

User Manual of M/PTL35.1 KNX Tile Display

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Catalogue

1 Introduction	1
1.1 Product Function	1
1.2 Product Components	2
1.3 Product Installation	3
1.4 Important Notes	4
2.Import Device	4
2.1 Create Project	5
2.2 Add the Device to Currect Project	5
3 Parameter Description	7
3.1 General Settings	7
3.1.1 Panel Scene A / B	
3.2 System Configuration	13
3.3 Function Configuration	
3.4 Button Scene	17
3.5 Light	20
3.6 Curtain	22
3.7 AC/FCU	
3.7.1. AC Output A	26
3.7.2. FCU	
3.8 Floor Heating	31
3.8.1 FH Output A	
3.9 Fresh Air	
3.9.1 Fresh Air Output	
3.10 Audio Page	37
3.11 Shortcut Key	
4 Demo Example	
4.1 Set the Panel to Display the Current Time	
4.2 Panel Controls Relay Light	
4.3 Panel Controls the Shutter Motor	
5 Firmware Upgrade	44
5.1 Online Upgrade	
5.2 Manually Upgrade	46



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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	Jan. 1 st , 2023



1 Introduction

The manual offers the information on the installation, wiring connection, Function and configuration of KNX Tile Display (Model: M/PTL35.1).

KNX Tile Display (See Figure 1) is a multi-function control panel for home automation. With 3.5-inch LCD screen and full screen touch control, it is convenient for the users to control lighting, curtain, scene, AC/FCU, floor heating, music and fresh air in an intuitive way.



Figure 1. KNX Tile Display

1.1 Product Function

- (1) Built-in temperature and humidity sensor
- (2) Built-in proximity sensor, when the panel detects human body, the LCD screen will wake up.
- (3) Adjustable LCD backlight
- (4) LCD screen wakes up automatically.
- (5) Screen lock setting
- (6) 5 scene shortcut buttons and 1 main menu button available in main interface
- (7) Time and environment status display setting

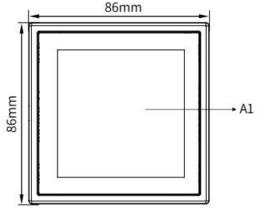


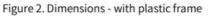
- (8) Dedicated pages for lighting, curtain, scene, AC/FCU, floor heating, music and fresh air control
- (9) A total of 20 control keys can be set on the lighting page. The control types are: Switch, dimmer, RGB and CCT.
- (10) Curtain control: up to 8 curtains supported. Supports opening/closing, stopping, percentage adjustment
- (11) Scene control: up to 20 scenes supported
- (12) AC/FCU control: Supports switching, temperature adjustment, fan speed adjustment, mode switching of up to 3 AC/FCU Floor heating control: Supports switching, temperature adjustment, mode switching of up to 8 floor heating control, Floor heating modes: Normal, Day, Night, Away, Timer.
- (13) Music play: 1 music player is supported, list not supported (source switching not supported)
- (14) Fresh air control: Supports switching, fan speed adjustment, mode switching of 1 fresh air control

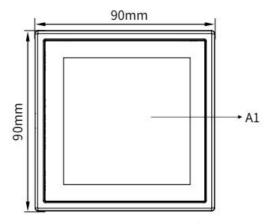
1.2 Product Components

Dimensions – See Figure 2 - 5

A1. 3.5-inch touch screen











A2. Communication interface

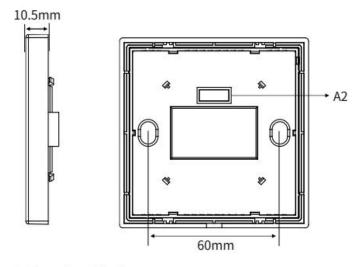


Figure 4. Dimensions - Side View Figure 5. Dimensions - Back View

1.3 Product Installation

Installation - See Figure 6

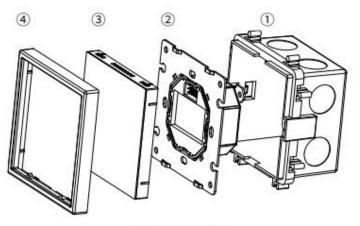


Figure 6. Installation

- Step ①: Install the wall box in the wall.
- Step ②: Secure the power interface to the wall box with screws.
- Step ③: Install the panel on the power interface.
- Step ④: Install the frame around the panel.
- Horizontal installation See Figure 7
- Vertical installation See Figure 8



₽ ₽	ç	0 D - 1	9.0	Product name	Frame Types	Gang	Dimensions
2 gang			Q			2 gang	176*90*10.5(mm)
	n v	9	¥ + +		Metal	3 gang	262*90*10.5(mm)
3 gang	2 gang	a 5				4 gang	348*90*10.5(mm)
g b 0 * *		3 gang		2/3/4-gang frames		2 gang	172*86*10.5(mm)
4 gang			4 gang		Plastic	3 gang	258*86*10.5(mm)
Figure 7. Horizontal installation	Figure 8	3. Vertical ir	stallation			4 gang	344*86*10.5(mm)

Notes: Metal panels can be installed either horizontally or vertically. Plastic panels can be only installed horizontally.

1.4 Important Notes

- (1) The panel should be mounted on the wall box with Tile Series KNX Panel Power Interface (with External Power Supply) (M/PTCI2P.1).
- (2) The device is compliant with the KNX standard and the parameters are set by the Engineering Tool Software (ETS).

2.Import Device

The database of KNX Tile Display M/PTL3.5.1 is imported for description.

And the database name of KNX Tile Display database is: Panel 3.5Inch Touch LCD

Controller(V1.0).pr5



2.1 Create Project

Click "Overview" in ETS5 \rightarrow "Your Projects" \rightarrow Click "+" \rightarrow Fill the project name

"M/PTL35.1" to create new	project.
---------------------------	----------

Overview Bus	Catalogs Settings			KNX
Projects Archive ETS I	nside		KNX News	New KNX Products
🛨 🗷 🕹 土		Search 🔎	Win Prizes Daily with the KNX Advent Calendar Game 2022/12/1	HDL KNX Granite 4.3" ()
<u>^</u>	Last Modified 🔻	Status	The holiday period is around the corner and this is the ideal opportunity for KNX Association to hand	
Create New Project	2022/12/1 11:34	Editing	out gifts to you. With the support of our KNX Members we invite you to play the KNX Advent	Ø H C
Name M/PTL3.5.1	2022/11/30 14:24	Editing	Calendar Game, where you can **win KNX Devices	Lorenze Diverse Diverse
	2022/11/30 14:00	Unknown	every day**. **How does it work?**	Sectore 24, July 14, 3333
ackbone	2022/11/26 16:56	Editing	Visit the KNX Advent Calendar Game web page daily day **between the 1st and the 24th of	AC Intern New Curson Heating
vpology	safwan 2022/11/26 16:27	Finished Commissioning	December** and click on the door of the current date on the advent calendar. You will then see a	
Create Line 1.1	wid Modified 2022/11/26 16:19	Finished Commissioning	pop-up with an image of a KNX Device. Here you have the opportunity to guess the correct answer	Granite 4.3" is a high-end and multi-function control panel for home automation. With 4.3-inc
rp 🗸	2022/11/24 16:06	Editing	out of 3 possibilities. Each day one winner will be randomly picked	LCD screen and full-screen touch control, it is convenient for the users to control devices of
roup Address Style	2022/11/24 13:47	Editina	among the participants who answered correctly and will be announced on the page together with	lighting, curtain, scene, AC/FCU, floor heating, music and fresh air in an intuitive way.
Free	2022/11/21 10:10	Editing	the correct solution. Didn't win? No problem, you can play again every day.	Landscape and portrait modes: Installed for use
Two Level	2022/11/21 10:09	Editing	[Play here](https://www.knx.org/knx-en/advent- calendar/index.php)	from multiple perspectives.
Three Level	2022/11/17 10:45	Editing	cuchour muck.php	For more details, please visit [www.hdlautomation.com/
Create Project Cancel	2022/11/12 16:49	Unknown	SMART CONNECT KNX e-charge II	product100000272672778.html](https://
M/PTL4.1 V1.2+1.3	2022/11/12 16.49	Editing	2022/11/22 The SMART CONNECT KNX e-charge II brings	www.hdlautomation.com/
DLP 1.1+FCU 2.0 FH A	2022/11/4 9:47	Editing	electromobility easily into the smart home. The new update for the SMART CONNECT KNX e- charge II integrates more manufacturers!	Certified KNX Products See a list of all certified KNX products here.

2.2 Add the Device to Currect Project

The database of M/PTL3.5.1is Panel 3.5Inch Touch LCD Controller(V1.0).pr5, which is the format of project file. Need to import it to ETS5, then copy and paste the device to current project



ETS5 TM ETS Overview Bus Catalogs	Settings					- • ×
Projects Archive ETS Inside			KNX News		New KNX Pro	ducts
+ 1/1			Dpen project file		×	''
Name	Last Modified 🔻	Status	← → ~ ↑ 🖡 « HDL KNX Tile 方悦 > 3.5寸	▶ ひ ♀ 在 3.5寸	中搜索	
M/PTL3.5.1	2022/12/1 11-34	Editing	组织 ▼ 新建文件夹		· • •	# H C
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Sensor	2022/11/26 16:56	Editing	图片			Bright Mayou Carson Healting
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HESHAM BELOCHI-FINAL - 22-11-26 David Modified	2022/11/26 16:19	Finished				h-end and multi-function me automation. With 4.3-inch
Mirobod 63 Blok B	2022/11/24 16:06	Editing	 3D 对象 10 预 			screen touch control, it is sers to control devices of
毅面板1.2FCU1.3 FCU功能	2022/11/24 13:47	Editing	■ 1000			ne, AC/FCU, floor heating, in an intuitive way.
DMX512	2022/11/21 10:10	Editing	🗄 文档			rait modes: Installed for use
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M/PTL4.1 V1.2+1.3	2022/11/4 9:47	Editing	文件名(N): Panel 3.5Inch Touch		es (*.knxproj;*.p ~	
DLP 1.1+FCU 2.0 FH A	2022/11/1 15:58	Editing	charge in integrates i	打开(Q)	取消	roducts KNX products here.

Double click to open the project named "HDL" and copy the M/PTL35.1 device

ices ▼ Add Channe	iect 🦃 Undo 🐴 Redo 📄	Reports W	orkplace • Catalogs Diagnostics	Searc	h p	
Devic s	Download Unload		Object Function	Description	Group Address	Settings Comments Information
Dynamic	10 Info		Remote temperature for outd PM2.5	oor		2 Name
1.1.1 M/F			CO2			2 M/PTL35.1
	1 Reset Device	Ctrl + R	TVOC			2 Individual Address
	Compare Device					1.1 1 ‡ P
	Print Labels					Description
	Transfer Parameters and Flags	5				
	Unlink					
1						Last Modified 2020/1/7 19:49
	Add To Device Templates					Last Downloaded -
- 1	Add Channels	Ctrl + Shift + A				Serial Number -
	Suggest Channels					Status
	× Delete	Del				Unknown
	Cut	Ctrl + X				Find and Replace
L	Сору	Ctrl + C				
	Paste					Workspaces
						O Todo Items
	Paste Special	Ctrl + V				

Return back to current project "M/PTL35.1", change to "Topology" structure, right click the

New Line1 to paste the device



Close Project	Undo 🛝 Redo 🚔	Reports W	/orkplace	Catalogs	Diagnostics					
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1 New area								Address	1 ‡	
🗧 1.1 New line 🛛								1.	Ŧ	

3 Parameter Description

3.1 General Settings

In topology skeleton on the left side of the topology page, firstly click devices to be set, secondly select "General" tab page in "Parameter" option.



ETS5 [™] - M/PTL35.1 ETS Edit Workplace Com	nmissioning <u>D</u> iagnostics <u>A</u> p	ps Wi <u>n</u> dow		- 0 ×
💿 Close Project 🛛 🏠 Undo	🐴 Redo 🛛 🚔 Reports	Workplace • 🚺 Catalogs 🔤 Diagno	ostics	
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+ Add Channels • X Delete	붗 Download 🔹 🕜 Help	Highlight Changes Default Parameters Grant Cus	tomer Access	Settings Comments Informati
Dynamic Folders	1.1.1 M/PTL35.1 > Genera	d		Settings Comments Informati
 I New area 	General	System operation after a delay(1255s)	2	Catalog Application
 I.1 New line I.1.1 M/PTL35.1 	System configuration	Read objects after bus recovery	Disable Enable	Product M/PTL35.1
	Function configuration	Heartbeat telegram Change brightness via EIB	Disable ▼	Application Panel 3.5Inch Touch Device Type \$217A Program Version 1.0
	Button scene Light	Enable slave clock Temperature show mode	Disable Enable Degrees Celsius Degrees Fahrenheit	Certification Unregistered Fingerprint ABFF
	Curtain Shortcut key	Temperature correction value Local temperature report(In range)	0C	Change Application Program Panel 3.5Inch Touch LCD Controller 🔻
	Shorted key	Help Highlight Changes Default Parameters Grant Customer Access General System operation after a delay(1.255s) 2 ; nation Read objects after bus recovery © Disable Enable ration Heartbeat telegram © Disable Enable Change brightness via EIB © No< Yes	Update Application Program Version	
		Humidity report enable	⊙ No ⊖ Yes	
		Panel scene		⑦ Todo Items⑦ Pending Operations
	Group Objects Param	eter deter		🖍 Undo History
HDL KNXnet/IP Device (192.168	A 1.1 New line	1.1.1 M/PTL35.1		Last used workspace

The setting items are explained below:

System operation after a delay: The time-delay function, namely a delay time between powering on the device and activating the system, range from 1s to 255s.

