TANTRON®

Guangzhou Tantron Electronics Co., Ltd

User Manual

T/N TC26L

TTG® 2.6`

Home and building automation control

Tantron KNX 2.6'' touch panel

Products   Programming   Monitoring

About Version

Version	Revision description	Revised by	Date
V1.0	First draft	Zheng Liru	20190710
V1.1	Add 2 parameters for the curtain; add a stop button; modify the description of the air-conditioning function database;	Zheng Liru	20190802
V2.0	Added RGB dimming, fresh air, floor heating, Time, Alarm, Character display and other functions	Zheng Liru	20200427
V3.0	Added Data value display, RGB dimming object length option, Thermostat temperature type optional (current/set), fan coil function added 2-step and PWM control	Zheng Liru	20210607
V4.0	Database authentication modification	Zheng Liru	20210729

Content

1.Summary

This manual provides you with technical information about the touch panel, as well as a detailed function introduction. The panel is an integral application module, suitable for installation in a flush-mounted box that complies with BS 4662:2006A1:2009.

The program tool software ETS5 can be used and operated in this system.

2.Technical performance

2.1 Technical Information

The following are some technical parameters of the touch panel:

✦   Working voltage: 21-30V DC powered by KNX bus

✦   Current consumption: <21mA@30V DC

✦   Screen display mode: LCD size: 2.6″ resolution: 320*240 dpi

✦   Operating temperature: -15℃~45℃ Storage temperature: -25℃~55℃

✦   Environmental humidity: ≤90% (excluding water vapor condensation)

✦   Appearance material/shell and color:

✦   Protection grade: IP20 (IP protection grade is according to EN60529 standard)

✦   Appearance size: 102*102*38mm

✦   Installation method: wall-mounted embedded

2.2 Appearance structure and installation drawing

Appearance
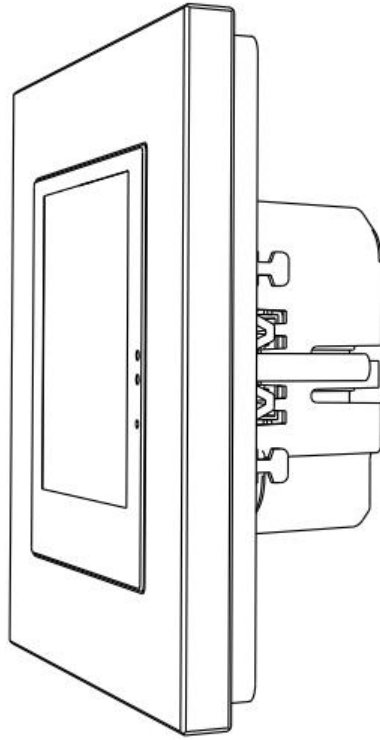
Appearance structure and size chart

102mm

102mm

38mm
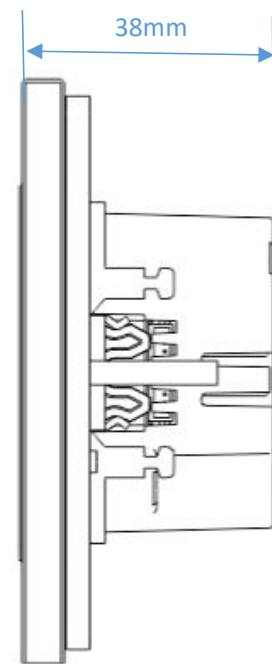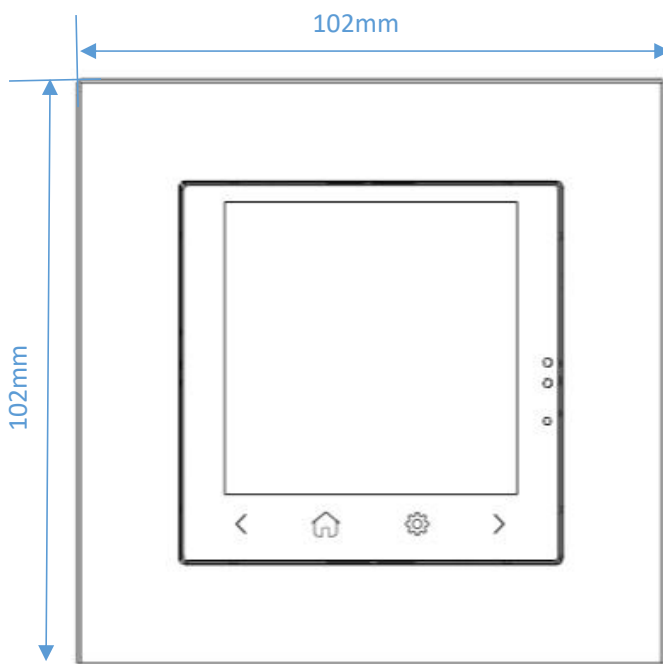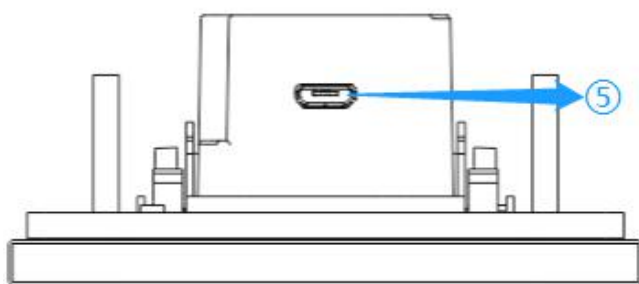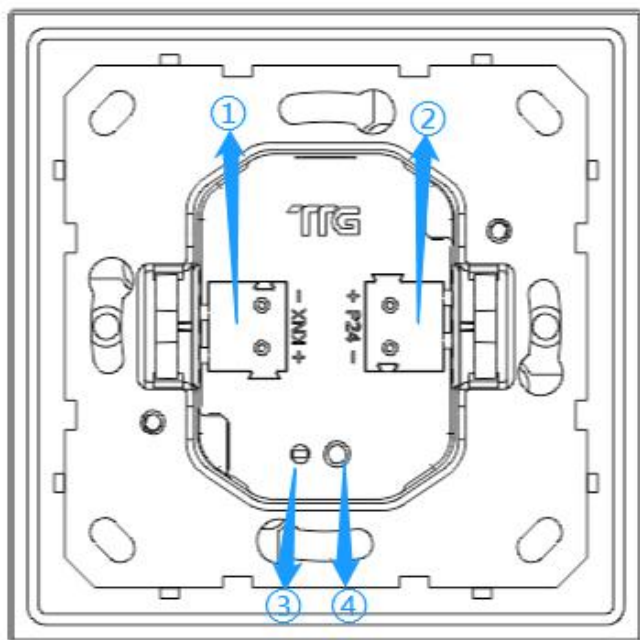
① KNX terminal block

② No

③ Indicator

④ Programming button

⑤ USB interface

Instructions
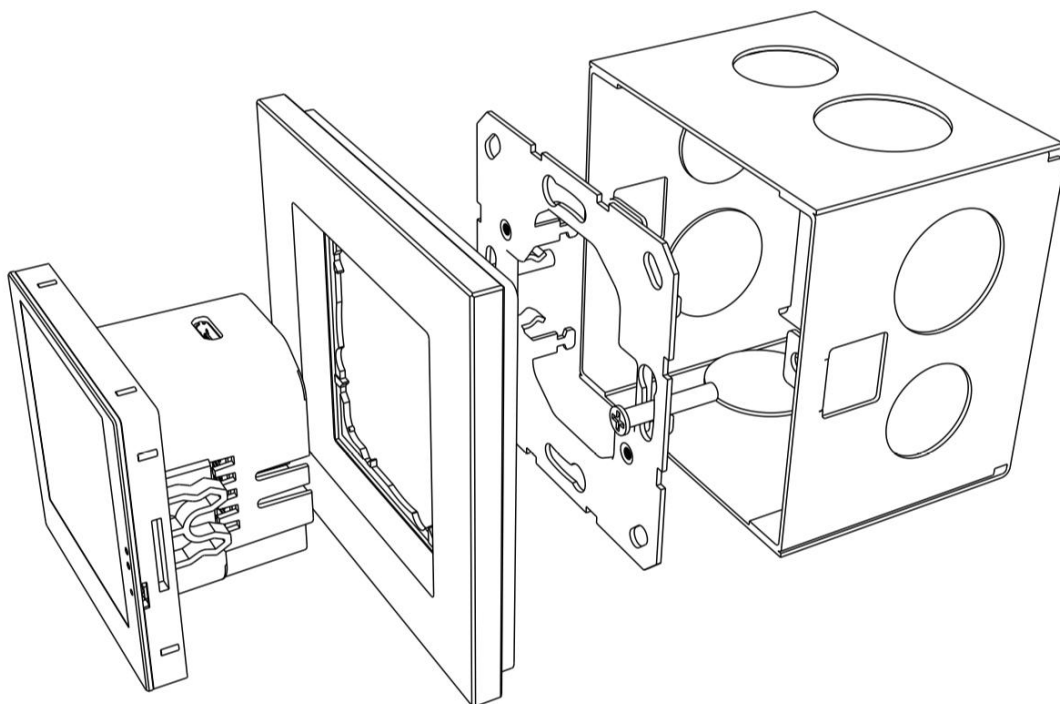
2.3 Update
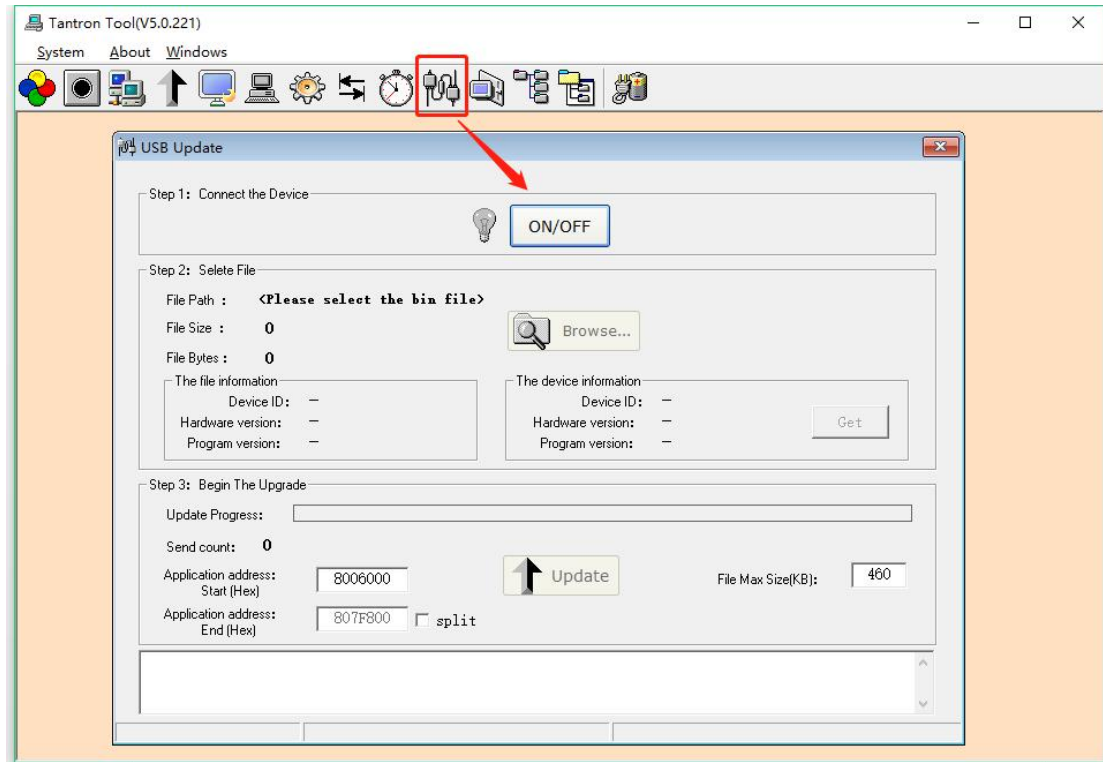
Step 1: Long press the panel programming button (or long press the "setting" on the panel, then programming operation page appears, long press "Updata program"), until the programming button flashes red, and the screen is black at the same time;

Step 2: Connect the panel and computer directly with a USB cable (you must enter the upgrade state before connecting to USB);

Step 3: Click the icon ⊞ on the menu bar of the software to open the "USB Update" window;

Step 4: Click the button ON/OFF to light up the icon 💡 to indicate that the device is connected;

Step 5: Click the button Browse... to open the upgrade file --bin file;

Step 6: Set "file max size (KB)", 480KB;

Step 7: Click ↑ Update to start the update process.

Remarks: 1. Parameters not mentioned do not need to be modified; 2. Click "get" to get the device information. You can upgrade only when the device information is consistent with the bin file information.

3. Functions

3.1 Overview

The specific functions of the touch panel are as follows:

-- Sleep function

- Laser inspection

- VRV air conditioning control

- Fan Coil air conditioning control

- Automatic dehumidification function

- Dimming: normal dimming, RGB dimming

-- curtain

-- Scenes

-- Opening and closing

- Temperature and humidity detection

- Temperature and humidity alarm

- VOC/PM25/PM10/CO/CO gas function

- Music function

- page jump

- Free combination of page icons

- Language switch

- OLED display brightness adjustment

- Floor heating

- Fresh air

- Text display

3.2 Parameter "General page"

Parameter "start the time delay after bus voltage recovery(0...255/s)"

This parameter sets the start-up delay time of the device.

Range: 0...255, unit: second

Parameter "Brightness of OLED is(1…100/%)"

This parameter sets the brightness value of the OLED screen.

Range: 1…100, unit:%

Parameter "Dimming time of OLED is, if it is switched on(1…10s)"

This parameter is used to set the dimming time of the OLED, that is, the time for the current state of the OLED to reach the target state.

Range: 1…10, unit: second

Parameter "volume of OLED is(1...100/%)"

This parameter sets the system volume.

Range: 1...100, unit:%

Note: The system volume is a backup function and cannot be used temporarily.

Parameter "Lock panel device by telegram"

This parameter sets whether to lock the device through the bus.

Options: inactive

       active

Select "active" to unlock the device through the bus. The communication object is "Lock device".

The communication object "Lock device" is sent 01 to lock the device through the bus, and the touch panel cannot be operated. Send 00 to unlock the device.

Parameter "Show action of key in telegram"

This parameter sets whether to display the state of the button through the message.

Options: Inactive

       Active

Select "active", the state of the button will be displayed through the message, the communication object is "Valid action of key", if the message of the communication object "Valid action of key" is 00, if a button is pressed, the communication object "Valid action of key" "key" sends data 01 means that there is a key press; if the message of the communication object "Valid action of key" is 01, if there is a key press, the communication object "Valid action of key" does not send data.

Parameter "Minimum interval of output telegram is(0=unlimited,1...170(unit:0.1s))"

This parameter sets the minimum interval for message output.

Range: 1...170, 0 means unlimited, unit: 0.1 second

Parameter "set the number of key pages"

This parameter is used to set the number of pages displayed on the panel.

Range: 1…10

Parameter "main page seeting"

Set which page among all pages of the panel is used as the home page.

Range: 1…10

Parameter "save data interval(1…255 unit:1min)"

This parameter acts on all functional modules with saving function and is used to set the saving time of data.

Range 1···255, unit: minute

Remarks: Add power-down save, the original interval save is still valid; when the interval time is up, all saved data will be saved once; all saved data will be saved once at the moment of power-off; if the last power-off save fails, the last one will be recalled Data saved at intervals; re-downloading the database will clear all saved data.

Parameter "temperature detection"

Whether to open the temperature detection function.

Options: Inactive

        Active

Select "Active" to turn on the temperature detection function. For the setting parameters of the temperature detection function, see "3.2.5 Parameter Setting Interface Temperature page"

Parameter "humidity detection"

Whether to enable the humidity detection function.

Options: Inactive

        Active

Select "Active" to turn on the humidity detection function. For the setting parameters of the humidity detection function, see "3.2.6 Parameter Setting Interface humidity page"

Parameter "sleep function"

Whether to enable the sleep function.

Options: inactive

        Active

Select "Active" to turn on the sleep function. For the setting parameters of the sleep function, see "3.2.1 Parameter Setting Interface Sleep page"

Parameter "laser detection function"

Whether to activate the laser detection function.

Options: inactive

        active

Select "Active" to activate the laser detection function. For the setting parameters of the laser detection function, please refer to "3.2.2 Parameter Setting Interface Laser detection"

Parameter "Thermostat function"

Whether to turn on the air conditioning adjustment function.

Options: inactive

active

Select "Active" to turn on the air conditioning adjustment function. For the setting parameters of the air conditioning adjustment function, see "3.2.3 Parameter Setting Interface Thermostat"

Parameter "music function"

Whether to turn on the music function.

Options: inactive

active

Select "Active" to turn on the music function. For the setting parameters of the music function, see "3.2.4 Parameter Setting Interface Music page".

Parameter "floor heating function"

Whether to turn on the floor heating function.

Options: inactive

active

Select "Active" to turn on the floor heating function. For the setting parameters of the floor heating function, see "3.2.7 Parameter Setting Interface Floor Heating".

Parameter "fresh air function"

Whether to open the fresh air function.

Options: inactive

active

Select "Active" to turn on the fresh air function. For the setting parameters of the fresh air function, see "3.2.8 Parameter Setting Interface Fresh Air".

3.2.1 Parameter "Sleep page"
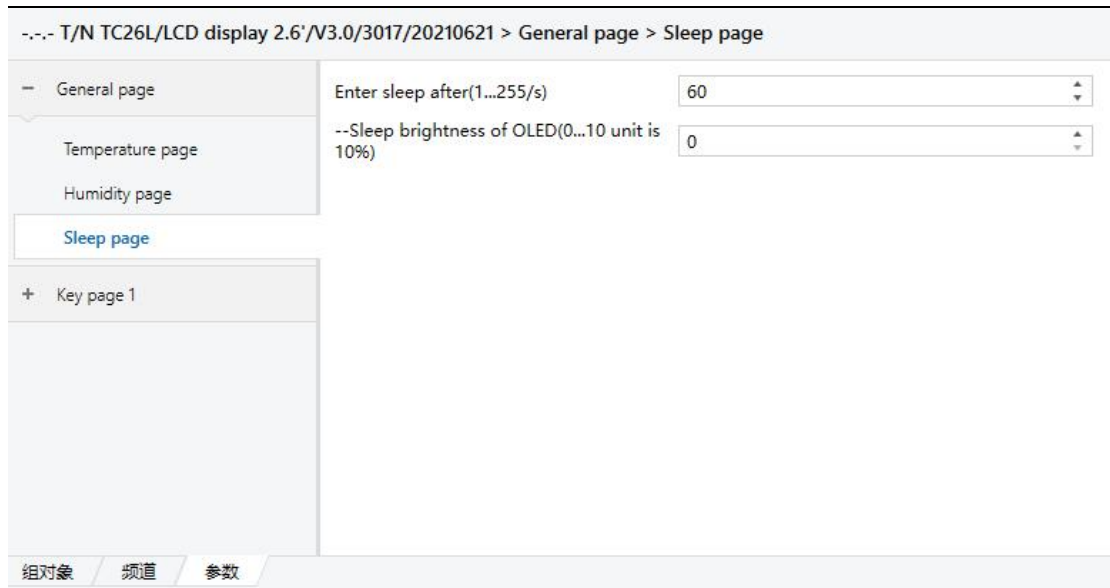
Parameter"enter sleep after(1…255/s)"

This parameter sets how long the device is idle to enter sleep mode.

Range: 1...255, time: seconds

Parameter"—sleep brightness of OLED(0…10 unit is 10%)"

This parameter sets the brightness value of the OLED in sleep mode.

Range: 0⋯10, 0 means full dark, 10 means full bright, unit: 10%

3.2.2 Parameter"Laser detection"
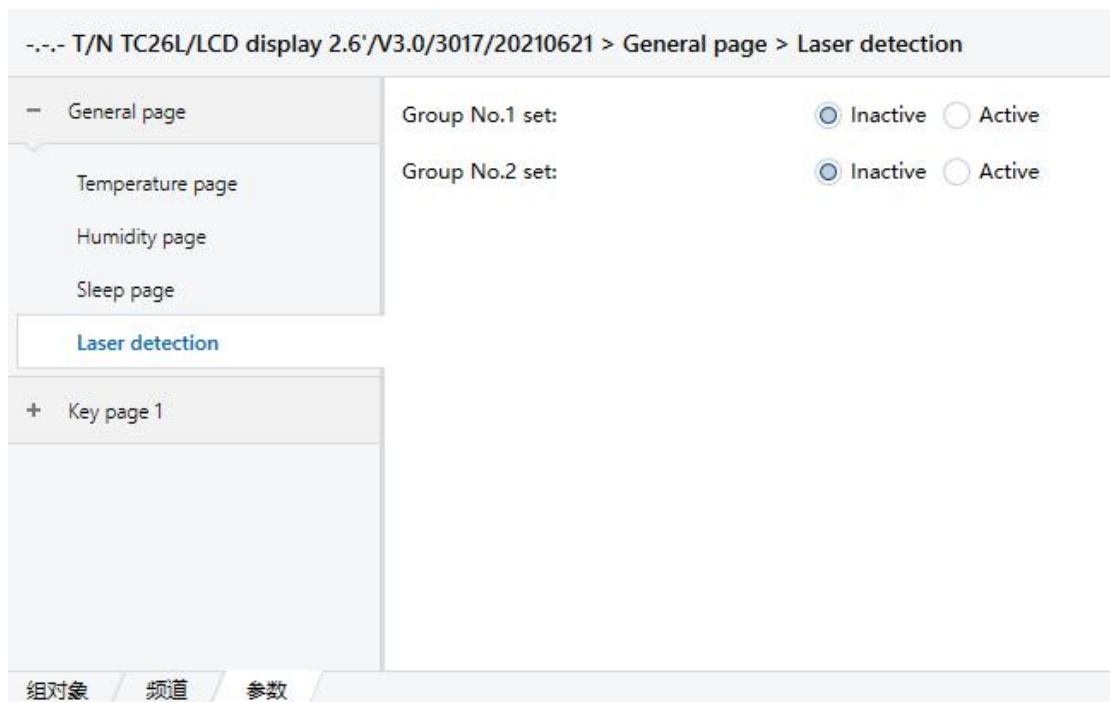
Parameter "Group No.1 set"

Whether to activate the first set of settings.

Options: inactive

        active

Select "Active" to activate the first group of settings for laser detection, and 5 new parameters will appear, as shown in the figure below:
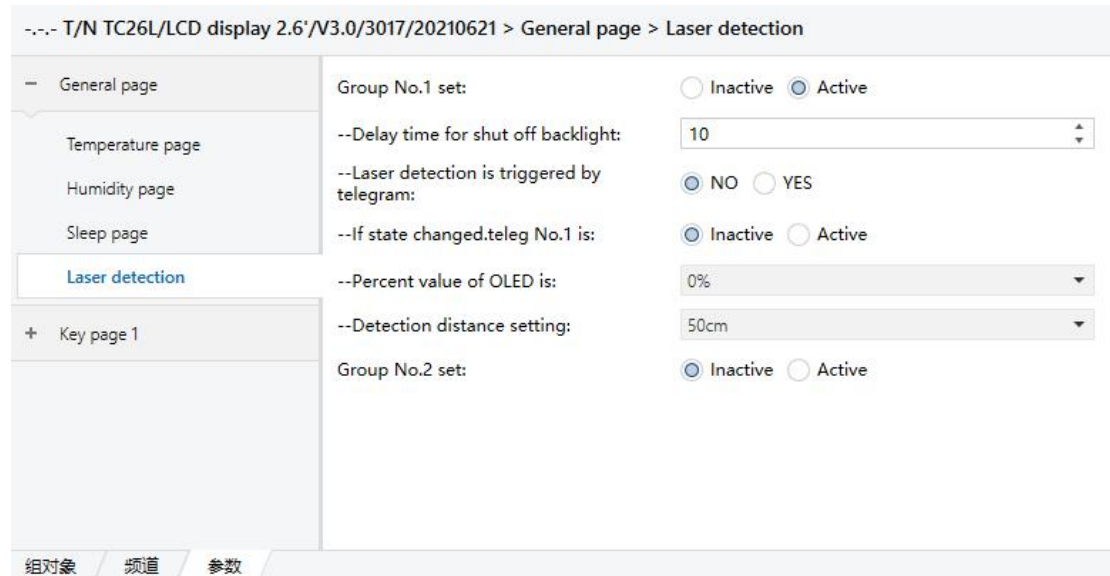
Parameter "—delay time for shut off backlight"

The parameter setting adjusts the delay time of the backlight. It works when the laser detection distance is 0.

