User Manual

T/N TRX40L.BL **T/N TRX40L.SL** **T/N TRX40L.BW**

TRX4 KNX 4” Touch Panel

Programming **Monitoring**

About Version

Version	Revision Notes	Reviser	date
V1.0	First draft	John Mccalen	20200429
V2.0	Added music, underfloor heating, fresh air, fan coil 2-step/PWM mode, time display, Text display, on, logic and other functions Modify screensavers, curtains, dimming, temperature and humidity sources, and more	John Mccalen	20220527

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1. Overview

This manual provides you with technical information about touch panels, as well as a detailed introduction to the features. The engineering tool software **ETS5** is capable of being used and operated on this system.

The 4-inch touch panel has the following features:

-- Energy-saving function
    -- Screensaver
-- Laser screen calling function
-- Thermostat control (air conditioning).
    -- VRV air conditioning control
    -- Fan Coil air conditioning control (2-step, PWM, Fan coil).
        -- Automatic dehumidification function
        -- Timing function
-- Music controls
-- Underfloor heating
-- Fresh air
-- Dimming
-- Curtains
-- Scene
-- Switch value、switch
-- Text display
-- Time display
-- Temperature and humidity
    --Detection
    --Alarm
-- VOC/CO2/CO gas function
    -- Display
    -- Alarm
-- Logic function
    -- AND、OR、XOR、Gate forwarding、Threshold comparator、Format convert、Event Group
-- Page jump
-- Free combination of page icons
-- Language switching
-- OLED display brightness adjustment

2. Technical performance

2.1 Technical Data

Here are some technical parameters for the touch panel:

☆ Operating voltage: 21-30V DC

☆ Auxiliary current consumption: < 50mA@24V DC

< 80mA@24V DC (with strong electric box)

☆KNX current: < 20mA@30V DC

☆Screen display mode: TFT size: 4" resolution: 480*480 dpi

☆Operating temperature: 0 °C ~ 45 °C storage temperature: -25 °C ~ +55 °C

☆Ambient humidity: ≤ 90% (to exclude condensation of water vapor).

☆ Appearance Material/Shell and Color:

☆ Protection class: IP20 (IP protection class according to EN60529 standard).

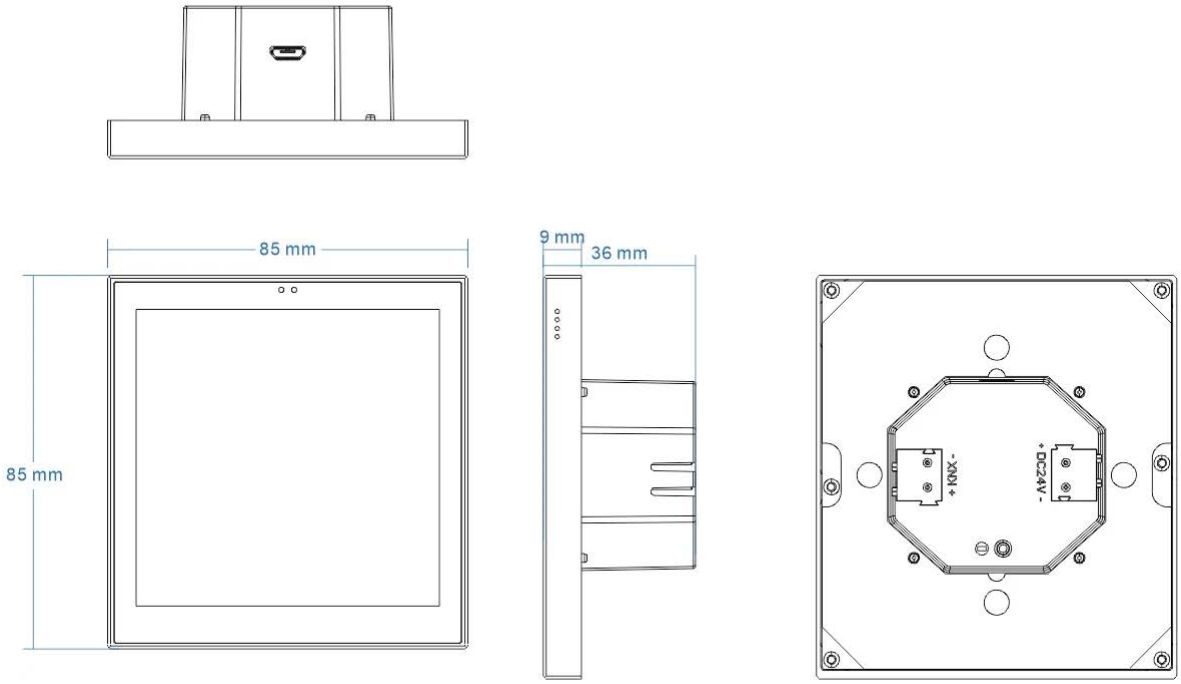
☆ Dimensions: 95*85*9mm

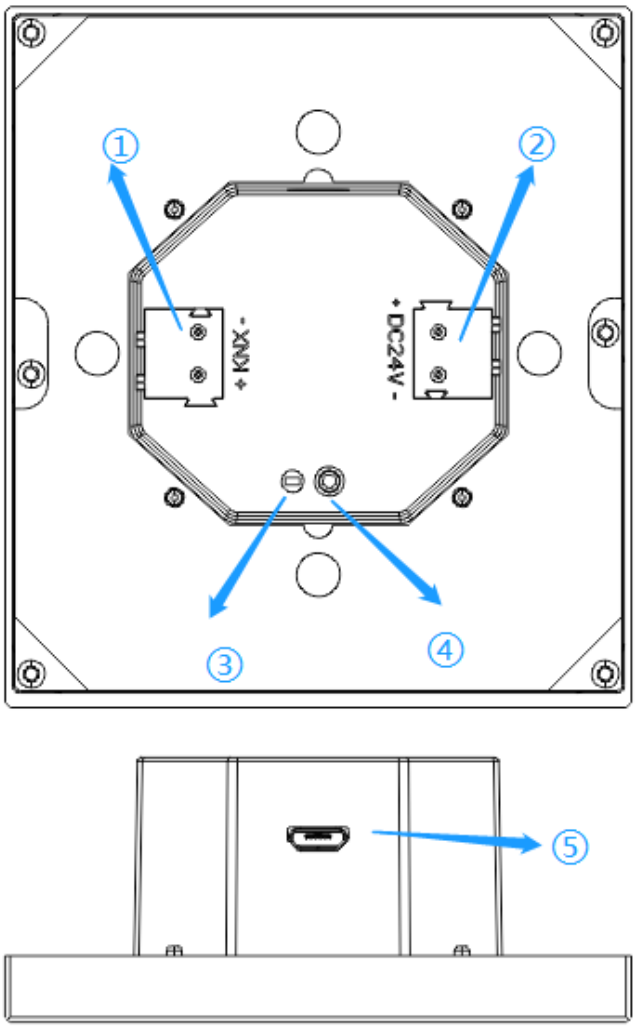
☆ Installation: Wall recessed

2.2 External structure and installation diagram

Appearance diagram

Exterior structure and dimensional drawings





(1) KNX terminal blocks

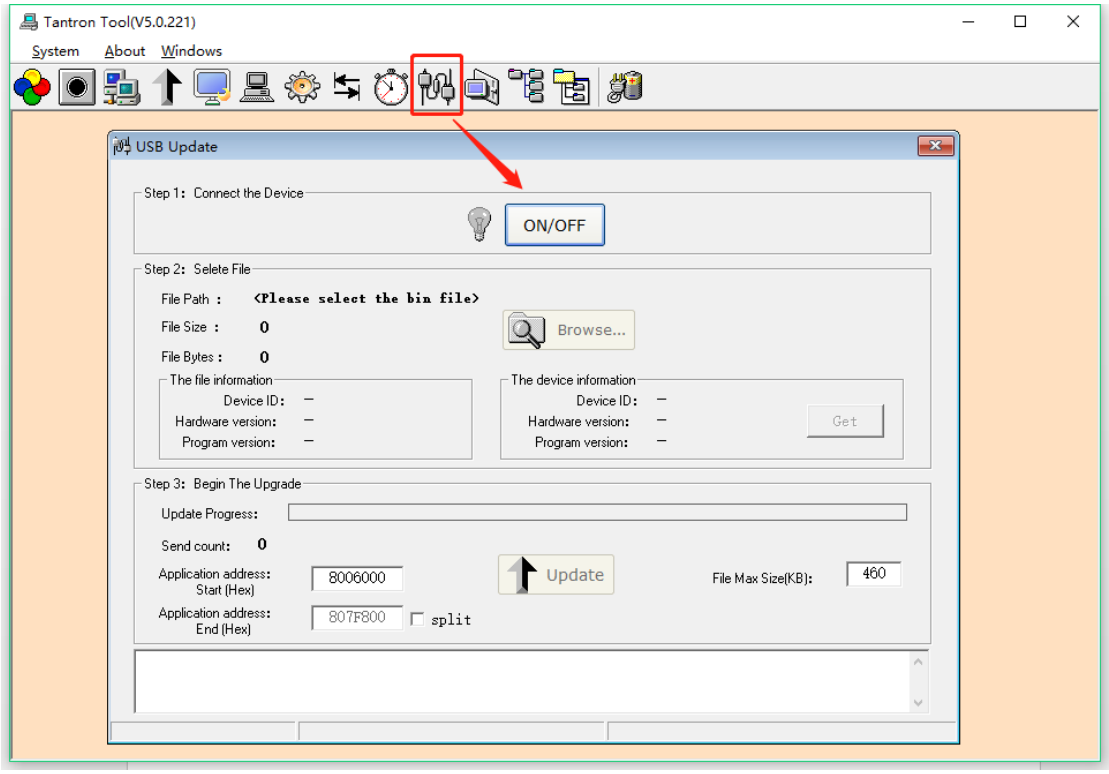
(2) Auxiliary power terminals

(3) LED

(4) Programming buttons

(5) USB interface

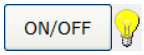
2.3 Upgrade

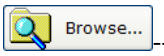


Step 1: Enter the upgrade state, the specific operation mode: long press the panel programming button (or click the system setting button of the panel, enter the setting interface, long press the system upgrade button, the programming button operation page appears, long press "system upgrade"), To the programming button red light flashing, while the screen black screen;

Step 2: The panel and the computer are directly connected with the USB cable;

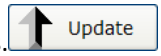
Step 3: Click the icon on the menu bar of the host computer to open the "USB Update" window;

Step 4: Click the button and light up the icon to indicate that the device is connected; 

Step 5: Click the button to open the upgrade file - 

---bin file;

Step 6: Set "file max size (KB)", 480 means to clear the database data;

Step 7: Click to start the update process. 

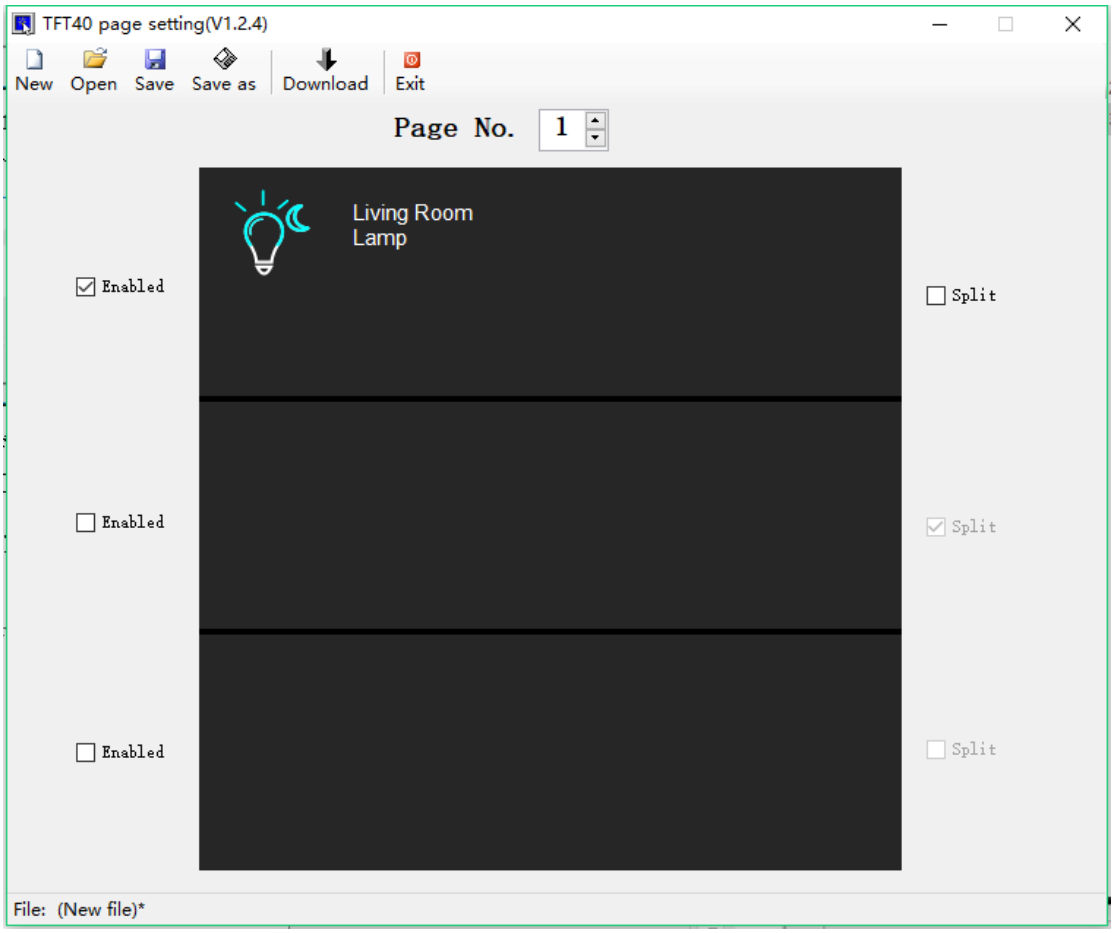
Remarks: 1. Parameters not mentioned do not need to be modified; 2, click get to get the information of the device, only when the device information and bin file information is consistent can be upgraded.

2.4 Customize the area name, icon

For example, the first locale on page 1 of the panel is set to "Mulligang button", which sets the custom area name and icon;

Modify the custom icon operation flow:

1. Open the host computer TFT40PageSettingV1.2.4.exe, as shown in the following figure:

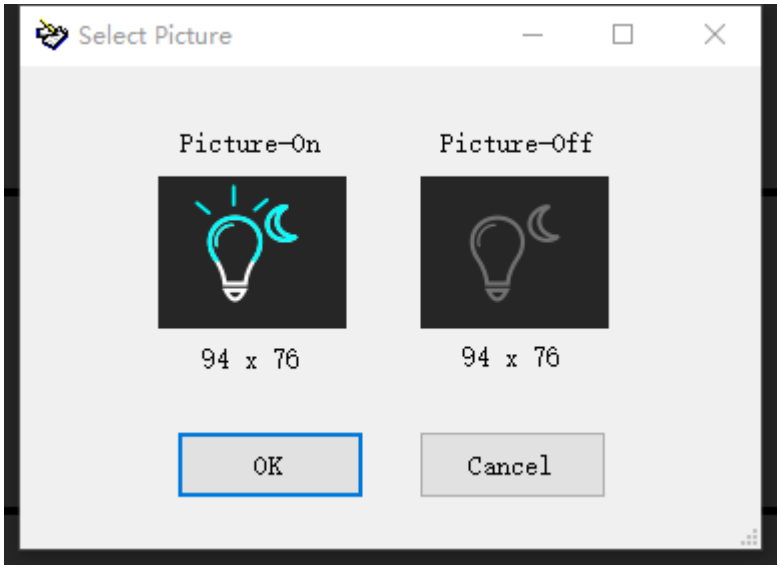


2. Differentiate modules: you need to check the "Enabled" composite box in the area of P age No.1 in line 1 (note that the "Split" composite box does not need to be checked), Indicates that zone 1 has only 1 module;

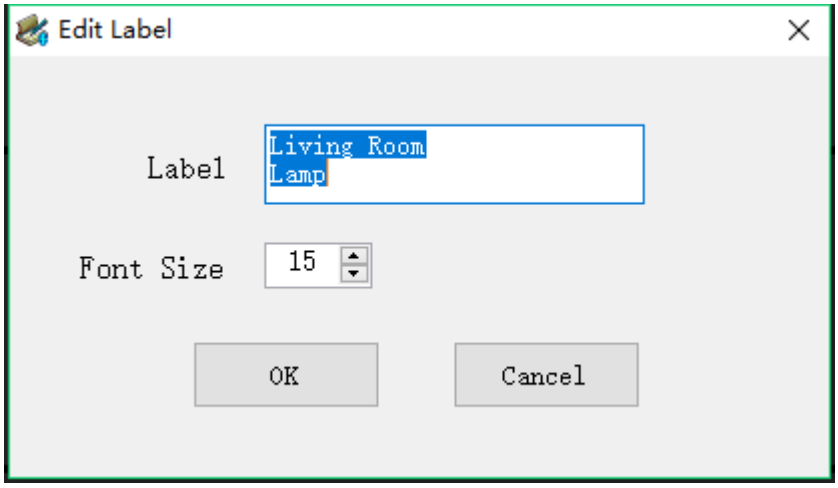
Note: If the locale is set to "Single button", the "Enabled" and "Split" composite boxes are checked, indicating that the region has 2 modules.

3. Set the icon: Click the icon of the module in line 1, pop up the select picture window (as shown in the following figure), and set "picture-on" and "picture-off" After the setting is complete, click "OK" to return to the main interface;

*Note: Picture format - resolution 94*76*



4. Set the name of the area: Click the text of the module in line 1, pop up the "edit label" window (as shown in the following figure), fill in the "label", and Set the font size, click "O K" after the setting is completed to return to the main interface;



5. Download: Long press the panel programming button (or click the system setting button of the panel, enter the setting interface, long press the system upgrade button, the programming button operation page appears, long press "system upgrade"), to the programming button red light flashing, while the screen black screen , the panel and the computer are directly connected with the USB cable, click the download icon of the host computer

, and download the custom area name and icon to the panel.

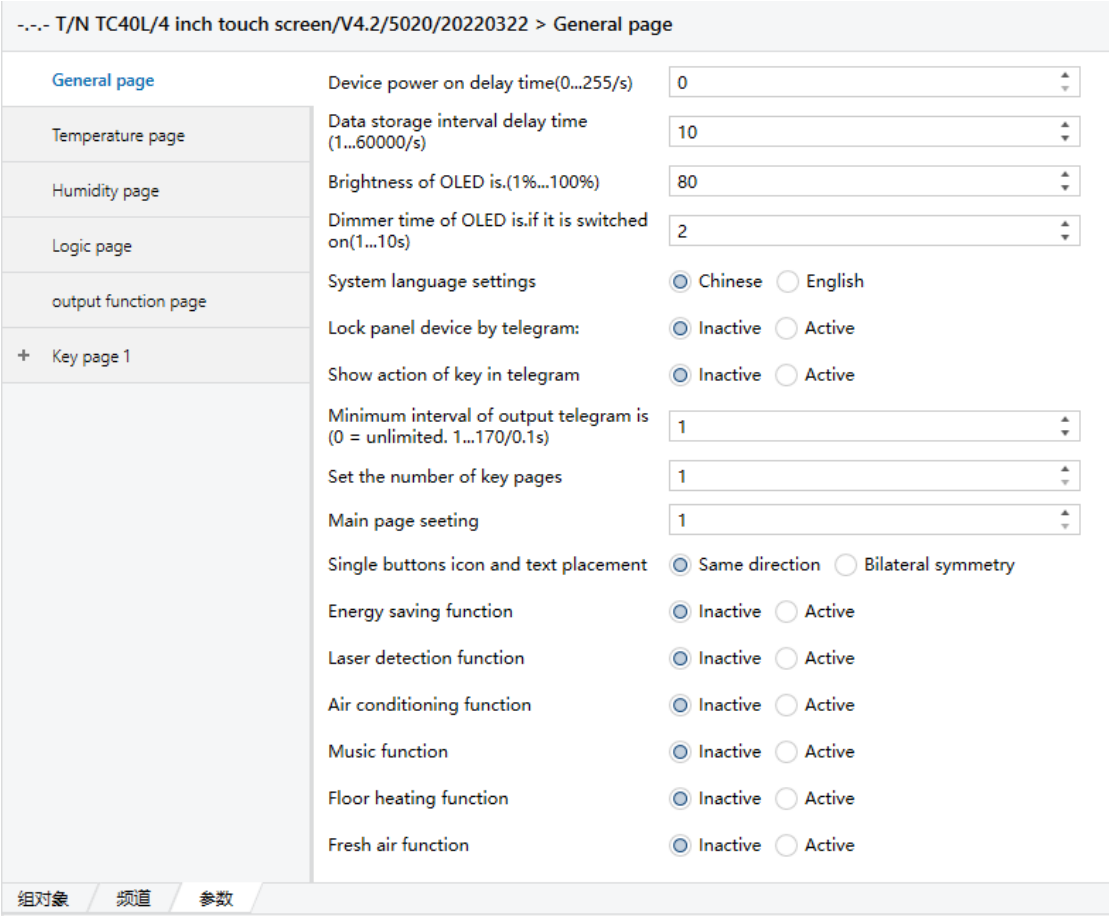
3. Features

3.1 Overview

The specific functions of the touch panel are as follows:

-- Energy-saving function
    -- Screensaver
-- Laser screen calling function
-- Thermostat control (air conditioning).
    -- VRV air conditioning control
    -- Fan Coil air conditioning control (2-step, PWM, Fan coil).
        -- Automatic dehumidification function
        -- Timing function
-- Music controls
-- Underfloor heating
-- Fresh air
-- Dimming
-- Curtains
-- Scene
-- Switch value、switch
-- Text display
-- Time display
-- Temperature and humidity
    --Detection
    --Alarm
-- VOC/CO2/CO gas function
    -- Display
    -- Alarm
-- Logic function
    -- AND、OR、XOR、Gate forwarding、Threshold comparator、Format convert、Event Group
-- Page jump
-- Free combination of page icons
-- Language switching
-- OLED display brightness adjustment

3.2 Parameter setting interface "General page"



Parameter "Device power on delay time(0...255/s)"

This parameter sets the startup delay time for the device.

Range: 0... 255, in seconds

Parameter "Data storage interval delay time (1...60000/s)"

This parameter acts on all functional modules with a save function and is used to set the time when the data is saved.

Scope 1... 255, unit: minutes

Note: Add interval saving function, the original power-down saving is still valid; The interval saving function means that when the interval time is up, all the saved data will be saved once; Power-down saving means that all saved data will be saved once at the moment of power-down; If the power-down save fails, the data saved at the last interval will be called; Re-clicking the database will clear all saved data.

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

This parameter sets the brightness value of the O LED 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 when the current OLED state reaches the target state.

Range: 1... 10, Unit: seconds

Parameter “System language settings”

This parameter is used to set the system language, and there are two languages to choose from, Chinese and English.

Optional: Chinese

English

Parameter “Lock panel device by telegram”

This parameter sets whether the device is unlocked by bus.

Optional: inactive

active

Select "active", lock the device through the bus, the communication object is "Lock device", send 01 lock device to the communication object "Lock device" through the bus, can not operate the touch panel, send 00 to unlock the device.

Parameter “Show action of key in telegram”

This parameter sets whether the status of the key is displayed by the message.

Optional: inactive

active

Select "active", the status of the key is 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 there is a key press, the communication object "Valid action of key" sends out data 01 indicates that there is a key press; If the message of the communication object "Valid action of key" is 01, if the key is pressed, the communication object "Valid action of key" does not emit 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 is unlimited, in units: 0.1 seconds

Parameter “set the number of key pages”

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

Range: 1... 10

The parameter "main page seeting"

Sets which of all pages in the panel is the home page.

Range: 1... 10

Parameter “Single buttons icon and text placement”

This feature is valid for the page area mode as the single button, which is used to set the icon and text position of the left and right buttons in 1 area.

Optional: Same direction

Bilateral symmetry

Select "Same direction" to indicate that the icons and text of the left and right buttons are displayed on the same side;

Select Bilateral symmetry to indicate that the icon and text of the right button appear symmetrical

Parameter “Energy saving function”

Whether to turn on the energy saving function.

Optional: inactive

Active

Select "Active" to turn on the energy saving function, the energy saving function is the screensaver function, and the screensaver setting parameters can be found in "3.2.1 Parameter Setting Interface Screensaver".

The parameter "laser detection function"

Whether to activate the laser detection function.

Optional: inactive

active

Select "Active" to activate the laser detection function, and the setting parameters of the laser detection function can be found in "3.2.2 Parameter Setting Interface Laser Detection".

Parameter “Air conditioning function”

Whether to turn on the air conditioning adjustment function.

Optional: inactive

active

Select "Active" to turn on the air conditioning adjustment function, and the setting parameters of the air conditioning adjustment function can be found in "3.2.3 Parameter Setting Interface Air Conditioning".

Parameter "Music function"

Whether to turn on music control.

Optional: inactive

active

Select "Active" to enable the music control function, and the setting parameters of the music control function can be found in "3.2. 6 parameter setting interface Music function".

The parameter "Floor heating function"

Whether to turn on the floor heating adjustment function.

Optional: inactive

active

Select "Active" to turn on the floor heating adjustment function, and the setting parameters of the floor heating adjustment function are listed in "3.2.." 7 parameter setting interface Fresh air".

Parameter “Fresh air function”

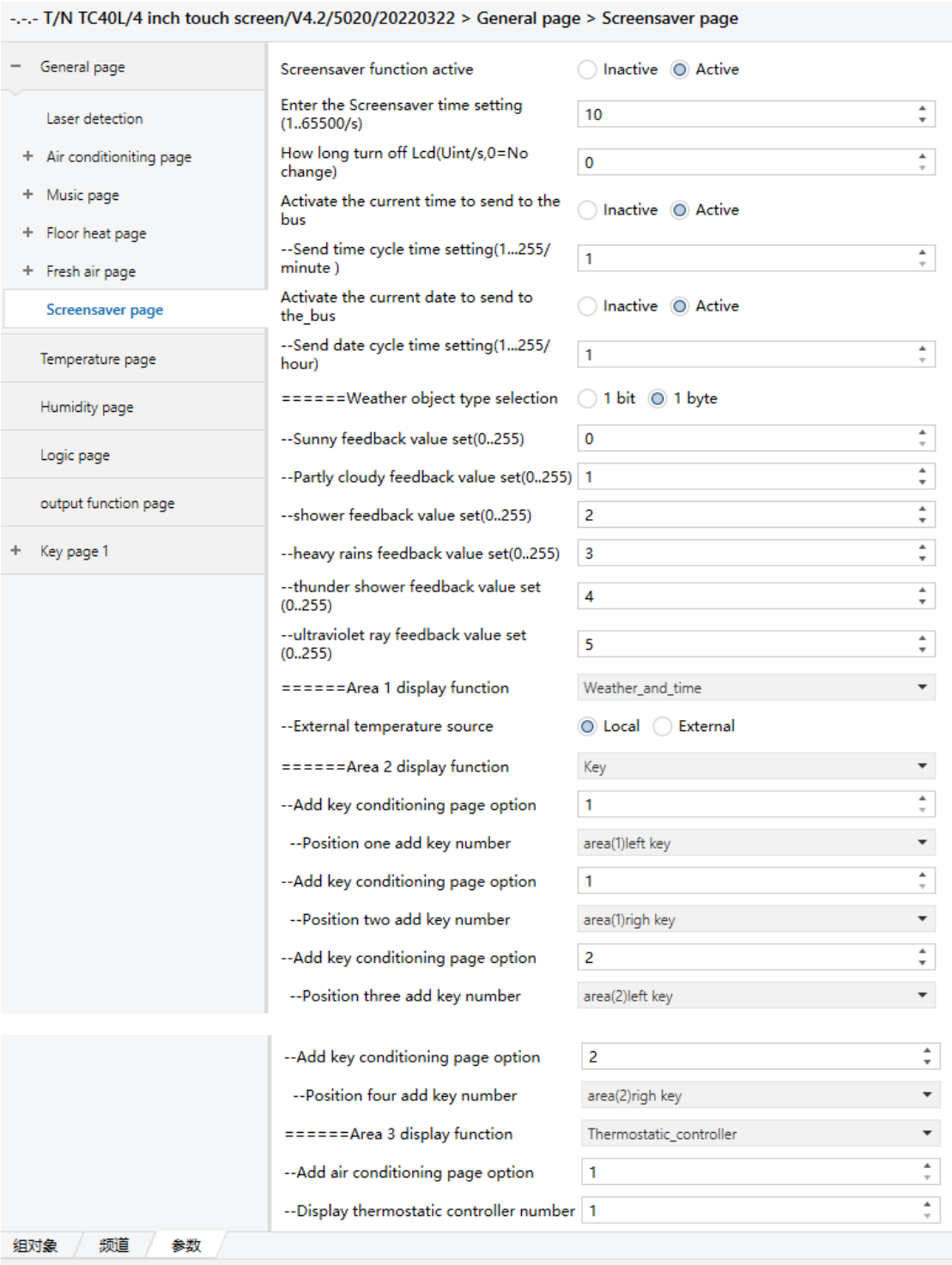
Whether to turn on the fresh air conditioning function.

Optional: inactive

active

Select "Active" to enable the fresh air conditioning function, and the setting parameters of the fresh air adjustment function can be found in "3.2. 8 parameter setting interface Fresh air".

3.2.1 Parameter setting interface "screensaver"



Parameter “Screensaver function active”

This parameter is used to set whether the screensaver function is activated.

Optional: inactive

active

Select "active" to activate the screensaver function and activate all the parameter settings below.

Parameter “Enter the Screensaver time setting (1. .. 65500/s)”

This parameter is used to set the time to enter the screensaver.
Range: 1... 65500, unit: s
~~*Note: If the laser detection function is turned on, you must wait until the laser detects that no one is there and completes the function of delaying the adjustment of screen brightness before starting to calculate the time to enter the screensaver; If the activation detection function is not turned on, after the device is not operated, the calculation of the time to enter the screensaver begins.*~~
Note: If you turn on the laser detection function, you need to wait until the laser detects that no one is there before you start calculating the time to enter the screensaver; If the activation detection function is not turned on, after the device is not operated, the calculation of the time to enter the screensaver begins.

Parameter "How long turn off Lcd(Uint/s,0=No change)"
This parameter sets how long it takes to enter the screensaver and then extinguish the screen.
Range: 0... 60000, 0 means the unquenchable screen, unit: s

Parameter "Activate the current time to send to the bus"
Parameter "—Send time cycle time setting(1...255/ minute)"
Whether the current time is periodically sent to the bus, the communication object is "current time send to bus".
Range: 1... 255, Time: minutes

Parameter "Activate the current date to send to the bus"
Parameter "—Send date cycle time setting(1 ... 255/ hour)"
Whether the current date is periodically sent to the bus, the communication object is "current date send to bus".
Range: 1... 255, Time: hours

Parameter "Weather object type selection"
This parameter sets the data type of the weather object.
Optional: 1bit
1byte
When "1bit" is selected, the communication objects "sunny feedback", "partly cloudy feedback", "shower feedback", "heavy rains feedback" appear "", "thunder shower feedback", "ultraviolet ray feedback", an object receives 1 and displays it as the current weather;
When "1byte" is selected, the communication object "weather status feedback" appears with the following 6 parameters:
Parameter "—Sunny feedback value set(0..255)"
Parameter "—Partly cloudy feedback value set(0..255)"
Parameter "—shower feedback value set(0..255)"
Parameter "—heavy rains feedback value set(0..255)"
Parameter "—thunder shower feedback value set(0..255)"
Parameter "—ultraviolet ray feedback value set(0..255)"
When the communication object "weather status feedback" receives the above parameter setting value, the current weather is displayed as the corresponding weather, sunny, sunny and cloudy,

showers, heavy rain, thunderstorms, ultraviolet rays.

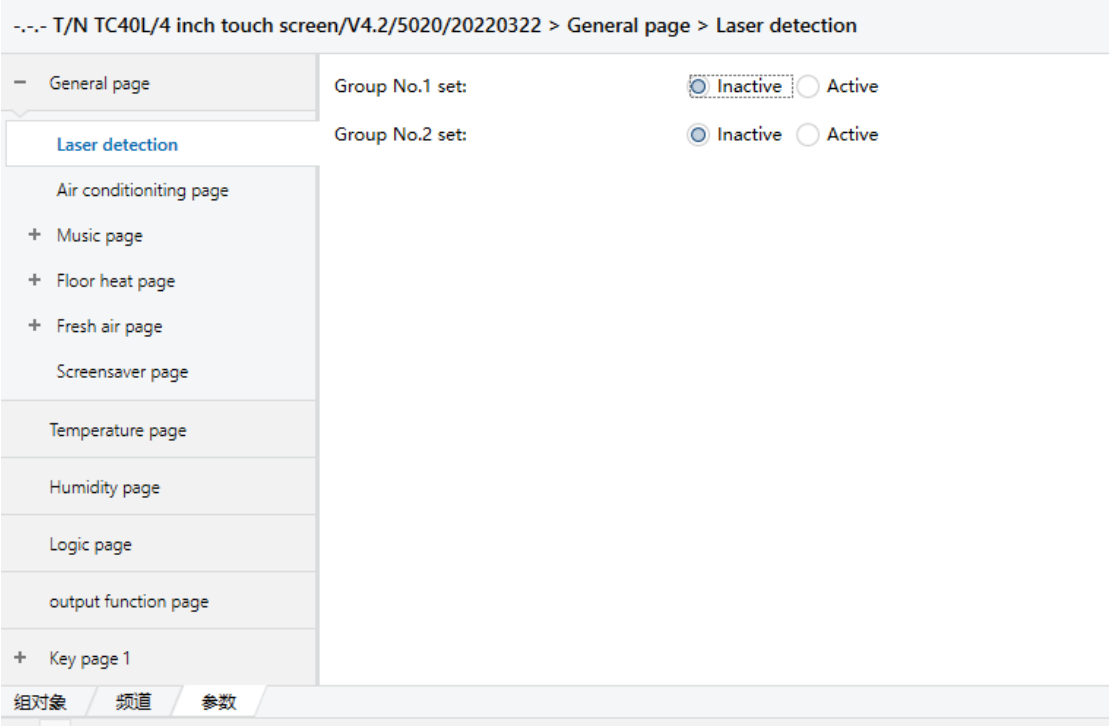
The following parameters are used to set the display content of the screensaver interface, which is divided into 3 areas, each area has 3 displayable content to choose from, namely: weather and time, Key, Thermostatic controller , the following area 1 as an example to give a detailed introduction.
Note: 1, the screensaver page is only used for display, jump, can not operate the control; 2. If the icon is customized, the screensaver icon is not displayed.

Parameter "Area x display function"(x=1...3)
Optional: weather and time
Key
Thermostatic controller
Select "weather and time" to indicate that the area x (1...3) displays the content as: date time, weather, ambient temperature, ambient temperature source can be selected internal, external, set by the parameter "-- temperature source";

Select "Key" to indicate that the area x (1...3) shows the content as k ey function, and 5 parameters appear:
Parameter "—Add Key conditioning page option"
Parameter "—Position one/ two/ three/ four add key number"
The screensaver area displays the content for the key function, and the entire area is divided into 4 positions, which can display 4 buttons, and each button must correspond to the specific key function, such as the above setting Screensaver area 2 correspondingly displays 4 keys: the first key displays the first page control area 1 left button function, the second one Key shows the first page control area 1 right button function, the 3rd key shows the second page control area 2 left button function, the fourth one Key displays the control area 2 right-click function on the second page.
Note: The page area corresponding to the *screensaver key must already have the corresponding key function, otherwise it will not be displayed.*

Select "Thermostatic controller" to indicate that the area x (1...3) shows that the content is air conditioning, and 2 parameters appear:
Parameter "—Add air conditioning page option"
Parameter "—Display thermostatic controller number"
The screensaver area displays air conditioners, and you need to set the page and I D corresponding to the air conditioners displayed.

3.2. 2 Parameter setting interface "Laser detection"



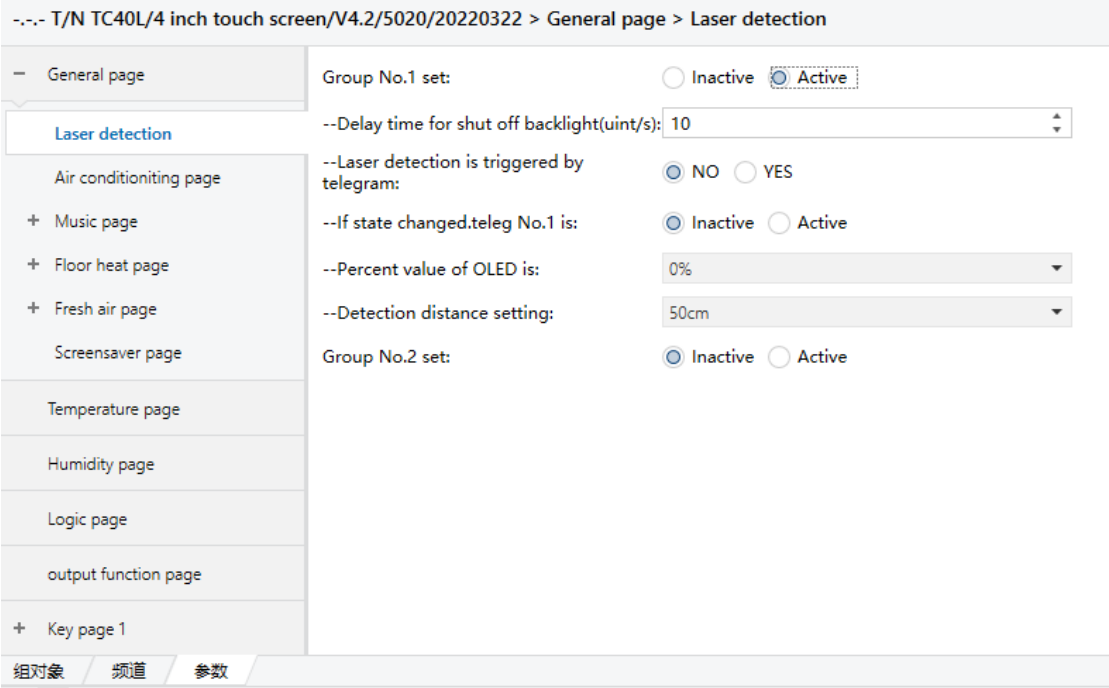
Parameter "Group No.1 set"

Whether to activate the first set of settings.

Optional: inactive

active

Select "Active" to activate the first set of settings for laser detection, and 5 new parameters appear, as shown in the following figure:



Parameter "—delay time for shut off backlight"

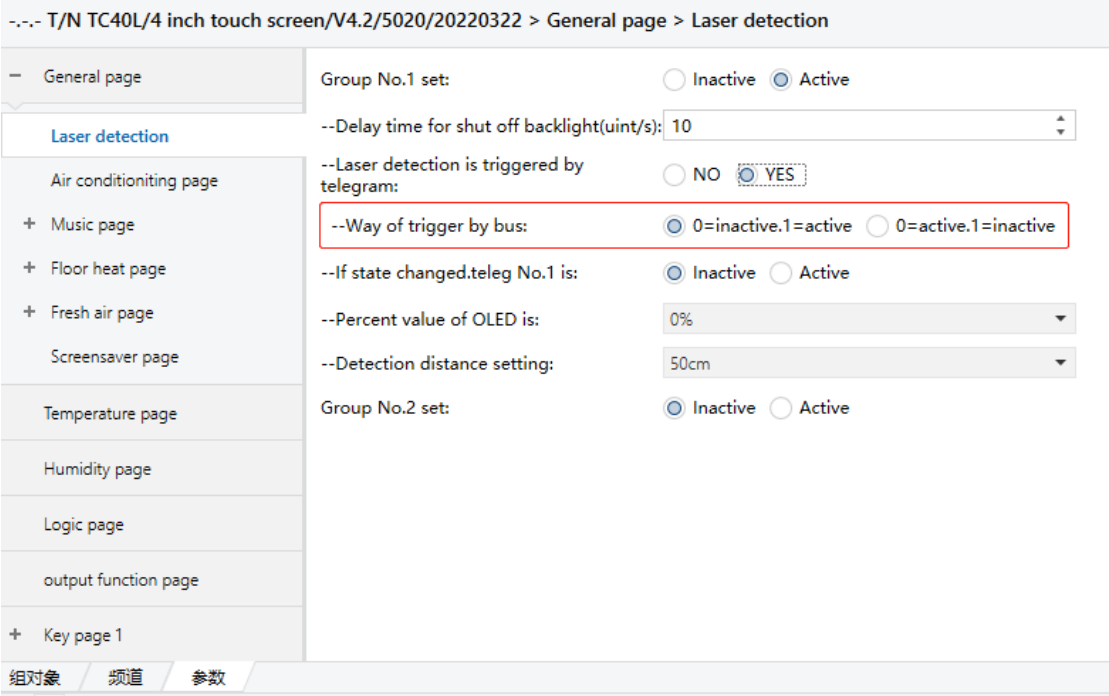
This parameter sets the delay time to adjust the backlight of the display. Works when the laser

detection distance is 0.
Range: 5... 255, in seconds

Parameter “laser detection is triggered by telegram”

Whether the laser detection function is triggered by a message.
Optional: No
Yes

Selecting "Yes" allows the laser detection function to be activated or disabled by 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 how the bus triggers the laser detection function.
Optional: 0=inactive, 1=active
0=active,1=inactive

Select "0=inactive, 1=active" to indicate that the communication object "Laser detection trigger No1" receives the message value 0, disables the laser detection function, and activates the laser detection function when the message value is received;
Select 0=active, 1=inactive, instead.

Parameter “—if state changed, teleg No.1 is”

This parameter sets whether to report to the bus when the display backlight status is changed.
Optional: inactive
Active

Select "Active", the communication object "laser detection flag No1" appears, when the laser detection distance is 0, wait for the parameter "—delay time for shut off backlight" set time to end, Adjust the backlight (the brightness of the backlight adjustment is set according to the parameter "-percent value of OLED is"), at the same time, the communication object "laser detection flag

No1" sends a message 0 to the bus; Select "inactive" to 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 backlight brightness, as to how much brightness is reduced by this parameter.

Optional: 0%
10%
…
90%
100%

Selecting "0%" means reducing the brightness of the backlight to 0, i.e. completely dark;

……

Selecting 100% maintains the current backlight brightness.

Parameter "—Detection distance setting"

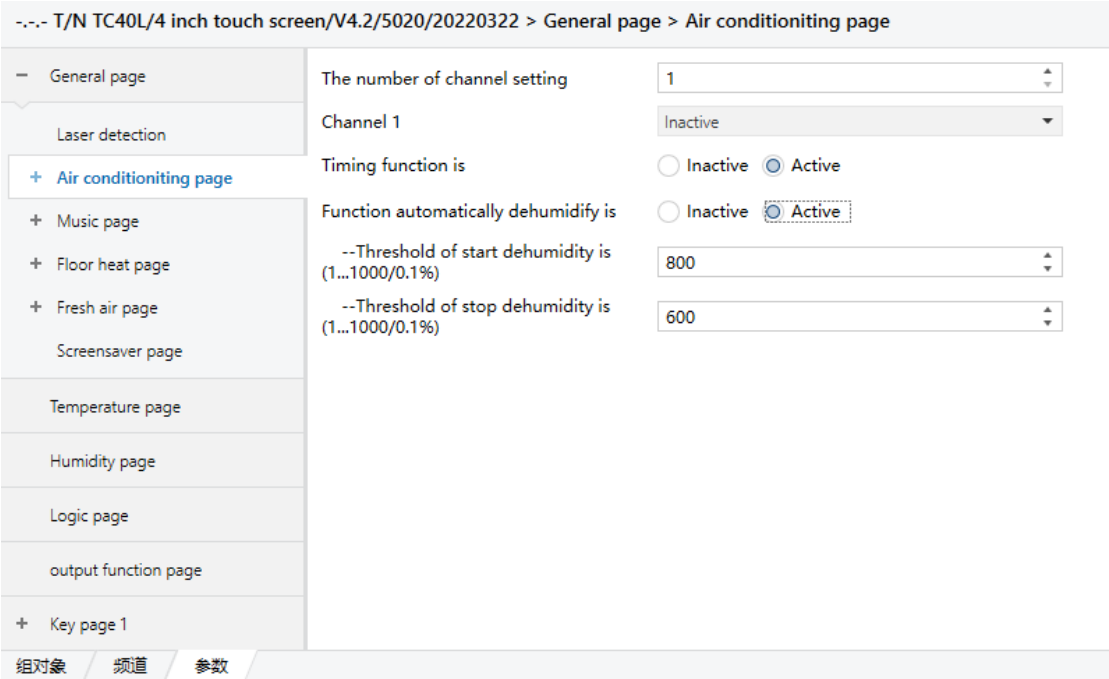
This parameter sets the laser detection distance.

Optional: 10cm
20cm
……
100cm
More than 100cm

For example, selecting "50cm" indicates that the maximum distance detectable by the laser is 50cm, ifthe object cannot be detected within 50cm, the detection distance is 0; select "More." Than 100cm", theoretically the farthest detection distance can reach 120cm, subject to environmental influences.

Note: The second set of laser detection settings, similar to the first group, can refer to the first set of parameters settings; The first group takes precedence over the second group, that is, both groups are activated at the same time, subject to the first group setting.

3.2. 3 Parameter setting interface "Air conditioniting"



Parameter “The number of channel setting”

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

Range: 1... 10

The parameter "Thermostat func set"

Set the air conditioning control mode.

Optional: 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"; Selecting "Fan coil function" indicates that the air conditioning control mode is fan coil mode, and the specific parameter settings can be found in "3.2.3.2 air conditioning control mode Fancoil page".

Parameter “Timing function is”

This parameter sets whether the timing function is enabled.

Optional: inactive

Active

Select "Active" to enable the timing function, and the setting parameters of the timing function can be found in "3.2.3.3 Parameter Setting Interface Timing page".

Parameter “Function automatically dehumidity is”

Whether to turn on automatic dehumidification.

Optional: 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 the beginning of the automatic dehumidification and the humidity at the end of the automatic dehumidification. This can be modified by the objects "start threshold of dehumidity" or "stop threshold of dehumidity".
Range: 1... 1000, unit: 0.1%.