- (1) Read objects after bus recovery: Whether to read objects' status after KNX power supply recovery.
 - → Read objects delay time: If enabled, set the delay time between bus recovery and reading objects.
- (2) Heartbeat telegram: It's used to check whether the device is online. You can select cyclically send value 1, value 0 or send value "1 / 0" inverted cyclically to the Bus.
 - ➔ Telegram is sent time interval: The time interval for sending heartbeat telegram can be set. The range is 1-65535 seconds. The default setting is 5 seconds.
- (3) Change brightness via EIB: Enable/disable adjusting the panel brightness via EIB bus
- (4) Enable slave clock: Set the panel to display the current time. You can refer to section 4.1 How to set the panel to display the current time.
- (5) Temperature show mode: Select the units for temperature display, which are Degrees Celsius and Fahrenheit.



- (6) Temperature correction value: Select the temperature correction value, from -5° C to $+5^{\circ}$ C.
- (7) Local temperature report (In range): After enabling, the panel will broadcast the temperature to KNX bus line only when the temperature is within this temperature range.
 - → Temperature>=Threshold1 (-30 °C ..+99 °C): Set the minimum value of panel broadcast temperature.
 - → Temperature<=Threshold2 (-30 °C ..+99 °C): Set the maximum value of panel broadcast temperature.</p>
 - ➔ Temperature report mode: Select the mode of sending temperature signal, including "Report when changed" or "Report cyclically".
 - ➔ Temperature report of check period: Check whether the temperature changes at intervals. If the panel temperature changes, broadcast the temperature to KNX bus. The range is 1-65535 seconds.
- (8) The local humidity correction: Local humidity data can be corrected from 10% to +10%.
- (9) Humidity report enable: Enable/disable broadcast humidity data to KNX bus.
- (10) Send humidity to bus: The transmission cycle or source of humidity data can be selected, including Report cyclic, Report when changed and Read from bus.
- (11) Panel scene: Enable Panel Scene A or B.

3.1.1 Panel Scene A / B

Click "General" in the parameter list, enable the Panel Scene->Panel Scene A.



<mark>≣</mark> ETS5™ - M/PTL35.1 ETS <u>E</u> dit W <u>o</u> rkplace <u>C</u> om	missioning <u>D</u> iagnostics <u>A</u> pps W	/i <u>n</u> dow	
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	Function configuration	Enable slave clock	Disable Enable
	Button scene	Temperature show mode	Degrees Celsius Degrees Fahrenheit
	Light	Temperature correction value	0C
	Curtain	Local temperature report(ne range)	◎ No ○ Yes
	Shortcut key	=>Humidity config:	
		The local humidity correction(-10% +10%)	\$
		Humidity report enable	No Yes
		Panel scene	Disable Disable
	Group Objects Parameter	/	

After enabling the panel scene, click the Panel Scene A to configure on the left.

General	Output assigned to(scene164)	Scene 01	
Panel scene	1 bit object control	O Disable O Enable	
>Panel scene A	Entry delay time(0255s)	0	
	Output objects settings		
System configuration	Output object <1> type	Invaild	
Function configuration	Output object <2> type	Invaild	
Button scene	Output object <3> type	Invaild	
	Output object <4> type	Invaild	
Light	Output object <5> type	Invaild	
Curtain	Output object <6> type	Invaild	
Shortcut key	Output object <7> type	Invaild	
	Output object <8> type	Invaild	
	Output object <9> type	Invaild	
	Output object <10> type	Invaild	

1.1.1 M/PTL35.1 > -->Panel scene A



Other panels and devices can send the corresponding scene number to the scene group address of scene A/B to control those Output object targets.

Num	per ⁴ Name	Object Function	Description	Group Address	Length	CI	2	W 1	U	Data Type
■之 11	External temperature	Remote temperature for ou	tdoor		2 bytes	C -	V	νT	U	
∎⊉ 12	General	PM2.5			2 bytes	с -	٧	VТ	-	
∎⊉ 13	General	CO2			2 bytes	с -	V	νT		
∎ ‡ 14	General	TVOC			2 bytes	с -	٧	νT	- 21	
21	Panel scene A	Call scene (1byte)			1 byte	с -	۷	νT	U	1
₽2 41	Panel scene B	Call scene (1byte)			1 byte	с -	٧	νT	U	

The parameters of Panel Scene are described as follows:

- (1) Output assigned to: choose the output the scene number. There are 64 scene numbers available.
- (2) 1 bit object control: After enabling, detailed settings can be made below.
 - ➔ 1 bit object trigger: Other KNX panels and devices can send a 1-bit value to trigger the output in panel scene A/B. "0" - trigger, "1" - trigger, or "1/0" - trigger can be selected.
 - ➔ 1 bit object save: When the target state of the scene changes, send the corresponding value to the group address of Save Scene (1 bit), and you can turn the current scene into a new scene. Execute this scene again, it will be a new scene.

Note: If you want to restore the scene effect based on the current ETS configuration, you can modify the target of the output object and then modify the original data. Then right click M/PTL35.1 device to Partial Download.

Num	ber * Name	Object Function	Description	Group Address	Length	С	R	w	ΓU	Data Type
■ 2 11	External temperature	Remote temperature for ou	itdoor		2 bytes	c -	V	V T	U	
∎≵ 12	General	PM2.5			2 bytes	c -	V	V T	-	
∎≵ 13	General	CO2			2 bytes	c -	V	V T	-	
∎≵ 14	General	TVOC			2 bytes	5 -	V	V T	-	
■21	Panel scene A	Call scene (1byte)			1 byte	c -	V	V T	U	
∎‡ 22	Panel scene A	Call scene (1bit)			1 bit	C -	V	V T	U	
■ ‡ 23	Panel scene A	Save scene (1bit)			1 bit	с -	٧	VТ		



1.1.1 M/PTL35.1 > -->Panel scene A

General	Output assigned to(scene164)	Scene 01	•
Panel scene	1 bit object control	O Disable O Enable	
>Panel scene A	1 bit object trigger	'1'-Triggle	•
	1 bit object save	'1'-Save	•
System configuration	Entry delay time(0255s)	Invaild	
Function configuration	Output objects settings	'1'-Save '0'-Save	~
Button scene	Output object <1> type	'0/1'-Save	

- (3) Entry delay time: Set the delay for triggering scene.
- (4) Output object <n> type: Set the data type of target object n in the scene. A scene can contain up to 10 control targets. For example, selecting 1 bit value can control the relay switch, and 3-byte value can control the RGB dimmer color, etc.

General	1 bit object control	Disable O Enable		
Panel scene	1 bit object trigger	'1'-Triggle		
	1 bit object save	'1'-Save		
>Panel scene A	Entry delay time(0255s)	0		
System configuration	Output objects settings			
Function configuration	Output object <1> type	Invaild		
	Output object <2> type	Invaild		
Button scene	Output object <3> type	1bit value 1byte value(0100%)		
Light	Output object <4> type	1byte value(0255)		
Curtain	Output object <5> type	2byte value(Float) 2byte value(065535)		
	Output object <6> type	3byte value(RGB)		

1.1.1 M/PTL35.1 > -->Panel scene A

3.2 System Configuration

1.1.1 M/PTL35.1 > System configuration

General	Brightness	Level (100%)	
Panel scene	Sleep enable	O Disable O Enable	
System configuration	Sleep after a delay time	15s	
System comigatution	Brightness for after sleep time	Level (00%)	
Function configuration	Display time	O Disable O Enable	
Button scene	Display environment monitor enable	O Disable O Enable	
Light	Display indoor temperature	Interal Temperature probe	
Curtain	Display outdoor temperature	External	
Shortcut key	->Temperature correction value(-5C +5C)	OC	
	Display humidity	Oisable O Enable	
	Display PM25	O Disable O Enable	
	Display CO2	O Disable O Enable	
	Display TVOC	O Disable O Enable	
	Language	English	

The parameters related to system configuration are as follows:

(1) Brightness: Set the screen brightness of Level 0-100%. The default screen brightness is 100%.

(2) Sleep enable: Disable or enable the sleep function. It's enabled to enter the sleep mode 15 seconds after no operation by default, and the screen brightness is 0%.

- ➔ Sleep after a delay: Set the delay time for entering sleep mode. There are three delay time: never, 15 seconds or 1 minute.
- ➔ Brightness for after sleep time: Set the screen brightness after the panel enters the sleep mode, the range is 0% - 20%.

(3) Display time: Enable or disable the display of time and date on the home page.

(4) Display environment monitor enable: You can enable the display of environmental data PM2.5, CO2, TVOC, humidity and indoor/outdoor temperature on the home page of the panel. To display the values of PM2.5, CO2 and TVOC, other KNX sensors and other devices need to link the corresponding air quality group address and send the



corresponding value to the panel to display.

Numbe	er * Name	Object Function	Description	Group A Leng	gth	С	R	W	Т	U Data Type
₽ 11	External temperature	Remote temperature for ou	itdoor	2 byt	tes (2 .	2	W T	ι	J
₹ 12	General	PM2.5		2 byt	tes (с.		wΤ	-	7
₹ 13	General	CO2		2 byt	tes (c .	19	wт	-	8
₹ 14	General	TVOC		2 byt	tes (wт	-	

- → Display indoor/outdoor temperature: The display of indoor/outdoor temperature can be enabled or disabled. If it is enabled, the temperature data source can be selected, including the internal temperature probe or external temperature probe attached to the panel. If Internal temperature probe is selected, then in "General" page → use the "Temperature correction value" for correction, with the range of 5 °C to+5 °C; If external is selected, the temperature data can be corrected below, ranging from 5 °C to+5 °C.
- ➔ Display humidity/PM 2.5/CO2/TVOC: Enable or disable the panel to display humidity/PM2.5/carbon dioxide/TVOC data.

(5) Language: Select the system language: Simplified Chinese, Traditional Chinese, Lowercase English, and All Capital English.

(6) Unlock protected by password: Set unlocking panel full lock (default password is 0000).

- ➔ Enable universal password: Enable the universal password. After enabling, universal password and user password can be used to unlock the panel.
- → Password (1-4): Set four-digit passwords. Range is from 0 to 9.

(7) Proximity sensor: Enable the human body of the panel to approach the sensor, with the sensing distance of 25~35cm.

- ➔ Proximity sensor sensitive: Select the sensor sensitivity, the range is 1% 100%, and the default is 80%.
- ➔ Recovery the LCD brightness: Whether to light the screen at the same time when the sensor senses the human body.
- ➔ Enable send to bus: When the panel senses the human body, it can send a 1-bit ON or OFF value to the bus.
- → Send to bus: Invalid means not to send; Toggle sends on and off alternately (for



example, when the first time sensing a human body, it sends on, and when the second time sensing a human body, it sends off); ON is the value that only sends on; OFF is the value of sending off only.

➔ Send to bus after delay time: Set the delay time for sending the value after the human body approaches. Invalid means not to send; Toggle sends on and off alternately (for example, when the first time sensing a human body, it sends on, and when the second time sensing a human body, it sends off); ON is the value that only sends on; OFF is the value of sending off only. Delay time is the delay time, ranging from 5-255 seconds.

3.3 Function Configuration

Click the main menu button of KNX TILE Display to open the main menu (i.e., control page), and each control page button (air conditioner, light, scene, etc.) in the panel can be displayed or hidden through the function configuration part of ETS software.

Click Function configuration in the parameter menu to open the function configuration interface as follows:

General	Function button	Oisable O Enable
System configuration	Enable light page	Disable Disable
Function configuration	Enable curtain page	O Disable O Enable
	AC/FCU A	Disable
Button scene	AC/FCU B	Disable
Light	AC/FCU C	Disable
Curtain	Floor Heating A	Disable Enable
Shortcut key	Floor Heating B	O Disable C Enable
	Floor Heating C	Disable Enable
	Floor Heating D	Disable Enable
	Floor Heating E	Disable Enable
	Floor Heating F	O Disable C Enable
	Floor Heating G	Disable Enable
	Floor Heating H	O Disable C Enable

1.1.1 M/PTL35.1 > Function configuration

The relevant parameters of System Configuration are described as follows:

- (1) Function button: Enable the Button scene function. A total of 20 scenarios are supported.
- (2) Enable light page: Enable the light function. A total of 20 lights are supported.Lights include switches, dimmers, RGB lights, and CCT types.
- (3) Enable curtain page: Enable the curtain function. A total of 8 curtains are supported.
 Curtain control type can be on, off, stop, and percentage adjustment.
- (4) AC/FCU: Enable the AC or FCU function. A total of 3 AC/FCUs are supported.
- (5) Floor Heating N: Enable the floor heating function (eight in total); The modes are normal, day, night, departure, and timing. Control modes include on/off, temperature regulation and mode switching.
- (6) Fresh air: Enable the Fresh Air function (one in total). Control modes include switch, wind speed, mode, etc.
- (7) Audio page: Enable music control (one in total).



(8) Shortcut key page: Enable shortcut key page (on the main interface, up to five are supported).

3.4 Button Scene

n Function configuration, after enabling the Function button, you can see the Button scene in the panel main menu. Click Button scene in the parameter menu to open the button scene enabling interface.

