



# Granite Metal Push Button Panel (KNX) User Manual

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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	Oct.25, 2019



# 1 Introduction

This user manual offers the information on configuring Granite Metal Push Button Panel (KNX) (hereinafter referred to as Granite), by taking US panel with 6 buttons as an example. The following tools might be included:

- Granite Metal Push Button Panel (KNX) 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 Data

## 1.1.1 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.

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ETS5™ ETS					
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Overview Bus	Catalogs S	Settings			(NX)
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📩 Favorites 🔹	See Manufacturer Name	Order Mediu Application	Version		
My Products	HDL YEE Panel 3R.			Catalog Applica	ation
🔯 Recent Produ	HDL YEE Panel 2R.	M/P2 TP YEE Panel 2Rocker	Con 1.0		
📕 Manufacturers 🔹					
HDL					
			TS Version ETS 5.6.4 (Build 84)	2) 1 License Demo	Arres O antius
		E	15 Version E15 5.6.4 (Build 84)	License Demo	Apps 0 active

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.

ETS5™ ETS					
Overview	Bus	Catalogs	Settings		KNX
Your Projects	Project Arc	hive		KNX News	New KNX Products
+ >> 2 Create New Pr Name HDL Backbone IP Topology	roject	Search	Q	Modern, Massive, Moscow – The 15th KNX National Group Conference kicked off with many surprises 2019/10/7 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	True Presence® Multisensor KNX Steinel GmbH (Germany)
Create Line 1.1 TP Group Address Style Free Two Level Three Level Create Proj	e			delegates regarding the future of 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	842) 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.

ETS5™ - HDL (3) ETS Edit Workplace Com	missioning Diagnos	stics Extras V	Vindow		
💫 Close Project 🛛 🏠 Undo			Workplace • E Catalogs	Diagnostic	
Buildings 🔻			· Laba	∧ 0 ×	Properties
Buildings	🖢 Download   🔹 🚺	Info 🔹 🕤 Re	set 🔻 Search	Q	
📰 Orgup Addresses	Room	Description	Application Program	Adr	Settings Com Infor
Topology					
📰 Project Root					
Devices					
🚔 Reports					
Catalog					
Diagnostics					Select an element to see details here
					$\wp$ Find and Replace
					Workspaces
					🕗 Todo Items
					Pending Operations
Devices	Parameter	Building Parts			🖍 Undo History
<no 1.1="" interface="" lin<="" new="" sel="" td=""  ="" 🔺=""><td>ne</td><td>Buildings</td><td></td><td></td><td>Last used workspace</td></no>	ne	Buildings			Last used workspace

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.

III ETS5™ - Granite Display			_ • •
ETS Edit Workplace Commissioning Diagnostics Extras Window			^ <b>(</b> )
🔊 Close Project 🎸 Undo 💊 Redo 🚔 Reports 📑 Workplace 🔻 🏥 Catalogs	Diagn	ostics	
Topology 🔻		Properties	>
🕇 Add Areas 🔽 🗶 Delete 👲 Download 🗵 🕕 Info 🔹 幻 Reset 🔹 Search	Q		6
Topology Areas Description Application Program		Settings Comme	Informa
Dynamic 🗄 Lines		Backbone Name	^
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HDL YEE Panel 3R M/P3 TP YEE Panel 3Rocker (     Manufacturers HDL YEE Panel 2R M/P2 TP YEE Panel 2Rocker (     HDL YEE Panel 2R M/P2 TP YEE Panel 2Rocker (		Security	~
E Manufacturers ► E HDL		ho Find and Replace	
		Workspaces	
		🕗 Todo Items	
C	>	Pending Operatio	ns
Items: 1 in Lines V 0.0 Backbone line V	Add	Undo History	

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).

ETS5™ - HDL (3)								
	place Commissioning	Diagnostics Extras W	/indow					^ <b>(</b>
👩 Close Project	🆍 Undo 🛛 💊 Redo	Reports	Workplace *	Catalogs	Diag	nostics	5	
Topology 🔻					<b>∧</b> □	×	Properties	· >
🕂 Add Areas   🔹 🗙	Delete 🛨 Download   🔻	🚺 Info 🔹 💋 Reset	▼ Se	arch		ρ	Catalog Ap	plication
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3 Recent Products		YEE Panel 3R M/P3 T YEE Panel 2R M/P2 T		3Rocker Con 1. 2Rocker Con 1.				
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<no interface="" sel<="" th=""><th><ul> <li>1.1 New line</li> </ul></th><th>Manufacturers</th><th></th><th>Multiple sel</th><th>ection (2)</th><th></th><th>Last used work</th><th>kspace</th></no>	<ul> <li>1.1 New line</li> </ul>	Manufacturers		Multiple sel	ection (2)		Last used work	kspace

Figure 1-5 Add devices to projects



## 1.1.2 Import Projects (.knxproj)

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. After importing projects, added/created projects will be listed below. Double click to edit.

<mark>⊞</mark> ETS5™ ETS					••••
Overview	Bus	Catalogs	Settings		KNX
Your Project	s Project Arc	chive		KNX News	New KNX Products
+ 🎢 🛃 🥼		Search	م	Modern, Massive, Moscow – The 15th KNX National Group Conference kicked off with many surprises 2019/10/7	True Presence® ( > Multisensor KNX Steinel GmbH (Germany)
HDL 2019/10	/12 14:22 Unknow	n		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 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
				NETx Multi Protocol Server	Certified KNX Products See a list of all certified KNX products here.
				ETS Version ETS 5.6.4 (Bui	Id 842) 1 License Demo Apps 0 active

Figure 1-6 Import projects

# 1.2 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.



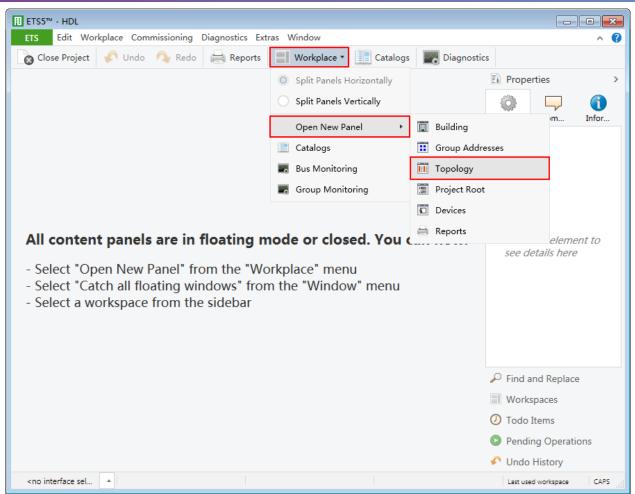
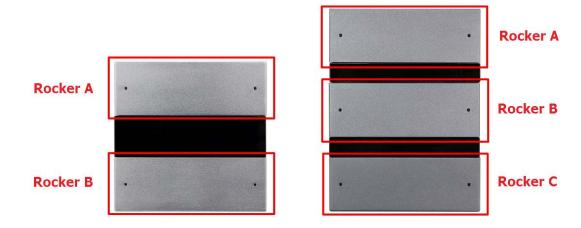


Figure 1-7 Open configuration window

# **1.3 Button Number Instruction**

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







# 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.

ETS5™ - New project			
ETS Edit Workplace Commission	ning Diagnostics Extras Window		^ <b>(</b> )
🛛 👩 Close Project 🧳 Undo 🛝 F	Redo 🚔 Reports 📕 Workplace 🔻	Catalogs Diagnostics	
Topology, Catalog Topology	×		¢
Topology 🔻			∧ □ × 🗈
🕂 Add Channels 🔹 🗙 Delete 👲 Dov	vnload   🔹 🕜 Help 🥒 Highlight Changes	Default Parameters	<b>₽</b>
> 1.1.1 M/P3R.1 > General			<ul> <li></li></ul>
1.1. General	System delay(0255s)	0	* *
General >Status light brightness	Heartbeat telegram	Disable	•
>Background light brightness	Enable buttons is triggered via EIB	◎ No ○ Yes	
	Enable locking button	O No Ves	
>Panel scene B	Read the object status of the rockers	O Disable C Enable	
Rocker A	Temperature:		
>Left & right button	The local temperature correction(-5C +5C)	OC	•
Rocker B	Local temperature report	No Ves	
>Left & right button	Led light:		
	Switch background light via EIB	Disable Enable	
Rocker C	Brightness automatic adjust	O Disable C Enable	
>Left & right button	Panel scene:		
	Panel scene A	🔵 Enable 🔘 Disable	
	Panel scene B	🔵 Disable 🔘 Enable	
Group Objects Parameter			
HDL USB Interface 🔺 1.1 New line	1.1.1 M/P3R.1	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 choose to trigger buttons when receiving 0 or 1.
  - > Enable buttons is triggered via EIB: to enable triggering button A/B/C via EIB.
- 4. Enable locking button: to enable locking buttons.
- 5. Read the object status of the rockers: to enable reading the object status of buttons. 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 (In range): 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 period of checking temperature, range from 1 to 50°C. While the latter is selected, users may change the period of sending temperature signal, range from 1 to 255s.
- 8. Switch background light via EIB: to enable turning on background light via EIB.
- 9. Brightness automatic adjust: to enable adjusting brightness automatically.
  - Automatic adjust after a delay: to set the delay time of adjusting the brightness of background light 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. Panel scene A/B: to enable panel scene A/B.



# 2.1 Status Light Brightness Adjustment

Status light is to indicate button status.

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

	ETS5™ - New project				
	Edit Workplace Commission	ing Diagnostics Extras Window			^ ?
	🔉 Close Project 🛛 🎸 Undo 🛛 🐴 R	Redo 🚔 Reports 📰 Workplace 🔻	📃 Catalogs 🛛 🔤 Diagnostics		
Тор	oology, Catalog Topology	×			<
Т	opology 🔻			∧ ⊡ ×	
+	Add Channels 🔹 🗙 Delete   🛨 Dow	nload 🛛 🔹 🕜 Help 🥒 Highlight Changes	Default Parameters		
> =	1.1.1 M/P3R.1 >>Status light b	orightness			
1.1.1 M/P3R.1	General	Default status light brightnss ON			\$
M/P	>Status light brightness	->Red	Level (100%)	•	
3R.1	Deskere Viele brieferer	->Green	Level (100%)	-	
	>Background light brightness	->Blue	Level (100%)	•	
	>Panel scene B	->Automatic adjust brightness	🔵 Disable 🔘 Enable		
	Rocker A	>Red	Level (20%)	•	
	>Left & right button	>Green	Level (20%)	-	
	Rocker B	>Blue	Level (20%)	-	
	NOCKET D	Default status light brightnss OFF			
	>Left & right button	->Red	Level (00%)	•	
	Rocker C	->Green	Level (00%)	-	
	>Left & right button	->Blue	Level (00%)	•	
		->Automatic adjust brightness	🔵 Disable 🔘 Enable		
		>Red	Level (02%)	-	
		>Green	Level (02%)	-	
		>Blue	Level (02%)	•	
	Group Objects Parameter				
	HDL USB Interface 1.1 New line	1.1.1 M/P3R.1		Last used workspace	CAPS

Figure 2-2 Adjust the color of status light

"Default status light brightness ON/OFF" is to set the default brightness of button status light when objects of buttons are opened/closed, the value can be set by changing the level value of RGB below.

"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.



# 2.2 Background Light Brightness Adjustment

Background light is located between rockers to indicate object status.

Select "Background light brightness" in "Parameter" tab, as shown in Figure 2-3.