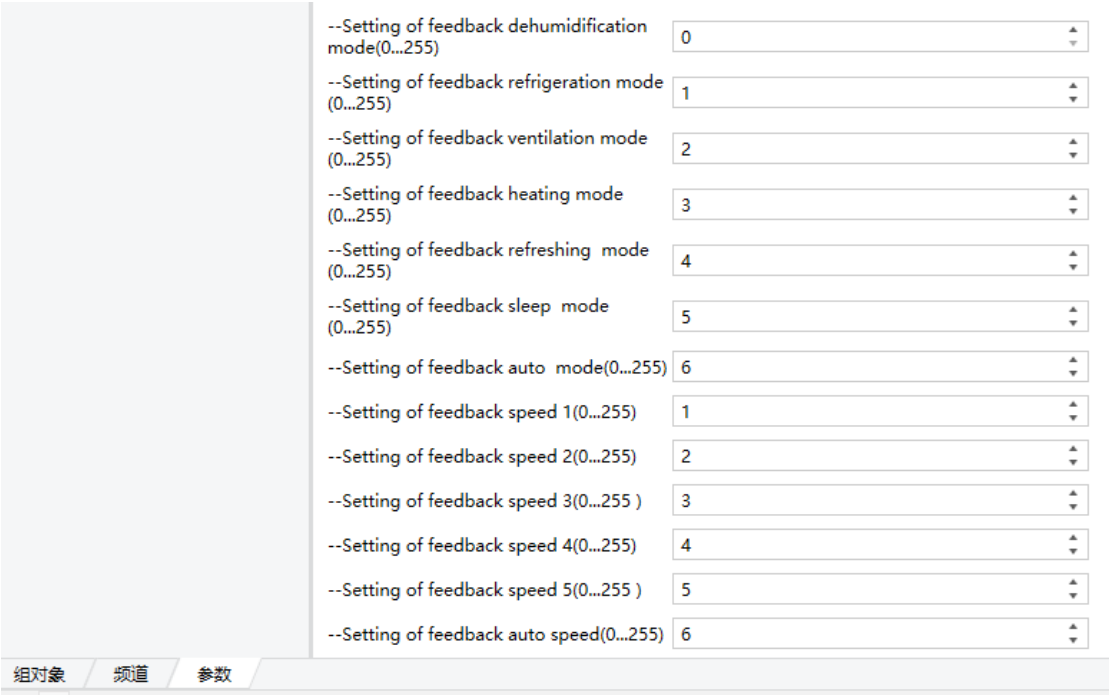
Note: Automatic dehumidification process - enables the auto dehumidification function by writing to the communication object "automatical dehumidification" (write 00 enables automatic dehumidification, write 01 exits automatic dehumidification), when the humidity ***exceeds the parameter "Threshold of start dehumidify is(1... 1000; unit is 0.1%)"*** *enters the automatic dehumidification function after setting the value (if the mode is in non-dehumidification mode, it will enter the dehumidification mode; If the mode is in dehumidification mode, it will remain in its original state), when the humidity is below* ***the parameter "Threshold of stop dehumidify is(1... 1000; unit is 0.1%)"*** *sets the value to exit the automatic dehumidification function (after exiting the automatic dehumidification function, the air conditioner displays the status as the saved state of the feedback object).*

3.2.3.1 Air conditioning control mode "VRV"
Note: The *other channels of the V RV air conditioner are the same as in channel 1, refer to the introduction of* channel 1

-.-.- T/N TC40L/4 inch touch screen/V4.2/5020/20220322 > General page > Air conditioniting page > VRV page 1

- General page
  - Laser detection
  - Air conditioniting page
    - VRV page 1
  - Music page
  - Floor heat page
  - Fresh air page
  - Screensaver page
- Temperature page
- Humidity page
- Logic page
- output function page
- Key page 1

Ambient temperature is displayed	Inactive / Active
The minimum temperature is (Min_T:50...400 unit is 0.1 centig.)	100
The maximum temperature is (Max_T:50...400 unit is 0.1 centig.)	300
The adjust interval is(unit 0.1)	5
After bus voltage recovery.setting is	Follow preset
--Air conditioner is switch	OFF / ON
--Setting of switch:	0 = OFF:1 = ON / 0 = ON:1 = OFF
--Setting of dehumidification mode (0...255 254 = inactive)	0
--Setting of refrigeration mode(0...255 254 = inactive)	1
--Setting of ventilation mode(0...255 254 = inactive)	2
--Setting of heating mode(0...255 254 = inactive)	3
--Setting of refreshing mode(0...255 254 = inactive)	4
--Setting of sleep mode(0...255 254 = inactive)	5
--Setting of auto mode(0...255 254 = inactive)	6
--Setting of speed 1(0...255 254 = inactive)	1
--Setting of speed 2(0...255 254 = inactive)	2
--Setting of speed 3(0...255 254 = inactive)	3
--Setting of speed 4(0...255 254 = inactive)	4
--Setting of speed 5(0...255 254 = inactive)	5
--Setting of auto speed(0...255 254 = inactive)	6
--Setting of feedback switch	0 = OFF:1 = ON / 0 = ON:1 = OFF



Parameter "Ambient temperature is displayed"

This parameter sets whether the ambient temperature is displayed on the screen (it replaces the setting temperature).

Optional: inactive

active

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 setting temperature.

Range: 50... 400, unit: 0.1 °C

Parameter "The adjust interval is(unit 0.1)"

This parameter is used to set the increase or decrease of the setting temperature modified by the touch screen.

Range: 1... 10, Range: 0.1°C

Parameter "After bus voltage recovery， setting is"

This parameter sets the state of the air conditioner after the device bus is restored to power supply.

Optional: follow preset

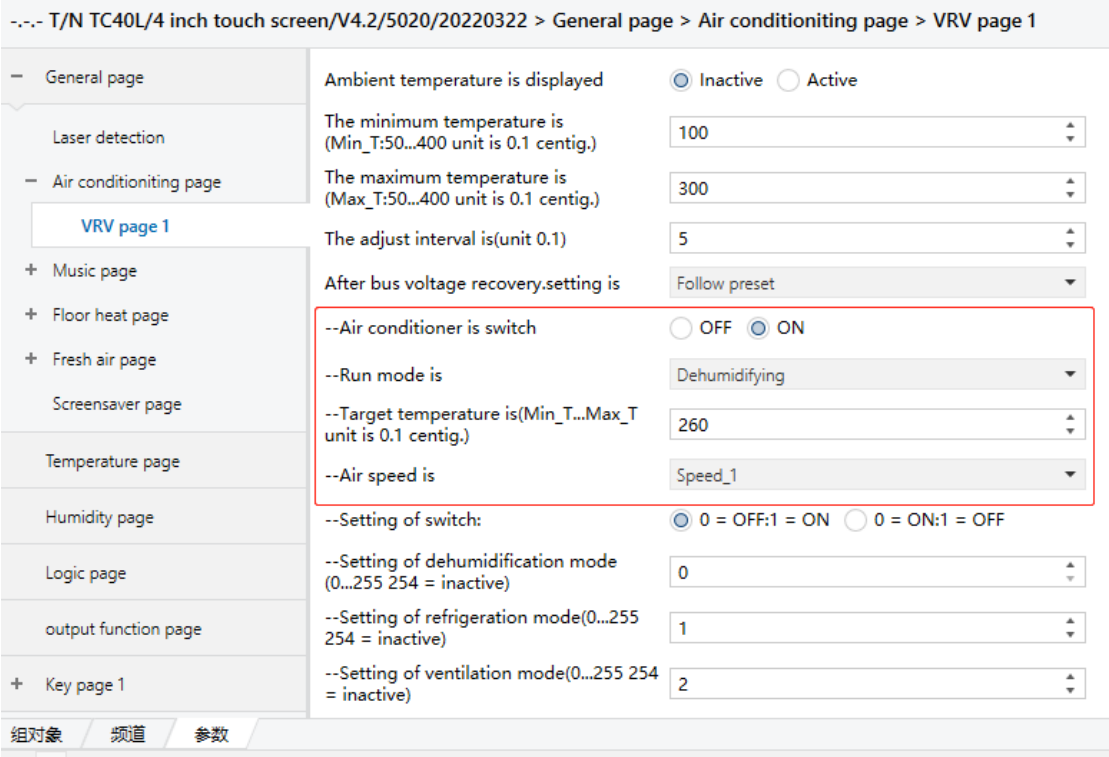
readed from air-conditioner

restored before power down

When "follow setting" is selected, the state of the air conditioner after the device bus is restored to power is operated according to the preset state, 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 is restored to power supply.
Optional: off
on
Select "off", the switch status of the air conditioner is off;
Select "on", the switch status of the air conditioner is on, and 3 setting parameters appear, as shown in the following figure:



Parameter “--Run mode is”

Operating mode when the air conditioner is turned on.
Optional: dehumidifying
refrigeration
ventilation
Heating
Refreshing
Sleep
Car
They are dehumidification mode, refrigeration mode, ventilation mode, heating mode, fresh air mode, sleep mode, and automatic mode.

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

This parameter sets the set temperature when the air conditioner is turned on.
Range: Within the range set by the **parameter "The minimum temperature is" and the parameter "The maximum temperature is"**, unit: 0.1°C

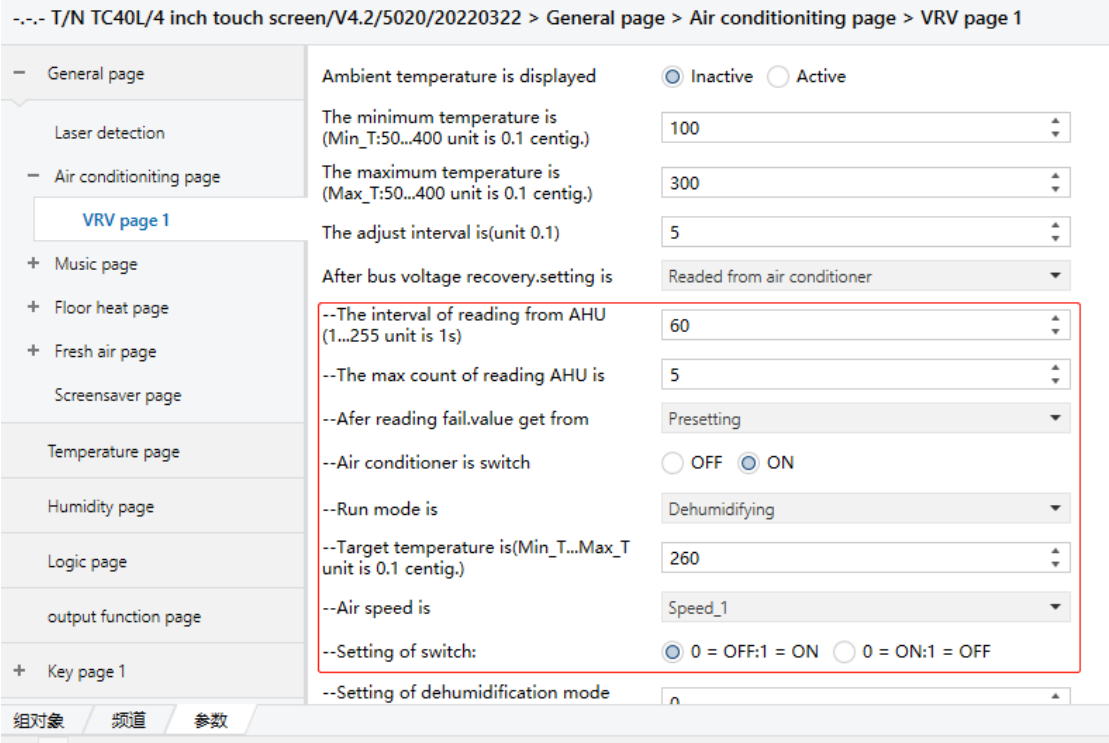
Parameter "Air speed is"

This parameter sets the wind speed when the air conditioning screen is turned on.

Optional: Sleep 1
Sleep 2
Sleep 3
Sleep 4
Sleep 5
Sleep auto

Selecting "Sleep 1/2/3/4/5/auto" indicates that the wind speed is 1/2/3/4/5/auto when the air conditioner is turned on.

Select "readed from air-conditioner" to read the status of the air conditioner from the air conditioner after the device bus is restored. As shown in the following figure:



Parameter "--The interval of reading from AHU(1...255;unit is 1s)"

This parameter sets the time interval at which the status is read from the air conditioner after the device bus is restored to power.

Range: 1.... 255, unit: seconds

Parameter "The max count of reading AHU is"

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

Parameter "After reading fail， value get from"

This parameter setting reads the status of the air conditioner after the failure.

Optional: none
presetting

restore before power down

Select "none" to indicate that the status of the air conditioner is not set after the reading fails;

Select "restore before power down" to indicate that the state of the air conditioner after the reading failure is the state before the power is saved;

Select "presetting" to indicate that after the reading fails, the air conditioner activates 4 parameters according to the preset state:

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 failure of reading these 4 parameter settings, the switching status, operating mode, setting temperature, and wind speed of the air conditioner are set.

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

The first group: control values

Parameter "--Setting of switch"

The control value of the air conditioning switch.

Optional: 0=OFF; 1=ON

0=ON； 1=OFF

Select "0=OFF; 1=ON", the communication object "Switch ON/OFF, CHX" emits 01 when the air conditioner is turned on by clicking on the display, and the communication object "Switch ON/OFF, CHX" emits 00 when the air conditioner is turned off;

Select "0=ON; 1=OFF", the opposite of before.

Parameter "--Setting of dehumidification/refrigeration/ventilation/heating mode(0...255;254= inactivate)"

The control value of the air conditioner operation mode dehumidification/refrigeration/ventilation/heating, by clicking on the display screen to modify the air conditioning mode, the communication object "Run mode, CH1" will issue the corresponding mode setting value.

Range: 0.... 255,254 doesn't work

Parameter "Setting of low/medium/high/auto Speed (0...255;254= inactivate)"

The control value of the air conditioner wind speed level of 1 /2 /3 /auto is modified by clicking on the display, and the communication object "Air speed" sends out the data set in the corresponding mode.

Range: 0.... 255,254 doesn't work

Group 2: Feedback values

Parameter "Setting of switch"

Feedback value of the air conditioner switch.

Optional: 0=OFF; 1=ON

0=ON；1=OFF

Select "0=OFF; 1=ON", the communication object "Switch status feedback, CH1" receives a message of 0 when the air conditioning state is off, and the received message is 1 when the air conditioning state is on;

Select "0=ON; 1=OFF", as opposed.

Parameter "Setting of dehumidification/refrigeration/ventilation/heating mode(0...255;254= inactivate)"

The feedback value of the air conditioner operation mode dehumidification/refrigeration/ventilation/heating, the communication object "Run mode feedback, CH1" receives the corresponding message value into the corresponding mode.

Range: 0.... 255

Parameter "Setting of low/medium/high/auto speed(0...255;254= inactivate)"

The feedback value of the air conditioner wind speed 1/2/3/auto level, the communication object "Air speed feedback, CH1" receives the corresponding message value into the corresponding wind speed.

Range: 0.... 255

3.2.3. 2 air conditioning control mode "Fancoil"

Note: The other channels of the fan coil are *the same as channel 1, refer to the introduction of* channel 1

-.-.- T/N TC40L/4 inch touch screen/V4.2/5020/20220322 > General page > Air conditioniting page > Fancoil page 1

- General page
  - Laser detection
  - Air conditioniting page
    - Fancoil page 1
  - Music page
  - Floor heat page
  - Fresh air page
  - Screensaver page
- Temperature page
- Humidity page
- Logic page
- output function page
- Key page 1

Control mode	2 STEP
Hysteresis	1.0 K
Step value	(●) 0 = OFF:1 = ON ( ) 0 = ON:1 = OFF
Number of output channels	(●) 2 channel(4 pipe) for heat/cool ( ) 1 channel(2 pipe) for heat/cool
After bus voltage recovery.setting is	(●) Follow preset ( ) Restored before power down
--Switch is	(●) OFF ( ) ON
----Remote switch set	(●) 0 = OFF:1 = ON ( ) 0 = ON:1 = OFF
----Remote dehumidification mode set: (0..255:254 = inactivate)	0
----Remote refrigeration mode set: (0...255:254 = inactivate)	1
----Remote ventilation mode set: (0...255:254 = inactivate)	2
----Remote heating mode set:(0...255:254 = inactivate)	3
----Remote speed off set:(0..255:254 = inactivate)	0
----Remote speed 1 set:(0..255:254 = inactivate)	1
----Remote speed 2 set:(0..255:254 = inactivate)	2
----Remote speed 3 set:(0..255:254 = inactivate)	3
----TFT feedback switch set:	(●) 0 = OFF:1 = ON ( ) 0 = ON:1 = OFF
----TFT feedback dehumidification mode set:(0..255)	0
----TFT feedback refrigeration mode set: (0...255)	1
----TFT feedback ventilation mode set: (0...255)	2
----TFT feedback heating mode set: (0...255)	3
----TFT feedback speed off set:(0...255)	0
----TFT feedback speed 1 set:(0...255)	1
----TFT feedback speed 2 set:(0...255)	2
----TFT feedback speed 3 set:(0...255)	3
The heating min temp is (Min_T:50...400.uit is 0.1 centig.)	100
The heating max temp is (Min_T:50...400.uit is 0.1 centig.)	300
The refrigeration min temp is (Min_T:50...400.uit is 0.1 centig.)	100
The refrigeration max temp is (Min_T:50...400.uit is 0.1 centig.)	300
Ambient temperature is displayed	(●) Inactive ( ) Active
The source of the temperature	(●) Local ( ) External
The adjust interval is(unit 0.1)	5
Fancoll control speed object set:	(●) 1 bit ( ) 1 byte
Fancoll feedback speed object set:	(●) 1 bit ( ) 1 byte

组对象 频道 参数

Parameter "Control mode"

This parameter sets the control mode of the fan coil, which has 2 points of control, PWM control, and fan coil control.

Optional: 2 step

PWM

Fan coil

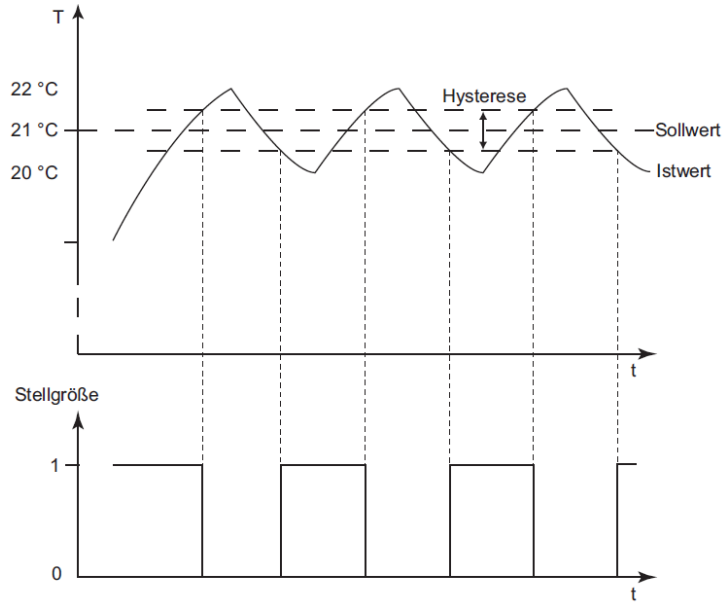
Select "2 step" and the 2-point control has two output states, switching according to the current temperature. As shown in the figure below, in heating mode if the current temperature is higher than the set temperature (current temperature 22 °C, set temperature 21 °C), Send the control value OFF to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

The 2-point control has a hysteresis, which varies around the set temperature to prevent rapid oscillation of the output state.

Hysteresis can be set by the parameter "Hysteresis". For example, in heating mode the setup temperature is 21 °C, the hysteresis is 1 K, the controller is turned on when the temperature is below 20 °C, and the controller is turned off when the temperature exceeds 2 2 °C. Hysteresis parameters depend on how quickly heating the room is heated by heating and how quickly cooling cools the room, as well as sensitivity to the temperature of people in the room.

Hysteresis cannot be set too small, otherwise the switching actuator will turn on and off frequently. Hysteresis can't be too big either, otherwise the temperature change in the room will be too great.

2-point control without automatic wind speed.



Select "PWM", PWM control and Fan coil control are similar, PWM control is Fan coil control 1byte control value (0... 255) converts to an 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 it is turned off Time 3 minutes.

Note: 1) Control how the value is calculated (K: set by the parameter "Proportional range").

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

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

Ventilation mode: The hot and cold control values are all 0, and no calculation is required

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

The setting value above the parameter "Maximum control value" is fixed to that setting value

2) Valve opening/closing time calculation method (T: set by the parameter "Readjust time (10...255/min)")

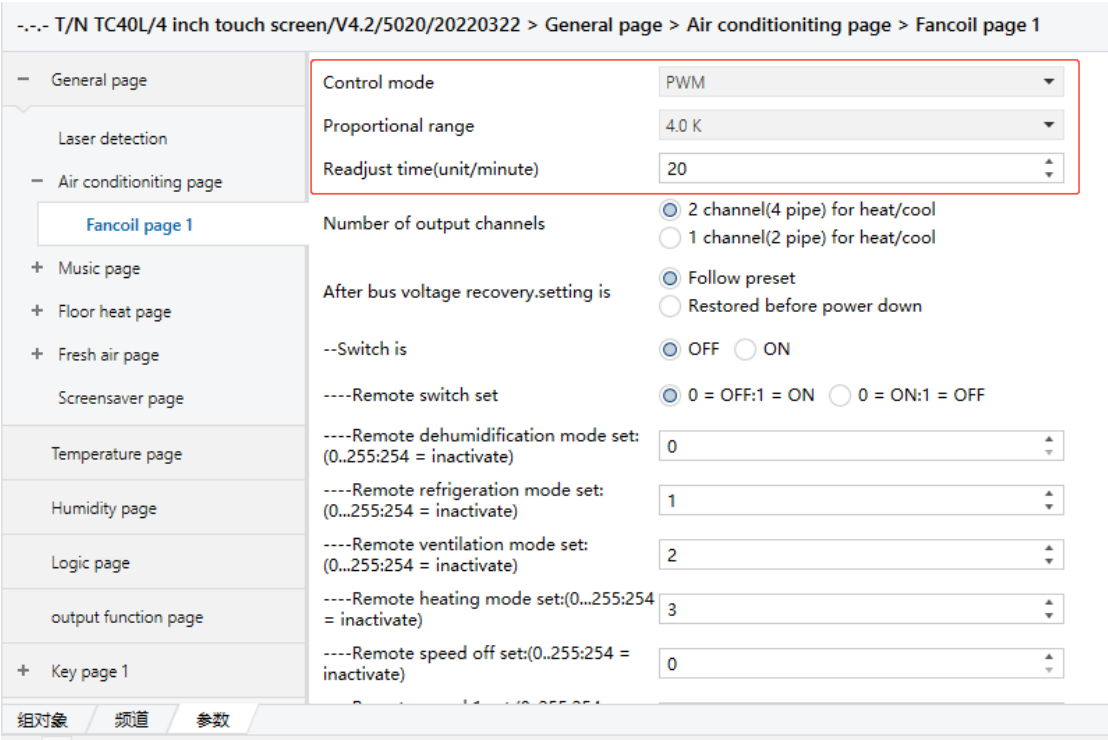
*On-time = control value *T*

Closing time = T - Opening time

3) The setting temperature is changed, and the control value is calculated again

The current temperature is changed, and the control value calculation is re-performed when the cycle is up

4) PWM control no automatic wind speed



Select "Fan coil", fan coil control has a continuous change of control values, between 0 and 100%. Use KNX to convert the control value signal to the value of 1byte, that is, the control value 0% corresponds to the value 0, and the control value 100% corresponds to the value 255。

Note: Controls how the value is calculated

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

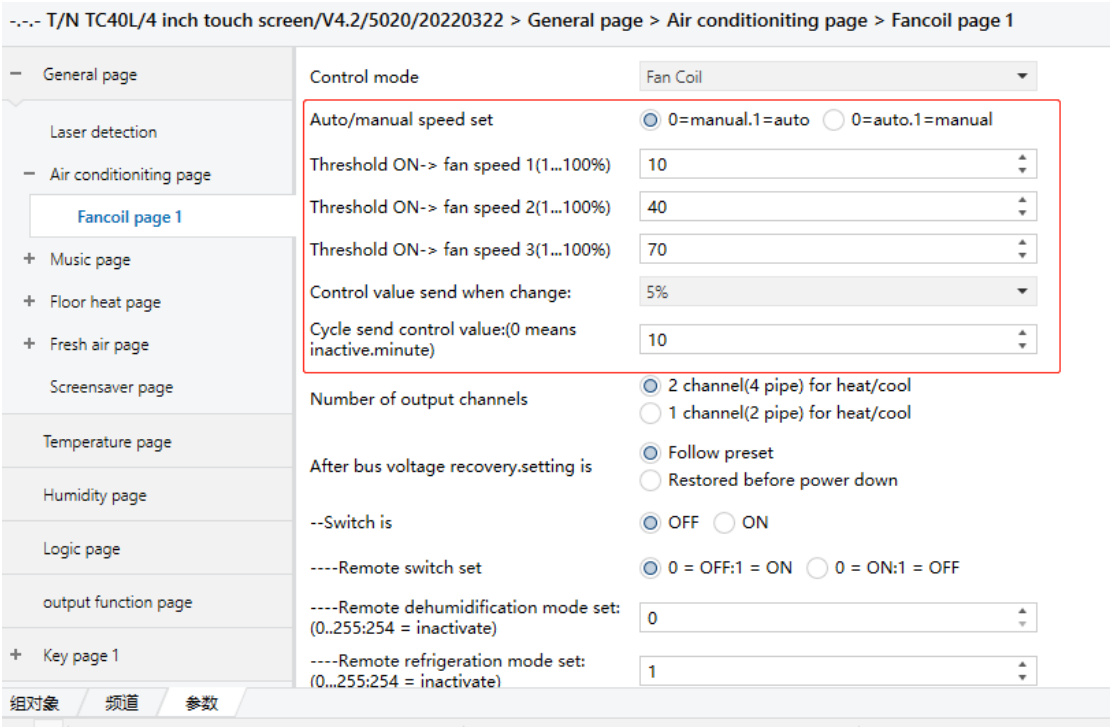
*Refrigeration/dehumidification mode: control value = (current temperature - set temperature) / 1.6 * 100%."*

Ventilation mode: The hot and cold control values are all 0, and no calculation is required

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

The setting value above the parameter "Maximum control value" is fixed to that setting value

Selecting "Fan coil" activates the following 6 parameters, as shown in the following figure:



Parameter “Auto/manual speed set”

This parameter is activated in fan coil control mode for Fan coil, Fan coil control with automatic wind speed, this parameter is used to set the control value of automatic/manual wind speed.

Options: 0=manual, 1=auto

0=auto, 1=manual

Select "0=manual, 1=auto", 0 is the manual wind speed, 1 is the automatic wind speed, and the communication object "Speed auto" emits 01 when the automatic wind speed is in.

Select "0=auto, 1=manual", 0 is the automatic wind speed, 1 is the manual wind speed, and the communication object "Speed auto" emits 00 when the automatic wind speed is in the automatic wind speed.

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 if you select "Fan coil" 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 0;

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

Parameter "Control value send when change"

This parameter is activated in the fan coil control mode for Fan coil, and when the control value changes beyond the set range, the current control value is sent to the bus.

Optional: 0%

1%

……

14%

15%

For example, if you select "5%", the current control value can be sent to the bus when the control value changes greater than 5%.

Parameter "Cycle send control value（0 means inactive，minute）"

This parameter is valid in the parameter "Control mode" selected "Fan coil", which sets the period during which control values are transmitted to the bus.

Range: 0... 255, unit: minutes (0 does not work).

Parameter "Number of output channels"

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

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

1 channel（2 pipe）for heat/cool

Select "2 channel (4 pipe) for heat/cool", set the number of output pipes of the fan coil to 4 pipes, that is, the fan coil can exist both refrigeration and heating, and activate 2 communication objects "Heating value (control)" and "Refrigeration value (control)";

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, activate 2 communication objects "Fan control (heating or cool) value" , "Fan control switch heating/cool", as for the communication object when the mode is cooled" Fan control switch heating/cool "emits 0 or 1, by parameter" Switch cooling/ heating 'object value'' setting.

Parameter “After bus voltage recovery， setting is”

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

Optional: follow preset

restored before power down

Select "restored before power down" to save the state of the fan coil as it was before the power was lost after the device bus was restored;

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

Parameter "--Switch is"

This parameter sets the on/off state of the fan coil.

Optional: off

on

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

Select "on" and the on/off status of the fan coil is on.

Parameter “--Run mode is”

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

Optional: dehumidifying

refrigeration

ventilation

Heating

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

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

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

Select "Heating" and the fan coil will operate in the mode of heating.

Parameter “--Air speed is”

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

Optional: 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 is 1 class wind;

Select "speed 2" to indicate that the wind speed of the fan coil is 2 equal winds;

Select "speed 3" to indicate 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 appears only in the parameter "Control mode" select "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 the **parameter "Heating/Cooling: Minimum temperature is(Min_T: 50...400; unit is 0.1centing)", and parameters "Heating/Cooling: Maximum temperature is(Min_T: 50...400; unit is 0.1centing) "**set within the range, unit: 0.1°C

Group 1: Remote

Parameter "Remote Switch set"

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

Optional: 0=OFF; 1=ON

0=ON；1=OFF

Select "0=OFF; 1=ON", when the communication object "Remote control switch, CH1" receives the message 0 fan coil switch state is off, and the received message 1 fan coil state is open;

Select "0=ON; 1=OFF", as opposed.

Parameter "Remote Dehumidification/Refrigeration/Ventilation/Heating mode set（0... 255;254= inactivate）"

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

Range: 0.... 255,254 indicates disabled

Parameter "Remote speed off/speed 1/speed 2/speed 3/speed auto set(0...255;254= inactivate)"

This parameter sets the remote control value of the wind speed of the fan coil, and 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.... 255,254 indicates disabled

Group 2: Feedback (TFT).

Parameter “TFT feedback Switch set”

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

Optional: 0=OFF; 1=ON

0=ON；1=OFF

Select "0=OFF; 1=ON", by clicking on the screen to turn on the air conditioner, the communication object "Feedback switch, CH1" emits 01, turn off the air conditioner, and the communication object "TFT feedback switch, CH1" emits 00;

Select "0=ON; 1=OFF", as opposed.

Parameter “TFT feedback Dehumidification/Refrigeration/Ventilation/Heating mode set（0... 255）”

This parameter sets the feedback value of the fan coil working mode (dehumidification/refrigeration/ventilation/heating), and the corresponding feedback value is sent to the bus by clicking on the screen to modify the mode, and the communication object "TFT feedback mode, CH1" is sent to the bus.

Range: 0.... 255

Parameter “TFT feedback Speed off/speed 1/speed 2/speed 3/speed auto set(0...255)”

This parameter sets the feedback value of the wind speed of the fan coil (wind speed off / wind speed 1 / wind speed 2 / wind speed 3 / automatic wind speed), and the communication object "TFT feedback control speed, CH1" sends the corresponding feedback value to the bus by clicking the screen.

Range: 0.... 255

Group Three: Fan control

Parameter “Fancoil control speed object set”

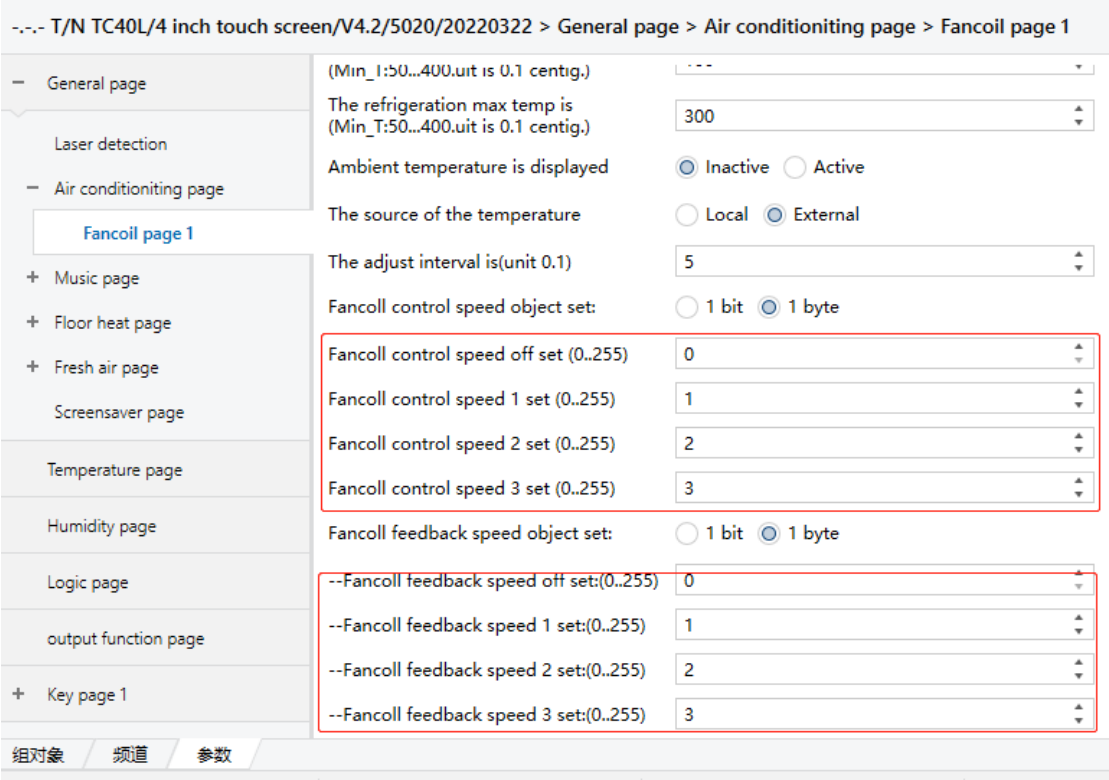
This parameter sets the control value data type for the wind speed of the fan.

Optional: 1bit

1byte

Select "1bit", the control value data type of the wind speed of the fan is 1bit, and the communication objects are "Speed 1 (control)", "Speed 2(control)”、“ Speed 3(control)”

Select "1byte", the object type of the wind speed control value of the fan is 1byte, and the communication object is "Speed 1byte(control)", activate 4 parameters, as shown in the following figure:



Parameter "'Fancoil control Speed off/1/2/3 set (0...255)"

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

Range: 0.... 255

Group Four: Fan feedback

Parameter "Fancoil feedback speed object set"

This parameter sets the feedback value data type for the wind speed of the fan.

Optional: 1bit

1byte

Select "1bit", the feedback value data type of the wind speed of the fan is 1bit, and the communication object is "thermostatic controller feedback Speed 1(feedback)"、"thermostatic controller feedback Speed 2(feedback)"、" thermostatic controller feedback Speed 3(feedback)"

Select "1byte", the object type of the wind speed feedback value of the fan is 1byte, the communication object is "thermostatic controller feedback speed", activate 4 parameters, as above As shown in the figure.

Parameter "'Fancoil feedback Speed off/1/2/3 set (0...255)"

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

Range: 0.... 255

Parameter “Heating/Cooling: Min control value”

This parameter is valid in the parameter "Control mode" selected "PWM/Fan coil" and is used to set the minimum control value in heat/cooling mode.

Optional: 0%

5%

10%

15%

20%

25%

30%

For example, select "5%" to indicate that the minimum control value is 5%, and if the actual control value is less than 5%, 0% is issued directly.

Parameter “Heating/Cooling: Max control value”

This parameter is valid in the parameter "Control mode" selected "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 you select "70%", the maximum control value in heating/cooling mode is 70%, and if the actual control value is greater than 70%, only 70% can be issued.

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 heat/cooling mode.

Range: 50... 400, unit: 0.1 °C

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 °C

Parameter “Ambient temperature is displayed”

This parameter sets whether the ambient temperature is displayed on the screen (it replaces the setting temperature).

Optional: inactive

active

Parameter “Current temperature of the source”

This parameter is used to set the current temperature source.

Optional: local

External

Select "local" to indicate that the temperature is detected by the local device;

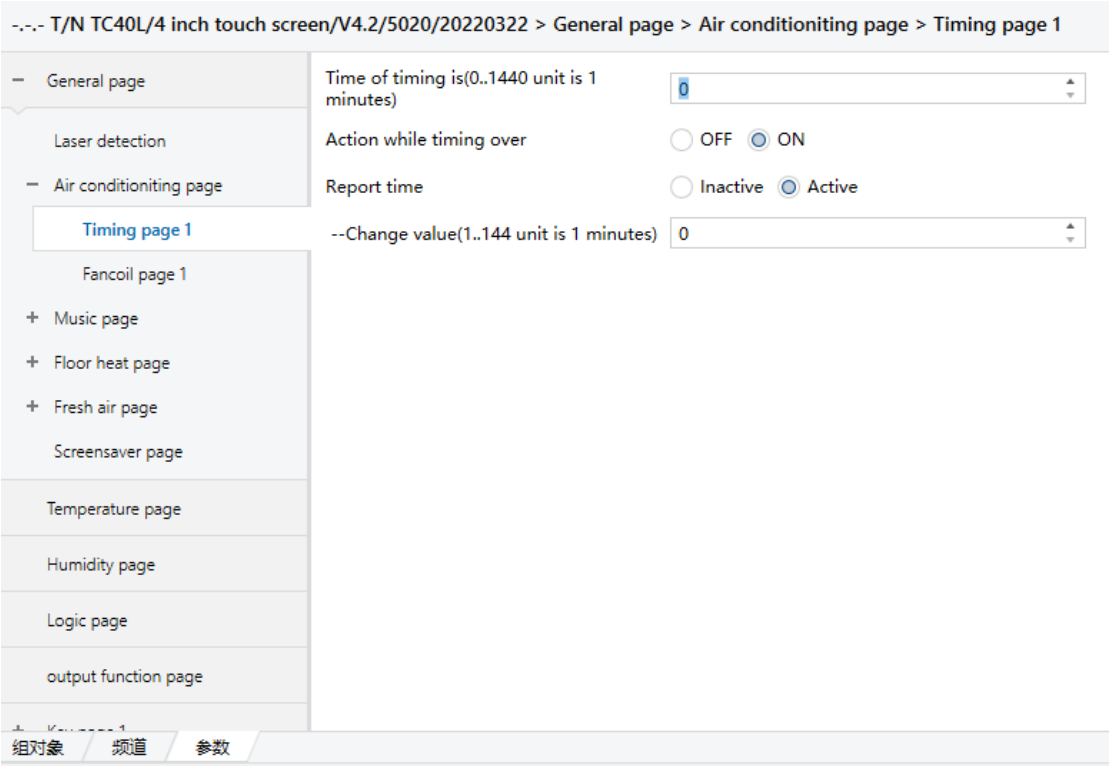
Selecting "External" indicates that the temperature is external, and the parameter "External current temperature" is activated.

Parameter “The adjust interval is(unit 0.1)”

This parameter is used to set the increase or decrease of the setting temperature modified by the touch screen.

Range: 1... 10, Range: 0.1°C

3.2.3. 3 Air conditioners control "Timing**"** at regular **intervals**



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 indicates that the timing is 1min.

Range: 1... 144 0,0 invalid, unit: 1 minute

Parameter “Action while timing over”

This parameter is used to set the state of the device when the timer ends.

Optional: off

on

Select "off", when the timed time ends, the air conditioning switch status is off;

Select "on" when the timer ends with the air conditioner on/off state is on.

Parameter "Report time"

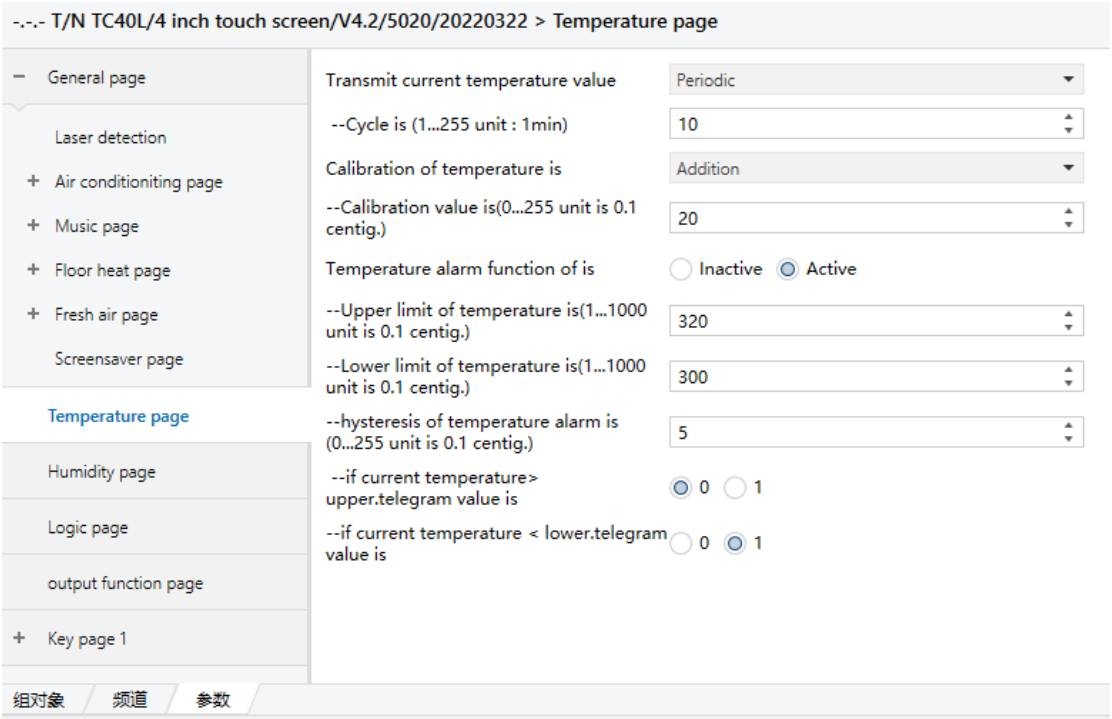
This parameter sets whether the timed reporting function is activated.

Optional: inactive

activee

If you select "activated", activate the timing report function, activate the parameter "**change value(1...144/1min)**", set how long the time is changed when the timed time is changed, then send out a message to report the current time of the time, the communication object is" Report”。

3.2.4 Parameter setting interface "Temperature"



Parameter “transmit current temperature value”

Optional: none

After changed

Periodic

Selecting "After changed" indicates that the current temperature value is sent to the bus when the current temperature changes, and the current temperature value is reported by the parameter "—change value(1... 100 unit:0.1centig.) "Settings.

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

Parameter “Calibration of temperature is”

Lets you set whether to activate the function of calibrating the current temperature.

Optional: inactive

addition

subduction

Select "addition" and the direction of the current temperature calibration is increased; Select "subduction" and the direction of the current temperature calibration is minus, and 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 the temperature alarm function is activated.

Optional: 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 the temperature alarm, and the upper limit of the temperature can also be modified by the communication object "Upper limit of temp.alarm".

Range: 1.... 1000, unit: 0.1 °C

Parameter “Lower limit of temperature is(1...1000;unit is 0.1centing)”

This parameter is used to set the lower limit of the temperature alarm, or to modify the lower limit of the temperature through the communication object "Lower limit of temp.alarm".

Range: 1.... 1000, unit: 0.1 °C

Parameter “Hysteresis of temperature alarm(0...255;unit is 0.1centing)”

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

Range: 0.... 255, Unit: 0.1 °C

Parameter “If current temperature>upper，telegram value is”

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

Optional: "0"

“1”

Select "0" and send 00 if the current temperature is greater than the set upper temperature limit.

Select "1" to send 01 to the communication object "Temperature alarm status" if the current temperature is greater than the set upper temperature value.

Parameter “If current temperature<lower，telegram value is”

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

Optional: "0"

“1”

Select "0" to send 00 if the current temperature is less than the set lower temperature limit.

Select "1" to send 01 to the communication object "Temperature alarm status" if the current

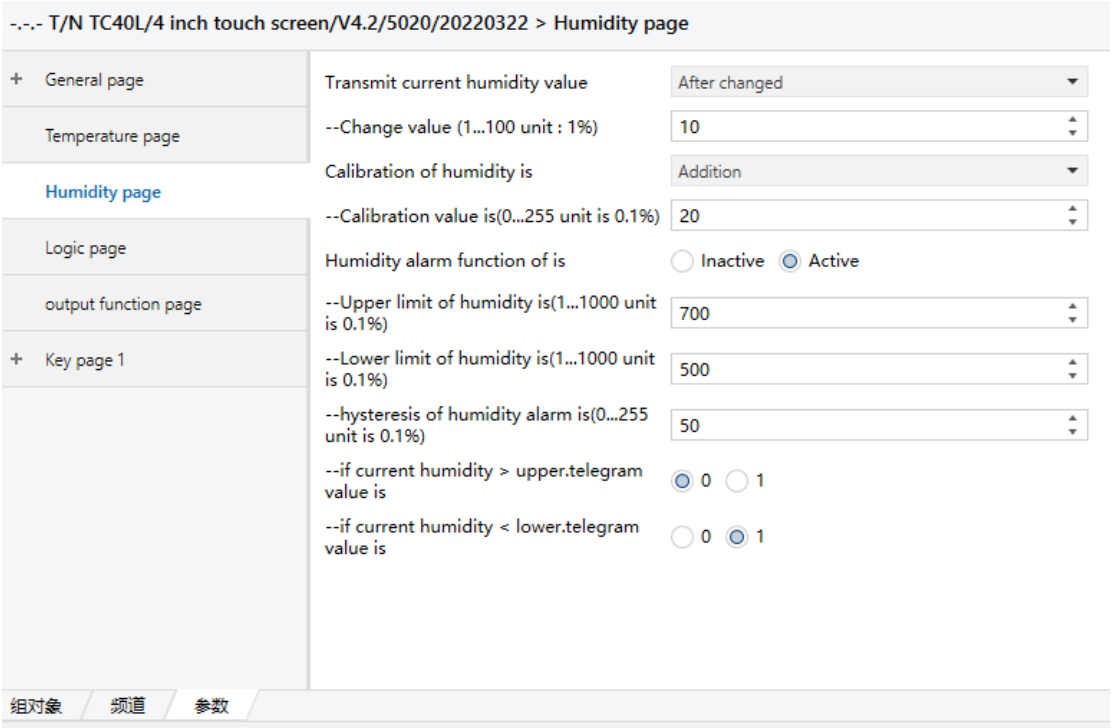
temperature is less than the set lower temperature limit.

Concentrate:

1, the communication object "temp.alarm activate" is whether to activate the temperature alarm function, through the bus write 00 means to close the temperature alarm function, write 01 means to open the temperature alarm function.

2, as shown in the red box in the figure above, first write the temperature alarm function through the communication object "temp.alarm activate" to 01, when the current temperature is greater than the set upper temperature limit of 32.5 degrees (the set upper temperature value needs to add a lag of 0.5, the set lower temperature limit value needs to subtract the lag of 0.5), the communication object "Temperature alarm status" Send 00 (When the temperature is lower than 31.5 °C and then greater than 32.5 °C, the communication object "Temperature alarm status" will still send 00; When the temperature decreases and is between 32 °C and 31.5 °C, and again greater than 32.5 °C, the communication object "Temperature alarm status" does not send 00); When the current temperature is less than the set lower temperature limit of 29.5 degrees, the communication object "Temperature alarm status" sends 01 (when the temperature is greater than 30.5 °C and then less 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 less than 29.5 °C, the communication object "Temperature alarm status" will not send 01).

3.2. 5 parameter setting interface "Humidity"



Parameter “transmit current humidity value”

Optional: none

After changed

Periodic

Selecting "After changed" indicates that the current humidity value is sent to the bus when the humidity changes, and the current humidity value is reported by the parameter "—change value(1... 100 unit:0.1centig.) "Settings.

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

Parameter “Calibration of humidity is”

Used to set whether the calibration humidity value is activated.

Optional: inactive

addition

subduction

Select "addition" and the direction of calibration is increased; Select "subduction", the direction of calibration is subtracted, 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 the humidity alarm function is activated.

Optional: inactive

active

Select "active" to activate the humidity alarm function, and 5 related parameters appear, see the following introduction:

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

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

Range: 1.... 1000, unit: 0.1 °C

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

This parameter is used to set the lower limit value of the humidity alarm, or to modify the lower limit of humidity through the communication object "Lower limit of humidity alarm".

Range: 1.... 1000, unit: 0.1 °C

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

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

Range: 0.... 255, Unit: 0.1 °C

Parameter “If current humidity>upper，telegram value is”

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

Optional: "0"

“1”

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

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

Parameter “If current humidity<lower，telegram value is”

This parameter is used to set the data emitted by the message if the current humidity is less than the set lower humidity limit.

