on up long button Delay on up short button	0	▼ ▲ ▼	
Rocker A	Delay on up long button(0255s)	0	▲ ▼	
>Up & down button	->Threshold on down short button	255		
Rocker B	->Threshold on down long button	0	* *	
>Un & down button	Delay on down short button	0		
	Delay on down long button(0255s)	0	÷	
Rocker C	Long button time after	1s	•	
>Combined button	Status light display settings			
Rocker D	LED status source	Local	•	
	LED status	Flashing,then OFF	•	
>Combined button				
DL USB Interface	111 M/PT//R& 1		liast used workspace	
	S Edit Workplace Commission Close Project Image: Close Project Image: Close Project pology T Add Channels Image: Close Project Image: Close Project Add Channels Image: Close Project Image: Close Project Image: Close Project Image: Close Project Add Channels Image: Close Project Image: Close Pro	S Edit Workplace Commissioning Diagnostics Extras Window Close Project Image: C	S Edit Workplace Commissioning Diagnostics Extras Window Close Project Valo Redo Reports Workplace * Catalogs Diagnostics Diagnostics Diagnostics Diagnostics Workplace * Catalogs Diagnostics Diagnostics Diagnostics Diagnostics Provided * Workplace * Catalogs Diagnostics Diagnostics Diagnostics Provide * Workplace * Catalogs Diagnostics Diagnostics Provide * Workplace * Workplace * Diagnostics Diagnostics Provide * Provi	S Edit Workplace Commissioning Diagnostics Extras Window Q Close Project Undo Redo Reports Workplace * Diagnostics pology * Action Project Undo Redo Reports Diagnostics pology * Action Project Undo Redo Reports Diagnostics pology * Action Project Download * Help Highlight Changes Default Parameters Add Channels * X Delete Download * Recker A : operation mode Threshold controller Image: Controller f ->>Status led brightness ->Threshold value type Thyte threshold Image: Controller >>Panel scene A ->Delay on up short button 0 Image: Controller >Panel scene B ->Delay on up short button 0 Image: Controller >Up & down button ->Threshold on up short button 0 Image: Controller >Up & down button ->Delay on up short button 0 Image: Controller >Up & down button ->Threshold on down short button 0 Image: Controller >Up & down button ->Delay on down short button 0 Image: Controller >Up & down button ->Delay on up on up ong button(0255s) 0 Image: Controller >Combined button Status light display settings Image: Controller Image: Controller >Combined button>LED status Fishingthen OFF Image: Controller >Combined button Image: Controller Image: Controller Image: Con

Figure 3-24 Threshold controller setting

The setting items are explained below:

- 1. Threshold value type: to select threshold type, including 1-byte threshold, 2-byte threshold and 2-byte floating threshold.
- 2. Threshold on up/down short/long button: to set the threshold sent by short/long pressing the up/down button, which depends on the type selected in the first point.
- 3. Delay on up/down short/long button: to set the delay time of short/long pressing the up/down button, range from 0 to 255s.
- 4. Long button time after: the time for system to identify "long press". For example, if the time is set to 3s, keeping pressing for more than 3s will be identified as "long press" while less than 3s will be identified as "short press".



- 5. LED status source: the source of LED status, including "Local", "From bus" and "Mutually exclusive display".
 - If "Local" is selected:

LED status: to select LED status, including "Flashing, then ON", "Flashing, then OFF", "Flashing, then status" and "ON/OFF status".

➢ If "From bus" is selected:

LED status reaction: to select the reaction of LED when the bus information is received. For example, LED is on when receiving 1 and is off when receiving 0.

Button status reaction (1 bit): to toggle object value received from the bus and update the value to button value.

Delay read LED status after power on: to set the delay time between powering on the device and reading LED status, range from 1 to 255s. 0 is set to have no response.

If "Mutually exclusive display" is selected: to set that the selected button and other buttons are mutually exclusive.

3.2.10 14-byte String Controller Setting

Figure 3-25 shows 14-byte string controller setting page.



	ETS5™ - New project222			
	ETS Edit Workplace Commission	ing Diagnostics Extras Window		^ ()
	🗴 Close Project 🖌 Undo 🛝 R	Redo 📄 Reports 📄 Workplace 🔻	Catalogs Diagnostics	
Т	opology 🔻			∧ □ × <
+	🛚 Add Channels 🔹 🗙 Delete 🛛 🛨 Dow	nload 🛛 🔹 🕜 Help 🥒 Highlight Changes	Default Parameters	
> =	1.1.1 M/PT4RA.1 >>Up & dow	n button		
1.1.1	General	Rocker A : operation mode	String(14bytes) controller	- O
. M/PT	>Status led brightness	->String on up short button	Hello world!	¥1
4RA.1	>Panel scene A	->String on up long button	Hello world!	
	>Panel scene B	Delay on up short button(0255s)	0	
	Rocker A	->String on down short button	Hello world!	
	>Up & down button	->String on down long button	Hello world!	
	Rocker B	Delay on down short button(0255s)	0	* *
		Delay on down long button(0255s)	0	*
	>Up & down button	Long button time after	1s	•
	Rocker C	Status light display settings		
	>Combined button	LED status source	Local	-
		LED status	Flashing, then OFF	•
	Kocker D			
	>Combined button			
	Group Objects / Parameter /			
	HDL USB Interface 🔺 1.1 New line	1.1.1 M/PT4RA.1		Last used workspace

Figure 3-25 14-byte string controller setting

The setting items are explained below:

- 1. String on up/down short/long button: to set the string sent via short/long pressing the up/down button.
- 2. Delay on up/down short/long button: to set the delay time of short/long pressing the up/down button, range from 0 to 255s.
- 3. Long button time after: the time for system to identify "long press". For example, if the time is set to 3s, keeping pressing for more than 3s will be identified as "long press" while less than 3s will be identified as "short press".
- 4. LED status source: the source of LED status, including "Local", "From bus" and "Mutually exclusive display".
 - If "Local" is selected:

LED status: to select LED status, including "Flashing, then ON", "Flashing, then OFF", "Flashing, then status" and "ON/OFF status".