Ħ	ETS5™ - New project				• <b>×</b>
	ETS Edit Workplace Commission	ing Diagnostics Extras Window			^ <b>(</b> )
	🗞 Close Project 🛛 🏠 Undo 🛛 🐴 R	ledo 🚔 Reports 📰 Workplace 🔻	📃 Catalogs 🛛 🔤 Diagnostics		
То	pology, Catalog Topology	×			<
Т	opology 🔻			∧ □	
+	🛚 Add Channels   🔹 🗙 Delete 🛛 🛨 Dow	nload 🛛 🔹 🕜 Help 🥒 Highlight Changes	Default Parameters		
> =	1.1.1 M/P3R.1 >>Background l	light brightness			
1.1.1 M/P3R.1	General	Background led color setting	Same color 🔷 Independent color		\$
M/Po	>Status light brightness	Default background light brightnss ON			
3R.1	>Background light brightn	->Red	Level (100%)	-	
	>background light brighth	->Green	Level (100%)	•	
	>Panel scene B	->Blue	Level (100%)	-	
	Rocker A	->Automatic adjust brightness	Disable Enable		
	>Left & right button	Default background light brightnss OFF			
	Rocker B	->Red	Level (00%)	•	
	ROCKER B	->Green	Level (00%)	-	
	>Left & right buttor	->Blue	Level (00%)	•	
	Rocker C	->Automatic adjust brightness	Disable Enable		
	>Left & right button				
	Group Objects Parameter	444.4/2224			_ c. r.
	HDL USB Interface 🔺 1.1 New line	1.1.1 M/P3R.1		Last used workspace	CAPS at

Figure 2-3 Adjust the brightness of background light

Background led color setting: all buttons are in the same color or independent color.

If selecting "Same color", the background light color of buttons on/off can be set, only by changing the level value of RGB below.

In the meantime, button color can be adjusted automatically when buttons are on/off. Users may change the level value of RGB below to set the color for automatic adjustment.



If selecting "Independent color", buttons can be set in the same way above. The relationship between button name and button number in Figure 1-8 is as follows: "Rocker 1/2/3" corresponds to rocker A/B/C, "Rocker 1 left/right" corresponds to the left and right button of rocker A, and so on.

# 2.3 Panel Scene Setting

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

## 2.3.1 Enable Panel Scenes

Click "General" in the parameter list to enable/disable Panel scene A/B at the bottom, as shown in Figure 2-4.



ETS5™ - New project	ning Diagnostics Extras Window		
			^ <b>(</b> )
💦 💫 Close Project 🦨 Undo	· · · · ·	Catalogs Diagnostics	
Topology, Catalog Topology	×		
Topology 🔻			▲ ┛ × 🗈
🕂 Add Channels 🔻 🗙 Delete 👲 Dow	vnload 🛛 🔹 🕜 Help 🥒 Highlight Changes	Default Parameters	
> 1.1.1 M/P3R.1 > General			
General General	System delay(0255s)	0	* *
General >Status light brightness	Heartbeat telegram	Disable	•
>Background light brightness	Enable buttons is triggered via EIB	◎ No ○ Yes	
>background light brightness	Enable locking button	🔘 No 🔵 Yes	
>Panel scene A	Read the object status of the rockers	O Disable C Enable	
>Panel scene B	Temperature:		
Rocker A	The local temperature correction(-5C +5C)	OC	•
>Left & right button	Local temperature report	O No Ves	
Rocker B	Led light:		
	Switch background light via EIB	Disable Enable	
>Left & right button	Brightness automatic adjust	O Disable 🔵 Enable	
Rocker C	Panel scene:		
>Left & right button	Panel scene A	Enable Disable	
	Panel scene B	🔵 Disable 🔘 Enable	
Group Objects Parameter			
HDL USB Interface 🔺 1.1 New line	1.1.1 M/P3R.1		Last used workspace CAPS

Figure 2-4 Enable panel scenes

## 2.3.2 Scene Setting

After enabling panel scenes, click the panel scene to be configured on the left, as shown in Figure 2-5.



_	TS5™ - New project TS Edit Workplace Commission	ing Diagnostics Extras Window			× (
Ø	🔉 Close Project 🖌 🖍 Undo 🛝 R	edo 🚔 Reports 📕 Workplace 🔻	Catalogs Diagnostics		
Тор	ology, Catalog Topology	×			<
То	pology 🔻			∧ ∂ ×	
+	Add Channels 🛛 🔹 🗙 Delete 🛛 🛨 Dow	rnload   🔹 🕜 Help 🥒 Highlight Changes	Default Parameters		
>	1.1.1 M/P3R.1 >>Panel scene /	A			0
1 1 1 1 1 1 1000 1	General	Output assigned to(scene164)	Scene 01	•	•
	>Status light brightness	1 bit object control	Oisable O Enable		
	>Background light brightness	1 bit object trigger	Invaild	•	
	>Panel scene A	1 bit object save	Invaild	•	
		Entry delay time(0255s)	0	* *	
	>Panel scene B	Output object <1> type	Invaild	-	
	Rocker A	Output object <2> type	Invaild	-	
	>Left & right button	Output object <3> type	Invaild	•	
	-	Output object <4> type	Invaild	•	
	Rocker B	Output object <5> type	Invaild	-	
	>Left & right button	Output object <6> type	Invaild	-	
	Rocker C	Output object <7> type	Invaild	-	
	>Left & right button	Output object <8> type	Invaild	-	
	>Lent & right button	Output object <9> type	Invaild	•	
		Output object <10> type	Invaild	•	
	Group Objects Parameter				
Н	DL USB Interface A 1.1 New line	1.1.1 M/P3R.1		Last used workspace	CAPS

Figure 2-5 Scene setting

The setting items are explained as follows:

- 1. Output assigned to: to choose to output corresponding scene number (Up to 64 scene numbers available).
- 2. 1 bit object trigger: to enable turning on/off devices in scenes by selecting 0, 1 or 1/0.
- 3. 1 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.
- 4. Entry delay time: to set the delay time of triggering scenes.
- 5. 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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	1.1.1 M/P3R.1 > Rocker A			
	General	Rocker A work mode	Independent button mode Combined button mode	4
	>Status light brightness	Status led setting:		
	>Background light brightness	LED color and brightness	O Default Custom	
	>Panel scene A			
	>Panel scene B			
	Rocker A			
	>Left button			
	>Right button			
	Rocker B			
	>Left & right button			
	Rocker C			
	>Left & right button			
	Group Objects Parameter			

Figure 3-1 Button setting



- 1. Rocker A Work Mode
  - Independent button mode: the left button and right button of "Rocker A" can control objects independently.
  - Combined button mode: objects can be controlled by the combination of the left button and right 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 left and right 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 "Left & right button" tab, as shown in Figure 3-2.



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>				
	1.1.1 M/P3R.1 >>Left & right I	button		0
11.1.1	General	Rocker A : operation mode	Switch controller	
1.1.1 M/P3R.1	>Status light brightness	->Reaction on short button	Switch controller Dimming controller	~
R.1	>Background light brightness	->Reaction on long button	Shutter controller Flexible controller	
	>Panel scene A	Long button time after	Scene controller Sequence controller	
	>Panel scene B	Delay send another object function	Percentage controller Threshold controller	
	Rocker A	Delay send function	String(14bytes) controller Alternate controller	
	>Left & right button	<ul> <li>Status light display settings</li> <li>LED status source</li> </ul>	RGB controller Fan controller	
	Rocker B	LED status	Thermostat controller Combination controller	
	>Left & right button		Combination controller	
	Rocker C			
	>Left & right button			
	Group Objects Parameter			
	HDL USB Interface 🔺 1.1 New line	1.1.1 M/P3R.1		Last used workspace CAPS

Figure 3-2 Select operation mode



#### 3.1.1 Switch Controller Setting

Figure 3-3 shows switch controller setting page.

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> =	1.1.1 M/P3R.1 >>Left & right b	putton			
1.1.1 M/P3R.1	General	Rocker A : operation mode	Switch controller	<b>-</b>	\$
M/P3	>Status light brightness	->Reaction on short button	Left=Toggle,Right=Toggle	-	
R.1	>Background light brightness	->Reaction on long button	Invalid	•	
	>Panel scene A	->Delay for button	No Ves		
	>ranei scene A	Long button time after	1s	-	
	>Panel scene B	Delay send another object function			
	Rocker A	Delay send function	Disable Enable		
	>Left & right button	Status light display settings			
		LED status source	Local	•	
	Rocker B	LED status	ON/OFF status	•	
	>Left & right button				
	Rocker C				
	>Left & right button				
	Group Objects Parameter				
	HDL USB Interface 🔺 1.1 New line	1.1.1 M/P3R.1		Last used workspace	CAPS

Figure 3-3 Switch controller setting page

- 1. Reaction on short/long button: to set the operation mode of "short/long press". The left and right 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.



## 3.1.1 Dimming Controller Setting

Figure 3-4 shows dimming controller setting page.

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> 1	1.1.1 M/P3R.1 >>Left & right k	button			
1.1.1 M/P3R.1	General	Rocker A : operation mode	Dimming controller	-	\$
M/P	>Status light brightness	->Reaction on short button	Left=Toggle,Right=Toggle	-	
3R.1	>Background light brightness	->Reaction on long button	Left=Dim(Toggle),Right=Dim(Toggle)	-	
		Delay for switch ON of short button (0255s)	0	▲ 	
	>Panel scene A	Delay for switch OFF of short button		▲	
	>Panel scene B	(0255s)	0	Ŧ	
	Rocker A	Dimming steps	Step1 (100%)	•	
		Long button time after	1s	-	
	>Left & right button	Status light display settings			
	Rocker B	LED status source	Local	-	
	>Left & right button	LED status	ON/OFF status	•	
	Rocker C				
	>Left & right button				
	Group Objects Parameter				
	HDL USB Interface 🔺 1.1 New line	1.1.1 M/P3R.1		Last used workspace	CAPS

Figure 3-4 Dimming controller setting page

The setting items are explained as follows:

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

2. Dimming steps: There are 7 dimming steps. For example, if selecting Step3 (25%),

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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.



## 3.1.1 Shutter Controller Setting

Figure 3-5 shows shutter controller setting page.

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> ∎	1.1.1 M/P3R.1 >>Left & right b	putton			0
1.1.1 M/P3R.1	General	Rocker A : operation mode	Shutter controller	-	*
M/P	>Status light brightness	->Reaction on short button	Left/Right=Stepping->Toggle/Stop	•	
3R.1	>Background light brightness	->Reaction on long button	Left/Right=Moving->Toggle	•	
		->Stop moving automatically	O Disable C Enable		
	>Panel scene A	Long button time after	1s	•	
	>Panel scene B	Status light display settings			
	Rocker A	LED status source	Local	•	
	>Left & right button	LED status	ON/OFF status	•	
	>Left & right button				
	Rocker B				
	>Left & right button				
	Rocker C				
	>Left & right button				
	Group Objects Parameter				
	HDL USB Interface 1.1 New line	1.1.1 M/P3R.1		Last used workspace	CAPS

Figure 3-5 Shutter controller setting page

The setting items are explained as follows:

- 1. Reaction on short button: to select the operation of "short press" on the panel, including:
  - Left/Right=Increase/Decrease/Stop: to open/close curtain via short pressing the left/right button and stop via short pressing again.
  - ➤ Left/Right=Stepping → Toggle/Stop: to switch between rolling up/down roller shutter via short pressing the left/right button and stop via short pressing again.



- Left/Right=Up/Down: to roll up/down roller shutter via short pressing the left/right button.
- ➤ Left/Right=Moving → Toggle: to switch between rolling up/down via short pressing the left/right button.
- Left/Right=Up/Down/Stop: to roll up/down roller shutter via short pressing the left/right button and stop via short pressing again.
- ➤ Left/Right=Moving → Toggle/Stop: to switch between rolling up/down and stop via short pressing again.
- 2. Reaction on long button: to select the operation of "long press" on the panel, including:
  - Left/Right=Increase/Decrease/Stop: to open/close curtain constantly via long pressing the left/right button and stop via releasing buttons.
  - ➤ Left/Right=Stepping → Toggle/Stop: to switch between rolling up/down roller shutter via long pressing the left/right button and stop via pressing again.
  - > Left/Right=Up/Down/Stop: to roll up/down via long pressing the left/right button.
  - ➤ Left/Right=Moving → Toggle/Stop: to switch between rolling up/down via long pressing the left/right button.
  - ➢ Press: Left=Move → Up/Down, Right=Move → Down/Up; Release: Stop: to roll up/down roller shutter via long pressing the left/right button and stop via releasing buttons.
  - ➢ Press: Left/Right=Move → Toggle; Release: Stop: to switch between rolling up/down roller shutter via long pressing the left/right button and stop via releasing buttons.
- 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.