Optional: "0"

“1”

Select "0", if the current humidity is less than the set lower humidity limit, the communication

object "humidity alarm status" sends 00;

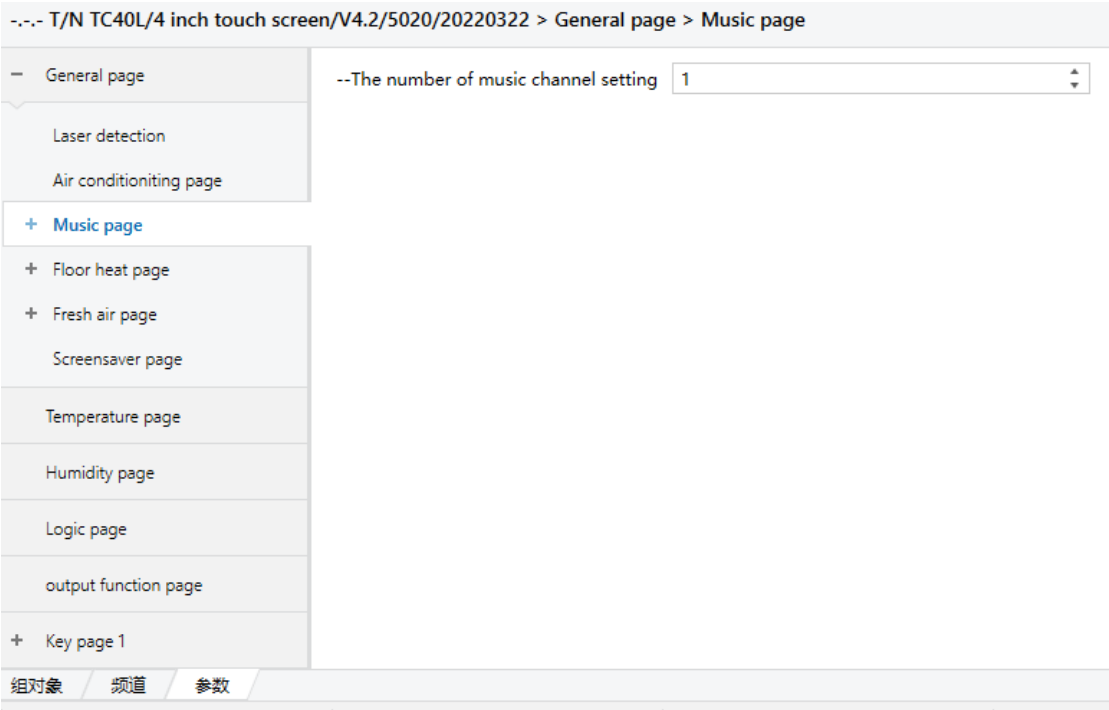
Select "1", if the current humidity is less than the set lower humidity limit, the communication object "humidity alarm status" sends 01.

Concentrate:

1, the communication object "humidity alarm activate" for whether to activate the humidity alarm function, through the bus write 00 means to turn off the humidity alarm function, write 01 means to open the humidity alarm function.

2, as shown above, first write 01 through the communication object "Humility alarm activate" to open the humidity alarm function, when the current humidity is greater than the set upper humidity limit of 75% (the set upper humidity value needs to add a lag of 5%, the set lower humidity limit value needs to subtract the lag of 5%), the communication object "Humility alarm status" sends 01; When the current humidity is less than 45% of the set lower humidity limit, the communication object "Humility alarm status" sends 00.

3.2. 6 Parameter setting interface "Music function"

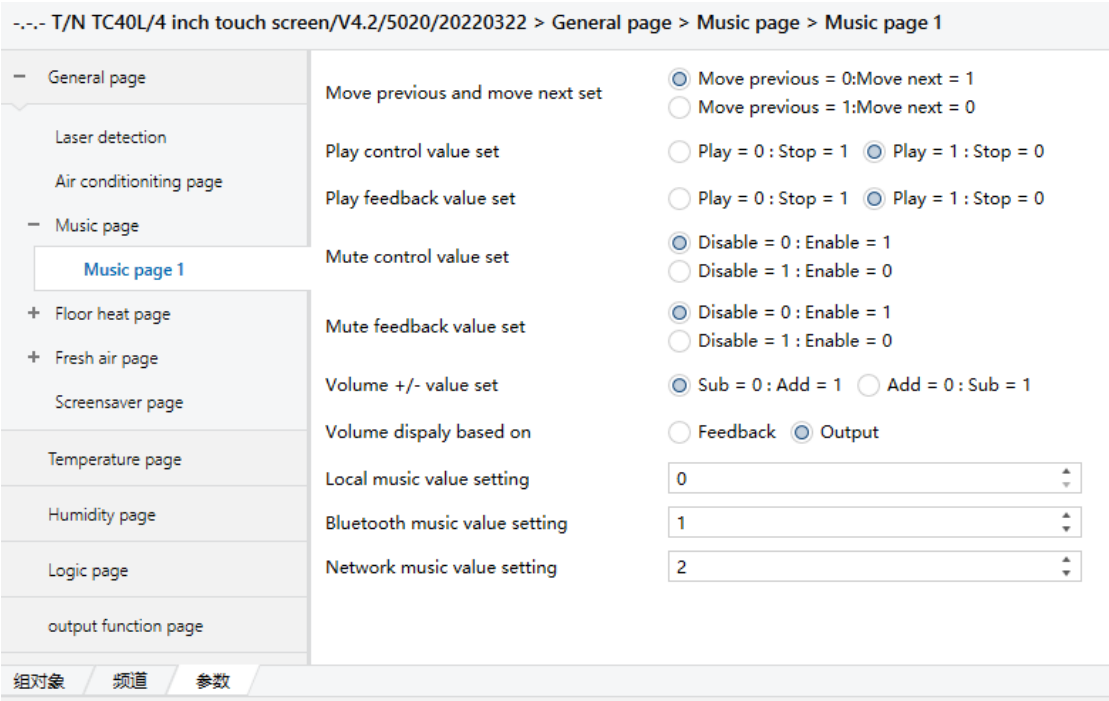


Parameter “The number of music channel setting”

This parameter is used to set the number of music control channels.

Range: 0...6

3.2.6.1 Music control "Music"



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".

Optional: move previous=0; move next=1

Move previous=1; move next=0

Select "move previous=0; move next=1", the communication object "move previous/next, CH1" emits 0 when switching to the previous song, and the communication object "move previous/next, CH1" issues 1 when switching to the next song;

Select Move previous=1; move next=0", as opposed.

Parameter “play control value set”

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

Optional: play=0; stop=1

Play=1; stop=0

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

Select Play=1; stop=0", as opposed.

Parameter “play feedback value set”

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

Optional: play=0; stop=1

Play=1; stop=0

Select "play=0; stop=1", when the communication object "play state control, CH1" receives the

message 0, the music is played, and the communication object "play state control, CH1" receives the message 1, pauses the music;
Select Play=1; stop=0", as opposed.

Parameter “mute control value set”

This parameter sets the mute control value, and the communication object is "mute control, CH1".
Optional: disable=0; enable=1
disable=1； enable=0
Select "disable=0; enable=1" means that when exiting mute mode, the communication object "mute control, CH1" emits 0, and when entering silent mode, the communication object "mute control, CH1" emits 1;
Select "disable=1; enable=0", as opposed.

Parameter “mute feedback value set”

This parameter sets the mute feedback value, and the communication object is "mute feedback, CH1".
Optional: disable=0; enable=1
disable=1； enable=0
Select "disable=0; enable=1", when the communication object "mute feedback, CH1" receives the message 0, exits the silent mode, receives the message 1, and enters the silent mode;
Select "disable=1; enable=0", as opposed.

Parameter "Volume +/- value set"

This parameter sets the volume +/- control value, and the object is "Music volume+/volume-CH1".
Optional: Sub = 0; Add = 1
Add = 0; Sub = 1

Parameter “Volume dispaly based on”

This parameter sets the volume control mode, based on output, or feedback.
Optional: Feedback
Output
Selecting "Feedback" indicates that the volume is controlled by feedback, i.e. clicking the volume +/- button on the screen does not display the volume, you need to wait for the feedback object" volume feedback. CH1" synchronous volume values;
Select "Output" to indicate that the volume value is controlled by the output value, i.e. click on the volume +/- on the screen, through the object "volume control. CH1" emits volume values and is able to display volume values synchronously.

Parameter “local music value setting”

This parameter sets the setting value when the audio 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.

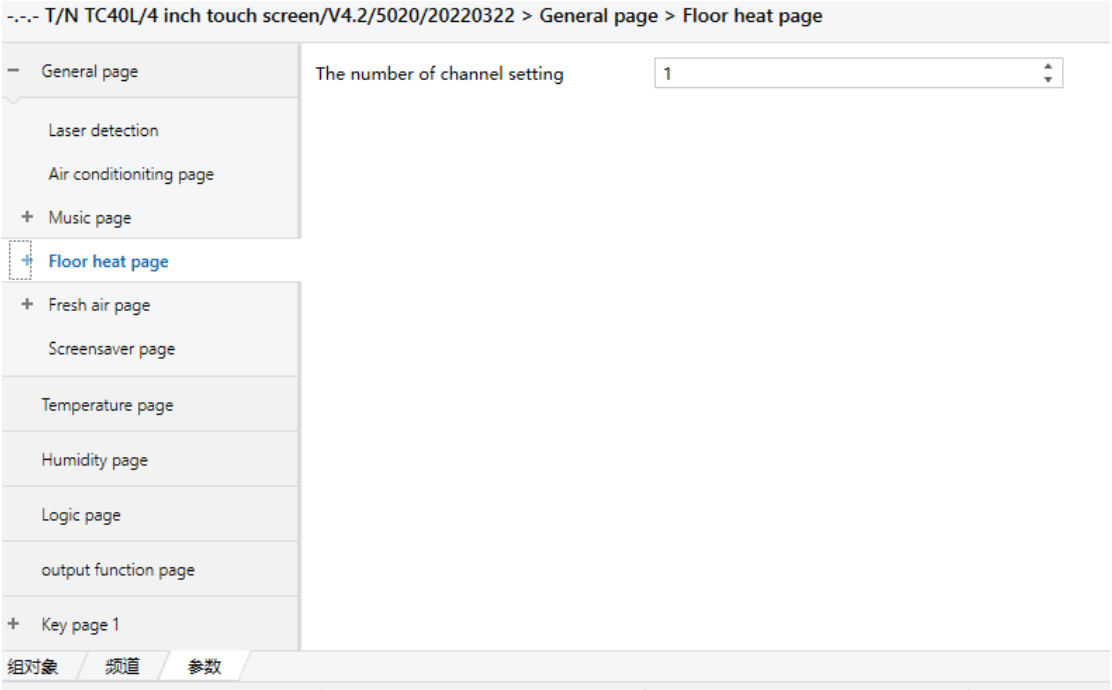
Range: 0... 255

Parameter “network music value setting”

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

Range: 0... 255

3.2. 7 Parameter setting interface "Floor heating"

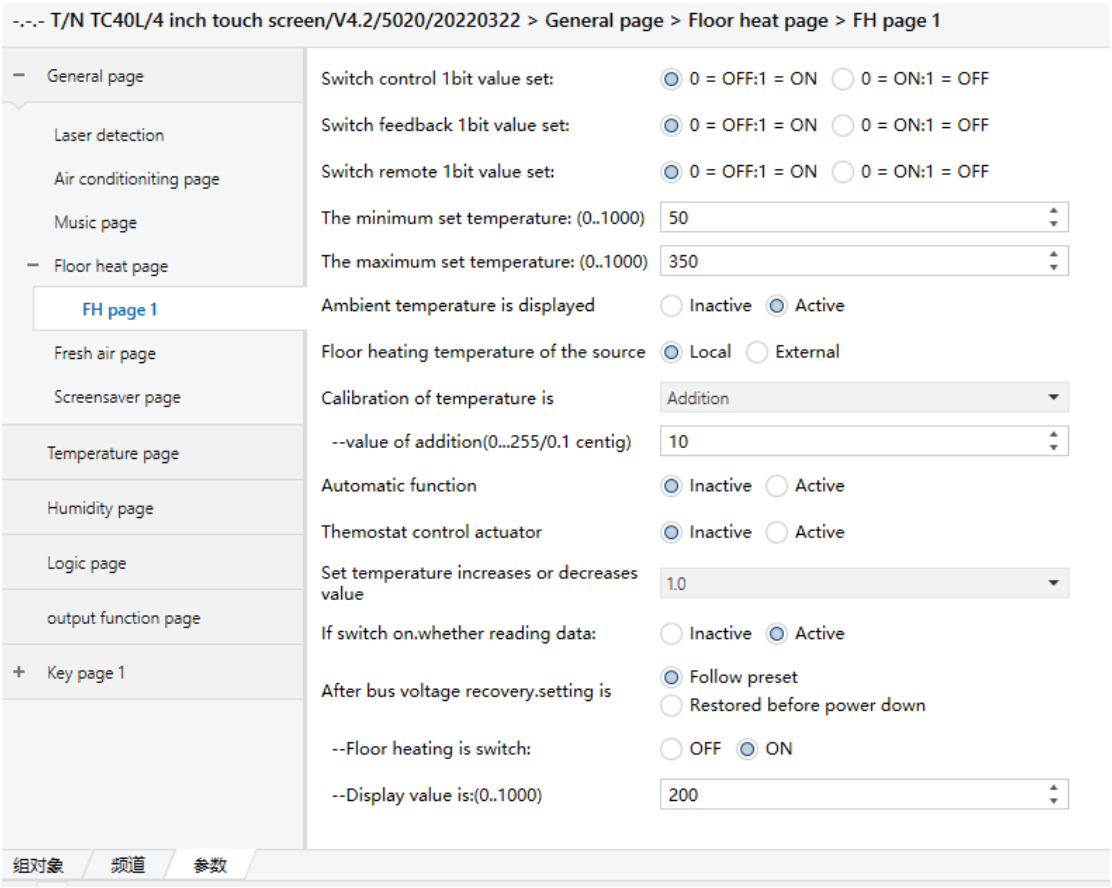


Parameter “The number of channel setting”

This parameter is used to set the number of floor heating control channels.

Range: 0.... 10

3.2.7.1 Floor heating control "FH"



Parameter “switch control 1bit value set”

Parameter “switch feedback 1bit value set”

Parameter “switch remote 1bit value set”

These parameters set the switch control value, feedback value, remote control value of floor heating, and the corresponding communication object is "Switch contorl. CH1”、“Switch feedback. CH1”、“Switch remote. CH1”。

Parameter “the minimum set temperature: (1.. 1000)”

Parameter “the maximum set temperature: (1.. 1000)”

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

Range: 1... 1000, unit: 0.1 °C

Parameter “Ambient temperature is displayed”

This parameter sets whether the ambient temperature is displayed on the screen (it replaces the setting temperature).

Optional: inactive

active

Parameter “Floor heating temperature of the source”

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

Optional: Local

External

Select "Local", the current temperature of the floor heating is 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 "External" is *selected* for *this parameter*, *the temperature can also be calibrated.*

Parameter “Calibration of temperature is”

This parameter is used to set whether the local temperature is calibrated.

Optional: Inactive

Addition

Subduction

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

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

Select "Subduction" to calibrate the local temperature of the floor heating, the calibration method is minus, and the calibration deviation value is set by the parameter "-value of subduction (0...255/0.1 centig)".

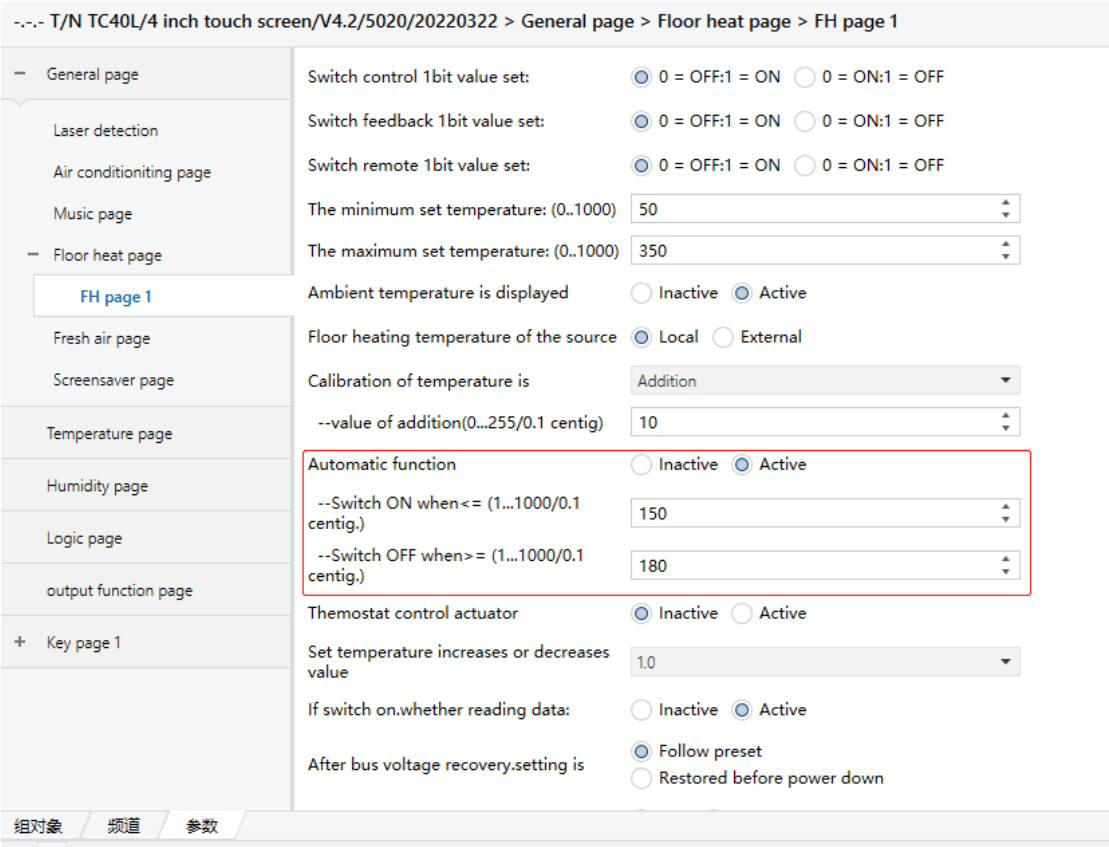
Parameter "automatic function"

This parameter sets whether the auto function is enabled.

Optional: inactive

active

Select "Enable" to enable the auto function and activate 2 parameters, as shown in the following figure:



Parameter "--Switch ON when<=(1...1000/0.1 centig.)"

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

Range: 1... 1000, unit: 0.1 °C

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

This parameter is used to set the floor heating switch state to Off when the local temperature is greater than or equal to what.

Range: 1... 1000, unit: 0.1 °C

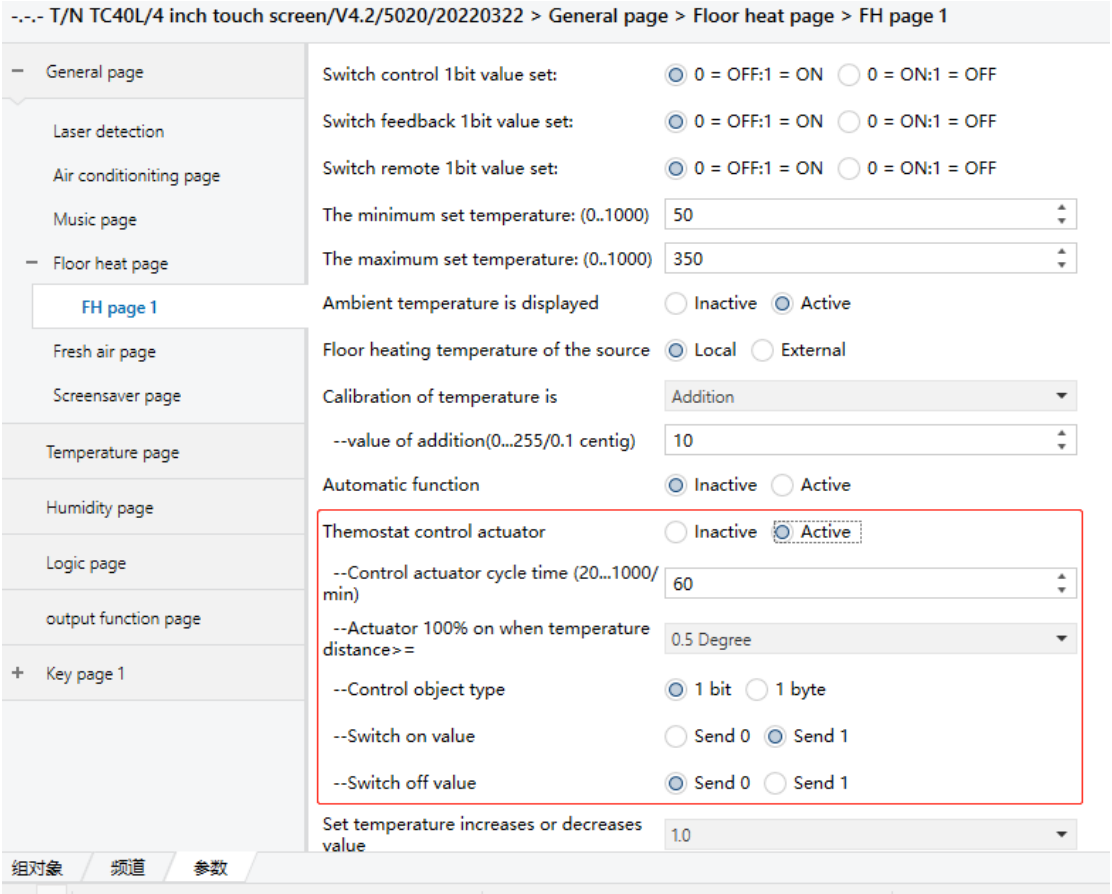
Parameter "Thermostat control Actuator"

This parameter is used to set whether the thermostatic automatic control device is enabled.

Optional: inactive

active

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



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

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

Range: 20... 1000, unit: minutes

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

This parameter is used to set the number of degrees in which the temperature can be changed during the cycle time of the control device.

Optional: 0.5 degree

1 degree

1.5 degree

2 degree

2.5 degree

3 degree

3.5 degree

4 degree

When "0..5/2/2.5/3/3.5/4 degree" is selected, the current temperature is less than the setting temperature 0.5/1/1.5/2/2.5/3/3.5/4 °C, the communication object "control value 1bit/byte" issues the setting value of the parameter "--Switch ON value", and the current temperature

reaches the set temperature and then issues the setting value of the parameter "--Switch OFF value". After one cycle time has arrived, continue to start the detection and control of the next cycle, and so on... The time when the current temperature reaches the set temperature is determined by the parameter "—5/1/1Control acutuator cycle time(20...1000/minute)".

Concentrate:
The time when the current temperature reaches the set temperature = cycle time / number of degrees that the temperature can be changed (set temperature - current temperature)*
Cycle time: Set by the parameter "—Control acutuator cycle time(20...1000/minute)"
Degrees of temperature changeability: 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.

Optional: 1bit
1byte

Parameter "--Switch ON value"

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

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

Parameter "--Switch OFF value"

This parameter is used to set the data to turn 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 setting temperature modified by the touch screen.

Optional: 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.

Optional: OFF

ON

Select "ON" 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 is restored to power.

Optional: Follow preset

Restored before powerdown

Select "Follow preset", the state of the floor heating after the device bus is restored to power is set according to the setting, the floor heating switch state is set according to the parameter "--Switch setting", and the floor heating temperature is set according to the parameter "--Display value is:(0..1000)"Settings;

Parameter "--Switch setting"

This parameter sets the switching state of the floor heating after the device bus is restored to power.

Optional: OFF

ON

Select "OFF", the switch state of the floor heating is off after the device bus is restored to power supply;

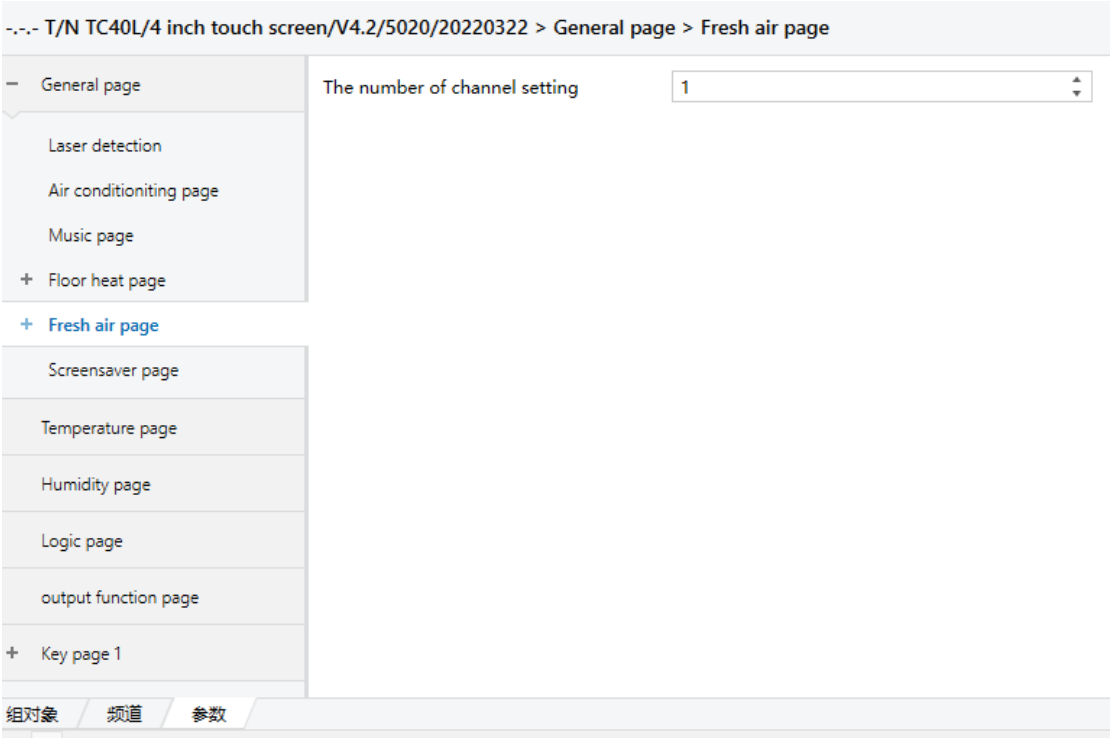
Select "ON" to switch the on/off state of the floor heating after the device bus is restored to power.

Parameter “--Display value is:(0..1000)”

This parameter is activated when ON is selected in the parameter "--Switch setting" to set the temperature of the floor heating after the device bus is restored to power.

Range: 1... 1000

3.2. 8 parameter setting interface "Fresh air"



Parameter “The number of channel setting”

This parameter is used to set the number of floor heating control channels.

Range: 0...10

3.2.8. 1 fresh air control "FA"

-.-.- T/N TC40L/4 inch touch screen/V4.2/5020/20220322 > General page > Fresh air page > FA page 1

- General page
  - Laser detection
  - Air conditioniting page
  - Music page
  - + Floor heat page
  - − Fresh air page
    - FA page 1
  - Screensaver page
- Temperature page
- Humidity page
- Logic page
- output function page
- + Key page 1

After bus voltage recovery.setting is	OFF
Switch set	Inactive / Active
--Switch control 1 bit	0 = OFF:1 = ON / 0 = ON:1 = OFF
--Switch feedback 1 bit	0 = OFF:1 = ON / 0 = ON:1 = OFF
--Switch remote 1 bit	0 = OFF:1 = ON / 0 = ON:1 = OFF
Mode set	Inactive / Active
--Mode control 1 bit	0 = manual:1 = auto / 0 = auto:1 = manual
--Mode feedback 1 bit	0 = manual:1 = auto / 0 = auto:1 = manual
--Mode remote 1 bit	0 = manual:1 = auto / 0 = auto:1 = manual
Speed off	Inactive / Active
--Speed off(control): (0...255)	0
--Speed off(feedback): (0...255)	0
--Speed off(remote): (0...255)	0
Speed 1	Inactive / Active
--Speed 1(control): (0...255)	1
--Speed 1(feedback): (0...255)	1
--Speed 1(remote): (0...255)	1
Speed 2	Inactive / Active
--Speed 2(control): (0...255)	2
--Speed 2(feedback): (0...255)	2
--Speed 2(remote): (0...255)	2
Speed 3	Inactive / Active
--Speed 3(control): (0...255)	3
--Speed 3(feedback): (0...255)	3
--Speed 3(remote): (0...255)	3
Speed 4	Inactive / Active
--Speed 4(control): (0...255)	4
--Speed 4(feedback): (0...255)	4
--Speed 4(remote): (0...255)	4
Speed 5	Inactive / Active
--Speed 5(control): (0...255)	5
--Speed 5(feedback): (0...255)	5
--Speed 5(remote): (0...255)	5

组对象 频道 参数

Parameter “After bus voltage recovery,setting is”

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

Optional: OFF

Speed 1

Speed 2

Speed 3

Speed 4

Speed 5

Car

Last state

Parameter "Switch set"

This parameter is used to set the switch setting for whether fresh air is activated.

Optional: inactive

activee

Select "active" to activate the ventilation switch settings.

Parameter “—Switch control/ feedback/ remote 1bit”

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

Optional: 0=OFF; 1=ON

0=ON;1=OFF

Parameter "Mode set"

This parameter sets whether the mode setting function is activated.

Optional: inactive

active

Select "active" to activate the mode setting function.

Parameter “Mode control/feedback/remote 1bit”

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

Optional: 0=manual; 1=auto

0=autl;1=manual

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

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

Optional: inactive

active

Select active to activate the feature.

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

This parameter is used to set the message value emitted by the communication object "Speed" when the fresh air speed is off/1/2/3/4/5 by pressing a button or remotely controlling the 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 speed is off/1/2/3/4/5.

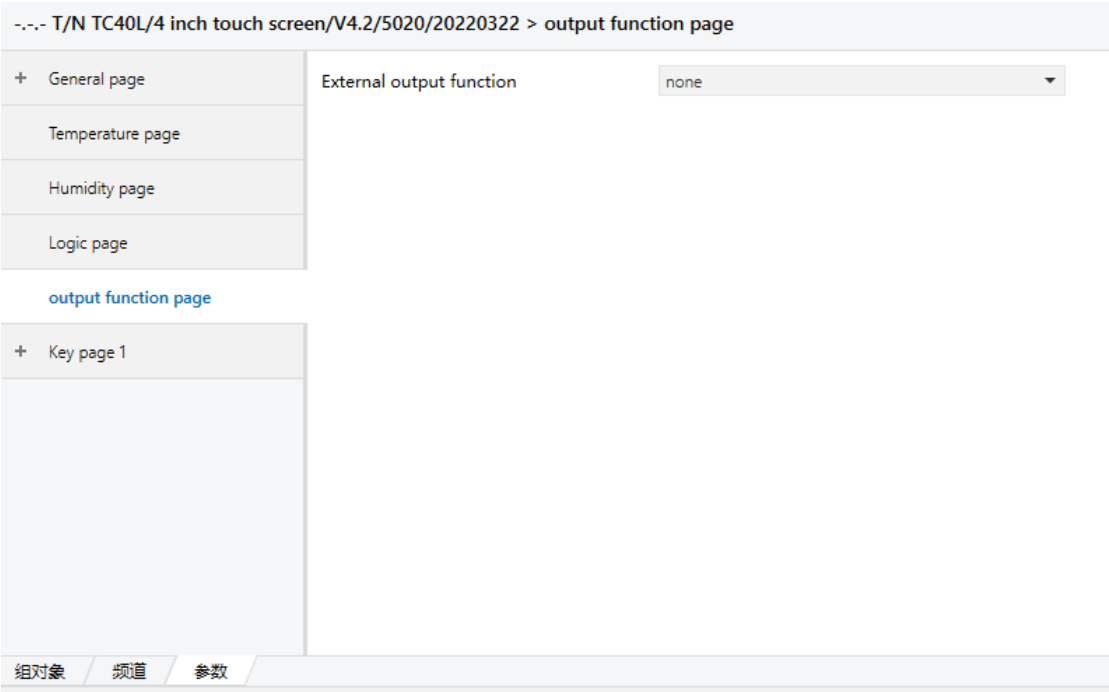
Range: 0... 255

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

This parameter is used to set the packet value that needs to be written to the remote control object "Speed, Remote" when the fresh air speed is off/1/2/3/4/5.

Range: 0... 255

3.3 Parameter setting interface "output function page"



Parameter “external output function”

This parameter is used to set the external output function.

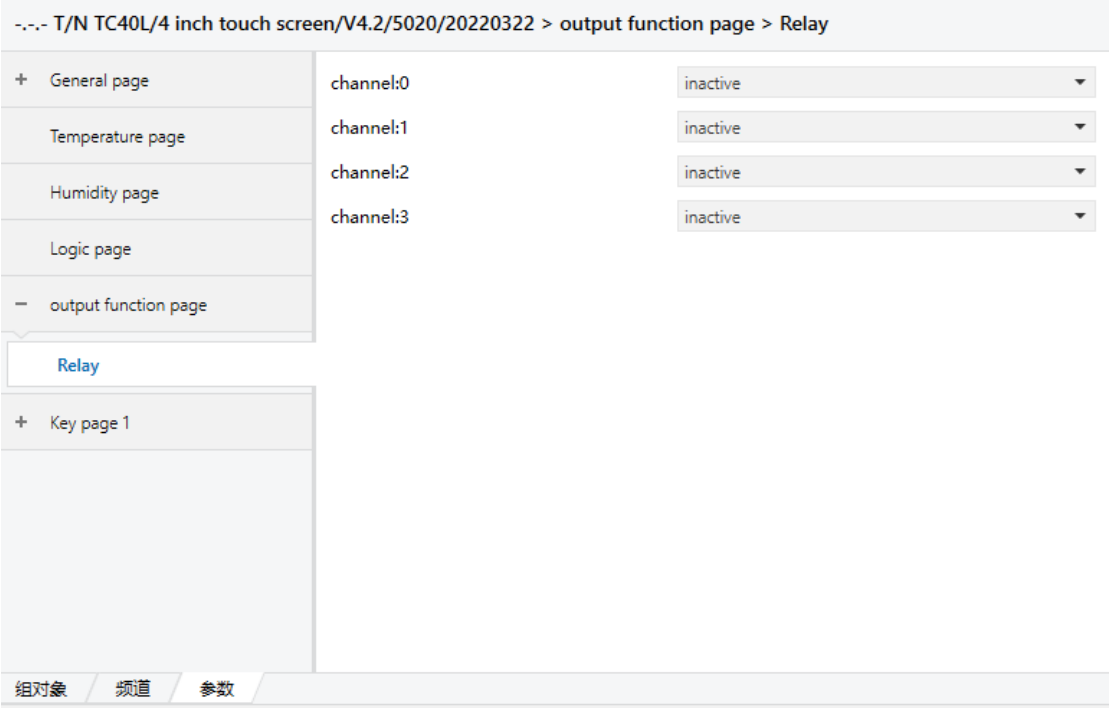
Optional: none

Relay function

Dimming function

3.3.1 Parameter setting window "Relay"

Select "relay function" in the parameter setting window "output function page" and the dimming function appears in the parameter setting window "Relay." ", as shown in the following figure.



Parameter "channel x"

This parameter is used to set the function of the relay channel.

Optional: inactive

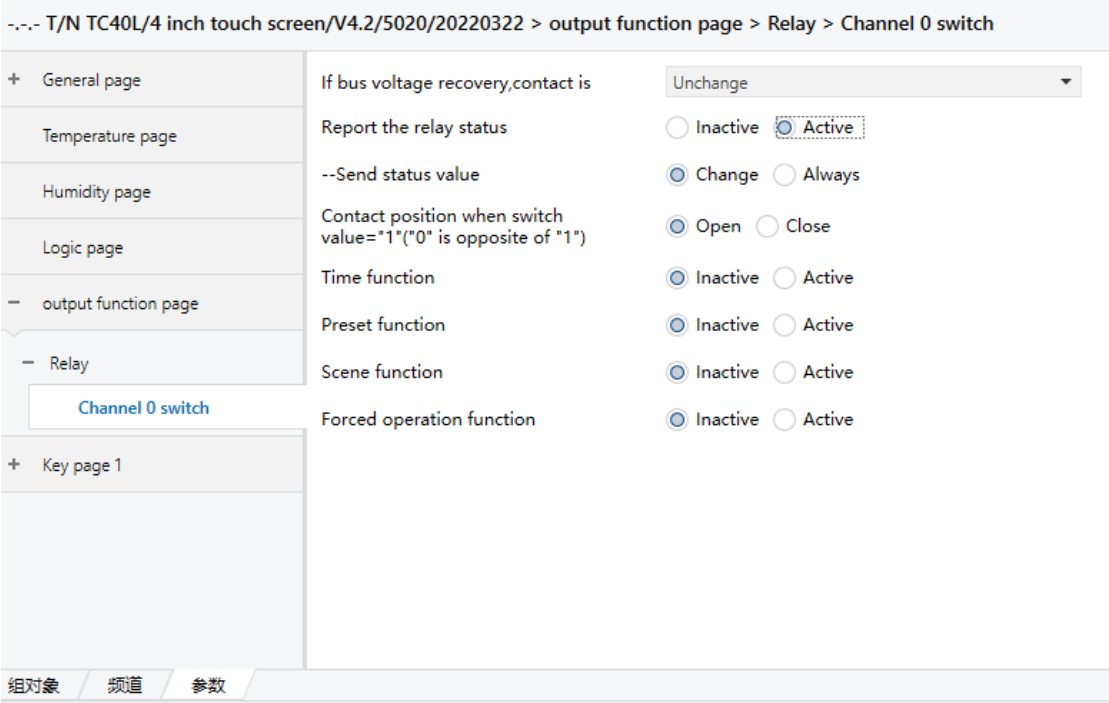
Switch

Curtain

Dry contact

3.3.1.1 Parameter setting window "channel x switch"

Displayed when the "switch" function is selected in "channel x" under "Relay". The specific parameters are shown in the figure below.



Parameter "If bus voltage recovery， contact is"

This parameter sets the contact state of the switch when the bus is restored to power.

Optional: unchanged

open

close

as before bus voltage fail

If "unchanged" is selected, the relay contacts of the channel do not change when the bus is powered on; *(to be initialized).*

If "open" is selected, the relay contact of the channel opens when the bus is powered on, and the channel is closed (OFF);

If "close" is selected, the relay contacts of the channel are closed and the channel is opened (ON) when the bus is powered up;

If "as before bus voltage fail" is selected, the relay contacts for that channel will return to their pre-power-down state when the bus is powered up.

Parameter "Report the relay status"

This parameter sets whether the status reporting relay function is enabled.

Optional: Inactive

Active

Selecting "Active" to enable the status of the report relay and activate the parameter "send status value".

Parameter "--Send status value"

This parameter sets the state of the relay state sent to the bus, and the communication object is "switch status".

Optional: Change

Always

Select Change to indicate that the switch status value is issued only when the relay contact state changes;

Selecting Always indicates that a switching status value is emitted regardless of whether the relay contact state changes or not.

Parameter “contact position when switch value=’1’(‘0’ is opposite of ‘1’)”

This parameter sets the position of the contact when the communication object "switch" message value is 1.

Optional: Open

Close

Selecting "Open" means that the contact is open when the communication object "switch" message value is 1, and the contact is closed when it is 0;

Selecting "Close" indicates that the contact is closed when the communication object "switch" message value is 1 and the contact is open when it is 0.

Note: The communication object "switch status" is fixed to 1 contact off, 0 contact open, with the parameter "contact position when switch value='1' ('0' is opposite of '1' "Irrelevant;

Parameter "Time function"

This parameter sets whether the timing function is enabled.

Optional: Inactive

Active

Select Inactive to not enable the timing function;

Select Active to indicate the enable timing function, for details, please refer to the following 3. 3.1.1.1 Window.

Parameter "Preset function"

This parameter sets whether the preset function is enabled.

Optional: Inactive

Active

Select Inactive to not enable the preset function;

Select Active to enable the preset function, detailed information can be found in the following 3. 3.1.1. 2 windows.

Parameter "Scene function"

This parameter sets whether the scene function is enabled.

Optional: Inactive

Active

Select Inactive to indicate that the scene function is not enabled;

Select Active to enable the scene function, for details, please refer to the following 3. 3.1.1. 3 windows.

Parameter "Forced operation function"

This parameter sets whether the force operation function is enabled, and the communication object is "Forced operation".

Optional: Inactive

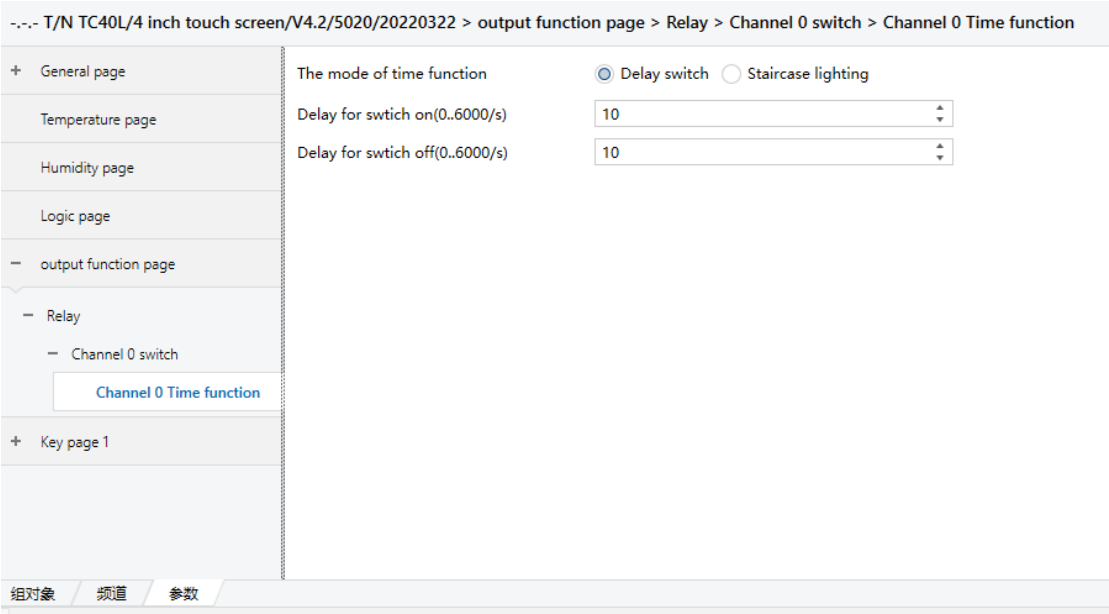
Active

Select Inactive to indicate that the force operation function is not enabled;

Select Active to enable the force action feature.

3.3.1.1.1 Parameter setting window "channel x time function"

This parameter is displayed when "active" is selected for "Time function" under "channel x switch". This is shown in the following figure.



Parameter “The mode of time function”

This parameter sets the mode of the timing function.

Optional: Delay switch

Staircase lighting

Select The Delay switch indicates that the mode of the timing function is the delay switch, and the parameters are described below as A.Delay switch;

Selecting Case lighting indicates that the mode of the timing function is stair light illumination, and the parameters are described below in B. Staircase lighting.

A. Delay switch

Parameter “Delay for switch on（0… 6000/s）”

This parameter sets the delay time for opening the switch.

Range: 0 to 6000, units: seconds

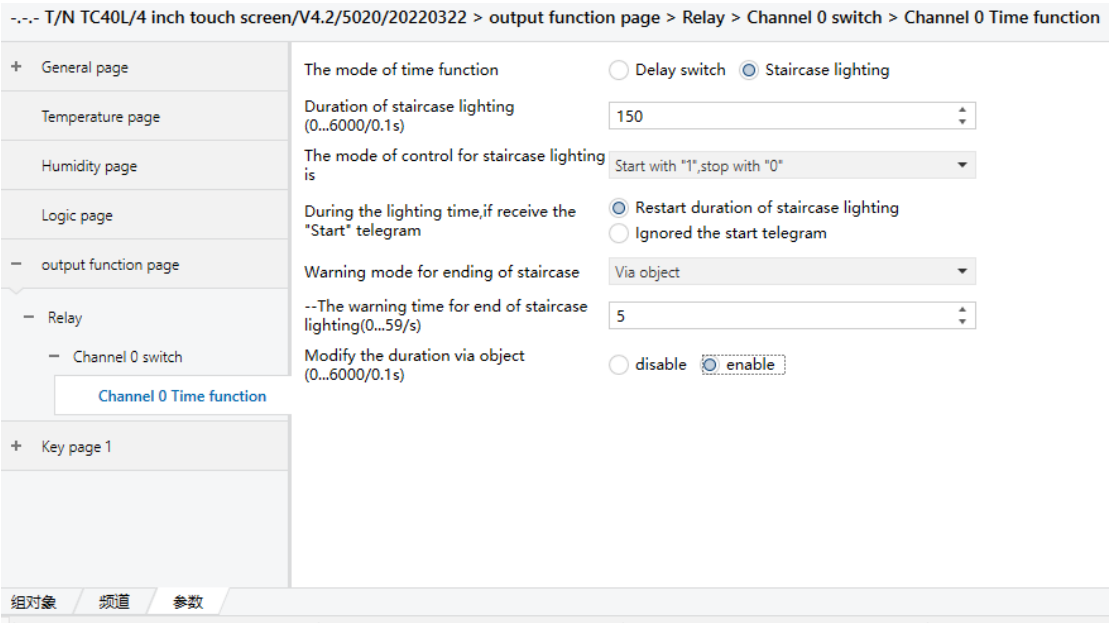
Parameter “Delay for switch off（0… 6000/s）”

This parameter sets the delay time for the switch to be turned off.

Range: 0 to 6000, units: seconds

B. Staircase lighting

Displayed when "Staircase lighting" is selected for the parameter "The mode of time function", the parameter is shown in the following figure.



Parameter “Duration of staircase lighting（0… 6000/0.1s）”

This parameter sets the duration of stair light illumination.

Range: 0 to 6000, units: 0.1 seconds

Parameter “The mode of control for staircase lighting is”

This parameter sets the mode that controls the stair lights.

Options: Start with '1', stop with '0'

Start with ‘1’， no active with ‘0’

Start with ‘0/1’， can’t be stop

Select Start with '1', stop with '0' to indicate that when the communication object "output of staircase lighting" receives a logical value of 01, the stair lights off, and when the logical value of 00 is received;

Select Start with '1', no active with '0' means that when the communication object "output of staircase lighting" receives a logical value of 01, the stair lights up, and does not do anything when the logical value is 00;

Selecting Start with '0/1', can't be stop means that when the communication object "output of staircase lighting" receives a logical value of 00 or 01, the staircase lights up, and no other value can be used to extinguish him.

Parameter “During the lighting time， if receive ‘Start’ telegram”

This parameter sets the action when the 'start' command is received during the illumination of the

stair light (i.e. the communication object "switch" receives 1).
Optional: Restart duration of staircase lighting
Ignored the start telegram
Choosing Restart duration of staircase lighting means restarting the duration of the calculation of stair lighting;
Selecting Ignoored the start telegram ignores the 'start' directive.

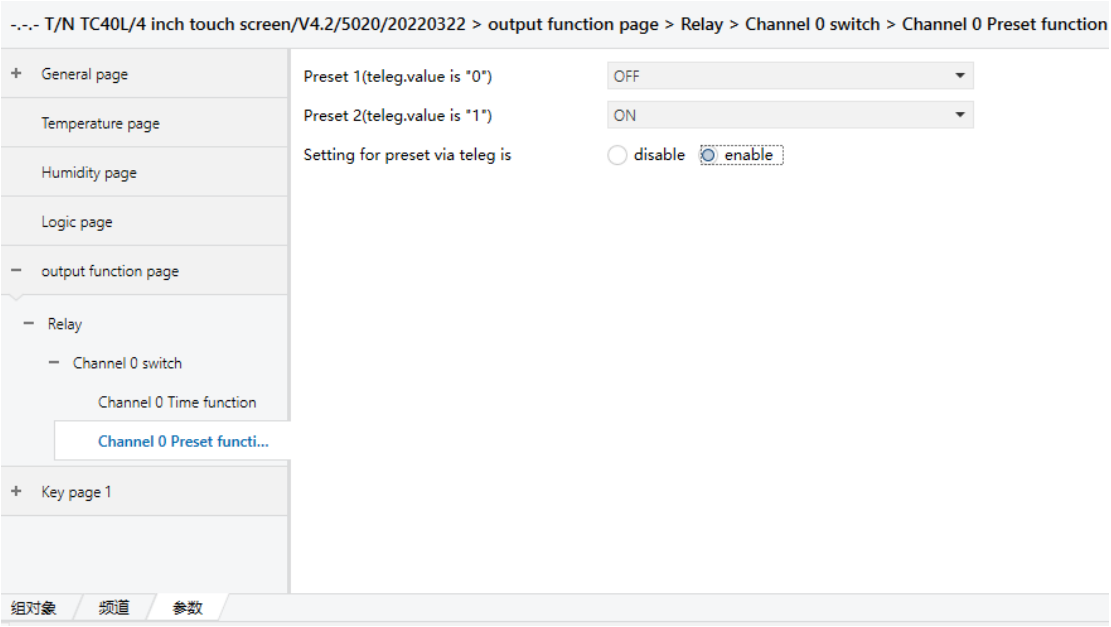
Parameter "Warning mode for ending of staircase"
This parameter sets the warning mode for ending stair light illumination.
Optional: None
Via object
Flashing the output with ON/OFF
Via object and flashing the output
Two types of alerts are available:
---- alert via communication object: Set the value of the communication object "Warning of staircase" to "1" at the beginning of the alert and send it to the bus.
---- warning by flashing light: control output blinking (short switch) with an interval of 3 seconds between switches.
These two methods can be used independently or in combination. When the parameter selects "via object", it is an early warning through the communication object; Select "flashing the output with OFF/ON" to warn you by flashing lights;
Selecting "via object & flashing the output" is a mixed-use alert.