			1.1.1 M/PTL35.1 > Button se	cene	
M/PTL35.1 > Function	configuration		General	Button scene 1	O Disable O Ena
Seneral	Function button	Disable O Enable	System configuration	Button scene 2	O Disable O Ena
System configuration	Enable light page	O Disable O Enable	Function configuration	Button scene 3	O Disable O Ena
unction configuration	Enable curtain page	O Disable O Enable		Button scene 4	O Disable O En
utton scene	AC/FCU A	Disable	• Button scene	Button scene 5	O Disable O En
	AC/FCU B	Disable	 Button scene 1 	Button scene 6	O Disable O En
utton scene 1	AC/FCU C	Disable	•		
ght	Floor Heating A	O Disable C Enable	Light	Button scene 7	Disable En
urtain	Floor Heating B	O Disable C Enable	Curtain	Button scene 8	O Disable O En
hortcut key	Floor Heating C	O Disable C Enable	Shortcut key	Button scene 9	Disable En
	Floor Heating D	O Disable C Enable		Button scene 10	O Disable O En
	Floor Heating E	O Disable O Enable		Button scene 11	O Disable O En
	Floor Heating F	O Disable C Enable			
	Floor Heating G	O Disable O Enable		Button scene 12	Disable En
	Floor Heating H	O Disable C Enable		Button scene 13	Disable En
meter Group Object	s /			Button scene 14	O Disable O En

After enabling scene 1, you can get the following interface:



1.1.1 M/PTL35.1 > Button scene 1

General	Scene mode select	Single mode Double mode	
System configuration	Scene label	Button scene 1	
Function configuration	lcon number	Party mode	
	Button for scene=>	Toggle	
Button scene	Scene type select	Standard scene O Define scene	
Button scene 1	Output object delay(0255)	0	
light	Output object <1> type	Invaild	
	Output object <2> type	Invaild	
Curtain	Output object <3> type	Invaild	
Shortcut key	Output object <4> type	Invaild	
	Output object <5> type	Invaild	
	Output object <6> type	Invaild	
	Output object <7> type	Invaild	
	Output object <8> type	Invaild	
	Output object <9> type	Invaild	

The related parameters of the button scene are described as follows:

- (1) Scene mode select: Single scene or double scene can be selected.
 - → Single scene: The triggered scene target has only one effect. You can control scene numbers in standard scenes or 10 targets in custom scenes.
 - ➔ Double scene: Each time the scene is triggered, you can alternately control the scene number in the standard scene/10 targets in the custom scene in the ON or OFF scene. That is, the first trigger scenario is to open the ON scenario; The second trigger scenario is to open the OFF scenario; The third time is to open the ON scene, and so on.



1.1.1 M/PTL35.1 > Button scene 1				
General	Scene mode select	Single mode O Double mode		
Panel scene	Scene label	Button scene 1		
System configuration	lcon number	Party mode		
	Button for scene=>	On		
Function configuration	Scene type select	Standard scene Define scene		
Button scene ON Scene	Output object delay(0255)	0	* *	
Button scene 1	Output assigned to(scene164)	Scene 01	•	
	Save scene	Disable Enable		
Light	Button for scene=>	Off		
Curtain	Scene type select	O Standard scene O Define scene		
OFF Scene	Output object delay(0255)	0	* *	
	Output assigned to(scene164)	Scene 02	•	
	Save scene	O Disable C Enable		

(2) Scene label: You can modify the scene name. If it does not show the name in languages other than English, configure the character encoding of the project file to Unicode (UTF-8).

ETS5 [™] - M/PTL35.1 ETS Edit Workplace Commissioning Diag	nostics Apps \	Window						Ø
Overview Bus Catalogs	Settings						Ĥ	N
Projects Archive ETS Inside			M/PTL35.1			Import Date: 2022/12/20 13:09	Last Modified: 2022/12/21 11:33	Total size:
+ 2 ± ±		Search	Details	Security	Project Log	Project Files		
Name	Last Modified v	Status						
M/PTL35.1 select the project	tizæ2/21 11:33	Editing	Name			Password		
			M/PTL35.1				Set Password	
HDL	2022/12/21 10:38	Unknown	Project Number			BCU Key		
Tile Climate + FCHC 1.1 AC	2022/12/19 16:09	Editing					Set Key	
Granite 1.3 Generated from ETS5 again	2022/12/14 9:34	Unknown	Contract Number		[Codepage		_
DMX512	2022/12/13 16:32	Editing				Unicode (UTF-8)	•	
DLP 1.1+ IR 1.1	2022/12/9 9:15	Editing	Start Date 2022/12/19	Т	hen select	Group Address Style	-8) in Codepag	je
Enviro panel FHA& FCU2.0 FHA	2022/11/30 14:24	Editing	End Date		_	Two Level		
Sensor	2022/11/26 16:56	Editing	Select a date		11	 Three Level 		

(3) Icon number: Scene icons can be modified. A total of 17 scene icons can be selected (custom icons are not supported temporarily).

- (4) Scene type select: Scene type Standard scene and Define scene can be selected.
 - ➔ Standard scene: Standard scene refers to the sending scenario number control scenario, with 64 scenario numbers in total. You can refer to section



"3.1.1 Panel Scene A / B -> 1 bit object save" to save current effect as new scene。

→ Define scene: Customize the targets in define scene.

5. Output object delay (0...255): Delay the time to control the target after triggering the scene, ranging from 0-255 seconds. By default, there is no delay.

6. Output object <n> type (only for Define scene): The output target type can be selected, including 1bit switch, 1byte percentage control, 1byte or 2bytes or 4bytes threshold, 2byte temperature value output and 3bytes RGB. Each scenario supports up to 10 targets.

General	Scene mode select	Single mode ODouble mode	
System configuration	Scene label	Button scene 1	
Function configuration	Icon number	Party mode	
runction configuration	Button for scene=>	Toggle	
Button scene	Scene type select	Standard scene O Define scene	
Button scene 1	Output object delay(0255)	0	
Light	Output object <1> type	Invaild	
	Output object <2> type	Invaild	
Curtain	Output object <3> type	Switch(1bit) Percentage(0100%)	
Shortcut key	Output object <4> type	Threshold(0255)	
		Temperature(2byte float)	
	Output object <5> type	Threshold(065535)	
	Output object <6> type	RGB(3byte value) Threshold(02147483647)	

3.5 Light

Click Light in the parameter menu to open the light enabling interface, enabling light 1.



M/PTL35.1 > Light			1.1.1 M/PTL35.1 >>Light 1		
Seneral	Enable light 1	Disable Senable	General	Select type of light	Switch
system configuration	Enable light 2	O Disable O Enable	Contant and Francisco	Light label	Light 1
unction configuration	Enable light 3	Disable Disable	System configuration		
Sutton scene	Enable light 4	O Disable O Enable	Energian and Energian	Icon number	Ceiling lamp
	Enable light 5	Disable Disable	Function configuration	Switch	🔿 Disable 🔘 Enable
ight	Enable light 6	O Disable O Enable	Button scene		
>ight 1	Enable light 7	O Disable C Enable		Switch status	Disable Enable
Surtain	Enable light 8	O Disable O Enable	Light		
hortout key	Enable light 9	O Disable C Enable			
	Enable light 10	O Disable O Enable	>Light 1		
	Enable light 11	O Disable C Enable	Curtain		
	Enable light 12	Disable Disable			
	Enable light 13	O Disable O Enable	Shortcut key		
	Enable light 14	Disable Enable			

Select the light control type in Select type of light, including switch, dimmer, RGB, and control the brightness and color temperature (CCT) of DALI lights, and modify the light name in Light label. If the label is in other languages except for English, please refer to section 3.4 Button Scene -> (2) Scene label to modify the encoding format of the project file.

Icon number: One of the six light icons can be selected (upload of custom icons is not supported temporarily).

- (1) If switch is selected:
 - → Switch: The switch lamp can be controlled through the panel.
 - → Switch status: Enable the switch light status.
- (2) If Dimmer is selected:
 - → Dimming: The dimming light can be controlled through the panel
 - → Dimming status: Enable the dimming light status.
- (3) If the RGB is selected:
 - ➔ RGB absolute dimming (1 byte): Enable the absolute dimming brightness of RGB light.
 - → RGB color (3 byte): You can select the disable, write a value of 3 bytes for 1 object at the same time, or write a value of 1 byte for each object to RGB to control the color.
 - → RGB absolute dimming status (1 byte): Enable the status of absolute dimming



brightness of RGB light.

- → RGB color status (3 byte): You can select the disable You can select the RGB light color state of disabled, 1 object with 3 bytes, or 3 objects with 1 byte for each object.
- (4) If the CCT is selected:
 - → Percentage: Enable control of percentage brightness.
 - → Color temperature (2 byte): The color temperature of DALI lamp can be controlled through 2 bytes.
 - → Percentage status (1 byte): Enable the percentage brightness status.
 - → Color temperature status (2 byte): Enable 2-byte Color temperature status of DALI lamp.

3.6 Curtain

Click the curtain tab to enable the curtain 1 in the parameter menu.

1 M/PTL35.1 > Curtain			1.1.1 M/PTL35.1 >>Curtain	1	
General	Enable curtain 1	Oisable O Enable	General	Select type of curtain	Curtain
System configuration	Enable curtain 2	🕘 Disable 🔵 Enable		Curtain label	Curtain 1
Function configuration	Enable curtain 3	O Disable O Enable	System configuration	Open/close	O Disable O Enable
Button scene	Enable curtain 4	O Disable O Enable	Function configuration	Open/close control value	O''-Open '1'-Close '1'-Open '0'-Close
Light	Enable curtain 5	Disable Enable	Button scene	Stop	Disable O Enable
Curtain	Enable curtain 6 Enable curtain 7	Disable Enable Disable Enable	Light	Percentage control	O Disable O Enable
>Certain 1	Enable curtain 8	O Disable Chable	Curtain	Status of open/close	O Disable C Enable
Shoricut key			>Curtain 1	Status of stop	O Disable O Enable
Shoh cut key			Shortcut key	Status of percentage	O Disable C Enable
arameter Group Object	s /				

The reference description of curtain function is as follows:

(1) Select type of curtain: The curtain type can be selected, including common curtain,

motor curtain and roller blind.

- (2) Curtain label: The remark of curtain.
- (3) Open/close: The curtain opening/closing function can be enabled. After enabling, 1 or

0 can be selected below to control on/off



- (4) Stop: Enable control curtain stop.
- (5) Percentage control: Percentage of curtain that can be enabled to control by 1byte.
- (6) Status of open/close: Enable the curtain status. After enabling, 1 or 0 can be selected

below to indicate on/off respectively.

- (7) Status of stop: Enable the curtain stop status.
- (8) Status of percentage: Enable the curtain percentage control status, ranging from 0% -100%.

3.7 AC/FCU

In Function configuration, select the type of AC air conditioner. KNX TILE Display screen supports up to three AC or FCUs.

	onfiguration			1.1.1 M/PTL35.1 > AC A			
Seneral	Function button	O Disable O Enable		General	Label	AC 1	
ystem configuration	Enable light page	O Disable O Enable		System configuration			
unction configuration	Enable curtain page	O Disable O Enable		Function configuration	Set for comfort temperature[MIN](099C)	21C	
	AC/FCU A	AC	*		Set for comfort temperature[MAX] (099C)	30C	
lutton scere	AC/FCU B	Disable	*	Button scene	Actual temperature(Celsius degree)	Invalid	
ight	AC/FCU C	Disable	*	Light	Status of setpoint temperature	O Disable C Enable	
Curtain	Floor Heating A	O Disable O Enable		Curtain	=>Fan speed:		
KCA .	Floor Heating B	O Disable C Enable		AC A	Total number of fan	3	
hortcu key	Floor Heating C	O Disable C Enable			->Fan speed control type	Ibit object 1byte object	
norical key	Floor Heating D	O Disable C Enable		Shortcut key	->Fan speed status type	1bit object 1byte object	
	Floor Heating E	O Disable O Enable			Automatic speed	Inactive O Active	
	Floor Heating F	O Disable O Enable			Fan speed 1	 Inactive O Active 	
	Floor Heating G	O Disable C Enable			Fan speed 2	 Inactive Active 	
	Floor Heating H	O Disable C Enable			Fan speed 3	Inactive O Active	

The parameters of the air conditioner are described as follows:

(1) Label: AC remark.

(2) Set for comfort temperature [MIN/MAX]: The maximum and minimum values of the set temperature can be adjusted. The range is 0-99 $^{\circ}$ C, and the default value is 21~30 $^{\circ}$ C.

(3) Actual temperature: Select the source of local temperature data, which can be selected from the local sensor and EIB.

- → If local sensor is selected, temperature compensation can be performed through
 "Temperature correction value" on the "General" page. The range is 5 °C to +5 °C.
- → If EIB is selected, the temperature data read from the panel can be compensated



below, with the range of - 5 $^{\circ}$ C to+5 $^{\circ}$ C.

(4) Status of setpoint temperature: Enable the setpoint temperature status. This target can be used to synchronize the value of the current set temperature of the air conditioner to the set temperature of the panel.

(5) Total number of fan: The gear of fan speed, there is the third-gear fan speed, is selected by default. And the maximum is the five gears fan speed.

(6) Fan speed control type: Fan speed control type can be selected. 1 bit object controls wind speed through 1 bit on/off, and 1 byte object controls wind speed through 1 byte target.