#### 3.1.2 Flexible Controller Setting

Figure 3-6 shows flexible controller setting page.

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> <b>1</b>	1.1.1 M/P3R.1 >>Left & right I	button			
1.1.1 M/P3R.1	General	Rocker A : operation mode	Flexible controller	•	1
M/P	>Status light brightness	Operation of the left button	Press="ON",Release="OFF"	•	
3R.1	>Background light brightness	Operation of the right button	Press="ON",Release="OFF"	•	
		Status light display settings			
	>Panel scene A	LED status source	Local	•	
	>Panel scene B	LED status	ON/OFF status	•	
	Rocker A				
	>Left & right button				
	Rocker B				
	>Left & right button				
	Rocker C				
	>Left & right button				
	Group Objects Parameter				
	HDL USB Interface A 1.1 New line	1.1.1 M/P3R.1		Last used workspace	CAPS

Figure 3-6 Flexible controller setting page



The setting items are explained as follows:

- 1. Operation of the left/right button: to select the operation of short pressing the left/right buttons, including:
  - > Press=ON: to send ON when pressing and to be invalid when releasing.
  - ➢ Release=ON: to send ON when releasing and to be invalid when pressing.
  - > Press=ON, Release=ON: to send ON when pressing/releasing.
  - > Press=OFF: to send OFF when pressing and to be invalid when releasing.
  - > Release=OFF: to send OFF when releasing and to be invalid when pressing.
  - > Press=OFF, Release=OFF: to send OFF when pressing/releasing.
  - Press=ON, Release=OFF: to send ON when pressing and to send OFF when releasing.
  - Press=OFF, Release=ON: to send OFF when pressing and to send ON when releasing.
- 2. 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 Scene Controller Setting

Figure 3-7 shows scene controller setting page.

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>	1.1.1 M/P3R.1 >>Left & right b	button			0
1.1.1 M/P3R.1	General	Rocker A : operation mode	Scene controller	•	\$
M/P	>Status light brightness	->Call scene number of the left	Scene NO.01	•	
3R.1	>Background light brightness	->Call scene number of the right	Scene NO.02	•	
		->Long button operation as	Invalid	•	
	>Panel scene A	Delay operation for left short button (0255s)	0	▲ ▼	
	>Panel scene B	Delay operation for right short button	0	*	
	Rocker A	(0255s)	1s	•	
	>Left & right button	Long button time after	IS	•	
		Status light display settings	Local	-	
	Rocker B			-	
	>Left & right button	LED status	Flashing, then OFF	•	
	Rocker C				
	>Left & right button				
	Group Objects Parameter				
ł	HDL USB Interface 1.1 New line	1.1.1 M/P3R.1		Last used workspace	CAPS

Figure 3-7 Scene controller setting page

The setting items are explained as follows:

- 1. Call scene number of the left/right: to select corresponding scene number of the left/right button (Up to 64 scene numbers available).
- 2. Long button operation as: to select the operation of "long press", including:
  - Scene dimming



- 1 bit object save: to enable saving current scene to overwrite scene setting, when current scene changes.
- 3. Delay operation for left/right short button: to set the delay time of the left/right 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.



#### 3.1.1 Sequence Controller Setting

Figure 3-8 shows sequence controller setting page.

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> 1	1.1.1 M/P3R.1 >>Left & right b	putton			0
1.1.1	General	Rocker A : operation mode	Sequence controller	-	\$
1.1.1 M/P3R.1	>Status light brightness	->Reaction on short button	Left=Toggle,Right=Toggle	•	
R.1	>Background light brightness	->Reaction on long button	Invalid	•	
	>Panel scene A	Long button time after	1s	•	
		Status light display settings			
	>Panel scene B	LED status source	Local	•	
	Rocker A	LED status	ON/OFF status	•	
	>Left & right button				
	Rocker B				
	>Left & right button				
	Rocker C				
	>Left & right button				
	Group Objects Parameter				
	HDL USB Interface 🔺 1.1 New line	1.1.1 M/P3R.1		Last used workspace	CAPS

Figure 3-8 Sequence controller setting page

The setting items are explained as follows:

- 1. Reaction on short button: to set the operation of "short/long press", including:
  - Left/Right=Toggle: to toggle the left/right button.
  - > Left/Right=Start/Stop with 0/1: the left/right button starts/stops 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.



#### 3.1.1 Percentage Controller Setting

Figure 3-9 shows percentage controller setting page.

Ħ	ETS5™ - New project				
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> =	1.1.1 M/P3R.1 >>Left & right	button			0
1.1.1 M/P3R.1	General	Rocker A : operation mode	Percentage controller	•	•
M/P	>Status light brightness	->Percentage on left short button	100%(255)	•	
3R.1	>Background light brightness	->Percentage on left long button	0%(0)	•	
		Delay on left short button(0255s)	0	* *	
	> Panel scene A	Delay on left long button(0255s)	0	* ~	
	>Panel scene B	->Percentage on right short button	100%(255)	-	
	Rocker A	->Percentage on right long button	0%(0)	•	
	>Left & right button	Delay on right short button(0255s)	0	* *	
		Delay on right long button(0255s)	0	* *	
	Rocker B	Long button time after	1s	-	
	>Left & right button	Status light display settings			
	Rocker C	LED status source	Local	•	
		LED status	Flashing, then OFF	-	
	>Left & right button				
	Group Objects Parameter				
	HDL USB Interface  A 1.1 New line	1.1.1 M/P3R.1		Last used workspace	CAPS

Figure 3-9 Percentage controller setting page

The setting items are explained as follows:

- 1. Reaction on short button: to select the operation of percentage controller when short/long pressing the left/right button.
- 2. Delay send for short/long button: to set the delay time of short/long pressing the left/right 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.



### 3.1.1 Threshold Controller Setting

Figure 3-10 shows threshold controller setting page.

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Т	opology 🔻			▲ @ 💌	Eì
+	• Add Channels   🔹 🗙 Delete  🛨 Dow	nload   🔹 🕜 Help 🌛 Highlight Changes	Default Parameters		
>	1.1.1 M/P3R.1 >>Left & right b	putton			
1.1.1 M/P3R.1	General	Rocker A : operation mode	Threshold controller	-	•
M/P	>Status light brightness	Threshold value type	1byte threshold	*	
3R.1	>Background light brightness	->Threshold on left short button	255	۵. ۳	
		->Threshold on left long button	0	* *	
	>Panel scene A	Delay on left short button	0	* *	
	>Panel scene B	Delay on left long button(0255s)	0	* *	
	Rocker A	->Threshold on right short button	255	الله من الم ح	
	>Left & right button	->Threshold on right long button	0	* *	
		Delay on right short button	0	* *	
	Rocker B	Delay on right long button(0255s)	0	* *	
	>Left & right button	Long button time after	1s	-	
	Rocker C	Status light display settings			
		LED status source	Local	*	
	>Left & right button	LED status	Flashing,then OFF	•	
	Group Objects Parameter				
	HDL USB Interface 🔺 1.1 New line	1.1.1 M/P3R.1		Last used workspace	CAPS

Figure 3-10 Threshold controller setting page

The setting items are explained as follows:

- 1. Threshold value type: to select threshold type, including 1-byte threshold, 2-byte threshold and 2-byte float threshold.
- 2. Threshold on left/right short/long button: to set the sent threshold via short/long pressing the left/right button. Threshold value depends on the type selected in the first point.
- 3. Delay on right/left short/long button: to set the delay time of short/long pressing the



left/right 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.



### 3.1.1 14-Byte String Controller Setting

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

ETS5™ - New project				
	missioning Diagnostics Extras Window			^ 🕐
		Catalogs Diagnostics		
	ology ×			<
Topology 🔻			∧ ⊡ ×	
🕂 Add Channels 🔹 🗙 Delete	🛨 Download   🔹 🕜 Help 🥒 Highlight Changes	Default Parameters		
> 1.1.1 M/P3R.1 >>Left &	right button			
L11 General Control Control C	Rocker A : operation mode	String(14bytes) controller	-	1
>Status light brightness	->String on left short button	Hello world!		
>Background light brightr	->String on left long button	Hello world!		
	Delay on left short button(0255s)	0	* *	
>Panel scene A	Delay on left long button(0255s)	0	▲ ▼	
>Panel scene B	->String on right short button	Hello world!		
Rocker A	->String on right long button	Hello world!		
>Left & right button	Delay on right short button(0255s)	0	▲ ▼	
	Delay on right long button(0255s)	0	* *	
Rocker B	Long button time after	1s	-	
>Left & right button	Status light display settings			
Rocker C	LED status source	Local	•	
	LED status	Flashing, then OFF	•	
>Left & right button				
Group Objects Paramete	er /			
HDL USB Interface A 1.1 New I			Last used workspace	CAPS

Figure 3-11 14-Byte string controller setting page

The setting items are explained as follows:

- 1. String on left/right short/long button: to select the sent string via short/long pressing the left/right button.
- 2. Delay on left short button: to set the delay time of short/long pressing the left/right 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.



# 3.1.2 Alternate Controller Setting

Figure 3-12 shows alternate controller setting page.

	ETS5™ - New project ETS Edit Workplace Commission	ing Diagnostics Extras Window			► <mark>×</mark>
	Close Project 🖍 Undo 🛝 R		Catalogs Diagnostics		
	•	x			
	pology, Catalog Topology	^		<u>∧</u> ∂	×
		nload 🖙 🕜 Help 🥒 Highlight Changes			
>	1.1.1 M/P3R.1 >>Left & right t		Delauit Farameters		
111	General	Rocker A : operation mode	Alternate controller	•	<b>^</b>
1.1.1 M/P3R.1	>Status light brightness	Alternate <1>	1bit value	<b>.</b>	
3R.1		Left short button value(1bit)	Υ	-	
	>Background light brightness	Left long button value(1bit)	'0'	-	
	>Panel scene A	Right short button value(1bit)	11	•	
	> Panel scene B	Right long button value(1bit)	.0,	•	
	Rocker A	Alternate <2>	1bit value	•	
	>Left & right button	Left short button value(1bit)	11	•	Default Value
	>Left & right button	Left long button value(1bit)	'0'	*	
	Rocker B	Right short button value(1bit)	'n	•	
	>Left & right button	Right long button value(1bit)	'0'	•	
	Rocker C	Alternate <3>	1bit value	•	
		Left short button value(1bit)	'n	•	
	>Left & right button	Left long button value(1bit)	'0'	•	
		Right short button value(1bit)	Ψ	•	
		Right long button value(1bit)	'0'	•	
		Alternate <4>	1bit value	-	
		Left short button value(1bit)	'l'	-	J.
	Group Objects Parameter				
	HDL USB Interface 🔺 1.1 New line	1.1.1 M/P3R.1		Last used workspace	CAPS

Figure 3-12 Alternate controller setting page



The setting items are explained as follows:

- 1. Alternate <1/2/3/4>: to select the control type of "Alternate <1/2/3/4>".
- 2. Left/Right short/long button value: to set the value of short/long pressing the left/right button, whose length depends on the type selected in the first point.
- 3. Alternate on left/right short/long button: to enable the alternate function of short/long pressing the left/right button.
- 4. Long button timer after: the time for the system to identify "long press". For example, if the time is set to 3s, keeping pressing buttons 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.