If "From bus" is selected:

LED status reaction: to select the reaction of LED when the bus information is received. For example, LED is on when receiving 1 and is off when receiving 0.

Button status reaction (1 bit): to toggle object value received from the bus and update the value to button value.

Delay read LED status after power on: to set the delay time between powering on the device and reading LED status, range from 1 to 255s. 0 is set to have no response.

If "Mutually exclusive display" is selected: to set that the selected button and other buttons are mutually exclusive.

3.2.11 Alternate Controller Setting

Figure 3-26 shows alternate controller setting page.

III E	TS5™ - New project222				3
E	TS Edit Workplace Commission	ing Diagnostics Extras Window		^ (0
	🔉 Close Project 🛛 🎸 Undo 🛛 🐴 R	edo 🚔 Reports 🔛 Workplace 🔻	Catalogs Diagnostics		
То	pology 🔻			▲ □ ×	¢
+	Add Channels 🛛 🔹 🗙 Delete 🛛 🛨 Dow	nload 🔻 🕜 Help 🌛 Highlight Changes 🛛	Default Parameters		Ì
> ⊨	1.1.1 M/PT4RA.1 >>Up & dow	n button			
1.1.1	General	Rocker A : operation mode	Alternate controller	- ^ C	
M/PT	>Status led brightness	Alternate <1>	1bit value	-	
4RA.1	>Panel scene A	Up short button value(1bit)	ካ 	•	
	>Panel scene B	Up long button value(1bit) Down short button value(1bit)	יטי יוי	•	
	Rocker A	Down long button value(1bit)	'0'	•	
	>Up & down button	Alternate <2>	1bit value	•	
	Rocker B	Up short button value(1bit)	'l'	-	
	Hocker D	Up long button value(1bit)	'0'	•	
	>Up & down button	Down short button value(1bit)	'1'	-	
	Rocker C	Down long button value(1bit)	,0,	•	
	>Combined button	Alternate <3>	1bit value	-	
	Rocker D	Up short button value(1bit)	Υ	-	
		Up long button value(1bit)	'0'	-	
	>Combined button	Down short button value(1bit)	η	• •	
ł	HDL USB Interface 1.1 New line	1.1.1 M/PT4RA.1		Last used workspace	

Figure 3-26 Alternate controller setting



The setting items are explained below:

- 1. Alternate <1/2/3/4>: to select the control type of "Alternate <1/2/3/4>".
- 2. Up/Down short/long button value: to set the data of short/long pressing the up/down button, whose length depends on the type selected in the first point.
- 3. Alternate on up/down short/long button: to enable the alternate function of short/long pressing the up/down button.
- 4. Long button time after: the time for system to identify "long press". For example, if the time is set to 3s, keeping pressing for more than 3s will be identified as "long press" while less than 3s will be identified as "short press".
- 5. LED status source: the source of LED status, including "Local", "From bus" and "Mutually exclusive display".
 - If "Local" is selected:

LED status: to select LED status, including "Flashing, then ON", "Flashing, then OFF", "Flashing, then status" and "ON/OFF status".

If "From bus" is selected:

LED status reaction: to select the reaction of LED when the bus information is received. For example, LED is on when receiving 1 and is off when receiving 0.

Button status reaction (1 bit): to toggle object value received from the bus and update the value to button value.

Delay read LED status after power on: to set the delay time between powering on the device and reading LED status, range from 1 to 255s. 0 is set to have no response.



3.2.12 RGB Controller Setting

Figure 3-27 shows RGB controller setting page.

Ħ	ETS5™ - New project222			
	ETS Edit Workplace Commission	ning Diagnostics Extras Window		^ ()
	🔉 Close Project 🛛 🏠 Undo 🛛 🐴 F	Redo 🚔 Reports 📕 Workplace 🔻	📃 Catalogs 🛛 🔤 Diagnostics	
Т	opology 🔻			∧ □ × <
+	Add Channels 🛛 🛪 🗙 Delete 🛨 Dov	wnload 🔹 🕜 Help 🌛 Highlight Changes	Default Parameters	
>	1.1.1 M/PT4RA.1 >>Up & dow	vn button		
	General	Rocker A : operation mode	RGB controller	· · · ·
L M/PT4I	>Status led brightness	->object type	 three objects(DPT 5.001) one object(DPT 232.600) 	÷
RA.1	>Panel scene A	->RGB on up short button	No Ves	
	>Panel scene B	Color R brightness	100%(255)	•
	Rocker A	Color G brightness	100%(255)	~
	>Up & down button	Color B brightness	100%(255)	•
	De dez D	->RGB on up long button	No Ves	
	коскег в	Delay on up short button(0255s)	0	* *
	>Up & down button	Delay on up long button(0255s)	0	▲ ▼
	Rocker C	->RGB on down short button	🔿 No 🔘 Yes	
	>Combined button	Color R brightness	100%(255)	•
		Color G brightness	100%(255)	•
	Rocker D	Color B brightness	100%(255)	-
	>Combined button	->RGB on down long button	◎ No ○ Yes	v
	Group Objects Parameter			
	HDL USB Interface 🔺 1.1 New line	1.1.1 M/PT4RA.1		Last used workspace

