

# **Thermostat Control Panel**

# **Product Manual -Ver3.2**

TC0203

TC0303



TC0203



TC0303



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# **1.Overview**

This manual provides you with detailed technical information for the thermostat control panel, including installation and programming details, and explains how to use the thermostat control panel based on examples of practical use. The thermostat control panel can be mounted in a standard 86 bottom box for easy installation and removal. Thermostat control panel can be used to control air conditioners, fan coils, Ventilation System, floor heating, etc. Installed as a system together with other loads via EIB/ KNX bus.

Using the engineering design tool software ETS to set up and operate the entire system.

# **2.Product and Function Overview**

# **2.1 Product Description**

Thermostat control panel is mainly used in building and home control system, installed as a system together with other devices on the bus. And the functions are simple and intuitive to operate, users can plan and systematically execute these functions according to their needs.

Thermostat control panel can be used to control air conditioners, fan coils, Ventilation System, floor heating, etc. Thermostat control panel is a standard 86 bottom box mounting device. It is connected to the EIB / KNX system via the EIB bus and uses the engineering tool ETS software (version ETS4 or higher) for the assignment of physical and group addresses and the setting of parameters

The smart touch screen panel is connected directly to the bus via terminal blocks and requires 24 V DC auxiliary power.

Product name	Product type	Function description	
		(1) The switch and feedback display of the air conditioner;	
		(2) Setting and feedback display of air conditioning mode, including cooling, heating,	
		air supply, dehumidification and other modes;	
	TC0203	(3) Air conditioner wind speed setting and feedback display, the wind speed can be set	
		to low wind speed, medium wind speed, high wind speed;	
		(4) Setting and feedback display of air conditioner temperature;	
		(5) With its own temperature sensor, it supports the display of Celsius and Fahrenheit;	
Thermostat		(6) Control output function with room heating;	
Control Panel		(7) Control output function with fresh air equipment;	
		(8) It can be equipped with proximity sensing function;	
		(9) With background aperture brightness adjustment function;	
	TC0303	(10) Support the function of timing shutdown	
		(11) Support fresh air system, air conditioning system, floor heating system, fan coil	
		control.	
		(12) It can display the temperature and humidity, HCHO (formaldehyde), TVOC, CO2,	
		CO, PM2.5 data transmitted through the KNX bus;	

# 2.2 Function Overview



#### Thermostat Control Panel TC0203/TC0303

Bus voltage	21-30V DC, power from KNX bus
Auxiliary power supply voltage	24 V DC
Bus current	≤12 mA
Bus power	≤ 360mW
Auxiliary current	<45 mA
Auxiliary power supply power	< 1 W
Temperature detection accuracy	±0.5 °C
Operating temperature	-5°+45°C
Storage temperature	-25°+55°C
Transport temperature	-25°+70°C
Relative humidity	max 90%
Shell material	Metal +PC
Dimension (H x W x D)	$86mm \times 86mm \times 48mm$
Weight (approx.)	Approx. 0.1kg
Installation method	86 bottom box

# 4. Dimensional Drawing and Wiring Diagram

### 4.1 Dimensional Drawing









TC0303

# 4.2 Wiring Diagram

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#### TC0203/TC0303 Wiring Diagram

# **5. Product Operating and Installation Instructions**

#### 5.1 Product Operating Instructions

### TC0203



①Description: On/Off button;

②Description: Mode switching button:

(1) Including the cooling mode, heating mode, air supply mode and dehumidification mode of the air conditioner;

(2) Long press this button for 5s to switch the function interface (air conditioning function interface  $\rightarrow$  floor heating function interface  $\rightarrow$  fresh air function interface  $\rightarrow$  air quality display interface);

③Description: Wind speed adjustment button: used to adjust the automatic, high, medium and low gears of the corresponding mode;

④Description: Panel setting buttons:

(1) Short press this button to turn on/off the timer shutdown function;

(2) Long press this button for 5s to enter the time setting of the timer shutdown function, set the time by turning the knob (5), and then press this button (4) to confirm the completion;

(3) Press and hold this button for 10 seconds to enter the panel setting interface, and set the function by rotating the knob (5), the button (1) means return, and the button (4) means confirmation is completed;

⑤Description: temperature adjustment knob/selection knob;

⑥Description: display screen;

⑦Description: Auxiliary power supply terminal;

⑧Description: KNX power supply terminal;



Description: programming indicator light;

(1) Description: 86 bottom box mounting bracket;

# TC0303



Description: On/Off button;

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(3) Press and hold this button for 10 seconds to enter the panel setting interface, and set the function by rotating the knob (5), the button (1) means return, and the button (4) means confirmation is completed;

⑤Description: temperature adjustment knob/selection knob;

⑥Description: display screen;

⑦Description: Auxiliary power supply terminal;

⑧Description: KNX power supply terminal;

@Description: programming button;

Description: programming indicator light;

(1) Description: 86 bottom box mounting bracket;

# **5.2 Product Installation Instructions**

(1) Take off the fixed bracket embedded in the back cover of the knob thermostat panel and install it on the standard 86 bottom box, tighten the screws to fix it

- (2) The knob thermostat panel will be stuck into the good fixing bracket, that means the installation is successful;
- (3) When the panel needs to be removed, gently pry at the notch under the panel.



# **6 Parameter Setting**

The following is an example of setting parameters in ETS5. Open the panel parameter setting interface in ETS5, as shown in Figure 6.1.1.

#### 6.1 General

#### 6.1.1Function

	Air conditioning func select	Disabled	*
General	Floor heating	Disabled      Enabled	
	Ventilation system	O Disabled C Enabled	
	Public function	Disabled Enabled	
	Temperature unit		
	Temperature unit	Celsius Fahrenheit	
	Toggle temperature unit	O Disabled C Enabled	
	Temperature correction		
	Temperature correction for internal	0 degree	•
	Temperature correction for knx bus	0 degree	•
	Advance correction for internal temp	erature	
	Advanced correction for internal temperature	Disabled Interpolation method	
	Internal temperature probe		

Figure6.1.1

Parameter: " Air conditioning func select", user can select the air conditioning functions Options: Disabled; Air conditioning; Fan coil.

#### 6.1.2 Temperature unit

1) Temperature unit, options: Celsius, Fahrenheit.

2) Toggle temperature unit, options: Disabled, Enabled.

When **Enabled** is selected, the parameter "Temperature unit polarity" has following options: "0: Centigrade, 1:Fahrenheit", "0: Fahrenheit, 1: Centigrade".

3) Send toggle temperature unit, options: Disabled, Enabled.

#### 6.1.3 Temperature correction

- 1) Temperature correction for internal, range: -9 degree~9 degree.
- 2) Temperature correction for KNX bus, range: -9 degree~9 degree.

#### 6.1.4 Child lock

Child lock control, when **Enabled** is selected, the following parameter "initial value for child lock" has options: unlock, lock; parameter "child lock polarity" has following options: "0: unlock 1: lock", "0: lock 1: unlock";

#### 6.1.5 Backlight

#### **Backlight settings**

When Enabled is selected, the options in the red box are shown as in Figure 6.1.5.1



1.2.6 Thermostat Control Panel > Thermostat Control Panel > Backlight			
– Thermostat	Backlight mode	🔘 always 🗋 delay	
General	Backlight Brightness	100%	-
Backlight	Overwrite backlight brightness via object	No Yes	
	Key LED		
	Key LED mode	On	•
	Aperture LED		
	[Y][02] Knob aperture mode	On	•
	Color of knob aperture	<ul> <li>Default configuration</li> <li>Custom configuration</li> </ul>	
Parameter Ch	annels / Group Objects /		

Figure 6.1.5.1

Click on the option in the red box below to set the relevant parameters, as shown in Figure 6.1.5.2

– Thermostat	Backlight mode	always delay
General	Backlight brightness when waking up	100%
Backlight	Overwrite waking backlight via object	O No ○ Yes
	Delay time after waking backlight	15 seconds 👻
	Backlight brightness when sleeping	0% 🗸
	Overwrite sleeping backlight via object	◎ No ○ Yes
	Master output for controlling other's backlight	© No ○ Yes
	Radar or proximity sensing	Disabled
	Wake up backlight via object	◎ No ○ Yes
	Output triggering signal for waking backlight	◎ No ○ Yes
	Key LED	
Parameter Ch	Kev LED mode annels Group Objects	On 🗸

Figure 6.1.5.2

Backlight mode has the following options: Always, Delay;

When the parameter **Always** is selected, the following parameters appear:

Parameter	Description	
Backlight brightness	Backlight brightness value, options: 0%, 1%100%	
Overwrite backlight brightness via	Overwrite backlight brightness via object, options: Yes, No.	
object		