Range: 0···255, unit: second

Parameter "laser detection is triggered by telegram"

Whether to trigger the laser detection function through the message.

Options: No

        Yes

Selecting "Yes" means that the laser detection function is allowed to be activated or disabled through a message, the communication object "Laser detection trigger No1" appears, and a new parameter appears, as shown in the following figure:
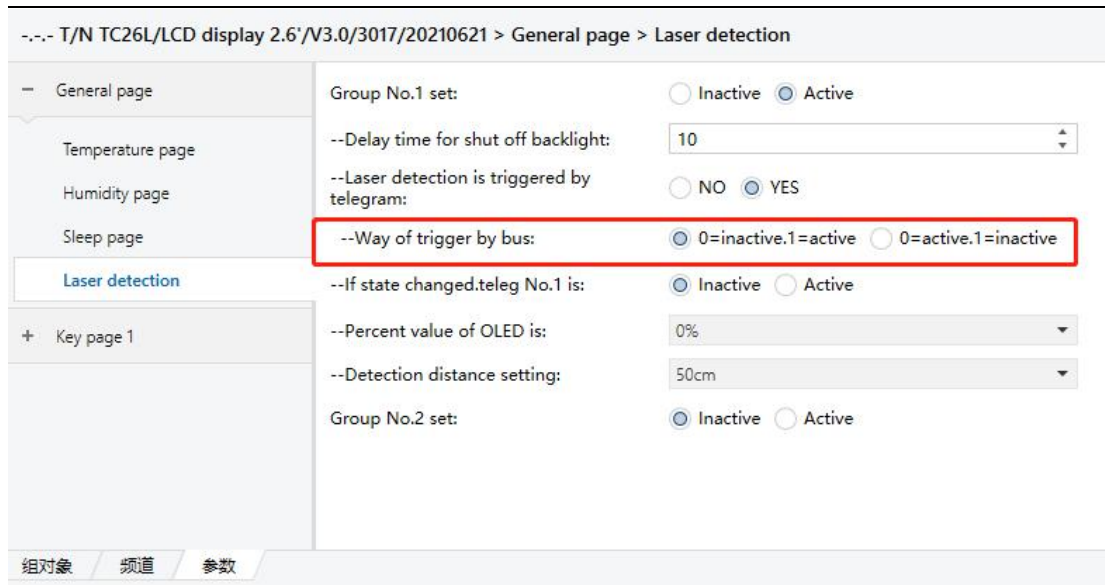
Parameter "—Way of trigger by bus"

This parameter sets the way the bus triggers the laser detection function.

Options: 0=inactive, 1=active

　　　　0=active,1=inactive

Select "0=inactive, 1=active", it means that the communication target "Trigger No.1" receives a message value of 0, and the laser detection function is disabled, and the laser detection function is activated when a message value of 1 is received;

Select "0=active,1=inactive", the opposite is true.

Trigger No1Status No1

Parameter "—if state changed, teleg No.1 is"

This parameter sets whether to report to the bus when the status of the backlight is changed.

Options: inactive

　　　　Active

Select "Active" and the communication object "Status No.1" appears. When the laser detects a person (detection distance is not 0), the communication object "Status No.1" sends message 1, and when the laser detection distance is 0, wait for parameters After the time set by "—delay time for shut off backlight" is over, adjust the backlight (the brightness of the backlight adjustment is set according to the parameter " — percent value of OLED is"), and at the same time, the communication object "Status No.1" is sent to the bus Message 0;

Select "inactive" to not activate the communication object.

Parameter "—delay time for shut off backlight"

When the laser detection distance is 0 and lasts for a period of time, adjust the brightness of the backlight, as to how much to reduce the brightness is set by this parameter.

Optional: 0%

　　　　10%

　　　　…

　　　　90%

16

100%

Choosing "0%" means to reduce the brightness of the backlight to 0, that is, completely dark;

...

Selecting "100%" means to maintain the current backlight brightness.

Parameter "—Detection distance setting"

This parameter sets the laser detection distance.

Optional: 10cm

20cm

...

100cm

More than 100cm

For example, selecting "50cm" means that the farthest distance that the laser can detect is 50cm. If no object is detected within 50cm, the detection distance will be displayed as 0; if "More than 100cm" is selected, the theoretically farthest detection distance can reach 150cm. , Affected by the environment.

Remarks: The second group of laser detection settings is similar to the first group and can be set according to the first group of parameters; the first group has a higher priority than the second group, that is, the two groups are activated at the same time, and the first group setting shall prevail; The sleep function and the laser detection function are activated at the same time, and the laser detection has a higher priority than the sleep function.

3.2.3 Parameter "Thermostat"
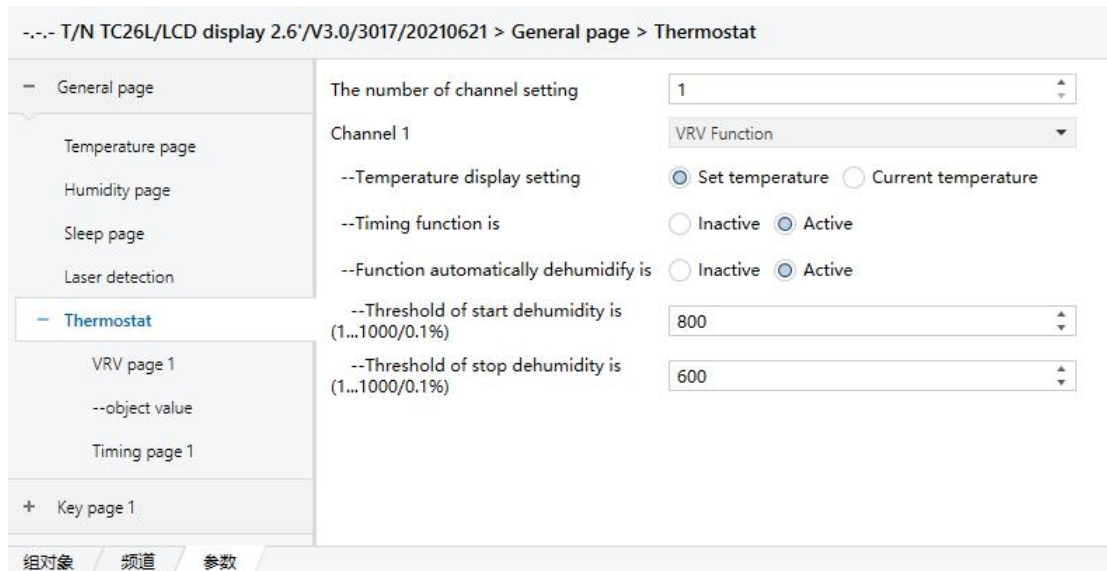
Parameter "The number of channel setting"

This parameter is used to set the number of air conditioning channels.

Range: 1···10

Parameter "Thermostat func set"

Set the air conditioning control mode.

Options: inactive

        VRV function

        Fan coil function

Select "VRV function" to indicate that the air-conditioning control mode is VRV mode, and the specific parameter settings can be seen in "3.2.3.1 Air-conditioning control mode VRV page";

Select "Fan coil function" to indicate that the air-conditioning control mode is fan-coil mode. For specific parameter settings, please refer to "3.2.3.2 Air-conditioning Control Mode Fancoil page".

Parameter "Temperature display setting"

Set the type of temperature displayed on the Thermostat control. There are two types to choose from: set temperature/current temperature.

Options: Set temperature

        Current temperature

Parameter "Timing function is"

This parameter sets whether to enable the timing function.

Options: inactive

        Active

Select "Active" to turn on the timing function. For the setting parameters of the timing function, see "3.2.3.3 Parameter Setting Interface Timing page".

Parameter "Function automatically dehumidity is"

Whether to turn on the automatic dehumidification function.

Options: Inactive

        Active

Select "Active" to turn on the automatic dehumidification function, and 2 setting parameters appear:

Parameter "—threshold of start dehumidity is(1…1000/0.1%)"

Parameter "—threshold of stop dehumidity is(1…1000/0.1%)"

These two parameters set the humidity value at which automatic dehumidification starts and the humidity at which automatic dehumidification ends. It can be modified by the objects "start threshold of dehumidity" and "stop threshold of dehumidity".

Range: 1…1000, unit: 0.1%

*Remarks: Automatic dehumidification process: write 00 to enable automatic dehumidification function through the communication object "Auto dehumidify status" (write 00 to enable automatic dehumidification, write 01 to exit automatic dehumidification), when the humidity exceeds the **parameter "Threshold of start dehumidify is (1...1000;unit is 0.1%)"** after setting the value to enter the automatic dehumidification function (if the mode is in non-dehumidification mode, it will enter the dehumidification mode; if the mode is in the dehumidification mode, it will maintain the original state), when the humidity is lower than After the **parameter "Threshold of stop dehumidify is (1...1000; unit is 0.1%)"** set the value, the automatic dehumidification function*

will be exited (after exiting the automatic dehumidification function, the air conditioner display state will be the state saved by the feedback object).

3.2.3.1 Air conditioning control mode "VRV page"

Remarks: The other channels of VRV air conditioner are the same as channel 1, please refer to the introduction of channel 1.
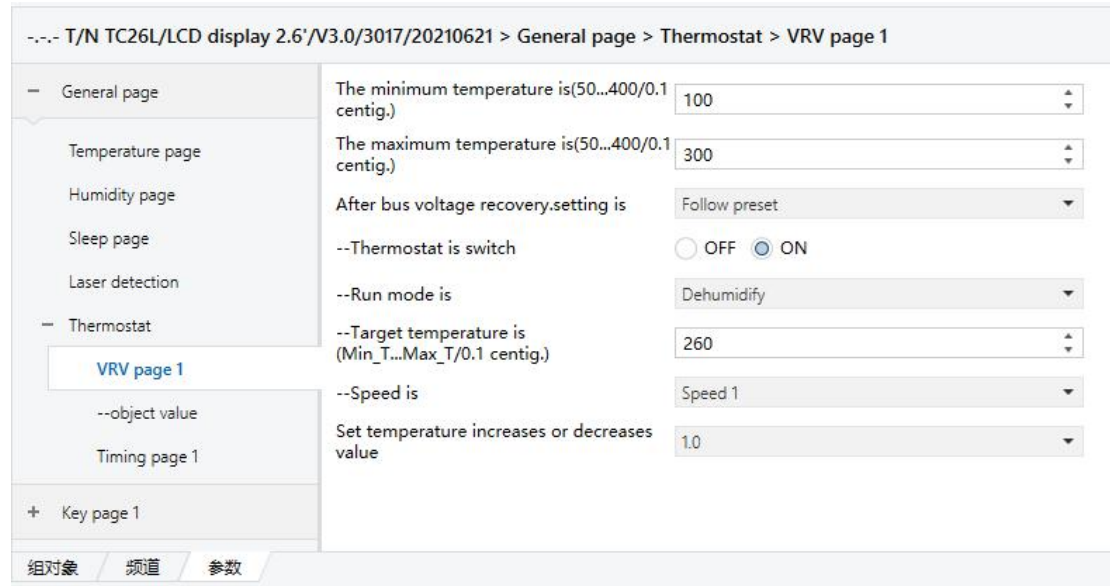
Parameter "The minimum temperature is"
Parameter "The maximum temperature is"
This parameter is used to set the minimum and maximum values　　of the air-conditioning temperature.
Range: 50···400, unit: 0.1℃

Parameter "After bus voltage recovery，setting is"
This parameter sets the state of the air conditioner after the device bus restores power.
Optional: follow preset
　　　　 readed from air-conditioner
　　　　 restored before power down
When "follow setting" is selected, the air conditioner will operate according to the preset state after the power supply of the device bus is restored, as shown in the figure above:

Parameter "--Air-conditioner is switch"
This parameter sets the on/off state of the air conditioner after the bus power is restored.
Options: off
　　　　 on
Select "off", the switch state of the air conditioner is off;
Select "on", the switch state of the air conditioner is on, and 3 setting parameters appear:

Parameter "--Run mode is"

The air conditioner preset operating mode.

Optional: dehumidifying

refrigeration

ventilation

Heating

They are dehumidification mode, cooling mode, ventilation mode, and heating mode.

Parameter "Target temperature is(Min_T...Max_T：unit is 0.1centing)"

This parameter sets the preset temperature of the air conditioner.

Range: within the range set by **Parameter "The minimum temperature is" and parameter "The maximum temperature** is", unit: 0.1℃

Parameter "Air speed is"

This parameter sets the preset wind speed of the air conditioner.

Options: Sleep 1

Sleep 2

Sleep 3

Sleep auto

Selecting "Sleep 1/2/3/auto" means that the wind speed when turning on the air conditioner is 1/2/3/auto.

Select "readed from air-conditioner", and the state of the air conditioner will be read from the air conditioner after the power supply of the device bus is restored. As shown below:
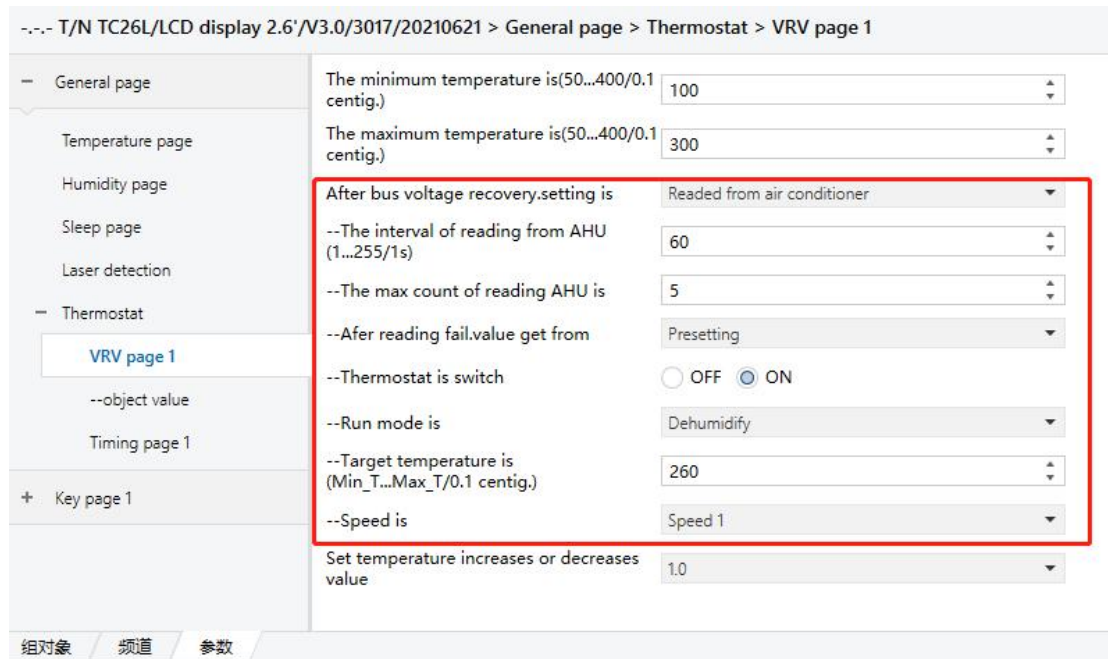
Parameter "--The interval of reading from AHU(1...255;unit is 1s)"

This parameter sets the time interval for reading the status from the air conditioner after the device

bus restores power.

Range: 1…255, unit: second

Parameter "The max count of reading AHU is"

This parameter sets the maximum number of times to read the status from the air conditioner after the device bus restores power.

Parameter "After reading fail，value get from"

This parameter sets the state of the air conditioner after the reading fails.

Options: none

       presetting

       restore before power down

Select "none" to indicate that the air conditioner will not be set after the reading fails;

Selecting "restore before power down" means that the state of the air conditioner after the reading fails is the state before the power down;

Selecting "presetting" means that the air conditioner will activate 4 parameters according to the preset state after the reading fails:

Parameter "--Air-conditioner is switch"

Parameter "--Run mode is"

Parameter "Target temperature is(Min_T...Max_T：unit is 0.1centing)"

Parameter "Air speed is"

After the reading of these 4 parameter settings fails, the on/off state, operating mode, set temperature, and wind speed of the air conditioner.

Select "restored before power down" to save the state of the air conditioner before power down after the power supply of the device bus is restored, and the state is read in the feedback object.

Parameter "set temperature increases or decreases value"

This parameter is used to set the increase or decrease of the set temperature through the touch screen.

Options: 0.1

       0.5

       1.0

3.2.3.1.1　Parameter "object value"

General page	Dehumidify mode active	○ Inactive ◉ Active
— General page		
Temperature page	--'Mode' object value(0...255)	0
Humidity page	--'Mode feedback' object value(0...255)	0
Sleep page	Cooling mode active	○ Inactive ◉ Active
Laser detection	--'Mode' object value(0...255)	1
— Thermostat	--'Mode feedback' object value(0...255)	1
VRV page 1	Ventilation mode active	○ Inactive ◉ Active
--object value	--'Mode' object value(0...255)	2
Timing page 1	--'Mode feedback' object value(0...255)	2
+ Key page 1	Heating mode active	○ Inactive ◉ Active
	--'Mode' object value(0...255)	3
	--'Mode feedback' object value(0...255)	3
	Speed 1 active	○ Inactive ◉ Active
	--'Speed' object value(0...255)	0
	--'Speed feedback' object value(0...255)	0
	Speed 2 active	○ Inactive ◉ Active
	--'Speed' object value(0...255)	1
	--'Speed feedback' object value(0...255)	1
	Speed 3 active	○ Inactive ◉ Active
	--'Speed' object value(0...255)	2
	--'Speed feedback' object value(0...255)	2
	Automatic speed active	○ Inactive ◉ Active
	--'Speed' object value(0...255)	3
	--'Speed feedback' object value(0...255)	3
	Object value'Switch ON/OFF'	◉ 0 = OFF:1 = ON ○ 0 = ON:1 = OFF
	Object value'Switch status feedback'	◉ 0 = OFF:1 = ON ○ 0 = ON:1 = OFF

组对象   频道   参数

Parameter "dehumidification/refrigeration/ventilation/heating mode active"

These parameters are used to disable or activate the dehumidification/cooling/ventilation/heating mode.

Options: inactive

        Active

Select "inactive" to deactivate, select "Active" to activate.

Parameter "— 'Mode' object value(0..255)"

The control value of the air-conditioning operation mode "dehumidification/cooling/ventilation/heating" can be modified by clicking the display screen, and the communication object "Mode" will send out the set value in the corresponding mode.

Range: 0···255

Parameter "—'Mode' feedback obiect value(0...255)"

The feedback value of the air conditioning mode "dehumidification/cooling/ventilation/heating", the communication object "Mode feedback" receives the corresponding message value and enters the corresponding mode.

Range: 0···255

Parameter "speed 1/2/3/auto active"

These parameters are used to disable or activate the wind speed.

Select "inactive" to deactivate, select "Active" to activate.

Parameter "— 'Speed' object value(0..255)"

The control value of air-conditioning wind speed "1/2/3/auto", by clicking on the display to modify the air-conditioning mode, the communication object "Speed" will send out the setting value of the corresponding wind speed.

Range: 0···255

参数 "—'Speed' feedback obiect value(0...255)"

The feedback value of the air-conditioning wind speed "1/2/3/auto", the communication object "Speed feedback" receives the corresponding message value and enters the corresponding wind speed.

Range: 0···255

Parameter "Object value 'Switch ON/OFF'"

The control value of the air conditioner switch.

Options: 0 = OFF; 1 = ON
       0 = ON; 1 = OFF

Select "0=OFF; 1=ON", the communication object "Switch ON/OFF" will emit 1 when the air conditioner is turned on by clicking on the display, and the communication object "Switch ON/OFF" will emit 0 when the air conditioner is turned off;

Select "0=ON; 1=OFF", which is the opposite of the previous one.

Parameter "Object value 'Switch status feedback'"

The feedback value of the air conditioner switch.

Options: 0 = OFF; 1 = ON
       0 = ON; 1 = OFF

Select "0=OFF; 1=ON", when the message received by the communication object "Switch status feedback" is 0, the air conditioner state is off, and when the message received is 1, the air conditioner state is on;

Select "0=ON; 1=OFF", the opposite is true.

3.2.3.2 Air conditioning control mode "Fancoil page"

Remarks: The other channels of the fan coil unit are the same as channel 1, please refer to the

introduction of channel 1.
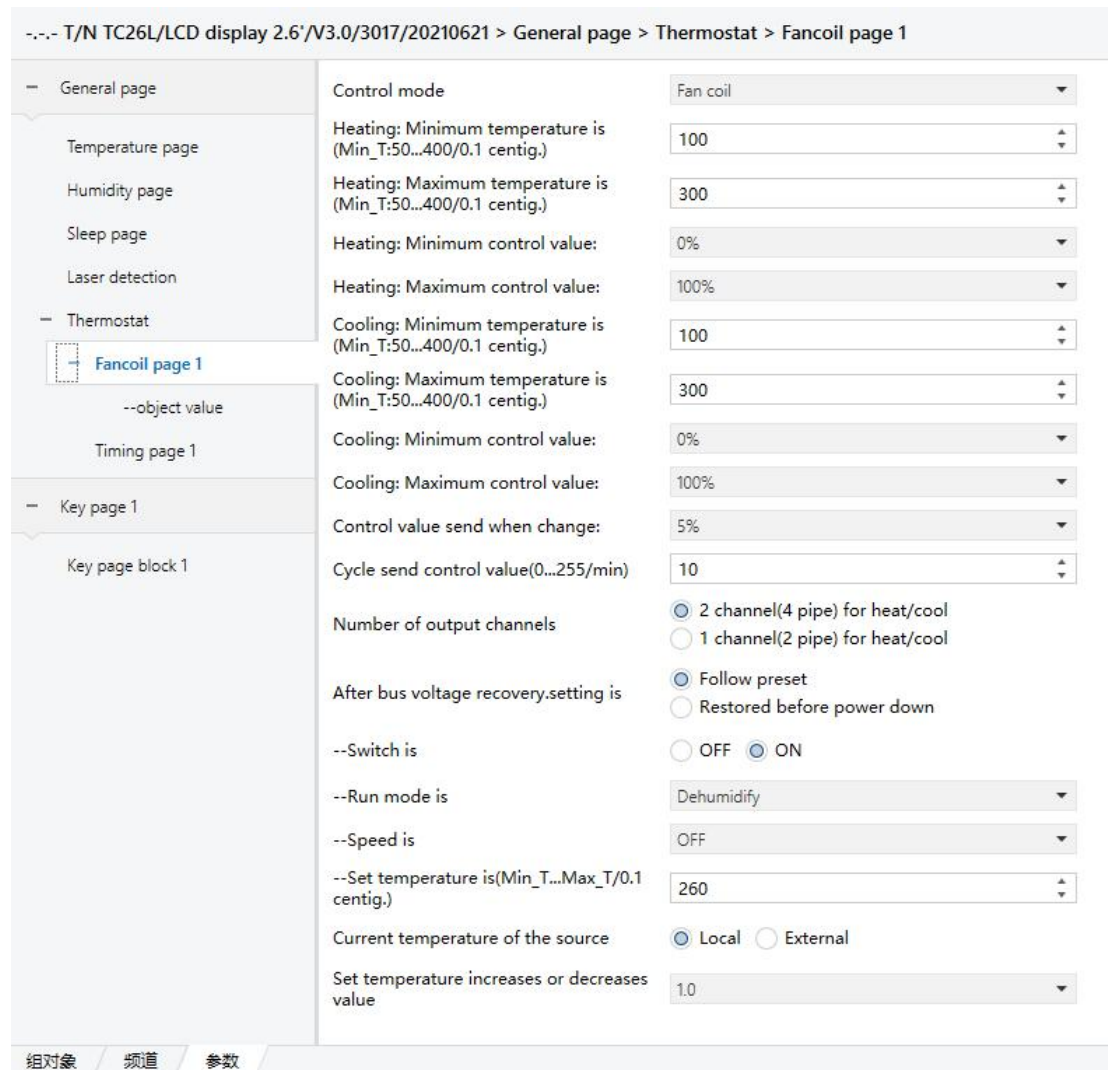
Parameter "Control mode"

This parameter sets the control mode of the fan-coil unit, including 2-point control, PWM control, and fan-coil unit control.