Figure 3-27 RGB controller setting

The setting items are explained below:

- 1. Object type: to select dimming object type. "3 objects" is to control dimming via R, G, and B independently, while "1 object" is to control dimming via RGB.
- 2. RGB on up/down short/long button: to enable RGB controller via short/long pressing the up/down button. After enabled, the RGB value can be set in "Color R/G/B brightness".
- 3. Delay on up/down short/long button: to set the delay time of short/long pressing the up/down button, range from 0 to 255s.
- 4. Long button time after: the time for system to identify "long press". For example, if the time is set to 3s, keeping pressing for more than 3s will be identified as "long press" while



less than 3s will be identified as "short press".

- 5. LED status source: the source of LED status, including "Local", "From bus" and "Mutually exclusive display".
 - ➢ If "Local" is selected:

LED status: to select LED status, including "Flashing, then ON", "Flashing, then OFF", "Flashing, then status" and "ON/OFF status".

➢ If "From bus" is selected:

LED status reaction: to select the reaction of LED when the bus information is received. For example, LED is on when receiving 1 and is off when receiving 0.

Button status reaction (1 bit): to toggle object value received from the bus and update the value to button value.

Delay read LED status after power on: to set the delay time between powering on the device and reading LED status, range from 1 to 255s. 0 is set to have no response.

If "Mutually exclusive display" is selected: to set that the selected button and other buttons are mutually exclusive.

3.2.13 Fan Controller Setting

Figure 3-28 shows fan controller setting page.

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Ħ	ETS5™ - New project222				
	ETS Edit Workplace Commission	ing Diagnostics Extras Window		^ ()	
	🔉 Close Project 🛛 🎸 Undo 🛛 🐴 F	Redo 🚔 Reports 🔛 Workplace 🔻	Catalogs Diagnostics		
Тс	opology 🔻			∧ ⊡ × <	
+	Add Channels 🛛 🛪 🗙 Delete 🛨 Dov	vnload 🔹 🕜 Help 🤳 Highlight Changes	Default Parameters		
>	1.1.1 M/PT4RA.1 >>Up & down button				
1.1.1	General	Rocker A : operation mode	Fan controller	-	
M/PT	>Status led brightness	->Total number of fan speed	3	• •	
4RA.1	>Panel scene A	Speed 1 objects settings Object 1 value set	ON		
	>Panel scene B	Object 2 value set	OFF	•	
	Rocker A	Object 3 value set	OFF	-	
	>Up & down button	Speed 2 objects settings			
	De duce D	Object 1 value set	OFF	•	
	коскег в	Object 2 value set	ON	•	
	>Up & down button	Object 3 value set	OFF	-	
	Rocker C	Speed 3 objects settings			
		Object 1 value set	OFF	•	
	>Combined button	Object 2 value set	OFF	•	
	Rocker D	Object 3 value set	ON	•	
	>Combined button	Speed off objects settings		U U	
	Group Objects Parameter				
	HDL USB Interface 🔺 1.1 New line	1.1.1 M/PT4RA.1		Last used workspace	

Figure 3-28 Fan controller setting

The setting items are explained below:

- 1. Total number of fan speed: select the number of fan speed levels, range from 2 to 4.
- 2. Speed 1/2/3/4 object settings: the details of fan speed levels can be set. "Object1/2/3/4 value set" corresponds to the value of object 1/2/3/4.
- 3. Speed off objects settings: to set object value when fan is off.
- 4. Reaction on up/down button: to enable adjusting fan speed via the up/down button. After enabled, the details can be set below:
 - Switch speed direction: to adjust wind direction, "FWD" means forward wind while "RWD" means backward wind.
 - Speed 1/2/3/4: to enable the fan speed of correspond level.
 - ➤ Turn off fan



- 5. Delay to send ON after OFF: to set the delay time between sending OFF command and sending ON command again, range from 0 to 255s.
- 6. Long button time after: the time for system to identify "long press". For example, if the time is set to 3s, keeping pressing for more than 3s will be identified as "long press" while less than 3s will be identified as "short press".
- 7. LED status source: the source of LED status, including "Local", "From bus" and "Mutually exclusive display".
 - If "Local" is selected:

LED status: to select LED status, including "Flashing, then ON", "Flashing, then OFF", "Flashing, then status" and "ON/OFF status".

➢ If "From bus" is selected:

LED status reaction: to select the reaction of LED when the bus information is received. For example, LED is on when receiving 1 and is off when receiving 0.

Button status reaction (1 bit): to toggle object value received from the bus and update the value to button value.

Delay read LED status after power on: to set the delay time between powering on the device and reading LED status, range from 1 to 255s. 0 is set to have no response.

If "Mutually exclusive display" is selected: to set that the selected button and other buttons are mutually exclusive.

3.2.14 Thermostat Controller Setting

Figure 3-29 shows thermostat controller setting page.