Parameter "The warning time for end of staircase lighting（0… 59s）"
This parameter is visible when an alert mode is selected and is used to set the duration of the alert.
Range: 0 to 59, units: seconds
Note: The warning time here is less than the duration of the stair lighting, if it is greater than the stair lighting is turned off before the warning, then the warning function does not work.

Parameter "Modify the duration via object（0… 6000/0.1s）"
This parameter sets whether the duration of stair light illumination is modified by bus.
Optional: disable
Enable
When "enable" is selected, a 2byte communication object "Staircase duration" will be activated, and the stair lighting time can be modified by this communication object;
If "disable" is selected, the lighting time of the stairs cannot be modified by bus.

3.3.1.1.2 Parameter setting window "channel x Preset function"

This parameter is displayed when "Active" is selected for "Preset function" under "channel x switch". This is shown in the following figure.



The preset function is used to implement the preset light function, the preset value can be recalled, and the current switching state can also be saved as a new preset by bus.

2 communication objects are used to call and save preset values. There are two preset values (preset 1 and preset 2) to choose from, the value of the communication object "0" corresponds to "preset 1" and the value "1" corresponds to "preset 2".

Parameter "preset 1(teleg. Value is“0”）”

This parameter sets the default value to 1.

Optional: none

ON

Off

Selecting none indicates that when the communication object calls the preset value 1, it has no effect on the channel state;

SelectING ON indicates that when the communication object calls the preset value 1, the channel state is Open;

Selecting Off indicates that when the communication object calls the preset value 1, the channel status is Off.

Parameter "preset 2(teleg. Value is“1”）”

This parameter sets the default value of 2.

Optional: OFF

ON

Last status of contact

Setting of preset 1

SelectING ON indicates that when the communication object calls the preset value 1, the channel state is Open;

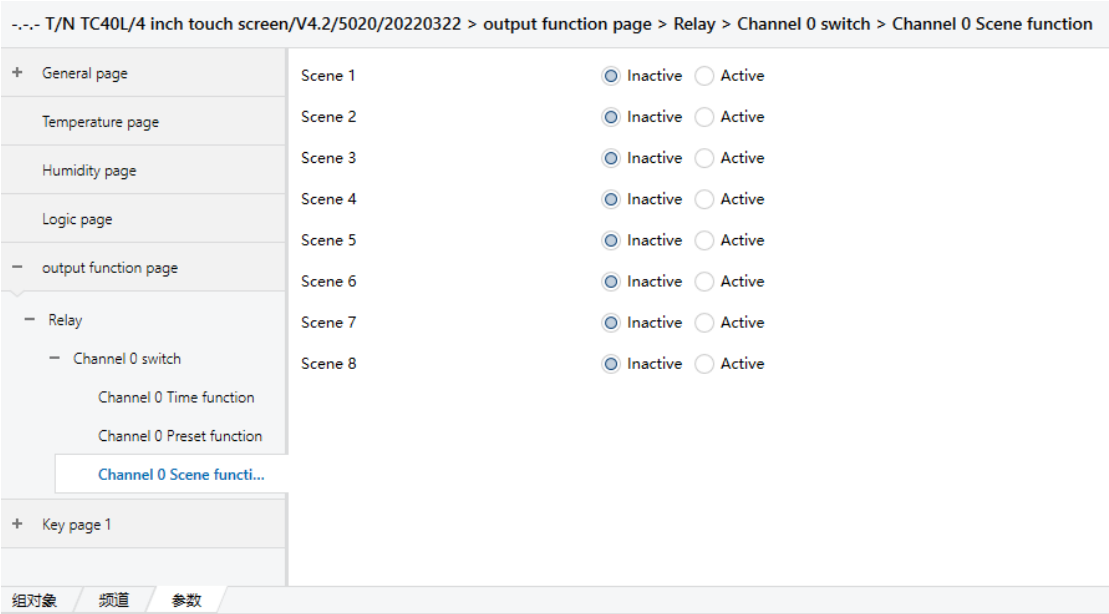
SelectIng Off indicates that when the communication object calls the preset value 1, the channel

status is Off;
Selecting "last status of contact" is that when preset 2 is called, the relay contacts of the channel revert to the previous state (the state before the operation to the current state). For example: when the conference room is in a meeting, playing a video clip, you need to turn the light into a video mode, at this time call to open the scene mode of playing the video, when the video playback is completed, then call the preset value 2 (preset 2) to restore the light to the mode before playing the video;
The purpose of selecting "setting of preset 1" is to restore the channel state to the state set by the preset 1 parameter, which is useful when modifying preset values via the bus. For example, if the preset value of preset 1 is modified by bus, the switch state can be restored to the previous state modified by calling preset 2 (preset 2).

Parameter "Setting for preset via teleg is"
This parameter is used to set whether preset values are allowed to be modified over the bus. When "enable" is selected to allow presets to be modified via the bus, the communication object "Set preset1/2" is used to save the channel's current switching state as a new preset. When it receives the message "0", the state value of the current switch is saved as a new preset 1 (preset 1); When it receives the message "1", the state value of the current switch is saved as a new preset 2 .2.
Optional: Enable
Disable
NOTE: When the bus is powered down, the new preset values set are not lost.

3.3.1.1.3 Parameter setting window "channel x Scene function"

This parameter is displayed when "active" is selected for "Scene function" under "channel x switch". This is shown in the following figure.



The window has eight scenes to choose from, and the number of scenes X=1 is represented by X below 8

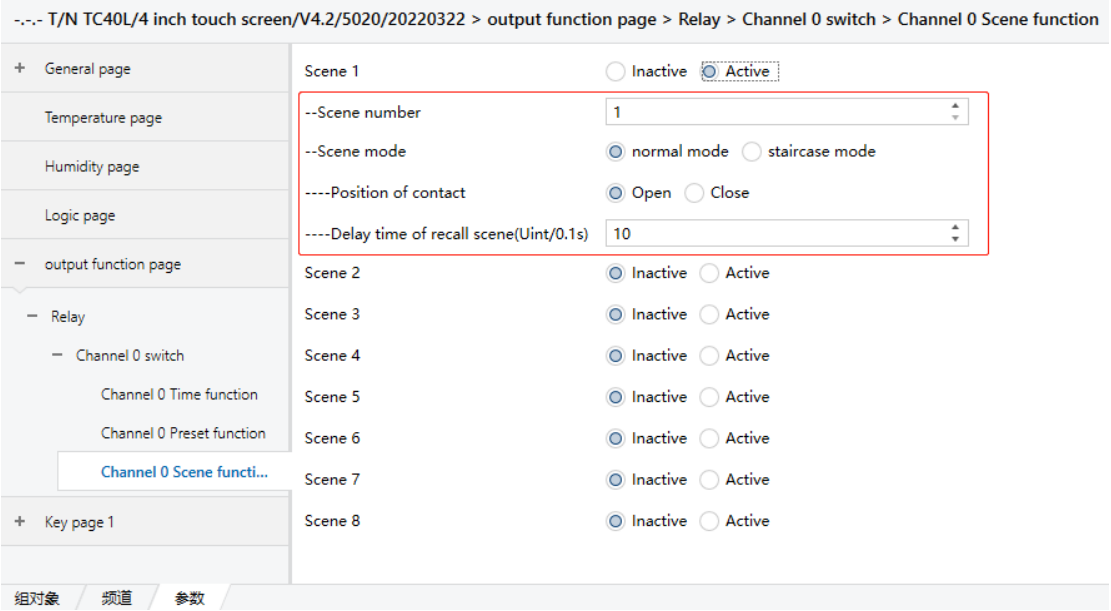
Parameter "Scene X"

This parameter sets whether scene X is enabled

Optional: Inactive

Active

Select Active to enable Scenario X, activate several parameters, as shown in the figure:



Parameter "Scene number"

This parameter is used to set the scene number.

Range: 1.... 64

Note: The scene number cannot be 0, because the scene number that you want to call must meet the conditions (scene number = value of the input call +1).

Parameter "Scene mode"

This parameter sets the scene mode.

Optional: Normal mode

Staircase mode

SelectIng Normal mode indicates that the relay delay opening and closing mode is called under normal conditions, and the parameters can be described in A. Normal_mode;

Selecting Staircase mode indicates the continuous illumination mode of the stair light, see D. Staircase mode for the parameters.

A. Normal mode

Parameter “Position of contact”

This parameter sets the relay contact state for scene X.

Optional: Open

Close

Select open contact to open, channel closed;

Select close the contact to close and the channel opens.

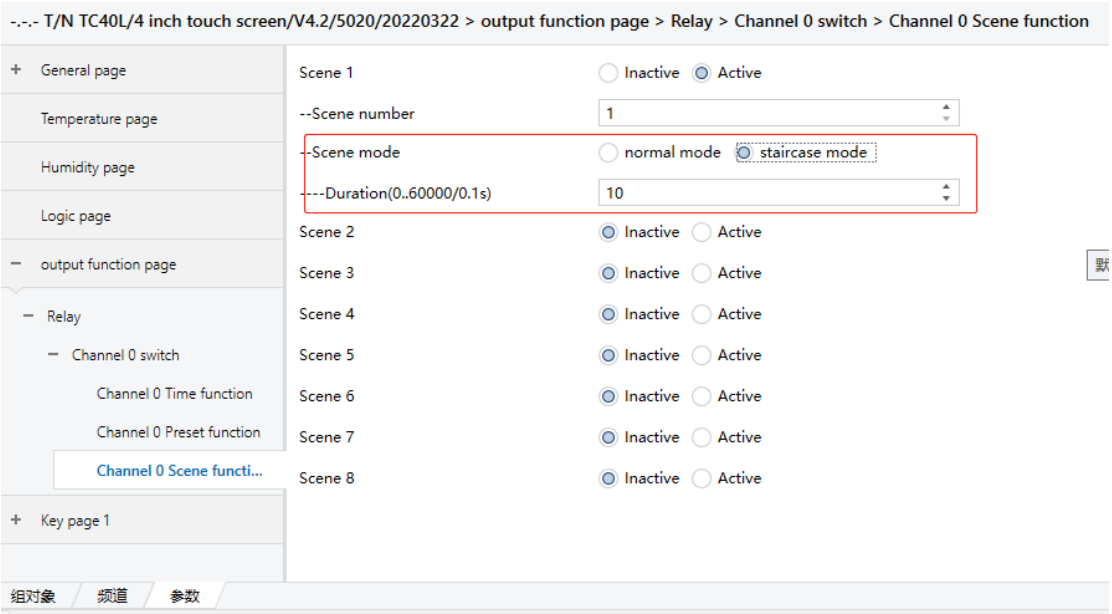
Parameter “Delay time of recall scene”

This parameter sets the delay time for Scene X.

Range: 0.... 65535 in 0.1 seconds

D. Staircase mode

The parameter setting interface is displayed when "scene mode" is selected, as shown in the figure:



The parameter "Duration(0... 60000/0.1s）”

This parameter sets the time that the stair lights continue to illuminate in the mode of stair light illumination in Scene X.

Range: 0... 6,0000 in 0.1 seconds

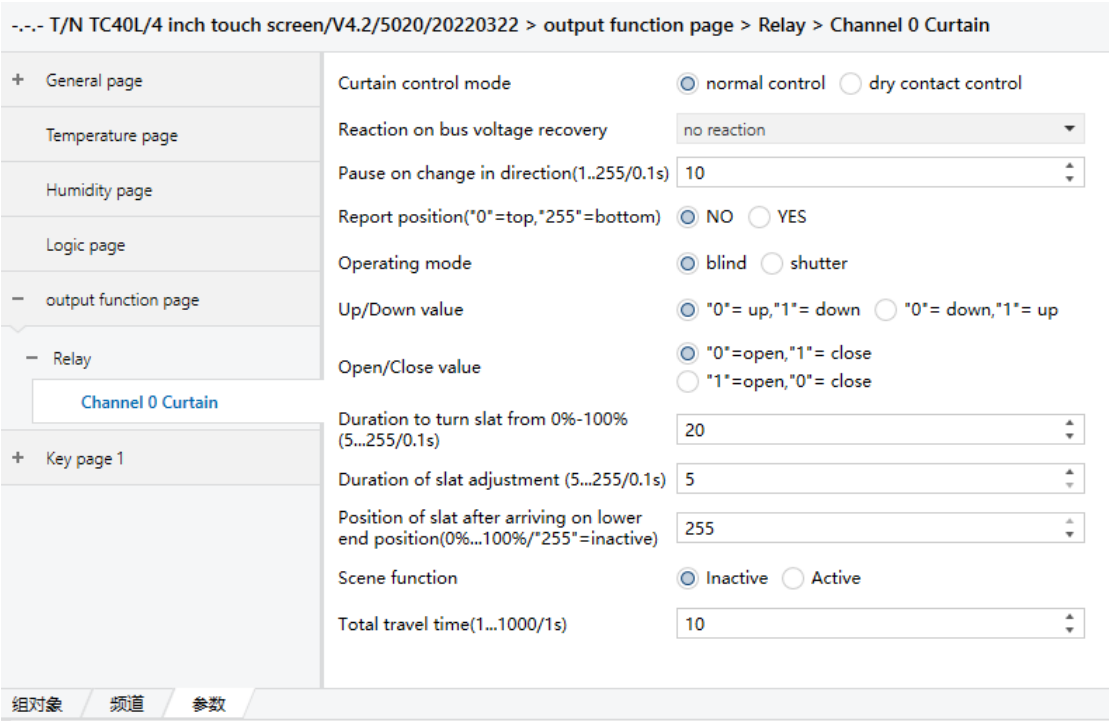
3.3.1. 2 Parameter setting window "channel x Curtain"

Displayed when the "curtain" function is selected in "channel x" under "Relay". Its specific parameters are shown in the figure.

Note:

1. When opening the curtain function, channels 1 and 2 should be selected at the same time, indicating curtain channel 1 (the same as channels 3 and 4);

2. The curtain moves upwards, the relay A/C closes, moves downward, and the relay B/D closes ；



The parameter "Curtain control mode"

This parameter sets the control mode of the curtain, and there are two kinds of ordinary control and dry contact control.

Optional: normal control

dry contact control

3.3. 1. 2.1 Curtain control mode norm control

The parameter "Curtain control mode" selects Normal control to indicate that the control mode of the curtain is normal control mode. The specific parameters are shown in the figure above.

Parameter “Reaction on bus voltage recovery”

This parameter sets the operating state of the curtain after the bus is restored to power supply.

Optional: No reaction

Up

Down

Stop

Select "no reaction" to indicate that the curtain does not react when the bus is restored to power;

Select "up" to indicate that the curtain moves upwards, moving to the very top;

Select "down" to indicate that the curtain moves downwards, moving to the very bottom;

Select "stop" to stop the curtain.

Parameter “Pause on change in direction（1… 255/0.1s）”

This parameter sets the pause time when the direction of motion of the curtain changes.

Range: 1.... 255, in units: 0.1 seconds

Parameter “Report position（“0”=top，“255”=bottom）”

This parameter sets whether to report the position of the curtain. where 0 means the curtain moves to the top and 255 means the curtain moves to the bottom.

Parameter "Operation mode"

This parameter sets the operating mode of the curtain.

Optional: blind

shutter

Selecting "blind" indicates that the curtain operation mode is the mode with blades, see A blind description;

Selecting "shutter" indicates that the curtain operation mode is without blades, as described by B.shutter.

A. blind

Parameter "Up/Down value"

Available options: "0"=up, "1"=down

“0”=down，“1”=up

Select "0"=up,"1"=down" indicates that the communication object "Move curtain up/down" sends 00 curtains upwards to the top, and 01 curtains move down to the bottom;

Select "0" = down, "1" = up" indicates that the communication object "Move curtain up/down" sends 00 curtains down to the bottom, and hair 01 curtains move up to the top.

Parameter "Open/Close value"

Optional: "0"=open, "1"=close

“0”= close，“1”= open

Select "0"=open, "1"=close means that the communication object "Adjustment stop/up/down" receives the message 0 when the blind blade is fully opened, the angle value is 0%, when the message 1 is received, the blind blade is completely closed, the angle value is 100%;

Select "0" = close, "1" = open, in contrast.

Parameter “Duration to turn slat from 0%-100%（5… 255/0.1s）”

This parameter sets the duration of the curtain angle to run from 0% to 100%.

Range: 5.... 255, unit: 0.1s

Parameter “Duration of salt adjustment(5… 255/0.1s)”

This parameter sets the adjustment time of each step of the curtain angle.

Range: 5.... 255, unit: 0.1s

Note: As shown in Figure 3.5.2-1, the parameter "Duration to turn slat from 0%-100%(5... 255/0.1s) "Set 20, parameter" Duration of salt adjustment(5... 255/0.1s) "set 5, indicating that the *total adjustment time of the angle* is *2s, adjusted in 4 steps, the adjustment time of each step is 0.5s, and each step is adjusted 25 %, The communication object of step adjustment is "Adjustment stop/up/down".*

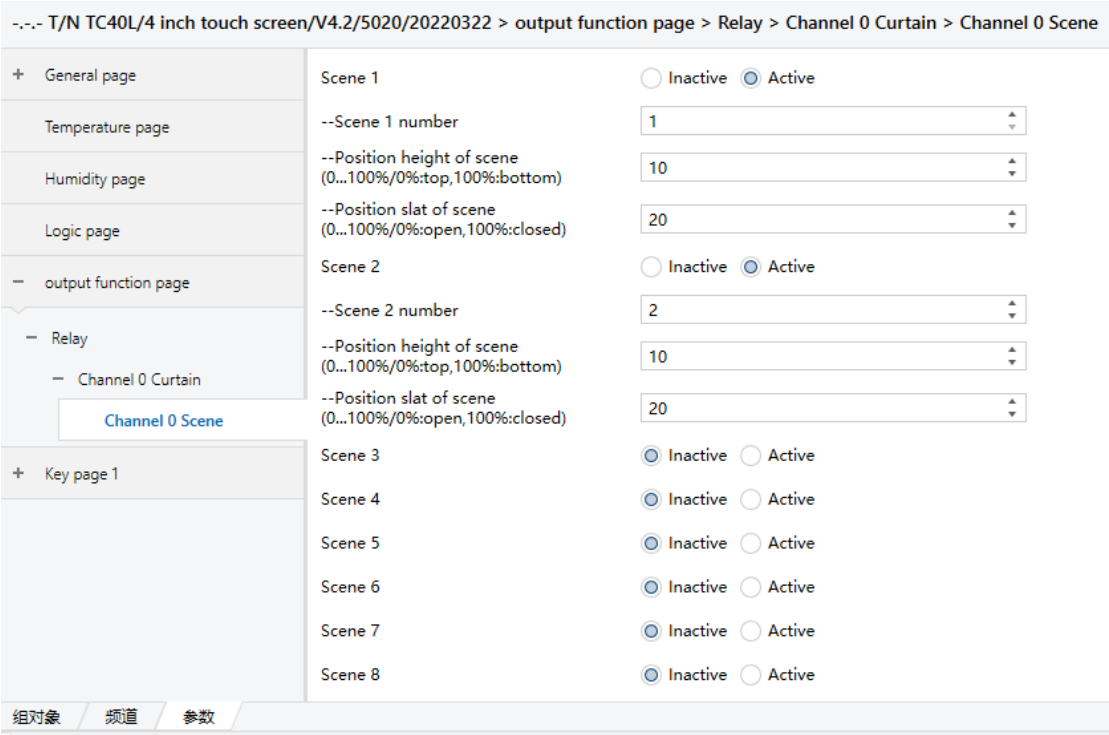
Parameter “Position of salt after arriving on lower end position（0%... 100%/“255”= inactive）”

This parameter sets the position of the angle when the curtain height is run to the very bottom (100%).
Range: 0%... 100%, 255 means that no value is enabled.

Parameter “Total travel time（1… 6000/1s）”
This parameter sets the entire time of the curtain run (height + angle).
Range: 1... 1,000 in seconds

Note: 1, curtain height full time = total time - angle time;
2. When the height of the curtain is moved to the top (0%), the angle must be 0%;
3. When the curtain performs the upward movement command, first move the angle to 0%, then move the height to the specified position, and then restore the angle; When executing the move down command, first move the angle to 100%, then move the height to the specified position, and then restore the angle;
4. When the default curtain is adjusted throughout the process, the time is 5% of the total time plus the whole time, such as the whole time is 1 *0s,1 0 + 10 * 5% = 10.5s*

Parameter "Scene function"
This parameter sets whether to activate the scene function of the curtain.
Optional: Inactive
Active
Selecting "inactive" means that the scene function is not activated
Select "active" to activate the scene function, and its parameter interface refers to the following figure:



The window has eight scenes to choose from, and the number of scenes X=1 is represented by X

below 8

Parameter "Scene X"

This parameter sets whether scene X is enabled.

Optional: Inactive

Active

Select Inactive to indicate that scenario X is not enabled;

Select Active to enable scenario X.

Parameter "Scene X number"

This parameter sets the scene number of scene X.

Range: 1.... 64

Parameter “Position height of scene（0… 100%/0%：top，100%：bottom）”

This parameter sets the height position of scene X.

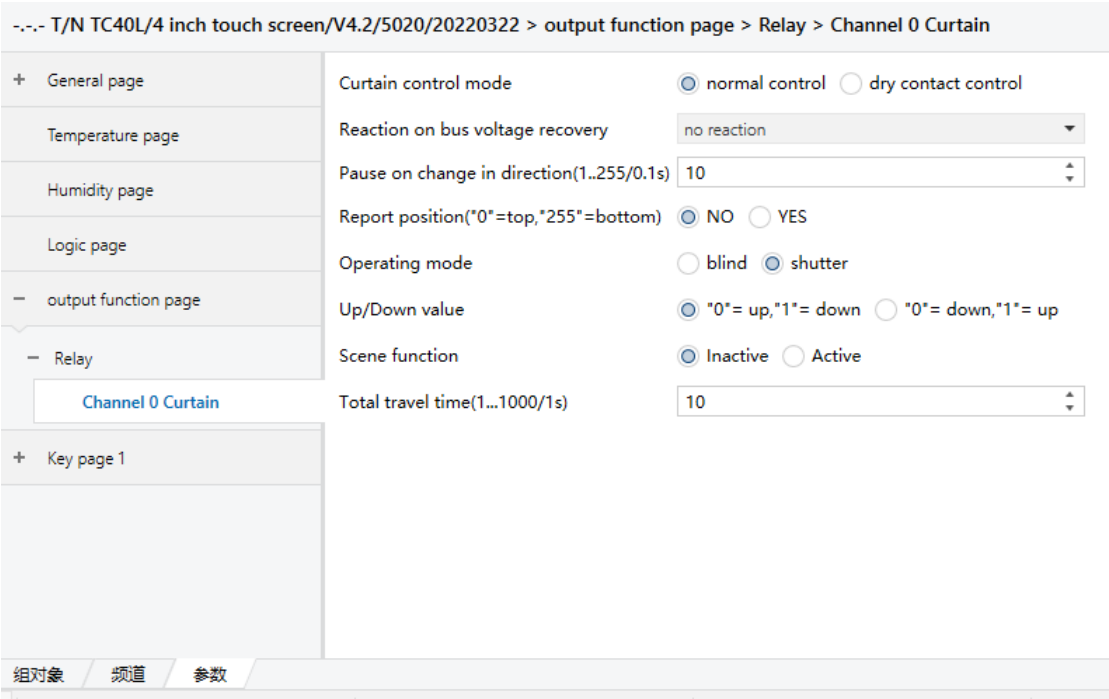
Range: 0.... 100%, 0% means the height moves to the top, and 100% means the height moves to the bottom.

Parameter “Position salt of scene（0… 100%/0%：open，100%：colsed）”

This parameter sets the angle position of scene X.

Range: 0.... 100%, 0% means that the angle is fully open, and 100% means that the angle is fully closed.

B. shutter



Parameter "Up/Down value"

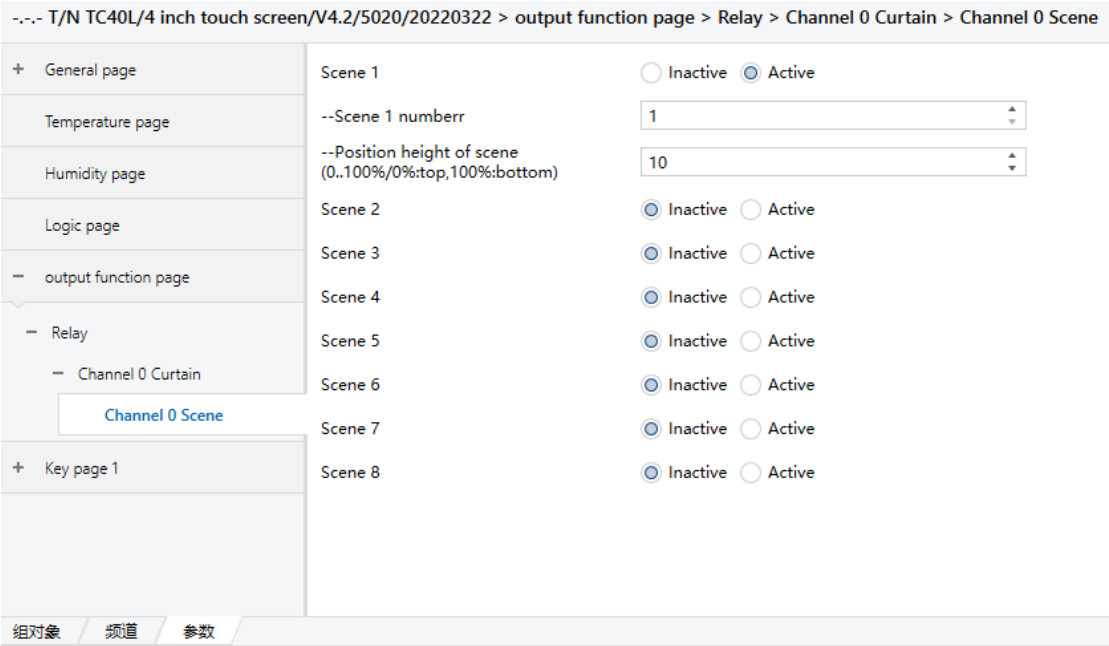
Available options: "0"=up, "1"=down

“0”=down，“1”=up

Select "0"=up,"1"=down" indicates that the communication object "Move curtain up/down" sends 00 curtains upwards to the top, and 01 curtains move down to the bottom;
Select "0" = down, "1" = up" indicates that the communication object "Move curtain up/down" sends 00 curtains down to the bottom, and hair 01 curtains move up to the top.

Parameter “Total travel time（1… 1000/1s）”
This parameter sets the entire time for the curtain to run.
Range: 1... 1,000 in seconds

Parameter "Scene function"
This parameter sets whether to activate the scene function of the curtain.
Optional: Inactive
Active
Selecting "inactive" means that the scene function is not activated
Select "active" to activate the scene function, and its parameter interface refers to the following figure:



The window has eight scenes to choose from, and the number of scenes X=1 is represented by X below 8
Parameter "Scene X"
This parameter sets whether scene X is enabled.
Optional: Inactive
Active
Select Inactive to indicate that scenario X is not enabled;
Select Active to enable scenario X.

Parameter "Scene X number"
This parameter sets the scene number of scene X.

Range: 1.... 64

Parameter “Position height of scene（0… 100%/0%：top，100%：bottom）”

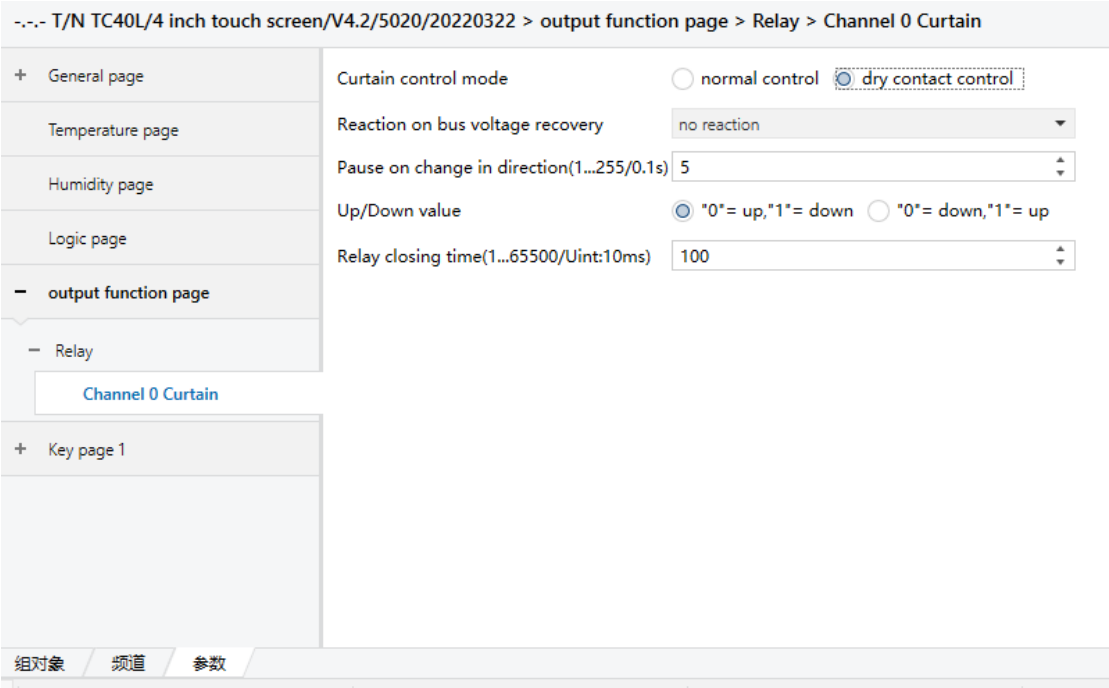
This parameter sets the height position of scene X.

Range: 0.... 100%, 0% means the height moves to the top, and 100% means the height moves to the bottom.

3.3. 1. 2.2 Curtain control mode dry contact control

The parameter "Curtain control mode" selects dry contact control to indicate that the control mode of the curtain is dry contact control. The specific parameters are shown in the figure below.

Curtain dry contact control, the main feature is that when the curtain is suspended, the two relays will close at the same time.



Parameter “Reaction on bus voltage recovery”

This parameter sets the operating state of the curtain after the bus is restored to power supply.

Optional: No reaction

Up

Down

Stop

Select "no reaction" to indicate that the curtain does not react when the bus is restored to power;

Select "up" to indicate that the curtain moves upwards, moving to the very top;

Select "down" to indicate that the curtain moves downwards, moving to the very bottom;

Select "stop" to stop the curtain.

Parameter “Pause on change in direction(1...255/0.1s)”

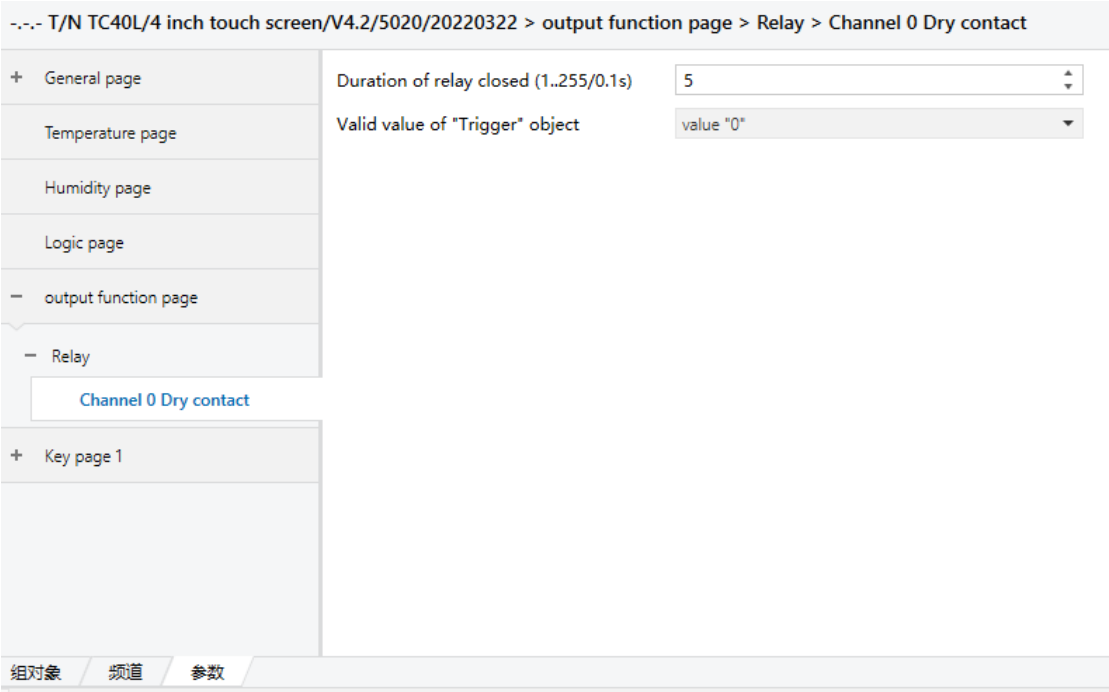
This parameter sets the pause time when the direction of motion of the curtain changes.
Range: 1.... 255, in units: 0.1 seconds

Parameter “Up/Down value”
Available options: "0"=up, "1"=down
“0”=down，“1”=up
Select "0"=up, "1"=down" indicates that the object "Move curtain up/down" receives the message 00 Curtain moves upwards to the top (Relay A closes), 01 Curtain moves down to the bottom (Relay B closure);
Select "0" = down, "1" = up" indicates that the communication object "Move curtain up/down" received the message 00 curtain moves down to the bottom, 01 curtain moves up to the top.

Parameter “Relay closing time (1..6000/Uint:10ms)”
This parameter sets the relay closing time, that is, the whole time of curtain movement and the time of curtain suspension.
Range: 1... 6000, unit: 10ms

3.3.1. 3 Parameter setting window "channel x Dry contact"

Displayed when "channel x" under "Relay" selects the "dry contact" function. Its specific parameters are shown in the figure.



Parameter “Duration of relay closed（1… 255/0.1s）”
This parameter sets the duration for which the relay is turned off.
Range: 1.... 255, unit: 0.1s

Parameter “Valid value of “Trigger”object”

This parameter sets the valid value of the trigger relay, and the communication object is "Trigger".

Optional: Value "0"

Zone V"1"

Division V "0/1"

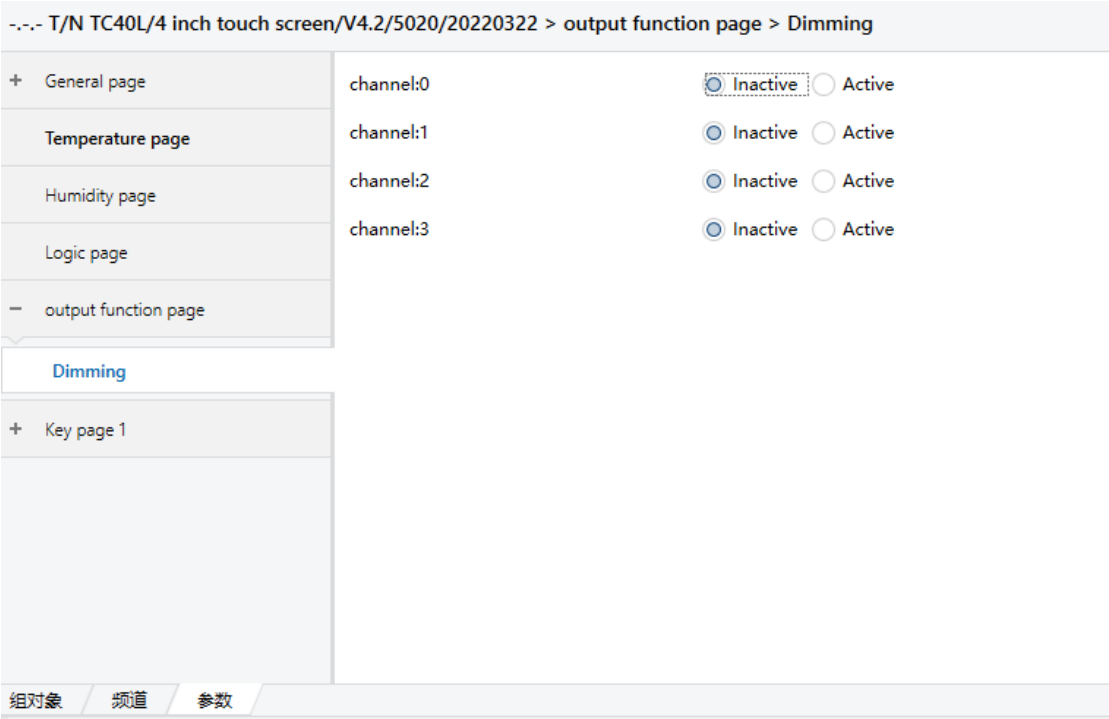
Selecting "value "0"" indicates that the valid value of the trigger relay is 00.

Selecting "value "0"" indicates that the valid value of the trigger relay is 01.

Selecting "value "0/1" indicates that the valid value of the trigger relay is 00/01.

3.3. 2 Parameter setting window "Dimming"

Select "dimming function" in the parameter setting window "output function page" and the parameter setting window "dimming" appears in the parameter setting window "dimming", as shown in the following figure.



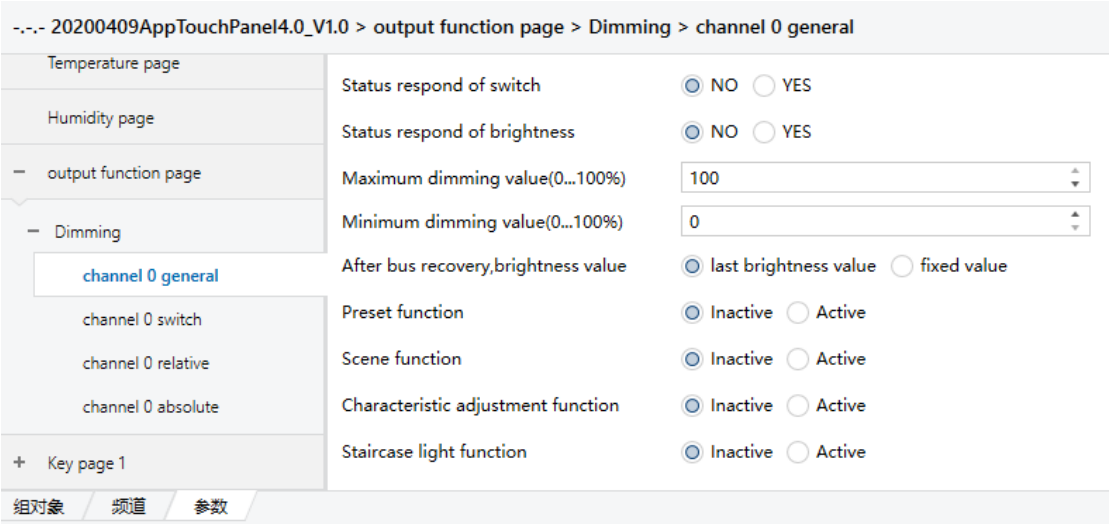
Parameter "channel x"

This parameter is used to set whether the dimming channel x is activated.

Optional: inactive

Active

3.3.2.1 Parameter setting window "channel x general"



Parameter “Status responed of switch”

This parameter sets whether to send the status of the switch, and the communication object is "Current switch state".

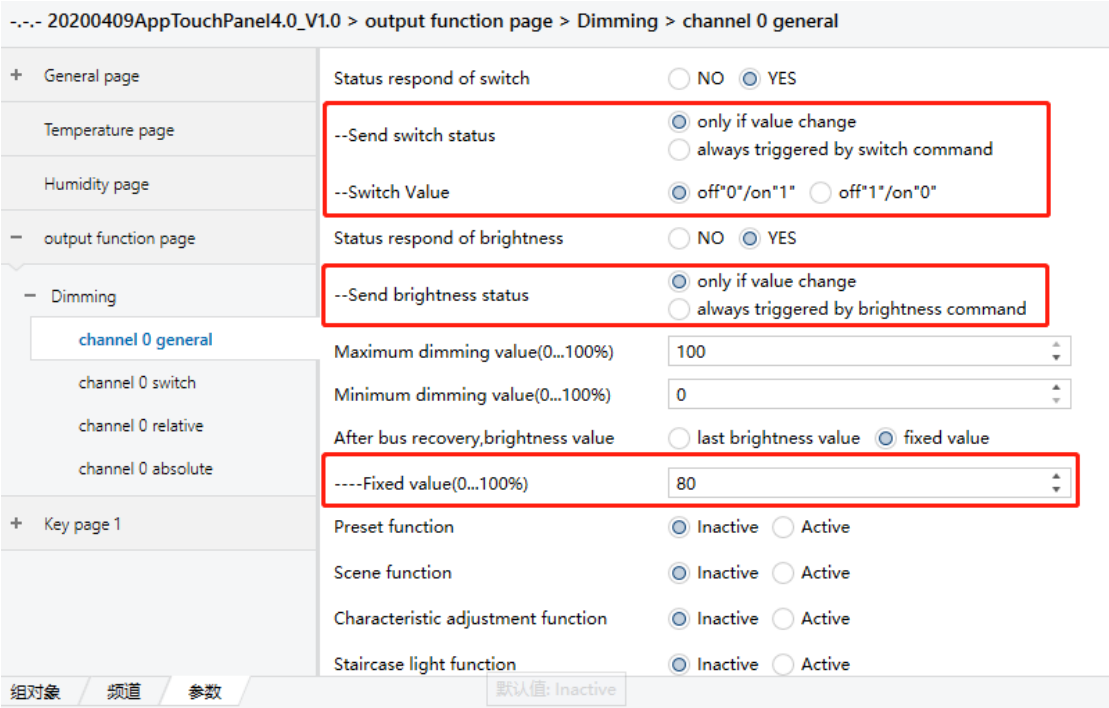
Optional: NO

YES

Select "NO" to not send the status of the switch;

Select YES to send the status of the switch.

The interface for parameter setting is shown in the figure:



Parameter "Send switch status"

This parameter sets the way in which the state of the switch is sent.

Optional: only if value change

always triggered by switch command

Select "only if value change" to set the switch state change to be issued;
Select "always triggered by switch command" to signal the current switch status to the bus whenever the trigger switch is triggered.

Parameter "Switch Value"
This parameter sets the status value of the switch.
Optional: off "0"/on "1"
off“1”/on“0”
Select off "0"/on "1", the status value of the switch is 00 for the off switch, 01 is the open switch;
Select off "1"/on "0" and the status value of the switch is 00 for the on switch and 01 for the off switch.

Parameter “Status response of brightness”
This parameter sets whether to send a brightness value, and the communication object is "Current brightness value".
Optional: NO
YES
Select "NO" without sending the brightness value;
Select YES, send the brightness value, and activate a new parameter, as shown in Figure 3.4.1-2.
Parameter "Send brightness status"
This parameter sets how the brightness value is sent.
Optional: only if value change
always triggered by brightness command
Select "only if value change" to set the way the brightness value is sent so that the brightness value is changed.
Select "always triggered by brightness command" to emit the current brightness value to the bus whenever the brightness command is triggered.

The parameter "Maximum dimming value(0... 100%）”
This parameter sets the maximum dimming value.
Range: 0... 100%

The parameter "Minimum dimming value(0... 100%）”
This parameter sets the minimum dimming value.
Range: 0... 100%

Note: 0... The decimal number corresponding to 100% is shown in the following figure

```
const UCHAR PercentDataTable[101] = {0,3,5,8,10,13,15,18,20,23,26,
                                     28,31,33,36,38,41,43,46,48,51,
                                     54,56,59,61,64,66,69,71,74,77,
                                     79,82,84,87,89,92,94,97,99,102,
                                     105,107,110,112,115,117,120,122,125,128,
                                     130,133,135,138,140,143,145,148,150,153,
                                     156,158,161,163,166,168,171,173,176,179,
                                     181,184,186,189,191,194,196,199,201,204,
                                     207,209,212,214,217,219,222,224,227,230,
                                     232,235,237,240,242,245,247,250,252,254};
```

Parameter “After bus recovery， brightness value”

This parameter sets the brightness value after the bus is restored.

Optional: last brightness value

fixed value

Select "last brightness value", and the brightness value after bus recovery is the brightness value of the previous time;

Select "fixed value", the brightness value after bus recovery is a fixed value, and the fixed value is determined by the parameter "Fixed value(0... 100%" setting, as shown in Figure 3.4.1-4.

Parameter "Preset function"

This parameter setting is whether to activate the preset function, select "active" indicates the activation of the preset function, the introduction can be seen "3.3.2.1.1 parameter setting window channel x preset".

The parameter "Scene function"

Whether the parameter setting activates the scene function, selecting "active" indicates that the function is activated, and the introduction can be seen in "3.3.2.1.2 parameter setting window channel x scene".

The parameter "characteristic adjustment function"

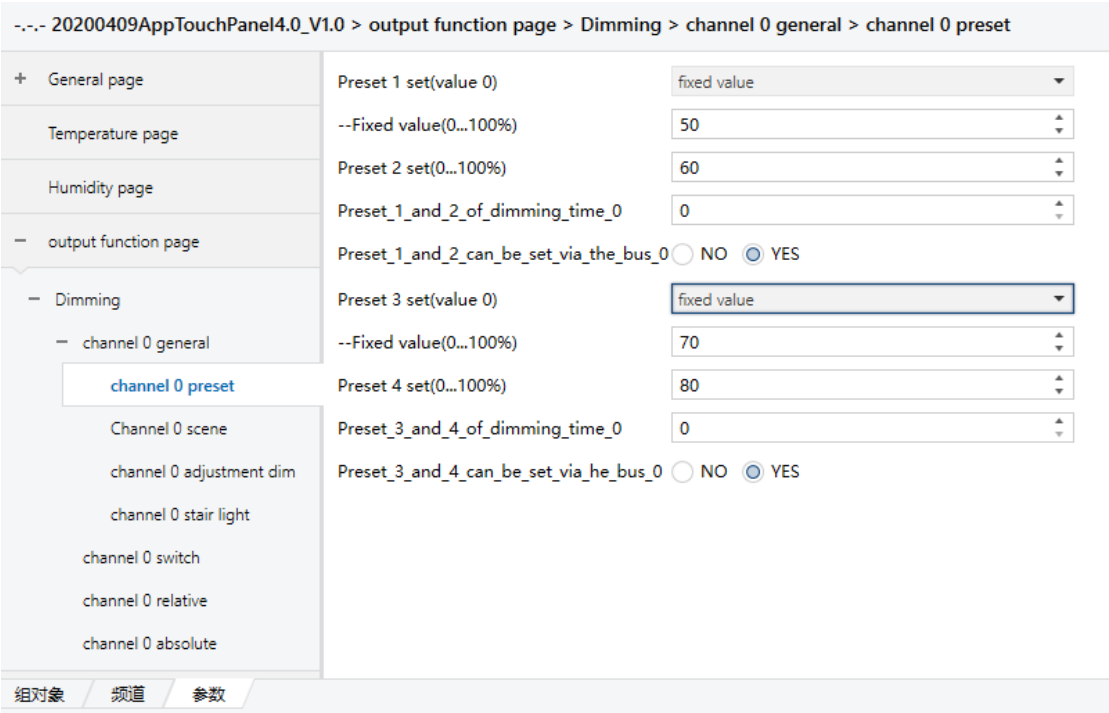
This parameter sets whether to activate the characteristic dimming function, select "active" to activate the function, the introduction can be seen "3. 3.2.1.3 Parameter setting window "channel x adjustment dim".

The parameter "staircase light function"

This parameter sets whether to activate the feature adjustment function, select "active" to activate the function, the function description can be seen "3. 3.2.1.4 Parameter setting window channel x stair light".

3.3.2.1.1 Parameter setting window "channel x preset"

The preset function is divided into two parts, "Preset 1 and 2" and "Preset 3 and 4", which are the same and written together.