If 1 byte object is selected, detailed configuration can be made below.

- ➔ Automatic speed value: The panel controls the value of automatic fan speed. The default written value 0 is automatic fan.
- → Fan speed n value: The panel sets the fan speed at different gears. If the default 3-gear fan speed is selected in (5) Total number of fan, the panel can be configured with what values to control the high, medium and low stop fan at Fan Speed 1/2/3 value.

General	=>Fan speed:		
System configuration	Total number of fan	3	•
System comgaration	->Fan speed control type	1bit object O 1byte object	
Function configuration	>Automatic speed value	0	* *
Button scene	>Fan speed 1 value	85	*
Light	>Fan speed 2 value	170	÷
Curtain	>Fan speed 3 value	255	* *
	->Stop speed value	0	* *
AC A	->Fan speed status type	O 1bit object O 1byte object	
Shortcut key	Automatic speed	Inactive O Active	

(6) Fan speed status type: The panel controls the data type of the fan speed status. You can select 1 bit or 1 byte.

(7) Automatic speed、Fan speed 1-3 and Stop speed: Enable or disable the automatic,

high, medium, low and stop fan speed functions, Inactive is disabled, Active is enabled.

 $(\boldsymbol{8})$ Wind swing: The wind swing function can be enabled, and the types can be selected



as 1bit, 1byte and 1bit/1byte.

(9) Status of wind swing: The state of the wind swing function. The swing feedback of the air conditioner can be synchronously displayed on the panel, and the type can also be selected as 1bit, 1byte and 1bit / 1byte.

(10) Control mode type: Select the air conditioning control mode type. 1 bit object controls the air conditioning through 1 bit target, and 1 byte object controls the air conditioning control mode through 1 byte target. If you select 1 byte object, you can configure the value sent to the air conditioner by the panel below for the air conditioner to switch to automatic mode, cooling, heating, dehumidification, and fan only mode:

- ➔ Automatic heating/cooling value: To control the air conditioner to automatic mode, the panel needs to send the value.
- ➔ Only cooling value: To control the air conditioner to cooling mode, the panel needs to send the value.
- → Only heating value: To control the air conditioner to heating mode, the panel needs to send the value.
- → Only dehumidification value: To control the air conditioner to dehumidification mode, the panel needs to send the value.
- ➔ Only fan value: To control the air conditioner to only fan mode, the panel needs to send the value.

(11) Status of mode type: The panel displays the status of the air conditioning control mode, and 1 bit or 1 byte data type can be selected.

(12) Automatic heating/cooling: Enable/disable automatic heating/cooling mode, Inactive is disabled, Active is enabled.

(13) Only cooling: Enable/Disable the cooling mode. Inactive is disabled, Active is enabled.

(14) Only heating: Enable/Disable the heating mode. Inactive is disabled, Active is enabled.

(15) Only dehumidification: Enable/Disable the dehumidification mode. Inactive is



disabled, Active is enable.

(16) Only fan: Enable/disable fan only mode. Inactive is disabled, Active is enabled.

(17) The status operation after power on: You can select the status of the air conditioning interface after the panel is powered on. "Unchange" is unchanged, and "Recovery" is the status before the power is restored. If Recovery is selected, you can configure the delay time for status recovery to the state before power failure. Range is 2-255 seconds; default is 5 seconds.

(18) The status operation after AC switch ON: You can select the state operation after the panel opens the air conditioner. Unchange is unchanged, and Recovery is the operation state before power failure. If Recovery is selected, you can set the recovery status delay at the Delay for status recovery below. The range is 0-20 seconds, and the default is 1 second.

(19) Output control the relay actuator: Air conditioning output control relay. For more details, please refer to section 3.7.1 AC Output A description.

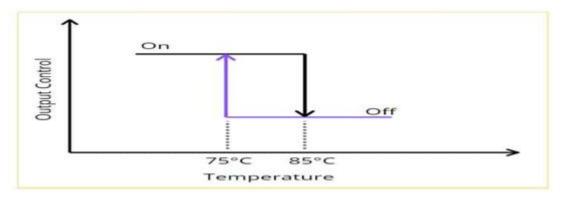
General	Setpoint:		
System configuration	Temperature hysteresis(0.1C)	40	Å. V
Function configuration	Stop heating/cooling Fan:	O Yes O No	
Button scene	Fan output control type	O changeover 🔵 step	
Light	Starting characteristic of fan	Switch on at speed 1	•
Curtain	Duration time at starting speed(2255s)	2	▲
	Changeover delay between fan speeds(s)	0.5	•
AC A	Duration on fan speed(2255s)	2	÷
->AC Output A	Auto fan speed1:if temperature deviation	2C	-
Shortcut key	Auto fan speed2:else if temperature deviation <=	4C	-
	Auto fan speed3:else	Speed 3	
	Fan speed when over setpoint temperature(for automatic fan speed)	On speed 1 O OFF	
	Heat valve:		

3.7.1. AC Output A

(1) Temperature hysteresis: Temperature hysteresis means that the valve can be



opened or closed when the temperature is set to the ambient temperature in degrees Celsius. The range is 1-200, i.e., 0.1° C - 20°C.



(2) Stop heating/cooling: Stop the heating or cooling.

(3) Fan output control type: Fan output control type, you can select Changeover or Step.

(4)Starting characteristic of fan: The default fan speed after the air conditioner is powered on can be selected, and the fan speed can be 1/2/3.

(5) Duration time at starting speed: It refers to a period of time when the air conditioner operates at the default fan speed after being powered on. The default value is 2 seconds and the range is 2-255 seconds.

(6) Changeover delay between fan speeds: It refers to the delay time for the air conditioner to adjust from one fan speed to another. The default value is 0.5 seconds, and the range is 0.5-10 seconds.

(7) Duration on fan speed: It refers to the duration of fan speed. The default value is 2 seconds, and the range is 2-255 seconds.

(8) Auto fan speed 1: if temperature deviation<=: When the temperature is less than or equal to this temperature, the operating fan speed 1.

(9) Auto fan speed 2: if temperature deviation<=: When the temperature is less than or equal to this temperature, the operating fan speed 2.

(10) Auto fan speed 3: else: In addition to the above (points 8 and 9), the operating fan speed 3.

(11) Fan speed when over setpoint temperature (for automatic fan speed): When the temperature exceeds the set temperature, execute the fan speed 1 (On speed 1) or turn off



the fan speed (OFF).

(12) Control type: Control categories can be selected, including Two step control (ON/OFF) and PWM control. If the latter is selected, detailed settings can be made below:

- → Heating/Cooling speed (For PI): Heating or cooling speed.
- → PWM period: PWM control cycle.
- → Minimum/Maximum PWM valve: minimum / maximum PWM value.

3.7.2. FCU

In Function configuration, find AC/FCU A to select FCU function, and select parameter to open FCU A interface. The FCU interface selects the cooling mode.

			General	Label	FCU 1	
General System configuration	Function button Enable light page	Disable Enable	System configuration	FCU functions selection	Cooling Fan	
unction configuration	Enable curtain page	🔵 Disable 🔘 Enable	Function configuration	Set for comfort temperature[MIN](09	Heating	
Button scene	AC/FCU A	FCU	Button scene	Set for comfort temperature[MAX] (099C)	Heating and Cooling	
	AC/FCU B	Disable	Light	Actual temperature(Celsius degree)	Invalid	
light	AC/FCU C	Disable	Curtain	Setpoint temperature status	O Disable C Enable	
Curtain	Floor Heating A	O Disable C Enable		->HVAC control mode type	1bit Command 1byte mode	
CU A	Floor Heating B	O Disable O Enable	FCU A	->HVAC mode type	1bit Command 1byte mode	
ihortcut key	Floor Heating C	O Disable O Enable	Shortcut key	->HVAC control mode status type	1bit Command 1byte mode	
non tout key	Floor Heating D	O Disable O Enable		->HVAC mode status type	1bit Command 1byte mode	
				HVAC control mode off enable	O Disable C Enable	
				Fan speed	3-Fan speed	
		COMP TO HO		->Fan control type	1bit object 1byte object	

When the panel air conditioner is used to control the fan coil unit, the function of HVAC control is increased compared with that of AC/FCU in section 3.7, as shown in the following figure:



eneral	Label	FCU 1	
ystem configuration	FCU functions selection	Cooling	•
Function configuration	Set for comfort temperature[MIN](099C)	16C	•
Button scene	Set for comfort temperature[MAX] (099C)	35C	•
Light	Actual temperature(Celsius degree)	Invalid	•
Curtain	Setpoint temperature status	O Disable C Enable	
FCU A	->HVAC control mode type	1bit Command 1byte mode	
Shortcut key	->HVAC mode type	1bit Command 1byte mode	
Shortcut key	->HVAC control mode status type	1bit Command 1byte mode	
	->HVAC mode status type	1bit Command 1byte mode	
	HVAC control mode off enable	Disable Enable	
	Fan speed	3-Fan speed	•
	->Fan control type	1bit object 1byte object	

The following describes the parameters of HVAC function:

- (1) HVAC control mode type: 1 bit or 1 byte data type can be selected to control the control mode of fan coil unit air conditioner. "HVAC control mode status type" is the status of panel cooling, fan, and off modes.
- ➔ If the 1-bit data type is selected, the group object interface includes Activation of cooling mode, Activation of fan only mode, and Activation of off mode. The group address can be fed back to the panel by linking the corresponding 1-bit control mode and 1-bit control mode of the FCU air conditioning module, as shown below:

2 11	External temperature	Remote temperature for outdoor	2 bytes C - W T U
₽ 12	General	PM2.5	2 bytes C - W T -
₽ 13	General	CO2	2 bytes C - W T -
₹14	General	TVOC	2 bytes C - W T -
₽962	HVAC Actual temperatureA	Actual temp, error signal	1 bit C - W T U
₽63	HVAC Actual temperatureA		1 bit C - W T U
₽964	HVAC SetpointA	Base setpoint temperature	2 bytes C - W T U
2 966	HVAC SetpointA	Instantaneous setpoint temp.	2 bytes C - W T U
‡ 970	HVAC control modeA	Activation of cooling mode	1bit C - W T U
‡ 971	HVAC control modeA	Activation of fan only	1bit C - W T U
₽72	HVAC control modeA	Activation of off	1bit C - W T U
‡ 976	HVAC control mode statusA	Cooling mode status	1bit C - W T U
‡ 977	HVAC control mode statusA	Only fan status	1bit C - W T U
2 978	HVAC control mode statusA	Off status	1 bit C - W T U
₽80	HVAC modeA	ON CMD for comfort mode	1 bit C - W T U
₽981	HVAC modeA	1 In CAN GMD for standby mode	1 bit C - W T U
₽982	HVAC modeA	1 bith and the fight mode on trol mode status	1 bit C - W T U
\$ 983	HVAC modeA	ON CMD for building protection	1 bit C - W T U
₹ 985	HVAC mode statusA	Comfort mode status	1 bit C - W T U



➔ If the 1-byte data type is selected, the corresponding 1-byte group address of the FCU

air conditioning module can be linked to the panel's HVAC control mode and status, as

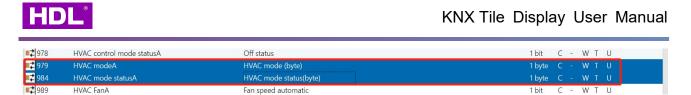
shown below:

- ← 14	General	IVUC	Z bytes C - VV I -
■≵ 962	HVAC Actual temperatureA	Actual temp. error signal	1 bit C - W T U
■≵ 963	HVAC Actual temperatureA	Frost/heat alarm error signal	1 bit C - W T U
■≵ 964	HVAC SetpointA	Base setpoint temperature	2 bytes C - W T U
■≵ 966	HVAC SetpointA	Instantaneous setpoint temp.	2 bytes C - W T U
1	HVAC control modeA	HVAC control mode (byte)	1 byte C - W T U
7 973	HVAC control mode statusA	HVAC control mode status(byte)	1 byte C - W T U
∎≵ 980	HVAC modeA	ON CMD for comfort mode	1 bit C - W T U
∎≵ 981	HVAC modeA	ON CMD for standby mode	1 bit C - W T U
■≵ 982	HVAC modeA	ON CMD for night mode	1 bit C - W T U
■≵ 983	HVAC modeA	ON CMD for building protection	1 bit C - W T U
■2 985	HVAC mode statusA	Comfort mode status	1 bit C - W T U
- 985	The mode status t		

- HVAC mode Type: You can select 1bit or 1byte data type to control the current mode of fan coil unit air conditioning. It can be understood as the scene mode used.
 "HVAC mode status type" is the mode status of the panel.
- ➔ If the 1-bit data type is selected, the group object interface includes ON CMD for comfort mode, ON CMD for standby mode, ON CMD for night mode and ON CMD for building protection mode. The group address can be fed back to the panel by linking the corresponding 1-bit control mode and 1-bit control mode of the FCU air conditioning module, as shown below:

∎⊉ 14	General	TVOC	2 bytes C - W T -
■\$ 962	HVAC Actual temperatureA	Actual temp. error signal	1 bit C - W T U
■≵ 963	HVAC Actual temperatureA	Frost/heat alarm error signal	1 bit C - W T U
■≵ 964	HVAC SetpointA	Base setpoint temperature	2 bytes C - W T U
■≵ 966	HVAC SetpointA	Instantaneous setpoint temp.	2 bytes C - W T U
■≵ 970	HVAC control modeA	Activation of cooling mode	1 bit C - W T U
■≵ 971	HVAC control modeA	Activation of fan only	1 bit C - W T U
972	HVAC control modeA	Activation of off	1 bit C - W T U
■≵ 976	HVAC control mode statusA	Cooling mode status	1 bit C - W T U
■≵ 977	HVAC control mode statusA	Diff status Off status	1 bit C - W T U
■≵ 978	HVAC control mode statusA	Off status	1 bit C - W T U
\$ 980	HVAC modeA	ON CMD for comfort mode	1bit C - W T U
12 981	HVAC modeA	ON CMD for standby mode	1 bit C - W T U
1	HVAC modeA	ON CMD for night mode	1bit C - W T U
2 983	HVAC modeA	ON CMD for building protection	1 bit C - W T U
₽\$ 985	HVAC mode statusA	Comfort mode status	1 bit C - W T U
■≵ 986	HVAC mode statusA	Standby mode status	1 bit C - W T U
₽\$ 987	HVAC mode statusA	Night mode status	1 bit C - W T U
∎≵ 988	HVAC mode statusA	Building protection status	1 bit C - W T U
2 989	HVAC FanA	Fan speed automatic	1 bit C - W T U
■≵ 991	HVAC FanA	HWAC Mode Status	1 bit C - W T U
■≵ 992	HVAC FanA	Fan speed 2	1 bit C - W T U
■≵ 993	HVAC FanA	Fan speed 3	1 bit C - W T U
€			>

➔ If 1byte is selected in HVAC mode type and HVAC mode status type, the corresponding 1byte group address of FCU air conditioning module can be linked to the panel's HVAC mode and status, as shown below



(3) HVAC control mode off enable: In HVAC control mode, whether the disabled or enabled panel can be switched to off mode.