HDL

	ETS5™ - New project222				×
E	ETS Edit Workplace Commission	ning Diagnostics Extras Window		/	0
	🔉 Close Project 🛛 🎸 Undo 🛛 🐴	Redo 📄 Reports 📄 Workplace 🔻	Catalogs Diagnostics		
То	opology 🔻			∧ □ ×	<
+	Add Channels 🔹 🗙 Delete 🛨 Dov	vnload 🛛 🔹 🕜 Help 🤌 Highlight Changes	Default Parameters		
>	1.1.1 M/PT4RA.1 >>Up & dow	n button			
1.1.1	General	Rocker A : operation mode	Thermostat controller	•	0
. M/PT	>Status led brightness	Set for temperature[MIN](099C)	21C	-	*1
4RA.1	>Panel scene A	Set for temperature[MAX](099C)	30C	•	
	>Panel scene B	Enable thermostat control	No Yes		
	Rocker A	Long button time after	1s	•	
	>Up & down button	Status light display settings			
	Rocker B	LED status source LED status	Local Flashing,then OFF	•	
	>Up & down button				
	Rocker C				
	>Combined button				
	Rocker D				
	>Combined button				
	Group Objects Parameter				
H	HDL USB Interface 🔺 1.1 New line	1.1.1 M/PT4RA.1	Last us	ed workspace	

Figure 3-29 Thermostat controller setting

The setting items are explained below:

- 1. Set for temperature[MIN/MAX]: to set the upper/lower limit of temperature, which both range from 0 to 99℃.
- 2. Button set for temperature: for Tile, short pressing the up button is set to turn down the temperature, while short pressing the down button is set to turn up the temperature.
- 3. Enable thermostat control: to choose whether to activate thermostat controller function. After enabled, the details can be set below.
 - Actual temperature source: to obtain actual temperature from "Local sensor" or via EIB.
 - > Control type: to select temperature control type, including "Heating" and "Cooling".
 - > Hysteresis: to select hysteresis value, range from 1 to 10° C.





- Button switch the thermostat: to set the way of turning on/off thermostat. Users may choose to turn on/off via long pressing the up/down button (Up/Down long=ON/OFF) or via long pressing any buttons (Toggle long button ON/OFF).
- 4. Long button time after: the time for system to identify "long press". For example, if the time is set to 3s, keeping pressing for more than 3s will be identified as "long press" while less than 3s will be identified as "short press".
- 5. LED status source: the source of LED status, including "Local", "From bus" and "Mutually exclusive display".
 - If "Local" is selected:

LED status: to select LED status, including "Flashing, then ON", "Flashing, then OFF", "Flashing, then status" and "ON/OFF status".

➢ If "From bus" is selected:

LED status reaction: to select the reaction of LED when the bus information is received. For example, LED is on when receiving 1 and is off when receiving 0.

Button status reaction (1 bit): to toggle object value received from the bus and update the value to button value.

Delay read LED status after power on: to set the delay time between powering on the device and reading LED status, range from 1 to 255s. 0 is set to have no response.


3.2.15 Combination Controller Setting

Figure 3-30 shows combination controller setting page.

Notice: because combination controller only supports up to 5 objects, "n" in this part is a positive integer less than 6.

Ħ	ETS5™ - New project222			- • •	
	ETS Edit Workplace Commission	ing Diagnostics Extras Window		^ (
	👧 Close Project 🛛 🎸 Undo 🛛 🐴 F	Redo 🚔 Reports 🔛 Workplace 🔻	Catalogs Diagnostics		
Т	opology 🔻			▲ 🗇 🗙 🧹	:
+	🛚 Add Channels 🔹 🗙 Delete 🛛 🛨 Dow	vnload 🔻 🕜 Help 🥒 Highlight Changes	Default Parameters		
>	1.1.1 M/PT4RA.1 >>Up & dow	n button			
1.1.1	General	Rocker A : operation mode	Combination controller	- ^ O	
. M/PT	>Status led brightness	Up button type 1	Invalid		
4RA.1	>Panel scene A	Up button type 2	Invalid	•	
	>Panel scene B	Up button type 3 Invalid Up button type 4 Invalid Up button type 5 Invalid		• •	
	Rocker A			•	
	>Up & down button	Down button type 1	Invalid	•	
	Rocker B	Down button type 2	Invalid	•	
		Down button type 3	Invalid	•	
	>Up & down button	Down button type 4	Invalid	*	
	Rocker C	Down button type 5	Invalid	•	
	>Combined button	Long button time after	1s	•	
	Rocker D	Status light display settings	local	•	
	>Combined button	LED status	Flashing, then ON Flashing, then OFF		
	Group Objects Parameter		_ 0. 0. 0.		
	HDL USB Interface 1.1 New line	1.1.1 M/PT4RA.1	Last used	d workspace	

Figure 3-30 Combination controller setting

3.2.15.1 Switch Controller Setting

- 1. Switch value: to select switch controller value, including "ON/OFF" and "Toggle".
- 2. Long enable: to choose whether to control via long pressing. After enabled, the switch controller value can be selected.



3.2.15.2 Shutter Controller Setting

- 1. Shutter value: to select shutter controller status, including "UP/DOWN" and "Toggle".
- 2. Long enable: to choose whether to control via long pressing. After enabled, the shutter controller value can be selected.

3.2.15.3 Scene Controller Setting

- 3. Short scene NO. is: to choose to output corresponding scene number (Up to 64 scene numbers available).
- 4. Short scene toggled: to enable exchanging scenes. After enabled, the number of scenes to be exchanged can be selected in "Toggled scene No. is" below.
- 5. Long enable: to choose whether to control via long pressing. After enabled, the scene value of long pressing can be selected in "Long scene NO. is" below.