When the parameter **Delay** is selected, the following parameters appear.:

Parameter	Description	
Backlight brightness when waking	Backlight brightness when waking up, options: 0%, 1%, 2%100%	



ир			
Overwrite waking backlight via		Overwrite waking backlight via object, options: Yes, No:	
object			
Delay time after waking backlight		Delay time after waking backlight, options: delay according to master device,	
Deallisht haishta		delay according to own radar or IR, 1second, 2seconds120minutes.	
Backlight brightne	ess when sleeping	Backlight brightness when sleeping , options: 0%, 1%100%	
object	ng backlight via	Overwrite sleeping backlight via object , options: Yes, No;	
Master output	for controlling	Mandan and a fan and all the added a back that and the A	
other' s	backlight	Master output for controlling other's backlight, options: Yes, No;	
Radar or pro>	kimity sensing	Radar or proximity sensing, options : Disabled, Enabled; When Enabled is selected, the parameter "Time to detect sensor circularly for output" has following options: only once when triggered, 1second, 2seconds15seconds.	
Wake up back	light via object	Wake up backlight via object, options: Yes, No; When Yes is selected, the parameter "The triggering value for waking backlight" has following options: <b>Off</b> is triggering value, <b>On</b> is triggering value.	
Output triggering back	signal for waking light	Output triggering signal for waking backlight , options: Yes, No; When Yes is selected , the parameter "The triggering value for output" has following options: <b>Off</b> is triggering value, <b>On</b> is triggering value.	
Key LEI	D mode	Key LED mode, options: Associated backlight delay, Off, On;	
	[Y][02] Knob aperture mode	[Y][02] Knob aperture mode, Options: Associated backlight delay, Off, On;	
Aperture LED	Color of knob aperture	Color of knob aperture, options: Default configuration, Custom configuration. When Custom Configuration is selected, the parameters of Aperture color are shown as follows.	
	RGB value for cool mode	Parameter: ① <b>R</b> value of the aperture for cool mode, options: 0, 1, 2255; ② <b>G</b> value of the aperture for cool mode, options: 0, 1, 2255; ③ <b>B</b> value of the aperture for cool mode, options: 0, 1, 2255;	
	RGB value for heat mode	Parameter: ① <b>R</b> value of the aperture for heat mode, options: 0, 1, 2255; ② <b>G</b> value of the aperture for heat mode, options: 0, 1, 2255; ③ <b>B</b> value of the aperture for heat mode, options: 0, 1, 2255;	
Aperture color	RGB value for dry mode	Parameter: ① <b>R</b> value of the aperture for dry mode, options: 0, 1, 2255; ② <b>G</b> value of the aperture for dry mode, options: 0, 1, 2255; ③ <b>B</b> value of the aperture for dry mode, options: 0, 1, 2255;	
	RGB value for vent mode	Parameter: ① <b>R</b> value of the aperture for vent mode, options: 0, 1, 2255; ② <b>G</b> value of the aperture for vent mode, options: 0, 1, 2255; ③ <b>B</b> value of the aperture for vent mode, options: 0, 1, 2255;	
	RGB value for auto mode	Parameter: ① <b>R</b> value of the aperture for cool mode, options: 0, 1, 2255; ② <b>G</b> value of the aperture for cool mode, options: 0, 1, 2255; ③ <b>B</b> value of the aperture for cool mode, options: 0, 1, 2255;	
	RGB value for floor heat	Parameter: ① <b>R</b> value of the aperture for floor mode, options: 0, 1, 2255; ② <b>G</b> value of the aperture for floor mode, options: 0, 1, 2255; ③ <b>B</b> value of the aperture for floor mode, options: 0, 1, 2255;	
	RGB value for	Parameter: ① <b>R</b> value of the aperture for fresh air mode, options: 0, 1, 2255;	



	fresh air	② <b>G</b> value of the aperture for cool mode, options: 0, 1, 2255; ③ <b>B</b> value of
		the aperture for cool mode, options: 0, 1, 2255;
	RGB value for air data	Parameter: ① <b>R</b> value of the aperture for air data, options: 0, 1, 2255; ② <b>G</b>
		value of the aperture for air data, options: 0, 1, 2255; 3B value of the
		aperture for air data, options: 0, 1, 2255;

### 6.2 Air conditioning

When **Air conditioning** is selected for the parameter "Air conditioning func select", the options in the red box appear are shown as in Figure 6.2.1.

ThermostatFunction			
Air conditioning func select	Air conditionting	•	
Air condition	O Disabled C Enabled		
Ventilation system	Disabled Enabled		
Public function	O Disabled C Enabled		
Temperature unit			
Temperature unit	O Celsius O Fahrenheit		
Toggle temperature unit	Disabled Enabled		
Temperature correction			
Temperature correction for internal	0 degree	•	
Temperature correction for knx bus	0 degree	•	
Advance correction for internal temper	Advance correction for internal temperature		
Advanced correction for internal temperature	O Disabled O Interpolation method		
Internal temperature probe			

Figure 6.2.1

Click on the option in the red box below to set the relevant parameters, as shown in Figure 6.2.2

– Thermostat	Switching func.	O Disabled   Enabled
General	Switching polarity	◎ 0:Off, 1:On ◯ 1:Off, 0:On
Air condit	Feedback Polarity	◎ 0:Off, 1:On ◯ 1:Off, 0:On
	Operating mode	Disabled      Enabled
	Fan speed	Disabled      Enabled
	Setting temperature	Disabled      Enabled
	Source for actual temperature	internal value
	Read feedback object at voltage recover	ny ◯ No . ◎ Yes
Group Objects	Channels Parameter	

Figure 6.2.2

1) " Switching func." Switching function, when **Enabled** is selected, the following two parameters appear:



Switching polarit. Options: 0: off, 1: on; 1: off, 0: on; Feedback polarity. Options: 0: off, 1: on; 1: off, 0: on

2) Operating mode, when **Enabled** is selected, the options in the red box as in Figure 6.2.3 appear.

- Thermostat Control Panel	Switching func.	Obisabled Obisabled
General	Switching polarity	O:Off, 1:On ○ 1:Off, 0:On
Air conditioning	Feedback Polarity	O:Off, 1:On ○ 1:Off, 0:On
AC:Operating mode	Operating mode	O Disabled O Enabled
	Fan speed	Disabled Enabled
	Setting temperature	O Disabled
	Source for actual temperature	◎ internal value ○ external knx bus
	Read feedback object at voltage recover	y No Ves
Group Objects / Channels	Parameter	

Figure 6.2.3

Click on the option in the red box below to set the relevant parameters, as shown in Figure 6.2.4

- Thermostat Control Panel	Heating mode		
General	Heating mode	O Disabled O Enabled	
Air conditioning	Heating value	1	* *
AC:Operating mode	Heating value for feedback	1	* *
	Cooling mode		
	Cooling mode	O Disabled O Enabled	
	Cooling value	2	* *
	Cooling value for feedback	2	* *
	Venting mode		
	Venting mode	O Disabled O Enabled	
	Venting value	3	*
	Venting value for feedback	3	*
	Drying mode		
	Drying mode	O Disabled O Enabled	
Group Objects Channels	Parameter		

Figure 6.2.4

Parameter		Description
Heating mode, Options: Disabled,	Heating value	Heating mode sending values, range:
Enabled; when <b>Enabled</b> is selected:		0-255;
	Heating value for feedback	Heating value for feedback, range: 0-
		255;
Cooling mode, Options: Disabled,	Cooling value	Cooling value, range: 0-255;
Enabled; when <b>Enabled</b> is selected:	Cooling value for feedback	Cooling value for feedback, range: 0-



		255;
Venting mode, Options: Disabled,	Venting value	Venting value, range: 0-255;
Enabled; when <b>Enabled</b> is selected:	Venting value for feedback	Venting value for feedback, range: 0-
		255;
Drying mode, Options: Disabled,	Drying value	Drying value, range: 0-255;
Enabled; when <b>Enabled</b> is selected:	Drying value for feedback	Drying value for feedback, range: 0-
		255;
Automatic mode, Options: Disabled,	Automatic value	Automatic value, range: 0-255;
Enabled; when <b>Enabled</b> is selected:	Automatic value for feedback	Automatic value for feedback, range:
		0-255;

3) When **Enabled** is selected for Fan speed, the options in the red box are shown as in Figure 6.2.5.