Options: 2 step

       PWM

       Fan coil

Select "2 step", the 2-point control has two output states, which can be switched according to the current temperature. As shown in the figure below, in heating mode, if the current temperature is higher than the set temperature (current temperature 22°C, set temperature 21°C), send the control value OFF to the bus. If the current temperature is lower than the set temperature (the current temperature is 20°C, the set temperature is 21°C), the control value ON is sent. As for the message 0 or 1 sent when the control value is ON, it is controlled by the parameter "'Control value' object set".

The 2-point control has a hysteresis, which changes around the set temperature to prevent rapid

oscillation of the output state.

Hysteresis can be set by the parameter "Hysteresis". For example, in the heating mode, the set temperature is 21°C and the hysteresis is 1K. When the temperature is lower than 20°C, the controller opens, and when the temperature exceeds 22°C, the controller closes. The hysteresis parameter depends on the rate at which heating increases the temperature of the room and the rate at which cooling decreases the temperature of the room, as well as the sensitivity to the temperature of the people in the room.

Hysteresis cannot be set too small, otherwise the switch actuator will frequently open and close. The hysteresis should not be too large, otherwise the indoor temperature will change too much.
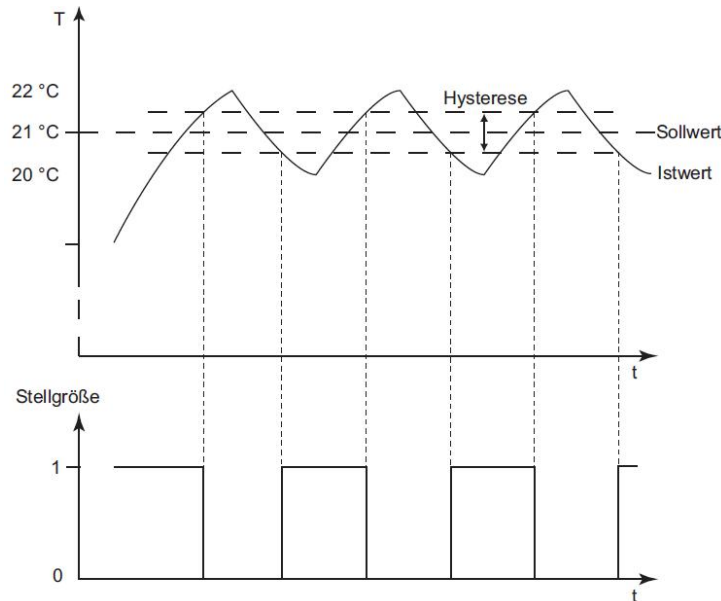
Select "PWM", PWM control is similar to Fan coil control. PWM control converts the 1byte control value (0...255) of Fan coil control into on/off ratio (0 and 1). For example, if the cycle time is 10 minutes, if the control output value is 70%, the on time is 7 minutes, and the off time is 3 minutes.

Note: 1) Calculation method of control value (K: set by parameter "Proportional range")

*Heating mode: control value = (set temperature-current temperature)/K*100%*

*Refrigeration/dehumidification mode: control value = (current temperature-set temperature)/K*100%*

Ventilation mode: both cold and heat control values   are 0, no need to calculate

The calculated control value is lower than the parameter "Minimum control value" setting value is 0%

The setting value higher than the parameter "Maximum control value" is fixed to this setting value

2) Calculation method of valve opening/closing time (T: set by parameter "Readjust time (10..255/min)")

*Turn on time=Control value*T*

Closing time = T-opening time

3) The set temperature is changed, and the control value calculation is performed again

The current temperature is changed, and the control value calculation is restarted when the period is up

Select "Fan coil", Fan coil control has a continuously changing control value, the value is between 0-100%. Use KNX to convert the control value signal to a value of 1 byte, that is, 0% of the control value corresponds to a value of 0, and 100% of the control value corresponds to a value of 255.

Note: The calculation method of the control value

*Heating mode: control value = (set temperature-current temperature)/1.6*100%*

*Refrigeration/dehumidification mode: control value = (current temperature-set temperature)/1.6*100%*

Ventilation mode: both cold and heat control values   are 0, no need to calculate

The calculated control value is lower than the parameter "Minimum control value" setting value is 0%

The setting value higher than the parameter "Maximum control value" is fixed to this setting value

Parameter "Heating/Cooling: Minimum temperature is(Min_T: 50...400; unit is 0.1centing)"

This parameter sets the minimum temperature value of the set temperature in heating/cooling mode.

Range: 50···400, unit: 0.1℃

Parameter "Heating/Cooling: Maximum temperature is(Min_T: 50...400; unit is 0.1centing)"

This parameter sets the maximum temperature value of the set temperature in heating/cooling mode.

Range: 50···400, unit: 0.1℃

Parameter "Heating/Cooling: Minimum control value"

This parameter is valid when the parameter "Control mode" selects "PWM/Fan coil", and is used to set the minimum control value in heating/cooling mode.

Optional: 0%

5%

10%

15%

20%

25%

30%

For example, selecting "5%" means that the minimum control value is 5%. If the actual control value is lower than 5%, 0% will be sent directly.

Parameter "Heating/Cooling: Maximum control value"

This parameter is valid when the parameter "Control mode" selects "PWM/Fan coil", and is used to set the maximum control value in heating/cooling mode.

Optional: 70%

75%

80%

85%

90%

95%

100%

For example, if "70%" is selected, the maximum control value in heating/cooling mode is 70%. If the actual control value is greater than 70%, only 70% can be issued.

Parameter "Control value send when change"

This parameter is valid when the parameter "Control mode" selects "Fan coil". When the control value change range is greater than the set range, the current control value will be sent to the bus.

Optional: 0%

1%

...

14%

15%

For example, select "5%", then when the control value change range is greater than 5%, the current control value can be sent to the bus.

Parameter "Cycle send control value（0...255/min）"

This parameter is valid when "Fan coil" is selected in the parameter "Control mode". This parameter sets the cycle of transmitting the control value to the bus.

Range: 0···255, unit: minute (0 does not work)

Parameter "Number of output channels"

This parameter sets the number of output pipes of the fan coil.

Options: 2 channel (4 pipe) for heat/cool

1 channel (2 pipe) for heat/cool

Select "2 channel (4 pipe) for heat/cool" and set the number of output pipes of the fan coil unit to 4 pipes, that is, the fan coil unit can have cooling and heating at the same time, and activate the two communication objects "Heating value" and " Refrigeration value";

Select "1 channel (2 pipe) for heat/cool", set the number of output channels of the fan coil to 2 pipes, then only one of the cooling and heating in the fan coil can exist, and the two communication objects "Control value" are activated , "Switch cooling/heating", when the mode is cooling, the communication object "Switch cooling/heating" will send 0 or 1, which is set by the parameter "Switch cooling/heating'object value'".

Parameter "After bus voltage recovery，setting is"

This parameter is used to set the status of the fan coil unit after the power supply of the device bus is restored.

Optional: follow preset

   restored before power down

Select "follow preset", the state of the fan coil unit is preset by the following 4 parameters after the power supply of the device bus is restored, as shown in the figure above:

Parameter〝--Switch is〞

This parameter sets the switch state of the fan coil unit.

Options: off

   on

Select "off", the switch state of the fan coil is off;

Select "on", the switch state of the fan coil is on.

Parameter〝--Run mode is〞

This parameter is used to set the operating mode of the fan coil unit.

Optional: dehumidifying

   refrigeration

   ventilation

   Heating

Select "dehumidifying", the operation mode of the fan coil is dehumidification;

Select "refrigeration", the operation mode of the fan coil unit is refrigeration;

Select "ventilation", the operation mode of the fan coil is ventilation;

Select "Heating", the operation mode of the fan coil is heating.

Parameter〝--Air speed is〞

This parameter is used to set the wind speed of the fan disc.

Options: off

   speed 1

   speed 2

   speed 3

   speed auto

Select "off" to indicate that the wind speed of the fan coil is off;

Select "speed 1" to indicate that the wind speed of the fan coil unit is 1st class wind;

Select "speed 2" to indicate that the wind speed of the fan coil unit is 2nd class wind;

Select "speed 3", which means that the wind speed of the fan coil is 3rd class wind;

Select "speed auto" to set the wind speed of the fan disc to automatic wind speed. This option only appears when the parameter "Control mode" is selected as "Fan coil".

Parameter "--Set temperature is(Min_T...Max_T：unit is 0.1centing)"

This parameter is used to set the set temperature of the fan coil.

Range: in **Parameter "Heating/Cooling: Minimum temperature is(Min_T: 50...400; unit is 0.1centing)" and Parameter "Heating/Cooling: Maximum temperature is(Min_T: 50...400; unit is 0.1centing))"** within the setting range, unit: 0.1℃

Select "restored before power down", the state of the fan coil unit will be saved as the state before power down after the power supply of the device bus is restored.

Parameter "Current temperature of the source"

This parameter is used to set the current temperature source.

Options: Local

   External

Selecting "local" means that the temperature uses the local device to detect the temperature;

Selecting "External" means that the temperature adopts the external temperature, and the parameter "External temperature" is activated.

Parameter "set temperature increases or decreases value"

This parameter is used to set the increase or decrease of the rated temperature through the touch screen.

Options: 0.1

   0.5

   1.0

3.2.3.2.1 Parameter "object value"

General page	
Temperature page	
Humidity page	
Sleep page	
Laser detection	
Thermostat	
Fancoil page 1	
--object value	
Timing page 1	
Key page 1	
Key page block 1	

Dehumidify mode active	○ Inactive ◉ Active
Cooling mode active	○ Inactive ◉ Active
Ventilation mode active	○ Inactive ◉ Active
Heating mode active	○ Inactive ◉ Active
Speed object set:	◉ 1 bit ○ 1 byte
Speed off active	○ Inactive ◉ Active
Speed 1 active	○ Inactive ◉ Active
Speed 2 active	○ Inactive ◉ Active
Speed 3 active	○ Inactive ◉ Active
Automatic speed active	○ Inactive ◉ Active
Threshold ON-> fan speed 1(1...100%)	10
Threshold ON-> fan speed 2(1...100%)	40
Threshold ON-> fan speed 3(1...100%)	70
Auto speed send object	◉ Manual/auto object ○ Speed object
Auto/manual speed set	◉ 0=manual.1=auto ○ 0=auto.1=manual
Remote control object	○ Inactive ◉ Active
--Object value'Remote control switch'	◉ 0 = OFF:1 = ON ○ 0 = ON:1 = OFF
--Object value'Remote control mode': --Dehumidify (0...255)	0
--Cooling (0...255)	1
--Ventilation (0...255)	2
--Heating (0...255)	3
--Object value'Remote control speed': --Speed off(0...255)	0
--Speed 1 set:(0...255)	1
--Speed 2 set:(0...255)	2

Parameter"Dehumidify/Cooling/Ventilation/Heating mode active"

These parameters are used to disable or activate the dehumidification/cooling/ventilation/heating mode.

Options: inactive

　　　　Active

Select "inactive" to deactivate, select "Active" to activate.

Parameter"speed off/1/2/3/ Automatic speed active"

These parameters are used to disable or activate the wind speed. The parameter "Automatic speed active" is valid only when the parameter "Control mode" selects "Fan coil".

Select "inactive" to deactivate, select "Active" to activate.

Parameter"Speed object set"

This parameter sets the object type of wind speed control value/feedback value.

Optional: 1bit

　　　　1byte

Select "1bit", the object type of wind speed control value/feedback value is 1bit, and the communication objects are "Speed　　1", "Speed　　2", and "Speed　　3" respectively.

Select "1byte", the object type of wind speed control value/feedback value is 1byte, and the communication object is "Speed　　1byte", and 4 parameters are activated, as shown in the figure below:
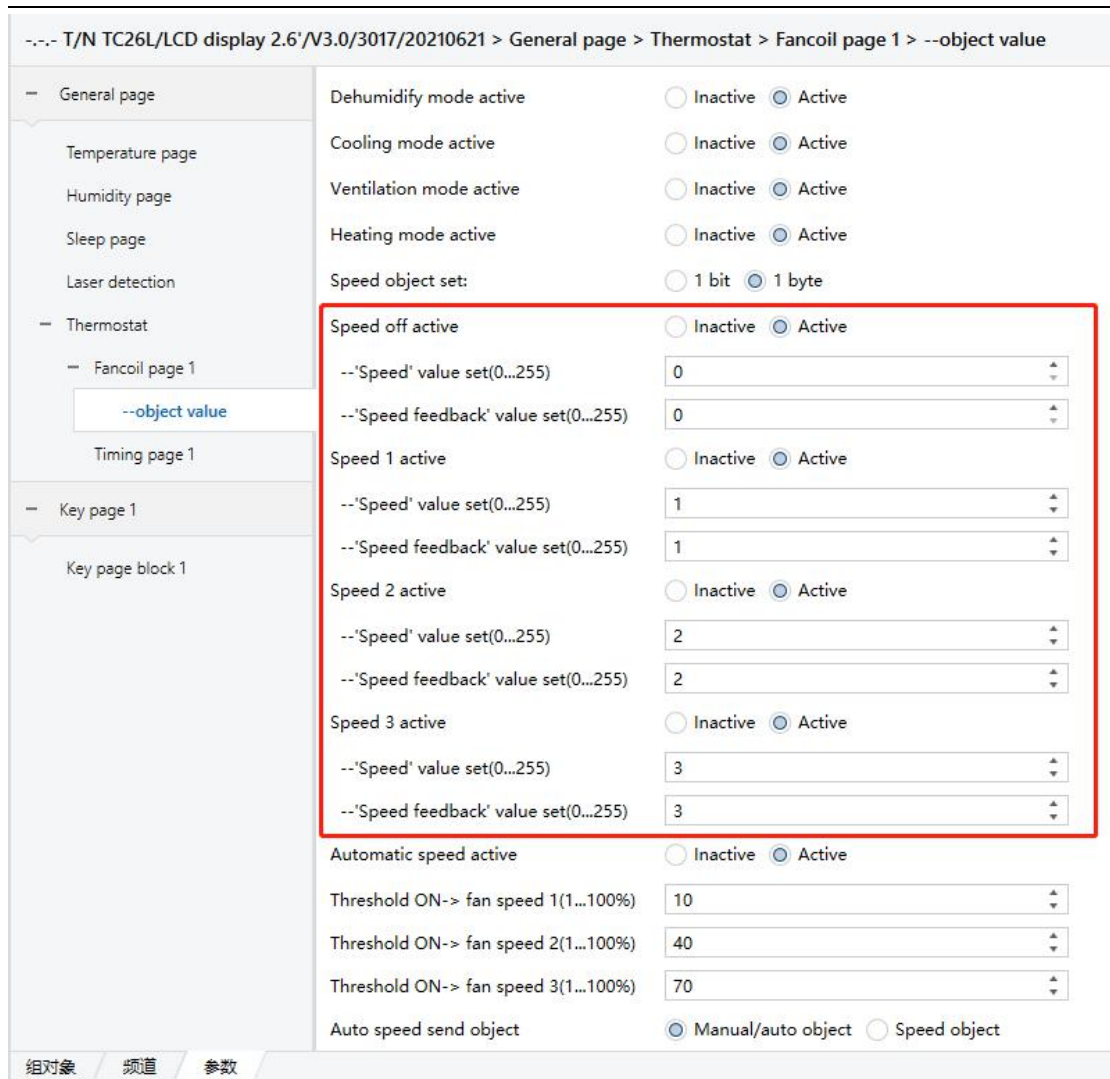
Parameter "'Speed' value set (0...255)"

This parameter sets the control value of fan coil unit wind speed off/wind speed 1/wind speed 2/wind speed 3.

Range: 0…255

Parameter "'Speed feedback' value set (0...255)"

This parameter sets the setting value of fan coil wind speed off/wind speed 1/wind speed 2/wind speed 3.

Range: 0…255

Parameter "Threshold ON->fan speed 1(1...100%)"

Parameter "Threshold ON->fan speed 2(1...100%)"

Parameter "Threshold ON->fan speed 3(1...100%)"

These parameters are only valid when "Fan coil" is selected in the parameter "Control mode".

In the case of automatic wind speed,

When the control value is lower than the setting value of the parameter "Threshold ON->fan speed 1(1...100%)", the automatic wind speed is wind speed 0;

When the control value is between the parameter "Threshold ON->fan speed 1(1...100%)" and the parameter "Threshold ON->fan speed 2(1...100%)", the automatic wind speed Is wind speed 1;

When the control value is between the parameter "Threshold ON->fan speed 2(1...100%)" and the parameter "Threshold ON->fan speed 3(1...100%)", the automatic wind speed Is wind speed 2;

When the control value is higher than the setting value of the parameter "Threshold ON->fan speed 3(1...100%)", the automatic wind speed is wind speed 3.

Parameter "Auto speed set object"

This parameter is valid only when "Fan coil" is selected in the parameter "Control mode" to set the type of automatic wind speed.

Options: Manual/auto object

Speed object

Select "Manual/auto object", activate the parameter "Auto/manual speed set" and the communication object "Speed   auto", switch to the automatic wind speed object "Speed

auto" and send a message 0 or 1, by the parameter "Auto/manual speed set" set up;

Select "Speed   object", switch to automatic wind speed, automatic wind speed 0~3 gears use wind speed 0~3 gear objects.

Parameter "Remote control object"

This parameter sets whether to activate the remote control object, select "Active" and activate the following parameters:

Parameter "Object value 'Remote control switch'"

This parameter sets the remote control value of the fan coil switch.

Options: 0=OFF; 1=ON

0=ON; 1=OFF

Select "0=OFF; 1=ON", when the communication object "Remote control switch" receives the message 0, the fan coil switch status is off, and when the message 1 is received, the fan coil switch status is on;

Select "0=ON; 1=OFF", the opposite is true.

Parameter "Object value "Remote control mode':

Dehumidify/Cooling/Ventilation/Heating（0...255）"

This parameter sets the remote control value of the fan-coil operating mode. The communication object "Remote control mode" receives the remote control value set by the corresponding mode and enters the corresponding mode.

Range: 0⋯255

Parameter "Object value "Remote control speed':

Speed off/speed 1/speed 2/speed 3/speed auto(0...255) set"

This parameter sets the remote control value of the wind speed of the fan coil. The communication object "Remote control speed" receives the remote control value of the corresponding wind speed setting and enters the corresponding wind speed grade.

Range: 0⋯255

Parameter "Current state feedback object"

This parameter sets whether to activate the feedback object. After selecting "Active", the following parameters are activated:

Parameter "Object value 'Switch feedback/Panel'"

This parameter sets the feedback value of the fan coil switch.

Options: 0=OFF; 1=ON

　　　　0=ON; 1=OFF

Select "0=OFF; 1=ON", turn on the air conditioner through the panel, the communication object "Switch feedback/Panel" will send out 01, turn off the air conditioner, and the communication object "Speed　　feedback/Panel" will send out 00;

Select "0=ON; 1=OFF", the opposite is true.

Parameter "Object value 'Mode feedback/Panel':

Dehumidify/Cooling/Ventilation/Heating mode（0...255）"

This parameter sets the feedback value of the fan-coil working mode (dehumidification/cooling/ventilation/heating). The mode is modified through the panel, and the communication object "Mode feedback/Panel" sends the corresponding feedback value to the bus.

Range: 0⋯255

Parameter "Object value 'Speed feedback/Panel':

Speed off/speed 1/speed 2/speed 3/speed auto (0...255)"

This parameter sets the feedback value of the fan coil wind speed (wind speed off/wind speed 1/wind speed 2/wind speed 3/auto wind speed). The wind speed is modified through the panel, and the communication object "Speed   feedback/Panel" sends the corresponding feedback value to the bus.

Range: 0···255

3.2.3.3 Parameter "Timing page"
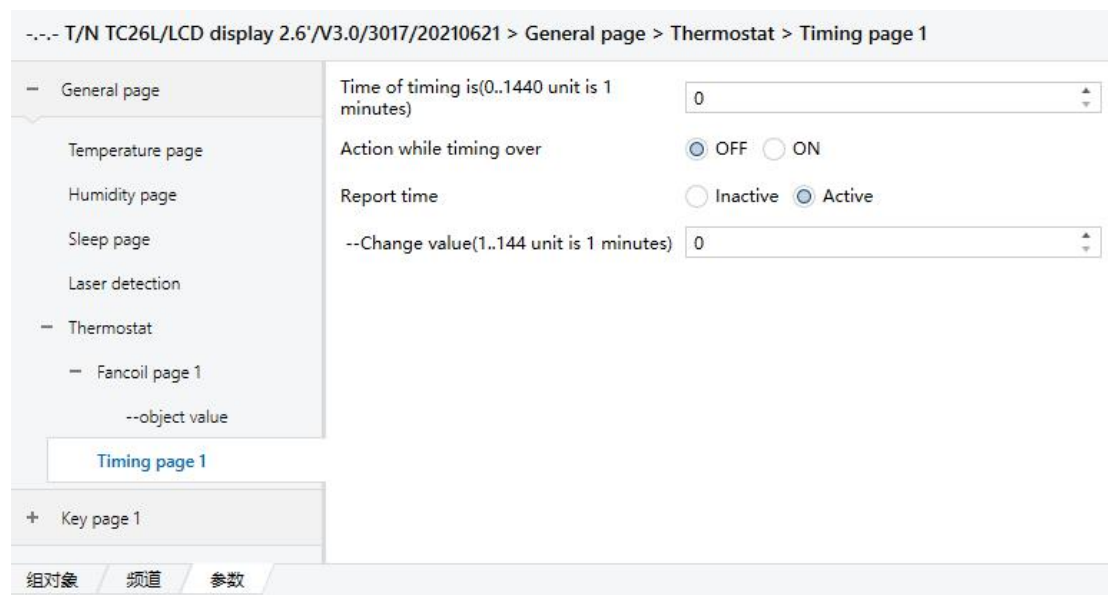
Parameter "Time of timing is(1...1440;0:invalid;unit is 1 minutes)"
This parameter is used to set the timing time. The communication object is "Timing". Sending 1 to the communication object means that the timing is 1min.
Range: 1...144, 0 is invalid, unit: 1 minute

Parameter "Action while timing over"
This parameter is used to set the status of the device after the timer expires.
Options: off
          on
Select "off", and the air conditioner switch status will be off when the time is over;
Select "on", and the air conditioner switch status will be on when the time is over.