3.2.15.4 Dimming Controller Setting

1. Reaction on short button: to select the operation of "short press" on the panel, including:

Toggle

On/Off: to turn on/off lights.

2. Reaction on long button: to select the operation of "long press", including:

Brighter

Darker

Brighter/Darker

3. Dimming steps: There are 7 dimming steps. For example, if selecting Step3 (25%), objects will be up to 25% brighter (The maximum object brightness is 100%).

3.2.15.5 Percentage Controller Setting

- 1. Short percentage value: to select the percentage controller value of short pressing.
- 2. Short percentage toggled: to enable exchanging percentage via short pressing. After enabled, the percentage to be exchanged can be selected in "Toggled percentage is" below.



3. Long enable: to choose whether to control via long pressing. After enabled, the percentage controller value can be selected.

3.2.15.6 Threshold Controller Setting

- 1. Threshold value type: to select threshold type, including 1-byte/2-byte threshold.
- 2. Short threshold value: to select the threshold value of short pressing, whose range depends on the threshold type selected in the first point.
- 3. Short threshold toggled: to enable exchanging threshold via short pressing. After enabled, the threshold to be exchanged can be selected in "Toggled threshold is" below.
- 4. Long enable: to choose whether to control via long pressing. After enabled, the threshold controller value can be selected.

3.2.15.7 14-byte String Controller Setting

String (14 bytes) value: to edit items controlled by 14 bytes.

3.2.15.8 Short-long Controller

Short/Long value type: to select the type of "long/short press", including "Switch", "Scene" and "1/2 byte". After selecting the type, the short-long controller value can be selected in "Reaction on short/long button".

4 Download Data to the Panel

4.1 Interface Setting

If users need to download data to the panel, KNX interface is necessary.

After connecting KNX interface to a computer via USB, click "Bus" tab in ETS' main page, "HDL USB Interface" will show up in "Discovered Interfaces". Double click to add and the interface will show up in "Current Interface", as shown in Figure 4-1.

ETS5™			×
Overview Bus	Catalogs Settings	KNX	•
 Connections Connections Interfaces Options Monitor Group Monitor Bus Monitor Diagnostics Unload Device Device Info Individual Addresses Programming Mo Individual Addres Line Scan 	Current Interface HDL USB Interface (HDL) Individual Address: 0.2.255	Image: Constraint of the second state of the second st	2
		ETS Version ETS 5.6.4 (Build 842) 1 License Demo Apps 0 activ	ve

Figure 4-1 Interface setting



4.2 Download Data

Right click on the data to be downloaded to the panel and select "Download". Keep pressing the top left button and bottom right button for about 2s to enable the programming mode of the panel. The information indicates the end of the process on the right side of ETS, as shown in Figure 4-2.

Add Channels	Close Proje	ect 🦃 Undo 🥬	🔪 Redo 🛛 🚔 Reports 📄	Workplace •	Catalogs	Diagnostics		
	otose Proje pology Add Channels Number 2 11 2 12 2 13 2 14	Name External temperature General General General	Covernioad Covernment Covernm	Vorkplace * Search Length C R W 2 bytes C - W	TU TU T- T- T- T-	Priority Low Low Low	Properties Find and Replace Workspaces Todo Items Pending Operations Active Clear History I.1.1 M/PTL4.1 Download(All): Finish	rry ed

Figure 4-2 Download data



5 Object Instruction

KNX communication objects are used for receiving and sending data. The length of these objects is from 1 to 14 bits according to different function settings. Each object has a flag with communication property.

- 1. "C"-Communication, representing that communication objects are connected normally via the bus.
- 2. "R"-Read, representing that communication object value can be read via the bus.
- 3. "W"-Write, representing that communication object value can be rewritten via the bus.
- 4. "T"-Transmit, representing that communication objects have transmit function. When this object value is modified, send the message.
- 5. "U"-Update, representing that communication object value can be updated via the bus response message.

Objects "	Objects "General"										
1	General	Heartbeat telegram	1 bit	С	-	-	Т	-	enable	低	
6	General	Proximity sensor output	1 bit	C	R	-	Т	U	switch	低	
8	General	Trigger up of Rock A	1 bit	С	-	W	Т	U	up/down	低	
9	General	Trigger down of Rock A	1 bit	С	-	W	Т	U	up/down	低	
10	General	Trigger up of Rock B	1 bit	С	-	W	Т	U	up/down	低	
11	General	Trigger down of Rock B	1 bit	С	-	W	Т	U	up/down	低	
12	General	Trigger up of Rock C	1 bit	С	-	W	Т	U	up/down	低	
13	General	Trigger down of Rock C	1 bit	C	-	W	Т	U	up/down	低	
14	General	Trigger up of Rock D	1 bit	C	-	W	Т	U	up/down	低	
15	General	Trigger down of Rock D	1 bit	C	-	W	Т	U	up/down	低	
20	General	Lock button	1 bit	C	-	W	Т	U	enable	低	
21	Local temperature	Temperature report	2 bytes	C	R	-	Т	-	temperatu.	低	
No.	Name	Function	Function		Flag				Data Type		
4	Conorol				ОТ				DPT1.003		
1	General	Heartbeat telegi	Heartbeat telegram			1 bit					
This obje	ect can be activated b	y selecting "Send value "	0"cyclically	/, 5	Ser	١d	/alu	le"	1"cyclically	or Send	
value"1/0	value"1/0" inverted cyclically" in the parameter "Heartbeat Telegram", which is used for checking if the										
device is	device is connected to the system normally.										
<u> </u>	Osusaus							DPT1.001			
6	General	Proximity sensor o	Proximity sensor output			CRIU			1 bit		
This obje	ect is used for controllin	ng proximity sensor output.									