## 3.1.3 RGB Controller Setting

Figure 3-13 shows RGB controller setting page

I	ETS5™ - New project				
	ETS Edit Workplace Commission	ing Diagnostics Extras Window			^ <b>(</b> )
	🗞 Close Project 🛛 🏠 Undo 🛛 🐴 R	Redo 🚔 Reports 📰 Workplace 🔻	📃 Catalogs 🛛 🔤 Diagnostics		
То	pology, Catalog Topology	×			<
Т	opology 🔻			<b>^</b> ⊡	×
+	🛚 Add Channels   🔹 🗙 Delete 🛛 🛨 Dow	mload   🔹 🕜 Help 🥒 Highlight Changes	Default Parameters		
> ⊨	1.1.1 M/P3R.1 >>Left & right b	putton			0
1.1.1	General	Rocker A : operation mode	RGB controller	-	^ <b>^</b>
1.1.1 M/P3R.1	>Status light brightness	->object type	three objects(DPT 5.001) one object(DPT 232.600)		
.1	>Background light brightness	->RGB on left short button	No Ves		
	>Panel scene A	Color R brightness	100%(255)	•	
	>Panel scene B	Color G brightness	100%(255)	•	
	Rocker A	Color B brightness	100%(255)	•	
	>Left & right button	->RGB on left long button	No Yes		
	>Left & right button	Delay on left short button(0255s)	0	* *	
	Rocker B	Delay on left long button(0255s)	0	▲ ▼	
	>Left & right button	->RGB on right short button	No Ves		
	Rocker C	Color R brightness	100%(255)	•	
		Color G brightness	100%(255)	•	
	>Left & right button	Color B brightness	100%(255)	•	
		->RGB on right long button	No Ves		
		Delay on right short button(0255s)	0	▲ ▼	
		Delay on right long button(0255s)	0	* *	
		Long button time after	1s	•	v
	Group Objects Parameter				
	HDL USB Interface 🔺 1.1 New line	1.1.1 M/P3R.1		Last used workspace	CAPS

Figure 3-13 RGB controller setting page

The setting items are explained as follows:

- 1. Object type: to select the type of dimming object. "3 objects" is to control dimming via R, G and B independently while "1 object" is to control via RGB.
- RGB on left/right short button: to enable dimming via short pressing the left/right button. After enabled, color and brightness can be customized by selecting RGB value in "Color R/G/B brightness" below.



- 3. RGB on left/right long button: to enable dimming via long pressing the left/right button.
- 4. Delay on left/right short/long button: to select the delay time of short/long pressing the left/right button, 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.



#### 3.1.1 Fan Controller Setting

Figure 3-14 shows fan controller setting page.

	ETS5™ - New project				• 💌
	ETS Edit Workplace Commission	ing Diagnostics Extras Window			^ 🕐
	🗞 Close Project 🛛 🏠 Undo 🛝 R	Redo 🚔 Reports 📕 Workplace 🔻	Catalogs Piagnostics		
Тор	pology, Catalog Topology	×			¢
Т	opology 🔻			^ 🗇	×
+	🛚 Add Channels   🔹 🗙 Delete 🛛 🛨 Dow	mload   🔹 🕜 Help 🥒 Highlight Changes	Default Parameters		
> ⊨	1.1.1 M/P3R.1 >>Left & right b	putton			0
1.1.1 M/P3R.1	General	Rocker A : operation mode	Fan controller	-	^
M/P3	>Status light brightness	->Total number of fan speed	3	•	
R.1	>Background light brightness	Speed 1 objects settings Object 1 value set	ON	•	
	>Panel scene A	Object 2 value set	OFF	-	
	>Panel scene B	Object 3 value set	OFF	•	
	Rocker A	Speed 2 objects settings			
		Object 1 value set	OFF	-	
	>Left & right button	Object 2 value set	ON	-	
	Rocker B	Object 3 value set	OFF	•	
	>Left & right button	Speed 3 objects settings			
	-	Object 1 value set	OFF	-	
	Rocker C	Object 2 value set	OFF	•	
	>Left & right button	Object 3 value set	ON	-	
		Speed off objects settings			
		Object 1 value set	OFF	-	
		Object 2 value set	OFF	-	
		Object 3 value set	OFF	-	
		->Reaction on left button	Invalid O Switch fan speed		v
	Group Objects Parameter	111 M/P3R 1		Last used workspace	CAPS
	HDL USB Interface 🔺 1.1 New line	1.1.1 M/P3R.1		Last used workspace	CAPS

Figure 3-14 Fan controller setting page

The setting items are explained as follows:

- 1. Total number of fan speed: to select the number of fan speed levels, range from 2 to 4.
- 2. Speed 1/2/3/4 object settings: each level of fan speed can be set in detail, "Object1/2/3/4 value set" corresponds to the value of object 1/2/3/4 independently.
- 3. Speed off objects settings: to set the value of objects when fan is off.



- 4. Reaction on left/right button: to enable adjusting fan speed via the left/right 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 corresponding level.
  - > Turn off fan: to enable turning 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.



### 3.1.2 Thermostat Controller Setting

Figure 3-15 shows thermostat controller setting page.

	ETS5™ - New project ETS Edit Workplace Commission	ing Diagnostics Extras Window			• • •
	🔉 Close Project 🖌 🖍 Undo 🛝 R		Catalogs		
	pology, Catalog Topology	x			<
	opology -			<b>∧</b> ∂	×
		nload   🔹 🕜 Help 🥜 Highlight Changes	Default Parameters		
>	1.1.1 M/P3R.1 >>Left & right b	putton			0
1.1.1 M/P3R.1	General	Rocker A : operation mode	Thermostat controller	•	~
M/P	>Status light brightness	Set for temperature[MIN](099C)	21C	•	
3R.1	>Background light brightness	Set for temperature[MAX](099C)	30C	•	
		Button set for temperature	left short=decrease,right shor=increase		
	>Panel scene A	Enable thermostat control	No Ves		
	>Panel scene B	Long button time after	1s	•	
	Rocker A	Status light display settings			
	>Left & right button	LED status source	Local	•	
		LED status	Flashing,then OFF	•	
	Rocker B				
	>Left & right button				
	Rocker C				
	>Left & right button				
	Group Objects Parameter				
	HDL USB Interface 1.1 New line	1.1.1 M/P3R.1		Last used workspace	CAPS

Figure 3-15 Thermostat controller setting page

The setting items are explained as follows:

- 1. Set for comfort temperature [MIN/MAX]: to set the upper/lower limit of temperature, which both range from 0 to 99°C.
- 2. Button set for temperature: for Granite Display, the left button is set to turn down the temperature, while the right 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  $10^{\circ}$ 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 left/right button (Left/Right 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.



# 3.1.3 Combination Controller Setting

Figure 3-16 shows combination controller setting page.

**Notice:** because combination controller only supports up to 20 objects, "n" in this part is a positive integer less than 21.

_	ETS5™ - New project	ing Diagnostics Extras Window		
	ETS Edit Workplace Commission		Catalogs Diagnostics	^ 🕐
	pology, Catalog Topology	x	Catalogs Diagnostics	
	pology, Catalog Topology	^		<ul> <li></li></ul>
		nload   🔻 🕜 Help 🌛 Highlight Changes	Default Parameters	2
>				
Ė	1.1.1 M/P3R.1 >>Left & right k	putton		O
	General	Rocker A : operation mode	Combination controller	· ^ *
1.1.1 M/P3R.1	>Status light brightness	Button object type 1	Invalid	
3R.1	. De deseur d Kaba beis basse	Button object type 2	Invalid	
	>Background light brightness	Button object type 3	Invalid	
	>Panel scene A	Button object type 4	Invalid	
	>Panel scene B	Button object type 5	Invalid	
	Rocker A	Button object type 6	Invalid	
		Button object type 7	Invalid	
	>Left & right button	Button object type 8	Invalid	
	Rocker B	Button object type 9	Invalid	
	>Left & right button	Button object type 10	Invalid	
	Rocker C	Button object type 11	Invalid	
		Button object type 12	Invalid	
	>Left & right button	Button object type 13	Invalid	
		Button object type 14	Invalid	
		Button object type 15	Invalid	
		Button object type 16	Invalid	
		Button object type 17	Invalid	
	Group Objects Parameter			
-	HDL USB Interface 🔺 1.1 New line	1.1.1 M/P3R.1	Last used w	orkspace CAPS

Figure 3-16 Combination controller setting page



#### 3.1.3.1 Switch Controller Setting

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

#### 3.1.3.2 Shutter Controller Setting

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

#### 3.1.3.3 Scene Controller Setting

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

#### 3.1.3.4 Sequence Controller Setting

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

#### 3.1.3.5 Percentage Controller Setting

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

#### 3.1.3.6 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.



# 3.1.3.7 String Controller Setting

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

# 3.2 Independent Button Mode

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



# 3.2.1 Select Operation Mode

The control type of combined buttons can be selected at the top of "Left button" tab, as shown in Figure 3-17.

Ħ	ETS5™ - New project				
	ETS Edit Workplace Commiss	sioning Diagnostics Extras Window			^ <b>(</b>
	👩 Close Project 🛛 🌈 Undo 🛛 🔇	Redo 🚔 Reports 📰 Workplace 🔻	Eatalogs Diagnostics		
То	pology, Catalog Topolog	ay ×			<
Т	opology 🔻			∧ ⊡ ×	
F	• Add Channels   🔹 🗙 Delete  🛨 I	Download 🛛 🔹 🕜 Help 🥒 Highlight Changes	Default Parameters		
> =	1.1.1 M/P3R.1 >>Left butto	n			0
1	General	Rocker A : left button operation mode	Switch controller	•	1
1.1.1 M/P3R.1	>Status light brightness	->Reaction on left short button	Switch controller	~	
3R.1		->Reaction on left long button	Dimming controller Shutter controller		
	>Background light brightness	->Delay for left button	Flexible controller		
	>Panel scene A	Long button time after	Scene controller Sequence controller		
	>Panel scene B	Delay send another object function	Percentage controller		
	Rocker A	Delay send function	Threshold controller String(14bytes) controller		
		Status light display settings	Alternate controller		
	>Left button	LED status source	Pulse controller RGB controller		
	>Right button	LED status	Fan controller		
	Rocker B		Combination controller		
	ROCKER B				
	>Left & right button				
	Rocker C				
	>Left & right button				
	Group Objects Parameter				
	HDL USB Interface 🔺 1.1 New line	1.1.1 M/P3R.1	La	ast used workspace	CAPS

Figure 3-17 Select control type



# 3.2.2 Switch Controller Setting

Figure 3-18 shows switch controller setting page.

I	ETS5™ - New project				• <b>- x</b>
	Edit Workplace Commissio	ning Diagnostics Extras Window			∧ <b>?</b>
	🗞 Close Project 🛛 🏠 Undo 🛝	Redo 🚔 Reports 📕 Workplace 🔻	E Catalogs Diagnostics		
Тор	pology, Catalog Topology	×			<
Т	opology 🔻			<b>^</b> □	×
+	🛚 Add Channels   🔹 🗙 Delete 🛛 🛨 Do	wnload   🔹 👔 Help 🌛 Highlight Changes	Default Parameters		
> Ē	1.1.1 M/P3R.1 >>Left button				
1.1.1	General	Rocker A : left button operation mode	Switch controller	-	1
1.1.1 M/P3R.1	>Status light brightness	->Reaction on left short button	Toggle	•	
R.1	>Background light brightness	->Reaction on left long button ->Delay for left button	Invalid No Yes	•	
	>Panel scene A	Long button time after	1s	•	
	>Panel scene B	Delay send another object function			
	Rocker A	Delay send function	Disable Enable		
	>Left button	Status light display settings LED status source	Local	•	
	>Right button	LED status	ON/OFF status	•	
	Rocker B				
	>Left & right button				
	Rocker C				
	>Left & right button				
	Group Objects Parameter				
	HDL USB Interface 1.1 New line	1.1.1 M/P3R.1		Last used workspace	CAPS

Figure 3-18 Switch controller setting page

- 1. Reaction on left short/long 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 send for short/long button: to enable the delay time of buttons.

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 function" of "short/long press".

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

Delay send value: to set the value of "Delay send".

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 3-19 shows dimming controller setting page.