-	Thermostat Control Panel	Switching func.	O Disabled
	General	Operating mode	O Disabled O Enabled
	Air conditioning	Fan speed	O Disabled O Enabled
	AC:Operating mode	Setting temperature	Disabled      Enabled
	AC:Fan speed	Source for actual temperature	◎ internal value ○ external knx bus
		Read feedback object at voltage recover	y No 🔘 Yes
Gro	oup Objects Channels	Parameter	

Figure 6.2.5

Click the option in the red box below to set the relevant parameters, as shown in Figure 6.2.6

.6 Thermostat Control Pa	anel > Thermostat Control Panel > A	C:Fan speed	
Thermostat Control Panel	Fan speed level	Level 3	-
General	Low speed value	1	÷
Air conditioning	Middle speed value	2	* *
AC:Operating mode	High speed value	3	* *
AC:Fan speed	Low speed value for feedback	1	* *
	Middle speed value for feedback	2	÷
	High speed value for feedback	3	÷
un Objects Channels	Parameter		

Figure 6.2.6



# Parameter: Fan speed level Options: Level 2; Level 3; Level 5

When Level 2 is selected, the following parameters appear

Parameter	Description
Low speed value	Low speed value, range: 0-255;
High speed value	High speed value, range: 0-255;
Low speed value for feedback	Low speed value for feedback, range: 0-255;
High speed value for feedback	High speed value for feedback, range: 0-255;

When Level 3 is selected, the following parameters appear

Parameter	Description
Low speed value	Low speed value, range: 0-255;
Middle speed value	Middle speed value, range: 0-255;
High speed value	High speed value, range: 0-255;
Low speed value for feedback	Low speed value for feedback, range: 0-255;
Middle speed value for feedback	Middle speed value for feedback, range:
High speed value for feedback	High speed value for feedback, range: 0-255;

When Level 5 is selected, the following parameters appear

Parameter	Description
Value for speed level 1	Value for speed level 1, range: 0-255;
Value for speed level 2	Value for speed level 2, range: 0-255;
Value for speed level 3	Value for speed level 3, range: 0-255;
Value for speed level 4	Value for speed level 4, range: 0-255;
Value for speed level 5	Value for speed level 5, range: 0-255;
Value for speed level 1 for feedback	Value for speed level 1 for feedback, range: 0-255;
Value for speed level 2 for feedback	Value for speed level 2 for feedback, range: 0-255;
Value for speed level 3 for feedback	Value for speed level 3 for feedback, range: 0-255;
Value for speed level 4 for feedback	Value for speed level 4 for feedback, range: 0-255
Value for speed level 5 for feedback	Value for speed level 5 for feedback, range: 0-255;

4) Setting temperature, options: Disabled, Enabled, Setting range 16°C-30°C Source for actual temperature, options: internal value, external KNX bus

5) Read feedback object at voltage recovery, options: Yes, No

# 6.3 Fan coil

When **Fan coil** is selected for the parameter "Air conditioning func select", the options in the red box appear are shown as in Figure 6.3.1.



Thermostat Control Panel	Function		
Conoral	Air conditioning func select	Fan coil	•
General Fan coil	Floor heating	O Disabled C Enabled	
Fan Coll	Ventilation system	O Disabled C Enabled	
	Public function	Disabled Enabled	
	Temperature unit		
	Temperature unit	O Celsius O Fahrenheit	
	Toggle temperature unit	O Disabled C Enabled	
	Temperature correction		
	Temperature correction for internal	0 degree	•
	Temperature correction for knx bus	0 degree	•
	Advance correction for internal temperature		
	Advanced correction for internal temperature	Disabled Interpolation method	
	Internal temperature probe		

Figure 6.3.1

Click on the option in the red box below to set the relevant parameters, as shown in Figure 6.3.2

<ul> <li>Thermostat Control Panel</li> </ul>	Cooling control		
General	Cooling control	O Disabled	
Fan coil	Heating control		
	Heating control	O Disabled  Enabled	
	Fan speed control		
	Fan speed control	Disabled	•
	Temperature		
	Source for actual temperature	internal value	
	Temperature hysteresis[030]*0.1°C	5	* *
	Recv and send setting		
	Option for setting	Disabled	•
	Setting mode		
	Recv setting mode	O Disabled C Enabled	
	Send setting mode	Disabled Enabled	
Group Objects Channels	Parameter		

Figure6.3.2

#### 1) Cooling control

When  $\ensuremath{\textbf{Enabled}}$  is selected, the following parameters are shown:

Cooling object type, options: 1bit/byte

Cooling control feedback, options: Disabled, Enabled

#### 2) Heating control

When **Enabled** is selected, the following parameters are shown:

Heating object type, options: 1bit/byte

Heating control feedback, options: Disabled, Enabled

#### 3) Fan speed control

Fan speed control Options: Disabled, 1bit, 1byte;

When **1bit** is selected, the "parameter Fan speed feedback" is shown, options: Disabled, Enabled; When**1byte** is selected, the following parameters appear: Value for fan speed 1, options: 0-255; Value for fan



speed 2, options: 0-255; Value for fan speed 3, options: 0-255; Value for fan speed off

#### 4) Temperature

①Parameter "Source for actual temperature" has following options: internal value, External KNX bus.
 ②Temperature hysteresis[0..30]\*0.1, options: 0, 1, 2......30;

Parameter	Description
Option for setting	Option for setting, options: Disabled; Read setting object at voltage recovery;
Option for setting	Send setting as feedback when receiving setting
Recv setting mode	Receive setting mode
Send setting mode	Send setting mode
Heating mode	Heating mode, Options: Disabled, Enabled; When Enabled is selected, the parameter "Value for setting heating" can be filled in 0, 1, 2255;
Cooling mode	Cooling mode, options : Disabled, Enabled; When Enabled is selected, the parameter "Value for setting cooling" can be filled in 0, 1, 2255;
Venting mode	Venting mode, options: Disabled, Enabled; When Enabled is selected, the parameter "Value for venting cooling" can be filled in 0, 1, 2255;
Recv setting fan speed	Receive setting fan speed
Send setting fan speed	Send setting fan speed
Value for setting fan speed low	Value for setting fan speed low, options: 0, 1, 2255;
Value for setting fan speed mid	Value for setting fan speed mid, options: 0, 1, 2255;
Value for setting fan speed high	Value for setting fan speed high, options: 0, 1, 2255;
Value for setting fan speed off	Value for setting fan speed off, options: 0, 1, 2255;
Value for setting fan speed auto	Value for setting fan speed auto, options: 0, 1, 2255;
Recv setting temperature	Receive setting temperature
Send setting temperature	Send setting temperature
Recv setting FCU switch	Receive FCU switch command
Send setting FCU switch	Send FCU switch command or switch status

# 6.4 Floor heating

The parameter Floor heating has the following options: Disabled, Enabled. When **Enabled** is selected for Floor heating, the options in the red box are shown as in Figure 6.4.1.



<ul> <li>Thermostat Control Panel</li> </ul>	Function		
Canand	Air conditioning func select	Disabled	-
Floor heating	Floor heating	Oisabled O Enabled	
	Ventilation system	Disabled Enabled	
	Public function	Disabled Enabled	
	Temperature unit		
	Temperature unit	Celsius Fahrenheit	
	Toggle temperature unit	Disabled Enabled	
	Temperature correction		
	Temperature correction for internal	0 degree	•
	Temperature correction for knx bus	0 degree	•
	Advance correction for internal temp	perature	
	Advanced correction for internal temperature	Disabled Interpolation method	
	Internal temperature probe		
Group Objects / Channels	Parameter		

### Figure6.4.1

Click on the option in the red box below to set the relevant parameters, as shown in Figure 6.4.2

- Thermostat Control Panel	Relay control	
General	Relay switch	Disabled Enabled
Floor heating	Status relay switch	Disabled Enabled
	Temperature	
	Source for actual temperature	internal value  external knx bus
	Temperature hysteresis[030]*0.1°C	5
	Recv and send setting	
	Option for setting	Read setting object at voltage recovery 🔹
	Setting temperature	
	Recv setting temperature	Disabled Enabled
	Send setting temperature	Disabled      Enabled
	Setting function switch	
	Recv setting function switch	Disabled Enabled
	Send setting function switch	Disabled Enabled
Group Objects Channels	Parameter	

Figure 6.4.2

#### 1) Relay control

Relay switch, options: Disabled, Enabled; Status relay switch, options: Disabled, Enabled;

#### 2) Temperature

Source for actual temperature Options: internal value, external KNX bus

#### 3) Recv and send setting

Parameter	Description
Option for setting	Option for setting, options: Disabled; Read setting object at voltage recovery;



	Send setting as feedback when receiving setting.
Recv setting temperature	Receive setting temperature, options: Disabled, Enabled;
Send setting temperature	Send setting temperature, options: Disabled, Enabled;
Recv setting function switch	Receive setting switch command, options: Disabled, Enabled;
Cond cotting function quitch	Send floor heating switch command or switch status, options: Disabled,
Send setting function switch	Enabled;

#### 4) High temperature alarm

Status high temperature alarm, when **Enabled** is selected, the following parameters are shown:

Parameter	Description
Trigger temperature (degree)	Trigger temperature (degree), range: 5-45;
Send value for triggering alarm	Send value for triggering alarm, options: Off, On;
Cycle time for high temperature	Cycle time for high temperature alarm, options: 1second, 2seconds
alarm	120minutes.