5.1 Objects "General"

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8-15	General	Trigger up/down of Rock	СМТЦ	DPT1.008							
0-15	General	A/B/C/D		1 bit							
These ob	These objects are used for triggering the up/down button of rocker A/B/C/D.										
20	Canaral	Lock button	СМТЦ	DPT1.003							
20	General	EOCK DUIION	CWIU	1 bit							
This obje	This object is used for locking the panel.										
21	Logal tomporatura	Tomporaturo roport	СРТ	DPT9.001							
21	Local temperature	Temperature report	UKI	2 bytes							
This obje	This object is used for sending local temperature signal.										

5.2 Objects "Panel scene"

Objects "Panel scene"

HDL®

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序号▲	名称	对象功能	长度	C	R	w	Т	U	数据类型	优先级	
41	Panel scene A	Call scene (1byte)	1 byte	C	-	W	Т	U	scene cont	低	
42	Panel scene A	Call scene (1bit)	1 bit	С	-	w	т	U	switch	低	
43	Panel scene A	Save scene (1bit)	1 bit	С	-	W	Т	U	switch	低	
44	Panel scene A	Object 1 value(1bit)	1 bit	С	-	W	т	U	switch	低	
45	Panel scene A	Object 2 value(1byte:scaling)	1 byte	С	-	W	Т	U	percentag	低	
46	Panel scene A	Object 3 value(0255)	1 byte	С	-	W	т	U	percentag	低	
47	Panel scene A	Object 4 value(2byte:float)	2 bytes	С	-	W	Т	U	temperatu	低	
48	Panel scene A	Object 5 value(065535)	2 bytes	С	-	W	Т	U	pulses	低	
49	Panel scene A	Object 6 value(3byte:RGB)	3 bytes	С	-	W	Т	U	RGB value	低	
50	Panel scene A	Object 7 value(1bit)	1 bit	С	-	W	Т	U	switch	低	
51	Panel scene A	Object 8 value(1byte:scaling)	1 byte	С	-	W	Т	U	percentag	低	
52	Panel scene A	Object 9 value(0255)	1 byte	С	-	W	Т	U	percentag	低	
53	Panel scene A	Object 10 value(2byte:float)	2 bytes	С	-	W	Т	U	temperatu	低	
61	Panel scene B	Call scene (1byte)	1 byte	С	-	W	Т	U	scene cont	低	
62	Panel scene B	Call scene (1bit)	1 bit	С	-	W	Т	U	switch	低	
63	Panel scene B	Save scene (1bit)	1 bit	С	-	W	Т	U	switch	低	
54	Panel scene B	Object 1 value(1bit)	1 bit	С	-	W	Т	U	switch	低	
65	Panel scene B	Object 2 value(1byte:scaling)	1 byte	С	-	W	Т	U	percentag	低	
56	Panel scene B	Object 3 value(0255)	1 byte	С	-	W	Т	U	percentag	低	
57	Panel scene B	Object 4 value(2byte:float)	2 bytes	С	-	W	Т	U	temperatu	低	
68	Panel scene B	Object 5 value(065535)	2 bytes	С	-	W	Т	U	pulses	低	
69	Panel scene B	Object 6 value(3byte:RGB)	3 bytes	С	-	W	Т	U	RGB value	低	
70	Panel scene B	Object 7 value(1byte:scaling)	1 byte	С	-	W	Т	U	percentag	低	
71	Panel scene B	Object 8 value(0255)	1 byte	С	-	W	Т	U	percentag	低	
72	Panel scene B	Object 9 value(3byte:RGB)	3 bytes	С	-	W	Т	U	RGB value	低	
73	Panel scene B	Object 10 value(065535)	2 bytes	С	-	W	Т	U	pulses	低	
No.	Name	Function		FI	ag				Data T	уре	
44.04					/ -				DPT18	.001	
41,61	Panel scene A/	Call scene(1byte)		۷۷ ز		U			1by	te	
									DPT1.	001	
42,62	Panel scene A/	3 Call scene(1bit)	(C W	T	U			1hi	t	
										001	
43,63	Panel scene A/	B Save scene(1bit)	Save scene(1bit) C W T U			U			UF11. 46	001 ₄	
			<u> </u>							ι	
These ob ranges fro	pjects are used for om 1 to 64 and the	applying scenes (1 byte/1 bit value ranges from 0 to 63.) and s	avir	ng s	scer	ies	. Ap	oplied scer	ie numt	
J	1		1					1			
		Object 1~10 value						DPT1.001			
									1bit		
44~53,	Denslaat				, . .				DPT5.	001	
64~73	Panel scene A/	0255,		۷۷ ز		U			1by	e	
	1	2bvte:float.065535.3bvt							1byte		
		- ,							DPT5.	004	



	DPT9.001							
	2bytes							
	DPT7.001							
	2bytes							
	DPT232.600							
	3bytes							
These objects are used for setting object type value.								