Ħ	ETS5	™ - New project				
	ETS	Edit Workplace Commissioni	ng Diagnostics Extras Window			^ <b>(</b>
	🐼 Clo	ose Project 🛛 🍫 Undo 🛝 Re	edo 🚔 Reports 🔛 Workplace 🔻	📜 Catalogs 🛛 🔤 Diagnostics		
То	opology	y, Catalog Topology	×			¢
1	opolo	gy 🔻			^	
H	Add	Channels 🛛 🛪 🗙 Delete  🛨 Dowr	nload 🛛 🔹 🕜 Help 🥒 Highlight Changes D	efault Parameters		<i>▶</i>
> E	1.1	.1 M/P3R.1 >>Left button				
1.1.1		General	Rocker A : left button operation mode	Dimming controller	-	\$
1.1.1 M/P3R.1		>Status light brightness	->Reaction on left short button	Toggle	•	
1		>Background light brightness	->Reaction on left long button Delay for switch ON of left short button	Dim->Brighter/Darker	•	
		>Panel scene A (0255s) Delay for switch OFF of left short	0	Ŧ		
		>Panel scene B	button(0255s)	0	* *	
		Rocker A	Dimming steps Long button time after	Step1 (100%) 1s	•	
		>Left button	Status light display settings			
		>Right button	LED status source	Local	•	
		Rocker B	LED status	ON/OFF status	*	
		>Left & right button				
		Rocker C				
		>Left & right button				
	Gro	oup Objects Parameter				
		JSB Interface 1.1 New line	1.1.1 M/P3R.1		Last used works	space CAPS

Figure 3-19 Dimming controller setting page

The setting items are explained as follows:

1. Reaction on short button: to select the operation of "short/long press" ("short press" is only to turn on/off, "long press" is to adjust brightness.).

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

5. 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%).

- 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.



# 3.2.1 Shutter Controller Setting

Figure 3-20 shows shutter controller setting page.

I	ETS5™ - New project				
	ETS Edit Workplace Commission	ning Diagnostics Extras Window			^ <b>(</b> )
	🗞 Close Project 🛛 🏠 Undo 🛝	Redo 🚔 Reports 📰 Workplace 🔻	Catalogs Diagnostics		
То	pology, Catalog Topology	×			<
Т	opology 🔻			∧ □	<
+	🛚 Add Channels   🔹 🗙 Delete  🛨 Dor	wnload 🛛 🔹 🕐 Help 🌙 Highlight Changes	Default Parameters		
> 1	1.1.1 M/P3R.1 >>Left button				
1.1.1	General	Rocker A : left button operation mode	Shutter controller	•	\$
1.1.1 M/P3R.1	>Status light brightness	->Reaction on short button	Stepping->Toggle/Stop	•	
R.1	>Background light brightness	->Reaction on long button	Moving->Toggle	•	
		>Stop moving automatically	🔘 Disable 🔵 Enable		
	>Panel scene A	Long button time after	1s	•	
	>Panel scene B	Status light display settings			
	Rocker A	LED status source	Local	•	
	>Left button	LED status	ON/OFF status	•	
	>Right button				
	Rocker B				
	>Left & right button				
	Rocker C				
	>Left & right button				
	Group Objects Parameter				
	HDL USB Interface 🔺 1.1 New line	1.1.1 M/P3R.1		Last used workspace	CAPS

Figure 3-20 Shutter controller setting page

The setting items are explained as follows:

- 1. Reaction on short button: to select the operation of "short press" on the panel, including:
  - Stepping → Increase (Decrease/Toggle) /Stop: to increase/decrease via short pressing and stop via short pressing again.
  - > Moving  $\rightarrow$  Up/Down/Toggle: to roll up/down via short pressing.



- > Stop moving automatically: to choose whether to stop automatically.
- 2. Long button time after: to select the delay time of long pressing, range from 1 to 60s.
- 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.



### 3.2.2 Flexible Controller Setting

Figure 3-21 shows flexible controller setting page.

	ETS5™ - New project				• <b>×</b>
ETS Edit Workplace Commissioning Diagnostics Extras Window					^ <b>?</b>
	🗞 Close Project 🛛 🏠 Undo 🛛 🐴 R	Redo 📄 Reports 📰 Workplace 🔻	📃 Catalogs 🛛 🔤 Diagnostics		
Тор	pology, Catalog Topology	×			<
Тс	opology 🔻			▲ □	
+	• Add Channels   🔹 🗙 Delete  🛨 Dow	vnload   🔹 🕜 Help 🥒 Highlight Changes	Default Parameters		
> 1	1.1.1 M/P3R.1 >>Left button				
1.1.1	General	Rocker A : left button operation mode	Flexible controller	-	1
1.1.1 M/P3R.1	>Status light brightness	->Operation mode	No Short & Long button Short & Long button		
1	>Background light brightness	Operation of the button	Press="ON",Release="OFF"	•	
	>Panel scene A	Status light display settings			
	>Panel scene B	LED status source	Local ON/OFF status	•	
	Rocker A	LED status	ON/OFF status		
	>Left button				
	>Right button				
	Rocker B				
	>Left & right button				
	Rocker C				
	>Left & right button				
	Group Objects Parameter				
	HDL USB Interface 1.1 New line	1.1.1 M/P3R.1		Last used workspace	CAPS

Figure 3-21 Flexible controller setting page

The setting items are explained as follows:

- 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: including:

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

3. ("Short & Long button" is selected) Operation of short button: including sending

ON/OFF/Toggle.

- 4. ("Short & Long button" is selected) Operation of long button: including:
  - > Press=ON: to send ON when pressing and to be invalid when releasing.
  - > Release=ON: to send ON when releasing and to be invalid when pressing.
  - > Press=ON, Release=ON: to send ON when pressing/releasing.
  - > Press=OFF: to send OFF when pressing and to be invalid when releasing.
  - > Release=OFF: to send OFF when releasing and to be invalid when pressing.
  - > Press=OFF, Release=OFF: to send OFF when pressing/releasing.
  - Press=ON, Release=OFF: to send ON when pressing and to send OFF when releasing.

> Press=OFF, Release=ON: to send OFF when pressing and to send ON when releasing.

- 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.



#### 3.2.3 Scene Controller Setting

Figure 3-22 shows threshold controller setting page.

I	ETS5™ - New proje	ect				•
	ETS Edit Work	place Commission	ing Diagnostics Extras Window			^ <b>?</b>
	Close Project	🆍 Undo 🛛 🐴 R	edo 🚔 Reports 🔛 Workplace 🔻	Catalogs Diagnostics		
То	pology, Catalog	Topology	×			<
Т	opology 🔻				<ul> <li>a</li> </ul>	< E
+	Add Channels 🛛 🔻	🗙 Delete  ± Dow	nload   🔹 🕜 Help 🤌 Highlight Changes	Default Parameters		
> =	1.1.1 M/P3R.1 >	>>Left button				
11	General		Rocker A : left button operation mode	Scene controller	-	٠
1.1.1 M/P3R.1	>Status light	t brightness	->Call scene number of the left short button	Scene NO.01	•	
2.1	>Backgroun	d light brightness	->Call scene toggled	O Disable C Enable		
	>Panel scen	e A	->Long button operation as	Invalid	•	
	>Panel scen	e B	Delay operation for left short button (0255s)	0	▲ ▼	
	Rocker A		Long button time after	1s	*	
	>Left butto	n	Status light display settings	Local		
	- Cert Butto					
	>Right butto	on	LED status	Flashing,then OFF	·	
	Rocker B					
	>Left & righ	t button				
	Rocker C					
	>Left & righ	t button				
	Group Objects	Parameter				
	HDL USB Interface	▲ 1.1 New line	1.1.1 M/P3R.1		Last used workspace	CAPS

Figure 3-22 Scene controller setting page.

The setting items are explained as follows:

- 1. Call scene number of the left/right: to select corresponding scene number of short pressing the left button (Up to 64 scene numbers available).
- 2. Call scene toggled: to enable exchanging scenes. After enabled, the number of scenes to be exchanged can be selected in "Toggled scene number" below.
- 3. Long button operation as: to select the operation of "long press", including:



- Scene dimming
- I bit object save: to choose whether to save current scene to overwrite scene setting when current scene changes.
- 4. Delay on right/left short/long button: to set the delay time of short/long pressing the left/right button, 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.



# 3.2.1 Sequence Controller Setting

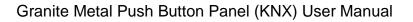
Figure 3-23 shows sequence controller setting page.

Ħ	ETS5™ - New proj	ject				• 🔀
	ETS Edit Wor	kplace Commission	ing Diagnostics Extras Window			^ <b>(</b> )
	Close Project	🎸 Undo 🛛 🔷 R	Redo 🚔 Reports 🔛 Workplace 🔻	Catalogs Diagnostics		
То	pology, Catalog	Тороlоду	×			<
Т	opology 🔻				<u>∧</u> ∂	×
+	Add Channels   🔹	🗙 Delete  ± Dow	mload 🛛 🔻 🕜 Help 🤌 Highlight Changes	Default Parameters		
> 1	1.1.1 M/P3R.1	>>Left button				
1.1.1	General		Rocker A : left button operation mode	Sequence controller	•	1
1.1.1 M/P3R.1	>Status ligi	ht brightness	->Reaction on left short button	Toggle(Start-"1"-,Stop-"0")	•	
R.1	>Backgrou	nd light brightness	->Reaction on left long button	Invalid	•	
	>Panel sce	ne A	Long button time after Status light display settings	1s	•	
	>Panel sce	ne B	LED status source	Local	•	
	Rocker A		LED status	ON/OFF status	•	
	>Left butt	on	1			
	>Right but	ton				
	Rocker B					
	>Left & rig	ht button				
	Rocker C					
	>Left & rig	ht button				
	Group Objects	Parameter				
	HDL USB Interface	▲ 1.1 New line	1.1.1 M/P3R.1		Last used workspace	CAPS

Figure 3-23 Sequence controller setting page

The setting items are explained as follows:

- 1. Reaction on short button: to set the operation of short/long pressing the left button, including:
  - > Toggle
  - Start with 1





➢ Stop with 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.



#### 3.2.1 Percentage Controller Setting

Figure 3-24 shows percentage controller setting page.

	ETS5™ - New proj		ing Diagnostics Extras Window			
				Catalogs Diagnostics		^ <b>(</b> )
	Close Project					
	pology, Catalog opology <del>-</del>	Topology	×		<b>∧</b> □	×
		🗙 Delete 📌 Dew	nload   🔻 🕜 Help 🥜 Highlight Changes	Default Parameters		
>						
	1.1.1 M/P3R.1	>>Left button				
F	General		Rocker A : left button operation mode	Percentage controller	-	1
1.1.1 M/P3R.1	>Status ligh	ht brightness	->Percentage on left short button	100%(255)	•	
3R.1	>Backgrouv	nd light brightness	->Percentage toggled	O Disable C Enable		
			->Percentage on left long button	Invalid To one value		
	>Panel scer	ne A	Delay on left short button(0255s)	0	*	
	>Panel scer	ne B	Long button time after	1s	•	
	Rocker A		Status light display settings			
	>Left butto	on	LED status source	Local	•	
			LED status	Flashing, then OFF	-	
	>Right butt	ton				
	Rocker B					
	>Left & rig!	ht button				
	Rocker C					
	>Left & rig!	ht button				
	Group Objects	Parameter				
	HDL USB Interface	▲ 1.1 New line	1.1.1 M/P3R.1		Last used workspace	CAPS

Figure 3-24 Percentage controller setting page

The setting items are explained as follows:

- 1. Reaction on short button: to select the percentage operation of short pressing the left button, including:
- 2. Percentage toggled: to enable exchanging percentage. After enabled, the percentage value to be switched can be selected in "Toggled percentage value".
- 3. Percentage on left long button: to enable percentage control to one value via long



pressing the left button. After enabled, the limit of percentage control can be selected in "Percentage value" below.

- 4. Delay on right/left short/long button: to set the delay time of short/long pressing the left/right button, 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.