Parameter "Preset 1/3 set(value 0)"

This parameter sets the value of preset 1 (preset 3).

Optional: fixed value

restore value before first preset call

reset to parameterized value before preset 2/4

Select "fixed value" and set the value of preset 1 (preset 3) to a fixed value.

The interface for parameter setting is shown in Figure 3.4.1.1-1.

The parameter "Fixed value(0... 100%）”

This parameter sets a fixed value for preset 1 (preset 3).

Range: 0... 100%, unit: percentage

Select "restore value before first preset call" to revert the value of preset 1 (preset 3) to the value of the last preset function.

Select reset to parameterized value before preset 2/4 to reset the value of preset 1 (preset 3) to the value of preset 2 (preset 4).

Parameter "Preset 2/4 set(0... 100%）”

This parameter sets a fixed value for preset 2 (preset 4).

Range: 0... 100%

Parameter “Preset 1 and 2/Preset 3 and 4 of dimming time(0...600/0.1s, 0=immediately)”

This parameter sets the dimming time for presets 1 and 2 (presets 3 and 4).

Range: 0... 600, in units: 0.1 seconds, 0 for immediately

Parameter “Preset 1 and 2/Preset 3 and 4 can be set via the bus”

This parameter sets whether to set the values of presets 1 and 2 (presets 3 and 4) by bus, and the communication objects are "Set preset 1 and 2" ("Set preset 3 and 4").

Optional: NO

YES

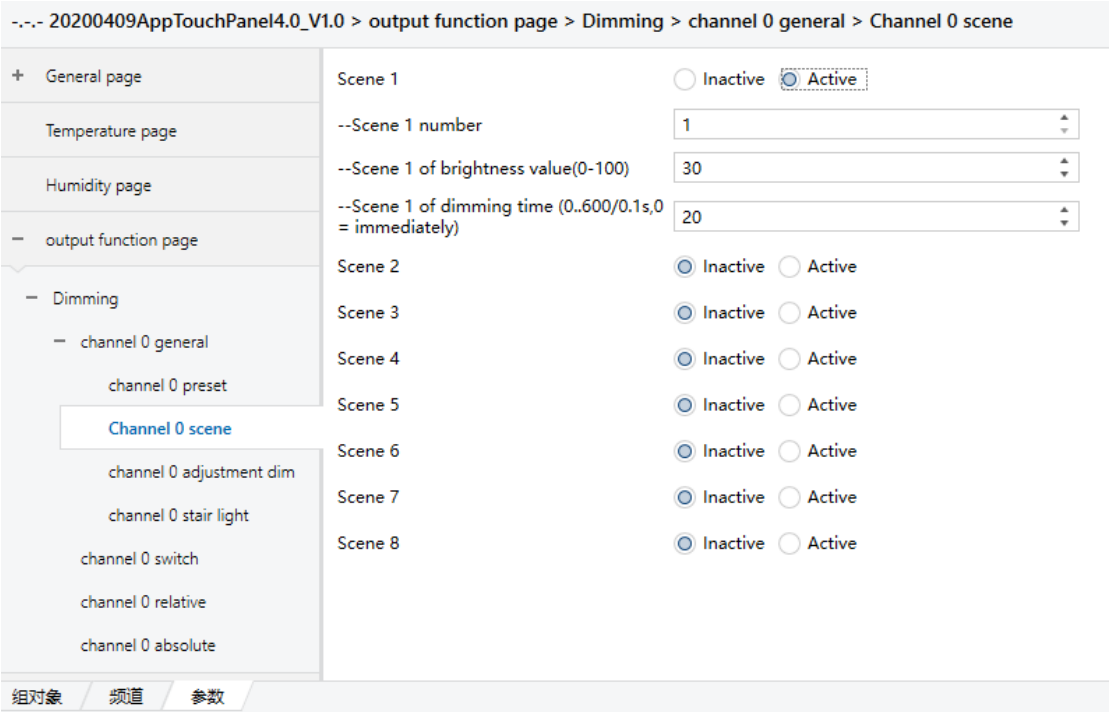
Select "NO" without setting the values of presets 1 and 2 (presets 3 and 4) via the bus;

Select "YES" to set the values of presets 1 and 2 (presets 3 and 4) via the bus.

3.3.2.1.2 Parameter setting window "channel x scene"

The scene function contains 8 scenes, each of which has the same parameters and communication objects, taking Scenario 1 as an example.

where x means 0... 8。



Parameter "Scene x"

This parameter sets whether to activate the function of scene x.

Optional: inactive

active

Select "active" to activate the function of scene x and activate the three parameters, as shown in the figure above.

The parameter "Scene x number"

This parameter sets the scene number of scene x.

Range: 1... 64

Parameter “Scene x of brightness value（0... 100）”

This parameter sets the brightness value of scene x.

Range: 0... 100%

Parameter “Scene x of dimming time(0...600/0.1s,0=immediately)”

This parameter sets the dimming time of scene x.

Range: 0... 600, in units: 0.1 seconds, 0 for immediately

3.3.2.1.3 Parameter setting window "channel x adjustment dim"

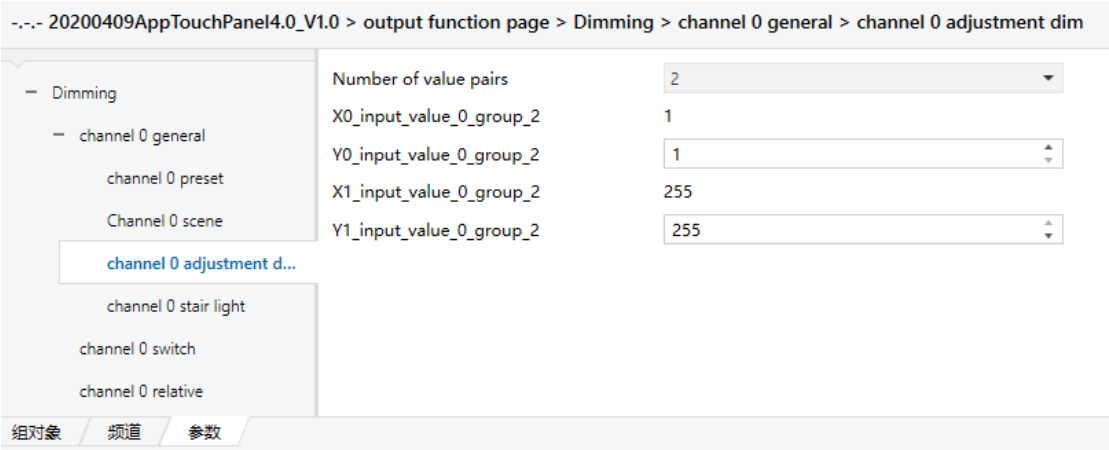


Figure 3. 3.2.1.3-1 "adjustment dim" parameter setting interface

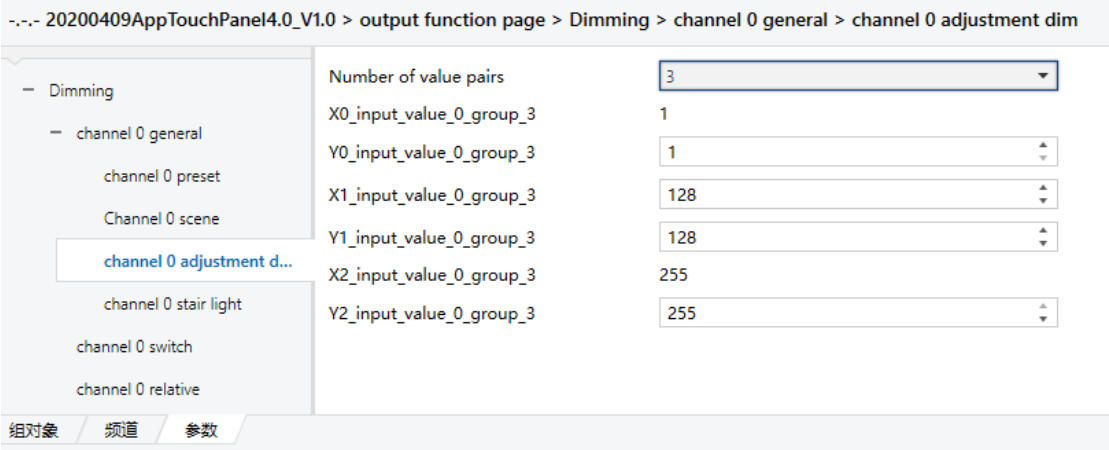


Figure 3. 3.2.1.3-2 "adjustment dim" parameter setting interface

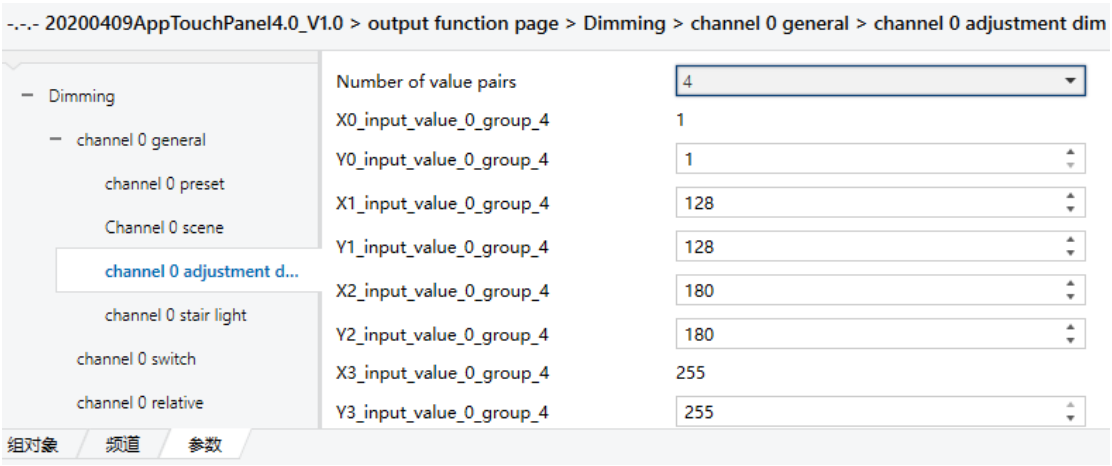


Figure 3. 3.2.1.3-3 "adjustment dim" parameter setting interface

Parameter “Number of value pairs”

This parameter sets the number of numeric pairs.

Available options: 2

3

4

Select "2" to activate 2 log-numeric pairs, X0/Y0, X1/Y1, as shown in Figure 3.3.2.1.3-1;

Select "3" to activate 3 log-numeric pairs, X0/y0, X1/Y1, X2/Y2, as shown in Figure 3.3.2.1.3-2;

Select "4" to activate 4 log-numeric pairs, X0/Y0, X1/Y1, X2/Y2, X3/Y3, as shown in Figure 3.3.2.1.3-3 。

The parameter "X0/X1/X2/X3 input value(1... 255）”

This parameter sets the input value of X0/X1/X2/X3.

Range: 1... 255

The parameter "Y0/Y1/Y2/Y3 output value(1... 255）”

This parameter sets the output value of Y0/Y1/Y2/Y3.

Range: 1... 255

Remarks: 1, the *relationship between X values*: $X_0 <<< X_1\ X_2\ X_3$, *the relationship between Y values:* $Y_0 <<< Y_1\ Y_2\ Y_3$;

2. When the characteristic dimming function is turned on, dimming (absolute dimming/relative dimming, etc.), the relationship between the input dimming value and the output dimming value needs to be calculated through the formula, the formula is as follows:

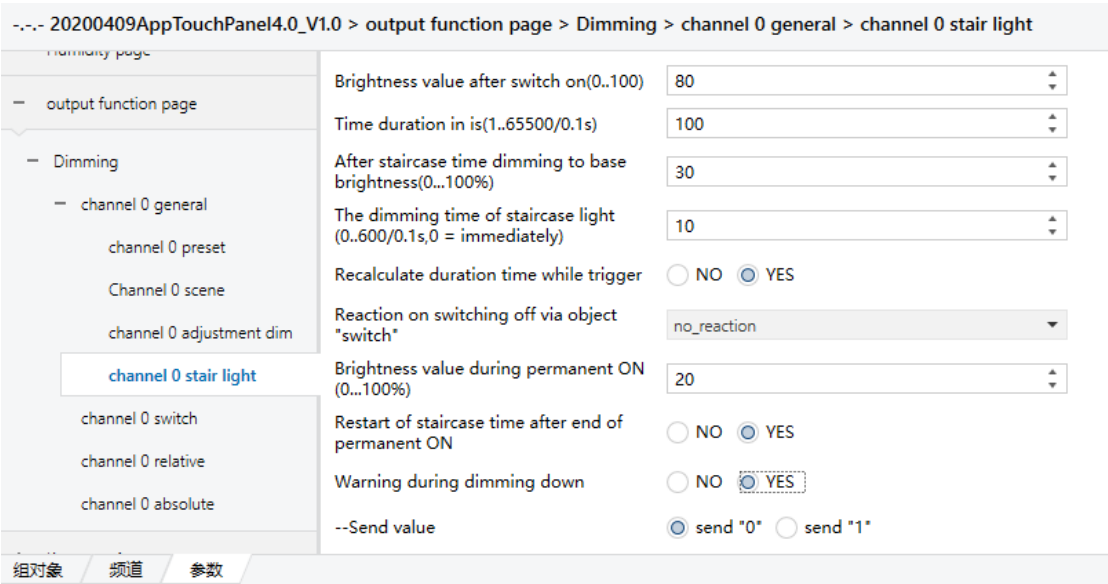
The input dimming value is less than X_1, $y = \frac{(Y_1 - Y_0)(x - 1)}{X_1 - 1} + Y_0$

The input dimming value is less than X_2, $y = \frac{(Y_2 - Y_1)(x - X_1)}{X_2 - X_1} + Y_1$

The input dimming value is less than X_3, $y = \frac{(Y_3 - Y_2)(x - X_2)}{X_3 - X_2} + Y_2$

where x is the input dimming value and y is the actual output dimming value.

3.3.2.1.4 Parameter setting window "channel x stair light"



Parameter "Brightness value after switch on(0...100%)"

This parameter sets the brightness value when the switch is turned on.

Range: 0... 100%

Parameter "Time duration in is(1...65536/0.1s)"

This parameter sets the delay time of the stair light.

Range: 1... 65536 in 0.1 seconds

Parameter "After staircase time dimming to base brightness(1...100%)"

This parameter sets the brightness value that the stair light returns after dimming.

Range: 0... 100%

Parameter "The dimming time of staircase light（0... 600/0.1s,0=immediately）"

This parameter sets the dimming time for the stair lights to return to the set brightness value.

Range: 0... 600, in units: 0.1 seconds, 0 for immediately

Parameter “Recalculate duration time while trigger”

This parameter sets whether the duration is recalculated when the stair light is triggered again.

Optional: NO

YES

Select "NO" and do not recalculate the duration when the stair light is triggered again;

Select YES to recalculate the duration when the stair light is triggered again.

Parameter “Reaction on switching off via object “switch””

This parameter sets the state change of the switch by turning off the switch by the communication object "switch".

Optional: no reaction

base brightness value

switch off

Select "no reaction" and turn off the switch by turning off the switch through the communication object "switch", the state of the switch changes to non-reactive, that is, it remains unchanged.

Select "base brightness value" and turn off the switch by turning off the switch through the communication object "switch", so that the state of the switch changes back to the set brightness base value.

Select "switch off" and turn off the switch by using the communication object "switch" to change the state of the switch to switch off.

Parameter “Brightness value during permanent ON(0...100%)”

This parameter sets the brightness value when the switching state is permanently on.

Range: 0... 100%

Parameter “Restart of staircase time after end of permanent ON”

This parameter sets whether the switch state is in permanent on after the end of the stair light time is recalculated.

Optional: NO

YES

Select "NO" to not recalculate the stair light time after the switch state is permanently on. *(The stair light delay function does not work after triggering).)*

Select YES to recalculate the stair light time after the switch state is permanently on.

Note: The parameter "Restart of staircase time after end of permanent ON" selects "YES." When the parameter "brightness value during permanent ON" is set to a value smaller than the parameter "after staircase time dimming to base brightness" setting value, the stair light time is not recalculated after the permanent opening ends.

Parameter “Warning during dimming down”

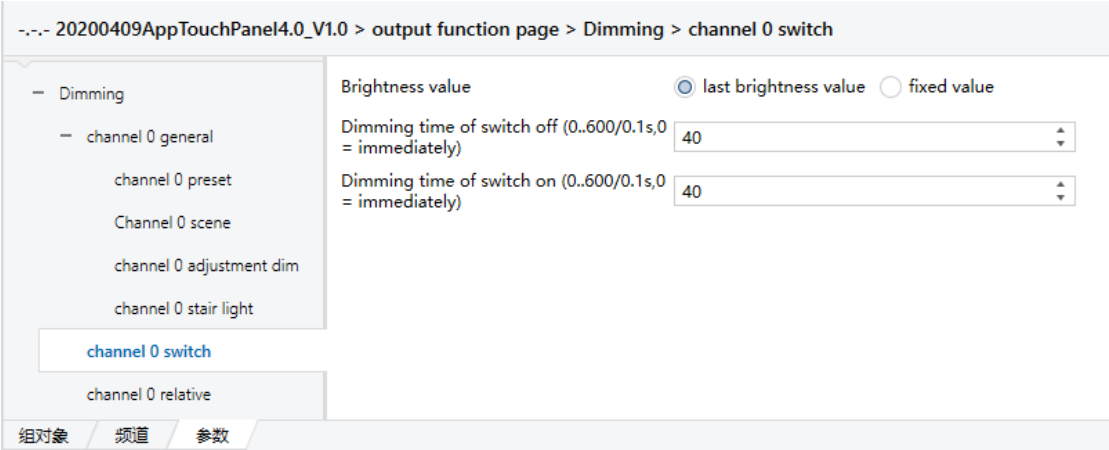
This parameter sets whether to issue a warning after the dimming time is over, and the communication object is "Warning staircase lighting".

Optional: NO

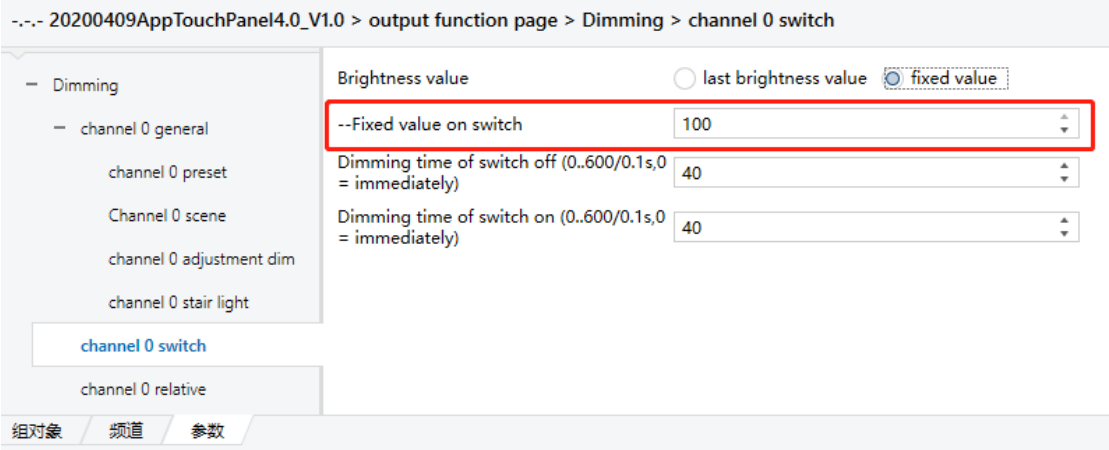
YES

Select "NO" and do not issue a warning after the dimming time is over;
Select "YES" to issue a warning after the dimming time is over, and the warning value is set by the parameter "Send value".

3.3.2. 2 Parameter setting window "channel x switch"



Parameter "brightness value"
This parameter sets the brightness value when the switch state is turned on.
Optional: last brightness value
fixed value
Select last brightness value, and the brightness value when the switch state is turned on is the last brightness value.
Select "fixed value", the brightness value when the switch state is turned on is a fixed value, and a parameter is activated, as shown in the figure.



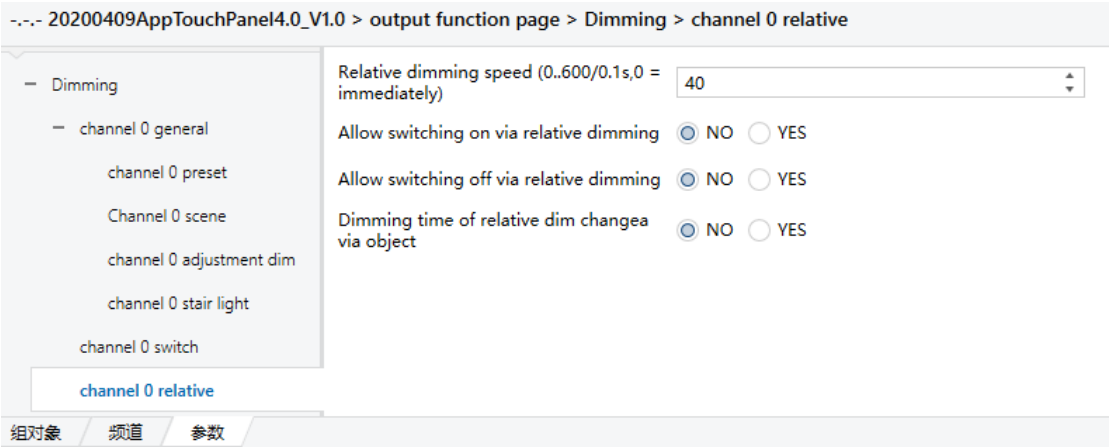
Parameter “Fixed value on switch（0... 100%）”
This parameter sets the brightness value when the switch state is turned on.
Range: 0... 100%

Parameter “Dimming time of switch off（0... 600/0.1s,0=immediately）”

This parameter sets the dimming time of the off switch.
Range: 0... 600, in units: 0.1 seconds, 0 for immediately

Parameter “Dimming time of switch on（0... 600/0.1s,0=immediately）”
This parameter sets the dimming time for the switch to be turned on.
Range: 0... 600, in units: 0.1 seconds, 0 for immediately

3.3.2. 3 Parameter setting window "channel x relative"



Parameter “Relative dimming speed（0... 600/0.1s,0=immediately）”
This parameter sets the dimming time for relative dimming.
Range: 0... 600, in units: 0.1 seconds, 0 for immediately

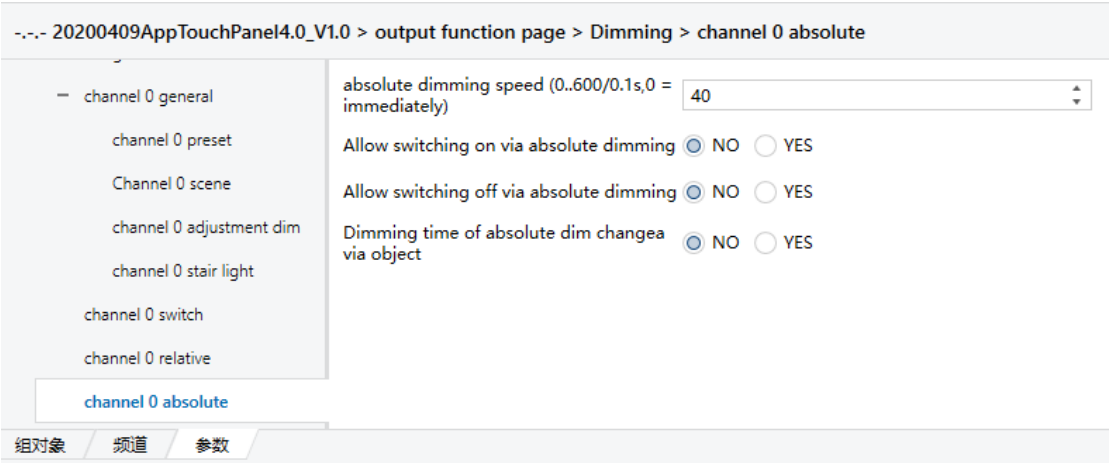
Parameter “Allow switching on via relative dimming”
This parameter sets whether to allow the switch to be turned on by relative dimming.
Optional: NO
YES
Select "NO", it is not allowed to open the switch by relative dimming;
Select YES to allow the switch to be turned on by relative dimming.

Parameter “Allow switching off via relative dimming”
This parameter sets whether to allow the switch to be turned off by relative dimming.
Optional: NO
YES
Select "NO" to not allow the switch to be turned off by relative dimming;
Select YES to allow the switch to be turned off by relative dimming.

Parameter “Dimming time of relative dim chang via object”
This parameter sets whether to change the dimming time of the relative dimming through the communication object, and the communication object is "Dimming time of relative".
Optional: NO
YES

Select "NO" to change the dimming time of the relative dimming without using the communication object;
Select "YES" to change the dimming time of the relative dimming through the communication object.

3.3.2. 4 Parameter setting window "channel x absolute"



Parameter “Absolute dimming speed（0... 600/0.1s,0=immediately）”
This parameter sets the dimming time for absolute dimming.
Range: 0... 600, in units: 0.1 seconds, 0 for immediately

Parameter “Allow switching on via absolute dimming”
This parameter sets whether to allow the switch to be turned on by absolute dimming.
Optional: NO
YES
Select "NO" to not allow the switch to be turned on by absolute dimming.
Select YES to allow the switch to be turned on by absolute dimming.

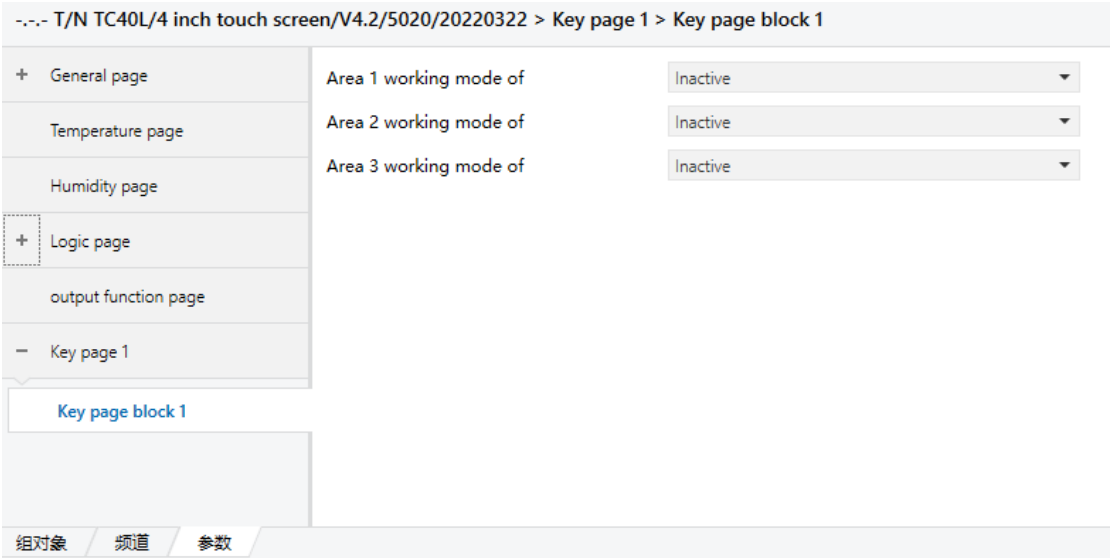
Parameter “Allow switching off via absolute dimming”
This parameter sets whether to allow the switch to be turned off by absolute dimming.
Optional: NO
YES
Select "NO" to not allow the switch to be turned off by absolute dimming.
Select YES to allow the switch to be turned off by absolute dimming.

Parameter “Dimming time of absolute dimming changable via object”
This parameter sets whether to change the dimming time of absolute dimming through the communication object, which is "Dimming time of value".
Optional: NO
YES
Select "NO" to change the dimming time of absolute dimming without using the communication

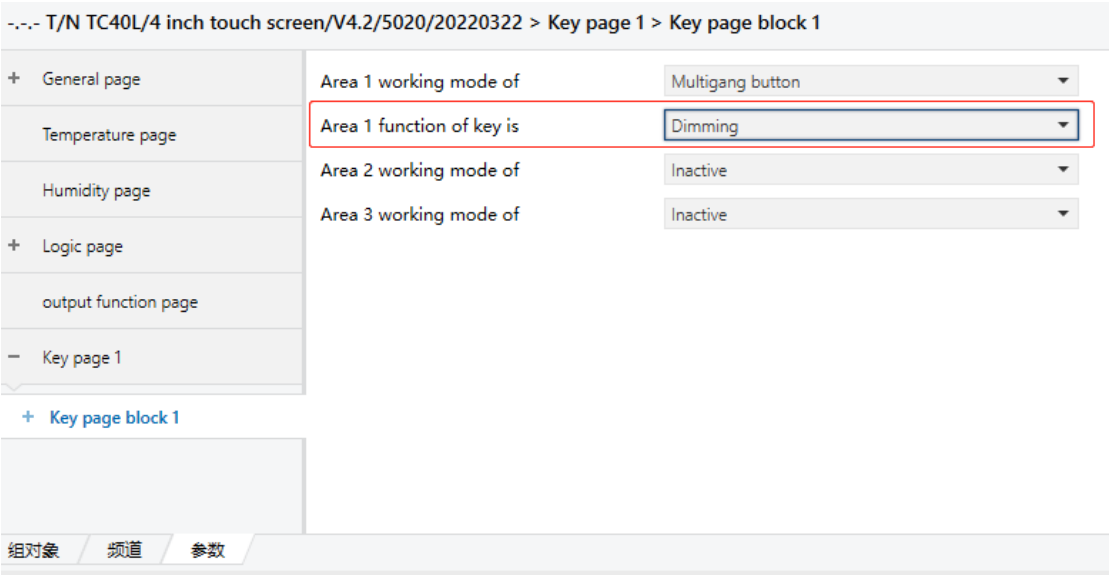
object.
Select "YES" to change the dimming time of the absolute dimming through the communication object.

3.4 Parameter setting interface "Key page block x"

Each page is divided into 3 areas, and the working mode of each area has two options to choose from: multigang button, single button, and this settings window is used to define the functions of each module.
Note: x represents the number of pages, and the range of x is set according to the parameter "set the number of key pages" in the parameter setting interface "General *page", and the maximum range is 1 ... 10；*
z represents the number of regions on the page, the range is 1... 3。



Parameter “Area z working mode of”
This parameter is used to set the mode of operation of the region z(z=1...3).
Optional: inactive
Mulligang button
Single button
Selecting "multigang button" means that only one function module is displayed in the area, and a parameter is activated, as shown in the following figure:

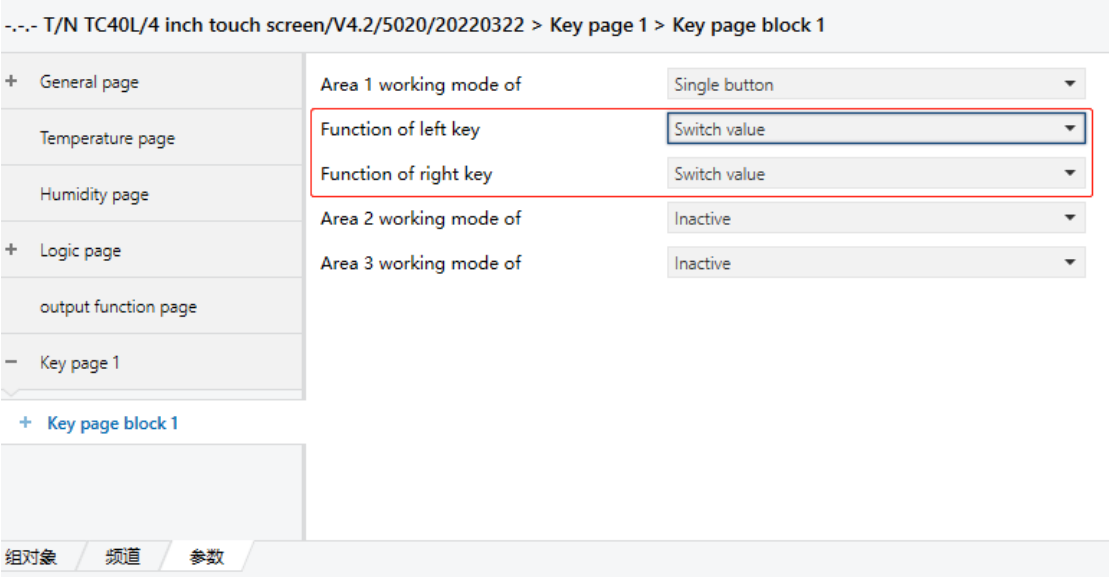


Parameter "Area z function of key is"

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

Optional: Dimming
Shutter
Thermostatic controller
Music
Scene
Switch value
Environmental detection dispaly
Jump
System set
Character
Time
Floor heat
Fresh air
Switch

Selecting "single button" indicates that two function modules (left and right buttons) can be displayed in the area, and two parameters are activated, as shown in the following figure:



Parameter “function of left/right key”

Lets you set the functionality of the left/right modules for that area.

Optional: Scene

Switch value

Environmental detection dispaly

Jump

System set

Character

Time

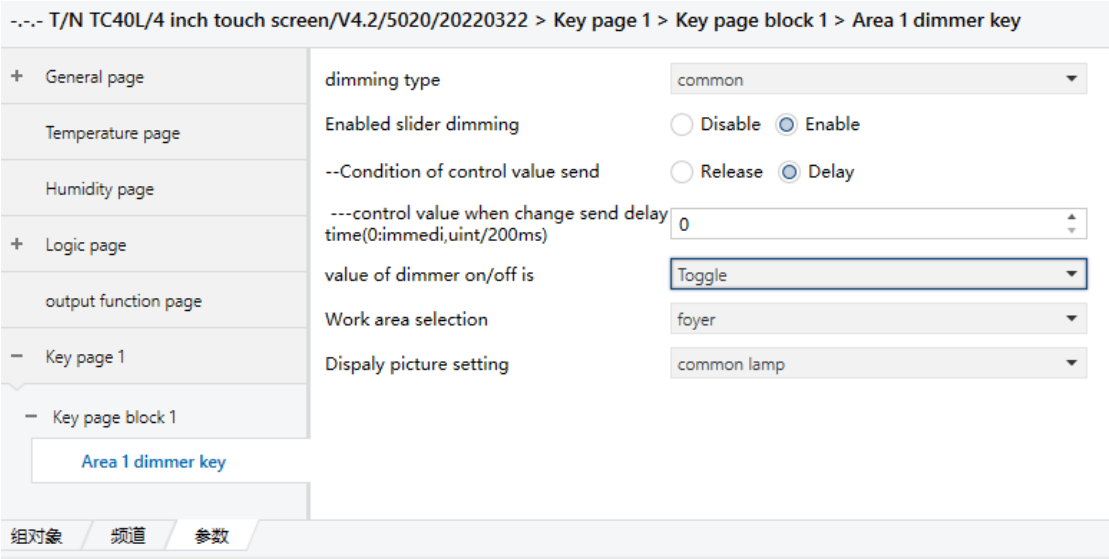
Switch

Dimming

Shutter

3.4.1 Dimming settings page "dimmer"

In the parameter setting interface "Key page block x" key function parameter selection "Dimming" can be seen in the parameter setting interface, the specific parameters are shown in the following figure:



Parameter "dimming type"

Set the dimming mode of the dimming module, select normal dimming, RGB dimming, color temperature dimming.

Optional: common

RGB

CT

a. Ordinary dimming

The parameter "Enabled slider dimming"

This parameter sets whether the brightness adjustment function is enabled, that is, whether the brightness adjustment slider is displayed on the dimming module.

Optional: Disable

Enable

Parameter “--Condition of control value send”

Sets the sending conditions for brightness values after the brightness is adjusted.

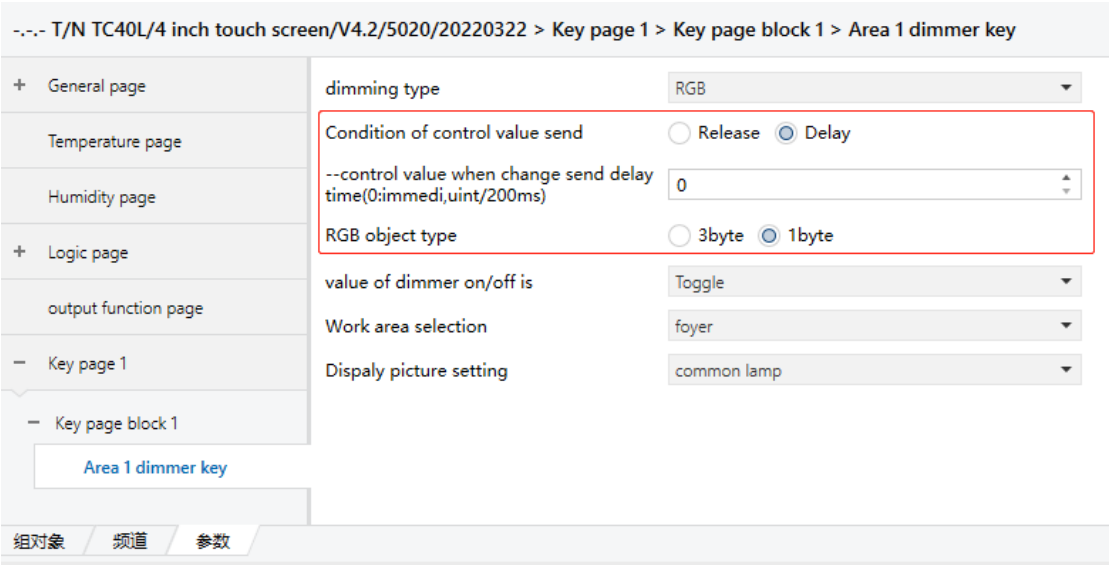
Optional: Release

Delay

Select "Release", after adjusting the brightness, the brightness value is emitted immediately;

Select "Delay", after adjusting the brightness, the brightness value is delayed, and as for how long the delay is emitted, it is set by the parameter "--- control value when change send delaytime(0:immedi, uint/200ms)".

B、RGB 调光



Parameter “--Condition of control value send”

Set the sending condition for the brightness value after adjusting the R GB brightness.

Optional: Release

Delay

Select "Release", after adjusting the RGB brightness, the brightness value is emitted immediately; Select "Delay", after adjusting the RGB brightness, the brightness value is delayed, and as for how long the delay is emitted, the parameter "--- control value when change send delaytime(0:immedi , uint/200ms) setting.

Parameter “RGB object type”

Sets the database type for the RGB brightness value.

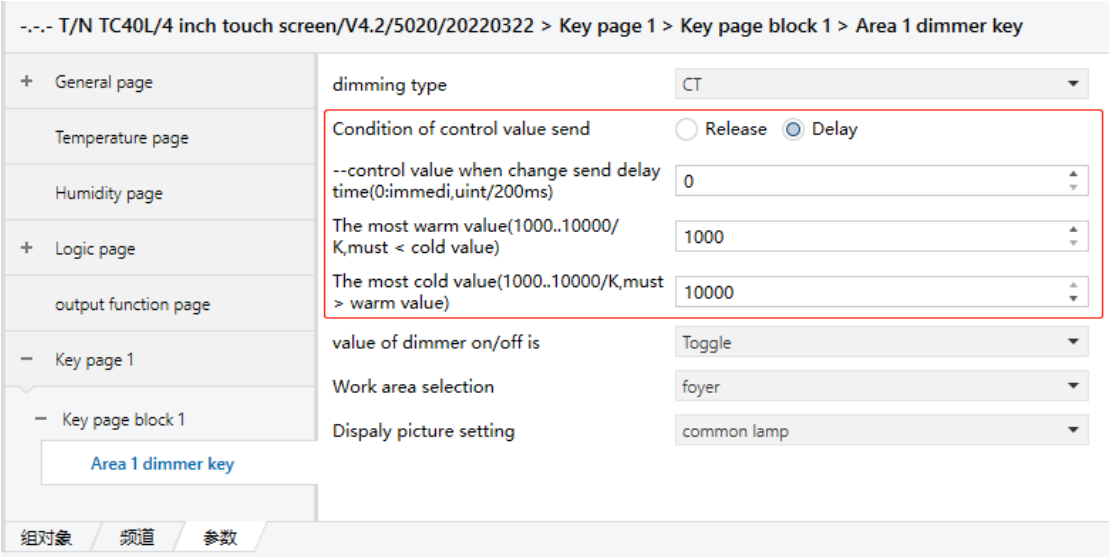
Optional: 3bytes

1byte

Select "3byte" to indicate that the RGB luminance value object is 1 3byte object The communication objects are "RGB control", "RGB feedback";

Select "1byte" to indicate that the RGB brightness value corresponds to three 1byte objects, and the communication objects are "RGB R", "R GB R", "R GB R", " RGB G”、“RGB B”。

C. Color temperature dimming



Parameter "--Condition of control value send"

Set the sending conditions for color temperature and brightness values after adjusting the color temperature and brightness.

Optional: Release

Delay

Select "Release", after the color temperature and brightness, the color temperature and brightness values are immediately emitted;

Select "Delay", after the color temperature and brightness, the color temperature and brightness values are delayed, and as for how long the delay is emitted, it is set by the parameter "--- control value when change send delaytime(0:immedi, uint/200ms)".

Parameter "The most warm value(1000..10000/K,must < cold value)"

This parameter sets the warmest color temperature value (the smaller the color temperature value, the warmer the color temperature).

Range: 1000...10000, note that it must be less than the coldest color temperature value

Parameter "The most cold value(1000..10000/K,must > warm value)"

This parameter sets the coolest color temperature value (the larger the color temperature value, the cooler the color temperature).

Range: 1000...10000, note that it must be greater than the warmest color temperature value

Parameter "value of dimmer on/off is"

This parameter sets the switch value, and the communication object is "dimmer on/off for short key".

Optional: Toggle

ON

OFF

Select "toggle" and send data shortly by pressing the corresponding dimming module in the page 01, 00, 01, 00, 01, 00...;

Select "ON" and press the corresponding dimming module in the page to send data 01;
Select "OFF" and press the corresponding dimmer module in the page to send data 00.

Parameter “Work area selection”

This parameter sets the name of the region corresponding to the device.

Optional: foyer
Hall
Parlour
...
Chinese kitchen
User defined
None

When User defined is selected, the region name and icon name are customized together. The custom zone name can be downloaded from the host computer, and the operation steps of the host computer can be found in "2.4 Custom Zone Name and Icon".

Parameter “Display picture setting”

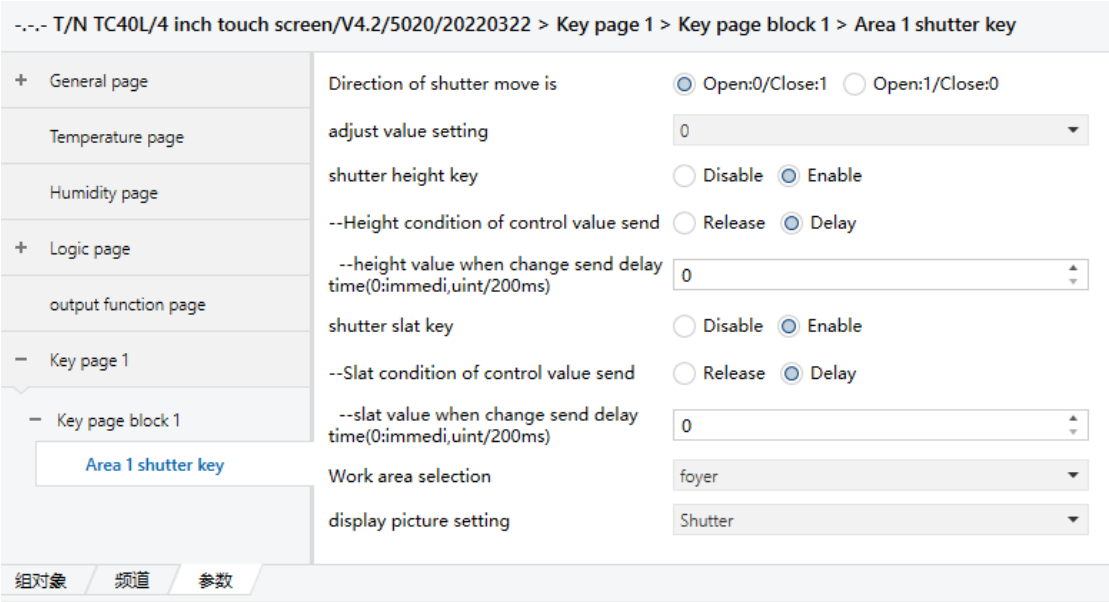
This parameter sets the icon for the dimming module.

Optional: common lamp
during lamp
decoration lamp
down lamp
Wall lamp
strip lamp
Foot light
Spot lamp
Table lamp
Night light
Reading light
User defined

When User defined is selected, the icon is customized and there is no device name. Custom icons can be downloaded from the host computer, and the operation steps of the host computer can be found in "2.4 Custom Area Name and Icon".

3.4. 2 curtain setting page "shutter"

In the parameter setting interface "Key page block x" button function parameter selection "Shutter" can be seen in the parameter setting interface, the specific parameters are shown in the following figure:



Parameter "Direction of shutter move is"

This parameter sets the data corresponding to the direction of the curtain movement, and the communication object is "Move shutter".

Optional: Open:0/Close:1

Open:1/Close:0

For example, select "Open:0/Close:1", click the Curtain Open (ON) button in the module, and the object "Move shutter." "Send a 0 to the bus, click the CURTAIN OFF button, and the object "Move shutter" emits a 1 to the bus.

Parameter "adjust value setting"

This parameter sets the blind angle adjustment value/curtain movement pause value, and the communication object is "Adjust lamella of shutter".

Optional: 0

1

Toggle(0/1)

For example, select "0", click the Stop button in the module, and the object "Adjust lamella of shutter" emits 0 。

The parameter **"shutter height key"**

Whether to activate curtain height control.

Optional: disable

Enable

Select "Enable" to activate the curtain height control, and an icon to adjust the height of the curtain will appear in the module.

Parameter "--Height condition of control value send"

After you set the adjusted curtain height, the curtain height value is sent to the condition.

Optional: Release

Delay

Select "Release", after adjusting the height of the curtain, the height value of the curtain is immediately emitted;

Select "Delay", after adjusting the curtain height, the curtain height value is delayed, as for how long the delay is sent curtain height value, by the parameter "--height value when change send delay time(0:immedi, uint/200ms) "Settings.

Parameter "shutter slat key"

Whether to activate the blind angle adjustment control.

Optional: disable

Enable

Selecting "Enable" activates the blind angle adjustment control, and an icon for adjusting the blind angle appears in the module.

Parameter “--Salt condition of control value send”

Sets the conditions under which the angle value is sent after adjusting the blind angle.

Optional: Release

Delay

Select "Release", adjust the blind angle, the angle value is issued immediately;

Select "Delay", after adjusting the blind angle, the angle value is delayed, as to how long the delay is sent to the angle value, by the parameter "- Salt value when change send delay time(0 :immedi, uint/200ms)" setting.

Parameter “Work area selection”

This parameter sets the name of the region corresponding to the device.

Optional: foyer

Hall

Parlour

...

Chinese kitchen

User defined

None

When User defined is selected, the region name is customized. The custom zone name can be downloaded from the host computer, and the operation steps of the host computer can be found in "2.4 Custom Zone Name and Icon".

Parameter “display picture setting”

Sets the icon for the curtain module.