5.3 Objects "Rocker A/B/C/D"

5.3.1 Objects "Rocker A/B/C/D" (Switch and Dimming Function)

Objects fur	Objects function status"Rocker A/B/C/D"										
(Take Ro	(Take Rocker A as an example)										
81 F	Rocker A short	Switching 1	bit C - W	T U switch 低							
82	Rocker A long	Switching 1	bit C - W	T U switch 低							
83 I	Rocker A delay send	Switching 1	bit C - W	T U switch 低							
No.	Name	Function	Flag	Data Type							
81-83, 111-113, 141-143, 171-173	Rocker A/B/C/D short/long/delay send	Switching	CWTU	DPT1.001 1 bit							
These obj	ects are used for turr	ning on/off objects via buttons.									
81,82 111,112, 141,142, 171,173	Rocker A/B/C/D short/long	Switching/Dimming	CWTU	DPT1.001 1 bit DPT 3.007 4 bits							
These obj	ects are used for turr	ning on/off lights and dimming.									

5.3.2 Objects "Rocker A/B/C" (LED Status)

Objects fund	ction status"Ro	cker A/B/C/D"	13							
(Take Roc	(Take Rocker A as an example)									
91 Ro	ocker A	LED statu	W T U swite	:h 低						
No.		Name	Function		Flag	Data Type				
91,11	1, Book	ar A/P/C/D				DPT1.001				
131,1	51 ROCK		LED Status		1bit					



These objects are used for indicating button status via LED.

5.3.3 Objects "Rocker A/B/C" (Curtain Controller)

Objects funct	Objects function status"Rocker A/B/C/D"										
(Take Rocker A as an example)											
81 Roc	ker A	Adjust/Stop for shutter	1 bit	C	-	W	Т	U	step	低	
82 Roc	ker A	Move for shutter	1 bit	C	-	W	Т	U	up/down	低	
No.	Name	Function	Flag Data T		Flag			Гуре			
81,82,		Adjust/Stop for shutter						DPT1.007			
111,112,				0.00 TH					1 bit		
141,142,	RUCKEI A/D/C/D	Move for shutter							DPT1.008		
171,172									1 bit		
These objec	These objects are used for opening/closing or stopping curtain.										

5.3.4 Objects "Rocker A/B/C" (Flexible Controller)

Objects function status"Rocker A/B/C/D"(Flexible controller)									
(Take Rocker A as an example)									
81 Rocker A		Flexible 1 bit C -		- W T U swi	itch 低				
No.	Name	Function			Flag	Data Type			
81,111,	Rocker	Elovible			CWTU	DPT1.001			
141,171	A/B/C/D	Flexible		CWIU	1bit				
These objects are used for flexible controller.									

5.3.5 Objects "Rocker A/B/C" (Scene Controller)

Objects functio	Objects function status"Rocker A/B/C/D"									
(Take Rocker A as an example)										
81 Rocker A short		Call scene	1 byte	С	- W T U sce	ene cont低				
82 Rocke	er A long	Scene dimming	4 bit	С	- W T U din	nming c 低				
No.	Name	Function			Flag	Data Type				
81,82,	Bookor					DPT18.001				
111,112,		Call scene,				1 byte				
141,142,	A/B/C/D	Scene dimming	I			DPT3.007				
171,172	shordlong					4 bits				



These objects are used for applying scene number and controlling scene dimming.

5.3.6 Objects "Rocker A/B/C" (Sequence Controller)

Obje	Objects function status"Rocker A/B/C/D"									
(Take	(Take Rocker A as an example)									
81	Rocker A sł	hort Seque	nce	e 1 bit C -		t/stop 低				
82	82 Rocker A long Sequer		nce	1 bit C	- W T U star	t/stop 低				
	No.	Name	Function		Flag	Data Type				
	81,82,									
	111,112,	Rocker A/B/C/D	Coguenee			DPT1.010				
	141,142,	short/long	Sequence		CWIU	1bit				
	171,172									
Thes	These objects are used for sequence controller.									

5.3.7 Objects "Rocker A/B/C" (Percentage Controller)

Objects function status"Rocker A/B/C/D"										
(Take Rocker A as an example)										
81 Rocker A	Percer	ntage 1 byte C	1 byte C - W T U percentag 低							
No.	Name	Flag	Data Type							
81,111,141,171	Rocker A/B/C/D	Percentage	CWTU	DPT5.001 1 byte						
These objects are used for percentage controller.										

5.3.8 Objects "Rocker A/B/C" (Threshold Controller)

Objects function status"Rocker A/B/C/D"										
(Take Rocker A as an example)										
81 Rocker A	Thresh	Threshold(1byte) 1 byte C - W T U percentag 低								
No.	Name	Function	Flag	Data Type						
	Rocker A/B/C/D			DPT5.004						
				1 byte						
01 111 111 171		Threshold (1 byte/2 bytes/2		DPT7.001						
01,111,141,171		bytes float)		2 bytes						
				DPT9.001						
				2 bytes						



These objects are used for threshold controller.

5.3.9 Objects "Rocker A/B/C" (String (14 bytes) Controller)

Objects function status"Rocker A/B/C/D"										
(Take Rocker A as an example)										
81 Rocker A	String	(14bytes) value 14 bytes C	- W T U Ch	aracter 低						
No.	Name	Function	Flag	Data Type						
01 111 111 171	Pookor A/P/C/D	String (14bytes) value		DPT16.000						
01,111,141,171	Rocker A/B/C/D	Stillig (14bytes) value	CWIU	14 bytes						
These objects are used for string (14 bytes) controller.										