3.8 Floor Heating

In the Function configuration tab, you can enable floor heating function. KNX TILE Displat panel supports 8 Floor Heating A-H in total. After enabling, click Floor Heating A on the left side to open the floor heating configuration page.

//PTL35.1 > Function co	onfiguration			-		
			General	Set for comfort temperature[MAX] (099C)	35C	
eneral	AC/FCU A	Disable	System configuration	Actual temperature(Celsius degree)	Invalid	
stem configuration	AC/FCU B	Disable	Function configuration	Display the temperature of the outdoor (Celsius degree)	O Disable C Enable	
inction configuration	AC/FCU C	Disable		Setpoint temperature status	O Disable C Enable	
utton scene	Floor Heating A		Button scene	The status operation after power on	Read status	
ation scene	Floor Heating B	O Disable O Enable	Light		5	
ght	Floor Heating C	O Disable C Enable	Curtain	Delay for status read(2255s) =>Enable mode:	5	
urtain	Floor Heating D	O Disable O Enable	Floor Heating A	Normal mode	Disable O Enable	
oor Heating A	Floor Heating E	O Disable C Enable	Shortcut key	Day mode	Disable Disable	
ortcut key	Floor Heating F	O Disable C Enable	Shoricut key	Night mode	Disable O Enable	
	Floor Heating G	O Disable C Enable		Away mode	Disable Disable	
				Timer mode	Disable Disable	
				Timer 1 label	Timer 1	

The following mainly describes the parameters of the first floor heating A:

- (1) Label: Floor heating display remark.
- (2) Set for comfort temperature [MIN/MAX]: The maximum and minimum values of adjustable floor heating setting temperature are both 0-99 °C, and the default value is 16-35℃.
- (3) Actual temperature: The source of local temperature data can be selected from the local sensor and EIA.
- → If local sensor is selected, temperature compensation can be performed through
 "Temperature correction value" on the "General" page. The range is 5 °C to +5 °C
- ➔ If EIB is selected, the temperature data read from the panel can be compensated below, ranging from - 5 °C to +5 °C.
- → Display the temperature of the outdoor (Celsius degree): whether to display the



outdoor temperature. The group address of 2 bytes of outdoor temperature can be

linked to the Outdoor Temperature object of Floor Heating A.

Floor Heating A	Pipe pressure protection	1 bit C - W T U
Floor Heating A	Actual temp. error signal	1 bit C - W T U
Floor Heating A	Outdoor temperature	2 bytes C - W T U
Floor Heating A	Normal-mode setpoint Temp.	2 bytes C - W T U
Floor Heating A	Day-mode setpoint Temp.	2 bytes C - W T U
Floor Heating A	Night-mode setpoint Temp.	2 bytes C - W T U
	Floor Heating A Floor Heating A Floor Heating A Floor Heating A	Floor Heating A Actual temp. error signal Floor Heating A Outdoor temperature Floor Heating A Normal-mode setpoint Temp. Floor Heating A Day-mode setpoint Temp.

(4) Setpoint temperature status: The status of the floor heating setting temperature of the panel can be enabled. This target can be used to synchronize the current set temperature value of floor heating to the set temperature of the panel.

■2 1111	Floor Heating A	Pipe pressure protection	1 bit C - W T U
1113	Floor Heating A	Actual temp. error signal	1 bit C - W T U
■2 1115	Floor Heating A	Normal-mode setpoint Temp.	2 bytes C - W T U
■≵ 1116	Floor Heating A	Day-mode setpoint Temp.	2 bytes C - W T U
1117	Floor Heating A	Night-mode setpoint Temp.	2 bytes C - W T U
∎≵ 1118	Floor Heating A	Away-mode setpoint Temp.	2 bytes C - W T U
‡ 1119	Floor Heating A status	Normal-mode setpoint Temp.	2 bytes C - W T U
2 1120	Floor Heating A status	Day-mode setpoint Temp.	2 bytes C - W T U
2 1121	Floor Heating A status	Night-mode setpoint Temp.	2 bytes C - W T U
1122	Floor Heating A status	Away-mode setpoint Temp.	2 bytes C - W T U
-	et 11 11 11	the same of the same of the	

- (5) The status operation after power on: You can select the status of the floor heating interface after the panel is powered on. Unchange is unchanged, and Recovery is the status before the power is restored. If Recovery is selected, you can configure the delay time for status read to recover to the state before power failure. Range: 2-255 seconds, default is 5 seconds.
- (6) Enable mode: The floor heating interface operation mode of the panel can be enabled, including normal mode, day mode, night mode, away mode and timer mode.
 Timer 1-3 label is the name of three timing modes.
- (7) Mode status: The status of the floor heating mode of the panel.

			 	 _	_	_	_
💶 1148	Floor Heating A status	ON CMD for Normal-mode status	1 bit		W	τu	
1149	Floor Heating A status	ON CMD for Day-mode status	1 bit		W	τι	
2 1150	Floor Heating A status	ON CMD for Night-mode status	1 bit		W	τι	
1151	Floor Heating A status	ON CMD for Away-mode status	1 bit		W	τu	
1152	Floor Heating A status	ON CMD for Timer-mode status	1 bit		W	тι	

(8) Output control the relay actuator: It can be enabled to control relay actuator through target output. After enabling, click FH Output A on the left side to configure. For details, refer to the following 3.8.1 Section FH Output A of Floor Heating Output Settings.



- (9) Display alarm information: Enable or disable alarm information
- (10) Enable safety protect temperature: The overheat protection function can be turned on. If it is enabled, the protection temperature can be set at Stop floor heating when temperature. When the actual temperature exceeds this temperature, the floor heating will be turned off

3.8.1 FH Output A

In the floor heating setting, select Enable Output control the relay actuator, the FH Output label will appear, and click to set the floor heating output.

1.1.1 M/PTL35.1 > Floor Heat	-		1.1 M/PTL35.1 > ->FH Outp	out A	
General	Normal mode	O Disable O Enable	General	Heating or cooling mode	A Hasting Cooling
System configuration	Day mode	Disable Disable			Heating Cooling
Function configuration	Night mode	O Disable O Enable	System configuration	Temperature hysteresis(0.1C)	40
Button scene	Away mode	O Disable O Enable	Function configuration	Stop heating	Ves No
Light	Timer mode	O Disable O Enable	Button scene	Enable safety protect	O No O Yes
Curtain	Timer 1 label Timer 2 label	Timer 1 Timer 2	Light	Control type	 Two-step(ON/OFF) control PWM control
Floor Heating A	Timer 3 label	Timer 3	Curtain	Enable purge	O No Ves
->FH Output A	Mode status	O Disable O Enable	Curtain		
Shortcut key	=>Output control:	Disable O Enable	Floor Heating A		
	=>Information zone:	Uisable Uisable	->FH Output A		
	Display alarm information	No Ves	Shortcut key		
	Enable safety protect temperature	O Disable C Enable			

The parameters of floor heating output are described as follows:

- (1) Heating or cooling mode: Heating or cooling mode can be selected.
- (2) Temperature hysteresis: Temperature hysteresis means that the valve can be opened or closed when the temperature is set to the ambient temperature in degrees Celsius.
- (3) Stop heating: Enable the stop heating function.
- (4) Enable safety protect: The safety protection function can be enabled, and detailed settings can be made below when it is enabled.
- Temperature source: Temperature source can be selected, including Local sensor or Via EIB.



- → Active/Cancel protection: The temperature for starting/canceling protection can be set, that is, when the temperature exceeds/falls below the temperature, the protection function can be started/canceled. The range of both is 0 °C - 99 °C
- → Active/Cancel operation: It can set the operation when starting/canceling protection, including keeping the current state unchanged (Unchange), opening (ON) and closing (OFF).
- (5) Control type: Control categories can be selected, including Two step control and PWM control. If PWM control is selected, detailed settings can be made below:
- → Floor heating/cooling speed (For PI): The speed of heating or cooling.
- ➔ PWM control object: PWM output control target, 1 bit object refers to 100% open or close PWM percentage control through 1 bit, 1 byte object refers to control through 1 byte target PWM output duty cycle.
- → PWM period: PWM cycle, the range is 1-255 minutes, the default is 5 minutes.
- → Minimum/Maximum PWM valve: minimum / maximum PWM percentage.
- (6) Enable purge: Enable/disable the purge function. After enabling, you can configure the self-cleaning time of Time of purge every 1-255 minutes. The default time is 5 minutes.

3.9 Fresh Air

In the Function configuration tab, you can enable the fresh air function. KNX Tile Display panel supports a total of 1 fresh air system. Click Fresh Air after enabling to set



AC/FCU B Disable nation configuration AC/FCU C Disable Disable Ac/FCU C Disable Common Configuration Ac/FCU C Disable Final Ac/FCU C Disable Disab		and a second sec		1.1.1 M/PTL35.1 > Fresh air		
stem configuration AC/FCU B Disable Disable inction configuration AC/FCU C Disable System configuration Actual temperature(Celsius degree) Immin inttion scene Floor Heating A © Disable Enable Function configuration Display the temperature of the outdoo © Disable Enable pht Floor Heating B © Disable Enable Function configuration Display PM25 © Disable Enable pht Floor Heating D © Disable Enable Button scene -Display PM25 © Disable Enable pht Floor Heating D © Disable Enable Enable -Display TVOC © Disable Enable esh air Floor Heating F © Disable Enable Fresh air -Pisplay TVOC © Disable Enable floor Heating G © Disable Enable Enable Fresh air -Pise automation 9 Tist object Iby the object floor Heating H © Disable Enable Enable Fresh air -Pise automation 0 Tist object Iby the object floor Heating H © Disable Enable Enable Fresh air -Pise automation 0 Tist object Iby the object floor Heating H ©	eneral	AC/FCU A	Disable	Gamaral	Label	Fresh als
AC/FCU C Disable	stem configuration	AC/FCU B	Disable	General		
Floor Heating A O Disable Enable Function configuration Celsius degree) O Disable Inable Atton scene Floor Heating B O Disable Enable Function configuration O Disable Enable Inable Inable Inable ght Floor Heating C O Disable Enable Enable Enable Disable Enable Disable Enable Disable Enable Inable Disable Enable Disable Enable Disable Enable Disable Enable Disable Enable Inable Disable Enable Disable Enable Disable Enable Disable Enable Disable Enable Disable Enable Disable Disable Enable Inable Disable Disable Disable Disable Enable Fresh air ->Fan control type Ibit object Ibyte object Ibyte object foor Heating H O Disable Enable Enable Enable Fresh air ->Fan status type Ibit object Ibyte object ->Active speed automatic Inactive © Active floor Heating H		AC/FCU C	Disable	System configuration	Actual temperature(Celsius degree)	Invalid
Button scene Button scene Button scene Button scene Disable Disable Inable ght Floor Heating C O Disable Enable Enable -Display PMZS Disable Enable ght Floor Heating C O Disable Enable Enable -Display CO2 Disable Enable wirtain Floor Heating E O Disable Enable Curtain Fan speed 3:Fan speed resh air Floor Heating F O Disable Enable Fresh air ->Fan control type 0 Ibit object 1byte object Floor Heating H O Disable Enable Fanable ->fan status type 0 Ibit object 1byte object Fresh air O Disable Enable Enable Shortcut key ->fan status type 0 Ibit object 1byte object Audio page O Disable Enable Enable Enable Shortcut key ->Active speed stop Inactive @ Active	unction configuration	Floor Heating A	O Disable O Enable	Function configuration		O Disable C Enable
Internating C Disable Disable Undert Ught Display TVOC Disable Enable Internating F Disable Enable Enable Curtain Fan speed 3-Fan speed Hort Letting G Disable Enable Fresh air ->Fan control type Disable Ibit object 1bit object <td< td=""><td>utton scene</td><td>Floor Heating B</td><td>O Disable O Enable</td><td>Button scene</td><td>Display PM25</td><td>O Disable O Enable</td></td<>	utton scene	Floor Heating B	O Disable O Enable	Button scene	Display PM25	O Disable O Enable
iurtain Floor Heating D © Disable Enable Display TVOC Disable Enable resh air Floor Heating E © Disable Enable Curtain Fan speed 3-Fan speed hortcut key Floor Heating F © Disable Enable Fresh air ->Fan control type 0 libit object 1byte object hortcut key Floor Heating G © Disable Enable Shortcut key ->Fan status type 0 libit object 1byte object Floor Heating H © Disable Enable Shortcut key ->Active speed automatic Inactive © Active Audio page © Disable Enable Enable Mode control type 0 libit object 1byte object	ight	Floor Heating C	O Disable O Enable		Display CO2	O Disable O Enable
resh air Floor Heating E Disable Enable Fresh air >>Fan speed Shara speed hortcut key Floor Heating F Disable Enable Fresh air ->Fan control type 0 lbit object 1bit object <	urtain	Floor Heating D	O Disable C Enable	Light	Display TVOC	O Disable O Enable
horicut key Proof nealing P © Disable © inable Criable	resh air	Floor Heating E	O Disable C Enable	Curtain	Fan speed	3-Fan speed
Floor Heating G Disable Enable Shortcut key ->Fan status type Ibit object Ibit object <td></td> <td>Floor Heating F</td> <td>O Disable C Enable</td> <td>Fresh air</td> <td>->Fan control type</td> <td>1bit object 1byte object</td>		Floor Heating F	O Disable C Enable	Fresh air	->Fan control type	1bit object 1byte object
Fresh air Disable Enable Audio page O Disable Enable	nortcut key	Floor Heating G	O Disable C Enable	Shortcut key	->Fan status type	1bit object 1byte object
Audio page O Disable Enable Mode control type 0 Ibit object Ibit object 1 byte object		Floor Heating H	O Disable O Enable		->Active speed automatic	O Inactive O Active
Audio page Usable Enable		Fresh air	Disable O Enable		->Active speed stop	Inactive O Active
Shortcut key page Disable Enable Mode status type O 1bit object 1byte object		Audio page	O Disable C Enable		Mode control type	1bit object 1byte object
		Shortcut key page	Disable Disable		Mode status type	1bit object 1byte object