### 6.5 Ventilation system

Ventilation system has the following options: Disabled, Enabled. When **Enabled** is selected for Ventilation system, the options in the red box are shown as in Figure 6.5.1.

	Air conditioning func select	Disabled	-
General	Electr heating	Disabled Enabled	
Ventilation system	Floor heating	O Disabled O Enabled	
	Ventilation system	<ul> <li>Disabled</li> <li>Enabled</li> </ul>	
	Public function	Disabled Enabled	
	Temperature unit		
	Temperature unit	Celsius Fahrenheit	
	Toggle temperature unit	O Disabled C Enabled	
	Temperature correction		
	Temperature correction for internal	0 degree	•
	Temperature correction for knx bus	0 degree	•
	Advance correction for internal temp	erature	
	Advanced correction for internal temperature	Disabled Interpolation method	
	Internal temperature probe		

Figure 6.5.1

Click on the option in the red box below to set the relevant parameters, as shown in Figure 6.5.2



<ul> <li>Thermostat Control Panel</li> </ul>	Inlet speed control		
General	Fan speed control for air inlet	1 bit	•
Ventilation system	Fan inlet speed feedback	Disabled Enabled	
	Fan speed control for air outlet	1 bit	•
	Fan outlet speed feedback	Disabled Enabled	
	Recv and send setting		
	Option for setting	Read setting object at voltage recovery	•
	Setting fan speed		
	Recv setting fan inlet speed	O Disabled O Enabled	
	Send setting fan inlet speed	O Disabled O Enabled	
	Recv setting fan outlet speed	Oisabled O Enabled	
	Send setting fan outlet speed	Oisabled O Enabled	
	Value for setting fan speed low	1	÷



### 1) Inlet speed control

Fan speed control for air inlet, options: Disabled, 1bit, 1byte; ①When**1bit** is selected, the parameter "fan inlet speed feedback" has following options: Disabled, Enabled;

②When1byte is selected, the following parameters are shown:

Parameter	Description
Value for fan inlet speed 1	Value for fan inlet speed 1, range: 0-255
Value for fan inlet speed 2	Value for fan inlet speed 2, range: 0-255
Value for fan inlet speed 3	Value for fan inlet speed 3, range: 0-255
Value for fan inlet speed off	Value for fan inlet speed off, range: 0-255
When Enabled is selected for "fan inle	et speed feedback", the following parameters are shown:
Parameter	Description
Value feedback for fan inlet speed 1	Value feedback for fan inlet speed 1, range: 0-255
Value feedback for fan inlet speed 2	Value feedback for fan inlet speed 2, range: 0-255
Value feedback for fan inlet speed 3	Value feedback for fan inlet speed 3, range: 0-255
Value feedback for fan inlet speed off	Value feedback for fan inlet speed off, range: 0-255

#### 2) Outlet speed control;

Fan speed control for air outlet, options: Disabled, 1bit, 1byte; ①When**1bit** is selected, the parameter "fan outlet speed feedback" has following options: Disabled, Enabled;

Parameter	Description
Value for fan outlet speed 1	Value for fan outlet speed 1, range: 0-255
Value for fan outlet speed 2	Value for fan outlet speed 2, range: 0-255
Value for fan outlet speed 3	Value for fan outlet speed 3, range: 0-255
Value for fan outlet speed off	Value for fan outlet speed off, range: 0-255
When Enabled is selected for "fan outle	t speed feedback", the following parameters are shown:
Parameter	Description
Value feedback for fan outlet speed 1	Value feedback for fan outlet speed 1. range: 0-255

②When1byte is selected, the following parameters are shown:



Value feedback for fan outlet speed 2	Value feedback for fan outlet speed 2, range: 0-255
Value feedback for fan outlet speed 3	Value feedback for fan outlet speed 3, range: 0-255
Value feedback for fan outlet speed off	Value feedback for fan outlet speed off, range: 0-255

#### 3) Recv and send setting;

Option for setting, Options: Disabled, Read setting object at voltage recovery, Send setting as feedback when receiving setting.

#### 4) Setting fan speed

Parameter	Description
Recv setting fan inlet speed	Receive setting fan inlet speed, options: Disabled, Enabled;
Send setting fan inlet speed	Send setting fan inlet speed, options: Disabled, Enabled;
Recv setting fan outlet speed	Receive setting fan outlet speed, options: Disabled, Enabled;
Send setting fan outlet speed	Send setting fan outlet speed, options: Disabled, Enabled;

Parameter	Description
Value for setting fan speed low	Value for setting fan speed low, range: 0-255;
Value for setting fan speed mid	Value for setting fan speed mid, range: 0-255;
Value for setting fan speed high	Value for setting fan speed high, range: 0-255;
Value for setting fan speed off	Value for setting fan speed off, range: 0-255;
Value for setting fan speed auto	Value for setting fan speed auto, range: 0-255;

#### 5) Setting function switch

① "Recv setting function switch" indicates receiving the switch command of Ventilation system, options: Disabled, Enabled;

② "Send setting function switch" indicates that the switch command or switch status of Ventilation system sent, options: Disabled, Enabled;

### 6.6 Public function

The "Public function" means the public function of air conditioning, floor heating, ventilation. Options: Disabled, Enabled. When **Enabled** is selected for Public Function, the options in the red box are shown as in Figure 6.6.1.



Thermostat	Function					
Conoral	Air conditioning func select	Disabled	•			
General	Floor heating	Disabled Enabled				
Public func	Ventilation system	O Disabled C Enabled				
	Public function	Disabled Disabled				
	Temperature unit					
	Temperature unit	O Celsius O Fahrenheit				
	Toggle temperature unit	Disabled Enabled				
	Temperature correction					
	Temperature correction for internal	0 degree	•			
	Temperature correction for knx bus	0 degree	•			
	Advance correction for internal temperature					
	Advanced correction for internal temperature	Disabled Interpolation method				
	Internal temperature probe					
Parameter Ch	nannels Group Objects					

### Figure6.6.1

Click on the option in the red box below to set the relevant parameters, as shown in Figure 6.6.2

-	Thermostat	Main switch	
	General	Recv setting main switch	Disabled Enabled
	Dublic func	Send setting main switch	Disabled Enabled
L	Public func	Temperature	
		Actual temperature	Disabled Enabled
		Humidity	
		Actual humidity	Disabled Enabled
		Others	
		Recv actual PM2.5	Disabled Enabled
		Recv actual PM1.0	Disabled      Enabled
		Recv actual HCHO	Disabled      Enabled
		Recv actual TVOC	Disabled Enabled
		Recv actual CO	Disabled      Enabled
		Recv actual CO2	O Disabled Enabled
Par	ameter Ch	annels Group Objects	

Figure6.6.2

#### 1) Main switch

①Recv setting main switch, options: Disabled, Enabled.②Send setting main switch, options: Disabled, Enabled

#### 2) Temperature

Actual temperature, when **Enabled** is selected, the parameter "Source for actual temperature" is shown and has the following options: internal value, external KNX bus;

When **internal value** is selected, the parameter "send actual temperature" is shown and has following options: Disabled, Enabled. When **Enabled** is selected, the parameter "the mode for sending value" has the following options: transmit value in cycle, transmit value in the event of changes; When **transmit value in cycle** is selected, the parameter "the time in cycles" can be set to: 1second, 2 seconds......120 minutes;

When **transmit value in the event of changes** is selected, the parameter "send actual temperature on change" can be set to: 1degree, 2degree ...... 10degree.



#### 3) Humidity

Actual humidity, when **Enabled** is selected, the parameter "Source for actual humidity" is shown and has the following options: internal value, external KNX bus;

When **internal value** is selected, the parameter "send actual humidity" is shown and has following options: Disabled, Enabled. When **Enabled** is selected, the parameter "the mode for sending value" has the following options: transmit value in cycle, transmit value in the event of changes; When **transmit value in cycle** is selected, the parameter "the time in cycles" can be set to: 1second, 2 seconds......120 minutes;

When **transmit value in the event of changes** is selected, the parameter "send actual humidity on change" can be set to: 1%, 2%......10%.