Optional: Shutter

Drape

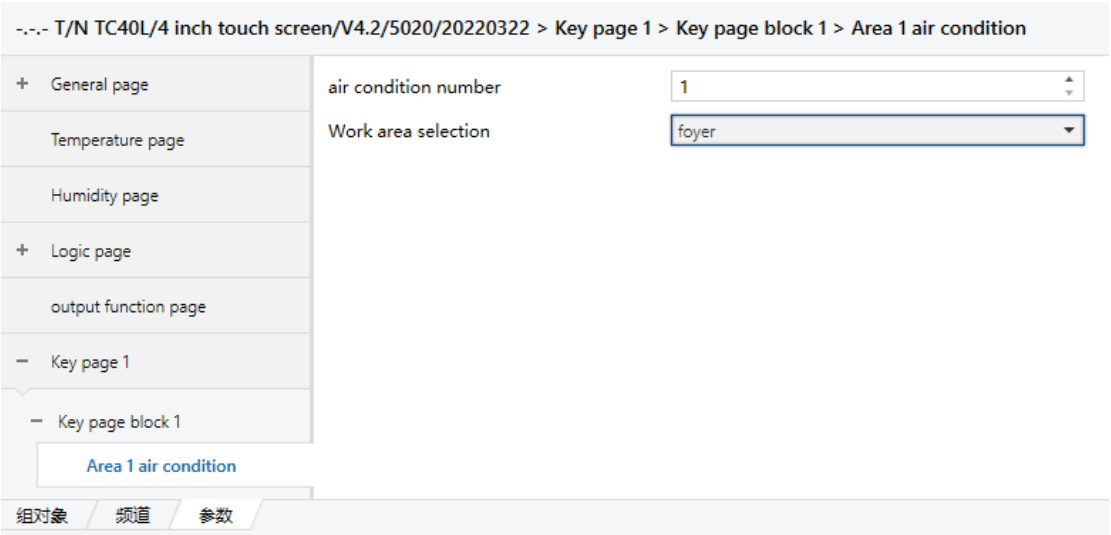
Electric windows

sheer

User defined

3.4. 3 Air conditioning setting interface "air condition"

In the parameter setting interface "Key page block x", select "Area z working mode of", and the parameter "Area z function of key is When "Thermostatic controller" is selected, the parameter setting interface can be seen, and its specific parameters are shown in the following figure:



Parameter “air condition number”

The corresponding air conditioning module in the parameter setting page is adjusted to the first few air conditioners, and the parameter "The number of" in the parameter setting interface "3.2.3 parameter setting interface Air conditioniting" Channel setting"How many air conditioning channels are turned on.

Maximum range: 1... 10

Parameter “Work area selection”

This parameter sets the name of the region corresponding to the device.

Optional: foyer

Hall

Parlour

...

Chinese kitchen

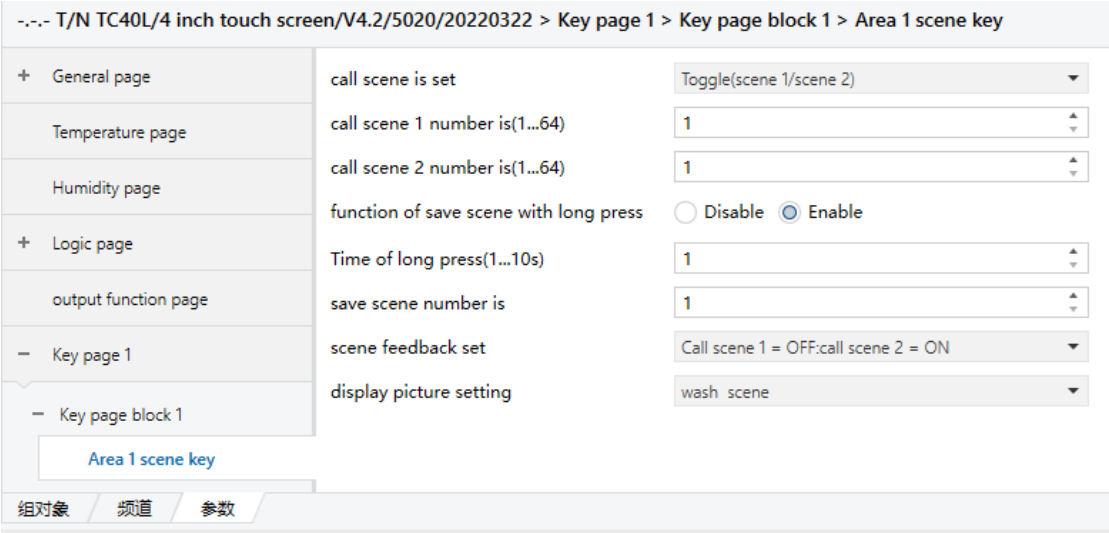
User defined

None

When User defined is selected, the region name and device name are customized together. The custom name can be downloaded from the host computer, and the operation steps of the host computer can be found in "2.4 Custom Area Name and Icon".

3.4. 5 Scene settings interface "scene"

In the parameter setting interface "Key page block x" button function parameter selection "scene" can be seen in the parameter setting interface, its specific parameters as shown in the following figure:



Parameter "Call scene is set"

This parameter sets the scene that the scene module can call.

Optional: toggle (scene 1/scene 2)

scene 1

scene 2

Select "toggle(scene 1/scene 2)" and press the module shortly to call scenario 1 and scene 2;

Select "scene 1", press the module shortly, and call scene 1;

Select "scene 2", press the module shortly, and call scene 2;

Parameter "Call scene 1/2 number is (1...64)"

Set the scene values for Scene 1/Scene 2.

Range: 1... 64

Parameter "Function of save scene with long press"

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

Optional: disable

Enable

Selecting "Enable" activates the function of long-pressing to save the scene, activating the following 2 parameters:

Parameter "time of long press(1… 10s)"

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

Range: 1.... 10, Unit: seconds

Parameter “Call scene is set”

This parameter sets the type of data that the scene saves.

Optional: telegram with 8 bit value

telegram with 1 bit value

Select "telegram with 1 bit value", long press the module, the communication object "save scene 1 bit K_x_z" sends a message data type of 1 bit message value 1;

Select "telegram with 8 bit value", long press the module, the communication object "save scene 1byte K_x_z" emits a message data type of 1byte, and the parameter "Save scene number is (1...64)" appears 。

Parameter “Save scene number is (1...64)”

This parameter sets the saved scene number.

Range: 1... 64

The parameter "Feedback setting"

This parameter is used to set the display of icons on short presses.

可选项：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 module, communication object "Call scene(1...). 64) The icon is grayed out if the scene number corresponding to "scene 1" is issued, and the scene number corresponding to "scene 2" is emitted to light up the icon.

Select "Call scene 1=ON; call scene 2=OFF", short press module, communication object "Call scene(1...). 64) "Illuminate the icon if you emit the scene number corresponding to "scene 1", and gray out the scene number corresponding to "scene 2".

Select "Call scene 1=ON; else=OFF", short press module, communication object "Call scene(1...). 64) "Emits the scene number corresponding to "scene 1" to light up the icon, otherwise the icon is grayed out.

Select "Call scene 1=ON; else=OFF", short press module, communication object "Call scene(1...). 64) "If you issue the scene number corresponding to "scene 2", light up the icon, otherwise the icon is grayed out.

Parameter “display picture setting”

Set the scene icon.

Optional: wash scene

TV mood sence

return home scene

Dining scene

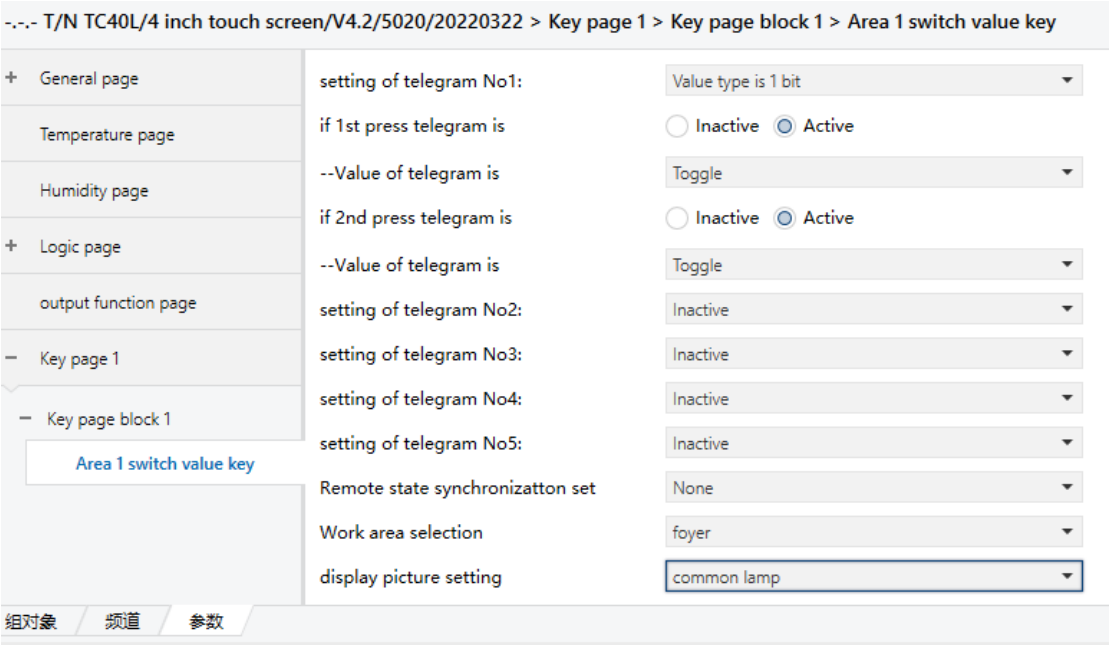
Romance scene

Leave home scene

Sleep scene
Music scene
Reading scene
Main switch on
Main switch off
User defined

3.4. 5 parameter setting interface "switch value"

In the parameter setting interface "Key page block x" button function parameter selection "switch value" can be seen in the parameter setting interface, the specific parameters are shown in the following figure:



Parameter "Setting of telegram No.x"(x=1...5)

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 by the panel to the bus when pressing the module shortly, and the communication object is "Output 1bit/4 bit/1byte value NoX".

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

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

Parameter "Remote state synchronization set"

This parameter is used to set up remote state synchronization.

Optional: none

telegram 1

telegram 2

telegram 3

telegram 4

telegram 5

Select "none" without setting remote status synchronization;

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

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

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

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

Select Telegram 5 to set the remote status synchronization to Telegram 5.

Note: The remote status synchronization is teleegrm X means that the object "Output 1bit/4 bit/1byte value NoX" of telegrm X *is the feedback object, that is, the message state is modified by the object of telegram X and synchronized so that the next message is the opposite of the message.* ***{****For example: the "first press value" and "second press value" settings of these five messages are ON, OFF, the value emitted by the first press of the key is "first press value", the value emitted by the second press of the key is "second press value", the value issued by the third press of the key is "first press value", and so on. (If the synchronization status is telegram1, when the first press of the key is pressed, the value issued by the five message members is ALL ON, and the corresponding object of telegram1 is "Output 1bit/4 bit/1byte value NoX.) "Write the message OFF, then OFF is synchronized to the value issued by the second time the key is pressed, then the value of the five messages of the next press is ALL ON [i.e. "first press value"])****}***

Parameter “Work area selection”

This parameter sets the name of the region corresponding to the device.

Optional: foyer

Hall

Parlour

...

Chinese kitchen

User defined

None

When User defined is selected, the region name is customized. The custom zone name can be downloaded from the host computer, and the operation steps of the host computer can be found in "2.4 Custom Zone Name and Icon".

Parameter “display picture setting”

Sets the icon for the s witch value module.

Optional: Common lamp

During lamp

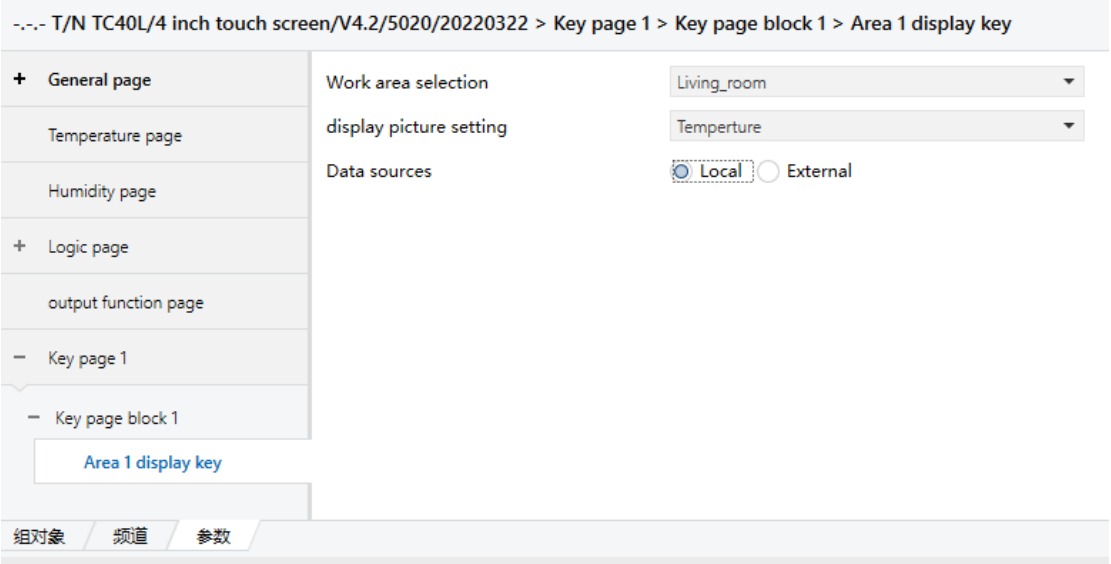
...

Icon8 all on

User defined

3.4. 6 Parameter setting interface "Environmental detection display"

In the parameter setting interface "Key page block x" button function parameter selection "Environmental detection display" can be seen in the parameter setting interface, the specific parameters are shown in the following figure:



Parameter “Work area selection”

This parameter sets the name of the region corresponding to the device.

Optional: Living_room

Bedroom

master_bedroom

toilet

extro bedroom

Kitchen

Balcony

Bathroom

study_room

kids room

elders_room

changeroom

rest room

User_defined

None

Parameter "display pic set"

This parameter sets the icon for ambient detection gases.

Optional: Temperature

Humidity

InOC

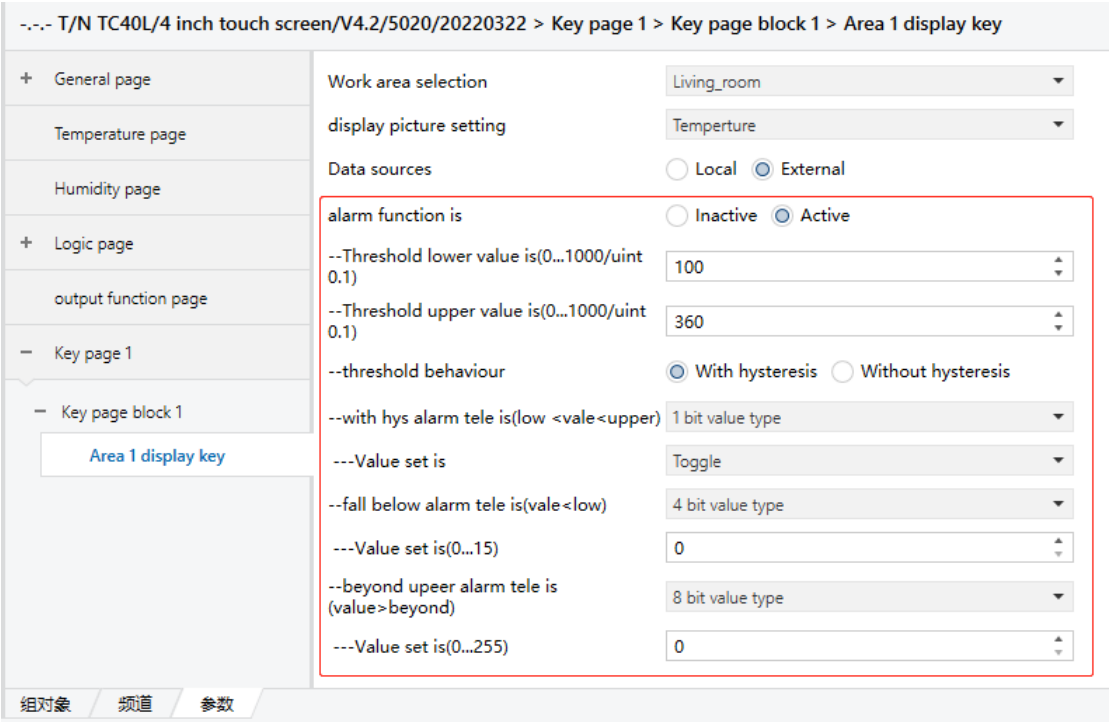
CO2

CO

User defined

a. When "Temperature/Humidity" is selected, the module displays the temperature/humidity data, as for the displayed temperature/ Whether the humidity value is detected by an internal sensor or passed in externally, is set by the parameter "Data sources".

If External is selected for temperature/humidity data source, the parameter "alarm function is" also appears, which can be used to implement temperature/ The alarm function of the humidity value is shown in the following figure:



b. When "VOC/CO2/CO/User defined", the module displays VOC/CO2/ CO/custom gas data, the data source of these gases can only be externally transmitted, there is no built-in sensor. At the same time, the parameter "alarm function is" will appear, which can be used to implement VOC/CO2/CO/customization Alarm function for gas values.

The parameters of the alarm function are analyzed below:

Parameter “alarm function is”

This parameter sets whether to activate the gas alarm function.

Optional: inactive

active

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

Parameter “threshold lower/upper value is(0… 60000ppm)”

These 2 parameters are used to set the minimum/maximum alarm threshold for the gas value.
Range: 0... 60000, unit: ppm

Parameter "—threshold behaviour"

Optional: without hysteresis
With hysteresis

Select "Without hysteresis" to behave in accordance with the channel setting without hysteresis, and the parameters "value<low, telegram is", "upper<value, telegram is appear ”；
Select "With hysteresis" to behave in accordance with the channel settings in the case of hysteresis, and the parameters "value<low, telegram is< low<upper, telegram appear is", "upper<value, telegram is".

Parameter “value<low, telegram is”

When the gas value is below the minimum alarm threshold, the communication object "falling, 1bit/4bit/8bit left/right key" sends an alarm message, and the message value is set by the parameter "--Value set is".

Parameter “low<value<upper, telegram is”

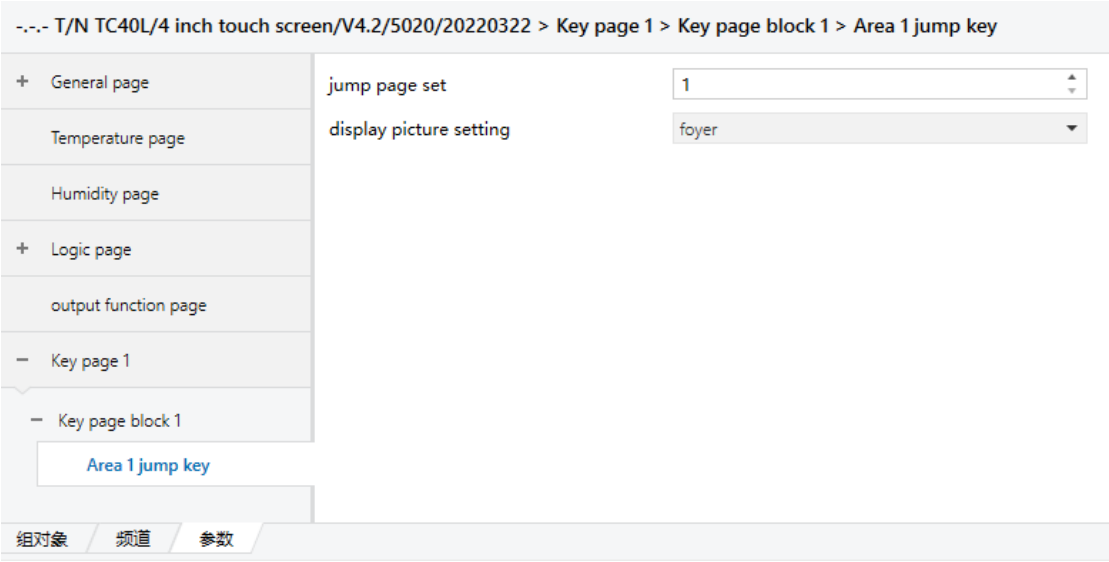
This parameter is activated when "with hysteresis" is selected for the parameter "—threshold behaviour", when the gas value is between the lowest alarm threshold and the highest alarm threshold, and the communication object is "middle, 1bit/4bit/8bit." left/right key" sends out a message, and the message value is set by the parameter "--Value set is".

Parameter “upper<value, telegram is”

When the gas value is higher than the maximum alarm threshold, the communication object "beyond, 1bit/4bit/8bit left/right key" sends an alarm message, and the message value is set by the parameter "--Value set is".

3.4. 7 parameter setting interface "jump"

The parameter setting interface can be seen when the parameter setting interface "Key page block x" key function parameter is selected "Jump", and its specific parameters are shown in the following figure:



The parameter "Jumps page set"

This parameter sets the page to which the jump module jumps when clicked.

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: 1... 10。

Parameter “Jump area selection”

This parameter sets the jump zone name.

Optional: foyer

Hall

Parlour

...

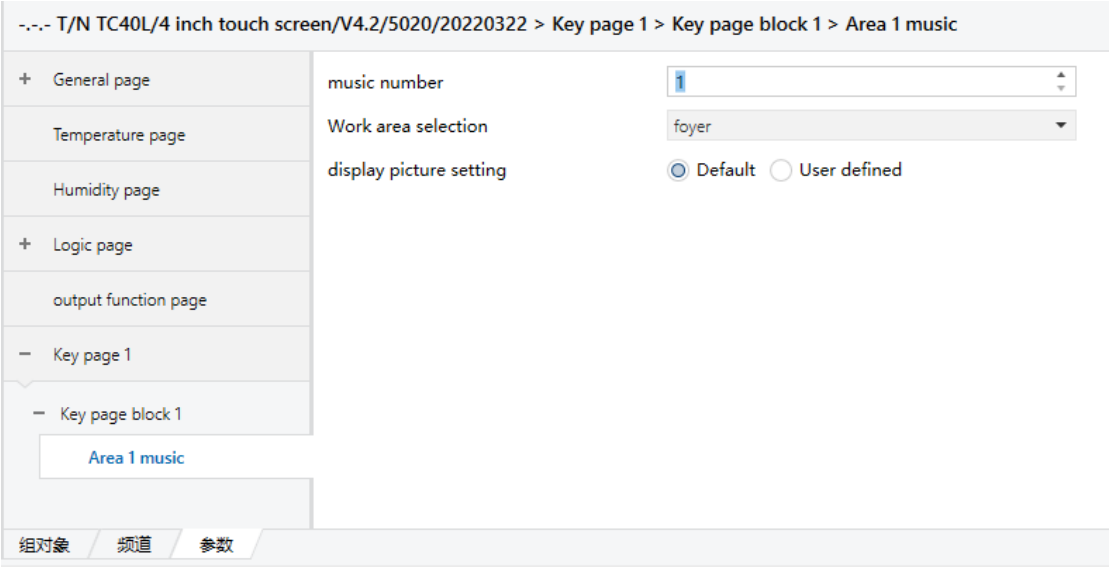
Chinese kitchen

User defined

None

3.4. 8 Music settings interface "music"

In the parameter setting interface "Key page block x", select "Area z working mode of", and the parameter "Area z function of key is When you select "music", you can see the parameter setting interface, and the specific parameters are shown in the following figure:



The parameter "music number"

This parameter sets the music ID, that is, to control which music, with the parameter setting interface "3.2.7 Parameter Setting Interface Music The parameter in " is related to "The number of channel setting".

Maximum range: 1... 10

Parameter “Work area selection”

This parameter sets the name of the region corresponding to the device.

Optional: foyer

Hall

Parlour

...

Chinese kitchen

User defined

None

When User defined is selected, the region name is customized. The custom area name can be downloaded through the host computer, and the operation steps of the host computer can be found in "2.4 Custom area name and icon";

When you select None, the zone name is not displayed.

Parameter “display picture setting”

The parameter settings module icon is displayed.

Optional: Default

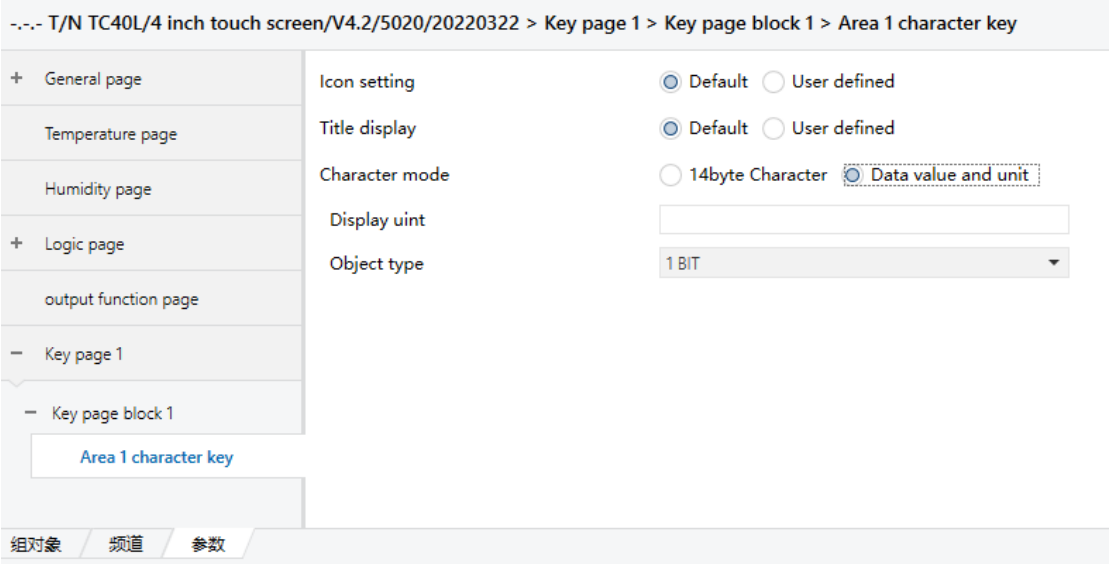
User defined

Select the "Default" module icon to use the default icon;

Select "User defined" module icon customization, the custom icon can be downloaded through the host computer, the operation steps of the host computer see "2.4 custom area name, icon".

3.4. 9 parameter setting interface "character"

In the parameter setting interface "Key page block x" button function parameter selection "character" can be seen in the parameter setting interface, the specific parameters are shown in the following figure:



The parameter "Icon setting"

The parameter settings module icon is displayed.

Optional: Default

User defined

Select the "Default" module icon to use the default icon;

Select "User defined" module icon customization, the custom icon can be downloaded through the host computer, the operation steps of the host computer see "2.4 custom area name, icon".

The parameter "Title display"

This parameter sets the name of the module.

Optional: Default

User defined

Select "Default" module name not to be displayed by default;

Select "User defined" module name customization, the custom name can be downloaded through the host computer, and the operation steps of the host computer can be found in "2.4 Custom Area Name and Icon".

The parameter "Character mode"

Optional: 14byte Character

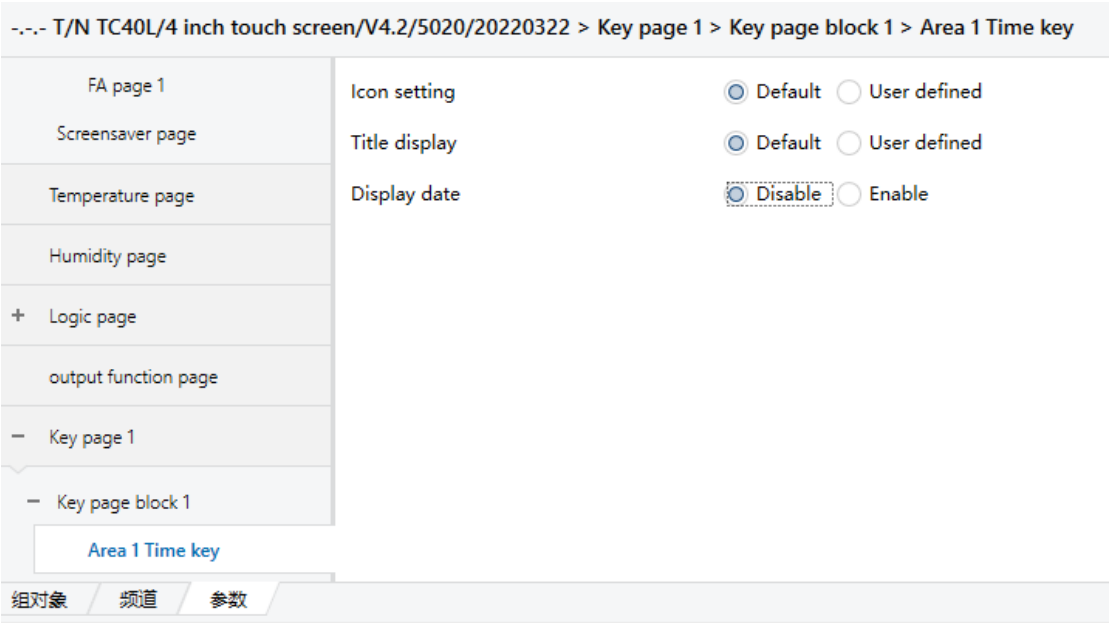
Data value and unit

Select "14byte Character", a 14byte object "Character" appears, which is used for text display;

Select "Data value and unit", 2 parameters "display uint", "Object type" appear, used to make data + Unit display. The units are set by the parameter "display uint". The type of data is set by the parameter "Object type", which can be selected as 1bit, 4bit, 1byte 2byte(Unsigned integer/signed integer/Floating point)。

3.4. 10 parameter setting interface "time"

In the parameter setting interface "Key page block x" button function parameter selection "time" can be seen in the parameter setting interface, the specific parameters are shown in the following figure:



The parameter "Icon setting"

The parameter settings module icon is displayed.

Optional: Default

User defined

Select the "Default" module icon to use the default icon;

Select "User defined" module icon customization, the custom icon can be downloaded through the host computer, the operation steps of the host computer see "2.4 custom area name, icon".

The parameter "Title display"

This parameter sets the name of the module.

Optional: Default

User defined

Select "Default" module name not to be displayed by default;

Select "User defined" module name customization, the custom name can be downloaded through the host computer, and the operation steps of the host computer can be found in "2.4 Custom Area Name and Icon".

Parameter "display date"

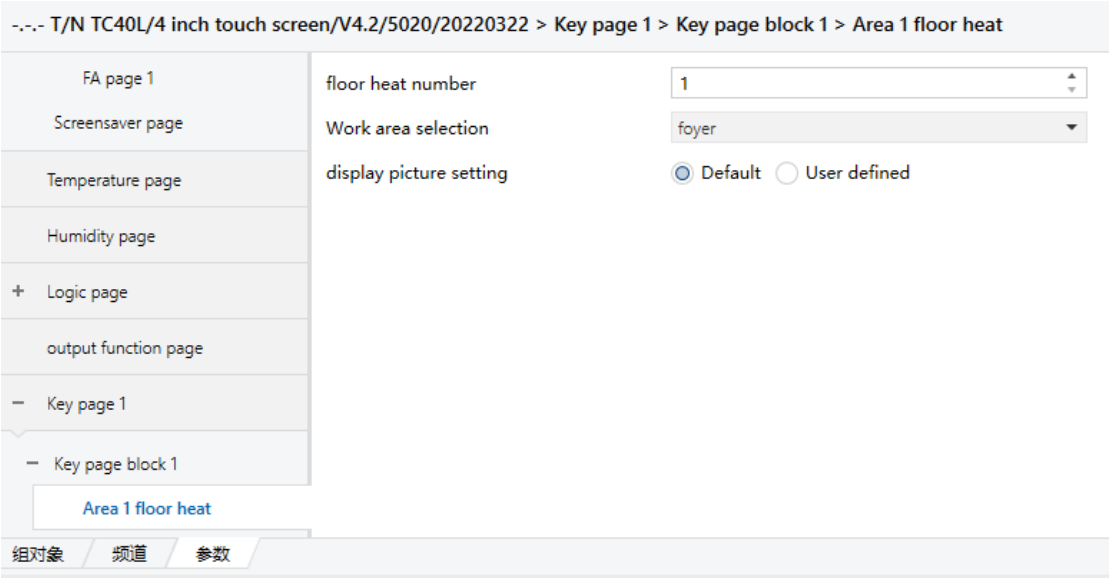
Sets whether the date is displayed.

Optional: Disable

Enable

3.4. 11 Floor heating setting interface "floor heat"

In the parameter setting interface "Key page block x", select "Area z working mode of", and the parameter "Area z function of key is When you select "Floor heat", you can see the parameter setting interface, and the specific parameters are shown in the following figure:



Parameter “Floor heat number”

This parameter sets floor heating ID, i.e. which floor heating is controlled, with the parameter setting interface "3.2.7 Parameter Setting Interface Floor Heat The parameter in " is related to "The number of channel setting".

Maximum range: 1... 10

Parameter “Work area selection”

This parameter sets the name of the region corresponding to the device.

Optional: foyer
Hall
Parlour
...
Chinese kitchen
User defined
None

When User defined is selected, the region name is customized. The custom area name can be downloaded through the host computer, and the operation steps of the host computer can be found in "2.4 Custom area name and icon";

When you select None, the zone name is not displayed.

Parameter “display picture setting”

The parameter settings module icon is displayed.

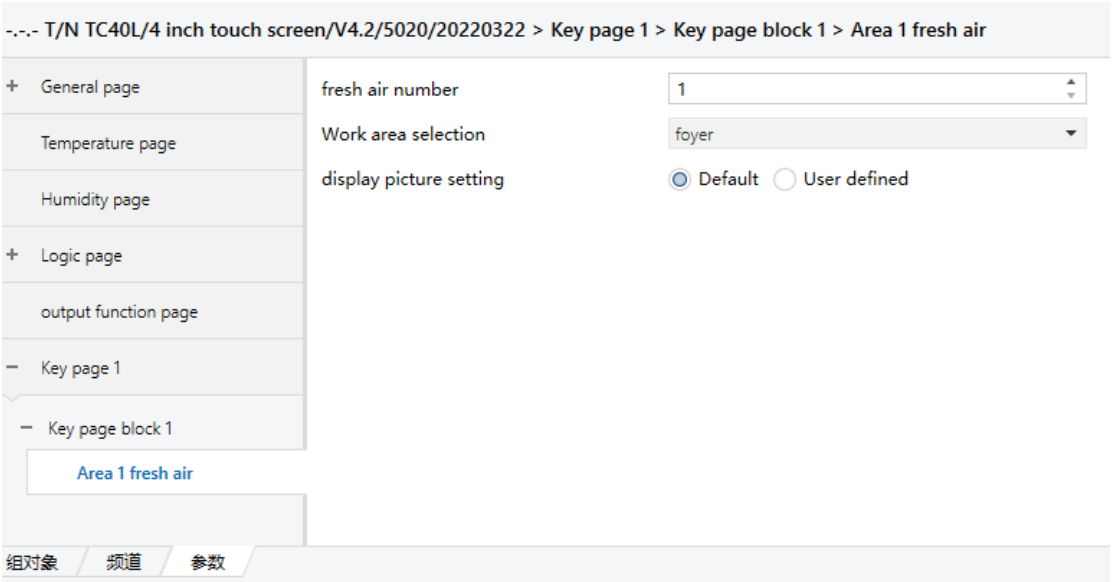
Optional: Default
User defined

Select the "Default" module icon to use the default icon;

Select "User defined" module icon customization, the custom icon can be downloaded through the host computer, the operation steps of the host computer see "2.4 custom area name, icon".

3.4. 12 fresh air settings interface "fresh air"

In the parameter setting interface "Key page block x", select "Area z working mode of", and the parameter "Area z function of key is When you select "Fresh air", you can see the parameter setting interface, and the specific parameters are shown in the following figure:



Parameter "Fresh air number"

This parameter is set fresh air ID, that is, which fresh air is controlled, with the parameter setting interface "3.2. 8 Parameter Setting Interface Fresh Air" in the parameter "The number of channel setting" related.

Maximum range: 1... 10

Parameter "Work area selection"

This parameter sets the name of the region corresponding to the device.

Optional: foyer
Hall
Parlour
...
Chinese kitchen
User defined
None

When User defined is selected, the region name is customized. The custom area name can be downloaded through the host computer, and the operation steps of the host computer can be found in "2.4 Custom area name and icon";

When you select None, the zone name is not displayed.

Parameter "display picture setting"

The parameter settings module icon is displayed.

Optional: Default

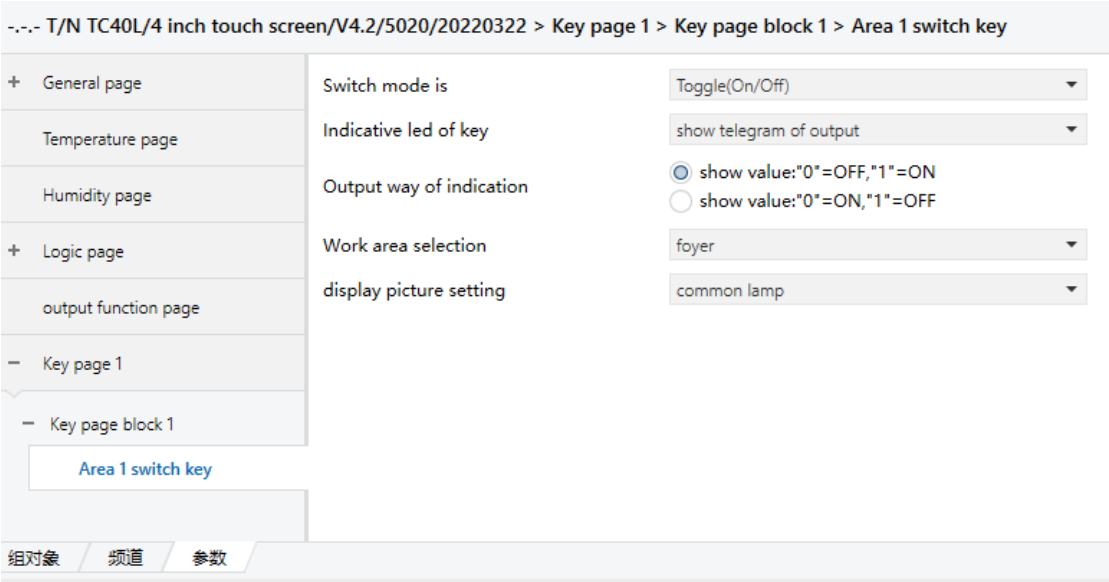
User defined

Select the "Default" module icon to use the default icon;

Select "User defined" module icon customization, do not display the device name, the custom icon can be downloaded through the host computer, the operation steps of the host computer see "2.4 custom area name, icon".

3.4. 13 parameter setting interface "switch"

In the parameter setting interface "Key page block x" button function parameter selection "switch" can be seen in the parameter setting interface, the specific parameters are shown in the following figure:



The parameter "Switch mode is"

This parameter is used to set the switch mode of the button.

Optional: toggle (ON/OFF).

ON

OFF

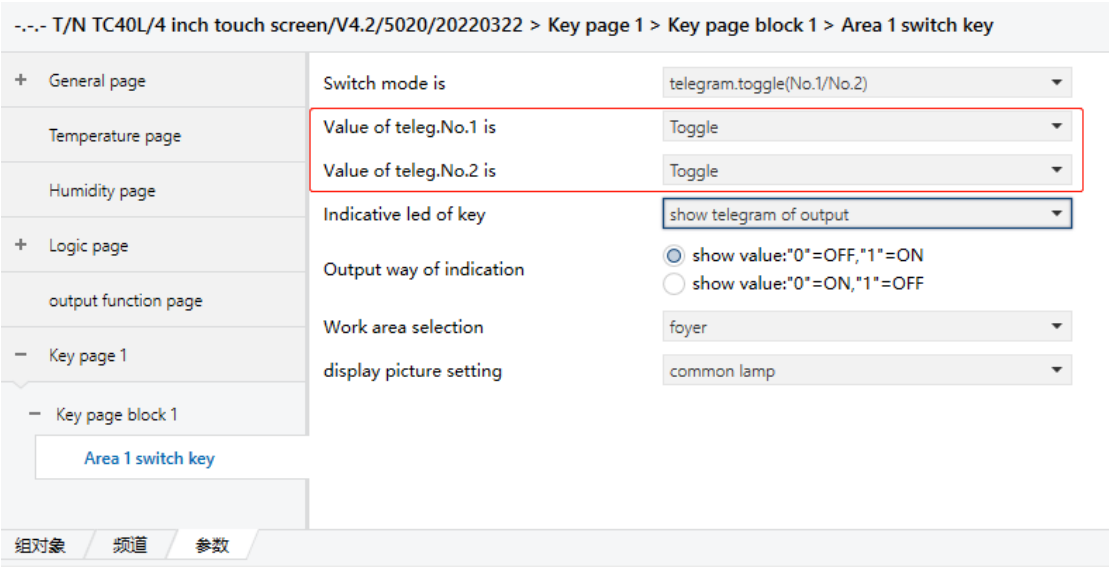
teleg. toggle(No.1/No.2)

Select "toggle(ON/OFF)" and press the button to send data 01, 00, 01, 00, 01, 00.... 。

Select "ON" and press the button to send data 01.

Select "OFF" and press the button to send data 00.

Select "teleg.toggle(No.1/No.2)" and set the values of No.1/No.2 respectively. Activates two parameters, as shown in the following figure:



Parameter "Value of teleg. No.1/No.2 is"

This parameter is used to set the data sent by pressing the button, and the communication object is "Switch, No.1/No.2, KX".

Optional: toggle

ON

OFF

Select "toggle" and press the button to send data 01, 00, 01, 00, 01, 00.) respectively 。

Select "ON" and press the button to send data 01.

Select "OFF" and press the button to send data 00.

Note: The first time you press the *button to send the data set by No.1 setting, the second time you press the button to send the data set by No.2 setting, the third time you press the button to send the data set by No.1 setting, and so on.*

Parameter "Indicative led of key"

This parameter sets the light off state of the button.

Optional: keep original status

show telegram of output

show telegram of feedback

Select "keep original status" to indicate that the button is lit and off to save the initial state without changing;

Selecting "show telegram of output" indicates that the button lighting off state changes according to the key output value, and whether the button state is lit or off when the output value is 1 depends on the parameter "Output." way of indication" setting;

Select "show telegram of feedback" to indicate that the button lighting off state changes according to the feedback value, the feedback object is "Feedback of Switch Key", as to whether the button state is lit or off when the feedback value is 1 Set according to the parameter "Feedback way of indication".

Parameter "Work area selection"

This parameter sets the name of the region corresponding to the device.

Optional: foyer

Hall

Parlour

...

Chinese kitchen

User defined

None

When User defined is selected, the region name is customized. The custom zone name can be downloaded from the host computer, and the operation steps of the host computer can be found in "2.4 Custom Zone Name and Icon".

Parameter “Display picture setting”

The parameter sets the button icon.

Optional: Common lamp

During lamp

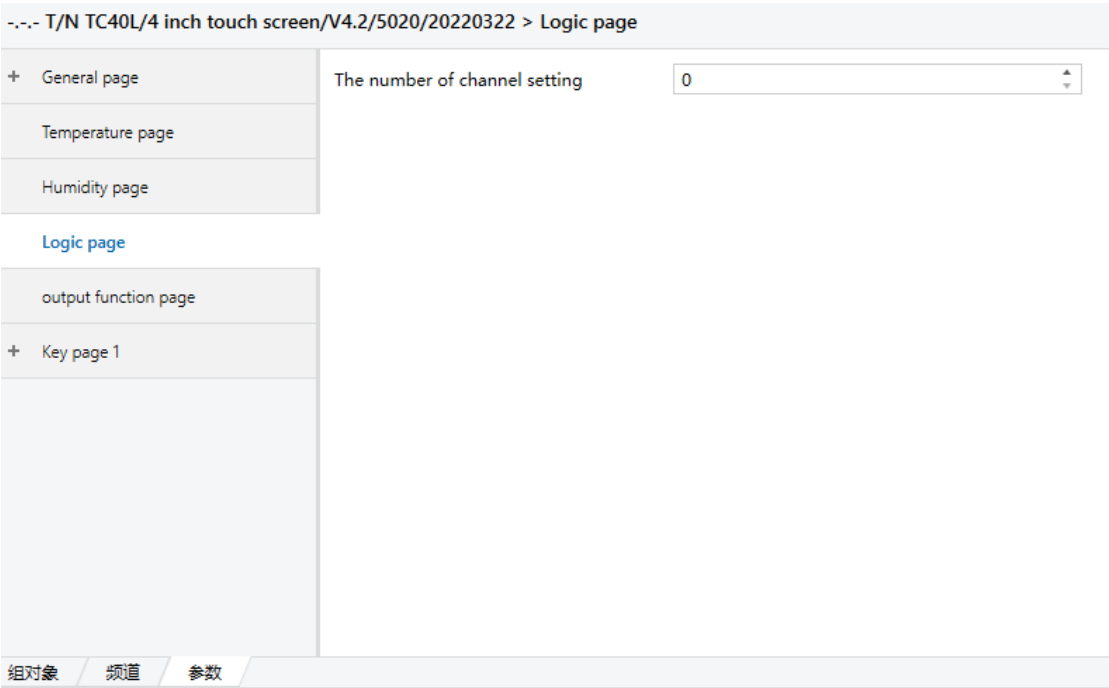
...

Icon8 all on

User defined

When user defined is selected, the icon is customized and the device name is not displayed. Custom icons can be downloaded from the host computer, and the operation steps of the host computer can be found in "2.4 Custom Area Name and Icon".

3.5 Parameter setting interface "Logic page"



Parameter "The number of channel setting"

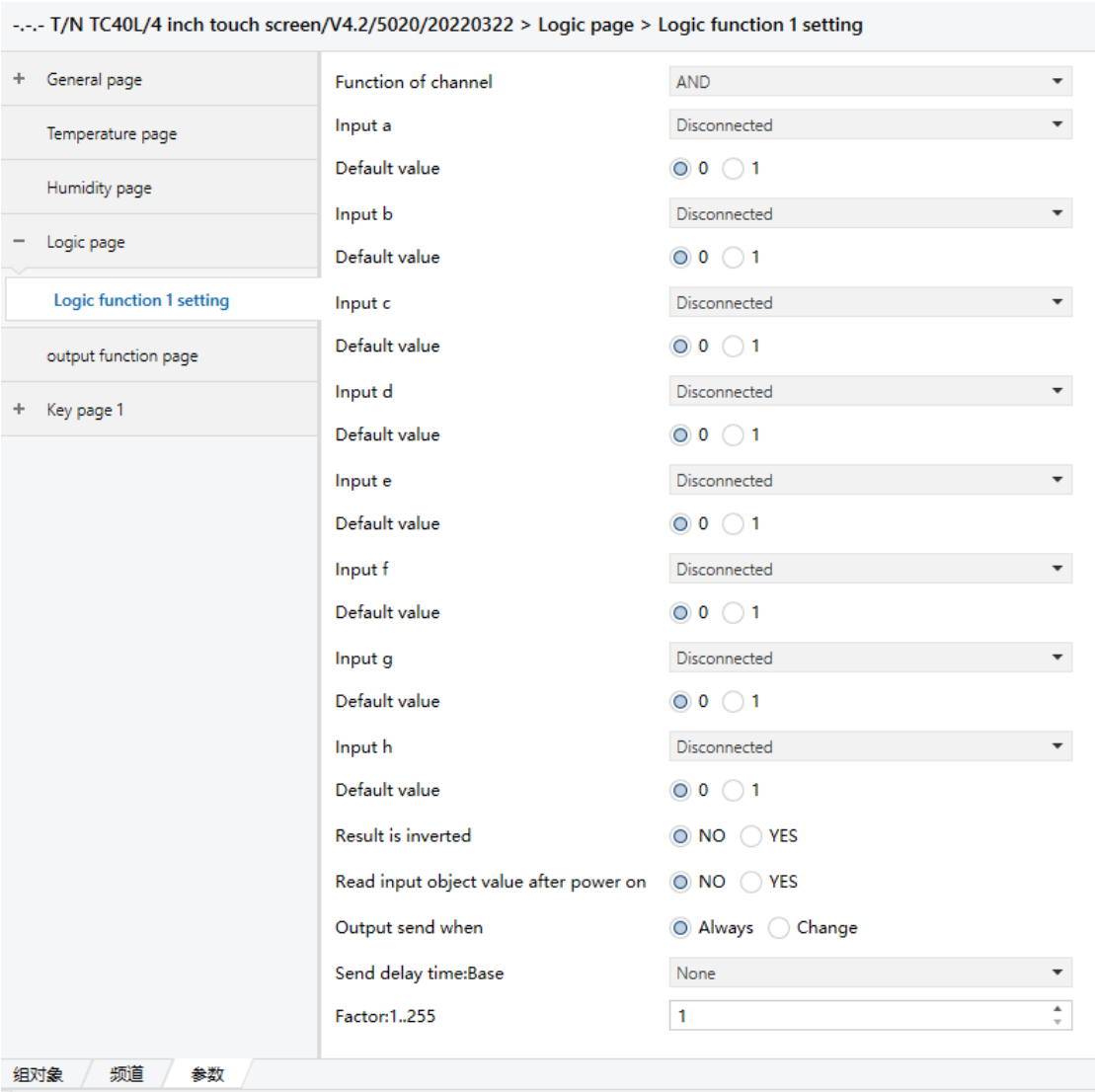
This parameter is used to set the number of logic function channels.