Those parameters are described below:

- (1) Label: The remark of fresh air.
- (2) Display PM2.5/CO2/TVOC: PM2.5/CO2/TVOC data can be displayed on the panel.
- (3) Fan speed: The gear of fan speed can be selected, up to three gears
- (4) Fan control type: The fan speed control mode can be selected. 1 bit object refers to the control of air supply through 1 bit data type, and 1 byte object refers to the control of air supply through 1 byte data type. If the latter is selected, the target value can be set in detail below, including Speed automatic value, Level 1/2/3 (Speed n value), and Speed stop value.
- (5) Fan status type: Enable the fan speed status of fresh air.
- (6) Active speed automatic: Enable to activate automatic fan speed.
- (7) Active speed stop: Enable to activate the stopping fan speed.
- (8) Mode control type: The mode control type can be set. 1 bit object refers to the control mode through 1 bit data type, and 1 byte object refers to the control mode through 1 byte data type. If the latter is selected, you can set the values of each mode below, including Auto/Manual/Timer/Intelligent mode values.
- (9) Mode status type: The status of fresh air mode of the panel can be selected, and the status can also be displayed by 1bit or 1byte
- (10) Auto/Manual/Timer/Intelligent mode: Enable the auto、Manual、Timer、Intelligent mode.



- (11) The status operation after power on: For the operation of fresh air after the panel is powered on, you can select Unchange or Recovery. If the latter is selected, the recovery delay can be set at Delay for status recovery below. The default is 5 seconds, and the range is 2-255 seconds
- (12) Output control the relay actuator: It can be enabled to control the relay through the target output. If it is enabled, click the left Fresh Air Output label to set it. See the next section for details.

3.9.1 Fresh Air Output

In fresh air setting, select Enable Output control the relay actuator to display Fresh Air Output. Click to set fresh air output.

1.1.1 M/PTL35.1 > Fresh air					
General	->ran control type		I.1.1 M/PTL35.1 >>Fresh a	ir Output	
System configuration	->Fan status type ->Active speed automatic	 1bit object 1byte object Inactive Active 	General	Fan:	
Function configuration	->Active speed stop	Inactive Active	System configuration	->Fan output control type	changeover step
Button scene	Mode control type	Ibit object Ibyte object	Function configuration	Starting characteristic of fan	Switch on at speed 1
Light	Mode status type Auto mode	1bit object 1byte object Inactive Active	Button scene	Duration time at starting speed(2255s)	2
Curtain	Manual mode	Inactive Active	Light	Changeover delay between fan speeds(s)	0.5
Fresh air	Timer mode	Inactive O Active	Curtain		
Shortcut key	Intelligent mode	Inactive Active	Fresh air		
	The status operation after power on Delay for status recovery(2255s)	Unchange O Recovery	>Fresh air Output		
	=>Output control:		Shortcut key		
	Output control the relay actuator	Disable O Enable			

The description of fresh air output control relay is as follows:

- (1) Fan output control type: It refers to the control type of fresh air output, and you can select Changeover or Step.
- (2) Starting characteristic of fan: You can select the default wind speed after opening the fresh air, and you can select the fan speed of 1/2/3.
- (3) Duration time at starting speed: It refers to a period of time when the air conditioner operates at the default fan speed after being powered on. The default value is 2 seconds and the range is 2-255 seconds.



(4) Changeover delay between fan speeds: It refers to the delay time for the air conditioner to adjust from one wind speed to another. The default value is 0.5 seconds, and the range is 0.5-10 seconds.

3.10 Audio Page

In the Function configuration tab, you can enable the audio function. The KNX Tile Display supports 1 audio in total. After enabling, you can see the music label on the left side. Click to set it.

				1.1.1 M/PTL35.1 > Audio			
General	AC/FCU A	Disable	*	General	Audio switch status	O Disable C Enable	
System configuration	AC/FCU B	Disable	•	General			
· ·	AC/FCU C	Disable	-	System configuration	Play operation	Play/Stop Resume/Pause	
Function configuration	Floor Heating A	O Disable O Enable		Function configuration	Play operation status	O Disable C Enable	
Button scene	Floor Heating B	O Disable C Enable		Button scene	Select song	O Disable C Enable	
Light	Floor Heating C	O Disable C Enable		Button scene	Last and next song(1bit)	0-Last song,1-Next song	
Curtain	Floor Heating D	Disable Enable		Light		0-Next song,1-Last song	
Curtain	Floor Heating E	Disable Enable		Curtain	Select song status	Disable Enable	
Audio				Audio	Play mode	Disable Enable	
Shortcut key	Floor Heating F	Disable Enable			Play mode status	O Disable O Enable	
	Floor Heating G	O Disable O Enable		Shortcut key	Adjust volume operation mdoe	Step by step Absolute	
	Floor Heating H	O Disable C Enable			Adjust volume operation mdoe status	O Step by step O Absolute	
	Fresh air	O Disable C Enable			Select list mode	 Invalid Step by step 	
	Audio page	Disade Disade			Select list mode status	O Disable O Enable	
	Shortcut key page	O Disable O Enable			Select source mode	Absolute	
					Source absolute 1 epable	Dicable C Epable	

The parameters of the audio configuration interface are described as follows:

- (1) Label: The remark of audio $_{\circ}$
- (2) The status of operation after power on: You can select the operation of music after the panel is powered on. Unchange is unchanged, and Recovery is to restore the state before power failure
- (3) Audio switch status: Enable/disable audio switch status.
- (4) Play operation: Enable start/pause play, send 1 as start, send 0 as pause.
- (5) Play operation status: Enable start/pause playback status synchronization.
- (6) Select song: Enable song selection.
- (7) Last and next song: You can select the operation mode of the previous song (Last) and the next song (Next), and you can select "0-Previous, 1-Next" or "0-Next, 1-Previous".



- (8) Select song status: Enable song selection status.
- (9) Play mode: You can select control codes of different playback modes. When enabled, you can make detailed settings below, including Single play, Loop play, List play, List loop, and Random play.
- (10) Play mode status: Status of the playback mode of the music interface of the enable panel.
- (11) Adjust volume operation mode: Adjust the volume operation mode. You can select to disable the volume operation (Invalid) or percentage adjustment (Absolute).
- (12) Adjust volume operation mode status: Volume status synchronization.
- (13) Select source mode: It can support five music playback sources, including: Local music, SD card, Bluetooth, Server, Live stream music playback source switching mode.
 You can choose to disable music playback source, 1-bit switching function (Invalid), or 1-byte data type absolute value switching (Absolute).
- (14) Select source mode status: Mode status of the panel's music interface sound source.
- (15) Display 14-byte object for song name: Enable/disable 14-byte data type to display song name.

3.11 Shortcut Key

The KNX Tile Display panel supports up to five shortcut keys to point to the scenario and display it on the main interface, as shown below:





Shortcut key function can be enabled in the function configuration tab of ETS. Select Shortcut key in the parameter label to open the Shortcut key setting page

.1 M/PTL35.1 > Function	n configuration					
General	AC/FCU A	Disable	-	I.1.1 M/PTL35.1 > Shortcut k	ey	
System configuration	AC/FCU B	Disable	*	General	Shortcut key 1	🔵 Disable 🧕 Enable
Function configuration	AC/FCU C	Disable	•	General	Shortcut key f	Disable Disable
	Floor Heating A	O Disable O Enable		System configuration	->Shortcut key 1 is linked with	Button scene 1
Button scene	Floor Heating B	Disable Enable		System comgaration		
Light	Floor Heating C	O Disable C Enable		Function configuration	Shortcut key 2	Disable Enable
Curtain	Floor Heating D	Disable Enable			Shortcut key 3	O Disable O Enable
Shortcut key	Floor Heating E	O Disable C Enable		Button scene	Charlest Inv. 4	Dischlar Cashl
	Floor Heating F	O Disable C Enable			Shortcut key 4	Disable Enable
	Floor Heating G	O Disable C Enable		Light	Shortcut key 5	🔘 Disable 🔵 Enable
	Floor Heating H	O Disable C Enable		Curtain		
	Fresh air	O Disable O Enable		Curtain		
	Audio page	Disable Disable		Shortcut key		
	Shortcut key page	O Enable				

After enabling the corresponding shortcut key, detailed settings can be made below:

- 1. Shortcut key n: Enable the Shortcut keys.
- 2. Shortcut key is linked with: You can select the scene corresponding to the shortcut key,

and you can select Button Scene1-20.

4 Demo Example



4.1 Set the Panel to Display the Current Time

Require another KNX device, such as KNX timer or KNX LINK M/GWASC.1, broadcasts time to the bus, so that the KNX Tile Display panel can display this time. The following is an example of KNX timer.

(1) Enable Slave Clock in the General settings of the panel, and enable the display time in the System configuration interface.

General	System operation after a delay(1255s)	2	÷
System configuration	Read objects after bus recovery	O Disable C Enable	
Function configuration	Heartbeat telegram	Disable	•
	Change brightness via EIB	No Yes	
Button scene	Enable slave clock	🔵 Disable 🔘 Enable	
Light	Temperature show mode	Degrees Celsius Degrees Fahrenheit	
Curtain	Temperature correction value	OC	•
Shortcut key	Local temperature report(In range)	No Yes	
	=>Humidity confia:		=
M/PTL35.1 > System co	nfiguration		
wi/PTLSS.T > System Co	miguration		
	Brightness	Level (100%)	
General		Level (100%) Disable O Enable	
General System configuration	Brightness		
General System configuration	Brightness Sleep enable	🔵 Disable 🔘 Enable	
General System configuration Function configuration	Brightness Sleep enable Sleep after a delay time	Disable Disable	
General System configuration Function configuration Button scene	Brightness Sleep enable Sleep after a delay time Brightness for after sleep time	Disable O Enable 15s Level (00%) Disable O Enable	
General System configuration Function configuration Button scene Light	Brightness Sleep enable Sleep after a delay time Brightness for after sleep time Display time	Disable O Enable 15s Level (00%) Disable O Enable	
General System configuration Function configuration Button scene Light Curtain Shortcut key	Brightness Sleep enable Sleep after a delay time Brightness for after sleep time Display time Display environment monitor enable	 Disable Enable Enable Disable Enable Disable Enable 	

(2) Link the time group address of KNX timer to the 8bytes Network datetime of the panel



🔞 Close Project 🛛 🌮 Unde	o 🐴 Redo	Reports 🔡 Workplace 🔹	Catalogs Diagnostics				
Topology *							∧ □ ×
🕨 Add Channels 🔹 🔀 Delete	🛨 Download	i 🔹 🌐 Info 🔹 👩 Reset 🧳 Unio	oad 👻 🚔 Print			Search	Q
Topology Backbone	• Number	* Name	Object Function	Description	Group Address	Length C R W T	U Data Type
🛅 Dynamic Folders	■‡ 5	Slave clock	Network datetime	Current Time	0/0/1	8 bytes C - W T L	J ^
1 New area	■2 6	Slave clock	Network date		1	3 bytes C - W T L	J /
 1.1 New line 	■2 7	Slave clock	Network time			3 bytes C - W T L	J
	■2 11	External temperature	Remote temperature for outdo	oor		2 bytes C - W T L	J
1.1.1 M/PTL35.1	■之 12	General	PM2.5			2 bytes C - W T -	
1.1.2 M/TM04.1	■之 13	General	CO2			2 bytes C - W T -	
	■2 14	General	TVOC			2 bytes C - W T -	
	2	Button 1 off scene 1	Call scene(1 byte)			1 byte C R W T L	
	-+	D	C-11			1 books C D W T I	· · · · · ·
	Parameter	Group Objects					
Topology 🔻							∧ □ ×
🕨 Add Channels 🔹 🔀 Delete	🛨 Download	i 💌 🕦 Info 🔹 💋 Reset 🧳 Unio	oad 👻 🚔 Print			Search	Q
Topology Backbone	•	Number * Name	Object Function	Descriptio	n Group Add	ress Length C R	W T U Data
📄 Dynamic Folders	1	Master clock	Send date time to bu	s Current Tim	e 0/0/1	8 bytes C R	- T U
1 New area							
1.1 New line							

(4) Right click the panel and the timer to download the application to the device. Open ETS diagnosis, directly write the current time to the timer's time group address, and the timer will keep running at the current time.