## 3.2.1 Threshold Controller Setting

Figure 3-25 shows threshold controller setting page.

	ETS5™ - New project				
		ing Diagnostics Extras Window		^	0
L	🗞 Close Project 🛛 🌾 Undo 🛝 R	edo 🚔 Reports 🔛 Workplace 🔻	Catalogs Diagnostics		
То	pology, Catalog Topology	×			<
Т	opology 🔻			∧ ⊡ ×	
+	• Add Channels   🔹 🗙 Delete  🛨 Dow	mload 🛛 🔹 🕜 Help 🤌 Highlight Changes	Default Parameters		
> 1	1.1.1 M/P3R.1 >>Left button				
1.1.1 M/P3R.1	General	Rocker A : left button operation mode	Threshold controller		•
M/P	>Status light brightness	Threshold value type	1byte threshold	•	
3R.1	>Background light brightness	->Threshold on left short button	255	Å. V	
		->Threshold toggled	🔵 Disable 🔘 Enable		
	>Panel scene A	Toggled threshold value	0	*	
	>Panel scene B	->Threshold on left long button	O Invalid O To one value		
	Rocker A	Delay on left short button(0255s)	0	* *	
	>Left button	Long button time after	1s	*	
		Status light display settings			
	>Right button	LED status source	Local	•	
	Rocker B	LED status	Flashing,then OFF	•	
	>Left & right button				
	Rocker C				
	>Left & right button				
	Group Objects Parameter				
	HDL USB Interface 🔺 1.1 New line	1.1.1 M/P3R.1		Last used workspace	

Figure 3-25 Threshold controller setting page

The setting items are explained as follows:

- 1. Threshold value type: to select threshold type, including 1-byte threshold, 2-byte threshold and 2-byte floating threshold.
- 2. Threshold on left short/long button: to set the sent threshold of short/long pressing the left/right button, which depends on the type selected in the first point.
- 3. Threshold toggled: to enable toggle threshold. After enabled, the toggled threshold value



can be set in "Toggled threshold value" below.

- 4. Delay on right/left short/long button: to set the delay time of short/long pressing the left/right button, 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.



### 3.2.1 14-Byte String Controller Setting

Figure 3-26 shows 14-byte string controller setting page.

I	ETS5™ - New project				×
	ETS Edit Workplace Commissioni	ing Diagnostics Extras Window		^	
	🗞 Close Project 🛛 🎸 Undo 🛛 🐴 R	edo 🚔 Reports 🔛 Workplace 🔻	Catalogs Diagnostics		
То	pology, Catalog Topology	×			<
Т	opology 🔻			∧ ⊡ ×	Eì
+	🕯 Add Channels   🔹 🗙 Delete  🛨 Dowi	nload 🛛 🔹 🕜 Help 🌛 Highlight Changes	Default Parameters		
> 1	1.1.1 M/P3R.1 >>Left button				0
1.1.1 M/P3R.1	General	Rocker A : left button operation mode	String(14bytes) controller	•	٠
M/P3	>Status light brightness	->String on left short button	Hello world!		
3R.1	>Background light brightness	->String on left long button	Hello world!		
		Delay on left short button(0255s)	0	▲ ▼	
	>Panel scene A	Delay on left long button(0255s)	0	* *	
	>Panel scene B	Long button time after	1s	•	
	Rocker A	Status light display settings			
	>Left button	LED status source	Local	•	
	>Left button	LED status	Flashing,then OFF	•	
	>Right button				
	Rocker B				
	>Left & right button				
	Rocker C				
	>Left & right button				
	Group Objects Parameter				
	HDL USB Interface 🔺 1.1 New line	1.1.1 M/P3R.1		Last used workspace	

Figure 3-26 14-Byte string controller setting page

The setting items are explained as follows:

- 1. Delay on right/left short/long button: to set the string sent via short/long pressing the left button.
- 2. Delay on right/left short/long button: to set the delay time of short/long pressing the left/right 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.



### 3.2.1 Alternate Controller Setting

Figure 3-27 shows alternate controller setting page.

I	ETS5™ - New project			
	ETS Edit Workplace Commission	ing Diagnostics Extras Window		^ <b>(</b>
	👩 Close Project 🛛 🎸 Undo 🛛 🐴 R	edo 🚔 Reports 🔛 Workplace 🔻	Catalogs Diagnostics	
То	pology, Catalog Topology	×		<
T	opology 🔻			∧ ⊡ × 🗈
+	🛚 Add Channels   🔹 🗙 Delete  🛨 Dow	mload 🛛 🔻 🕜 Help 🤌 Highlight Changes	Default Parameters	
> ₫	1.1.1 M/P3R.1 >>Left button			0
1.1.1 M/P3R.1	General	Rocker A : left button operation mode	Alternate controller	- ·
M/P	>Status light brightness	Alternate <1>	1bit value	•
3R.1	>Background light brightness	Short button value(1bit)	Ψ	-
	>background light brightness	Long button value(1bit)	'0'	<b>•</b>
	>Panel scene A	Alternate <2>	1bit value	•
	>Panel scene B	Short button value(1bit)	1	<b>•</b>
	Rocker A	Long button value(1bit)	'0'	•
	>Left button	Alternate <3>	Invalid	•
		Alternate <4>	Invalid	•
	>Right button	->Alternate on left short button	🔵 Disable 🔘 Enable	
	Rocker B	->Alternate on left long button	Disable Enable	
	>Left & right button	Long button time after	1s	<b>•</b>
	Rocker C	Status light display settings		
		LED status source	Local	•
	>Left & right button	LED status	Flashing,then OFF	•
	Group Objects Parameter			
	HDL USB Interface   1.1 New line	1.1.1 M/P3R.1		Last used workspace

Figure 3-27 Alternate controller setting page

The setting items are explained as follows:

- 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. RGB on left/right long button: to enable the alternate function of short/long pressing the left 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.



### 3.2.1 Pulse Controller Setting

Figure 3-28 shows pulse controller setting page.

Ħ	ETS5™ - New project			
	ETS Edit Workplace Commission	ing Diagnostics Extras Window		∧ <b>(</b> )
	🗞 Close Project 🛛 🏠 Undo 🛝 R	Redo 📄 Reports 🔛 Workplace 🔻	📃 Catalogs 🛛 🔤 Diagnostics	
То	pology, Catalog Topology	×		<
Т	opology 🔻			∧ ⊡ × 🗈
+	🛚 Add Channels   🔹 🗙 Delete  🛨 Dow	vnload   🔹 🕜 Help 🥒 Highlight Changes	Default Parameters	
> =	1.1.1 M/P3R.1 >>Left button			
1.1.1	General	Rocker A : left button operation mode	Pulse controller	
1.1.1 M/P3R.1	>Status light brightness	->Positive/Negative pulse:	Positive pulse O Negative pulse	
R.1	>Background light brightness	->Output to bus after bus recovery	🗌 No 🔘 Yes	•
	>Panel scene A	Output to bus after a delay(0255s) Minimum hold time after bus recovery	5	÷
	>Panel scene B	(0.255s)	5	Ŧ
		Pulse 1 settings		
	Rocker A	Pulse 1 settings		
	>Left button	Open status duration time(1255s)	5	÷
	>Right button	Close status duration time(1255s)	5	÷
	>Kight button	Pulses number set	Send continuously ONUMbers	
	Rocker B	Pulses number(165535)	1	* *
	>Left & right button	Pulse 2 settings		
		Pulse 2 settings		
	Rocker C	Open status duration time(1255s)	2	÷
	>Left & right button	Close status duration time(1255s)	2	* *
		Pulses number set	Send continuously O Numbers	
		Pulses number(165535)	1	* *
		Reaction on short button	Pulse 1	÷
	Group Objects Parameter			
	HDL USB Interface 🔺 1.1 New line	1.1.1 M/P3R.1		Last used workspace

Figure 3-28 Pulse controller setting page

The setting items are explained as follows:

- 1. Positive/Negative pulse
- 2. Output to bus after bus recovery: to enable outputting pulse to the bus after the bus voltage recovery. After enabled, "Output to bus after a delay" and "Minimum hold time after bus recovery" can be set below.





#### Pulse 1/2 settings

- 3. Open/Close status duration time: to set the duration of pulse in open/close status, range from 1 to 255s.
- 4. Pulses number set: to select the number of pulses to be sent, including "Send continuously" and "Numbers". If the latter is selected, the number can be set in "Pulses number", range from 1 to 65535.
- 5. Reaction on short/long button: to set the operation of "short/long press", including "Toggle", "Stop" and "Pulse 1/2".
- 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.



### 3.2.1 RGB Controller Setting

Figure 3-29 shows RGB controller setting page.

	ETS5™ - New project				
		ing Diagnostics Extras Window		^	0
L	🔉 Close Project 🛛 🎸 Undo 🛛 🐴 R	edo 🚔 Reports 🔛 Workplace 🔻	Catalogs Diagnostics		
Тор	pology, Catalog Topology	×			<
Т	opology 🔻				
+	• Add Channels   🔹 🗙 Delete   붗 Dow	nload   🔹 🕜 Help 🥒 Highlight Changes	Default Parameters	4	
> =	1.1.1 M/P3R.1 >>Left button			(	
1.1.1	General	Rocker A : left button operation mode	RGB controller	-	٩
1.1.1 M/P3R.1	>Status light brightness	->object type	<ul> <li>three objects(DPT 5.001)</li> <li>one object(DPT 232.600)</li> </ul>		
4	>Background light brightness	Short button color R brightness	100%(255)	•	
	>Panel scene A	Short button color G brightness	100%(255)	•	
	>Panel scene B	Short button color B brightness	100%(255)	•	
	Rocker A	->RGB short button toggled	O Inactive Active		
		->RGB on left long button	to one RGB value	•	
	>Left button	long button color R brightness	0%(0)	-	
	>Right button	long button color G brightness	0%(0)	-	
	Rocker B	long button color B brightness	0%(0)	•	
	>Left & right button	Delay on left short button(0255s)	0	* *	
		Delay on left long button(0255s)	0	* *	
	Rocker C	Long button time after	1s	-	
	>Left & right button	Status light display settings			
		LED status source	Local	•	
		LED status	Flashing,then OFF	•	
	Group Objects Parameter				
	HDL USB Interface 🔺 1.1 New line	1.1.1 M/P3R.1		Last used workspace	

Figure 3-29 RGB controller setting page

The setting items are explained as follows:

- 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 RGB of short pressing.
- 3. RGB short button toggled: to enable the toggle function of short pressing. After enabled, RGB to be toggled can be set in "Short button toggled color R/G/B brightness".

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- 4. RGB on left short button: to enable the operation of short pressing the left button, including "to one RGB value" and "adjust short button color". If the former is selected, the color and brightness can be customized in "Long button color R/G/B brightness" below. If the latter is selected, the minimum, maximum and increment value can be set in "Minimum value", "Maximum value" and "Increment value".
- 5. Delay on right/left short/long button: to set the delay time of short/long pressing the left/right button, 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.



### 3.2.1 Fan Controller Setting

Figure 3-30 shows fan controller setting page.