#### 4) Others

Recv actual PM2.5, receive actual PM2.5 data, options: Disabled, Enabled; Recv actual PM1.0, receive actual PM1.0 data, options: Disabled, Enabled; Recv actual HCHO, receive actual HCHO data, options: Disabled, Enabled; Recv actual TVOC, receive actual TVOC data, options: Disabled, Enabled; Recv actual CO, receive actual CO data, options: Disabled, Enabled; Recv actual CO2, receive actual CO2 data, options: Disabled, Enabled;

# 7. Communication Objects

The communication object is the medium for the device to communicate with other devices on the bus, that means only the communication object can communicate on the bus. The function of each communication object is described in detail below.

There are 98 objects on the knob thermostat panel, as shown in Figure 7.1.1, and the specific functions are shown in

Table 1.1

Note: in the column of table properties, "C" represents the communication function enable of the communication

object, "W" represents the value of the communication object can be rewritten through the bus, "R" represents the

value of the communication object can be read through the bus, "T" represents the communication object has the

transmission function, and "U" represents the value of the communication object can be updated.



	Number	Name	Object Function	Description	Group Address	Length	С	R	W	Т	U	Data Type	Priority
∎ <b>‡</b>	0	AC, Switch	On/Off-Output			1 bit	С	R	-	Т	U	switch	Low
-2	1	AC, Feedback, switch	On/Off-Input			1 bit	С	R	W	Т	U	switch	Low
∎ <b>‡</b>	2	AC, Operating mode	8-bit Value-Output			1 byte	С	R	-	Т	U	HVAC control mode	Low
1	3	AC, Feedback,Operating mode	8-bit Value-Input			1 byte	С	R	W	Т	U	HVAC control mode	Low
<b>;</b>	4	AC, Fan speed	8-bit Value-Output			1 byte	С	R	-	Т	U	percentage (0100%)	Low
<b>;</b>	5	AC, Feedback, Status fan speed	8-bit Value-Input			1 byte	С	R	W	Т	U	counter pulses (02	Low
∎ <b>‡</b>	6	AC, Setting temperature	16-bit Value-Outp			2 bytes	С	R	2	Т	U	temperature (°C)	Low
<b>;</b>	7	AC, Feedback, Setting temperature	16-bit Value-Input			2 bytes	С	R	W	Т	U	temperature (°C)	Low
<b>‡</b>	8	AC, Actual temperature	16-bit Value-Input			2 bytes	С	R	W	Т	U	temperature (°C)	Low
<b>;</b>	36	FH, Relay switch	On/Off-Output			1 bit	С	R	-	Т	U	switch	Low
<b>‡</b>	37	FH, Status relay switch	On/Off-Input			1 bit	С	R	W	Т	U	switch	Low
<b>;</b>	38	FH, Actual temperature	16-bit Value-Input			2 bytes	С	R	W	Т	U	temperature (°C)	Low
∎ <b>‡</b>	41	FH, Recv setting temperature	16-bit Value-Input			2 bytes	С	R	W	Т	U	temperature (°C)	Low
<b>;</b>	42	FH, Send setting temperature	16-bit Value-Outp			2 bytes	С	R	-	Т	U	temperature (°C)	Low
<b>;</b>	43	FH, Recv setting switch	On/Off-Input			1 bit	С	R	W	Т	U	switch	Low
<b>;</b>	44	FH, Send setting switch	On/Off-Output			1 bit	С	R	-	Т	U	switch	Low
∎‡	51	FH, High temperature alarm	On/Off-Output			1 bit	С	R	-	Т	U	switch	Low
<b>;</b>	52	FA, Air inlet speed 1	On/Off-Output			1 bit	С	R	-	Т	U	switch	Low
<b>■</b> ‡	53	FA, Air inlet speed 2	On/Off-Output			1 bit	С	R	-	Т	U	switch	Low
<b>■</b> ‡	54	FA, Air inlet speed 3	On/Off-Output			1 bit	С	R	-	Т	U	switch	Low
∎‡	55	FA, Status air inlet speed 1	On/Off-Input			1 bit	С	R	W	Т	U	switch	Low
∎‡	56	FA, Status air inlet speed 2	On/Off-Input			1 bit	С	R	W	Т	U	switch	Low
Pa	arameter	Channels Group Obj	ects				-	-		-			÷

Figure7.1.1

Number	Name	Communication object function	Data type	Property			
0	AC, Switch	On/Off-Output	1 bit	C, R, T, U			
This communication	n object is enabled when <b>Enabled</b> is selecte	d for the parameter	"Switching fund	z". This			
communication obj	ect is used to control the switching of the a	ir conditioning gatew	ay. When the c	ommunication			
object sends the va	lue 1/0, the air conditioning gateway will pe	erform the pre-set on	off operation.				
1	AC, Feedback, switch	On/Off-Input	1 bit	C, R, W, T, U			
This communication	n object is active when <b>Enabled</b> is selected fo	or the parameter "Swi	itching func".	This communication			
object is used to fe	edback the switching status of the air cond	itioning gateway, bind	d the feedback	object, and use the			
received feedback	status to control the indication status of t	he thermostat panel.	When the cor	mmunication object			
receives the value 0	/1, the thermostat panel displays ON/OFF.						
2	AC Operating mode	8-bit Value-	1 hvto	CRTH			
۷	Ac, Operating mode	Output	TDyte	С, К, Т, О			
This communication	n object is active when <b>Enabled</b> is selected t	for the parameter "O	perating mode	e". This			
communication obj	ect is used to switch the operation mode. T	he communication ob	oject sends a pr	eset value to switch			
the operation mode	e of the air conditioning gateway (heating n	node, cooling mode, v	enting mode, o	dry mode,			
automatic mode).			1				
3	AC, Feedback, Operating mode	8-bit Value-Input	1byte	C, R, W, T, U			
This communication	on object is active when <b>Enabled</b> is se	lected for the para	meter "Opera	ating mode" . This			
communication obj	ect is used to feedback the operation mode,	bind the feedback ob	ject, and use th	e received feedback			
value to change the	e operation mode indication of the thermos	stat panel. When the o	corresponding	value is received by			
the communication	object, the thermostat panel indicates the	corresponding operat	ion mode.				
4	AC, Fan speed	8-bit Value- Output	1byte	C, R, T, U			
This communication	n object is active when <b>Enabled</b> is selected t	for the parameter "Fa	an speed". Thi	s communication			
object is used to co	object is used to control the wind speed of the air conditioning. The communication object sends a preset value to						



control the wind sp	beed of the air conditioning.			
5	AC, Feedback, Status fan speed	8-bit Value-Input	1byte	C, R, W, T, U
This communicatio	n object is active when <b>Enabled</b> is selected	for the parameter "Fa	an speed". Thi	s communication
object is used to fe	edback the air conditioning wind speed, bir	d the feedback object	t, and use the r	eceived feedback
value to change the	e air conditioning speed indication of the th	ermostat panel, and w	when the comm	nunication object
receives the corres	ponding value, the thermostat panel indicat	es the corresponding	air conditionin	g wind speed.
6	AC, Setting temperature	16-bit Value- Output	2 bytes	C, R, T, U
This communicatio	n object is active when <b>Enabled</b> is selected	for the parameter "Se	etting tempera	ture". This
communication ob	ject is used to control the temperature of th	e air conditioning. The	e communicati	on object sends the
temperature value	to control the temperature of the air condition	oning gateway, and th	ne temperature	e can be set in the
range of 16°C~30°C	2.			
7	AC, Feedback, Setting temperature	16-bit Value-Input	2 bytes	C, R, W, T, U
This communicatio	n object is active when <b>Enabled</b> is selected	for the parameter "Se	etting tempera	ture". This
communication ob	ject is used to feedback the current air cond	itioning temperature	value, binding	the feedback
object, using the re	ceived feedback value to change the air cor	nditioning temperature	e indication of	the thermostat
panel, when the co	mmunication object receives the correspon	ding value, the thermo	ostat panel indi	cates the
corresponding tem	perature value	-		
8	AC, Actual temperature	16-bit Value-Input	2 bytes	C, R, W, T, U
This communicatio	n object is active when <b>external KNX bus</b> is	selected for the para	meter "Source	e for actual
temperature" . This	s communication object is used for the actu	al temperature value o	of the external	sensor.
11	FCU, Cooling control	On/Off-Output	1 bit	C, R, T, U
This communio	cation object is active when <b>Enabled</b> is selec	ted for the parameter	"Cooling con	trol" and <b>1 bit</b> for
the parameter "co	oling object type". This communication ob	iect is used for cooline	a control of far	n coils (data length
1 bit).	5 5 51		5	
12	FCU, Cooling feedback	On/Off-Input	1bit	C, R, W, T, U
This communicatio	n object is active when <b>Enabled</b> is selected	for the parameter "Co	ooling control	feedback" and <b>1</b>
<b>bit</b> for the paramet	er "Cooling object type". This object is us	ed for feedback of fan	i coil cooling co	ontrol (data length
1 bit).			5	, J
		Valve position-		
13	FCU, Cooling control	Output	1 byte	C, R, T, U
This communicatio	n object is active when <b>Enabled</b> is selected	for the parameter "Co	ooling control	and <b>1 byte</b> for
the parameter "co	oling object type". This communication ob	ject is used to send th	e cooling valve	e value of the fan
coil (data length 1	byte).	,	5	
		Valve position-		
14	FCU, Cooling feedback	Input	1 byte	C, R, W, T, U
This communicatio	n object is active when <b>Enabled</b> is selected a	for the parameter "Co	ooling control	feedback" and <b>1</b>
<b>byte</b> for the param	eter "Cooling object type". This object is u	used to receive feedba	ack on fan coil	cooling valve values
(data length 1 byte	).			5
15	FCU, Heating control	On/Off-Output	1bit	C, R, T, U
This communicatio	n object is active when <b>Enabled</b> is selected	for the parameter "H	eating control'	' and <b>1 bit</b> for the
parameter "Heatin	ng object type". This communication object	t is used for heating co	ontrol of fan co	oils (data length 1
bit).		· · · · · · · · · · · · · · · · · · ·		
16				
10	FCU, Heating feedback	On/Off-Input	l 1bit	C, R, W, T, U