💩 Close Project 🧳 Undo 🥖	🔪 Redo 🛛 🚔 Rep	orts 🔡 Workp	olace 🔹 📗 Cat	alogs 🔤	Diagnostics							
Topology 🔻											^ □	×
🕂 Add Channels 🔹 🗙 Delete 🔰	Download 🔹 🕕 Ir	fo 🔹 👩 Reset 🧧	🖗 Unload 🔹 🚔	Print				Sea	arch			P
Topology Backbone 🔹	Number * Name			Object Fu	nction	Description	Group Address	Length	CR	νт	U Data Type	
	1 Master cloc	k		Send date t	ime to bus	Current Time	0/0/1	8 bytes	CR-	ΤU	J	
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- Monitor Group Monitor	Start Group Address	Stop 🥜 Clear	🗲 Open 🛛 🖵 S		nt 🗔 Replay Tel I date time 💌	egrams 💮 Options	Group Functions	Sea y time[sec]	arch 0		• □ ∎ 4 Write	2
		1001		type 2 19.00	nt 🕟 Replay Tel 1 date time 👻 12 023 171 039 01	2	Delay					<u> </u>
Group Monitor Bus Monitor	Group Address Last received va	1001	Data point	type 2 19.00	I date time 🔻	2	Delay e hex values Send	y time[sec] cyclically	0		4 Write	×
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Group Monitor Bus Monitor Diagnostics	Group Address Last received va	1 0 0 1	Data point Value 2022	type 2 19.00 122 0 year	1 date time 12 023 171 039 01 Seconds Fault: Norma	9 000 000 2 us 19 al (no fault) <i>y</i> : Bank Holiday (No wo	e hex values Send	y time[sec] cyclically Standard	0	er Time:	4 Write Read : Time = UT+	
Group Monitor Bus Monitor Diagnostics Device Info	Group Address Last received va	1 0 0 1 Vear Month	Data point Value 2022 12	type 2 19.00 122 0 year	I date time I 2 023 171 039 01 Seconds Fault: Norma Working Day	9 000 000 2 us 19 19 al (no fault) y: Bank Holiday (No wo field valid	e hex values Send	y time[sec] cyclically Standard	0	er Time:	4 Write Read : Time = UT+	
Group Monitor Bus Monitor Diagnostics Device Info - Individual Addresses	Group Address Last received va	1001 Year Month DayOfMonth DayOfWeek	Data point Value 2022 12 23	type 2 19.00 122 0 year month	I date time I dat	9 000 000 2 us 19 19 al (no fault) y: Bank Holiday (No wo field valid	e hex values Send s orking day)	y time[sec] cyclically Standard	0	er Time:	4 Write Read : Time = UT+	
Bus Monitor Diagnostics Device Info Individual Addresses Programming Mode	Group Address Last received va	1001 Year Month DayOfMonth DayOfWeek HourOfDay	Data point Value 2022 12 23 5	type 2 19.00 122 0 year	I date time I date time I dat	9 000 000 2 us 19 19 al (no fault) y: Bank Holiday (No wo field valid rr field valid	e hex values Send s rking day) i fields valid	y time[sec] cyclically Standard	0	er Time:	4 Write Read : Time = UT+	

4.2 Panel Controls Relay Light

The following example is KNX Tile Display panel controls relay A and relay B of M/R04.10.1 V1.2.



(1) In KNX Tile Display Light function, enable light 1 and light 2. And enable switch status of

light 1 and light 2 respectively.

拓計 *				1.1.1 M/PTL35.1 >> Light 1			
+ 增加频道 - 🗙 删除	붗 下載 🔹 🕜 報助 🌛 高売品	a示更改 默认参数 授权用户访问					
11 拓扑骨架	* 1.1.1 M/PTL35.1 > Light			General	Select type of light	Switch	•
🕨 🛅 动态文件夹		-		System configuration	Light label	Light 1	
4 11 新建分区	General	Enable light 1	Disable O Enable		Icon number	Ceiling lamp	•
▲ 日 1.1 新建支线 ■ 1.1.1 M/PTL35.1	System configuration	Enable light 2	🔵 Disable 🔘 Enable	Function configuration	Switch	Oisable O Enable	
1.1.2 M/TM04.1	Function configuration	Enable light 3	O Disable O Enable	Button scene	Switch status	Disable O Enable	
1.1.3 M/R4.10.1	Button scene	Enable light 4	O Disable C Enable	Light			
	Light	Enable light 5	Disable Enable Disable Enable	>Light 1			
	>Light 1	Enable light 7	Disable Enable	>Light 2			
	>Light 2	Enable light 8	O Disable C Enable	Curtain			
				Shortcut key			

(2) Create new group addresses for switches and switch status in channel A and B, and link them to lights 1 and 2 of the panel. In the topology view on the left, right-click the relay and the panel to select partial download.

皮 Close Project 🛛 🎻 Ur	ndo 🐴 Redo 🕼	Reports Workplace	 Catalogs Diagnostic 	`						
Topology 🔻										• • ×
🕂 Add Channels 🔹 🗙 Del	lete 🛨 Download 🔹	🔹 🕦 Info 🔹 💋 Reset 🧳 U	nload 🔹 🚔 Print			Se	arch			P
Topology Backbone	• Number * N	lame	Object Function	Description	Group Address	Length	C R	νт	U	Data Type
📁 Dynamic Folders	■ ‡ 11 Ex	ternal temperature	Remote temperature for	outdoor		2 bytes	с -	WΤ	U	
1 New area	■‡ 12 Ge	eneral	PM2.5			2 bytes	с -	W T	-	
E 1.1 New line	■‡ 13 Ge	eneral	CO2			2 bytes	C -	WΤ	-	
	■ ‡ 14 Ge	eneral	TVOC			2 bytes	с -	WΤ	-	
1.1.1 M/PTL35.1	■2 461 Lig	ght 1	Switch (1bit)	Relay A	0/0/2	1 bit	CR	WΤ	U	
1.1.2 M/TM04.1	■‡ 468 Lig	ght 1	Switch status(1bit)	Relay A Response	0/0/3	1 bit	CR	WT	U	
1.1.3 M/R4.10.1	■ ‡ 476 Lig	ght 2	Switch (1bit)	Relay B	0/0/4	1 bit	CR	WΤ	U	
								111 T		
	 483 Lig ✓ Parameter 	ght 2 Group Objects	Switch status(1bit)	Relay B Response	0/0/5	1 bit	CR	WI	0	,
Topology ▼	• Parameter	Group Objects		Kelay B Kesponse	0/0/5			W I		, <u> </u>
🕨 Add Channels 👻 🗙 Del	Parameter	Group Objects	nload 👻 🚔 Print			Se	arch			∧ □ ×
🕨 Add Channels 👻 🗙 Del	Parameter Parameter	Group Objects /	nload • 🚔 Print Object Functio	on Descripti	on Group Ad	Se	arch Lengt	h C F	2 W	∧ □ ×
Add Channels • X Del Topology Backbone	Parameter lete ★ Download ↓ ■ Nun ■ 2 10	Group Objects Group Objects Info • 🔊 Reset 🖑 U uber • Name Output A	nload • 🚔 Print Object Functio Channel output	on Descripti Relay A	on Group Ad 0/0/2	Se	arch Lengt 1 bit	h C F C -	2 W W -	► □ × ✓ □ × ✓ □ × ✓ □ × ✓ □ × ✓ □ × ✓ □ ×
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Add Channels • × Del Topology Backbone Dynamic Folders 1 New area		Group Objects Group Objects Compared Reset 4/2 U Compared Reset Control A Control A Control A Control A Control B Control B Control B Control B Control B Control B Control B	nload • 🚔 Print Object Functio Channel output Always respons Channel output	on Descripti Relay A e switch status Relay A Relay B	on Group Ad 0/0/2 sponse 0/0/3 0/0/4	Se	arch Lengt 1 bit	<mark>ьс</mark> ғ С- С-	2 W W - T W	TUData Uswitch Switch Uswitch
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Add Channels • X Del Topology Backbone Dynamic Folders 1 New area E 1.1 New line		Group Objects Group Objects Compared Reset 4/2 U Compared Reset Control A Control A Control A Control A Control B Control B Control B Control B Control B Control B Control B	nload • 🚔 Print Object Functio Channel output Always respons Channel output	n Descripti Relay A e switch status Relay A Relay B e switch status Relay B Re	on Group Ad 0/0/2 sponse 0/0/3 0/0/4	Se	arch Lengt 1 bit 1 bit 1 bit 1 bit	b C F C - C R C - C R C -	W - - 1 W - - 1 W -	TUData Uswitch Uswitch Uswitch Uswitch
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4.3 Panel Controls the Shutter Motor

The following example is the KNX Tile Display controls M/S0410.1 curtain opening and closing motor:



(1) After importing the database of curtain motor M/S04.1 to the project, Enable "Set/Reset limitation point via bus", "Moving automatically after short drag" and the status of open close and percentage

4 M/S410.1 > General			
General	Operation delay after recovered(1255s)	1	
Function page	Heartbeat telegram	Disable	
	Set/Reset limitation point via bus	O Disable O Enable	
	Moving automatically after short drag	Oisable O Enable	
	Enable/Disable short drag function via bus	O Disable C Enable	
	Running direction	O Forward O Backward	
	Report opened/closed state after opened/closed	'0'-open,'1'-close	
	Report stop state after stopped	Report '1'	
	Report percentage state after finished change percentage	O Disable O Enable	

(2) Pull the curtain to the closed position, send a value of 0 and then 1 to reset limit point

group address, wait for the motor to shake and complete a journey

Topology Backbone	*	Number *	Name	Object Function	Description	C Unlink							
Dynamic Folders	= #	1	System function	'0'-open,'1'-close	Curtain Open/Close	1/							
I New area	=2	2	System function Inactive is	172911-1920	Curtain Stop	1/ Read Value							
▲ E 1.1 New line	# #	3	System function	Percentage set	Inactive	Write Value							1
	=7	6	Limitation point set Active is v	'1'-set open limitation	indetive	Write value							
1.1.1 M/PTL35.1	# 2	7	Limitation point set ACLIVE IS V	C te dos limitation	Active	Set Sending							
1.1.2 M/TM04.1	=2	8	Reset limitation point	'1'-reset limitation	Keset Limitation Point	1/0/0	JIC I	L	-	VV	-	U state	
1.1.3 M/R4.10.1	.	10	Open/close state report	'0'-open,'1'-close	Curtain Open/Close Sta	. 1/0/3	1 bit	С	R	-	Т	open/clo	se
1.1.4 M/S410.1	. ‡	11	Stop state report	'1'-stop	Curtain Sop Status	1/0/4	1 bit	С	R	-	T	- step	
-	.	12	Percentage state report	Percentage	Curtain % Status	1/0/5	1 byte	С	R	-	Т	percenta	ge (01

(3) Set enable curtain 1 on the panel curtain, and enable open/close status, stop status

and percentage status on curtain 1

M/PTL35.1 > Curtain			1.1.1 M/PTL35.1 >>Curtair	11		
General	Enable curtain 1	🔵 Disable 🔘 Enable	General	Select type of curtain	Curtain	-
System configuration	Enable curtain 2	O Disable O Enable	System configuration	Curtain label	Curtain 1	
	Enable curtain 3	O Disable O Enable	Function configuration	Open/close	O Disable O Enable	
unction configuration	Enable curtain 4	O Disable C Enable	Button scene	Open/close control value	O''-Open '1'-Close '1'-Open '0'-Close	
utton scene	Enable Curtain 4	Ulsable Enable		Stop	O Disable O Enable	
	Enable curtain 5	Disable Enable	Light	Percentage control	O Disable O Enable	
light	Enable curtain 6	O Disable C Enable	>Light 1	Status of open/close	Disable O Enable	
->Light 1	Enable curtain 7	O Disable O Enable	>Light 2	Status of open/close value	O'-Open '1'-Close '1'-Open '0'-Close	
			Curtain	Status of stop	🔵 Disable 🥥 Enable	
->Light 2	Enable curtain 8	Disable Enable		Status of percentage	Disable O Enable	
Curtain			>Curtain 1			
			Shortcut key			
>Curtain 1						
Shortcut key						



(4) Create group addresses of open limit point, close limit point and reset limit point in the M/S04.1 curtain motor. Then create new group addresses of open/close, stop, percentage and their feedback and link them to the corresponding objects on the panel. In the topology view, right-click to select the motor and panel respectively, and select to download some applications to the device.