Parameter "Report time"
This parameter sets whether to activate the timing report function.
Options: inactive
          active
If you select "activated", activate the timing report function, activate the parameter **"change value (1...144/1min)"**, set how long the timing time changes, and then send a message to report

the current timing time, the communication object is " Timing report".

3.2.4 Parameter "Music"

Remarks: Each channel of the music function is the same. Take channel 1 as an example to introduce in detail.
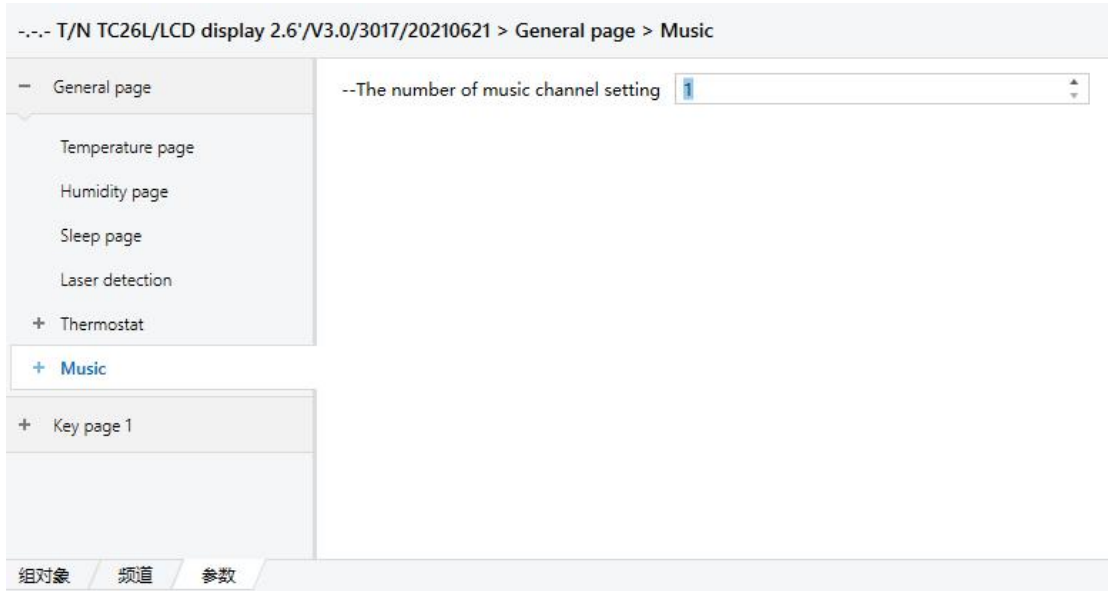
Parameter "—the number of music channel setting"

This parameter is enabled when the music function is activated, and is used to set the number of music channels.

Range: 1…6
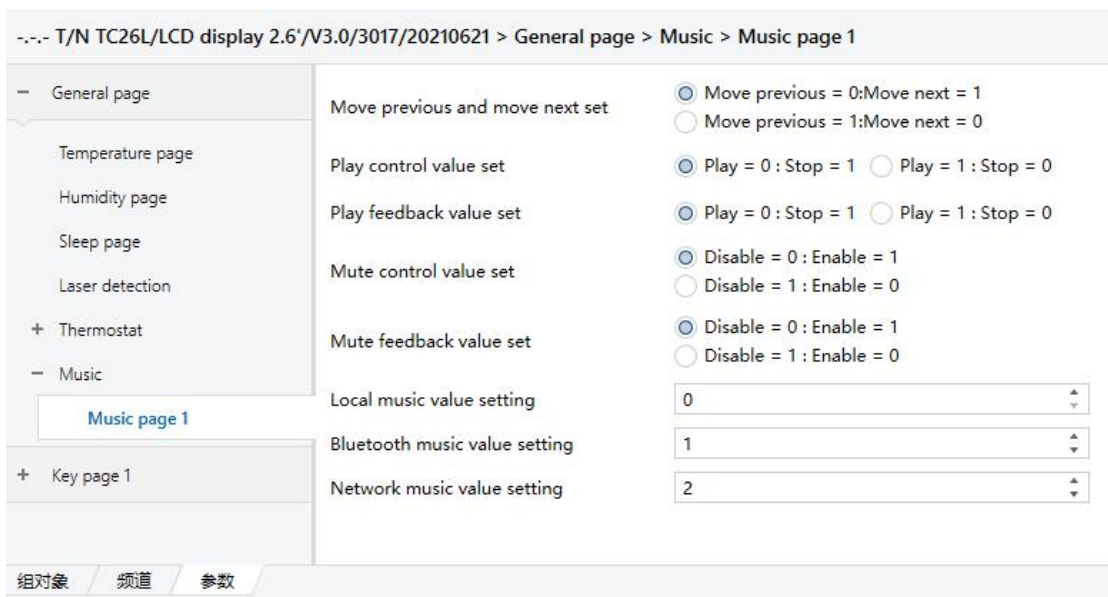
Parameter "Move previous and move next set"

This parameter is used to set the setting value of switching to the previous song and the next song, and the communication object is "move previous/next, CH1".

Options: Move previous=0; move next=1

　　　　Move previous=1; move next=0

Select "move previous=0; move next=1" to switch to the previous song when the communication object "move previous/next, CH1" sends out 0, and switch to the next song when the communication object "move previous/next, CH1" sends out 1 ；

Select "Move previous=1; move next=0", the opposite.

Parameter "play control value set"

This parameter sets the control value of play/pause, and the communication object is "play state control, CH1".

Options: Play=0; stop=1

　　　　Play=1; stop=0

Select "play=0; stop=1", when playing music, the communication object "play state control, CH1" sends out 0, when the music is paused, the communication object "play state control, CH1" sends out 1;

Select "Play=1; stop=0", the opposite is true.

Parameter "play feedback value set"

This parameter sets the feedback value of play/pause, and the communication object is "play state feedback, CH1".

Options: Play=0; stop=1

　　　　Play=1; stop=0

Select "play=0; stop=1", when the communication object "play state control, CH1" receives message 0, the music will be played, and when the communication object "play state control, CH1" receives message 1, the music will be paused;

Select "Play=1; stop=0", the opposite is true.

Parameter "mute control value set"

This parameter sets the mute control value, and the communication object is "mute control, CH1".

Options: disable=0; enable=1

　　　　disable=1; enable=0

Selecting "disable=0; enable=1" means that when exiting the mute mode, the communication object "mute control, CH1" sends out 0, and when entering the mute mode, the communication object "mute control, CH1" sends out 1;

Select "disable=1; enable=0", the opposite is true.

Parameter "mute feedback value set"

This parameter sets the mute feedback value, and the communication object is "mute feedback, CH1".

Options: disable=0; enable=1

disable=1; enable=0

Select "disable=0; enable=1", when the communication object "mute feedback, CH1" receives message 0, it exits the mute mode, and receives message 1 and enters the mute mode;

Select "disable=1; enable=0", the opposite is true.

Parameter"local music value setting"

This parameter sets the setting value when the sound source is local music.

Range: 0···255

Parameter"Bluetooth music value setting"

This parameter sets the setting value when the audio source is Bluetooth music.

Range: 0···255

Parameter"network music value setting"

This parameter sets the setting value when the audio source is network music.

Range: 0···255

3.2.5 Parameter"Temperature page"

Parameter"transmit current temperature value"

Options: None

    After changed

    Periodic

Selecting "After changed" means sending the current temperature value to the bus when the current temperature changes. As for how much the current temperature value is reported, it is set

by the parameter "—change value(1…100 unit:0.1centig.)".

Select "periodic" to send the current temperature value to the bus periodically, and the cycle time is set by the parameter "--Cycle is(1...255,unit:1min)".

Parameter〝Calibration of temperature is〞

It is used to set whether to activate the function of calibrating the current temperature.

Options: inactive

addition

subduction

Select "addition", the current temperature calibration direction is increase; select "subduction", the current temperature calibration direction is subtract, the calibration value is set by the parameter "Calibration value is(0...255,unit is 0.1 centig)".

Parameter〝temperature alarm function of is〞

This parameter is used to set whether to activate the temperature alarm function.

Options: inactive

active

Select "active" to activate the temperature alarm function, and 5 related parameters appear, as described below:

Parameter〝--Upper limit of temperature is(1...1000;unit is 0.1centing)〞

This parameter is used to set the upper limit of temperature alarm, and the upper limit of temperature can also be modified through the communication object "Upper limit of temp.alarm".

Range: 1…1000, unit: 0.1℃

Parameter〝Lower limit of temperature is(1...1000;unit is 0.1centing)〞

This parameter is used to set the lower limit of temperature alarm, and the lower limit of temperature can also be modified through the communication object "Lower limit of temp.alarm".

Range: 1…1000, unit: 0.1℃

Parameter〝Hysteresis of temperature alarm(0...255;unit is 0.1centing)〞

This parameter is used to set the hysteresis value of the temperature alarm.

Range: 0…255, unit: 0.1℃

Parameter〝If current temperature>upper，telegram value is〞

This parameter is used to set the data sent by the message if the current temperature is greater than the set temperature upper limit value.

Options: "0"

"1"

Select "0", if the current temperature is greater than the set temperature upper limit, the data sent out will send 00 through the communication object "Temperature alarm status".

Select "1", if the current temperature is greater than the set temperature upper limit, the data sent by the message will be sent to 01 through the communication object "Temperature alarm status".

Parameter "If current temperature<lower，telegram value is"

This parameter is used to set the data sent by the message if the current temperature is less than the set temperature lower limit value.

Options: "0"

"1"

Select "0", if the current temperature is less than the set temperature lower limit value, the data sent by the message will send 00 through the communication object "Temperature alarm status".

Select "1", if the current temperature is less than the set temperature lower limit value, the data sent by the message is sent to 01 through the communication object "Temperature alarm status".

Note:

1. The communication object "temp.alarm activate" is whether to activate the temperature alarm function. Writing 00 through the bus means turning off the temperature alarm function, and writing 01 means turning on the temperature alarm function.

2. As shown in the red box in the above figure, first write 01 through the communication object "temp.alarm activate" to turn on the temperature alarm function, when the current temperature is greater than the set temperature upper limit of 32.5 degrees (the set temperature upper limit The hysteresis 0.5 needs to be added, and the set temperature lower limit needs to be subtracted from the hysteresis 0.5), the communication object "Temperature alarm status" sends 00 (when the temperature is lower than 31.5 ° C and then greater than 32.5 ° C, the communication object "Temperature alarm status" remains 00 will be sent; when the temperature drops and is between 32 ° C and 31.5 ° C, again greater than 32.5 ° C, the communication object "Temperature alarm status" will not send 00); when the current temperature is lower than the set temperature lower limit of 29.5 ° C , The communication object "Temperature alarm status" sends 01 (when the temperature is greater than 30.5 ° C and then lower than 29.5 ° C, the communication object "Temperature alarm status" will still send 01; when the temperature rises and is between 30 ° C

and 30.5 ° C, again If it is less than 29.5℃, the communication object "Temperature alarm status" will not send 01).

3.2.6 Parameter "Humidity page"

Parameter "transmit current humidity value"

Options: None

      After changed

      Periodic

Selecting "After changed" means sending the current humidity value to the bus when the humidity changes. The current humidity value is reported by the parameter "— change value(1 ··· 100 unit:0.1centig.)".

Select "periodic" to send the current humidity value to the bus periodically, and the cycle time is set by the parameter "--Cycle is(1...255,unit:1min)".

Parameter "Calibration of humidity is"

It is used to set whether to activate the function of calibrating humidity value.

Options: inactive

      addition

      subduction

Select "addition", the direction of calibration is increase; select "subduction", the direction of calibration is subtraction, and the calibration value is set by the parameter "Calibration value

is(0...255,unit is 0.1 centig)"

Parameter"Humidity alarm function of is"

This parameter is used to set whether to activate the humidity alarm function.

Options: inactive

　　　　active

Select "active" to activate the humidity alarm function, and 5 related parameters appear, as described below:

Parameter"--Upper limit of Humidity is(1...1000;unit is 0.1centing)"

This parameter is used to set the upper limit of humidity alarm, and the upper limit of humidity can also be modified through the communication object "Upper limit of humidity alarm".

Range: 1…1000, unit: 0.1℃

Parameter"Lower limit of humidity is(1...1000;unit is 0.1centing)"

This parameter is used to set the lower limit of humidity alarm, and the lower limit of humidity can also be modified through the communication object "Lower limit of humidity alarm".

Range: 1…1000, unit: 0.1℃

Parameter"Hysteresis of humidity alarm(0...255;unit is 0.1centing)"

This parameter is used to set the hysteresis value of the humidity alarm.

Range: 0…255, unit: 0.1℃

Parameter"If current humidity>upper，telegram value is"

This parameter is used to set the data sent by the message if the current humidity is greater than the set humidity upper limit value.

Options: "0"

　　　"1"

Select "0", if the current humidity is greater than the set humidity upper limit, the communication object "humidity alarm status" sends 00;

Select "1", if the current humidity is greater than the set humidity upper limit, the communication object "humidity alarm status" sends 01.

Parameter"If current humidity<lower，telegram value is"

This parameter is used to set the data sent by the message if the current humidity is less than the

set humidity lower limit value.

Options: "0"

"1"

Select "0", if the current humidity is less than the set humidity lower limit, the communication object "humidity alarm status" sends 00;

Select "1", if the current humidity is less than the set humidity lower limit, the communication object "humidity alarm status" sends 01.

Note:

1. The communication object "humidity alarm activate" is whether to activate the humidity alarm function. Writing 00 through the bus means turning off the humidity alarm function, and writing 01 means turning on the humidity alarm function.

2. As shown in the figure above, first write 01 through the communication object "Humility alarm activate" to turn on the humidity alarm function, when the current humidity is greater than the set humidity upper limit 75% (the set humidity upper limit needs to add a hysteresis of 5% , The set humidity lower limit needs to subtract 5% hysteresis), the communication object "Humility alarm status" sends 01; when the current humidity is less than the set humidity lower limit 45%, the communication object "Humility alarm status" sends 00 .

3.2.7 Parameter "floor heating"
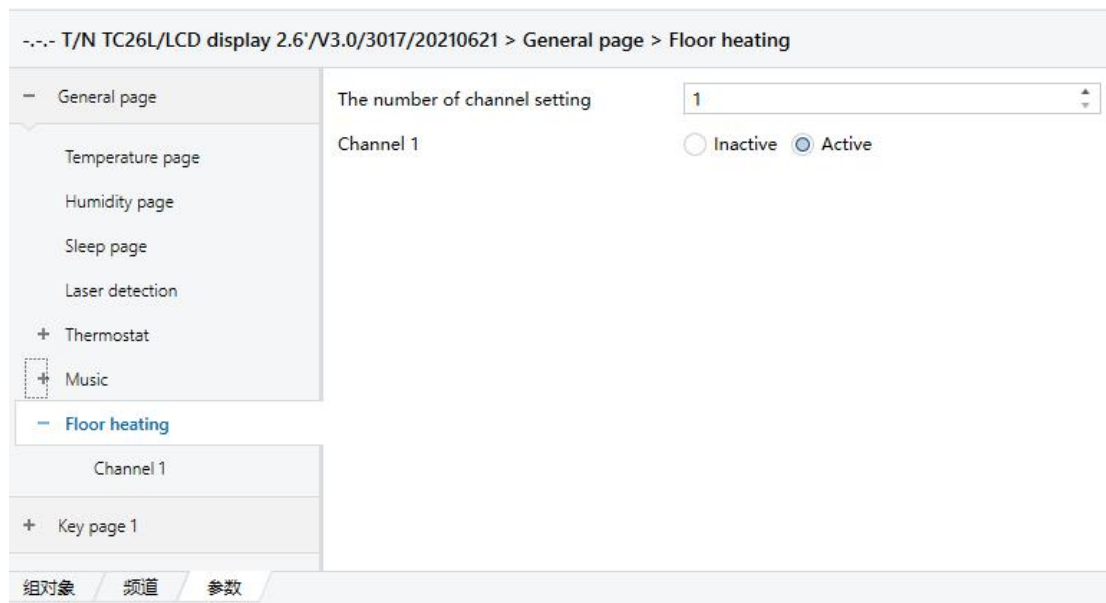
Parameter "the number of channel setting"

The floor heating function can set 1~10 channels, this parameter is used to set the number of channels for floor heating.

Parameter "channel x"

This parameter sets whether to activate the floor heating channel.

Options: inactive

active

Selecting "active" means to activate the corresponding floor heating channel, and the floor heating function setting interface "channel x" appears, as shown in the figure below:
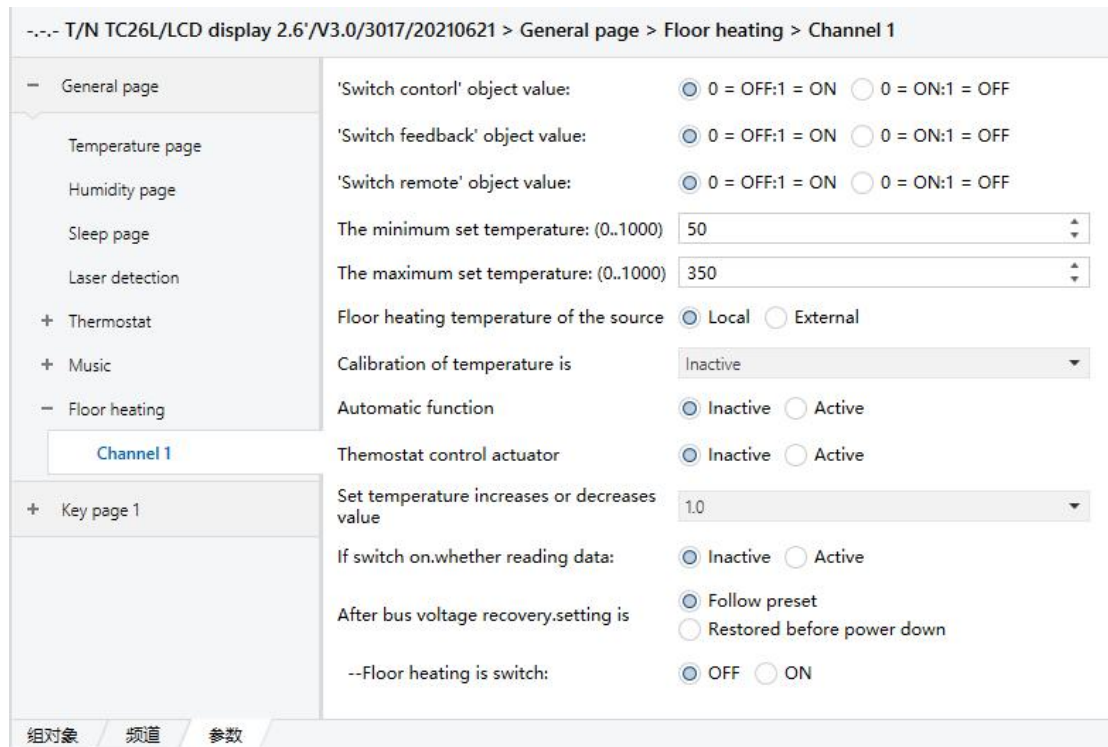
Parameter "switch value type set(control)"

Parameter "switch value type set(feedback)"

Parameter "switch value type set(remote)"

These parameters set the switch control value, feedback value and remote control value of floor heating.

Options: 0=OFF; 1=ON

0=ON; 1=OFF

Parameter "the minimum set temperature（0...1000）"

Parameter "the maximum set temperature（0...1000）"

This parameter is used to set the minimum and maximum values   of the floor heating setting temperature.

Range: 1...1000, unit: 0.1℃

Parameter "Floor heating temperature of the source"

This parameter is used to set the source of the current temperature of the floor heating.

Options: Local

External

Select "Local", the current temperature of the floor heating adopts the actual temperature detected by the device's own sensor;

Select "External", the current temperature of the floor heating uses the external temperature, and the communication object is "External current temperature".

Note: When this parameter selects "External", the temperature can also be calibrated.

Parameter "Calibration of temperature is"

This parameter is used to set whether to calibrate the ambient temperature.

Options: Inactive

Addition

Subduction

Select "Inactive" to not calibrate the ambient temperature of the floor heating;

Select "Addition" to calibrate the ambient temperature of the floor heating, the calibration method is increase, and the calibration deviation value is set by the parameter "—value of addition (0...255/0.1 centig)";

Select "Subduction" to calibrate the ambient temperature of floor heating. The calibration method is subtraction. The calibration deviation is set by the parameter "—value of subduction (0...255/0.1 centig)".

Parameter "automatic function"

This parameter sets whether to enable the automatic function.

Options: inactive

active

Select "Enable" to enable the automatic function and activate 2 parameters, as shown in the figure below:
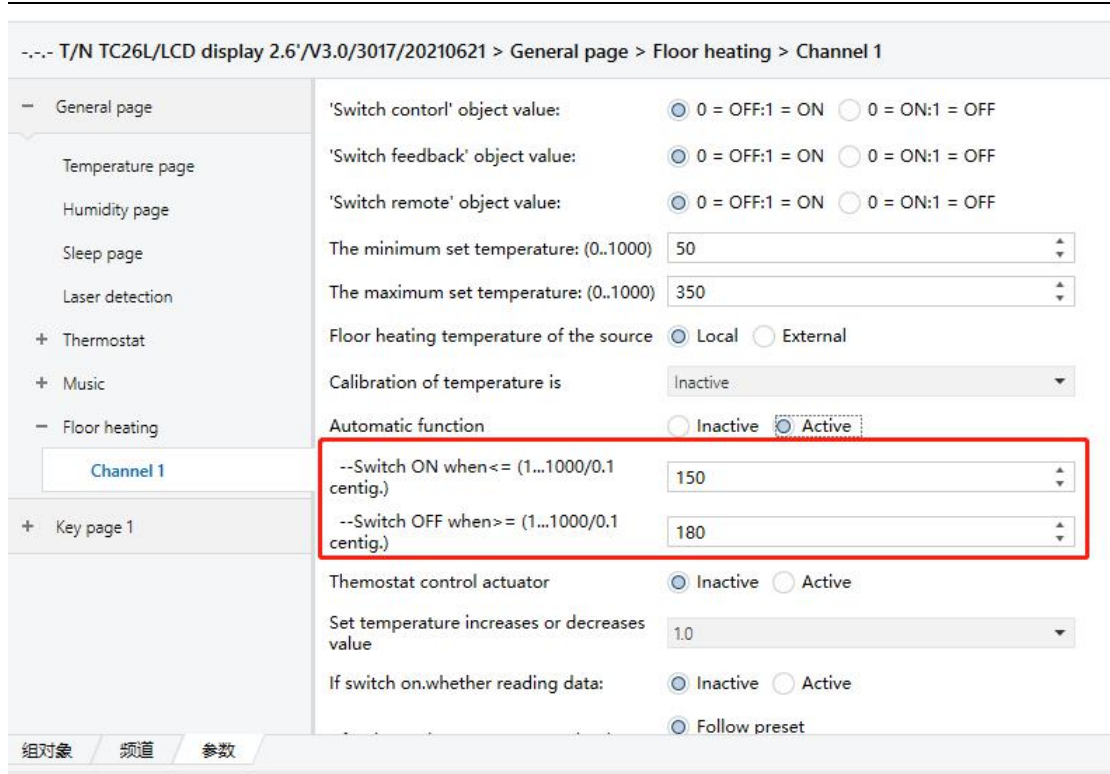
Parameter "--Switch ON when<=(1...1000/0.1 centig.)"

This parameter is used to set when the local temperature is less than or equal to how much, the floor heating switch state is on.

Range: 1...1000, unit: 0.1℃

Parameter "Switch OFF when>=(1...1000/0.1 centig.)"