<b>bit</b> for the paramet	er "Heating object type" . This object is us	ed for feedback of far	n coil heating c	ontrol (data length
17	FCU, Heating control	Valve position- Output	1byte	C, R, T, U
This communication	n object is active when <b>Enabled</b> is selected t	for the parameter "H	eating control'	'and <b>1 byte</b> for
the parameter "He	eating object type" . This communication ob	oject is used to send tl	he heating valv	e value of the fan
coil (data length 1 l	oyte).			
18	FCU, Heating feedback	Valve position- Input	1byte	C, R, W, T, U
This communication	n object is active when <b>Enabled</b> is selected t	for the parameter "H	eating control	feedback" and <b>1</b>
byte for the parame	eter "Heating object type" . This object is u	used to receive feedba	ack on fan coil	heating valve
values (data length	1 byte).			
19, 20, 21	FCU, Fan speed1/2/3	On/Off-Output	1bit	C, R, T, U
This communication	n object is active when <b>1 bit</b> is selected for t	he parameter "Fan s	peed control"	. This
communication obj	ect is used for fan coil wind speed control (	data length 1 bit). Wh	en the fan coil	is in low wind
speed, FCU, Fan spe	eed 1 object sends the value 01, FCU, Fan sp	eed 2 and FCU, Fan s	peed 3 objects	send the value 00;
When the fan coil is	s in mid wind speed, FCU, Fan speed 2 objec	ct sends the value 01,	FCU, Fan speed	d 1 and FCU, Fan
speed 3 objects ser	nd the value 00; When the fan coil is in high	wind speed, FCU, Fan	speed 3 objec	t sends the value
01, FCU, Fan speed	1 and FCU, Fan speed 2 objects send the va	lue 00;		
22, 23, 24	FCU, statu fan speed1/2/3	On/Off-Input	1bit	C, R, W, T, U
This communication	n object is active when <b>Enabled</b> is selected t	for the parameter "Fa	an speed feedb	back" and <b>1 bit</b> for
the parameter "Fa	n speed control". This communication is us	ed for fan coil wind si	peed status fee	edback (data length
1 bit).				
25	FCU, Fan speed	8-bit Value- Output	1byte	C, R, T, U
This communication	n object is active when <b>1 byte</b> is selected fo	r the parameter "Fan	speed control	". This
communication obj	ect is used to send fan coil wind speed valv	e values (data length	1byte)	
26	FCU, Status fan speed	8-bit value-Input	1byte	C, R, W, T, U
This communication	n object is active when <b>Enabled</b> is selected t	for the parameter "Fa	an speed feedb	ack" and <b>1byte</b>
for the parameter	"Fan speed control" . This communication i	s used for fan coil win	d speed status	feedback (data
length 1 bit). This c	ommunication is used for fan coil wind spee	ed valve value status f	eedback (data	length 1byte).
27	FCU, Actual temperature	16-bit Value-Input	2bytes	C, R, W, T, U
This communication	n object is active when <b>external KNX bus</b> is	selected for the para	meter "Source	e for actual
temperature" . This	communication object is used to transmit t	the actual temperature	e value of the f	an coil.
28	FCU, Recv setting mode	8-bit Value-Input	1byte	C, R, W, T, U
This communication	n object is active when <b>Enabled</b> is selected t	for the parameter "Re	ecv setting mo	de". This
communication obj	ect is used to receive the fan coil setting mo	ode.		
29	FCU, Send setting mode	8-bit Value- Output	1byte	C, R, T, U
This communication	n object is active when <b>Enabled</b> is selected t	for the parameter "Se	end setting mo	de". This
communication obj	ect is used to send the fan coil setting mod	e.	5	
30	FCU, Recv setting speed	8-bit Value-Input	1byte	C, R, W, T, U
This communication	n object is active when <b>Enabled</b> is selected	for the parameter "Re	ecv setting fan	speed". This
communication obi	ect is used to receive the value of the set w	ind speed.	<u> </u>	•
31	FCU, Send setting speed	8-bit Value-	1byte	C, R, T, U

	E	lectric	als
<u>// 5</u>	EA	<b>WI</b>	N

		Output		
This communication	n object is active when <b>Enabled</b> is selected t	for the parameter "S	end setting fan	speed". This
communication obj	ect is used to send the value of the set wind	d speed.		
32	FCU, Recv setting temperature	16-bit Value-Input	2 bytes	C, R, W, T, U
This communication	n object is active when <b>Enabled</b> is selected t	for the parameter "R	ecv setting tem	perature". This
communication obj	ect is used to receive values for setting the	fan coil temperature,	the thermostat	panel indicates the
current fan coil tem	perature value according to the received va	llue.		
33	FCU, Send setting temperature	16-bit Value- Output	2 bytes	C, R, T, U
This communication	n object is active when <b>Enabled</b> is selected t	for the parameter "S	end setting ten	nperature". This
communication obj	ect is used to send the value of the set tem	perature, and the con	nmunication ob	ject controls the
temperature of the	fan coil by the corresponding sent value			5
34	FCU, Recv setting switch	On/Off-Input	1bit	C, R, W, T, U
This communication	n object is active when <b>Enabled</b> is selected	for the parameter "R	Lecv setting FCL	J switch". This
communication obj	ect is used to receive the fan coil switch cor	nmand, when the valu	ue 00 is receive	d, it means the fan
coil is off: when the	value 01 is received, it means the fan coil is	s on: the thermostat r	anel indicates	the current fan coil
switching status aco	cording to the received value			
35	FCU, Send setting switch	On/Off-Output	1bit	C, R, T, U
This communication	n object is active when <b>Enabled</b> is selected t	for the parameter "S	end setting FCI	J switch". This
communication obi	ect is used to send fan coil switch command	d, when the value 00 i	is sent, the con	trol fan coil is off:
when the value 01 i	s sent, the control fan coil is on; The comm	unication object cont	rols the fan coil	switching status
by sending the corr	responding values	5		5
36	FH, Relay switch	On/Off-Output	1bit	C, R, T, U
This communication	n object is active when <b>Enabled</b> is selected t	for the parameter "R	lelay switch" u	nder function Floor
heating. This comm	unication object is used for floor heating re	lay control output, w	hen the value 0	0 is sent, the floor
heating is off; when	the value 01 is sent, the floor heating is on			
37	FH, Status relay switch	On/Off-Input	1bit	C, R, W, T, U
This communication	n object is active when <b>Enabled</b> is selected t	for the parameter "S	tatus relay swit	ch" under function
Floor heating. This	communication object is used to feedback t	he control output sta	tus of the floor	heating relay.
When the commun	ication object receives the value 00, it mean	is the floor heating re	lay is off; when	it receives the
value 01, it means t	he floor heating relay is on	-	-	
38	FH, Atual temperature	16-bit Value Input	2bytes	C, R, W, T, U
This communication	n object is active when <b>External KNX bus</b> is	selected for the para	meter "Source	e for actual
temperature" und	er function Floor heating. This communicati	on object is used to t	ransmit the act	ual temperature
value of the floor he	eating transmission.			
41	FH, Recv setting temperature	16-bit Value-Input	2 bytes	C, R, W, T, U
This communication	n object is active when <b>Enabled</b> is selected	for the parameter "R	ecv setting tem	perature" under
function Floor heat	ing. This communication object is used to re	eceive the set floor he	eating temperat	ure value, and the
thermostat panel in	dicates the current floor heating temperatu	ire value according to	the received va	alue.
42	FH, Send setting temperature	16-bit Value- Output	2 bytes	C, R, T, U
This communication	n object is active when <b>Enabled</b> is selected t	for the parameter "S	end setting ten	nperature" under
function Floor heat	ing. This communication object is used to se	end the set floor heat	ing temperatur	e value, and the
communication obj	ect controls the floor heating temperature l	by the corresponding	sent value	
43	FH, Recv setting switch	On/Off-Input	1 bit	C, R, W, T, U