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opology 🔻											^ □	×
• Add Channels • 🔀 Dele	ete 🛨 Download 🔹	🕦 Info 🔹 👩 Reset 🧳 Unload	• 🚔 Print				S	earch				ρ
Topology Backbone	• Number * Na	ame	Object Function	Description	Group	Address	Length	n C F	w T	U	Data Ty	rpe
Dynamic Folders	■2 483 Lig	ht 2	Switch status(1bit)	Relay B Response	0/0/5		1 bit	C R	W T	U		-
1 New area	1 761 Cur	rtain 1	Open/close	Curtain Open/Close	1/0/0		1 bit	C R	WΤ	U		
E 1.1 New line	1 762 Cur	rtain 1	Stop	Curtain Stop	1/0/1		1 bit	C R	W T	U		
		rtain 1	Percentage	Curtain %	1/0/2		1 byte	C R	WΤ	U		
	764 Cur	rtain 1	Open/close status	Curtain Open/Close Sta.	1/0/3		1 bit	CR	W T	U		
1.1.1 M/PTL35.1	€ /64 Cu											
		rtain 1	Stop status	Curtain Sop Status	1/0/4		1 bit	C R	W T	U		
 1.1.2 M/TM04.1 1.1.3 M/R4.10.1 1.1.4 M/S410.1 	₹765 Cu		Stop status Percentage status	Curtain Sop Status Curtain % Status	1/0/4 1/0/5		1 bit 1 byte				~ □	, ,
 1.1.2 M/TM04.1 1.1.3 M/R4.10.1 1.1.4 M/S410.1 appology * 	1⊉765 Cur 1⊉766 Cur 1∢ Parameter	rtain 1 rtain 1	Percentage status				1 byte				^ D	, ×
	tz 765 Cur tz 766 Cur Parameter te ★ Download ▼	rtain 1 train 1 Group Objects	Percentage status			Group Addres	1 byte	C R	WT	U	^ □	P
	tz 765 Cur tz 766 Cur Parameter te ★ Download ▼	rtain 1 Group Objects	Percentage status ▼	Curtain % Status	1/0/5		1 byte	C R	W T	U R W		्र⊃ Data
	t⊉765 Cur t⊉766 Cur e Parameter ∕ te ⊉ Download • • Num	rtain 1 Group Objects Info • 🔊 Reset 🔗 Unload ber 🛉 Name	Percentage status Print Object Function	Curtain % Status Description	1/0/5	Group Addres	1 byte	C R earch Leng	WT	U R W W	/ T U	Data Open/c
	te ★ Download +	ttain 1 Group Objects Info • 2 Reset & Unload ber Name System function	Percentage status Print Object Function O'-open,1"-close	Curtain % Status Description Curtain Open/C	1/0/5 Close	Group Addres	1 byte	C R earch Leng 1 bit	W T th C C -	U R W W W	/TU -U	Data Open/c step
	te € Download + * * * * * * * * * * * * *	rtain 1 train 1 Group Objects Info • ⑦ Reset % Unload ber Name System function System function	Percentage status Print Object Function '0'-open,'1'-close Stop (0'/1'-stop)	Curtain % Status Description Curtain Open/C Curtain Stop	1/0/5 Close	Group Address 1/0/0 1/0/1	1 byte	C R earch Leng 1 bit 1 bit	W T th C C - C -	U R W W W	/ T U - U - U	Data open/c step percen
	1/765 Cur 1/766 Cur Parameter Parameter 1 1 2 Download 1 2 2 3 2 4 2 3 2 4	rtain 1 Group Objects Info * Reset Unload ber Name System function System function System function	Percentage status Object Function '0'-open,''-close Stop (0'/'1-stop) Percentage set	Curtain % Status Description Curtain Open/C Curtain Stop	1/0/5 Close	Group Address 1/0/0 1/0/1	1 byte	C R earch Leng 1 bit 1 bit 1 bit 1 byte	W T th C C - C - C -	R W W W W	/ T U - U - U	Data open/c step percen state
	te	rtain 1 tain 1 Group Objects Info ~ ⑦ Reset % Unload ber Name System function System function System function Limitation point set Limitation point set Reset limitation point set Reset limitation point	Percentage status Print Object Function '0'-open,'1'-close Stop (0'/1'-stop) Percentage set '1'-set open limitation '1'-reset limitation '1'-reset limitation	Curtain % Status Description Curtain Open/C Curtain Stop Curtain % Reset Limitation	1/0/5 Close	Group Address 1/0/0 1/0/1 1/0/2 1/0/6	1 byte	C R earch Leng 1 bit 1 bit 1 byte 1 bit	W T C - C - C - C - C - C -	R W W W W W W	/ T U - U - U - U - U - U - U	Data open/c step percen state state state
	1 765 Cur 1 766 Cur 2 Parameter / te ▲ Download + #1 #1 #1 #1 #2 #2 #2 #2 #3 #2 #3 #2 #3 #3 #3 #3 #4 #3 #3 #3 #3 #4 5 #3 #4 10 #4 10	rtain 1 tain 1 Group Objects Info * Reset Unload ber Name System function System function System function Limitation point set Limitation point set Reset Imitation point Open/close state report	Percentage status	Curtain % Status	1/0/5 Close	Group Addres 1/0/0 1/0/1 1/0/2 1/0/6 1/0/3	1 byte	C R earch Leng 1 bit 1 bit 1 bit 1 bit 1 bit 1 bit 1 bit 1 bit	th C C - C - C - C - C - C - C -	R W W W W W W W W	/ T U - U - U - U - U - U - U T -	Data open/c step percen state state state open/c
	te	rtain 1 tain 1 Group Objects Info ~ ⑦ Reset % Unload ber Name System function System function System function Limitation point set Limitation point set Reset limitation point set Reset limitation point	Percentage status Print Object Function '0'-open,'1'-close Stop (0'/1'-stop) Percentage set '1'-set open limitation '1'-reset limitation '1'-reset limitation	Curtain % Status Description Curtain Open/C Curtain Stop Curtain % Reset Limitation	1/0/5 Close	Group Address 1/0/0 1/0/1 1/0/2 1/0/6	1 byte	C R earch Leng 1 bit 1 bit 1 bit 1 bit 1 bit 1 bit 1 bit 1 bit 1 bit	W T th C C - C - C - C - C - C - C - C - C - C	R W W W W W W W W W W K T T T	/ T U - U - U - U - U - U - U	Data open/c step percen state state state open/c step

5 Firmware Upgrade

5.1 Online Upgrade

(1) Run the HDL KNX Assistant Software. Go to Setting-> Communication mode, select the available interface. If it's the USB downloader, please select the "USB" type. If it's the KNX IP router, please select "KNXnet/IP" type and corresponding IP interface. Then click "Test". After it shows OK, select "Apply".



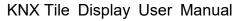
B HDL KNX Assistant Software V1.1-80

	🖸 🔶 🗶	-		
ting	Link Gateway Add device Clear device	Edit device	ETS Connection Manager	>
ice infe ex	formation	×	Configured Connections	Properties Name: M/GWASC.1
	Select communication interface:	Config interface -	USB	Lype: KNXnet/IP
	M/GWASC.1	 Local address 		✓ Standard connection
	Test	Apply	-	Communication parameters
	1.1.170	M/DLP04.1(V1.1)		KNXneti P device: <u>R</u> escan
	1.1.19	M/DALI.1(V1.2)		'(P)' indicates programming mode active
	1.1.2	M/DALI.1(V1.2)		HDL KNXnet/IP Device (192.168.10.9)
	1.1.24	M/MPTLC43.1(V1	0)	MAC addr.:
	1.1.3	M/DLP04.1(V1.0)		Name: HDL KNXnet/IP Device
	1.1.33	M/IRAC.1-C(V1.1)		IP address: 192168.10.9
	1.1.4	M/MPT14.1(V1.0)		
	1.1.5	M/DALI.1(V1.2)		Port: 3671 NAI mode
	1.1.6	M/DALI.1(V1.2)	<u>N</u> ew <u>D</u> elete	KNXnet/IP Diagnostic Wizard
	1.1.61	M/IRAC.1-C(V1.1)		
	1.1.62	M/IRAC.1(V1.1)		OK Cancel
	1.1.63	M/IRAC.1(V1.1)	群达	

(2) Go to Setting->Upgrade Device, fill the physical address of M/PTL35.1, and read the information. Wait for a while, it will display the product ID, product type, firmware version and CPU description.

	🖳 Upgrade devi	ice							- 🗆 ×	<
PB	Device address:	1 .	1 🔹 . 6	÷ 2 _{Read}	device information	n	Online check device version	rsion	O No check	
Link Gatew	Select file:						Open	file	Upgrade	
3	Device information Product ID: Product type: Firmware version	0	ware)		P	pgrade file information(New f roduct ID: 0 roduct type: rmware version: 0	irmware)			
	CPU description:	i			c	PU description:				
	Device address	Product ID	Product type	CPU	Upgrade status	Upgrade file path	Version ch	ange	Upgrade time	7
	1.1.48				升级成功	C:\Users\wwwhw\Desktop	FW_MCE		2022-9-29 11:28:37	
	1.1.48	1261	MCEIB.123456	ST32F103RCT6	升级成功	C:\Users\wwwhw\Desktop	VFW_MCE 02.00-01>	>2	2022-9-29 10:14:56	
	Clear list		Use time: 0(5)	C) Standard frame	Extended frame			_

(3) According to the CPU description (this is hardware version), for example, it shows the APM32F103RCT6, open file and select firmware select FW_M-PTL35.1_V1.0-43_220810_APM32F103RCT6_E23-B0.bin (You can ask HDL Support to get the suitable firmware), then select "No check" and "Extended frame" to start the upgrade (Notes: if the interface brand is HDL, select the "Extended frame"; if the interface brand is not HDL, select the "Standard frame").





HDL KNX Assistant S	🛃 Upgrade dev	ice							- 0	× - 0
× 🖻	Device address:	1 1 🔹 .	1 🔹 . 6	Read	d device information		Online ch	eck device version	3 No check	1
etting Link Gatew evice information	Select file:			HDL产品/KNX/HC	DL-KNX Database and	Manual-update10\KNX	-PanelController	2 Open file	5 Upgrade	<u> </u>
dex	Device address	Product ID	Product type	CPU	Upgrade status	Upgrade file path		Version change	Upgrade time	_
	1.1.48	1			升级成功	C:\Users\wwwhw\De	esktop\FW_MCE		2022-9-29 11:28:37	
	1.1.48	1261	MCEIB.12345	6 ST32F103RCT6	升级成功	C:\Users\wwwhw\De	esktop\FW MCE	02.00-01>>>2	2022-9-29 10:14:56	
					1					
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2										-
I										
	Clear list		Use time: 0	(S)	0	Standard frame	4 Extended	frame		
	Auto check	on boot mode a	ddress	Read m	ode	To APP		To Boot		

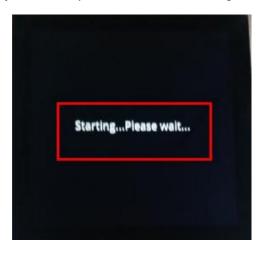
(4) After the upgrade progress runs to 100% and it shows "upgrade successfully", you can fill the physical address of M/PTL35.1 and read information to make sure whether the firmware version is correct. Then go to ETS5 to select the panel, right click and select "Download the application" to download data to panel again.

5.2 Manually Upgrade

If you do not know the physical address of M/PTL35.1 or the online upgrade is failed, you can follow below to access the manually upgrade mode of M/PTL35.1 and start the upgrade:

(1) Repower on the panel (remove the panel from the power supply interface and connect it

back to the power supply interface), it will show "Starting... Please wait..." as below.





(2) At this time, please press and hold the LCD screen, it will show whether to upgrade the panel firmware. Then select "Confirm" to access the manually upgrade mode of M/PTL35.1.



(3) In KNX Assistant software, refer to the 1st step to 2nd step of section 5.1 Online upgrade, make sure the interface can be working. Then go to Setting->Upgrade device, click "Auto check on boot mode", it will show the physical address of M/PTL35.1, add the correct firmware, select "No check" and "Extended frame" to start the upgrade.

	🔡 Upgrade dev	ice							\times
5	Device address:	1 🔹	1 🔹 . 6	Read	device information	 Online ch 	eck device version	No check	k
ting Link Gatew ce information	Select file:	C:\Users\v	/wwhw\Desktop\H	HDL产品\KNX\HD	L-KNX Database and	Manual-update10\KNX-PanelController	Open file	Upgrade	
x	Device address	Product ID	Product type	CPU	Upgrade status	Upgrade file path	Version change	Upgrade time	
	1.1.48				升级成功	C:\Users\wwwhw\Desktop\FW_MCE		2022-9-29 11:28:37	
	1.1.48	1261	MCEIB.123456	ST32F103RCT6	升级成功	C:\Users\wwwhw\Desktop\FW_MCE	02.00-01>>>2	2022-9-29 10:14:56	
					22	×			
	1				Address list				
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	Clear list		Use time/ O(S	;)	0	Standard frame	Iframe		

(4) After the upgrade is successfully, go to ETS5 to select the panel, right click and select

"Download the application" to download data to panel again