This parameter is used to set when the local temperature is greater than or equal to how much, the floor heating switch state is off.

Range: 1...1000, unit: 0.1℃

Parameter "Thermostat control Actuator"

This parameter is used to set whether to enable the thermostat automatic control device.

Options: inactive

active

Select "active" to enable the thermostat automatic control device and activate 5 parameters, as shown in the figure below:

Parameter "—Control acutuator cycle time(20...1000/minute)"

This parameter is used to set the cycle time of the control device.

Range: 20...1000, unit: minute

Parameter "—Actuator 100% on when Temperature distan>="

This parameter is used to set the number of degrees that the temperature can change within the

cycle time of the control device.

Options: 0.5 degree

       1 degree

       1.5 degree

       2 degree

       2.5 degree

       3 degree

       3.5 degree

       4 degree

Select "0.5/1/1.5/2/2.5/3/3.5/4 degree", when the current temperature is less than the set

temperature 0.5/1/1.5/2/2.5/3/3.5/4°C, the communication object "control value 1bit/ "byte"

sends out the setting value of the parameter "--Switch ON value". After the current temperature reaches the set temperature, the setting value of the parameter "--Switch OFF value" is sent out. After one cycle time is up, the detection control of the next cycle will continue. Analogy...The time for the current temperature to reach the set temperature is determined by the parameter "—Control acutuator cycle time(20...1000/minute)".

Note:

*The time for the current temperature to reach the set temperature = cycle time / the number of degrees the temperature can be changed * (set temperature-current temperature)*
Cycle time: set by the parameter "—Control acutuator cycle time(20...1000/minute)"
The degree that the temperature can be changed: set by the parameter "—Actuator 100% on when Temperature distan>="

Parameter "—Control Object type"

This parameter is used to set the data type of the control value.

Options: 1bit

      1byte

Parameter "--Switch ON value"

This parameter is used to set the data for turning on the floor heating.

Range: 0...1/0...255

Parameter "--Switch OFF value"

This parameter is used to set the data for turning off the floor heating.

Range: 0...1/0...255

Parameter "set temperature increases or decreases value"

This parameter is used to set the increase or decrease of the set temperature through the touch screen.

Options: 0.1

      0.5

      1.0

Parameter "if switch on, whether reading data"

This parameter sets whether to read the floor heating setting temperature when the floor heating is

turned on.

Options: OFF

ON

Select "ON", which means to read the set temperature of the floor heating when the floor heating is turned on.

Parameter "After bus voltage recovery,setting is"

This parameter is used to set the state of floor heating after the device bus restores power.

Optional: Follow preset

Restored before powerdown

Select "Follow preset", and the floor heating status will be set according to the setting after the device bus restores power supply;

Parameter "--Switch setting"

This parameter sets the on-off state of floor heating after the device bus restores power.

Options: OFF

ON

Select "OFF", the on-off state of the floor heating is off after the device bus restores the power supply;

Select "ON", the switch state of the floor heating will be on after the power supply of the device bus is restored, and the parameter "--Display value is(0..1000)" is activated, which is used to set the rated temperature of the floor heating.

3.2.8 Parameter "fresh air"
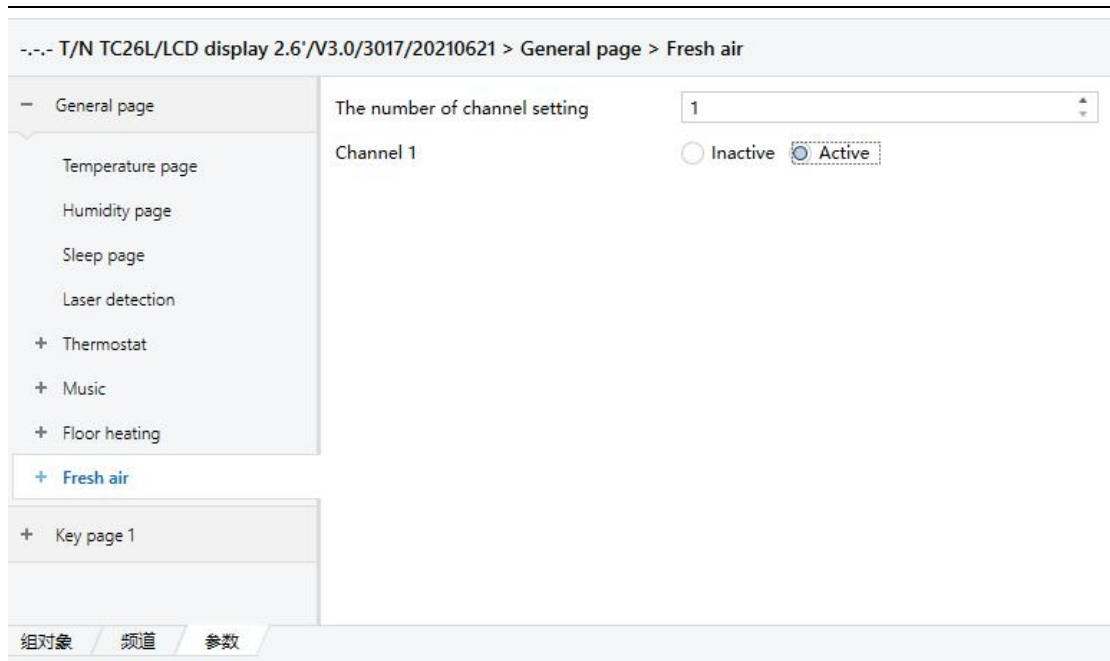
Parameter "the number of channel setting"

The fresh air function can set 1~10 channels, this parameter is used to set the number of fresh air channels.

Parameter "channel x"

This parameter sets whether to activate the fresh air channel.

Options: inactive

       active

Selecting "active" means to activate the corresponding fresh air channel, and the fresh air function setting interface "channel x" appears, as shown in the figure below:

-.-.- T/N TC26L/LCD display 2.6'/V3.0/3017/20210621 > General page > Fresh air > Channel 1

Parameter "After bus voltage recovery,setting is"

This parameter is used to set the state of the fresh air after the bus power is restored.

Options:　OFF

Speed 1

Speed 2

Speed 3

Speed 4

Speed 5

Auto

Last state

Parameter"Switch set"

This parameter is used to set whether to activate the switch setting of fresh air.

Options: inactive

active

Select "active" to activate the switch setting of fresh air.

Parameter"'switch' object value"

Parameter"'switch feedback' object value"

Parameter"'switch remote' object value"

Set the control value, feedback value, and remote value corresponding to the fresh air switch.

Options: 0=OFF; 1=ON

0=ON; 1=OFF

Parameter"Mode set"

This parameter sets whether to activate the mode setting function.

Options: inactive

active

Select "active" to activate the mode setting function.

Parameter"automatic mode' object value"

Parameter"' automatic mode feedback' object value"

Parameter"' automatic mode remote' object value"

Set the control value, feedback value, and remote control value corresponding to the automatic mode and manual mode.

Options: 0 = manual, 1 = auto

0 = auto, 1 = manual

Parameter "Speed off/1/2/3/4/5"

This parameter is used to set whether to activate wind speed off/1/2/3/4/5.

Options: inactive

active

Select "active" to activate this function.

Parameter "—Speed off/1/2/3/4/5(control)"

This parameter is used to set the value of the message sent by the communication object "Speed" when the fresh air speed is off/1/2/3/4/5 through the button or the remote control object.

Range: 0...255

Parameter "—Speed off/1/2/3/4/5(feedback)"

This parameter is used to set the message value that needs to be written to the communication object "Speed, Feedback" when the fresh air wind speed is off/1/2/3/4/5.

Range: 0...255

Parameter "—Speed off/1/2/3/4/5(remote)"

This parameter is used to set the message value that needs to be written to the communication object "Speed, Feedback" when the fresh air wind speed is off/1/2/3/4/5.

Range: 0...255

3.5 Parameter "Key page block x"

The function of this interface is to set how many modules (up to 6 modules) each page on the panel consists of, and define the function of each module.
Remarks: x represents the number of pages, the range of x is set according to the parameter "set the number of key pages" in the parameter setting interface "General page", the maximum range is 1...10;
z represents the number of modules on the page, the range of z is set according to the parameter "The number of key setting", the maximum range is 1...6;
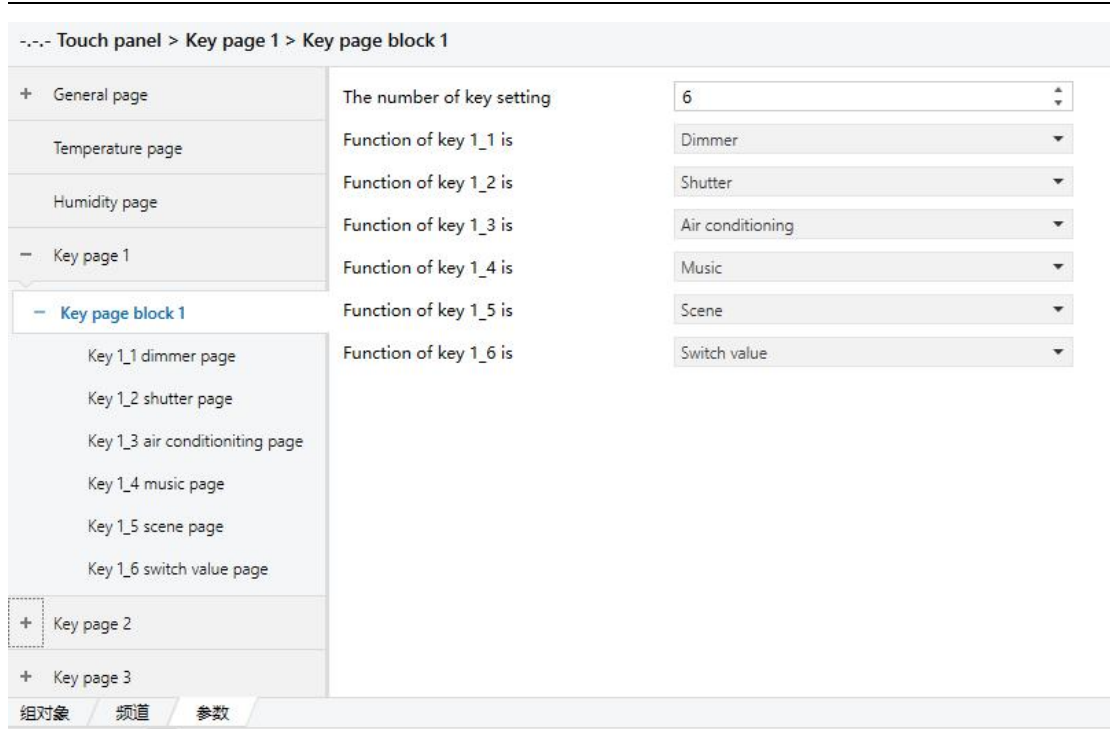
Parameter "The number of key setting"

This parameter is used to set the number of modules on the page

Range: 1···6

Parameter "Function of key x_z"

This parameter is used to set the function of the module.

Options: Inactive

Dimmer

Shutter

S c e ne

Switch value

Display

Jump page

Thermostat

Music

Floor heating

Fresh air

Select "Dimmer" to indicate that the function of the module is dimming;

Select "Shutter" to indicate that the function of the module is curtain;

Select "Scene" to indicate that the function of the module is a scene;

Select "Switch value" to indicate that the function of the module is on and off;

Select "Display" to indicate that the function of the module is display;

Select "Jump page" to indicate that the function of the module is to jump to the specified page;

Select "Thermostat" to indicate that the function of the module is the air conditioning adjustment function;

Select "Music" to indicate that the function of the module is music;

Select "Floor heating" to indicate that the function of the module is floor heating;

Select "Fresh air" to indicate that the function of the module is fresh air.

3.5.1 Parameter "key x_z dimmer page"
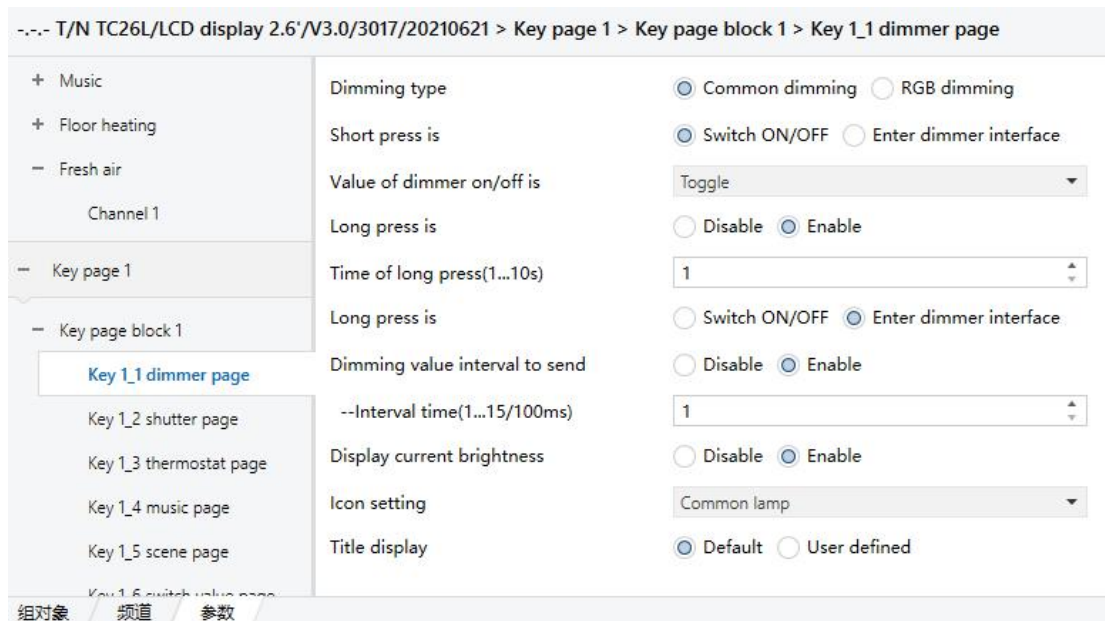
Parameter "Dimming type"

This parameter is used to set the dimming mode.

Options: Common dimming

       RGB dimming

Select "Common dimming", the dimming mode is normal dimming;

Select "RGB dimming", the dimming mode is RGB dimming, and activate the parameter "RGB object length" to set the length of the RGB object, 3byte/1byte is optional.

Parameter "short press is"

This parameter sets the function realized by short press-the corresponding dimming module on the page.

Options: Switch ON/OFF

       Enter dimmer interface

Select "Enter dimmer interface" to indicate that the function realized by short press is to enter the dimming interface;

Selecting "switch ON/OFF" means that the function realized by the short press is the switch dimming function, and the parameter "value of dimming on/off is" appears;

Parameter "value of dimming on/off is"

The communication object is "dimmer on/off for short K_x_z"

Optional: Toggle

On

Off

Select "toggle", short press the corresponding dimming module on the page to send data 01,00,01,00,01,00...;

Select "ON", short press the corresponding dimming module on the page to send data 01;

Select "OFF", short press the corresponding dimming module on the page to send data 00.

Parameter "long press is"

This parameter sets whether to activate the long press function.

Options: Disable

Enable

Select "Enable" to activate the long press function, and activate the following 2 parameters:

Parameter "time of long press(1…10s)"

This parameter sets the long press time, that is, long press? The corresponding dimming module in the second page is determined to be a long press.
Range: 1…10, unit: second

Parameter "long press is"

This parameter is used to set the function realized by the long press-the corresponding dimming module on the page.

Options: Switch ON/OFF

Enter dimmer interface

The long-press function options are similar to the short-press function, please refer to the introduction of short-press function.

Parameter "dimming value interval to send"

This parameter sets whether to activate the function of sending dimming values   at intervals.

Options: Disable

       Enable

Select "Enable", enter the dimming interface and click or drag the dimming progress bar. The communication object "dimmer value K x_z" will send the dimming value to the bus at intervals. The interval time is determined by the parameter "—interval time(1···15/100ms))"set up.

Parameter "display current brightness"

Whether the corresponding dimming module in the parameter setting page displays the current dimming value.

Options: Disable

       Enable

Parameter "icon setting"

The dimming icon of the corresponding dimming module in the parameter setting page.

Option: Common lamp

          Ceiling lamp

          Dining lamp

          Canister lamp

          Wall lamp

          Lamp with

          Foot lamp

          Spotlight

          Table lamp

          Night light

          Reading light

          RGB light

          User defined

When selecting a fixed icon, the title can choose to use the default title or custom title, and the title is set by the parameter "Icon display";

When "User defined" is selected, the title is also mandatory to customize, which means that the icon and title of the corresponding dimming module on the page are customized, which can be modified by the host computer.

For example, 6 modules are set on the first page of the panel, and a custom icon is set on the first module;

Modify the custom icon operation process:

1、Open the host computer TFT26_Page_Setting_V1.3.exe, as shown in the figure below:
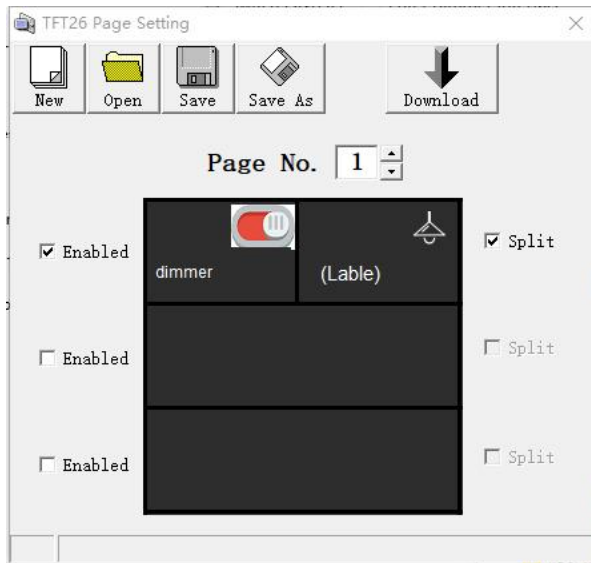
2、Distinguish the modules: You need to check the "Enabled" and "Split" combo boxes in the first row of page 1, which means there are 2 modules in the first row;

3、Set the icon: Click the icon of the first module in the first row, and the select picture window will pop up (as shown in the figure below), set the "picture-on" and "picture-off" pictures, and click "ok" after the setting is complete back to main interface;

*Note: Picture format resolution 48*35*
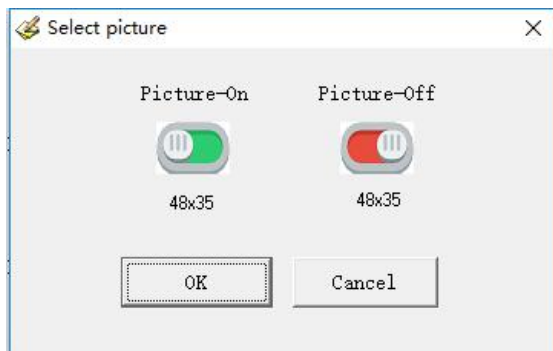
4、Set the label: click the label of the first module in the first row, the "edit label" window will pop up (as shown in the figure below), fill in the "label", and set the label font size, after the setting is complete, click "ok" to return to the main interface;
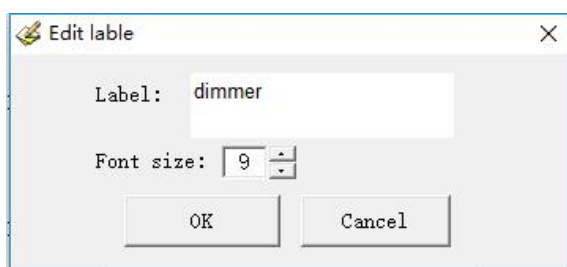
5、Download: Long press the panel programming button (or long press the panel setting button, the programming button operation page appears, long press the "Updata program" module), until

the programming button flashes red (the screen is blank at the same time), the panel and the computer directly use the USB cable Connect, click the download icon to download the custom icon to the panel

3.5.2 Parameter "key x_z shutter page"
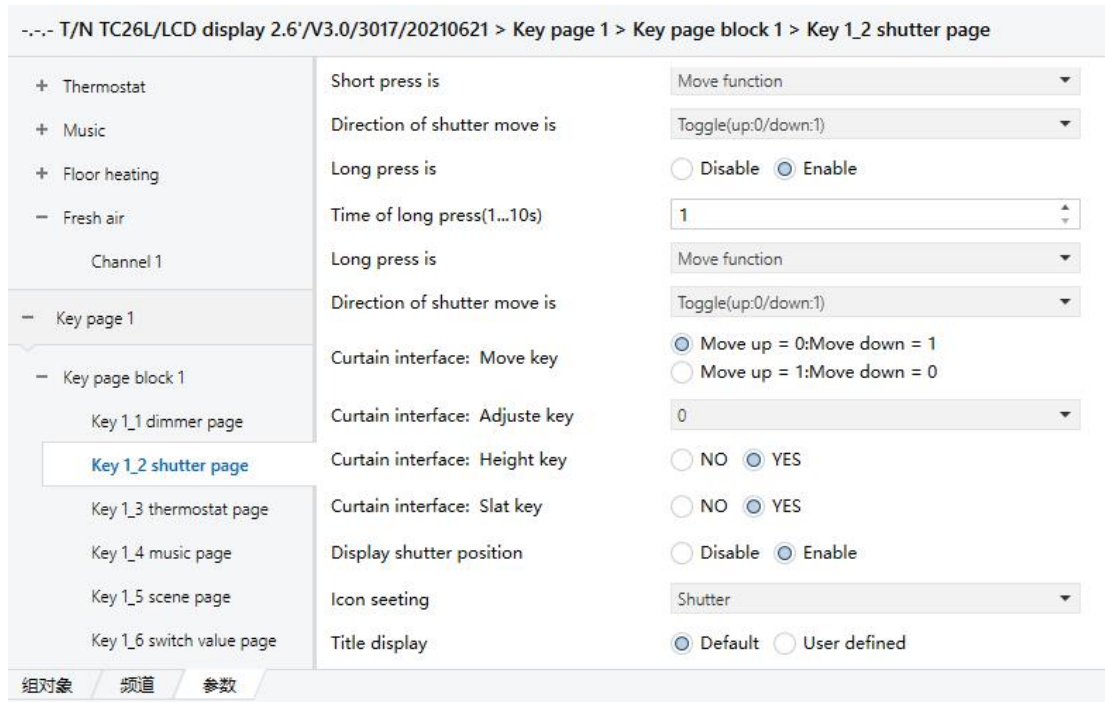
Parameter "Short press is"

This parameter sets the function realized by short press-the corresponding curtain module on the page.

Options: Move function

Adjuste function

Enter curtain interface

Select "Move function" means short press to realize the curtain moving function, activate the parameter "Direction of shutter move is";

Selecting "Adjuste function" means short press to realize the curtain angle adjustment function, and activate the parameter "Adjust lamella value setting";

Select "Enter curtain interface" to short press to enter the curtain adjustment interface.

Parameter "Direction of shutter move is"

Options: Toggle(up:0/down:1)

Up(teleg.value is 0)

Down{teleg.value is 1)

Select "Toggle(up:0/down:1)", short press the module, and the communication object "Move shutter K_x_z" will send data 01 to move the curtain down, and send data 00 to move the curtain up;

Select "Up(teleg.value is 0)", short press the module, the communication object "Move shutter K_x_z" will send data 00 to move the curtain upwards;

Select "Down(teleg.value is 1)", short press the module, the communication object "Move shutter K_x_z" sends data 01 to move the curtain down.

Note: Under the curtain module, when the curtain moves up to the top, the curtain icon is displayed in white, and the curtain position is not at the top, and the curtain icon is displayed in yellow.