Range: 0...16

Logic functions have up to 16 channels, each channel can choose from 7 different logic functions: AND, OR, XOR、Gate forwarding、Threshold comparator、Format convert、Event Group , for details, see the following description.

3.5.1 Logic function AND/OR/XOR

In the parameter setting interface "Logic function x Setting", select "AND/OR/XOR" for the parameter "Function of channel", The logic function to open the door with the door/or door/XOR gate is shown in the following figure:



Parameter “Input x”（x=a~h）

This parameter is set with 8 input modes of the gate/or gate/XOR gate, and you can choose not to enter and enter normally , reverse the input, for example, you can create a gate with only 2 inputs and 1 output /Xor gate.

Optional: Disconnected

Normal

Inverted (Note: the initial value is not reversed).

The parameter "Default value"

Since not all messages are sent to the input immediately after the bus power is restored, in this case, 0, 1 can be selected as the default inputs.

Optional: 0

1

Parameter “Result is inverted”

This parameter sets whether to reverse the output of the output.

Optional: NO

YES

If YES is selected for this parameter, the output is reversed.

Parameter “Read input object value after power on”

Optional: NO

YES

If "YES" is selected for this parameter, it means that the value of the input object can be automatically read after the bus power is restored.

Parameter “Output send when”

This parameter sets the conditions under which the logical result is sent, which can be emitted always or changed.

Optional: Always

Change

Select "Always", and every time the object receives a new input value, the logical result is sent to the bus;

Select "Change" to send the logic result to the bus when the logical result changes.

Parameter “send delay time:base”

Parameter "factor:1...255"

This parameter sets the delay time of the logical result, which is base*factor. If N one is selected on base, there is no delay.

3.5. 2 logic function Gate forwarding

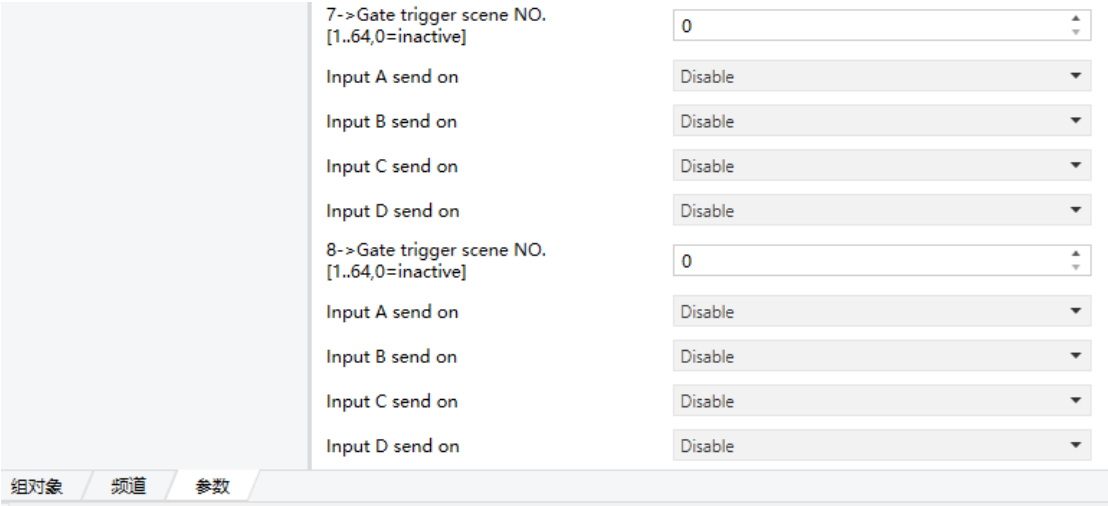
In the parameter setting interface "Logic function x Setting", select "Gate forwarding" in the parameter "Function of channel" to open the door forwarding logic function, as shown in the following figure:

-.-.- T/N TC40L/4 inch touch screen/V4.2/5020/20220322 > Logic page > Logic function 1 setting

- + General page
- Temperature page
- Humidity page
- − Logic page
  - Logic function 1 setting
  - output function page
- + Key page 1

Function of channel	Gate forwarding
Object type of Input/Output	1bit
Scene NO.of Gate after startup [1..64,0=inactive]	1
1->Gate trigger scene NO. [1..64,0=inactive]	1
Input A send on	Output A
Input B send on	Output A,B
Input C send on	Output A,B,C
Input D send on	Output A,B,C,D
2->Gate trigger scene NO. [1..64,0=inactive]	0
Input A send on	Disable
Input B send on	Disable
Input C send on	Disable
Input D send on	Disable
3->Gate trigger scene NO. [1..64,0=inactive]	0
Input A send on	Disable
Input B send on	Disable
Input C send on	Disable
Input D send on	Disable
4->Gate trigger scene NO. [1..64,0=inactive]	0
Input A send on	Disable
Input B send on	Disable
Input C send on	Disable
Input D send on	Disable

5->Gate trigger scene NO. [1..64,0=inactive]	0
Input A send on	Disable
Input B send on	Disable
Input C send on	Disable
Input D send on	Disable
6->Gate trigger scene NO. [1..64,0=inactive]	0
Input A send on	Disable
Input B send on	Disable
Input C send on	Disable
Input D send on	Disable



Parameter "Object type of Input/Output"

Sets the data type of the input/output object.

Optional: 1bit

4bit

1byte

Parameter "Scene NO.of Gate after startup[1..64,0=inactive]"

After the device is started, the initial scenario in which logical gate forwarding can be performed by default, which needs to be configured in the parameters.

Options: 1: 64 , 0 = Not activated

Tip: Before you do this, it is recommended to select the door scene through the object "Gate value select", otherwise the initial scene is enabled by default.

Parameter "x->Gate trigger scene NO.[1..64,0=inactive]"(x=1...8)

Sets the scene number of the logic gate forward. Each logic provides up to 8 settings for triggering scenes.

Parameter "Input X send on"(X=A... D)

Sets the output of input X (X=A/B/C/D) after gate forwarding. The input object is Input X and the output object is Output X.

Optional: Disable

Output A

Output B

Output C

Output D

Output A,B

Output A,C

Output A,D

Output A,B,C

Output A,B,D

Output A,C,D

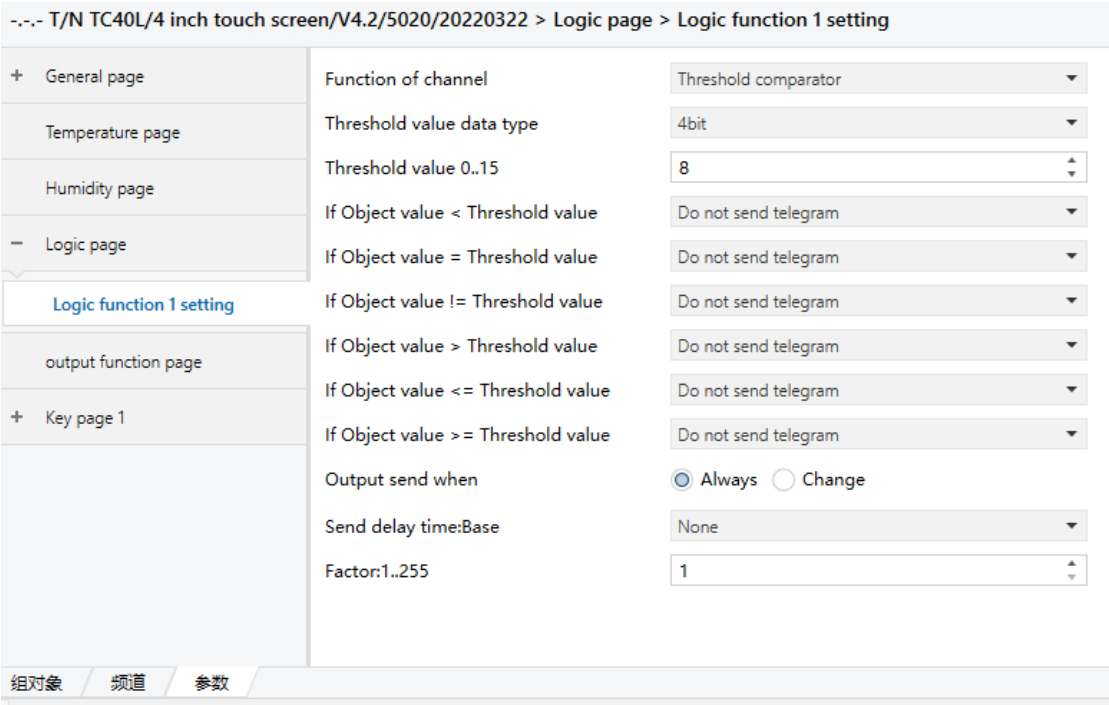
Output A,B,C,D
Output B,C
Output B,D
Output C,D
Output B,C,D

Depending on the options, an input can be forwarded into one or more outputs. The input value and the output value are the same.

For example, according to the above settings, write 0 (scene number minus 1) to the object "Gate value select", which means that the door with the scene number 1 is used to forward to the object" Input B" writes 1, and the objects "Output A" and "Output B" emit 1 at the same time 。

3.5. 3 logical functions Ofhold comparator

In the parameter setting interface "Logic function x Setting", select "Threshold comparator" in the parameter "Function of channel" to enable the threshold comparison logic function. As shown in the following figure:



Parameter “Threshold value data type”

The parameter "Threshold value"

Use these two parameters to set the data type and threshold of the threshold.

Optional: 4bit (0...15).
1byte (0...255)
2byte (0...65535)
4byte (0...4294967295)

Parameter “If Object value < Threshold value”

Parameter “If Object value = Threshold value”

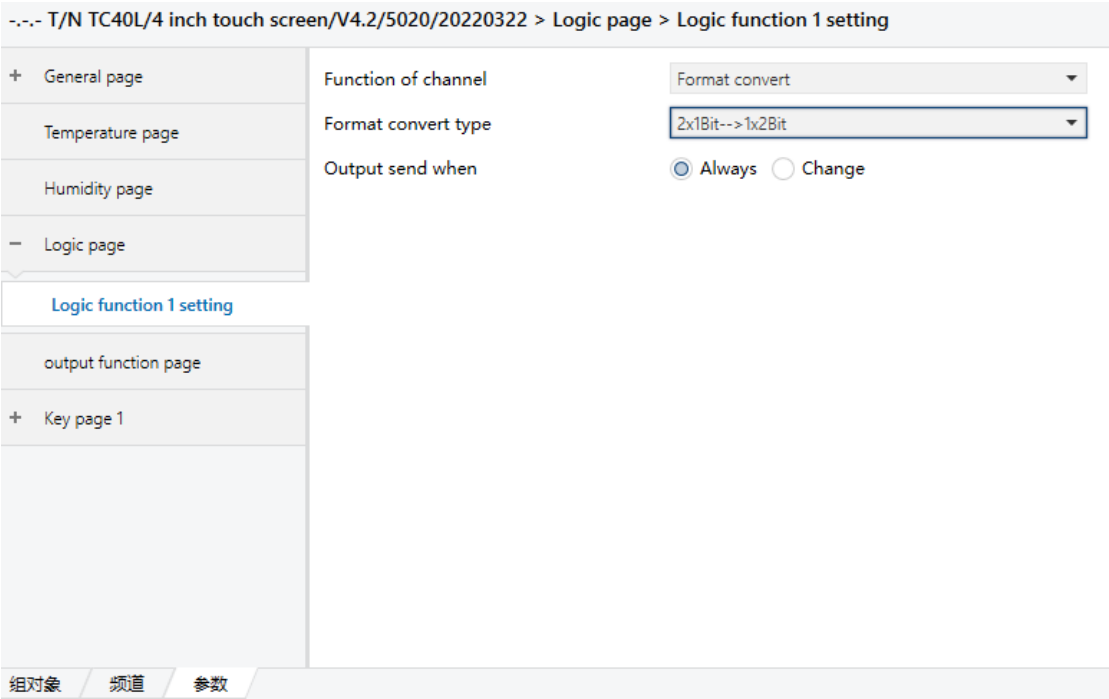
Parameter “If Object value ! = Threshold value”
Parameter “If Object value > Threshold value”
Parameter “If Object value <= Threshold value”
Parameter “If Object value >= Threshold value”
These parameters are used to set the logical result value that should be sent when the threshold for an object input is less than, equal to, not equal to, greater than, less than or equal to, and greater than or equal to a set threshold.
Optional: Do not send telegram
Send value '0'
Send value '1'
Do not send telegram, does not consider the parameters that select this option;
Send value "0"/"1", sending a message value of 0 or 1 when the condition is met.
Note: If there is a conflict between the setting options between the parameters, the value that should be sent shall prevail if the last parameter condition is reached. For example: the parameter "If Object value=Threshold value" sets Send value "0"; The parameter "If Object value<=Threshold value" sets Send value "1"; When the object value is equal to the threshold, the logical result sends the value "1".

Parameter “Output send when”
This parameter sets the conditions under which the logical result is sent, which can be emitted always or changed.
Optional: Always
Change

Parameter “send delay time:base”
Parameter "factor:1...255"
This parameter sets the delay time of the logical result, which is base*factor. If N one is selected on base, there is no delay.

3.5. 4 logical functions Format convert

In the parameter setting interface "Logic function x Setting", select "Format convert" from the parameter "Function of channel" to enable the format conversion function, as shown in the following figure:



Parameter "Format convert type"

Sets the data conversion type.

Optional: 2x1bit--> 1x2bit
8x1bit-->1x1byte
1x1byte-->1x2byte
2x1byte-->1x2byte
2x2byte-->1x4byte
1x1byte-->8x1bit
1x2byte-->2x1byte
1x4byte-->2x2byte
1x3byte-->3x1byte
3x1byte-->1x3byte

For example, select "2x1bit-->1x2bit", activate the communication objects "Input 1bit-bit0", "Input 1bit-bit1", "Output 2bit", for example, Write 1 to the object "Input 1bit-bit0" and write 1 to the object "Input 1bit-bit1", object" Output 2bit"Output 01, that is, the input object bit0 is low bit and bit1 is high bit.

Parameter "Output send when"

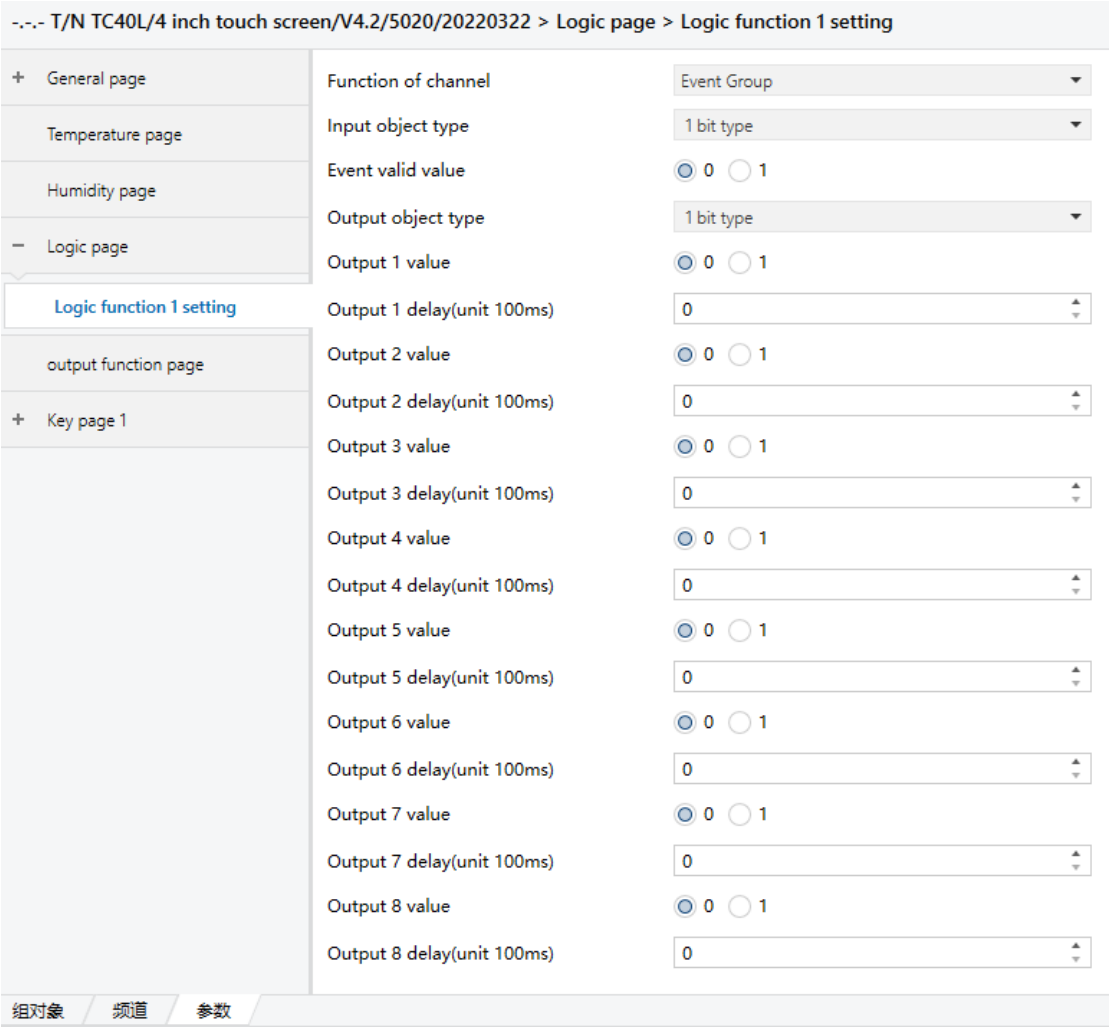
This parameter sets the conditions under which the logical result is sent, which can be emitted always or changed.

Optional: Always
Change

3.5. 5 logic functions Event Group

In the parameter setting interface "Logic function x Setting", select "Event Group" from the

parameter "Function of channel" to enable the one-shot multi-logic function, as shown in the following figure:



The parameter "Input object type"

Parameter “Event valid value”

These two parameters set the data type of the input object and the valid values that trigger the input event. That is, the input object receives a valid value before the output event can be triggered.

Optional: 1 bit type (0. .. 1)

1 byte type (0...255)

2 byte type (0. .. 65535)

Parameter “Output object type”

The parameter "Output x value" (x=1...8).

The parameter "Output x delay" (x=1...8).

1 input event can trigger 8 output events. These parameters set the data type, output value, and output delay time of the output event.

Optional: 1 bit type (0. .. 1)

1 byte type (0...255)

2 byte type (0. .. 65535)

4. Communication objects

Note: The following "C" in the table properties column indicates that the communication function of the communication object is enabled, "W" represents that the communication object can overwrite the value of other devices, "R" represents the value of the communication object can be read by other devices, "T" means that the communication object has a transmission function, and "U" represents the value of the communication object that can be rewritten through the reply packet of the bus.

4. 1 "General" communication object

There are 6 communication objects under "General", as shown in Figure 4 1-1 shown, the specific functions are shown in Table 1-1.

1	General	Lock device	1 bit	C	R	W	-	-	1-bit, enable	低
3	General	TFT display ON/OFF	1 bit	C	-	W	-	-	1-bit, switch	低
4	General	Brightness of TFT	1 byte	C	R	W	-	-	8-bit unsigned value, percentage (0..100%)	低
6	General	Valid action of key	1 bit	C	-	W	T	-	1-bit, enable	低

Figure 4.1-1 General communication object

serial number	Object capabilities	name	data type	attribute
1	Lock device	General	1bit	C,R,W
This communication object is used to lock the device, through the bus to the communication object to send 01 lock device, can not operate the touch panel, send 00 to unlock the device.				
3	TFT display ON/OFF	General	1bit	C,W
This communication object is used to switch the display status of the TFT screen, receive the message 0 to close the TFT screen, receive the message 1 to open the TFT screen.				
4	Brightness of TFT	General	1byte	C,R,W
This communication object is used to modify the brightness value of the TFT screen.				
6	Valid action of key	General	1bit	C,W,T
This communication object is a valid key when the first action of the issued 01 indicates that the key is pressed, otherwise no data is sent, and the first time the valid key is also related to the value of the communication object: to the communication object 00, if there is a key press, the communication object issues data 01 indicates that there is a key press; If you send 01 to the communication object, if the key is pressed, the communication object "Valid action of key" does not emit data.				

Table 1-1 General Communication Objects Table

4.2 "screensaver" communication object

There are 14 communication objects under "screensaver", as shown in Figure 4.2-1, and the specific functions are shown in Table 2-1.

1215	Time	Set current time	3 bytes	C	R	W	-	-	time, time of day	低
1216	Date	Set current date	3 bytes	C	R	W	-	-	date, date	低
1217	Time	Current time send to bus	3 bytes	C	R	-	T	-	time, time of day	低
1218	Date	Current date send to bus	3 bytes	C	R	-	T	-	date, date	低
1219	Weather	Sunny feedback	1 bit	C	-	W	-	-	1-bit, boolean	低
1220	Weather	partly cloudy feedback	1 bit	C	-	W	-	-	1-bit, boolean	低
1221	Weather	shower feedback	1 bit	C	-	W	-	-	1-bit, boolean	低
1222	Weather	heavy rains feedback	1 bit	C	-	W	-	-	1-bit, boolean	低
1223	Weather	thunder shower feedback	1 bit	C	-	W	-	-	1-bit, boolean	低
1224	Weather	ultraviolet ray feedback	1 bit	C	-	W	-	-	1-bit, boolean	低
1226	Sleep	Change screensaver enter time	2 bytes	C	R	W	-	-	2-byte unsigned value, time (s)	低
1227	General	Screensaver External temperature	2 bytes	C	R	W	-	-	2-byte float value, temperature (°C)	低
1228	General	Screensaver External temperature	2 bytes	C	R	W	-	-	2-byte float value, temperature (°C)	低
1229	General	Screensaver External temperature	2 bytes	C	R	W	-	-	2-byte float value, temperature (°C)	低

Figure 4.2-1 screensaver communication object

serial number	Object capabilities	name	data type	attribute
1215	Set current time	Time	3byte	C,R,W
This communication object is used to write to the current time.				
1216	Set current date	Date	3byte	C,R,W
This communication object is used to write the current date.				
1217	Current time send to bus	Time	3byte	C,R,T
The communication object is enabled when "active" is selected in the parameter "Activate the current time to send to the bus" to periodically send the current time to the bus.				
1218	Current date send to bus	Laser detection	3byte	C,R,T
The communication object is enabled when "active" is selected on the parameter "Activate the current date to send to the bus" and is used to periodically send the current date to the bus.				
1219	Sunny feedback	Weather	1bit	C,W
1220	partly cloudy feedback			
1221	shower feedback			
1222	heavy rains feedback			
1223	thunder shower feedback			
1224	ultraviolet ray feedback			
These communication objects appear when the parameter "Weather object type selection" is selected "1bit" and are used to switch weather information.				
1219	Weather status feedback	Weather	1byte	C,W
The communication object appears when the parameter "Weather object type selection" is selected "1byte" to switch the weather information, as to which message is received to switch which weather is switched by the parameter "Sunny/Partly cloudy/shower/ heavy rains/thunder shower/ultraviolet ray feedback value set(0..255)" definition.				
1226	Change screensaver enter time	Sleep	2bytes	C,R,W
This communication object is used to modify the delay time of the screensaver into the picture.				
1227~1229	Screensaver External temperature	General	2bytes	C,R,W

This communication object selects "weather and time" in the parameter "Area x display function" and the parameter "-- temperature source "select" "external" appears to receive external incoming temperature values.

Table 2-1 Screensaver Communication Objects Table

4.3 "Laser detection" communication object

There are four communication objects under "Laser detection", as shown in Figure 4.3-1, and the specific functions are shown in Table 3-1.

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

Figure 4.3-1 Laser detection communication object

serial number	Object capabilities	name	data type	attribute
7	Laser detection trigger No1	Laser detection	1bit	C,W
The communication object is used to activate or disable the laser detection function, as to whether the received message 1 is activated or disabled, according to the parameter "-Way of trigger by bus" setting.				
8	Laser detection flag No1	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", and when the laser detects a distance of 0, waits for the parameter "—delay time for shut off." After the time of the backlight setting ends, adjust the backlight (the brightness of the backlight is adjusted according to the parameter "-percent value of OLED is" setting), and at the same time, this communication object sends a message 0 to the bus.				
9	Laser detection trigger No2	Laser detection	1bit	C,W
Refer to the communication object "Laser detection trigger No1"				
10	Laser detection flag No2	Laser detection	1bit	C,R,T
Refer to the communication object "Laser detection flag No1"				
~~11~~	~~Laser detection distance~~	~~Laser detection~~	~~1byte~~	~~C,R,T~~
~~The object has been removed~~ ~~This communication object is used to report the distance of the detected object to the bus, the laser detection function is activated, when the laser sensor detects the object in the maximum detection range, the distance between the object and the panel will be sent to the bus through this communication object, in centimeters.~~				

Table 3-1 Laser detection communication object table

4.4 "VRV" communication object

Each VRV channel has the same communication object, taking the communication object of V RV channel 1 as an example, there are a total of 17 communication objects, as shown in Figure 4.4-1, the specific functions are shown in Table 4-1.

446	VRV	Switch status feedback.CH1	1 bit	C	R	W	T	U	1-bit, switch	低
447	VRV	Temperature feedback.CH1	2 bytes	C	R	W	T	U	2-byte float value, temperature (°C)	低
448	VRV	Air speed feedback.CH1	1 byte	C	R	W	T	U	8-bit unsigned value, percentage (0..100%)	低
449	VRV	Run mode feedback.CH1	1 byte	C	R	W	T	U	1-byte, HVAC mode	低
450	VRV	Switch ON/OFF.CH1	1 bit	C	R	-	T	-	1-bit, switch	低
451	VRV	Set temperature.CH1	2 bytes	C	R	-	T	-	2-byte float value, temperature (°C)	低
452	VRV	Air speed.CH1	1 byte	C	R	-	T	-	8-bit unsigned value, percentage (0..100%)	低
453	VRV	Run mode.CH1	1 byte	C	R	-	T	-	1-byte, HVAC mode	低
455	VRV	Min set temperature.CH1	2 bytes	C	R	W	-	-	2-byte float value, temperature (°C)	低
456	VRV	Max set temperature.CH1	2 bytes	C	R	W	-	-	2-byte float value, temperature (°C)	低
457	VRV	Run dehumidification mode active set.CH1	1 bit	C	R	W	-	-	1-bit, enable	低
458	VRV	Run refrigeration mode active set.CH1	1 bit	C	R	W	-	-	1-bit, enable	低
459	VRV	Run ventilate mode active set.CH1	1 bit	C	R	W	-	-	1-bit, enable	低
460	VRV	Run heating mode active set.CH1	1 bit	C	R	W	-	-	1-bit, enable	低
461	VRV	Run fresh mode active set.CH1	1 bit	C	R	W	-	-	1-bit, enable	低
462	VRV	Run sleep mode active set.CH1	1 bit	C	R	W	-	-	1-bit, enable	低
463	VRV	Run Auto mode active set.CH1	1 bit	C	R	W	-	-	1-bit, enable	低

445	VRV	Run mode active set.CH1	1 byte	C	R	W	T	-	8-bit unsigned value, counter pulses (0..255)
446	VRV	Switch status feedback.CH1	1 bit	C	R	W	T	U	1-bit, switch
447	VRV	Temperature feedback.CH1	2 bytes	C	R	W	T	U	2-byte float value, temperature (°C)
448	VRV	Air speed feedback.CH1	1 byte	C	R	W	T	U	8-bit unsigned value, counter pulses (0..255)
449	VRV	Run mode feedback.CH1	1 byte	C	R	W	T	U	8-bit unsigned value, counter pulses (0..255)
450	VRV	Switch ON/OFF.CH1	1 bit	C	R	W	T	-	1-bit, switch
451	VRV	Set temperature.CH1	2 bytes	C	R	W	T	-	2-byte float value, temperature (°C)
452	VRV	Air speed.CH1	1 byte	C	R	W	T	-	8-bit unsigned value, counter pulses (0..255)
453	VRV	Run mode.CH1	1 byte	C	R	-	T	-	8-bit unsigned value, counter pulses (0..255)

Figure 4.4-1 VRV communication object

numbering	function	name	data type	attribute
~~445~~	~~Mode active/inactive~~	~~ROPE~~	~~1byte~~	~~C,W~~
~~The object is removed~~ ~~This communication object is used to disable/activate the VRV air conditioning operation mode: dehumidification, refrigeration, ventilation, heating, refreshing, sleep, automatic, 0x00: active 0x80: inactive; 0:dehu 1:refi 2:vent 3:heat 4:Refreshing 5:Sleep 6:Automatic。~~				
446	Switch status feedback	ROPE	1bit	C,R,W,T,U
Synchronizing the switching state of the air conditioning panel through this feedback object is related to the selection of the parameter "Setting of switch": Optional: "0"="OFF"; “1”=“ON” “0”=“ON”； “ 1”=“OFF” Select "0"="OFF"; "1"="ON", the screen displays "OFF" when the communication object "AHUX-Switch status feedback" receives 00, and the screen opens when the communication object "AHUX-Switch status feedback" receives 01. Select "0"="ON"; "1"="OFF", the communication object "AHUX-Switch status feedback" opens when 00 is received, and the screen displays "OFF" when the communication object "AHUX-Switch status feedback" receives 01.				
447	Temperature feedback	ROPE	2byte	C,R,W,T,U
This feedback object synchronizes the set temperature of the air conditioning panel.				
448	Air speed feedback	ROPE	1byte	C,R,W,T,U
This feedback object synchronizes the wind speed level of the air conditioning panel.				
449	Run mode feedback	ROPE	1byte	C,R,W,T,U
This feedback object is used to synchronize the operating modes of the air conditioning panel.				

450	Switch ON/OFF	ROPE	1bit	C,R,T
This communication object is used to control the switching state of the VRV.				
451	Set temperature	ROPE	2byte	C,R,T
This communication object is used to control the setting temperature of the VRV.				
452	Air speed	ROPE	1byte	C,R,T
This communication object is used to control the wind speed of vrV.				
453	Run mode	ROPE	1byte	C,R,T
This communication object is used to control the operation mode of vrV.				
455	Min set temperature	ROPE	2byte	C,R,W
Through this communication object, the minimum temperature value of the setting temperature of the VRV air conditioner is modified.				
456	Max set temperature	ROPE	2byte	C,R,W
Through this communication object, the maximum temperature value of the set temperature of the VRV air conditioner is modified.				
457	Run dehumidification mode active set	InRV	1bit	C,R,W
458	Run refrigeration mode active set			
459	Run ventilate mode active set			
460	Run heating mode active set			
461	Run fresh mode active set			
462	Run sleep mode active set			
463	Run suto mode active set			
These objects are used to disable/activate the VRV air conditioner operating modes: dehumidification, refrigeration, ventilation, heating, refreshing, sleeping, automatic, 1: activated, 0: disabled.				

Table 4-1 VRV communication object table

4.5 "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 27 communication objects, as shown in Figure 4.5-1, the specific functions are shown in Table 5-1.

445	Fan coil(control)	Speed 1(control).CH1	1 bit	C	R	-	T	-	1-bit, switch	低
446	Fan coil(control)	Speed 2(control).CH1	1 bit	C	R	-	T	-	1-bit, switch	低
447	Fan coil(control)	Speed 3(control).CH1	1 bit	C	R	-	T	-	1-bit, switch	低
448	Fan coil(control)	Heating value(control).CH1	1 byte	C	R	-	T	-	8-bit unsigned value, percentage (0..100%)	低
449	Fan coil(control)	Refrigeration value(control).CH1	1 byte	C	R	-	T	-	8-bit unsigned value, percentage (0..100%)	低
450	Fan coil(terminal)	thermostatic controller speed 1(feedback).CH1	1 bit	C	R	W	-	-	1-bit, switch	低
451	Fan coil(terminal)	thermostatic controller speed 2(feedback).CH1	1 bit	C	R	W	-	-	1-bit, switch	低
452	Fan coil(terminal)	thermostatic controller speed 3(feedback).CH1	1 bit	C	R	W	-	-	1-bit, switch	低
453	Fan coil	Speed auto.CH1	1 bit	C	R	-	T	-	1-bit, switch	低
455	Fan coil(Remote)	Remote control switch.CH1	1 bit	C	-	W	-	-	1-bit, switch	低
456	Fan coil(Remote)	Remote control mode.CH1	1 byte	C	-	W	-	-	1-byte, HVAC mode	低
457	Fan coil(Remote)	Remote control speed.CH1	1 byte	C	-	W	-	-	8-bit unsigned value, percentage (0..100%)	低
458	Fan coil(Remote)	Remote setting Temperature.CH1	2 bytes	C	-	W	-	-	2-byte float value, temperature (°C)	低
459	Fan coil(TFT)	TFT switch feedback.CH1	1 bit	C	R	W	T	-	1-bit, switch	低
460	Fan coil(TFT)	TFT feedback mode.CH1	1 byte	C	R	W	T	-	1-byte, HVAC mode	低
461	Fan coil(TFT)	TFT feedback speed.CH1	1 byte	C	R	W	T	-	8-bit unsigned value, percentage (0..100%)	低
462	Fan coil(TFT)	TFT feedback set temperature.CH1	2 bytes	C	R	W	T	-	2-byte float value, temperature (°C)	低
463	Fan coil(control)	Switch(control).CH1	1 bit	C	R	-	T	-	1-bit, switch	低
464	Fan coil(terminal)	thermostatic controller Switch(feedback).CH1	1 bit	C	R	W	-	-	1-bit, switch	低
465	Fan coil	Heating lower theshold.CH1	2 bytes	C	R	W	-	-	2-byte float value, temperature (°C)	低
466	Fan coil	Heating upper theshold.CH1	2 bytes	C	R	W	-	-	2-byte float value, temperature (°C)	低
467	Fan coil	Cooling lower theshold.CH1	2 bytes	C	R	W	-	-	2-byte float value, temperature (°C)	低
468	Fan coil	Cooling upper theshold.CH1	2 bytes	C	R	W	-	-	2-byte float value, temperature (°C)	低
469	Fan coil	Dehumidifying mode active/inactive.CH1	1 bit	C	R	W	-	-	1-bit, enable	低
470	Fan coil	Refrigeration mode active/inactive.CH1	1 bit	C	R	W	-	-	1-bit, enable	低
471	Fan coil	Ventilate mode active/inactive.CH1	1 bit	C	R	W	-	-	1-bit, enable	低
472	Fan coil	Heating mode active/inactive.CH1	1 bit	C	R	W	-	-	1-bit, enable	低

Figure 4.5-1 Fan coil communication object

numbering	function	name	data type	attribute
445/446/447	Speed (control)1/2/3	Fan coil(control)	1bit	C,R,T
445	Speed 1byte(control)	Fan coil(control)	1byte	C,R,T
This communication object represents the wind speed of the fan coil, and the communication object is related to the selection of the parameter "Speed object set": Optional: 1bit 1byte Select "1bit" and set the object type of the wind speed to 1bit, and the communication objects are "Speed 1 (control)", "Speed 2 (control)", "Speed 3 (control)". Select "1byte" to set the object type of wind speed to 1byte, and the communication object to "Speed 1byte (control)".				
448/449	Heating/Refrigeration value(control)	Fan coil(control)	1bit/1byte	C,R,T
448	Fan control(heating or cool) value	Fan coil(control)	1bit/1byte	C,R,T
449	Fan control switch heating/cool	Fan coil(control)	1bit	C,R,T
This communication object represents the control value of heating/cooling, and the communication object is related to the selection of the parameter "Number of output channels": Optional: 2 channel (4 pipe) for heat/cool 1 channel（2 pipe）for heat/cool Select "2 channel (4 pipe) for heat/cool", set the number of output pipes of the fan coil to 4 pipes, that is, the fan coil can exist both refrigeration and heating, and activate 2 communication objects "Heating value (control)" and "Refrigeration value (control)"; 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, activate 2 communication objects "Fan control (heating or cool) value" , "Fan control switch				

heating/cool", as for the communication object when the mode is cooled" Fan control switch heating/cool "emits 0 or 1, by parameter" Switch cooling/ heating 'object value" setting.				
453	Speed auto	Fan coil	1bit	C,R,T
This communication object indicates whether the fan coil is in the automatic wind state, and the communication object is related to the selection of the parameter "Auto/manual speed set": Optional: "0"=manual, "1"=auto “0”=auto，“1”=manual Select "0"=manual, "1"=auto", then set 0 as manual wind speed, 1 is automatic wind speed, and the communication object "Speed auto" emits 01 when the automatic wind speed is in. Select "0"=auto, "1"=manual", then set 0 as the automatic wind speed, 1 is the manual wind speed, and the communication object "Speed auto" emits 00 when the automatic wind speed is in.				
455	Remote control switch	Fan coil(remote)	1bit	C,R,W
This communication object is used to remotely control the switching state of the fan coil, and the communication object is related to the selection of the parameter "Switch set": Optional: "0"="OFF"; “1”=“ON” “0”=“ON”； “ 1”=“OFF” Select "0"="OFF"; "1"="ON", the communication object "Remote control switch" emits 01 when the screen is turned on, and the communication object "Remote control switch" emits 00 when the screen shows "OFF"; Select "0"="ON"; "1"="OFF", the communication object "Remote control switch" emits 00 when the screen is turned on, and the communication object "Remote control switch" emits 01 when the screen shows "OFF".				
456	Remote control mode	Fan coil(remote)	1byte	C,R,W
This communication object is used to remotely control the mode of the fan coil, the communication object and the parameter "Dehumidification/Refrigeration/Ventilation/Heating mode set(0... 255; 254= inactivate)") is set about.				
457	Remote control speed	Fan coil(remote)	1byte	C,R,W
This communication object is used to remotely control the wind speed of the fan coil, and the communication object is followed by the parameter "Setting of off/speed 1/speed 2/speed 3/speed auto(0...255; 254= inactivate)") is set about.				
458	Remote setting set temperature	Fan coil(remote)	2byte	C,R,W
This communication object is used to remotely control the temperature of the fan coil.				
463	Switch(control)	Fan coil(control)	1bit	C,R,T
When the panel is switched, the switch state of the panel is fed back to the bus through the object, and the message "0" is issued when the panel is closed, and the message "1" is issued when the panel is opened.				
464	thermostatic controller switch(feedback)	Fan coil (terminal)	1bit	C,R,W
Sending a message "1" to the communication object opens the panel, and sending a message "0" closes the panel.				

450/451/452	thermostatic controller speed 1/2/3(feedback)	Fan coil (terminal)	1bit	C,R,W
450	thermostatic controller feedback speed	Fan coil (terminal)	1byte	C,R,W
This communication object is used to feedback the wind speed of the fan coil, and the communication object is related to the selection of the parameter "Speed object set": Optional: 1bit 1byte Select "1bit" and set the object type of the feedback wind speed in the fan coil to 1bit, and the communication objects are "Speed 1(feedback)", "Speed 2(feedback)", "Speed 3(feedback)". Select "1byte" and set the object type of the feedback wind speed in the fan coil to 1byte, and the communication object is "Speed 1byte(feedback)".				
~~454~~	~~Mode active/inactive~~	~~Fan coil~~	~~1byte~~	~~C,R,W~~
~~The object has been removed~~ ~~This communication object is used to activate/deactivate the dehumidification, cooling, ventilation and heating modes under the fan coil, 0x00: active 0x80:inactive ; 0:dehu 1:refi 2:vent 3:heat。~~				
459	TFT Switch Feedback	Fan coil(TFT)	1bit	C,R,W,T
This communication object is used to send or receive messages to the bus to report the switching status of the fan coil. Related to the parameter "Switch set" in Feedback. Optional: "0"="OFF"; “1”=“ON” “0”=“ON”； “ 1”=“OFF” Select "0"="OFF"; "1"="ON", the communication object "Feedback switch" emits 01 when the screen is turned on, and the communication object "Feedback switch" emits 00 when the screen shows "OFF"; Select "0"="ON"; "1"="OFF", the communication object "Feedback switch" emits 00 when the screen is turned on, and the communication object "Feedback switch" emits 01 when the screen displays "OFF".				
460	TFT Feedback mode	Fan coil(TFT)	1byte	C,R,W,T
This communication object is used to send or receive messages to the bus to report the current mode of the fan coil. With the parameter "Dehumidification/Refrigeration/Ventilation/Heating mode set(0... 255; 254= inactivate)") is set about.				
461	TFT Feedback speed	Fan coil(TFT)	1byte	C,R,W,T
This communication object is used to send or receive messages to the bus to report the current wind speed of the fan coil. With the parameter "Setting of off/speed 1/speed 2/speed 3/speed auto(0...255; 254= inactivate)") is set about.				
462	TFT Feedback set temperature	Fan coil(TFT)	2byte	C,R,W,T
The communication object is used to send or receive the current set temperature value of the fan coil.				
465/467	Heating/ Cooling lower theshold	Fan coil	2byte	C,R,W
Through this communication object, the minimum temperature value of the set temperature in the fan coil Heating/Cooling mode is modified. *Converted via KNX format*				
466/468	Heating/ Cooling upper	Fan coil	2byte	C,R,W

	theshold			
Use this communication object to modify the maximum temperature value of the set temperature in the fan coil Heating/Cooling mode. *Converted via KNX format*				
469	dehumidification mode active/inactive	Fan coil	1bit	C,R,W
470	refrigeration mode active/inactive			
471	ventilate mode active/inactive			
472	heating mode active/inactive			
These objects are used to disable/activate the fan coil operation mode: dehumidification, refrigeration, ventilation, heating, 1: activation, 0: disabled.				

Table 5-1 Fan coil communication objects

4.6 "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 a total of 3 communication objects, as shown in Figure 4.6-1, the specific functions are shown in Table 6-1.

475	Auto dehumidification	Active auto dehumidification function.CH1(0:active,0:active)	1 bit	C	R	W	-	-	1-bit, start/stop	低
476	Auto dehumidification	Set auto start dehumidification threshold value.CH1	2 bytes	C	R	W	-	-	2-byte float value, humidity (%)	低
477	Auto dehumidification	Set auto stop dehumidification threshold value.CH1	2 bytes	C	R	W	-	-	2-byte float value, humidity (%)	低

Figure 4.6-1 auto dehumidify communication object

serial number	Object capabilities	name	data type	attribute
475	Active auto dehumidification function	Auto dehumidify	1 bit	C,R,W
This communication object is used to set whether to enter the automatic dehumidification function: sending 00 to the communication object enters the automatic dehumidification, and sending 01 exits the automatic dehumidification.				
476	Set auto start dehumidification threshold value	Auto dehumidify	2 byte	C,R,W
This communication object is used to set the threshold at which the automatic dehumidification begins.				
477	Set auto stop dehumidification threshold value	Auto dehumidify	2 byte	C,R,W
This communication object is used to set the threshold value for ending automatic dehumidification.				

Table 6-1 auto dehumidify communication objects

4.7 "Timing" communication object

The timing function of each channel has the same communication object, taking the communication object of channel 1 as an example, Timing has a total of 2 communication objects, as shown in Figure 4.7-1, the specific functions are shown in Table 7-1.

473	Timing	Report.CH1	2 bytes	C	R	-	T	-	2-byte unsigned value, time (min)	低
474	Timing	Timing.CH1	2 bytes	C	R	W	-	-	2-byte unsigned value, time (min)	低

Figure 4.7-1 Timing communication object

serial number	Object capabilities	name	data type	attribute
474	Timing	Timing	2byte	C,R,W
This communication object is used to set the timing time, and sending 1 to the communication object indicates that the timing is 1min.				
473	Report	Timing	2byte	C,R,T
This communication object is used to send messages to the bus to report the current timing time.				

Table 7-1 Timing Communication Objects Table

4.8 "Temperature/humidity alarm" communication object

There are 10 communication objects under the "Temperature/humidity alarm", as shown in Figure 4.8-1, and the specific functions are shown in Table 8-1.

12	General	Current temperature	2 bytes	C	R	-	T	-	2-byte float value, temperature (°C)	低
14	Alarm	temperature alarm active	1 bit	C	R	W	-	-	1-bit, enable	低
15	Alarm	Upper limit of temp. alarm	2 bytes	C	R	W	-	-	2-byte float value, temperature (°C)	低
16	Alarm	Lower limit of temp. alarm	2 bytes	C	R	W	-	-	2-byte float value, temperature (°C)	低
17	Alarm	Temperature alarm status	1 bit	C	R	-	T	-	1-bit, alarm	低
18	General	Current humidity	2 bytes	C	R	-	T	-	2-byte float value, humidity (%)	低
20	Alarm	humidity alarm active	1 bit	C	R	W	-	-	1-bit, enable	低
21	Alarm	Upper limit of humidity alarm	2 bytes	C	R	W	-	-	2-byte float value, humidity (%)	低
22	Alarm	Lower limit of humidity alarm	2 bytes	C	R	W	-	-	2-byte float value, humidity (%)	低
23	Alarm	humidity alarm status	1 bit	C	R	-	T	-	1-bit, alarm	低

Figure 4.8-1 Temperature/humidity alarm communication object

serial number	Object capabilities	name	data type	attribute
12	Current temperature	General	2byte	C,R,T
When the temperature value is collected by an internal sensor, the current temperature value is sent using the communication object "Current temperature".				
18	Current humidity	General	2byte	C,R,T
When the humidity value is collected by an internal sensor, the current humidity value is sent using the communication object "Current humidity".				
14	temperature alarm active	Aalarm	1bit	C,R,W
This communication object is used to activate the alarm function of the temperature: the alarm function of sending 01 to the communication object is the activation temperature; Send 00 for the alarm function of the inactivated temperature.				

15	Upper limit of temp, alarm	Aalarm	2byte	C,R,W
This communication object is used to set the upper limit value of the temperature alarm.				
16	Lower limit of temp, alarm	Aalarm	2byte	C,R,W
This communication object is used to set the lower limit of the temperature alarm.				
17	Temperature alarm status	Aalarm	1bit	C,R,T
This communication object is used to send a message for the alarm status of the temperature.				
20	humidity alarm active	Aalarm	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 for the alarm function that does not activate the humidity.				
21	Upper limit of humidity alarm	Aalarm	2byte	C,R,W
This communication object is used to set the upper limit value of the humidity alarm.				
22	Lower limit of humidity alarm	Aalarm	2byte	C,R,W
This communication object is used to set the lower limit value of the humidity alarm.				
23	humidity alarm status	Aalarm	1bit	C,R,T
This communication object is used to send messages for the status of the humidity alarm.				

Table 8-1 Temperature/humidity alarm communication object table

4.9 "relay" communication object

Relay has 4 channels, the parameters and communication objects of each channel are the same, and channel 1 is used as an example to illustrate the communication objects of each function.

4. 9.1 "switch" communication object

The communication object of S witch is shown in Figure 4.9.1-1, and the specific functions are shown in Table 4.9.1-1.