5.3.10 Objects "Rocker A/B/C" (Alternate Controller)

Objec	Objects function status"Rocker A/B/C/D"										
(Take Rocker A as an example)											
81	Rocker A	Altern	ate <1> (1bit)	1 bit	С	-	w	т	U	switch	低
82	Rocker A	Altern	Alternate <2> (1bit)			-	W	Т	U	switch	低
83	Rocker A	Altern	ate <3> (1bit)	1 bit	С	-	W	Т	U	switch	低
84	Rocker A	Altern	ate <4> (1bit)	1 bit	С	-	W	т	U	switch	低
	No.	Name	Function			Flag			g		Data Type
											DPT1.001
	81-84,										1 bit
1	11-114,		Alternate <1/2	2/3/4> (1 bit/	1						DPT5.004
1	41-144,	Rocker A/B/C/D	byte/2	bytes)			C	VV	ΙU		1 byte
1	71-174										DPT7.001
											2 bytes
These	These objects are used for alternate controller.										

5.3.11 Objects "Rocker A/B/C" (RGB Controller)

Objec	Objects function status"Rocker A/B/C/D"									
(Take	(Take Rocker A as an example)									
81	Rocker A	RGB re	ed channel	1 byte	с -	W T U pe	rcentag 低			
82	Rocker A	RGB g	reen channel	1 byte	C -	W T U pe	ercentag 低			
83	Rocker A	RGB b	lue channel	1 byte	с -	W T U pe	rcentag 低			
No. Name		Function			Flag	Data Type				



81,111, 141,171	Rocker A/B/C/D	RGB color	CWTU	DPT232.600 3 bytes					
81-83, 111-113, 141-143, 171-172	Rocker A/B/C/D	RGB red/green/blue channel	CWTU	DPT5.001 1 byte					
These objects are used for RGB controller.									

5.3.12 Objects "Rocker A/B/C" (Fan Controller)

Obje	Objects function status"Rocker A/B/C/D"											
(Take	(Take Rocker A as an example)											
81	Rocker A	Fan ob	ject 1	11	bit	C -	W T U swi	tch 低				
82	Rocker A	Fan ob	ject 2	11	bit	C -	W T U swi	tch 低				
83	Rocker A	Fan ob	ject 3	11	bit	C -	W T U swi	tch 低				
84	Rocker A	Fan ob	ject 4	11	bit	с -	W T U swi	tch 低				
	No.	Name		Function			Flag	Data Type				
81-8	84,111-114,		E.		4			DPT1.001				
141-144,171-174		Rocker A/B/C/D		Fan object 1/2/3/4				1 bit				
Thes	These objects are used for fan controller.											

5.3.13 Objects "Rocker A/B/C" (Thermostat Controller)

Objec	Objects function status"Rocker A/B/C/D"											
(Take Rocker A as an example)												
81	Rocker A	Therm	Thermostat switch ON/OFF				W	т	U	swit	ch	低
82	Rocker A	Therm	iostat set temperature	2 bytes	С	R	W	W T U temperatu 低			. 低	
83	Rocker A	Therm	Thermostat actual temperature				W	Т	U	tem	peratu	. 低
84	Rocker A	Therm	Thermostat output			-	W	Т	U	swit	ch	低
	No.	Name	Function				Flag				Da	ta Type
											DP	T1.001
												1 bit
	81-84,		Thermostat switch ON/OFF/				CRWTU/				DP	T9.001
1	11-114,	Pookor A/P/C/D	set temperate	ure/			CR	k W	/ Т	U/	2	bytes
1	41-144,	RUCKEI A/D/C/D	actual tempera	ture/			C R	k W	/ Т	U/	DP	T9.001
1	171-174		output	output			CWTU				2	bytes
											DP	T1.001
												1 bit



These objects are used for thermostat controller.

5.3.14 Objects "Rocker A/B/C" (Combination Controller)

Objects	Objects function status"Rocker A/B/C/D"										
(Take Rocker A as an example)											
81	Rocker A	COMB OBJ1 switching	1 bit	С	-	-	Т	-	switch	低	
82	Rocker A	COMB OBJ2 shutter	1 bit	С	-	-	Т	-	up/down	低	
83	Rocker A	COMB OBJ3 scene	1 byte	С	-	-	Т	-	scene cont	.低	
84	Rocker A	COMB OBJ4 sequence	1 bit	С	-	-	т	-	start/stop	低	
85	Rocker A	COMB OBJ5 percentage	1 byte	С	-	-	т	-	percentag	低	
86	Rocker A	COMB OBJ6 threshold(1byte)	1 byte	С	-	-	Т	-	percentag	低	
87	Rocker A	COMB OBJ7 String(14bytes)	14 bytes	C	-	-	т	-	Character	低	
88	Rocker A	COMB OBJ8 switching	1 bit	С	-	-	Т	-	switch	低	
89	Rocker A	COMB OBJ9 scene	1 byte	С	-	-	т	-	scene cont	.低	
90	Rocker A	COMB OBJ10 scene	1 byte	С	-	-	т	-	scene cont	.低	

No.	Name	Function	Flag	Data Type
81-90, 111-120, 141-150, 171-180	Rocker A/B/C/D up/down long/short	COMB OBJ 1-10 switching / shutter / scene / sequence / percentage / threshold (1 byte) / threshold (2 bytes) / String (14 bytes)/ short / long (switch / scene / 1 byte / 2 byte)	CT	DPT1.001 1 bit DPT1.008 1 bit DPT18.001 1 byte DPT3.007 4 bits DPT1.010 1 bit DPT5.001 1 byte DPT5.004 1 byte DPT7.001 2 bytes DPT16.000 14 bytes
These objects are us		r controller. In independent button		

the up button while OBJ6-10 corresponds to the down button.