Parameter "Adjust lamella value setting"

Options: 0

1

toggle(0/1)

Select "0", short press the module, and the communication object "Adjust lamella of shutter K_x_z" will send data 00.

Select "1", short press the module, and the communication object "Adjust lamella of shutter K_x_z" will send data 01.

Select "toggle(0/1)", short press the module, the communication object "Adjust lamella of shutter K_x_z" sends data 01, 00, 01, 00... in sequence.

Note: The adjust function does not affect the curtain icon.

Parameter "Long press is"

This parameter sets whether to activate the long press function.

Options: Disable

Enable

Select "Enable" to activate the long press function, and activate the following 2 parameters:

Parameter "time of long press(1…10s)"

This parameter sets the long press time, that is, long press? The second-the corresponding curtain module on the page-is determined to be a long press.

Range: 1⋯10, unit: second

Parameter "Long press is"

This parameter is used to set the function realized by long press-the corresponding curtain module

on the page.

Options: Move function

Adjuste function

Enter curtain interface

The long-press function options are similar to the short-press function, please refer to the introduction of short-press function.

Parameter "curtain interface：move key"

This parameter defines the function of the "∧" or "∨" icon under the curtain interface, and the communication object is "Move shutter".

Options: Mve up=0; Move down=1

Move up=1;Move down=0

Select "Mve up=0; Move down=1", click the "∧" icon to indicate that the curtain is moved to the top (0%), and the "∨" icon to indicate that the curtain is moved to the bottom (100%);

Select "Move up=1;Move down=0", click the "∧" icon to indicate that the curtain is moved to the bottom (100%), and the "∨" icon to indicate that the curtain is moved to the top (0%).

Parameter "curtain interface：adjust key"

This parameter sets the output message of the pause button in the curtain interface, and the communication object is "Adjust lamella of shutter".

Options: 0

1

Toggle(0/1)

Parameter "curtain interface：Height key"

This parameter sets whether the Height scroll bar appears under the curtain interface, which is used to adjust the height of the curtain.

Options: NO

YES

Parameter "curtain interface：Slat key"

This parameter sets whether the Slat scroll bar appears under the curtain interface, which is used to adjust the curtain Slat.

Options: NO

YES

Parameter "Display shutter position"

This parameter sets whether the corresponding curtain module on the page displays the current curtain height/angle value.

Options: Disable

       Enable

Parameter "Icon seeting"

The curtain icon of the corresponding curtain module in the parameter setting page.

Optional: Shutter

       Drape

       Electric curtain

       Gauze shade

       User defined

When selecting a fixed icon, the title can choose to use the default title or customize it, which is set by the parameter "Icon display";

Select "User defined", and the title is also forced to customize. For the user to modify the user-defined icon and title, see the description of the parameter "icon setting" in "3.5.1 parameter setting interface key x_z dimmer page".

3.5.3 Parameter "key x_z Thermostat page"
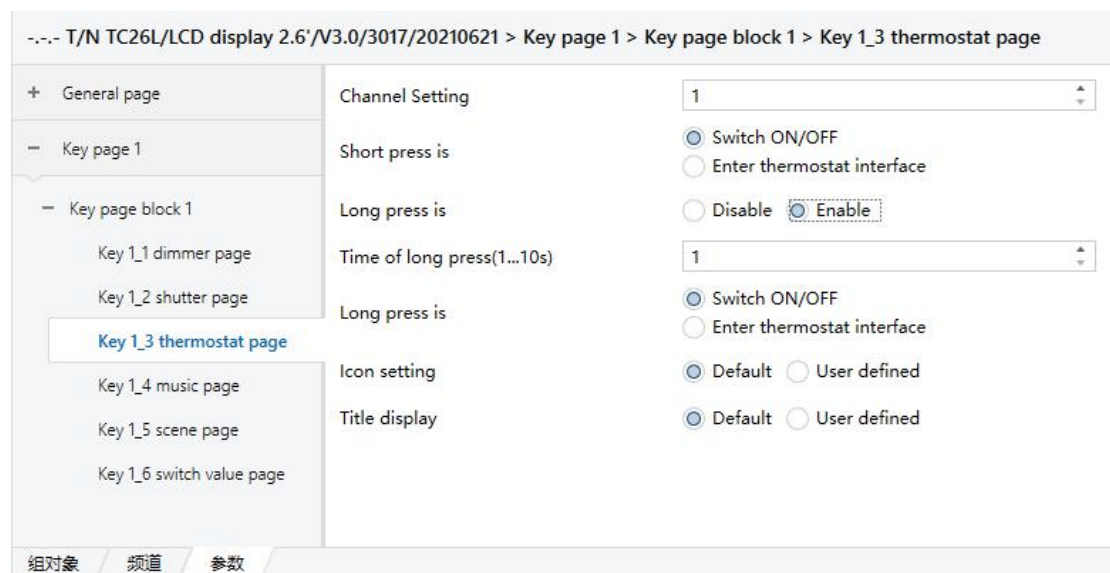
Parameter "Channel Setting"

The corresponding air conditioner module on this parameter setting page adjusts the number of air conditioners, which is related to how many air conditioner channels are turned on in the parameter "The number of channel setting" in the parameter setting interface "3.2.3 Parameter setting interface Thermostat".

Maximum range: 1⋯10

Parameter "Short press is"

This parameter sets the short press function.

Options: Switch ON/OFF

    Enter Thermostat interface

Selecting "Switch ON/OFF" means short press-the corresponding air conditioning module on the page-to modify the on/off state of the air conditioner;

Selecting "Enter Thermostat interface" means to short press-the corresponding air conditioning module on the page-to enter the air conditioning adjustment interface.

Parameter "Long press is"

This parameter sets whether to activate the long press function.

Options: Disable

    Enable

Select "Enable" to activate the long press function, and activate the following 2 parameters:

Parameter "time of long press(1…10s)"

This parameter sets the long press time, that is, long press? Seconds-the corresponding air conditioning module on the page-is determined to be a long press.

Range: 1⋯10, unit: second

Parameter "Long press is"

This parameter sets the long press function.

Options: Switch ON/OFF

    Enter Thermostat interface

The long-press function options are similar to the short-press function, please refer to the introduction of short-press function.

Parameter "Icon setting"

The air conditioner icon of the corresponding air conditioner module on the parameter setting page.

Options: Default

    User defined

Parameter "title display"

When the icon is a fixed icon, activate this parameter to set whether the title is customizable.

Options: Default

　　　　User defined

3.5.4 Parameter "key x_z music page"
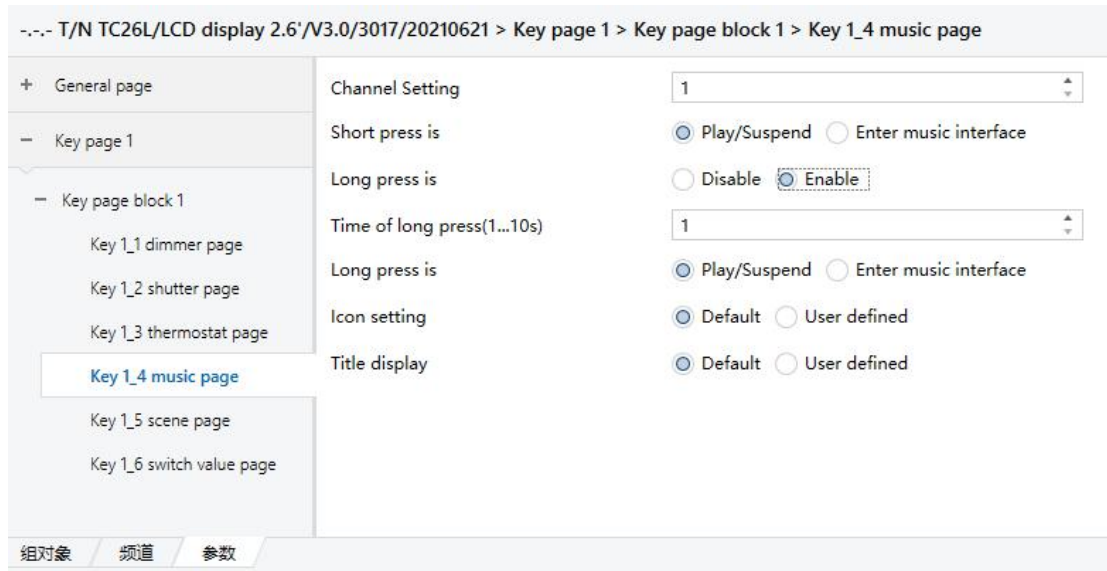
Parameter "Channel Setting"

Which channel's music function is adjusted by the corresponding music module in this parameter setting page is related to how many music channels are enabled in the parameter "―the number of music channel setting" in the parameter setting interface "3.2.4 parameter setting interface Music". Maximum range: 1…6

Parameter "Short press is"

This parameter sets the short press function.

Options: Play/suspend

　　　　Enter music interface

Choosing "play/suspend" means short press-the corresponding music module in the page-play/pause music;

Selecting "Enter music interface" means short press-the corresponding music module on the page-to enter the music control interface.

Parameter "Long press is"

This parameter sets whether to activate the long press function.

Options: Disable

Enable

Select "Enable" to activate the long press function, and activate the following 2 parameters:

Parameter "time of long press(1…10s)"

This parameter sets the long press time, that is, long press? The second-the corresponding music block module on the page-is determined to be a long press.

Range: 1…10, unit: second

Parameter "Long press is"

This parameter sets the long press function.

Options: Play/suspend

Enter music interface

The long-press function options are similar to the short-press function, please refer to the introduction of short-press function.

Parameter "Icon setting"

The icon of the corresponding music module in the parameter setting page.

Options: Default

User defined

Parameter "title display"

When the icon is the default icon, activate this parameter to set whether the title is customizable.

Options: Default

User defined

3.5.5 Parameter "key x_z scene page"
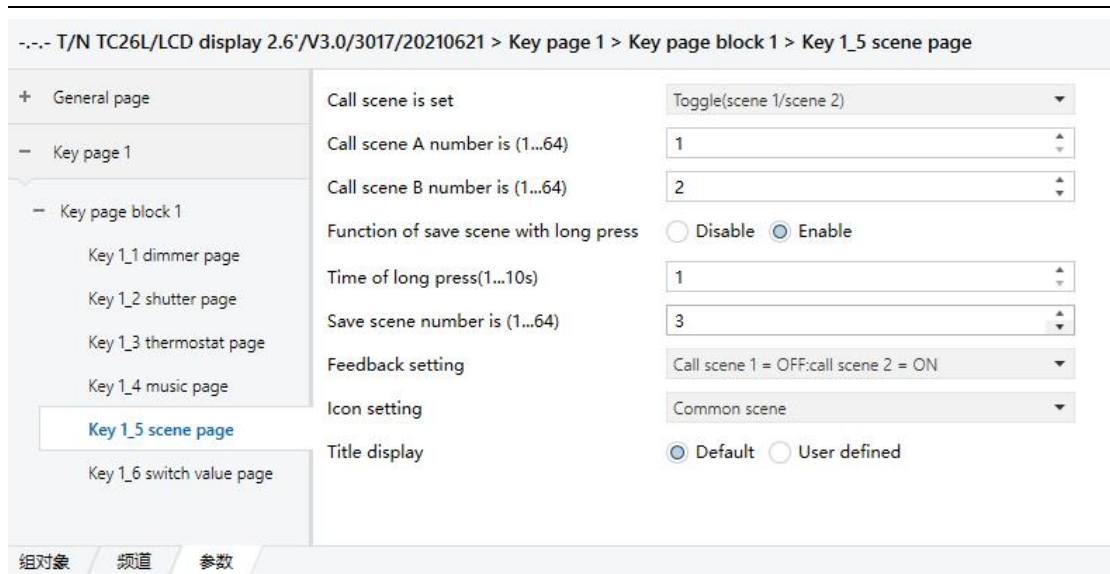
Parameter "Call scene is set"

This parameter is set by short press-the corresponding scene module on the page-the recalled scene.

Options: toggle(scene 1/scene 2)

scene 1

scene 2

Select "toggle(scene 1/scene 2)", short press the module, you can call scene 1 and scene 2;

Select "scene 1", short press the module to call scene 1;

Select "scene 2", short press the module to call scene 2;

Parameter "Call scene A/B number is (1...64)"

Set the scene value of Scene 1/Scene 2.

Range: 1...64

Parameter "Function of save scene with long press"

This parameter sets whether to activate the function of long press to save the scene.

Options: Disable

Enable

Selecting "Enable" means to activate the function of long press to save the scene, and activate the following 2 parameters:

Parameter "time of long press(1…10s)"

This parameter sets the long press time, that is, long press? The second scene module is determined to be a long press.

Range: 1…10, unit: second

Parameter "Save scene number is (1...64)"

This parameter sets the saved scene number.

Range: 1...64

Parameter "Feedback setting"

This parameter is used to set the display of the icon in a short press.

Options: Call scene 1=OFF; call scene 2=ON

        Call scene 1=ON; call scene 2=OFF

        Call scene 1=ON; else=OFF

        Call scene 2=ON; else=OFF

Select "call scene 1=OFF; call scene 2=ON", short press the module, and the communication object "Call scene(1...64), K_x_z" will send out the scene number corresponding to "scene 1", the icon will be displayed in white, and it will be sent out The icon of the scene number corresponding to "scene 2" is displayed in yellow.

Select "Call scene 1=ON; call scene 2=OFF", short press the module, and the communication object "Call scene(1...64), K_x_z" will send out the scene number corresponding to "scene 1", the icon will be displayed in yellow, and it will be sent out The icon of the scene number corresponding to "scene 2" is displayed in white.

Select "Call scene 1=ON; else=OFF", short press the module, the communication object "Call scene(1...64), K_x_z" sends out the scene number corresponding to "scene 1", the icon will be displayed in yellow, otherwise the icon will be displayed Is white.

Select "Call scene 1=ON; else=OFF", short press the module, the communication object "Call scene(1...64), K_x_z" sends out the scene number corresponding to "scene 2", the icon will be displayed in yellow, otherwise the icon will be displayed Is white.

Parameter "Icon setting"

Set the scene icon.

Options: Common scene

        TV scene

        Come home scene

        Dining scene

        Romance scene

        Leave home scene

        Sleep scene

        Music scene

        Reading scene

        Main switch on

        Main switch off

        User defined

Parameter "title display"

When the icon selects a fixed icon, this parameter is activated to set whether the title is customizable.

Options: Default

        User defined

3.5.6 Parameter "key x_z switch value page"
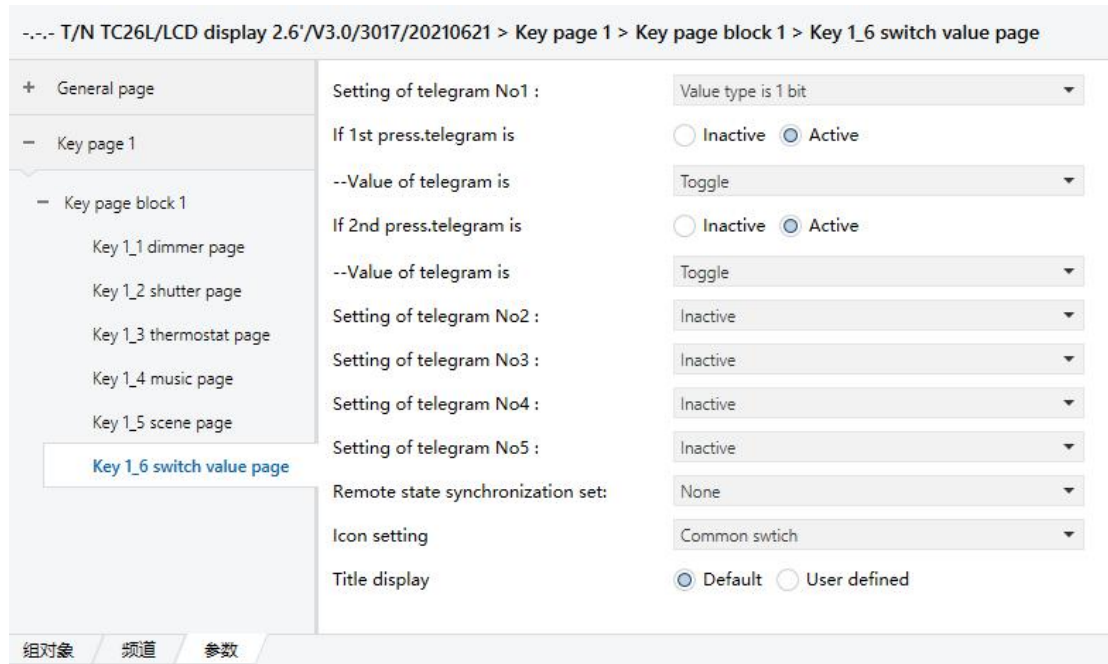
Parameter "Setting of telegram NoX"

Parameter "If 1ˢᵗ/2ⁿᵈ press telegram is"

Parameter "—Value of telegram is"

These parameters are used in combination to set the data type and message value of the message sent from the panel to the bus when the module is short-pressed. The communication object is "Output 1bit/4 bit/1byte value NoX K_x_z".

There are 3 options for the data type: 1bit, 4 bit, 1byte;

Message value range: 0/1, 0...15, 0...255

Parameter "Remote state synchronization set"

This parameter is used to set the remote status synchronization.

Options: none

        telegram 1

        telegram 2

        telegram 3

telegram 4

telegram 5

Select "none", do not set remote status synchronization;

Select "telegram 1" and set the remote status synchronization to telegram 1;

Select "telegram 2" and set the remote status synchronization to telegram 2;

Select "telegram 3" and set the remote status synchronization to telegram 3;

Select "telegram 4" and set the remote status synchronization to telegram 4;

Select "telegram 5" and set the remote status synchronization to telegram 5.

Note: The remote status synchronization is telegrm X means that the telegram X object "Output 1bit/4 bit/1byte value NoX K_x_z" is used to modify the message status and synchronize to make the next message sent out opposite to this message.

For example: the "first press value" and "second press value" of these five messages are set to ON and OFF respectively. The value issued by the second press of the button is the "second press value", the value issued by the third press of the button is the "first press value", and so on. (If the synchronization status is telegram1, when the key is pressed for the first time, the values sent by the five message members are all ON. Use the object "Output 1bit/4 bit/1byte value NoX K_x_z" corresponding to telegram1 to write the message OFF, Then OFF is synchronized as the value issued for the second time by pressing the button, then the values of the five messages are all ON when the button is pressed next time [ie "the first pressed value"])

Parameter"Icon setting"

Set the open and close icon.

Optional: Common switch

Common lamp

Common curtain

Switch socket

Floor heating

Thermostat

Dining room

Kitchen

Living room

Bedroom

Balcony

Locker room

Shower room

User defined

Parameter"title display"

When the icon selects a fixed icon, this parameter is activated to set whether the title is customizable.

Options: Default

User defined

3.5.7 Parameter"key x_z display page"

The function of this parameter setting interface is to select any value display among time, alarm, label, temperature, humidity, VOC, PM2.5, PM10, CO, and CO2.
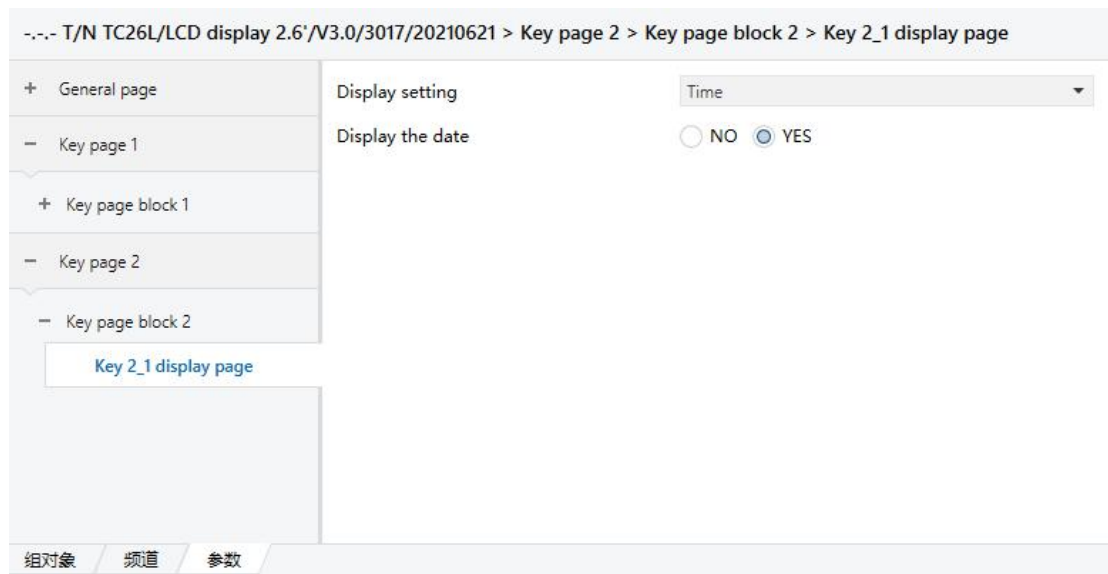
Parameter"display setting"

This parameter sets the object displayed by the module.

Options: Time

Alarm

Character

Data value

Temperature

Humidity

VOC

PM25

PM10

CO

CO2

Selecting "Time" means to turn on the time display function. As for whether to display the date, it is set by the parameter "display the data", and the time and date are written by the communication objects "Time" and "Data";

Select "Alarm" to turn on the warning display, and the communication object "Alarm" can modify the alarm status;

Select "Character" to turn on the label display. The content of the label is written by the communication object "Character", which can display approximately 13 numbers and letters;

Select "Data value" to turn on the value + unit display, the unit is set by the parameter "Display unit", the length is allowed to be 8 bytes, the value type is set by the parameter "Object type", 1bit/1byte/2byte is optional, and the 2byte data type is Unsigned integer /Signed integer/Floating point is optional;

Select "Temperature/Humidity" to turn on the temperature/humidity display, you can select the detection source of ambient temperature/humidity, which is set by the parameter "Temperature/Humidity source"; if the detection source is external, activate the parameter "alarm function is" to turn on the temperature and humidity Threshold alarm;

When "VOC/PM25/PM10/CO/CO2" is selected, the parameter "alarm function is" is activated, as shown in the figure below.

Note: Selecting "VOC" is similar to selecting "PM25/PM10/CO/CO2". The parameters and communication objects are similar. Take VOC as an example to expand the explanation; VOC/PM25/PM10/CO/CO2 gas values are all external inputs, and there is no local sensor Detection.
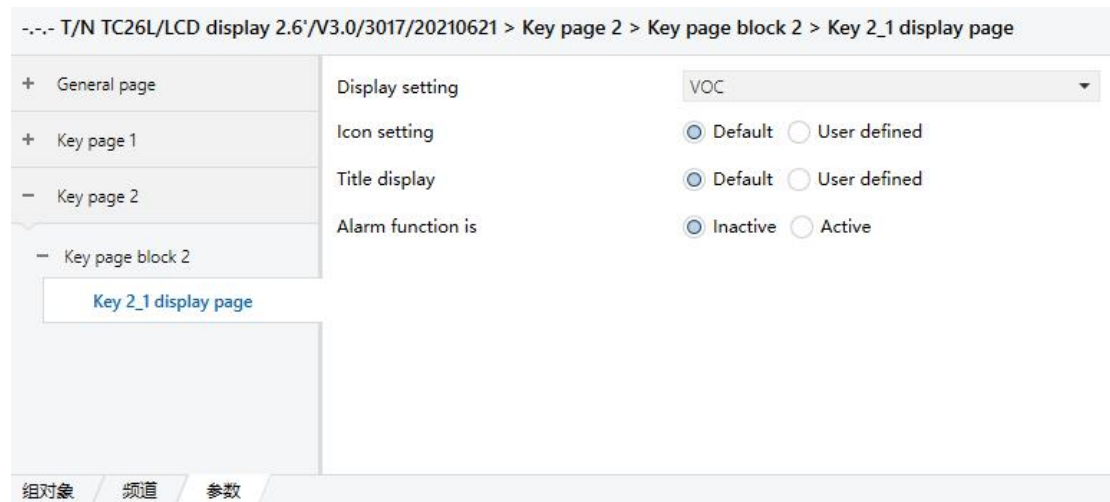
Parameter "alarm function is"

This parameter sets whether to activate the gas alarm function.