Ħ	ETS5™ - New project			
	ETS Edit Workplace Commission	ing Diagnostics Extras Window		^ <b>(</b> )
	🗞 Close Project 🛛 🏠 Undo 🛛 🐴 F	Redo 📄 Reports 🔛 Workplace 🔻	Catalogs Diagnostics	
То	pology, Catalog Topology	×		<
Т	opology 🔻			∧ □ × 🗈
+	🛚 Add Channels   🔹 🗙 Delete  🛨 Dov	vnload   🔹 🕜 Help 🥒 Highlight Changes	Default Parameters	
> =	1.1.1 M/P3R.1 >>Left button			
1.1.1	General	Rocker A : left button operation mode	Fan controller	- ~
1.1.1 M/P3R.1	>Status light brightness	->Total number of fan speed	3	•
R.1	>Background light brightness	Speed 1 objects settings		
		Object 1 value set	ON	<b>•</b>
	>Panel scene A	Object 2 value set	OFF	<b>•</b>
	>Panel scene B	Object 3 value set	OFF	•
	Rocker A	Speed 2 objects settings		
		Object 1 value set	OFF	•
	>Left button	Object 2 value set	ON	•
	>Right button	Object 3 value set	OFF	•
	Rocker B	Speed 3 objects settings		
		Object 1 value set	OFF	-
	>Left & right button	Object 2 value set	OFF	-
	Rocker C	Object 3 value set	ON	•
	>Left & right button	Speed off objects settings		
		Object 1 value set	OFF	-
		Object 2 value set	OFF	•
		Object 3 value set	OFF	-
	Group Objects Parameter	->Reaction on short button	Invalid O Switch fan speed	v
_	HDL USB Interface 1.1 New line	1.1.1 M/P3R.1		Last used workspace
		1.1.1.1.1.1.1.2.1.1.1		and the montapace

Figure 3-30 Fan controller setting page

The setting items are explained as follows:

- 1. Total number of fan: 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 the left 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.



### 3.2.2 Combination Controller Setting

Figure 3-31 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.

y Close Project 🛛 🌈 Undo 🛛 🗛 Re			
	edo 🚔 Reports 📕 Workplace 🔻	Catalogs Diagnostics	
ology, Catalog Topology	×		
pology 🔻			<u>^ 0 ×</u>
Add Channels 🛛 🛪 🗙 Delete   🛨 Dowr	nload   🔹 🕜 Help 🌛 Highlight Changes	Default Parameters	
1.1.1 M/P3R.1 >>Left button			
General	Rocker A : left button operation mode	Combination controller	-
>Status light brightness	Left button object type 1	Switch controller	•
>Background light brightness	-Switch value	ON	•
>Background light brightness	Left button object type 2	Shutter controller	•
>Panel scene A	-Shutter value	UP	•
>Panel scene B	Left button object type 3	Shutter controller	-
Rocker A	-Shutter value	UP	•
>Left button	Left button object type 4	Sequence controller	•
	-Sequence value	Start	•
>Right button	Left button object type 5	Percentage controller	•
Rocker B	-Percentage value	100%(255)	•
>Left & right button	-Percentage toggled	O No Ves	
Rocker C	Left button object type 6	Threshold controller	•
	-Threshold value type	1byte threshold 2bytes threshold	
>Left & right button	-Threshold(0255) value	255	 ▼
	-Threshold toggled	🔘 No 🗌 Yes	
	Left button object type 7	Invalid	-
	Left button object type 8	Invalid	• v

Figure 3-31 Combination controller setting page

### 3.2.2.1 Switch controller

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



### 3.2.2.2 Shutter Controller

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

### 3.2.2.3 Scene Controller

- 1. Scene value: to select the number of scenes to be output (Up to 64 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" below.

### 3.2.2.4 Sequence Controller

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

#### 3.2.2.5 Percentage Controller

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

### 3.2.2.6 Threshold Controller

- 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 selected type in the first point.
- 3. Threshold toggled: to enable exchanging threshold. After enabled, the threshold value to be exchanged can be selected in "Toggled threshold is".

### 3.2.2.7 14-Byte String Controller

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



# 4 Data Downloaded 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 Interface". Double click to add successfully and the interface will show up in "Current Interface", as shown in Figure 4-1.

ETS5™			
ETS Overview Bus	Catalogs Settings	KNX	<u>ہ</u>
<ul> <li>Connections</li> <li>Interfaces</li> <li>Options</li> <li>Monitor</li> <li>Group Monitor</li> <li>Bus Monitor</li> <li>Diagnostics</li> <li>Unload Device</li> <li>Device Info</li> <li>Individual Addresses</li> <li>Programming Mo</li> <li>Individual Addres</li> <li>Line Scan</li> </ul>	Current Interface  HDL USB Interface (HDL) Individual Address: 0.2.255  Configured Interfaces  Discovered Interfaces  HDL USB Interface (HDL)	Image: Construction of the second secon	
		ETS Version ETS 5.6.4 (Build 842) 1 License Demo Apps 0 act	tive 🔡

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.

•	ct 🦃 🖉 Undo 🥤	🔪 Redo 🛛 🚔 Reports 📄	Workplace •	Catalogs 🖉	Diagnosti	ics			
Number 4		Download	Vertical     Search       Length     C     R     W       2 bytes     C     -     W     T       2 bytes     C     -     W     T	T U Data Type U - 	Q	<ul> <li>Fi</li> <li>W</li> <li>To</li> <li>To</li> <li>Pe</li> <li>A</li> </ul>	roperties ind and Repl Vorkspaces odo Items ending Oper Active Clear History	ations History	
						•,	<ul> <li>Download(Al</li> </ul>	I): Finished	

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.

5.1	Objects "General"	

. . .

Objects '	"General"										
序号▲	名称	对象	力能	长度	C	R	w	т	U	数据类型	优先级
1	General	Hearth	eat telegram	1 bit	С	-	-	т	-	enable	低
8	General	Trigge	r left of Rock A	1 bit	С	-	W	Т	U	trigger	低
9	General	Trigge	r right of Rock A	1 bit	С	-	W	Т	U	trigger	低
10	General	Trigge	r left of Rock B	1 bit	С	-	W	Т	U	trigger	低
11	General	Trigge	r right of Rock B	1 bit	С	-	W	Т	U	trigger	低
12	General	Trigge	r left of Rock C	1 bit	С	-	W	Т	U	trigger	低
13	General	Trigge	r right of Rock C	1 bit	С	-	W	Т	U	trigger	低
20	General	Lock b	utton	1 bit	С	-	W	Т	U	enable	低
No.	Nam	e	Funct	Function			Flag			Data Type	
4	Cono	rol	lleertheett	alagram	m CT [			DP	T1.003		
1	Gene	lai	Heartbeat t	elegram			U	I			l bit
This obj	ect can be act	tivated by	selecting "Send va	lue "0"cycli	ically	, S	end	Va	alue	e"1"cyclica	lly or Sen
value"1/0	0" inverted cyc	lically" in th	e parameter "Hear	tbeat Teleg	gram'	', w	hicl	n is	s us	ed for che	cking if th
device is	connected to	the system	normally.								
							DP	T1.008			
0.40			<b>T</b> : 16/:14				N N A I				
8-13	Gene	ral	Trigger left/right	of Rock A/E	3/C	(	CW	Т	U		l bit
			Trigger left/right						U		
		for activat		it button in		k A		C".		1	

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This object is used for enabling the lock function of the panel.							
21	Local temperature	Temperature report	CRT	DPT9.005			
21	Local temperature	Temperature report	ONT	2 bytes			
This obje	ect is used for sending loc	al temperature signal.					
27.20	Background light 1/2	Switch	C W/	DPT 1.001			
27-30 Switch C W							
These ob	pjects are used for control	lling status background light.					

# 5.2 Objects "Panel scene"

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	С	-	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
64	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
66	Panel scene B	Object 3 value(0255)	1 byte	С	-	W	Т	U	percentag	低
67	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	C	-	W	Т	U	pulses	低
No.	Name	Function		FI	ag				Data	Туре
41,61	Panel scene /	A/B Call scene(1byte	e) (	c w	/ T I	J			DPT18	

http://www.hdlchina.com



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			T	
				1byte
42,62	Panel scene A/B	Call scene(1bit)	СМТИ	DPT1.001
42,02	Fallel Scelle A/D		CWIO	1bit
43,63	Panel scene A/B	Save scene(1bit)	сути	DPT1.001
43,03	Fallel Scelle A/D	Save Scelle(Tbit)	CWIO	1bit
These obj	ects are used for ap	plying scenes (1 byte/1 bit)	and saving scenes	. Applied scene number
ranges fro	m 1 to 64 and the va	lue ranges from 0 to 63.		
				DPT1.001
				1bit
				DPT5.001
			CWTU	1byte
		Object 1~10 value		DPT5.004
44~53,	Panel scene A/B	(1bit,1byte: scaling, 0255,		1byte
64~73	Fallel Scelle A/D	0255, 2byte:float,065535,3byt		DPT9.001
		e:RGB)		2bytes
		e.KGD)		DPT7.001
				2bytes
				DPT232.600
				3bytes
These obj	ects are used for set	ting object type value.		DPT232

# 5.3 Objects "Rocker A/B/C"

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

Objects	function status"Ro	cker A/B/C"						
(Take "F	ocker A" as an examp	ole)						
81	Rocker A left short	Switching	1 bit	с -	WΤ	U	switch	低
82	Rocker A left long	Switching	1 bit	C -	WΤ	U	switch	低
83	Rocker A left delay send	Switching	1 bit	с -	WΤ	U	switch	低
92	Rocker A right short	Switching	1 bit	C -	WΤ	U	switch	低
93	Rocker A right long	Switching	1 bit	С -	WΤ	U	switch	低
94	Rocker A right delay send	Switching	1 bit	с -	ΨT	U	switch	低
No.	Name	Functio	n	Flag	g		[	Data Type
81-83,	Rocker A/B/C							
92-94,	(left/right)			<u> </u>			DPT	Г1.001
111-113,	short/long/delay	Switchir	ng	CWTU			1	bit
122-124,	send							

HDL	3	Granite Metal Push	Button Pane	I (KNX) User Manual
141-143, 152-154 These obje	ects are used for tur	ning on/off objects via buttons.		
81-83, 92,93, 111,112, 122,123, 141,142, 152,153	Rocker A/B/C (left/right) short/long	Switching/Dimming	CWTU	DPT1.001 1 bit DPT 3.007 4 bits
These obje	ects are used for turn	ning on/off lights and controlling di	mming.	

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

Objec	ts function st	atus"Rocker A/	B/C"					
(Take	e "Rocker A" as	an example)						
91	Rocker A left	LED stat	us 1 bit C	R W T U switch	低			
102	Rocker A right	: LED statu	us 1 bit C I	R W T U switch	低			
	No.	Name	Function	Flag	Data Type			
Ċ,	91,102,	Rocker A/B/C			DPT1.001			
1	21,132,	left/right	LED status	CRWTU	1bit			
1	151,162	leiviigiit			TDIL			
These	These objects are used for indicating button status via LED.							

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

Obje	cts fun	ction status"Ro	ocker A/B/C"									
(Tak	e "Rocł	ker A" as an exam	ple)									
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	
92	Roc	ker A	Adjust/Stop for shutter	1 bit	C ·		W	Т	U	step	低	
93	Roc	ker A	Move for shutter	1 bit	C ·		W	Т	U	up/down	低	
N	0.	Name	Function		Flag	3				Data	Туре	
81,	,82,		Adjust/Stan for shutter							DPT1	.007	
92,	,93,	Rocker A/B/C	Adjust/Stop for shutter	(	CWTU		1 t	oit				
111,	112,		Move for shutter	DPT1.008		.008						

HDL®		Granite Metal F	Push Button Pan	el (KNX) User Manual
122,123,				1 bit
141,142,				
152,153				
These object	ts are used for ope	ening/closing or stopping curt	ain.	

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

Objec	cts funct	tion status"Rc	cker A/B/C"					
(Take	"Rocker	A" as an examp	le)					
81	Rocke	er A left	Flexible		1 bit	С	- W T U sw	itch 低
92	Rocke	er A right	Flexible		1 bit	С	- W T U sw	itch 低
N	lo.	Name		Function			Flag	Data Type
111	,92, ,122, ,152	Rocker A/B/C		Flexible			CWTU	DPT1.001 1bit
These	These objects are used for flexible controller.							