This communication	n object is active when <b>Enabled</b> is selected	for the parameter "R	Recv setting fun	ction switch"
under function Floo	or heating. This communication object is use	ed to receive the floor	r heating switch	command, when
the value 00 is rece	ived, it means the floor heating is off; when	the value 01 is receiv	ed, it means th	e floor heating is
on. The thermostat	panel indicates the current on/off status of	the floor heating acc	ording to the re	eceived value.
44	FH, Send setting switch	On/Off-Output	1bit	C, R, T, U
This communication	n object is active when <b>Enabled</b> is selected	for the parameter "S	end setting fun	ction switch"
under function Floo	or heating. This communication object is use	ed to send the floor h	eating switch co	ommand, when the
value 00 is sent, the	e floor heating is off; when the value 01 is se	ent, the floor heating	is on. The comr	nunication object
controls the switchi	ng status of the floor heating by sending th	e corresponding valu	ies.	
51	FH, High temperature alarm	On/off-output	1bit	C, R, T, U
This communication	n object is active when <b>Enabled</b> is selected	for the parameter "S	tatus high temp	perature alarm"
under function Floo	or heating. This communication object is use	ed to send feedback o	on the high tem	perature alarm
status. The commu	nication object sends an alarm value 01/00	when the floor heatin	ig exceeds the p	preset temperature
alert value				
52, 53, 54	FA, Air inlet speed1/2/3	On/off-output	1bit	C, R, T, U
This communication	n object is active when <b>Enabled</b> is selected	for the parameter "V	entilation syste	m" and <b>1 bit</b> for
the parameter "Fa	n speed control for air inlet". This commun	ication object is used	l for inlet fan sp	eed control (data
length 1 bit). When	the Ventilation system is at low speed, the	FA, Air inlet speed 1 o	object sends the	e value 01 and the
FA, Air inlet speed 2	2 and FA, Air inlet speed 3 objects send the	value 00; When the V	entilation syste	m is at mid speed,
the FA, Air inlet spe	ed 2 object sends the value 01 and the FA, a	Air inlet speed 1 and	FA, Air inlet spe	ed3 objects send
the value 00; When	the Ventilation system is at high speed, the	FA, Air inlet speed 3	object sends th	e value 01 and the
FA, Air inlet speed	1 and FA, Air inlet speed 2 objects send the	value 00.		
55, 56, 57	FA, Status air inlet speed 1/2/3	On/off-Input	1bit	C, R, W, T, U
This communication	•			
	n object is active when <b>Enabled</b> is selected i	for the parameter "F	an inlet speed f	eedback″. This
communication is u	n object is active when <b>Enabled</b> is selected <sup>.</sup> Ised for ventilation inlet wind speed status f	for the parameter "F eedback (data length	an inlet speed f 1 1bit).	eedback". This
communication is u	n object is active when <b>Enabled</b> is selected is selected is selected is selected is selected is selected for ventilation inlet wind speed status f	for the parameter "F eedback (data length 8-bit Value-	an inlet speed f 1bit).	eedback" . This
communication is u	n object is active when <b>Enabled</b> is selected is selected is selected for ventilation inlet wind speed status f	for the parameter "F eedback (data length 8-bit Value- Output	an inlet speed f 1bit). 1byte	eedback" . This C, R, T, U
58 This communication	n object is active when <b>Enabled</b> is selected is used for ventilation inlet wind speed status f FA, Air inlet speed n object is active when <b>Enabled</b> is selected is	for the parameter "F eedback (data length 8-bit Value- Output for the parameter "F	an inlet speed f 1 bit). 1 byte an speed contro	cedback" . This C, R, T, U ol for air inlet" .
58 This communication This communication	n object is active when <b>Enabled</b> is selected is used for ventilation inlet wind speed status f FA, Air inlet speed n object is active when <b>Enabled</b> is selected in n object is used for inlet fan speed value co	for the parameter "F eedback (data length 8-bit Value- Output for the parameter "F ntrol (data length 1by	an inlet speed f 1 bit). 1 byte an speed contro /te).	Geedback" . This C, R, T, U ol for air inlet" .
This communication is u 58 This communication This communication	n object is active when <b>Enabled</b> is selected ised for ventilation inlet wind speed status f FA, Air inlet speed n object is active when <b>Enabled</b> is selected n object is used for inlet fan speed value co	for the parameter "F eedback (data length 8-bit Value- Output for the parameter "F ntrol (data length 1by 8-bit Value-Input	an inlet speed f 1 bit). 1 byte an speed contro /te).	C R W T LL
This communication is u 58 This communication This communication 59	n object is active when <b>Enabled</b> is selected ised for ventilation inlet wind speed status f FA, Air inlet speed n object is active when <b>Enabled</b> is selected n object is used for inlet fan speed value co FA, Status air inlet speed	for the parameter "F eedback (data length 8-bit Value- Output for the parameter "F ntrol (data length 1by 8-bit Value-Input	an inlet speed f 1 bit). 1 byte an speed contro (te). 1 byte	Geedback". This C, R, T, U ol for air inlet". C, R, W, T, U
This communication is u 58 This communication This communication 59 This communication	n object is active when <b>Enabled</b> is selected is read for ventilation inlet wind speed status for FA, Air inlet speed n object is active when <b>Enabled</b> is selected n object is used for inlet fan speed value co FA, Status air inlet speed n object is active when <b>Enabled</b> is selected is	for the parameter "F eedback (data length 8-bit Value- Output for the parameter "F ntrol (data length 1by 8-bit Value-Input for the parameter "F	an inlet speed f 1 bit). 1 byte an speed contro /te). 1 byte an inlet speed f	eedback" . This C, R, T, U ol for air inlet" . C, R, W, T, U
This communication is u 58 This communication This communication 59 This communication communication obj	n object is active when <b>Enabled</b> is selected is read for ventilation inlet wind speed status f FA, Air inlet speed n object is active when <b>Enabled</b> is selected n object is used for inlet fan speed value co FA, Status air inlet speed n object is active when <b>Enabled</b> is selected ect is used for ventilation inlet wind speed	for the parameter "F eedback (data length 8-bit Value- Output for the parameter "F ntrol (data length 1by 8-bit Value-Input for the parameter "F value status feedback	an inlet speed f 1 bit). 1 byte an speed contro /te). 1 byte an inlet speed f	Feedback" . This C, R, T, U ol for air inlet" . C, R, W, T, U Feedback" . This pyte).
This communication 58 This communication This communication 59 This communication communication obj 60, 61, 62	n object is active when <b>Enabled</b> is selected is read for ventilation inlet wind speed status for FA, Air inlet speed n object is active when <b>Enabled</b> is selected is n object is used for inlet fan speed value co FA, Status air inlet speed n object is active when <b>Enabled</b> is selected is rect is used for ventilation inlet wind speed FA, Air outlet speed1/2/3	for the parameter "F eedback (data length 8-bit Value- Output for the parameter "F ntrol (data length 1by 8-bit Value-Input for the parameter "F value status feedback On/Off-Output	an inlet speed f 1 bit). 1 byte an speed contro /te). 1 byte an inlet speed f c (data length 11 1 bit	ceedback" . This C, R, T, U ol for air inlet" . C, R, W, T, U ceedback" . This oyte). C, R, T, U
This communication is u 58 This communication This communication 59 This communication communication obj 60, 61, 62 This communication	n object is active when <b>Enabled</b> is selected is FA, Air inlet speed n object is active when <b>Enabled</b> is selected n object is used for inlet fan speed value co FA, Status air inlet speed n object is active when <b>Enabled</b> is selected FA, Status air inlet speed FA, Air outlet speed1/2/3 n object is active when <b>1 bit</b> is selected for the	for the parameter "F eedback (data length 8-bit Value- Output for the parameter "F ntrol (data length 1by 8-bit Value-Input for the parameter "F value status feedback On/Off-Output the parameter "Fan s	an inlet speed f 1 bit). 1 byte an speed contro /te). 1 byte an inlet speed f (data length 1 1 bit speed control for	ceedback" . This C, R, T, U ol for air inlet" . C, R, W, T, U ceedback" . This oyte). C, R, T, U or air outlet" . This