Options: inactive

       active

Select "active" to activate the gas alarm function, and 6 related parameters appear, as shown in the figure below:

General page	Display setting	VOC
Key page 1	Icon setting	○ Default ○ User defined
Key page 2	Title display	○ Default ○ User defined
Key page block 2	Alarm function is	○ Inactive ● Active
Key 2_1 display page	Threshold 1 value is(0...60000)	50
	Threshold 2 value is(0...60000)	100
	--Threshold behaviour	● With hysteresis ○ Without hysteresis
	value<low: telegram is	1 bit value type
	--Value set is	Toggle
	Low<value<upper: telegram is	4 bit value type
	--Value set is(0...15)	0
	upper<value: telegram is	8 bit value type
	--Value set is(0...255)	0

组对象 / 频道 / 参数

Parameter"threshold 1/2 value is(0…60000)"

These 2 parameters are used to set the minimum/maximum alarm threshold of the gas value, threshold 1 <threshold 2.

Range: 0···60000

Parameter"—threshold behaviour"

Optional: Without hysteresis

       With hysteresis

Select "without hysteresis" to conform to the behavior of the channel setting without hysteresis, and the parameters "value<low, telegram is", "low<value<upper, telegram is", "upper<value, telegram is" will appear;

Select "With hysteresis", the behavior mode of the channel setting in case of hysteresis, the parameters "value<low, telegram is" and "upper<value, telegram is" appear.

Parameter"value<low, telegram is"

When the gas value is lower than the minimum alarm threshold, the communication object "falling, 1bit/4bit/8bit, K_x_z" sends out an alarm message, and the message value is set by the parameter "--Value set is".

Parameter"low<value<upper, telegram is"

This parameter is activated when the parameter " — threshold behaviour" selects "without hysteresis". When the gas value is between the lowest alarm threshold and the highest alarm threshold, the communication object "middle, 1bit/4bit/8bit, K_x_z" sends out an alarm message , The message value is set by the parameter "--Value set is".

Parameter"upper<value, telegram is"

When the gas value is higher than the highest alarm threshold, the communication object "beyond,

1bit/4bit/8bit, K_x_z" sends out an alarm message, and the message value is set by the parameter "--Value set is".

Parameter "Icon setting"

This parameter is used to set the icon.

Options: Default

          User defined

Parameter "title display"

When the icon is the default icon, activate this parameter to set whether the title is customizable.

Options: Default

          User defined

3.5.8 Parameter "key x_z jump page"

The function of the parameter setting interface is to set the jump page.

Parameter "Jumps to the specified page"

This parameter sets the page to jump to when clicking the jump module.

The number of pages that can be set is related to the parameter "set the number of key pages" in the parameter setting interface "3.2. Parameter setting interface General page", the maximum range is 1…10.

Parameter "Icon setting"

This parameter sets the icon displayed by the jump module.

Optional: Dining room

          Locker room

          Living room

          Balcony

Shower room

Bedroom

User defined

Parameter "title display"

When the icon is a fixed icon, activate this parameter to set whether the title is customizable.

Options:　Default

　　　　　User defined

3.5.9　Parameter "key x_z floor heating page"

The function of the parameter setting interface is to set the floor heating page.
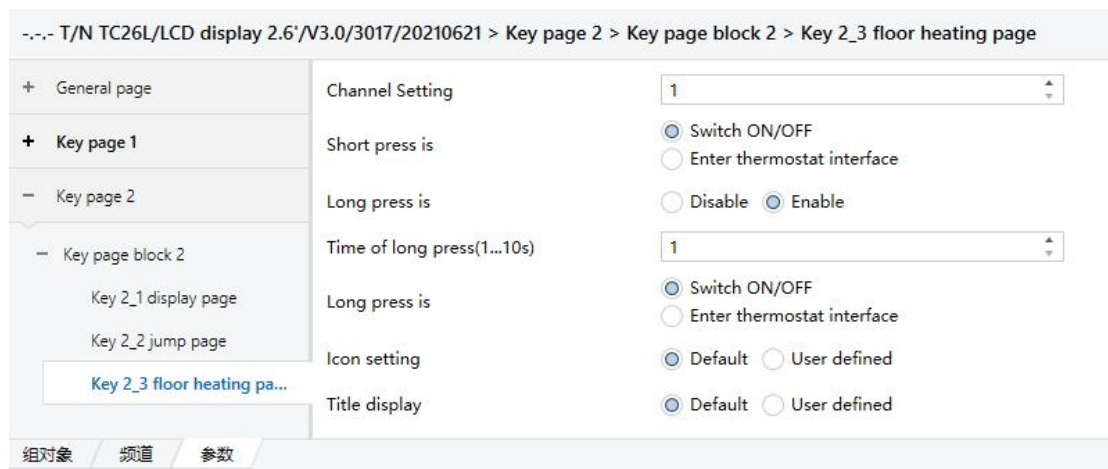
The parameters on this page are the same as the air conditioner display page, please refer to the description of "3.5.3 Parameter Setting Interface key x_z Thermostat page".

3.5.10　Parameter "key x_z fresh air page"

The function of the parameter setting interface is to set the fresh air page.
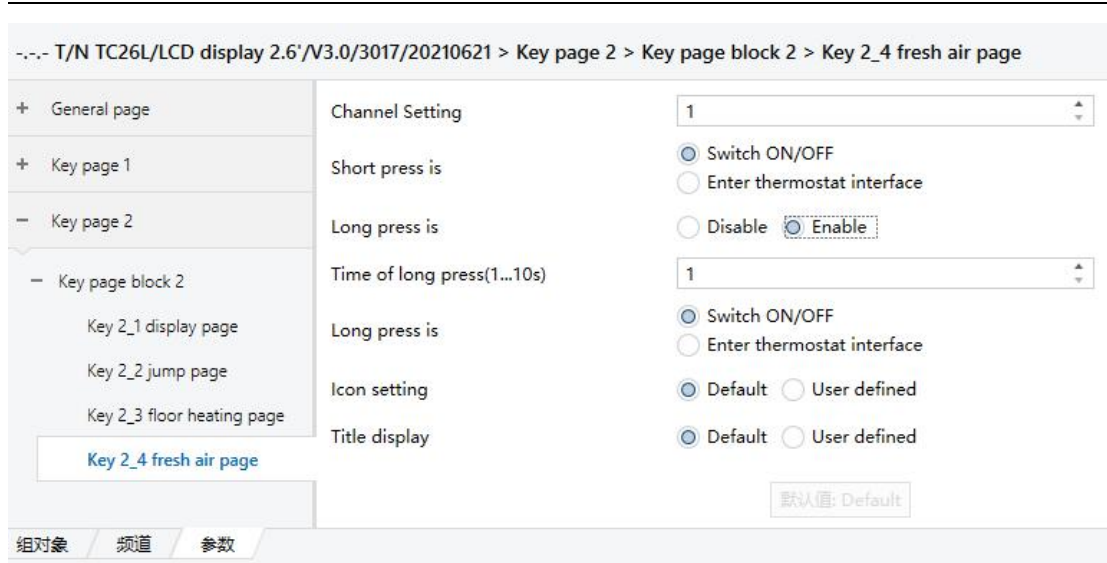
The parameters on this page are the same as the air conditioner display page, please refer to the description of "3.5.3 Parameter Setting Interface key x_z Thermostat page".

4. Communication object

Note: "C" in the attribute column of the table below represents the communication function enable of the communication object, "W" represents that the communication object can rewrite the value of other devices, and "R" represents the value of the communication object can be read by other devices. "T" represents that the communication object has a transmission function, and "U" represents that the value of the communication object can be rewritten through the response message of the bus.

4.1 "General" communication object

There are 4 communication objects under "General", as shown in Figure 4.1-1, and the specific functions are shown in Table 1-1.

Figure 4.1-1 General communication object

No.	Object function	Name	Type of data	Attributes
1	Lock device	General	1bit	C,R,W
This communication object is used to lock the device. The communication object is sent 01 to lock				

the device through the bus, and the touch panel cannot be operated. Sending 00 will unlock the device.

3	OLED display ON/OFF	General	1bit	C,W
This communication object is used to switch the OLED screen, receive message 0 to turn off the OLED screen, and receive message 1 to turn on the OLED screen.				
4	Brightness of OLED	General	1byte	C,R,W
This communication object is used to modify the brightness value of the OLED screen.				
6	Valid action of key	General	1bit	C,W,T
This communication object is a valid key. When the key is activated for the first time, 01 is issued to indicate that the key is pressed, otherwise no data will be sent, and the valid key is also related to the value of the communication object when the key is activated for the first time: Send 00 to the communication object, if yes When the button is pressed, the communication object sends data 01 to indicate a button is pressed; if the communication object sends 01, if a button is pressed, the communication object "Valid action of key" does not send data.				
12	Current temperature	General	2byte	C,R,T (,W)
When the temperature value is collected by the internal sensor, use this communication object to send the current temperature value.				
18	Current humidity	General	2byte	C,R,T (,W)
When the humidity value is collected by the internal sensor, use this communication object to send the current humidity value.				

Table 1-1 General communication object

4.2 "Laser detection" communication object

There are 5 communication objects under "Laser detection", as shown in Figure 4.2-1, and the specific functions are shown in Table 2-1.

⇄ 7	Laser detection	Trigger No1	1 bit	C - W - -	1-bit, trigger	低
⇄ 8	Laser detection	Status No1	1 bit	C R - T -	1-bit, switch	低
⇄ 9	Laser detection	Trigger No2	1 bit	C - W - -	1-bit, trigger	低
⇄ 10	Laser detection	Status No2	1 bit	C R - T -	1-bit, switch	低

Figure 4.2-1 Laser detection communication object

No.	Object function	Name	Type of data	Attributes
7	Trigger No.1	Laser detection	1bit	C,W
This communication object is used to activate or deactivate the laser detection function. As to whether the received message 1 is activated or deactivated, it is set according to the parameter "—Way of trigger by bus".				
8	Status No.1	Laser detection	1bit	C,R,T
The communication object is activated when the parameter "—if state changed, teleg No.1 is" is selected as "Active". When the laser detects a person (detection distance is not 0), the communication object "Status No.1" sends message 1 When the laser detection distance is 0, wait for the time set by the parameter "—delay time for shut off backlight" to finish, then adjust the backlight (the brightness of the backlight adjustment is set according to the parameter "—percent				

value of OLED is"), and at the same time, the communication The object "Status No.1" sends message 0 to the bus.				
9	Trigger No.2	Laser detection	1bit	C,W
Refer to the communication object "Trigger No.1"				
10	Status No.2	Laser detection	1bit	C,R,T
Refer to the communication object "Status No.1"				

Table 2-1 Laser detection communication object

4.3 "VRV" communication object

Each VRV channel has the same communication object. Taking the communication object of VRV channel 1 as an example, there are 14 communication objects in total, as shown in Figure 4.3-1. The specific functions are shown in Table 3-1.

■⇄ 387	VRV	Switch status feedback.CH1	1 bit C R W T U 1-bit, switch	低
■⇄ 388	VRV	Temperature feedback.CH1	2 bytes C R W T U 2-byte float value, temperature (°C)	低
■⇄ 389	VRV	Speed feedback.CH1	1 byte C R W T U 8-bit unsigned value, fan stage (0..255)	低
■⇄ 390	VRV	Mode feedback.CH1	1 byte C R W T U 1-byte, HVAC mode	低
■⇄ 391	VRV	Switch ON/OFF.CH1	1 bit C R - T - 1-bit, switch	低
■⇄ 392	VRV	Set temperature.CH1	2 bytes C R - T - 2-byte float value, temperature (°C)	低
■⇄ 393	VRV	Speed.CH1	1 byte C R - T - 8-bit unsigned value, fan stage (0..255)	低
■⇄ 394	VRV	Mode.CH1	1 byte C R - T - 1-byte, HVAC mode	低
■⇄ 395	VRV	Dehumidify active.CH1	1 bit C R W - - 1-bit, enable	低
■⇄ 396	VRV	Cooling active.CH1	1 bit C R W - - 1-bit, enable	低
■⇄ 397	VRV	Ventilation active.CH1	1 bit C R W - - 1-bit, enable	低
■⇄ 398	VRV	Heating active.CH1	1 bit C R W - - 1-bit, enable	低
■⇄ 407	VRV	Min set temperature.CH1	2 bytes C R W - - 2-byte float value, temperature (°C)	低
■⇄ 408	VRV	Max set temperature.CH1	2 bytes C R W - - 2-byte float value, temperature (°C)	低

Figure 4.3-1 VRV communication object

No.	Function	Communication object name	Type of data	Attributes
387	Switch status feedback	VRV	1bit	C,R,W,T,U
Synchronizing the switch status of the air conditioner panel through this feedback object is related to the selection of the parameter "Object value 'Switch status feedback'": Select "0=OFF; 1=ON", when the message received by the communication object "Switch status feedback" is 0, the air conditioner state is off, and when the message received is 1, the air conditioner state is on; Select "0=ON; 1=OFF", the opposite is true.				
388	Temperature feedback	VRV	2byte	C,R,W,T,U
This feedback object is used to synchronize the setting temperature of the air conditioner panel.				
389	Speed feedback	VRV	1byte	C,R,W,T,U
This feedback object is used to synchronize the wind speed of the air conditioning panel.				
390	Mode feedback	VRV	1byte	C,R,W,T,U
The operation mode of the air conditioning panel is synchronized through this feedback object.				
391	Switch ON/OFF	VRV	1bit	C,R,T
This communication object is used to send the control value of the air conditioner switch to the bus.				

According to the setting of the parameter "Object value'Switch ON/OFF'", select "0=OFF; 1=ON". When the air conditioner is turned on by clicking on the display, the communication object "Switch ON/OFF" sends out 1, and the communication object when the air conditioner is turned off" Switch ON/OFF" sends out 0; select "0=ON; 1=OFF", which is the opposite of the previous one.

392	Set temperature	VRV	2byte	C,R,T
This communication object is used to send the air conditioner setting temperature to the bus.				
393	Speed	VRV	1byte	C,R,T
这个通讯对象是用于往总线发出空调风速的控制值。				
394	Mode	VRV	1byte	C,R,T
This communication object is used to send the control value of the air conditioning mode to the bus.				
395	Dehumidify active	VRV	1bit	C,R,W
This communication object is used to disable/activate the dehumidification mode of the air conditioner. The communication object receives the message value 1 to indicate the activation of the dehumidification mode, and receiving 0 indicates the dehumidification mode is disabled.				
396	Cooling active	VRV	1bit	C,R,W
This communication object is used to disable/activate the cooling mode. The communication object receives a message with a value of 1 indicating that the cooling mode is activated, and receiving 0 indicates that the cooling mode is disabled.				
397	Ventilation active	VRV	1bit	C,R,W
This communication object is used to disable/activate the ventilation mode. The communication object receives a message with a value of 1 indicating that the ventilation mode is activated, and receiving 0 indicates that the ventilation mode is disabled.				
398	Heating active	VRV	1bit	C,R,W
This communication object is used to disable/activate the heating mode. The communication object receives a message with a value of 1 indicating that the heating mode is activated, and receiving 0 indicates that the heating mode is disabled.				
407	Min set temperature	VRV	2byte	C,R,W
Modify the minimum temperature value of the set temperature of the VRV air conditioner through this communication object.				
408	Max set temperature	VRV	2byte	C,R,W
Modify the maximum temperature value of the set temperature of the VRV air conditioner through this communication object.				

Table 3-1 VRV communication object

4.4"Fan coil" communication object

Each fan coil channel has the same communication object. Taking the communication object of Fan coil channel 1 as an example, there are a total of 24 communication objects, as shown in Figure 4.4-1, and the specific functions are shown in Table 4-1.

387	Fan coil	Speed 1.CH1	1 bit	C R - T -	1-bit, switch	低
388	Fan coil	Speed 2.CH1	1 bit	C R - T -	1-bit, switch	低
389	Fan coil	Speed 3.CH1	1 bit	C R - T -	1-bit, switch	低
390	Fan coil	Heating value.CH1	1 byte	C R - T -	8-bit unsigned value, percentage (0..100%)	低
391	Fan coil	Cooling value.CH1	1 byte	C R - T -	8-bit unsigned value, percentage (0..100%)	低
392	Fan coil	Speed 1 feedback/Fan coil.CH1	1 bit	C R W - -	1-bit, switch	低
393	Fan coil	Speed 2 feedback/Fan coil.CH1	1 bit	C R W - -	1-bit, switch	低
394	Fan coil	Speed 3 feedback/Fan coil.CH1	1 bit	C R W - -	1-bit, switch	低
395	Fan coil	Speed auto.CH1	1 bit	C R - T -	1-bit, switch	低
396	Fan coil	External temperature.CH1	2 bytes	C R W - -	2-byte float value, temperature (°C)	低
397	Fan coil	Remote control switch.CH1	1 bit	C - W - -	1-bit, switch	低
398	Fan coil	Remote control mode.CH1	1 byte	C - W - -	1-byte, HVAC mode	低
399	Fan coil	Remote control speed.CH1	1 byte	C - W - -	8-bit unsigned value, fan stage (0..255)	低
400	Fan coil	Remote setting Temperature.CH1	2 bytes	C - W - -	2-byte float value, temperature (°C)	低
401	Fan coil	Switch feedback/Panel.CH1	1 bit	C R - T -	1-bit, switch	低
402	Fan coil	Mode feedback/Panel.CH1	1 byte	C R - T -	1-byte, HVAC mode	低
403	Fan coil	Speed feedback/Panel.CH1	1 byte	C R - T -	8-bit unsigned value, fan stage (0..255)	低
404	Fan coil	Set temperature feedback/Panel.CH1	2 bytes	C R - T -	2-byte float value, temperature (°C)	低
405	Fan coil	Switch.CH1	1 bit	C R - T -	1-bit, switch	低
406	Fan coil	Switch feedback/Fan coil.CH1	1 bit	C R W - -	1-bit, switch	低
407	Fan coil	Heating lower theshold.CH1	2 bytes	C R W - -	2-byte float value, temperature (°C)	低
408	Fan coil	Heating upper theshold.CH1	2 bytes	C R W - -	2-byte float value, temperature (°C)	低
409	Fan coil	Cooling lower theshold.CH1	2 bytes	C R W - -	2-byte float value, temperature (°C)	低
410	Fan coil	Cooling upper theshold.CH1	2 bytes	C R W - -	2-byte float value, temperature (°C)	低
414	Fan coil	Dehumidify active.CH1	1 bit	C R W - -	1-bit, enable	低
415	Fan coil	Cooling active.CH1	1 bit	C R W - -	1-bit, enable	低
416	Fan coil	Ventilation active.CH1	1 bit	C R W - -	1-bit, enable	低
417	Fan coil	Heating active.CH1	1 bit	C R W - -	1-bit, enable	低

Figure 4.4-1 Fan coil communication object

No.	Function	Communication object name	Type of data	Attributes
387/388/389	Speed 1/2/3	Fan coil	1bit	C,R,T
387	Speed 1byte	Fan coil	1byte	C,R,T
This communication object is used to send the wind speed control value of the fan coil to the bus. The data type of the communication object is related to the selection of the parameter "Speed object set": Optional: 1bit 1byte Select "1bit", the object type of wind speed control value/feedback value is 1bit, and the communication objects are "Speed 1", "Speed 2", and "Speed 3" respectively. Select "1byte", the object type of wind speed control value/feedback value is 1byte, and the communication object is "Speed 1byte".				
390/391	Heating/Refrigeration value	Fan coil	1bit/1byte	C,R,T
391	Control value	Fan coil	1bit/1byte	C,R,T
This communication object represents the heating/cooling control value, and the communication object is related to the selection of the parameter "Number of output channels": Options: 2 channel (4 pipe) for heat/cool 1 channel (2 pipe) for heat/cool Select "2 channel (4 pipe) for heat/cool" and set the number of output channels of the fan coil unit to 4 pipes, then the fan coil unit can have both cooling and heating, and the communication objects are "Heating value" and "Refrigeration" value"; Select "1 channel (2 pipe) for heat/cool", set the number of output channels of the fan coil to 2 pipes, then only one of the cooling and heating in the fan coil can exist, and the two communication objects "Control value" are activated , "Switch cooling/heating", when the mode is				

cooling, the communication object "Switch cooling/heating" will send 0 or 1, which is set by the parameter "Switch cooling/heating'object value'"				
390	Switch cooling/heating	Fan coil	1bit	C,R,T
It appears when the parameter "Number of output channels" is "1 channel (2 pipe) for heat/cool", it is used to indicate whether it is currently in cooling mode or cooling mode. As for the object to emit 0 for cooling or heating, the parameter "Switch cooling/heating'object value'" setting				
392/393/394	Speed 1/2/3 feedback/Fan coil	Fan coil	1bit	C,R,W
392	Speed feedback/Fan coil	Fan coil	1Byte	C,R,W
This communication object is used to feed back the wind speed of the fan coil. The data type of the communication object is related to the selection of the parameter "Speed object set": Optional: 1bit 1byte Select "1bit", the object type of wind speed control value/feedback value is 1bit, and the communication objects are "Speed 1 feedback/Fan coil", "Speed 2 feedback/Fan coil", "Speed 3 feedback/Fan coil"; Select "1byte", the object type of wind speed control value/feedback value is 1byte, and the communication object is "Speed feedback/Fan coil".				
395	Speed auto	Fan coil	1bit	C,R,T
This communication object indicates whether the fan coil unit is in the automatic wind state. The communication object is related to the selection of the parameter "Auto/manual speed set": Options: "0"=manual, "1"=auto "0"=auto, "1"=manual Select "0"=manual, "1"=auto", then set 0 as manual wind speed, 1 as automatic wind speed, and the communication object "Speed auto" sends out 01 when it is at automatic wind speed. Select "0"=auto, "1"=manual", then set 0 as automatic wind speed, 1 as manual wind speed, and the communication object "Speed auto" sends out 00 when it is at automatic wind speed.				
396	External temperature	Fan coil	2byte	C,W
This communication object is used to receive the external temperature value.				
397	Remote control switch	Fan coil	1bit	C,R,W
This communication object is used to remotely control the switch status of the fan coil unit. The communication object is related to the selection of the parameter "Switch set": Options: "0" = "OFF"; "1" = "ON" "0" = "ON"; "1" = "OFF" Select "0" = "OFF"; "1" = "ON"", when the screen is turned on, the communication object "Remote control switch" sends out 01, when the screen displays "OFF" the communication object "Remote control switch" sends out 00; Select "0" = "ON"; "1" = "OFF"", when the screen is turned on, the communication object "Remote control switch" sends out 00, when the screen displays "OFF" the communication object "Remote control switch" sends out 01.				
398	Remote control mode	Fan coil	1byte	C,R,W
This communication object is used to remotely control the mode of the fan coil unit. The communication object is related to the setting of the parameter "Object value　'Remote control mode': Dehumidify/Cooling/Ventilation/Heating (0...255)".				