801	Switch,0	Switch	1 bit	C	-	W	-	-	1-bit, switch
802	Switch,0	Switch status	1 bit	C	R	-	T	-	1-bit, switch
803	Switch,0	Switch time function	1 bit	C	-	W	-	-	1-bit, switch
804	Switch,0	Output of staircase lighting	1 bit	C	-	W	-	-	1-bit, switch
805	Switch,0	Warning of staircase	1 bit	C	-	-	T	-	1-bit, switch
806	Switch,0	Staircase duration	2 bytes	C	R	W	-	-	2-byte unsigned value, pulses
807	Switch,0	Call preset 1/2	1 bit	C	-	W	-	-	1-bit, switch
808	Switch,0	Set preset 1/2	1 bit	C	-	W	-	-	1-bit, switch
809	Switch,0	Scene	1 byte	C	R	W	-	-	8-bit unsigned value, counter pulses (0..255)
810	Switch,0	Forced operation	2 bit	C	-	W	-	-	1-bit controlled, switch control
804	Switch,0	Output of delay time	1 bit	C	-	W	-	-	1-bit, switch

Figure 4.9.1-1 "Switch" communication object

serial number	Object capabilities	name	data type	attribute
801	Switch	Switch，X	1bit	C,W
The state of the relay can be changed by sending 00 or 01 to the communication object via the				

bus, and the specific control state is selected "open" or "by the parameter "Contact position when switch value='1" close" decision. If open is selected, the state of the transmit 00 relay is closed, the channel is open, the state of the transmit 01 relay is disconnected, and the channel is closed; If you choose close, the opposite is true.				
802	Switch status	Switch，X	1bit	C,R,T
This communication object is displayed when Active is selected for "Report the relay status", indicating that the status of the relay is reported by bus. The communication emits 1 indicating that the relay contact is closed and the 0 contact is open.				
803	Switch time Function	Switch，X	1bit	C,W
This communication object is displayed when Active is selected for "Time function", if the communication object disables the Time function when receiving the message 0, and enables the Time function when the message 1 is received. *NOTE: Power failure cannot be saved*				
804	Output of delay time	Switch，X	1bit	C,W
This communication object is displayed when "Delay switch" is selected in "The mode of time function" under "Time function", indicating a delay control switch, if the communication object receives a message 0 time switch delays closing, if the communication object receives a message 1 time switch delays on.				
804	Output of staircase lighting	Switch，X	1bit	C,W
This communication object is displayed when "The mode of time function" under "Time function" is selected "Staircase lighting", which is used to control the status of the stair lights, and the conditions that trigger the stair lighting are determined by the selection of the parameter "The mode of control for stair lighting is" Start with '1', stop with '0' then the communication object receives the message 1 Stair light on, 0 Stair light off; Select Start with '1', no active with '0' then the communication object receives message 1 Stair lighting on 0 does not work on stair lighting; Select Start with '0/1', can't be stop, the communication object receives the message 0/1 stair lighting is turned on, and the stair lighting cannot be turned off through the communication object.				
805	Warning of staircase	Switch，X	1bit	C,T
For "Warning mode for ending of staircase" under "Time function", select "Via object" or "Via object and flashing the output" When displayed, it indicates the early warning of stair lighting, the warning method is the output object or the output object and the early warning through the off-light-off state of the lamp.				
806	Staircase duration	Switch，X	2byte	C,W
This communication object is displayed when Enable is selected under "Modify the duration via object" under "Time function", indicating that the duration of stair light illumination is allowed to be modified via bus. Its data type is 2byte.				
807	Call preset1/2	Switch，X	1bit	C,W
This communication object is displayed when Active is selected in "Preset function" under "Switch", indicating that the preset function is invoked, and its preset has two presets of preset 1 and preset 2. If the communication object receives a message of 0, the preset value 1 is called, and the message of 1 is called the preset value of 2				
808	Set preset1/2	Switch，X	1bit	C,W
This communication object is displayed when "Enable" is selected for "Setting for preset via				

teleg.is" under the parameter "Preset function", indicating that the current value is set to a new preset value by bus. When the communication object receives a message of 0, it will set the current value to a new preset value of 1, and when a message of 1 is received, it will set the current value to a new preset of 2 Value				
809	Sence	Switch，X	1byte	C,W
This communication object is displayed when Active is selected in "Preset function" under "Switch", indicating the call or storage of the scene function, its data type is 8bit, and an 8bit instruction can be sent through this communication object to call or store the scene. The meaning of the 8bit directive is detailed below: Set an 8bit directive to (binary encoding): FXNNNNNNN F: Call the scene for "0"; "1" is the storage scene; X: Not used, does not affect the result NNNNNN: Scene number (1... 64）				
810	Forced operation	Switch，X	2bit	C,W
This communication object is displayed when Active is selected for the parameter "Forced operation function", indicating the forced operation function.				

Table 4.9.1-1 "Switch" Communication Objects Table

4.9. 2 "curtain" communication object

801	Curtain,0	Move curtain up/down	1 bit	C	-	W	-	-	1-bit, switch
802	Curtain,0	Adjustment stop/up/down	1 bit	C	R	W	T	-	1-bit, switch
803	Curtain,0	Curtain height position	1 byte	C	R	W	T	-	8-bit unsigned value, percentage (0..100%)
804	Curtain,0	scene	1 byte	C	R	W	-	-	8-bit unsigned value, counter pulses (0..255)
805	Curtain,0	Curtain slat position	1 byte	C	R	-	T	-	8-bit unsigned value, percentage (0..100%)
806	Curtain,0	Move slats 0..255	1 byte	C	R	W	-	-	8-bit unsigned value, percentage (0..100%)
807	Curtain,0	Move height 0..255	1 byte	C	R	W	-	-	8-bit unsigned value, percentage (0..100%)

Figure 4.9.2-1 "curtain" communication object

serial number	Object capabilities	name	data type	attribute
801	Move curtain up/down	Curtain，X	1bit	C,W
The communication object indicates that the curtain height moves up / down, when the parameter "Up / Down value" selects "0 = up", "1" = down when the communication object sends 00 indicates that the height of the curtain moves up to the top, and sends 01 indicates that the height of the curtain moves down to the bottom; Select "0"=down, "1"=up when the communication object sends 00 to move the curtain height down to the bottom, and send 01 means that the curtain height moves up to the top.				
802	Adjustment stop/up/down	Curtain，X	1bit	C,W
The communication object indicates the adjustment of the angle, when the parameter "Open/Close value" selects "0" = open, "1" = close when the communication object sends 00 indicates that the curtain angle value decreases, and sends 01 indicates that the curtain angle value increases; When selecting "0"=close, "1"=open, the communication object sends 00 to				

indicate that the curtain angle value increases, and sending 01 indicates that the curtain angle value decreases.				
803	Curtain height position	Curtain，X	1byte	C,R,T
The communication object represents the location of the reported curtain height.				
804	Scene	Curtain，X	1byte	C,W
This communication object is displayed when Active is selected in the "Scene function" under "Curtain", indicating that the scene function is called or stored, and its data type is 8bit, and an 8bit instruction can be sent through this communication object to call or store the scene. The meaning of the 8bit directive is detailed below: Set an 8bit directive to (binary encoding): FXNNNNNNN F: Call the scene for "0"; "1" is the storage scene; X: Not used, does not affect the result NNNNNN: Scene number (1... 64）				
805	Curtain salt position	Curtain，X	1byte	C,R,T
The communication object is displayed only when the parameter "Operating mode" is selected "blind", indicating the position of the angle of the reported curtain.				
806	Move salt 0...255	Curtain，X	1byte	C,W
The communication object is displayed only when the parameter "Operating mode" is selected "blind", indicating that the angle value of the curtain can be modified by bus.				
807	Move height 0...255	Curtain，X	1byte	C,W
This communication object indicates that the height value of the curtain can be modified by bus.				

Table 4.9.2-1 "Curtain" communication object table

4.9. 3 "dry contact" communication object

Figure 4.9.3-1 "dry contact" communication object

serial number	Object capabilities	name	data type	attribute
801	Trigger	Dry contact	1bit	C,W
The communication object is used to trigger the relay, in the parameter "Valid value of" Trigger "object" select value "0" indicates that the valid value of the trigger relay is "0", that is, the communication object sends 00 to trigger the relay; Select value "1" to indicate that the valid value of the trigger relay is "1", that is, the communication object sends 01 to trigger the relay; Select value "0/1" to indicate that the valid value of the trigger relay is "0/1", that is, the relay can be triggered if you send 00/01 to the communication object.				

Table 4.9.3-1 "Dry contact" communication object table

4.10 "dimming" communication object

0-10V function has 4 channels, each channel of communication object is the same, take channel 1 as an example, as shown in Figure 4.10-1, the specific function is shown in Table 10-1.

841	0-10V,CH0	current switch state	1 bit	C	R	-	T	-	1-bit, boolean
842	0-10V,CH0	current brightness value	1 byte	C	R	-	T	-	8-bit unsigned value, counter pulses (0..255)
843	0-10V,CH0	Set preset 1 and 2	1 bit	C	-	W	-	-	1-bit, boolean
844	0-10V,CH0	Set preset 3 and 4	1 bit	C	-	W	-	-	1-bit, boolean
845	0-10V,CH0	Call preset 1 and 2	1 bit	C	-	W	-	-	1-bit, boolean
846	0-10V,CH0	Call preset 3 and 4	1 bit	C	-	W	-	-	1-bit, boolean
847	0-10V,CH0	Warning staircase lighting	1 bit	C	-	-	T	-	1-bit, boolean
848	0-10V,CH0	activate staircase function	1 bit	C	R	W	-	-	1-bit, boolean
849	0-10V,CH0	Permanent ON	1 bit	C	-	W	-	-	1-bit, boolean
850	0-10V,CH0	Duration of staircase lighting	2 bytes	C	R	W	-	-	2-byte unsigned value, pulses
851	0-10V,CH0	switch	1 bit	C	-	W	-	-	1-bit, boolean
852	0-10V,CH0	Dimming time of relative	2 bytes	C	R	W	-	-	2-byte unsigned value, pulses
853	0-10V,CH0	Relative dimming	4 bit	C	-	W	-	-	3-bit controlled, dimming control
854	0-10V,CH0	Dimming time of absolute	2 bytes	C	R	W	-	-	2-byte unsigned value, pulses
855	0-10V,CH0	Brightness value	1 byte	C	-	W	-	-	8-bit unsigned value, counter pulses (0..255)
856	0-10V,CH0	Call scene	1 byte	C	-	W	-	-	8-bit unsigned value, counter pulses (0..255)
857	0-10V,CH0	Store scene	1 byte	C	-	W	-	-	8-bit unsigned value, counter pulses (0..255)

Figure 4. 10-1 "dimming" communication object

serial number	Object capabilities	name	data type	attribute
841	Current switch state	0-10V.X	1bit	C,R,T
This communication object is used to send the current switch state, enabled when the parameter "Status responed of switching state" is selected "YES", the sending method is set by the parameter "Send", and the resulting state value is set by the parameter "Value".				
842	Current brightness value	0-10V.X	1byte	C,R,T
This communication object is used to send the current brightness value, enabled when the parameter "Status response of brightness state" selects "YES", and the sending method is set by the parameter "Send".				
843	Set preset 1 and 2	0-10V.X	1bit	C,W
This communication object is used to set presets 1 and 2, send 00 to the communication object to set preset 1, send 01 set preset 2.				
844	Set preset 3 and 4	0-10V.X	1bit	C,W
This communication object is used to set presets 3 and 4, send 00 to the communication object to set preset 3, send 01 set preset 4.				
845	Call preset 1 and 2	0-10V.X	1bit	C,W
This communication object is used to call presets 1 and 2, to the communication object 00 to call preset 1, to send 01 to call preset 2.				
846	Call preset 3 and 4	0-10V.X	1bit	C,W
This communication object is used to call presets 3 and 4, to the communication object to send 00 to call preset 3, send 01 to call preset 4.				
847	Warning staircase lighting	0-10V.X	1bit	C,T
This communication object is used to issue stair light warning data, and the data emitted is related to the parameter "Send value" setting under the parameter "Warning during dimming				

down" and selecting "YES".				
848	Activate staircase function	0-10V.X	1bit	C,R,W
This communication object is used to activate the stair light function, to the communication object to send 01 to activate the stair light function, send 00 does not activate the stair light function.				
849	Permanent ON	0-10V.X	1bit	C,W
This communication object is used to enter the permanent opening function, send 01 to the communication object to enter the permanent opening function, and send 00 does not enter the permanent opening function.				
850	Duration of staircase lighting	0-10V.X	2byte	C,W
This communication object is used to modify the absolute dimming time.				
851	Switch	0-10V.X	1bit	C,W
This communication object is used to change the state of the switch, to the communication object "Switch" send 01 indicator light on, send 00 indicator light off.				
852	Dimming time of relative	0-10V.X	2byte	C,R,W
This communication object is used to modify the relative dimming time.				
853	Relative dimming	0-10V.X	4bit	C,W
This communication object changes the brightness value by relative dimming.				
854	Dimming time of absolute	0-10V.X	2byte	C,R,W
This communication object is used to modify the delay time of the stair light.				
855	Brightness value	0-10V.X	1byte	C,W
This communication object is to change the brightness value by absolute dimming.				
856	Call scene	0-10V.X	1byte	C,W
This communication object is used to call the scene, send the communication object the corresponding scene number minus 1 in the parameter "Scene number 1...64" setting to enter the scene.				
857	Store scene	0-10V.X	1byte	C,W
This communication object is used to save the scene, the communication object is up to 1 + scene number minus 1 to save the scene, such as the scene number of scene 1 is 1, then write 0x80, save the current brightness value to scene 1.				

Table 10-1 Dimming communication objects

4.11 "Key page block" communication object

4.11.1 "dimming" communication object

Each module's Dimmer function has the same communication object, taking the dimming communication object of the first module on page 1 as an example, there are a total of 10 communication objects, as shown in Figure 4.11.1-1, the specific functions are shown in Table 11.1

-1。

24	Page 1 area 1.Input Key	Feedback ON/OFF for short Key	1 bit	C	R	W	-	-	1-bit, switch	低
25	Page 1 area 1.Output Key	Dimmer ON/OFF for short Key	1 bit	C	-	-	T	-	1-bit, switch	低
26	Page 1 area 1.Output Key	Dimmer value Key	1 byte	C	-	-	T	-	8-bit unsigned value, percentage (0..100%)	低
30	Page 1 area 1.Input Key	Feedback of dimmer Key	1 byte	C	R	W	-	-	8-bit unsigned value, percentage (0..100%)	低
26	Page 1 area 1.Output Key	RGB Control	3 bytes	C	-	-	T	-	3-byte colour RGB, RGB value 3x(0..255)	低
27	Page 1 area 1.Input Key	RGB feedback	3 bytes	C	R	W	-	-	3-byte colour RGB, RGB value 3x(0..255)	低
26	Page 1 area 1.Output Key	RGB R	1 byte	C	R	W	T	-	8-bit unsigned value, percentage (0..100%)	低
27	Page 1 area 1.Output Key	RGB G	1 byte	C	R	W	T	-	8-bit unsigned value, percentage (0..100%)	低
28	Page 1 area 1.Output Key	RGB B	1 byte	C	R	W	T	-	8-bit unsigned value, percentage (0..100%)	低
27	Page 1 area 1.Output Key	CT Control	2 bytes	C	-	-	T	-	2-byte unsigned value, pulses	低
28	Page 1 area 1.Input Key	CT Feedback	2 bytes	C	R	W	-	-	2-byte unsigned value, pulses	低

Figure 4.11.1-1 dimming communication object

serial number	Object capabilities	name	data type	attribute
24	Feedback ON/OFF for short	Input	1bit	C,R,W
This communication object is used to receive the feedback value of the dimmer switch.				
25	Dimming ON/OFF for short	Output	1bit	C,T
This communication object functions when switching the dimming function, and the output value is determined by the parameter "value of dimming on/off is".				
26	Dimmer value	Output	1bperform	C,T
This communication object acts when adjusting the brightness value and is used to send the current dimming value to the bus.				
26	RGB control	Output	3byte	C,T
27	RGB feedback	Input	3byte	C,R,W
These two communication objects appear when the parameter "dimming type" selects RGB and the parameter "RGB object type" selects 3bytes, which is used to send or receive R GB brightness value.				
26	RGB	Output	1bperform	C,R,W,T
27	RGB G	Output	1bperform	C,R,W,T
28	RGB B	Output	1bperform	C,R,W,T
These 3 communication objects choose RGB in the parameter "dimming type", and the parameter "RGB object type" choose 1byte occurs when used to send or receive R, G, B brightness values.				
27	CT Control	Output	2bperform	C,T
28	CT Feedback	Input	2bperform	C,R,W
These two communication objects appear when the parameter "dimming type" selects CT and is used to send or receive color temperature values.				
30	Feedback of dimmer	Input	1bperform	C,R,W
The dimming value can be modified through this communication object.				

Table 11.1-1 Dimming Communication Objects Table

4.11.2 "shutter" communication object

The shutter function of each module has the same communication object, taking the curtain communication object of the first module on page 1 as an example, there are 6 communication objects, as shown in Figure 4.11.2-1.

25	Page 1 area 1.Output/Input Key	Move shutter Key	1 bit	C	-	W	T	-	1-bit, up/down	低
26	Page 1 area 1.Output/Input Key	Adjust lamella of shutter Key	1 bit	C	-	W	T	-	1-bit, step	低
27	Page 1 area 1.Output Key	shutter height value	1 byte	C	R	-	T	-	8-bit unsigned value, percentage (0..100%)	低
28	Page 1 area 1.Input Key	shutter height feedback	1 byte	C	R	W	T	-	8-bit unsigned value, percentage (0..100%)	低
29	Page 1 area 1.Output Key	shutter slat value	1 byte	C	R	-	T	-	8-bit unsigned value, percentage (0..100%)	低
30	Page 1 area 1.Input Key	shutter slat feedback	1 byte	C	R	W	T	-	8-bit unsigned value, percentage (0..100%)	低

Figure 4.11.2-1 Shutter communication object

serial number	Object capabilities	name	data type	attribute
25	Move shutter	Output	1bit	C,W,T
This communication object acts when moving the curtain, and the output value is determined by the parameter "Direction of shutter move is".				
26	Adjust lamella of shutter	Output	1bit	C,W,T
This communication object works when adjusting the curtain angle, and the output value is determined by the parameter "Adjust lamella value setting".				
27	shutter Height value	Output	1byte	C,R,T
Use this object to control the height of the curtains.				
28	shutter Height Feedback	Input	1byte	C,R,W,T
Curtain height feedback object.				
29	shutter Slat value	Output	1byte	C,R,T
Adjust the curtain angle through this object.				
30	shutter Slat Feedback	Input	1byte	C,R,W,T
Curtain angle feedback object.				

4.11.3 "scene" communication object

The scene communication object of the first module on page 1 is taken as an example, there are 3 communication objects, as shown in Figure 4.11.3-1, and the specific functions are shown in Table 11.3 -1。

25	Page 1 area 1.Output Key	Save scene 1 byte Key	1 byte	C	-	-	T	-	scene control, scene control	低
26	Page 1 area 1.Output Key	Call scene(1..64)Key	1 byte	C	-	W	T	-	scene control, scene control	低
30	Page 1 area 1.Input Key	Feedback of scene Key	1 byte	C	R	W	-	-	scene number, scene number	低

Figure 4.11.3-1 Scene communication object

serial number	Object capabilities	name	data type	attribute
25	Save scene 1 byte	Output	1byte	C,T
This communication object is activated when the long press save function is enabled in the scene, and the long press of the output message value 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)	Output	1bperform	C,W,T
This communication object functions under the scene's short press function, which is set by the parameter by pressing the output scene number.				
30	Feedback of scene	Input	1byte	C,R,W
This communication object is the feedback value of the scene function, and the message value written needs to be minus 1 of the scene number.				

Table 11.3-1 Scene Communication Objects Table

4.11.4 "switch value" communication object

The switch value function of each module has the same communication object, taking the opening and closing communication object of the first module on page 1 as an example, there are a total of 5 communication objects, as shown in Figure 4.10-1, the specific functions are shown in Table 10 -1。

25	Page 1 area 1.Output Key	Output 1 bit value.No1	1 bit	C	-	W	T	-	1-bit, switch	低
26	Page 1 area 1.Output Key	Output 1 bit value.No2	1 bit	C	-	W	T	-	1-bit, switch	低
27	Page 1 area 1.Output Key	Output 1 bit value.No3	1 bit	C	-	W	T	-	1-bit, switch	低
28	Page 1 area 1.Output Key	Output 1 bit value.No4	1 bit	C	-	W	T	-	1-bit, switch	低
29	Page 1 area 1.Output Key	Output 1 bit value.No5	1 bit	C	-	W	T	-	1-bit, switch	低

Figure 4.11.4-1 Switch value communication object

serial number	Object capabilities	name	data type	attribute
25	Output 1bit/4bit/1byte value. No1	Output	1bit/4bit/1byte	C,W,T
This communication object is activated when the module selects switch value, press the module, the output message value is set by the parameter, the data type can be set by the parameter "If 1st/2nd press telegram is" to 1bit or 4bit or 1Byte.				
26	Output 1bit/4bit/1byte value. No2	Output	1bit/4bit/1byte	C,W,T
Reference to the communication object "Output 1bit/4bit/1byte value. No1”				
27	Output 1bit/4bit/1byte value. No3	Output	1bit/4bit/1byte	C,W,T
Reference to the communication object "Output 1bit/4bit/1byte value. No1”				
28	Output 1bit/4bit/1byte value. No4	Output	1bit/4bit/1byte	C,W,T
Reference to the communication object "Output 1bit/4bit/1byte value. No1”				
29	Output 1bit/4bit/1byte value. No5	Output	1bit/4bit/1byte	C,W,T
Reference to the communication object "Output 1bit/4bit/1byte value. No1”				

Table 11.4-1 Switch Value Communication Object Table

4.11.5 "Environmental detection display" communication objects

Display module can display: temperature, humidity, VOC, CO2, CO, etc., each module has the same communication object, to the first 1 The communication object of the first module of page 1 is an example, as shown in Figure 4.11.5-1, and the specific functions are shown in Table 11.5-1.

27	Page 1 area 1.Output Key	Falling. 1 bit Key	1 bit	C	R	-	T	-	1-bit, switch	低
28	Page 1 area 1.Output Key	Middle. 1 bit Key	1 bit	C	R	-	T	-	1-bit, switch	低
29	Page 1 area 1.Output Key	Beyond. 1 bit Key	1 bit	C	R	-	T	-	1-bit, switch	低
30	Page 1 area 1.Input Key	Temperature value Key	2 bytes	C	R	W	-	-	2-byte float value, temperature (°C)	低
30	Page 1 area 1.Input Key	Humidity value Key	2 bytes	C	R	W	-	-	2-byte float value, humidity (%)	低
30	Page 1 area 1.Input Key	Gas value Key	2 bytes	C	R	W	-	-	2-byte float value, parts/million (ppm)	低

Figure 4.11.5-1 display communication object

<table>
<tr><td>serial number</td><td>Object capabilities</td><td>name</td><td>data type</td><td>attribute</td></tr>
<tr><td>27</td><td>Falling.1bit/4bit/1byte</td><td>Output</td><td>1bit/4bit/1byte</td><td>C,R, T</td></tr>
<tr><td colspan="5">The communication object appears when activating the alarm message, when the gas value falls below the minimum alarm threshold, the communication object issues an alarm message, and the message value is set by the parameter "--Value set is".</td></tr>
<tr><td>28</td><td>Middle.1bit/4bit/1byte</td><td>Output</td><td>1bit/4bit/1byte</td><td>C,R, T</td></tr>
<tr><td colspan="5">Parameter "—threshold behaviour" selects "with hysteresis" when the communication object is activated, when the gas value is between the lowest alarm threshold and the highest alarm threshold, the communication object issues a warning message, and the message value is determined by the parameter The "--Value set is" setting.</td></tr>
<tr><td>29</td><td>Beyond.1bit/4bit/1byte</td><td>Output</td><td>1bit/4bit/1byte</td><td>C,R, T</td></tr>
<tr><td colspan="5">The communication object appears when activating the alarm message, when the gas value is higher than the maximum alarm threshold, the communication object issues a warning message, and the message value is set by the parameter "--Value set is".</td></tr>
<tr><td rowspan="3">30</td><td>Temperature value</td><td rowspan="3">Intput</td><td rowspan="3">2bytes</td><td rowspan="3">C,R,W</td></tr>
<tr><td>Humifity value</td></tr>
<tr><td>Gas value</td></tr>
<tr><td colspan="5">The communication object "Temperature value" selects "Temperature" in the parameter "display picture set", and the parameter "Data" sources" occurs when external is selected, which is the same as receiving external incoming temperature values;
The communication object "Humifity value" selects "Humifity" in the parameter "display picture set", and the parameter "Data sources" is selected "Appears when external is selected, the same as receiving external incoming humidity values;
Communication object "Gas value" in the parameter "display picture set" select "VOC/ CO2/ CO/ User defined", this communication object is used to receive externally detected VOC/CO2/CO gas values.</td></tr>
</table>

Table 11.5-1 Display Communication Objects Table

4.11. 6 "character" communication object

25	Page 1 area 1.Input Key	Character	14 bytes	C	R	W	-	-	character string, Character String (ASCII)	低
25	Page 1 area 1.Input Key	1 bit Value	1 bit	C	R	W	-	-	1-bit, switch	低

numbering	function	The name of the communication object	data type	attribute
25	Character	Intput	14byte	C,R,W
This communication object is used to write the text content of the text module.				
25	1bit/4bit/1byte/2byte value	Intput	1bit/4bit/1byte/2byte	C,R,W
This communication object can be used to write data from a text module.				

4.11. 7 "time" communication object

25	Page 1 area 1.Input Key	Time	3 bytes	C	R	W	-	-	time, time of day	低
26	Page 1 area 1.Input Key	Date	3 bytes	C	R	W	-	-	date, date	低

numbering	function	The name of the communication object	data type	attribute
25	My T	Intput	3byte	C,R,W
This communication object is used to modify the time of the timing module.				
22	Date	Intput	3byte	C,R,W
This communication object can be used to modify the date of the timing module.				

4.11. 8 "switch" communication object

25	Page 1 area 1.Output Key	Output Switch No.1	1 bit	C	-	W	T	-	1-bit, switch	低
26	Page 1 area 1.Output Key	Output Switch No.2	1 bit	C	-	W	T	-	1-bit, switch	低
27	Page 1 area 1.Input Key	Feedback of Switch Key	1 bit	C	-	W	-	U	1-bit, switch	低

numbering	function	The name of the communication object	data type	attribute
25	Switch,No.1	Output	1bit	C,W,T
This communication object is the function under the switch of the key selection, and the specific output of the key is set by parameters.				
26	Switch,No.2	Theutput	1bit	C,W,T

This communication object is enabled when "teleg. toggle(No.1/No.2)" is selected for the parameter "Switch mode is", and the specific output of the key is set by parameter.				
27	Feedback of Switch	Iutput	1bit	C,W,U
This communication object is the feedback value of the switch button.				

4.12 "Music" communication objects

775	Music function	Move previous/next.CH1	1 bit	C	-	-	T	-	1-bit, up/down	低
776	Music function	volume control.CH1	1 byte	C	-	-	T	-	8-bit unsigned value, percentage (0..100%)	低
777	Music function	volume feedback.CH1	1 byte	C	R	W	-	-	8-bit unsigned value, percentage (0..100%)	低
778	Music function	Play state control.CH1	1 bit	C	-	-	T	-	1-bit, start/stop	低
779	Music function	Play state feedback.CH1	1 bit	C	R	W	-	-	1-bit, start/stop	低
780	Music function	Mute control.CH1	1 bit	C	-	-	T	-	1-bit, enable	低
781	Music function	Mute feedback.CH1	1 bit	C	R	W	-	-	1-bit, enable	低
782	Music function	Music source.CH1	1 byte	C	-	-	T	-	8-bit unsigned value, percentage (0..100%)	低
783	Music function	Mode feedback.CH1	1 byte	C	R	W	-	-	8-bit unsigned value, percentage (0..100%)	低
784	Music function	Music volume+/volume-.CH1	1 bit	C	-	-	T	-	1-bit, step	低

serial number	Object capabilities	name	data type	attribute
775	Move previous/next. CH1	Music function	1bit	C,T
This communication object is used to transmit the setting values of the previous/next song, switching to the previous song to issue 1 or 0 by the parameter "Move previous and move next set"				
776	volume control. CH1	Music function	1byte	C,R,T
This communication object is used to transmit volume values.				
777	volume feedback. CH1	Music function	1byte	C,R,W
The volume value can be modified through this communication object.				
778	Play state control. CH1	Music function	1bit	C,T
This communication object is used to transmit the music playback status control value, and the output value is related to the parameter "play control value set".				
779	Play state feedback. CH1	Music function	1bit	C,R,W,T,U
Through this communication object, the playback state of the music can be modified, and the value sent to set the playback state of the music to pause is determined by the parameter "play feedback value set".				
780	Mute control. CH1	Music function	1bit	C,T
This communication object is used to transmit the control values of the music mute mode, and the output values are related to the parameter "mute control value set".				
781	Mute feedback. CH1	Music function	1bit	C,R,W,T,U
The mute mode of the music is modified through this communication object, and what value is sent into the mute mode is determined by the parameter "mute feedback value set".				
782	Music source. CH1	Music function	1byte	C,T
This communication object is used to transmit the music source, and what message value represents which source is set by the parameter "local/Bluetooth/network music value setting".				
783	Mode feedback. CH1	Music function	1byte	C,R,W,T,U
The source of the music can be modified through this communication object, and as for which				

message value represents which source, it is set by the parameter "local/Bluetooth/network music value setting".				
784	Music volume+/volume-. CH1	Music function	1bit	C,T
Click the volume +/- button on the music module, and the communication object will emit a volume +/- control value.				

4.13 "Floor heating" communication objects

835	Floor heating	Switch contorl.CH1	1 bit	C	R	-	T	-	1-bit, switch	低
836	Floor heating	Switch feedback.CH1	1 bit	C	R	W	-	-	1-bit, switch	低
837	Floor heating	Switch remote.CH1	1 bit	C	R	W	-	-	1-bit, switch	低
838	Floor heating	External current temperature.CH1	2 bytes	C	R	W	-	-	2-byte float value, temperature (°C)	低
839	Floor heating	Automatic function active.CH1	1 bit	C	R	W	-	-	1-bit, enable	低
840	Floor heating	Control actuator/1 bit.CH1	1 bit	C	R	-	T	-	1-bit, switch	低
841	Floor heating	Set temperature.CH1	2 bytes	C	R	-	T	-	2-byte float value, temperature (°C)	低
842	Floor heating	Set temperature feedback.CH1	2 bytes	C	R	W	-	-	2-byte float value, temperature (°C)	低
843	Floor heating	Set temperature remote.CH1	2 bytes	C	R	W	-	-	2-byte float value, temperature (°C)	低
844	Floor heating	Minimum set temperature.CH1	2 bytes	C	R	W	-	-	2-byte float value, temperature (°C)	低
845	Floor heating	Maximum set temperature.CH1	2 bytes	C	R	W	-	-	2-byte float value, temperature (°C)	低
846	Floor heating	Active.CH1	1 bit	C	R	W	-	-	1-bit, enable	低

serial number	Object capabilities	name	data type	attribute
835	Switch contorl	Floor heating	1bit	C,R,T
Through this communication object, the switching state of the floor heating is transmitted to the bus.				
836	Switch feedback	Floor heating	1bit	C,R,W
The communication object is used to feedback the state of the switch back to the floor heating.				
837	Switch remote	Floor heating	2byte	C,R,W
The floor heating is switched on and off remotely through this communication object.				
838	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.				
839	Automatic function active	Floor heating	1bit	C,R,W
The automatic function of underfloor heating can be turned on or disabled through this communication object.				
840	Control actuator/1 bit	Floor heating	2byte	C,R,T
This communication object is enabled when the parameter "Thermostat control Actuator" is selected and is used to transmit the setting values of the parameters "--Switch ON value" and the parameter "--Switch OFF value" to the bus.				
841	Set temperature	Floor heating	2byte	C,R,T
The set temperature of the floor heating is transmitted to the bus through this communication object.				
842	Set temperature feedback	Floor heating	2byte	C,R,W,T,U
The communication object is used to feedback the set temperature back to the floor heating.				
843	Set temperature remote	Floor heating	2byte	C,R,W

The setting temperature of the floor heating can be changed remotely through this communication object.				
844	Minimum set temperature	Floor heating	2byte	C,R,W
Through this communication object, the minimum temperature value of the set temperature of the floor heating is modified.				
845	Maximum set temperature	Floor heating	2byte	C,R,W
Through this communication object, the maximum temperature value of the set temperature of the floor heating is modified.				
846	Active	Floor heating	1bit	C,R,W
Through this communication object, the floor heating function can be activated or disabled.				

4.14 "Fresh air" communication object

955	Fresh air	Switch.CH1	1 bit	C	R	-	T	-	1-bit, switch	低
956	Fresh air	Switch.Feedback.CH1	1 bit	C	R	W	-	-	1-bit, switch	低
957	Fresh air	Switch.Remote.CH1	1 bit	C	-	W	-	-	1-bit, switch	低
958	Fresh air	Mode.CH1	1 bit	C	R	-	T	-	1-bit, switch	低
959	Fresh air	Mode.Feedback.CH1	1 bit	C	R	W	-	-	1-bit, switch	低
960	Fresh air	Mode.Remote.CH1	1 bit	C	-	W	-	-	1-bit, switch	低
961	Fresh air	Speed.CH1	1 byte	C	R	-	T	-	8-bit unsigned value, percentage (0..100%)	低
962	Fresh air	Speed.Feedback.CH1	1 byte	C	R	W	-	-	8-bit unsigned value, percentage (0..100%)	低
963	Fresh air	Speed.Remote.CH1	1 byte	C	-	W	-	-	8-bit unsigned value, percentage (0..100%)	低
964	Fresh air	Active.CH1	1 bit	C	R	W	-	-	1-bit, enable	低

serial number	Object capabilities	name	data type	attribute
955	Switch	Fresh air	1bit/1byte	C,T
The communication object is visible when the parameter "Switch set" is selected "activated", and the communication object emits a message value to report the switching status of the fresh air function when the fresh air is turned on by pressing a button or a remote object.				
956	Switch, feedback	Fresh air	1bit/1byte	C,R,W
This communication object is visible when the parameter "Switch set" is selected and is used to receive messages from external device feedback to turn on or off the fresh air function.				
957	Switch， remote	Fresh air	1bit/1byte	C,W
This communication object is visible when the parameter "Switch set" is selected and is used to remotely turn on or off the fresh air function.				
958	Mode	Fresh air	1bit	C,T
The communication object is enabled when the parameter "Mode set" is selected "activated", and when the communication object switches the fresh air mode by pressing a button or a remote object, the communication object emits a message value to report the current mode of the fresh air.				
959	Mode,feedback	Fresh air	1bit	C,R,W
The communication object is enabled when the parameter "Mode set" is selected, through which the object receives packets from external device feedback to switch the fresh air mode, as to whether the message received by the communication object is 0 to switch to manual mode or automatic mode, it is determined by the parameter "—auto speed (feedback). "Decide.				
960	Mode,remote	Fresh air	1bit	C,W

The communication object is enabled when the parameter "Mode set" is selected to remotely switch to fresh air mode, as to whether the message 0 sent to this communication object is switched to manual mode or automatic mode, it is determined by the parameter "-auto speed (remote)"				
961	Speed	Fresh air	1byte	C,T
The communication object is valid when "activated" is selected in the parameter "Speed off/1/2/3/4/5", and the communication object sends a message value to report the current wind speed when the wind speed is modified in manual mode of the fresh air function by pressing a key or a remote object.				
962	Speed,feedback	Fresh air	1byte	C,R,W
This communication object is valid when "activated" is selected in the parameter "Speed off/1/2/3/4/5" and is used to receive packets of feedback from external devices to modify the wind speed in manual mode of the fresh air function.				
963	Speed,remote	Fresh air	1byte	C,W
This communication object is valid when "activated" is selected in the parameter "Speed off/1/2/3/4/5" and is used to remotely modify the wind speed in manual mode of the fresh air function.				
964	Active	Fresh air	1bit	C,R,W
This communication object appears when the parameter "Fresh air function" selects "activated" to enable or disable the fresh air function, send a message 1 to the communication object to enable the fresh air function, send a message 0 to disable the fresh air function.				

4.15 "Logic" communication objects

4.1 5.1 "AND/OR/XOR" communication object

1055	Logic.CH1	Input a	1 bit	C	-	W	-	U	1-bit, switch	低
1056	Logic.CH1	Input b	1 bit	C	-	W	-	U	1-bit, switch	低
1057	Logic.CH1	Input c	1 bit	C	-	W	-	U	1-bit, switch	低
1058	Logic.CH1	Input d	1 bit	C	-	W	-	U	1-bit, switch	低
1059	Logic.CH1	Input e	1 bit	C	-	W	-	U	1-bit, switch	低
1060	Logic.CH1	Input f	1 bit	C	-	W	-	U	1-bit, switch	低
1061	Logic.CH1	Input g	1 bit	C	-	W	-	U	1-bit, switch	低
1062	Logic.CH1	Input h	1 bit	C	-	W	-	U	1-bit, switch	低
1063	Logic.CH1	Output result	1 bit	C	-	-	T	-	1-bit, switch	低

serial number	Object capabilities	name	data type	attribute
1055~1062	Input a~h	Logic	1bit	C,W,U
These 8 communication objects correspond to the 8 inputs of the gate / or gate / Xor gate, which is used to receive the value of the logic input Input x.				
1063	Output result	Logic	1bit	C,T
This communication object is used to send the results of logical operations.				

4.15. 2 "Gate forwarding" communication object

1055	Logic.CH1	Gate value select	1 byte	C	-	W	-	-	scene number, scene number	低
1056	Logic.CH1	Input A	1 bit	C	-	W	-	-	1-bit, switch	低
1057	Logic.CH1	Input B	1 bit	C	-	W	-	-	1-bit, switch	低
1058	Logic.CH1	Input C	1 bit	C	-	W	-	-	1-bit, switch	低
1059	Logic.CH1	Input D	1 bit	C	-	W	-	-	1-bit, switch	低
1060	Logic.CH1	Output A	1 bit	C	-	-	T	-	1-bit, switch	低
1061	Logic.CH1	Output B	1 bit	C	-	-	T	-	1-bit, switch	低
1062	Logic.CH1	Output C	1 bit	C	-	-	T	-	1-bit, switch	低
1063	Logic.CH1	Output D	1 bit	C	-	-	T	-	1-bit, switch	低

serial number	Object capabilities	name	data type	attribute
1055	Gate value select	Logic	1byte	C,W
This communication object is used to select the scenario of logical gate forwarding.				
1056~1059	Input X(X=A... D)	Logic	1bit/4bit/1byte	C,W
This communication object is used to receive the value of the logical gate input Input X.				
1060~1063	Output X(X=A... D)	Logic	1bit/4bit/1byte	C,T
This communication object is used to output the value after the logic gate forwards. The output value is the same as the input value, but an input can be forwarded into one or more outputs, set by parameters.				

4.15. 3 "Threshold comparator" communication object

1055	Logic.CH1	Threshold value input	4 bit	C	-	W	-	U	3-bit controlled, dimming control	低
1056	Logic.CH1	Output result	1 bit	C	-	-	T	-	1-bit, switch	低

serial number	Object capabilities	name	data type	attribute
1055	Threshold value input	Logic	4bit/1byte/2byte/4byte	C,W,U
This communication object is used to enter the threshold.				
1056	Output result	Logic	1bit	C,T
This communication object is used to send the results of logical operations. That is, the value that should be sent after the object input threshold is compared with the parameter setting threshold.				

4.15. 4 "Format convert" communication object

"2x1bit --> 1x2bit" function: Converts 2 1bit values into a 2bit value, such as Input bit1=1, bit0=0--> Output 2bit=2

1055	Logic.CH1	Input 1bit-bit0	1 bit	C	-	W	-	U	1-bit, switch	低
1056	Logic.CH1	Input 1bit-bit1	1 bit	C	-	W	-	U	1-bit, switch	低
1057	Logic.CH1	Output 2bit	2 bit	C	-	-	T	-	1-bit controlled, switch control	低

"8x1bit --> 1x1byte" function: Converts 8 1bit values into a 1byte value, such as Input bit2=1, bit1=1, bit0=1, other bits are 0--> Output 1byte=7

1055	Logic.CH1	Input 1bit-bit0	1 bit	C	-	W	-	U	1-bit, switch	低
1056	Logic.CH1	Input 1bit-bit1	1 bit	C	-	W	-	U	1-bit, switch	低
1057	Logic.CH1	Input 1bit-bit2	1 bit	C	-	W	-	U	1-bit, switch	低
1058	Logic.CH1	Input 1bit-bit3	1 bit	C	-	W	-	U	1-bit, switch	低
1059	Logic.CH1	Input 1bit-bit4	1 bit	C	-	W	-	U	1-bit, switch	低
1060	Logic.CH1	Input 1bit-bit5	1 bit	C	-	W	-	U	1-bit, switch	低
1061	Logic.CH1	Input 1bit-bit6	1 bit	C	-	W	-	U	1-bit, switch	低
1062	Logic.CH1	Input 1bit-bit7	1 bit	C	-	W	-	U	1-bit, switch	低
1063	Logic.CH1	Output 1byte	1 byte	C	-	-	T	-	8-bit unsigned value, counter pulses (0..255)	低

"1x1byte --> 1x2byte" function: Converts a 1byte value to a 2byte value, such as Input 1byte=125--> Output 2byte=125, although the value is unchanged, but the data type of the value is different

1055	Logic.CH1	Input 1byte	1 byte	C	-	W	-	U	8-bit unsigned value, counter pulses (0..255)	低
1056	Logic.CH1	Output 2byte	2 bytes	C	-	-	T	-	2-byte unsigned value, pulses	低

"2x1byte --> 1x2byte" function: Converts 2 1byte values into a 2byte value, such as Input 1byte-low = 255 ($FF), Input 1byte-high = 100 ($64) --> Output 2byte = 25855 ($64 FF).

1055	Logic.CH1	Input 1byte-low	1 byte	C	-	W	-	U	8-bit unsigned value, counter pulses (0..255)	低
1056	Logic.CH1	Input 1byte-high	1 byte	C	-	W	-	U	8-bit unsigned value, counter pulses (0..255)	低
1057	Logic.CH1	Output 2byte	2 bytes	C	-	-	T	-	2-byte unsigned value, pulses	低

"2x2byte --> 1x4byte" function: Converts 2 2byte values into a 4byte value, such as Input 2byte-low = 65530 ($FF FA), Input 2byte-high = 32768 ($80 00) --> Output 2byte = 2147549178 ($80 00 FF FA).

1055	Logic.CH1	Input 2byte-low	2 bytes	C	-	W	-	U	2-byte unsigned value, pulses	低
1056	Logic.CH1	Input 2byte-high	2 bytes	C	-	W	-	U	2-byte unsigned value, pulses	低
1057	Logic.CH1	Output 4byte	4 bytes	C	-	-	T	-	4-byte unsigned value, counter pulses (unsig...	低

"1x1byte --> 8x1bit" function: Converts 1 1byte value to 8 1bit values, such as Input 1byte=200 --> Output bit0=0, bit1=0, bit2=0, bit3=1, bit4=0, bit5=0, bit6=1, bit7=1

1055	Logic.CH1	Input 1byte	1 byte	C	-	W	-	U	8-bit unsigned value, counter pulses (0..255)	低
1056	Logic.CH1	Output 1bit-bit0	1 bit	C	-	-	T	-	1-bit, switch	低
1057	Logic.CH1	Output 1bit-bit1	1 bit	C	-	-	T	-	1-bit, switch	低
1058	Logic.CH1	Output 1bit-bit2	1 bit	C	-	-	T	-	1-bit, switch	低
1059	Logic.CH1	Output 1bit-bit3	1 bit	C	-	-	T	-	1-bit, switch	低
1060	Logic.CH1	Output 1bit-bit4	1 bit	C	-	-	T	-	1-bit, switch	低
1061	Logic.CH1	Output 1bit-bit5	1 bit	C	-	-	T	-	1-bit, switch	低
1062	Logic.CH1	Output 1bit-bit6	1 bit	C	-	-	T	-	1-bit, switch	低
1063	Logic.CH1	Output 1bit-bit7	1 bit	C	-	-	T	-	1-bit, switch	低

"1x2byte --> 2x1byte" function: Converts 1 2byte value to 2 1byte values, such as Input 2byte = 55500 ($D 8 CC) -->Output 1byte-low = 204 ($CC), Output 1byte-high = 216 ($D 8).

1055	Logic.CH1	Input 2byte	2 bytes	C	-	W	-	U	2-byte unsigned value, pulses	低
1056	Logic.CH1	Output 1byte-low	1 byte	C	-	-	T	-	8-bit unsigned value, counter pulses (0..255)	低
1057	Logic.CH1	Output 1byte-high	1 byte	C	-	-	T	-	8-bit unsigned value, counter pulses (0..255)	低

"1x4byte --> 2x2byte" function: Converts 1 4byte value to 2 2byte values, such as Input 4byte = 78009500 ($04A6 549C) --> Output 2byte-low = 21660 ($54 9C), Output 2byte-high = 1190 ($04A6).

1055	Logic.CH1	Input 4byte	4 bytes	C	-	W	-	U	4-byte unsigned value, counter pulses (unsig...	低
1056	Logic.CH1	Output 2byte-low	2 bytes	C	-	-	T	-	2-byte unsigned value, pulses	低
1057	Logic.CH1	Output 2byte-high	2 bytes	C	-	-	T	-	2-byte unsigned value, pulses	低

"1x3byte --> 3x1byte" function: Converts 1 3byte value to 3 1byte values, such as Input 3byte = $78 64 C8--> Output 1byte-low = 200 ($C 8), Output 1byte-middle = 100 ($64), Output 1byte-high = 120 ($78).

1055	Logic.CH1	Input 3byte	3 bytes	C	-	W	-	U	3-byte colour RGB, RGB value 3x(0..255)	低
1056	Logic.CH1	Output 1byte-low	1 byte	C	-	-	T	-	8-bit unsigned value, counter pulses (0..255)	低
1057	Logic.CH1	Output 1byte-middle	1 byte	C	-	-	T	-	8-bit unsigned value, counter pulses (0..255)	低
1058	Logic.CH1	Output 1byte-high	1 byte	C	-	-	T	-	8-bit unsigned value, counter pulses (0..255)	低

"3x1byte --> 1x3byte" function: Converts three 1byte values to 1 3byte value, such as Input 1byte-low = 150 ($96), Input 1byte-middle = 100 ($64), Input 1byte-high = 50 ($32)--> Output 3byte = $32 64 96

1055	Logic.CH1	Input 1byte-low	1 byte	C	-	W	-	U	8-bit unsigned value, counter pulses (0..255)	低
1056	Logic.CH1	Input 1byte-middle	1 byte	C	-	W	-	U	8-bit unsigned value, counter pulses (0..255)	低
1057	Logic.CH1	Input 1byte-high	1 byte	C	-	W	-	U	8-bit unsigned value, counter pulses (0..255)	低
1058	Logic.CH1	Output 3byte	3 bytes	C	-	-	T	-	3-byte colour RGB, RGB value 3x(0..255)	低

serial number	Object capabilities	name	data type	attribute
/	Input ...	Logic	1bit/1byte/2byte/3byte/4byte	C,W,U
This communication object is used to enter the values that need to be converted.				
/	Output ...	Logic	1bit/2bit/1byte/2byte/3byte/4byte	C,T
This communication object is used to output the converted value.				

4.15. 5 "Event Group" communication objects

1055	Logic.CH1	Input	1 bit	C	-	W	-	-	1-bit, switch		
1056	Logic.CH1	Output 1	1 bit	C	-	-	T	-	1-bit, switch		
1057	Logic.CH1	Output 2	1 bit	C	-	-	T	-	1-bit, switch		
1058	Logic.CH1	Output 3	1 bit	C	-	-	T	-	1-bit, switch		
1059	Logic.CH1	Output 4	1 bit	C	-	-	T	-	1-bit, switch		
1060	Logic.CH1	Output 5	1 bit	C	-	-	T	-	1-bit, switch		
1061	Logic.CH1	Output 6	1 bit	C	-	-	T	-	1-bit, switch		
1062	Logic.CH1	Output 7	1 bit	C	-	-	T	-	1-bit, switch		
1063	Logic.CH1	Output 8	1 bit	C	-	-	T	-	1-bit, switch		

serial number	Object capabilities	name	data type	attribute
1055	Input	Logic	1bit/1byte/2byte	C,W
This communication object is used to receive a valid value, and only when a valid value is received, the output event can be triggered.				
1056~1063	Output 1~8	Logic	1bit/1byte/2byte	C,T
These 8 communication objects are used to send output values.				