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

Objec	ts funct	ion status"Ro	cker A/B/C"							
(Take	"HVAV A	" as an example	)							
81	Rocke	r A left short	Call scene	1 byte	C	- W	/ Т	U	sce	ne cont低
82	Rocke	er A left long	Scene dimming	4 bit	C	- V	/ Т	U	dim	nming c 低
92	Rocke	r A right short	Call scene	1 byte	C	- V	/ Т	U	sce	ene cont低
93	Rocke	r A right long	Scene dimming	4 bit	C	- V	/ Т	U	dim	nming c 低
Ν	0.	Name	Functior	ı			Fla	ag		Data Type
92, 111, 122, 141,	82, 93, 112, 123, 142, ,153	Rocker A/B/C (left/right) short/long	Call scene Scene dimm	,		C	: w	тι	J	DPT18.001 1 byte DPT3.007 4 bits
These	objects	These objects are used for applying scene number and controlling scene dimming.					imm	ning	J.	



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

Objec	cts function	status"F	Rocker A	/B/C"											
(Take	"Floor Heatir	ng A" as ar	n exampl	e)											
81	Rocker A let	ft short	Seque	nce		1 bit	С	-	W	т	U	star	t/stop	低	
82	Rocker A le	ft long	Seque	nce		1 bit	С	-	W	Т	U	star	t/stop	低	
92	Rocker A rig	ght short	Seque	nce		1 bit	С	-	W	Т	U	star	t/stop	低	
93	Rocker A rig	ght long	Seque	nce		1 bit	С	-	W	Т	U	star	t/stop	低	
	No.	Nan	ne		Function				I	Fla	g		Da	ta Ty	ре
ې 1 <sup>1</sup> 12 14	81,82, 92,93, 11,112, 22,123, 41,142, 52,153	Rocker (left/ri short/l	ght)		Sequence				С	W	ΤL	J	DF	PT1.0 1bit	010
These	objects are	used for s	equence	controlle				1				1			

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

Objec	cts function	status"Rocker A	√B/C"					
(Take	e "Rocker A'	' as an example	)					
81	Rocker A le	ft Perce	ntage	1 byte	С	- W	τU	percentag 低
92	Rocker A rig	ght Perce	ntage	1 byte	С	- W	τU	percentag 低
	No.	Name	Function			FI	ag	Data Type
8	81,92,	Rocker A/B/C						DPT5.001
11	11,122,	(left/right)	Percentage			CW	ΤU	
1	41,152	short/long					1 byte	
These	These objects are used for percentage controller.							

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

Objec	ts function s	status"Rocker A	\/B/C"								
(Take	"Rocker A	' as an example	)								
81	Rocker A lef	ft Thresh	nold(2bytes float)	2 bytes	С	- \	ΝT	U	terr	peratu	. 低
92	Rocker A rig	ht Thresh	nold(1byte)	1 byte	С	- \	ΝT	U	per	centag	低
	No.	Name	Function				FI	ag		Dat	ta Type



81,92, 111,122, 141,152	Rocker A/B/C (left/right)	Threshold (1 byte/2 bytes/2 bytes float)	CWTU	DPT5.004 1 byte DPT7.001 2 bytes DPT9.001 2 bytes				
These objects are	These objects are used for threshold controller.							

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

Objec	ts function	status"Rocker /	<b>\/B/C</b> "			
(Take	"Rocker A	" as an example	)			
81	Rocker A le	ft Threst	nold(2bytes float)	2 bytes C	- W T U tem	nperatu <mark>低</mark>
92	Rocker A rig	ght Threst	nold(1byte)	1 byte C	- W T U per	centag 低
	No.	Name	E			
	NO.	Name	Functio	n	Flag	Data Type
11	31,92, 11,122, 41,152	Rocker A/B/C (left/right)	String (14byte		C W T U	Data Type DPT16.000 14 bytes

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

Obje	ects function	status"Rocker /	A/B/C"									
(Tak	e "Rocker A'	' as an example	)									
81	Rocker A lef	ft Altern	ate <1> (1bit)	1 bit	С	-	w	т	U	switch	低	
82	Rocker A lef	ft Altern	ate <2> (1bit)	1 bit	С	-	W	т	U	switch	低	
83	Rocker A lef	ft Altern	ate <3> (1bit)	1 bit	С	-	W	Т	U	switch	低	
84	Rocker A lef	ft Altern	ate <4> (1byte)	1 byte	С	-	W	т	U	percentag.	. 低	
92	Rocker A right		Alternate <1> (1bit)		С	-	W	Т	U	switch	低	
93	Rocker A right		Alternate <2> (1bit)		С	-	W	т	U	switch	低	
94	4 Rocker A right A		Alternate <3> (1byte)		С	-	W	Т	U	percentag.	. 低	
95	Rocker A right Alt		ate <4> (2bytes)	2 bytes	С	-	W	Т	U	pulses	低	
	No. Name		Function					Fla	g	Da	ta Type	
81-84,92-95,										DF	T1.001	
		Rocker A/B/C	Alternate <1/2/3/4> (1 bit/1			_					1 bit	
	14,122-125,	(left/right)	byte/2 b	ovtes)		CWTU				DF	T5.004	
141-	144,152-155	x 37		by ter 2 by tes						1	1 byte	



These objects are used for alternate controller.

### 5.3.11 Objects "Rocker A/B/C" (Pulse Controller)

Objects function	status"Rocker A	√B/C"			
(Take "Rocker A	A" as an example	)			
81 Rocker A I	left Pulse	1 bit	C	- W T U op	en/close 低
92 Rocker A	right Pulse	1 bit	С	- W T U op	en/close 低
No.	Name	Function		Ele a	
140.	Name	Function		Flag	Data Type
81,92, 111,122, 141,152	Rocker A/B/C (left/right)	Pulse		C W T U	Data Type DPT1.009 1 bit

### 5.3.12 Objects "Rocker A/B/C" (RGB Controller)

Objec	cts function	status"Rocker A	\/B/C"			
(Take	e "Rocker A'	' as an example	)			
81	Rocker A le	ft RGB re	ed channel	1 byte C	- W T U per	rcentag 低
82	Rocker A le	ft RGB g	reen channel	1 byte C	- W T U per	rcentag 低
83	Rocker A le	ft RGB b	lue channel	1 byte C	- W T U per	rcentag 低
92	Rocker A rig	ght RGB re	ed channel	1 byte C	- W T U per	rcentag 低
93	Rocker A rig	ght RGB g	reen channel	1 byte C	- W T U per	rcentag 低
94	Rocker A rig	ght RGB b	lue channel	1 byte C	- W T U per	rcentag 低
	No.	Name	Func	tion	Flag	Data Type
1	81,92, 11,122, 41,152	Rocker A/B/C (left/right)	RGB (	color	CWTU	DPT232.600 3 bytes
1 1: 1: 1:	81-83, 92-94, 11-113, 22-124, 41-143, 52-154	Rocker A/B/C (left/right)	RGB red/green	/blue channel	CWTU	DPT5.001 1 byte
These	e objects are	used for RGB cont	troller.		1	1



### 5.3.13 Objects "Rocker A/B/C" (Fan Controller)

Objec	ts function	status"Rocker A	\/B/C"							
(Take	"Rocker A'	' as an example	)							
81	Rocker A let	ft Fan ob	oject 1	1 bit	С	- 1	ΝТ	U	switch	n 低
82	Rocker A let	ft Fan ob	oject 2	1 bit	C	- 1	NТ	U	switch	n 低
83	3 Rocker A left		Fan object 3		C	- 1	NТ	U	switch	n <u>(</u> ££
84	Rocker A left		oject 4	1 bit	C	- 1	NТ	U	switch	n <u>(</u> ££
92	Rocker A right		object 1 1 bit		C	- W T U swi		switch	n <mark>低</mark>	
93	Rocker A rig	ght Fan ob	Fan object 2		С	- 1	NТ	U	switch	n <mark>化</mark> 低
94	Rocker A rig	ght Fan ob	oject 3	1 bit	C	- 1	ΝT	U	switch	n <mark>低</mark>
95	Rocker A right Fa		oject 4	1 bit	C	- \	ΝT	U	switch	n 低
	No.	Name	F	unction			FI	ag		Data Type
81-8	34,92-95,	Rocker A/B/C								DPT1.001
111-11	4,122-125,	(left/right)	Fan o	bject 1/2/3/4			CW	ΤL	J	1 bit
141-14	44,152-155	(icitingin)								
These	objects are	used for fan contro	oller.							

# 5.3.14 Objects "Rocker A/B/C" (Thermostat Controller)

Objec	ts function	status"Rocker /	<b>∖/B/C</b> "										
(Take	"Rocker A	" as an example	)										
81	Rocker A	Therm	ostat switch ON/OFF	1 bit	С	R	W	Т	U	swit	ch	低	
82	Rocker A	Therm	ostat set temperature	2 bytes	С	R	W	Т	U	tem	perati	u 低	
83	Rocker A	Therm	2 bytes	С	R	W	Т	U	tem	perati	u 低		
84	Rocker A	Thermostat output 1 bit C - W T U						swit	ch	低			
No.		Name	Function					Fla	ıg		Data Type		
											D	PT1.001	
												1 bit	
			Thermostat switch	NON/OFI						D	PT9.001		
	31-84,		set tempera	ture/					<b>-</b> .			2 bytes	
	11-114,	Rocker A/B/C	actual temper	ature/					тι	J	DPT9.001		
14	41-144		output									2 bytes	
												PT1.001	
												1 bit	
			l										



# 5.3.1 Objects "Rocker A/B/C" (Combination Controller)

(Take '	"Rocker A" a	s an example)											
81	Rocker A left	COMB C	BJ1 switching	1 bit	С	-	-	Т	-	switch		低	
82	32 Rocker A left		BJ2 shutter	1 bit	С	-	-	т	-	up/dov	vn	低	
83	Rocker A left	COMB C	BJ3 scene	1 byte	С	-	-	Т	-	scene	cont	低	
84	Rocker A left	COMB C	BJ4 sequence	1 bit	С	-	-	т	-	start/st	ор	低	
85	Rocker A left	COMB C	BJ5 percentage	1 byte	С	-	-	Т	-	percen	tag	低	
86	Rocker A left	COMB C	BJ6 threshold(1byte)	1 byte	С	-	-	Т	-	percen	tag	低	
87	Rocker A left	COMB C	BJ7 String(14bytes)	14 bytes	С	-	-	Т	-	Charac	ter	低	
88	Rocker A left	COMB C	BJ8 switching	1 bit	С	-	-	Т	-	switch		低	
89	Rocker A left	COMB C	BJ9 shutter	1 bit	С	-	-	Т	-	up/do	vn	低	
90	Rocker A left	COMB C	BJ10 scene	1 byte	С	-	-	Т	-	scene	cont	低	
92	Rocker A right		BJ11 sequence	1 bit	С	-	-		-				
93	Rocker A right		BJ12 percentage	1 byte	С	-	-			percen	-		
94	Rocker A right		BJ13 threshold(1byte)	1 byte	С	-	-			percen			
95	Rocker A right		BJ14 String(14bytes)	14 bytes	С	-	-	Т	-		ter		
96	Rocker A right		BJ15 switching	1 bit	С	-	-		-			低	
97	Rocker A right	COMB C	BJ16 shutter	1 bit	С	-	-	Т	-			低	
98	Rocker A right	COMB C	BJ17 scene	1 byte	С	-				scene		.低	
99	Rocker A right	COMB C	BJ18 sequence	1 bit	С	-				start/st		低	
100	Rocker A right		BJ19 percentage	1 byte						percen	-		
101	Rocker A right		OBJ20 String(14bytes) 14 bytes C -				-						
	No.	Name	Funct	ion				F	lag	I		ata Type	
81-90,92-101, 111-120,122-131, 141-150,152-161		Rocker A/B/C (left/right)	COMB OE switching / shut sequence / pe threshold (1 byte (2 bytes) / Strin	ter / scen ercentage e) / thresh	/ olo			(	СТ		D Df D D	PT1.001 1 bit PT1.008 1 bit PT18.00 <sup>7</sup> 1 byte PT1.010 1 bit PT5.001 1 byte PT5.004 1 byte	



mode of "Left & right button" supports a total of 10 objects independently). Operation mode includes: "switching/shutter/scene/sequence/percentage/threshold (1 byte)/threshold (2 bytes)/string (14 bytes)".