399	Remote control speed	Fan coil	1byte	C,R,W
This communication object is used to remotely control the wind speed of the fan coil. The communication object and the parameter "Object value"Remote control speed': Speed off/speed 1/speed 2/speed 3/speed auto(0...255) The setting of "set" is related.				
400	Remote setting set temperature	Fan coil	2byte	C,R,W
This communication object is used to remotely control the temperature of the fan coil.				
401	Switch feedback/Panel	Fan coil	1bit	C,R,T
This communication object is used to send a message to the bus to report the on-off status of the fan coil unit.				
402	Mode feedback/Panel	Fan coil	1byte	C,R,T
This communication object is used to send a message to the bus to report the current mode of the fan coil.				
403	Speed feedback/Panel	Fan coil	1byte	C,R,T
This communication object is used to send a message to the bus to report the current wind speed of the fan coil.				
404	Set temperature feedback/Panel	Fan coil	2byte	C,R,T
This communication object is used to send the current set temperature value of the fan coil.				
405	Switch	Fan coil	1bit	C,R,T
When the fan coil is switched on and off, the switch status of the fan coil is fed back to the bus through this object. When the fan coil is turned off, a message "0" is sent out, and when the fan coil is turned on, a message "1" is sent out.				
406	Switch feedback/Panel	Fan coil	1bit	C,R,W
Send a message "1" to the communication object to turn on the fan coil, and send a message "0" to turn off the fan coil.				
407/409	Heating/ Cooling lower theshold	Fan coil	2byte	C,R,W
Through this communication object, modify the minimum temperature value of the set temperature of the fan coil heating/cooling mode.				
408/410	Heating/ Cooling upper theshold	Fan coil	2byte	C,R,W
Modify the maximum temperature value of the set temperature of the fan-coil heating/cooling mode through this communication object.				
414	Dehumidify active	Fan coil	1bit	C,R,W
This communication object is used to disable/activate the dehumidification mode. The communication object receives a message with a value of 1 indicating that the dehumidification mode is activated, and receiving 0 indicates that the dehumidification mode is disabled.				
415	Cooling active	Fan coil	1bit	C,R,W
This communication object is used to disable/activate the cooling mode. The communication object receives a message with a value of 1 indicating that the cooling mode is activated, and receiving 0 indicates that the cooling mode is disabled.				
416	Ventilation active	Fan coil	1bit	C,R,W
This communication object is used to disable/activate the ventilation mode. The communication object receives a message with a value of 1 indicating that the ventilation mode is activated, and receiving 0 indicates that the ventilation mode is disabled.				

417	Heating active	Fan coil	1bit	C,R,W
This communication object is used to disable/activate the heating mode. The communication object receives a message with a value of 1 indicating that the heating mode is activated, and receiving 0 indicates that the heating mode is disabled.				

Table 4-1 Fan coil communication object

4.5 "auto dehumidify" communication object

The automatic dehumidification function of each channel has the same communication object. Taking the communication object of channel 1 as an example, auto dehumidify has 3 communication objects, as shown in Figure 4.5-1. The specific functions are shown in Table 5-1.

Figure 4.5-1 auto dehumidify communication object

No.	Function	Communication object name	Type of data	Attributes
411	Auto dehumidify status	Auto dehumidify	1 bit	C,R,W
This communication object is used to set whether to enter the automatic dehumidification function: send 00 to the communication object to enter automatic dehumidification, and send 01 to exit automatic dehumidification.				
412	start threshold of dehumidify	Auto dehumidify	2 byte	C,R,W
This communication object is used to set the threshold for starting automatic dehumidification.				
413	stop threshold of dehumidify	Auto dehumidify	2 byte	C,R,W
This communication object is used to set the threshold for ending automatic dehumidification.				

Table 5-1 auto dehumidify communication object

4.6 "Music" communication object

Each channel of Music has the same communication object. Taking the communication object of channel 1 as an example, there are 9 communication objects in total, as shown in Figure 4.6-1. The specific functions are shown in Table 6-1.

Figure 4.6-1 music communication object

No.	Function	Communication object name	Type of data	Attributes
715	Move previous/next.CH1	Music function	1bit	C,T
This communication object is used to transmit the setting value of the previous song/next song, switch to the previous song and send out 1 or 0 by the parameter "Move previous and move next set"				
716	volume control.CH1	Music function	1byte	C,R,T
This communication object is used to transmit the volume value.				
717	volume feedback.CH1	Music function	1byte	C,R,W
The volume value can be modified through this communication object.				
718	Play state control.CH1	Music function	1bit	C,T
This communication object is used to transmit the music playing state control value, and the output value is related to the parameter "play control value set".				
719	Play state feedback.CH1	Music function	1bit	C,R,W,T,U
The music playback status can be modified through this communication object, and what value is sent to set the music playback status to pause is determined by the parameter "play feedback value set".				
720	Mute control.CH1	Music function	1bit	C,T
This communication object is used to transmit the control value of the music mute mode, and the output value is related to the parameter "mute control value set".				
721	Mute feedback.CH1	Music function	1bit	C,R,W,T,U
The mute mode of the music is modified through the communication object, and what value is sent to enter the mute mode is determined by the parameter "mute feedback value set".				
722	Music source.CH1	Music function	1byte	C,T
This communication object is used to transmit music source. As for what message value represents which source, it is set by the parameter "local/ Bluetooth/ network music value setting".				
723	Source feedback.CH1	Music function	1byte	C,R,W,T,U
The music source can be modified through this communication object. As for what message value represents which music source, it is set by the parameter "local/ Bluetooth/ network music value setting".				

Table 6-1 music communication object

4.7 "Dimmer" communication object

The Dimmer function of each module has the same communication object. Take the dimming communication object of the first module on page 1 as an example. There are 7 communication objects in total, as shown in Figure 4.7-1. The specific functions are shown in Table 7. -1.

25	Output K_1_1	Switch ON/OFF K_1_1	1 bit	C	-	-	T	-	1-bit, switch	低
26	Input K_1_1	Switch feedback K_1_1	1 bit	C	R	W	-	-	1-bit, switch	低
27	Output K_1_1	Dimming value K_1_1	1 byte	C	R	-	T	-	8-bit unsigned value, percentage (0..100%)	低
28	Input K_1_1	Dimming feedback K_1_1	1 byte	C	R	W	-	-	8-bit unsigned value, percentage (0..100%)	低

Figure 4.7-1 Dimmer communication object

No.	Function	Communication object name	Type of data	Attributes
25	Switch ON/OFF for short.K_1_1	Output	1bit	C,T
This communication object works when the dimming function is switched on, and the output value is determined by the parameter "value of dimming on/off is".				
26	Switch feedback.K_1_1	Output	1byte	C,R,W
This communication object is used to receive the feedback value of the dimmer switch.				
27	Dimming value.K_1_1	Output	1byte	C,T
This communication object is enabled when the parameter "Dimming type" selects "Common dimming", and it works when adjusting the dimming value, and is used to send the current dimming value to the bus.				
28	Dimming feedback.K_1_1	Input	1byte	C,R,W
This communication object is enabled when the parameter "Dimming type" selects "Common dimming", and the dimming value can be synchronized through this communication object.				
27/28/29	RGB_R/G/B.K_1_1	Output	1byte	C,R,W,T
These communication objects appear when the parameter "Dimming type" selects "RGB dimming" and the parameter "RGB object length RGB object length" selects "1byte", and they are used for RGB dimming.				
27	RGB K_1	Output	3byte	C,R,T
This communication object appears when the parameter "Dimming type" selects "RGB dimming" and the parameter "RGB object length RGB object length" selects "3byte", it is used for RGB dimming.				
28	RGB feedback K_1_1	Input	3byte	C,R,W
This communication object appears when the parameter "Dimming type" selects "RGB dimming" and the parameter "RGB object length RGB object length" selects "3byte", this object can synchronize the RGB dimming value.				

Table 7-1 dimmer communication object

4.8 "shutter" communication object

The shutter function of each module has the same communication object. Take the communication object of the curtain of the second module on the first page as an example. There are 3 communication objects, as shown in Figure 4.8-1. The specific functions are shown in Table 8- 1.

Figure 4.8-1 shutter communication object

No.	Function	Communication object name	Type of data	Attributes
25	Move shutter.K_1_1	Output	1bit	C,T
This communication object works when moving the curtain, and the output value is determined by the parameter "Direction of shutter move is".				
26	Adjust lamella of shutter.K_1_1	Output	1bit	C,T
This communication object works when adjusting the curtain angle, and the output value is determined by the parameter "Adjust lamella value setting".				
27	Height value K_1_1	Output	1byte	C,R,T
Use this object to control the height of the curtain.				
28	Height Feedback K_1_1	Output	1byte	C,R,W
The curtains highly reflect the object.				
29	Slat value K_1_1	Output	1byte	C,R,T
Use this object to adjust the angle of the curtain.				
30	Slat Feedback K_1_1	Output	1byte	C,R,W
Curtain angle feedback object.				

Table 8-1 shutter communication object

4.9 "scene" communication object

The scene function of each module has the same communication object. Take the communication object of the scene of the first module on the first page as an example. There are 3 communication objects, as shown in Figure 4.9-1. The specific functions are shown in Table 9- 1.

Figure 4.9-1 scene communication object

No.	Function	Communication object name	Type of data	Attributes
25	Save scene 1 byte.K_1_1	Output	1byte	C,T
This communication object is activated when the scene opens the long-press and save function, and the message value outputted by the long-press is set by the parameter. The data type can be set to 1bit or 1Byte by the parameter "call scene is set".				
26	Call scene(1…64).K_1_1	Output	1byte	C,W,T

This communication object works under the short-press function of the scene, and the scene number output by the short-press is set by parameters.				
30	Feedback of scene.K_1_1	Input	1byte	C,R,W
This communication object is the feedback value of the scene function, and the written message value needs to subtract 1 from the scene number.				

Table 9-1 scene communication object

4.10 "switch value" communication object

The switch value function of each module has the same communication object. Take the open and close communication object of the 6th module on page 1 as an example. There are 5 communication objects in total, as shown in Figure 4.10-1. The specific functions are shown in the table. 10-1.

Figure 4.10-1 switch value communication object

No.	Function	Communication object name	Type of data	Attributes
55	Output 1 bit value.No1.K_1_6	Output	1bit/4bit/1byte	C,W,T
This communication object is activated when the module selects switch value. Press the module, and the output message value is set by parameters. The data type can be set to 1bit or 4bit or 1Byte by the parameter "If 1st/2nd press telegram is".				
56	Output 1 bit value.No2.K_1_6	Output	1bit/4bit/1byte	C,W,T
Refer to the communication object "Output 1 bit value.No1.K_1_6"				
57	Output 1 bit value.No3.K_1_6	Output	1bit/4bit/1byte	C,W,T
Refer to the communication object "Output 1 bit value.No1.K_1_6"				
58	Output 1 bit value.No4.K_1_6	Output	1bit/4bit/1byte	C,W,T
Refer to the communication object "Output 1 bit value.No1.K_1_6"				
59	Output 1 bit value.No5.K_1_6	Output	1bit/4bit/1byte	C,W,T
Refer to the communication object "Output 1 bit value.No1.K_1_6"				

Table 10-1 switch value communication object

4.11 "display" communication object

The Display module has 10 functions, namely: time, alarm, label, temperature, humidity, VOC, PM2.5, PM10, CO, CO2, each module can choose any function, and different modules have the

same function when choosing the same function. The communication object, take the communication object of the first module on page 2 as an example, as shown in Figure 4.11-1, and the specific functions are shown in Table 11-1.

63	Output.K_2_1	Falling. 1 bit.K_2_1		1 bit	C	R	-	T	-	1-bit, boolean
64	Output.K_2_1	Middle. 1 bit.K_2_1		1 bit	C	R	W	T	-	1-bit, boolean
65	Output.K_2_1	Beyond. 1 bit.K_2_1		1 bit	C	R	W	T	-	1-bit, boolean
66	Input.K_2_1	Gas value.K_2_1		2 bytes	C	R	W	-	-	2-byte unsigned value, pulses
66	Input.K_2_1	Temperature.K_2_1		2 bytes	C	R	W	-	-	2-byte unsigned value, pulses
66	Input.K_2_1	Humidity.K_2_1		2 bytes	C	R	W	-	-	2-byte unsigned value, pulses
63	Input.K_2_1	Time.K_2_1		3 bytes	C	R	W	T	-	time, time of day
64	Input.K_2_1	Data.K_2_1		3 bytes	C	R	W	-	-	date, date
63	Input.K_2_1	Alarm.K_2_1		1 bit	C	R	W	T	-	1-bit, alarm
63	Input.K_2_1	Character.K_2_1		14 bytes	C	R	W	T	-	character string, Character String (ASC
63	Input K_2_1	Value K_2_1		1 bit	C	R	W	T	-	1-bit, boolean

Figure 4.11-1 display communication object

No.	Function	Communication object name	Type of data	Attributes
63	Falling.1 bit.K_2_1	Output	1bit/4bit/1byte	C,R,T
This communication object appears when "Temperature/Humidity/VOC/PM25/PM10/CO/CO2" is selected in the parameter "display setting" and the alarm message is activated. When the gas value is lower than the minimum alarm threshold, the communication object sends out an alarm message , The message value is set by the parameter "--Value set is".				
64	Middle.4 bit.K_2_1	Output	1bit/4bit/1byte	C,R,T
In the parameter "display setting" select "Temperature/Humidity/VOC/PM25/PM10/CO/CO2", the parameter "—threshold behaviour" selects "without hysteresis", the communication object will be activated, when the gas value is at the lowest alarm threshold Between the highest alarm threshold, this communication object sends out an alarm message, and the message value is set by the parameter "--Value set is".				
65	Beyond.8 bit.K_2_1	Output	1bit/4bit/1byte	C,R,T
This communication object appears when the parameter "display setting" selects "Temperature/Humidity/VOC/PM25/PM10/CO/CO2" and the alarm message is activated. When the gas value is higher than the highest alarm threshold, the communication object "beyond, 1bit/4bit/8bit, K_x_z" sends out an alarm message, and the message value is set by the parameter "--Value set is".				
66	Gas value.K_2_1	Intput	2byte	C,R,W
This communication object appears when the parameter "display setting" selects "VOC/PM25/PM10/CO/CO2". This communication object is used to transmit the externally detected VOC/PM25/PM10/CO/CO2 gas value.				
66	Temperature.K_2_1	Intput	2byte	C,R,W
This communication object appears when the parameter "display setting" selects "Temperature" and the parameter "Temperature source" selects "external", it is used to input the externally detected temperature value.				

66	Humidity.K_2_1	Intput	2byte	C,R,W
This communication object appears when the parameter "display setting" selects "Humidity" and the parameter "Humidity source" selects "external", it is used to input the externally detected humidity value.				
63	Time. K_2_1	Intput	3byte	C,R,W,T
This communication object appears when the parameter "display setting" selects "Time", and is used to write the current time.				
63	Data. K_2_1	Intput	3byte	C,R,W
This communication object is enabled when the parameter "display setting" selects "Time" and the parameter "Display the date" selects "YES", and is used to write the date.				
63	Alarm. K_2_1	Input	1bit	C,R,W,T
This communication object appears when the parameter "display setting" selects "alarm", and is used to modify the alarm state.				
63	Character. K_2_1	Input	14bytes	C,R,W,T
This communication object appears when the parameter "display setting" selects "Character", and is used to write the content of the label. It can display approximately 13 numbers and letters.				
63	Value K_2_1	Input	1bit/1byte/2byte	C,R,W,T
This communication object appears when the parameter "display setting" selects "Data value", and is used to write a value.				

Table 11-1 display communication object

4.12 "Temperature/humidity alarm" communication object

There are 8 communication objects under "Temperature/humidity alarm", as shown in Figure 4.12-1, and the specific functions are shown in Table 12-1.

Figure 4.12-1 Temperature/humidity alarm communication object

No.	Function	Communication object name	Type of data	Attributes
14	temperature alarm active	Alarm	1bit	C,R,W
This communication object is used to activate the temperature alarm function: send 01 to the communication object to activate the temperature alarm function; send 00 to inactivate the temperature alarm function.				
15	Upper limit of temp, alarm	Alarm	2byte	C,R,W
This communication object is used to set the upper limit of the temperature alarm.				
16	Lower limit of temp, alarm	Alarm	2byte	C,R,W

This communication object is used to set the lower limit value of the temperature alarm.				
17	Temperature alarm status	Alarm	1bit	C,R,T
This communication object is used to send temperature alarm status messages.				
20	humidity alarm active	Alarm	1bit	C,R,W
This communication object is used to activate the humidity alarm function: send 01 to the communication object to activate the humidity alarm function; send 00 to deactivate the humidity alarm function.				
21	Upper limit of humidity alarm	Alarm	2byte	C,R,W
This communication object is used to set the upper limit of the humidity alarm.				
22	Lower limit of humidity alarm	Alarm	2byte	C,R,W
This communication object is used to set the lower limit of the humidity alarm.				
23	humidity alarm status	Alarm	1bit	C,R,T
This communication object is used to send the message of the humidity alarm status.				

Table 12-1 Temperature/humidity alarm communication object

4.13 "Timing" communication object

The timing function of each channel has the same communication object. Taking the communication object of channel 1 as an example, there are 2 communication objects in Timing, as shown in Figure 4.13-1. The specific functions are shown in Table 13-1.

| 385 | Timing | Timing.CH1 | | 2 bytes | C | R | W | - | - | 2-byte unsigned value, pulses |
| 386 | Timing | Report.CH1 | | 2 bytes | C | R | - | T | - | 2-byte unsigned value, pulses |

Figure 4.13-1 Timing communication object

No.	Function	Communication object name	Type of data	Attributes
385	Timing	Timing	2byte	C,W
This communication object is used to set the timing time. Sending 1 to the communication object means that the timing is 1min.				
386	Report	Timing	2byte	C,R,T
This communication object is used to send a message to the bus to report the current timing time.				

Table 13-1 Timing communication object

4.14 "Floor heating" communication object

Each floor heating channel has the same communication object. Taking the communication object

of floor heating channel 1 as an example, there are a total of 12 communication objects, as shown in Figure 4.14-1. The specific functions are shown in Table 14-1.

769	Floor heating	Switch contorl.CH1	1 bit	C R - T -	1-bit, switch	低
770	Floor heating	Switch feedback.CH1	1 bit	C R W - -	1-bit, switch	低
771	Floor heating	Switch remote.CH1	1 bit	C R W - -	1-bit, switch	低
772	Floor heating	External current temperature.CH1	2 bytes	C R W - -	2-byte float value, temperature (°C)	低
773	Floor heating	Automatic function active.CH1	1 bit	C R W - -	1-bit, enable	低
774	Floor heating	Control actuator/1 bit.CH1	1 bit	C R - T -	1-bit, switch	低
775	Floor heating	Set temperature.CH1	2 bytes	C R - T -	2-byte float value, temperature (°C)	低
776	Floor heating	Set temperature feedback.CH1	2 bytes	C R W T U	2-byte float value, temperature (°C)	低
777	Floor heating	Set temperature remote.CH1	2 bytes	C R W - -	2-byte float value, temperature (°C)	低
778	Floor heating	Minimum set temperature.CH1	2 bytes	C R W - -	2-byte float value, temperature (°C)	低
779	Floor heating	Maximum set temperature.CH1	2 bytes	C R W - -	2-byte float value, temperature (°C)	低
780	Floor heating	Active.CH1	1 bit	C R W - -	1-bit, enable	低

Figure 4.14-1 Floor heating communication object

No.	Function	Communication object name	Type of data	Attributes
769	Switch contorl	Floor heating	1bit	C,R,T
The switch status of floor heating is transmitted to the bus through this communication object.				
770	Switch feedback	Floor heating	1bit	C,R,W
This communication object is used to feed back the status of the floor heating switch.				
771	Switch remote	Floor heating	2byte	C,R,W
Remotely switch the floor heating through the communication object.				
772	External current temperature	Floor heating	1bit	C,R,W
When the current temperature of the floor heating adopts the external temperature, the current temperature of the floor heating is written through the communication object.				
773	Automatic function active	Floor heating	1bit	C,R,W
The automatic function of floor heating can be turned on or disabled through this communication object.				
774	Control actuator/1 bit	Floor heating	2byte	C,R,T
This communication object is enabled when the parameter "Thermostat control Actuator" selects "YES", and is used to transfer the setting values of the parameter "--Switch ON value" and the parameter "--Switch OFF value" to the bus.				
775	Set temperature	Floor heating	2byte	C,R,T
The set temperature of floor heating is transmitted to the bus through this communication object.				
776	Set temperature feedback	Floor heating	2byte	C,R,W,T,U
This communication object is used to feed back the set temperature of the floor heating.				
777	Set temperature remote	Floor heating	2byte	C,R,W
The set temperature of floor heating can be changed remotely through this communication object.				
778	Minimum set temperature	Floor heating	2byte	C,R,W
Modify the minimum temperature value of the set temperature of the floor heating through this communication object.				
779	Maximum set temperature	Floor heating	2byte	C,R,W
Modify the maximum temperature value of the set temperature of the floor heating through this communication object.				

780	Active	Floor heating	1bit	C,R,W
The floor heating function can be activated or deactivated through this communication object.				

<div align="center">Table 14-1 Floor heating communication object</div>

4.15 "Fresh air" communication object

Each fresh air function channel has the same communication object. Taking the communication object of channel 1 as an example, there are 10 communication objects in total, as shown in Figure 4.15-1. The specific functions are shown in Table 15-1.

<div align="center">Figure 4.15-1 Fresh air communication object</div>

No.	Function	Communication object name	Type of data	Attributes
889	Switch	Fresh air	1bit/1byte	C,T
The communication object is visible when the parameter "Switch set" is "activated". When the fresh air is turned on by a button or a remote object, the communication object sends a message value to report the on/off status of the fresh air function.				
890	Switch, feedback	Fresh air	1bit/1byte	C,R,W
This communication object is visible when the parameter "Switch set" is "activated", and is used to receive messages from external devices to turn on or turn off the fresh air function.				
891	Switch，remote	Fresh air	1bit/1byte	C,W
This communication object is visible when the parameter "Switch set" is "activated", and is used to remotely turn on or turn off the fresh air function.				
892	Mode	Fresh air	1bit	C,T
The communication object is enabled when the parameter "Mode set" is selected as "activated". When the fresh air mode is switched by the button or the remote object, the communication object sends a message value to report the current mode of the fresh air.				
893	Mode,feedback	Fresh air	1bit	C,R,W
The communication object is enabled when the parameter "Mode set" is selected as "activated", and the fresh air mode is switched by receiving messages from external devices through this object. As for the message received by this communication object is 0, whether to switch to manual mode or automatic The mode is determined by the parameter "—auto speed (feedback)".				
894	Mode,remote	Fresh air	1bit	C,W
The communication object is enabled when the parameter "Mode set" is "activated", and it is used to switch the fresh air mode remotely. As to whether to switch to manual mode or automatic mode				

by sending a message 0 to this communication object, the parameter "— auto speed (remote)"Decide				
895	Speed	Fresh air	1byte	C,T
The communication object is valid when the parameter "Speed off/1/2/3/4/5" is selected as "activated". When the wind speed of the fresh air function in manual mode is modified by the key or remote object, the communication object sends a message value to report the current value. Wind speed.				
896	Speed,feedback	Fresh air	1byte	C,R,W
This communication object is valid when the parameter "Speed off/1/2/3/4/5" is "activated", and is used to receive messages from external devices to modify the wind speed in the manual mode of the fresh air function.				
897	Speed,remote	Fresh air	1byte	C,W
This communication object is valid when the parameter "Speed off/1/2/3/4/5" is "activated", and is used to remotely modify the wind speed in the manual mode of the fresh air function				
898	Active	Fresh air	1bit	C,R,W
This communication object appears when the parameter "Fresh air function" is "activated" and is used to enable or disable the fresh air function. Send message 1 to this communication object to enable the fresh air function, and send message 0 to disable the fresh air function.				

Table 15-1 Fresh air communication object