This communication is u 58 This communication This communication 59 This communication communication obj 60, 61, 62 This communication communication obj	n object is active when <b>Enabled</b> is selected is FA, Air inlet speed n object is active when <b>Enabled</b> is selected n object is active when <b>Enabled</b> is selected FA, Status air inlet speed n object is active when <b>Enabled</b> is selected FA, Status air inlet speed FA, Air outlet speed1/2/3 n object is active when <b>1 bit</b> is selected for the fect is used for outlet fan speed control (dat	for the parameter "F eedback (data length 8-bit Value- Output for the parameter "F ntrol (data length 1by 8-bit Value-Input for the parameter "F value status feedback On/Off-Output the parameter "Fan s ta length 1 bit). When	an inlet speed f 1 bit). 1 byte an speed contro (te). 1 byte an inlet speed f (data length 11 1 bit speed control fo the Ventilation	ceedback" . This C, R, T, U ol for air inlet" . C, R, W, T, U ceedback" . This oyte). C, R, T, U or air outlet" . This system is at low
This communication is u 58 This communication This communication 59 This communication communication obj 60, 61, 62 This communication communication obj speed, the FA, Air o	n object is active when <b>Enabled</b> is selected is FA, Air inlet speed n object is active when <b>Enabled</b> is selected n object is used for inlet fan speed value co FA, Status air inlet speed n object is active when <b>Enabled</b> is selected FA, Air outlet speed1/2/3 FA, Air outlet speed1/2/3 n object is active when <b>1 bit</b> is selected for the fect is used for outlet fan speed control (dat foutlet speed 1 object sends the value 01 and	for the parameter "F eedback (data length 8-bit Value- Output for the parameter "F ntrol (data length 1by 8-bit Value-Input for the parameter "F value status feedback On/Off-Output the parameter "Fan s a length 1 bit). When I the FA, Air outlet spe	an inlet speed f 1 bit). 1 byte an speed contro /te). 1 byte an inlet speed f (data length 1 1 bit speed control fo the Ventilation eed 2 and FA, A	Feedback" . This         C, R, T, U         ol for air inlet" .         C, R, W, T, U         Feedback" . This         byte).         C, R, T, U         or air outlet" . This         system is at low         ir outlet speed 3
This communication is u 58 This communication This communication 59 This communication communication obj 60, 61, 62 This communication communication obj speed, the FA, Air o objects send the var	n object is active when <b>Enabled</b> is selected is FA, Air inlet speed n object is active when <b>Enabled</b> is selected n object is active when <b>Enabled</b> is selected FA, Status air inlet speed An object is active when <b>Enabled</b> is selected FA, Status air inlet speed FA, Air outlet speed1/2/3 n object is active when <b>1 bit</b> is selected for the fect is used for outlet fan speed control (dat outlet speed 1 object sends the value 01 and lue 00; When the Ventilation system is at m	for the parameter "F eedback (data length 8-bit Value- Output for the parameter "F ntrol (data length 1by 8-bit Value-Input for the parameter "F value status feedback On/Off-Output the parameter "Fan s a length 1 bit). When I the FA, Air outlet spe id speed, the FA, Air o	an inlet speed f 1 bit). 1 byte an speed contro (te). 1 byte an inlet speed f (data length 11 1 bit speed control fo the Ventilation eed 2 and FA, A putlet speed 2 o	C, R, T, U C, R, T, U ol for air inlet" . C, R, W, T, U C, R, W, T, U C, R, T, U C, R, T, U C, R, T, U or air outlet" . This system is at low ir outlet speed 3 object sends the
This communication is u 58 This communication This communication 59 This communication communication obj 60, 61, 62 This communication communication obj speed, the FA, Air o objects send the va value 01 and the FA	n object is active when <b>Enabled</b> is selected is FA, Air inlet speed n object is active when <b>Enabled</b> is selected n object is used for inlet fan speed value co FA, Status air inlet speed n object is active when <b>Enabled</b> is selected FA, Status air inlet speed FA, Air outlet speed1/2/3 n object is active when <b>1 bit</b> is selected for the fect is used for outlet fan speed control (dat putlet speed 1 object sends the value 01 and lue 00; When the Ventilation system is at m A, Air outlet speed 1 and FA, Air outlet speed	for the parameter "F eedback (data length 8-bit Value- Output for the parameter "F ntrol (data length 1by 8-bit Value-Input for the parameter "F value status feedback On/Off-Output the parameter "Fan s a length 1 bit). When I the FA, Air outlet spe id speed, the FA, Air out	an inlet speed f 1 bit). 1 byte an speed contro- /te). 1 byte an inlet speed f (data length 1 bit speed control for the Ventilation eed 2 and FA, A putlet speed 2 c alue 00; When t	Feedback" . This         C, R, T, U         ol for air inlet" .         C, R, W, T, U         Feedback" . This         byte).         C, R, T, U         or air outlet" . This         system is at low         ir outlet speed 3         object sends the         he Ventilation
This communication is u 58 This communication This communication 59 This communication communication obj 60, 61, 62 This communication communication obj speed, the FA, Air o objects send the va value 01 and the FA	n object is active when <b>Enabled</b> is selected is FA, Air inlet speed n object is active when <b>Enabled</b> is selected n object is active when <b>Enabled</b> is selected fA, Status air inlet speed n object is active when <b>Enabled</b> is selected fA, Status air inlet speed n object is active when <b>Enabled</b> is selected for ventilation inlet wind speed FA, Air outlet speed1/2/3 n object is active when <b>1 bit</b> is selected for the fect is used for outlet fan speed control (dat putlet speed 1 object sends the value 01 and lue 00; When the Ventilation system is at m to, Air outlet speed 1 and FA, Air outlet speed peed, the FA, Air outlet speed 3 object sends	for the parameter "F eedback (data length 8-bit Value- Output for the parameter "F ntrol (data length 1 by 8-bit Value-Input for the parameter "F value status feedback On/Off-Output the parameter "Fan s a length 1 bit). When I the FA, Air outlet spe id speed, the FA, Air out 3 objects send the vas	an inlet speed f 1 bit). 1 byte an speed contro (te). 1 byte an inlet speed f (data length 11 1 bit speed control for the Ventilation eed 2 and FA, A putlet speed 2 c alue 00; When t	Geedback" . This         C, R, T, U         ol for air inlet" .         C, R, W, T, U         Geedback" . This         byte).         C, R, T, U         Or air outlet" . This         system is at low         ir outlet speed 3         object sends the         he Ventilation         speed 1 and FA, Air
This communication is u 58 This communication This communication 59 This communication communication obj 60, 61, 62 This communication communication obj speed, the FA, Air o objects send the va value 01 and the FA system is at high sp outlet speed 2 obje	n object is active when <b>Enabled</b> is selected is FA, Air inlet speed n object is active when <b>Enabled</b> is selected n object is used for inlet fan speed value co FA, Status air inlet speed n object is active when <b>Enabled</b> is selected FA, Status air inlet speed FA, Air outlet speed1/2/3 n object is active when <b>1 bit</b> is selected for the fect is used for outlet fan speed control (dat putlet speed 1 object sends the value 01 and lue 00; When the Ventilation system is at m A, Air outlet speed 1 and FA, Air outlet speed peed, the FA, Air outlet speed 3 object sends fects send the value 00.	for the parameter "F eedback (data length 8-bit Value- Output for the parameter "F ntrol (data length 1by 8-bit Value-Input for the parameter "F value status feedback On/Off-Output the parameter "Fan s a length 1 bit). When I the FA, Air outlet spe id speed, the FA, Air out 3 objects send the va s the value 01 and the	an inlet speed f 1 bit). 1 byte an speed contro- /te). 1 byte an inlet speed f (data length 11 speed control for the Ventilation eed 2 and FA, A putlet speed 2 c alue 00; When t	Feedback" . This         C, R, T, U         ol for air inlet" .         C, R, W, T, U         Feedback" . This         byte).         C, R, T, U         or air outlet" . This         system is at low         ir outlet speed 3         object sends the         he Ventilation         speed 1 and FA, Air
This communication is u 58 This communication This communication 59 This communication communication obj 60, 61, 62 This communication communication obj speed, the FA, Air of objects send the var value 01 and the FA system is at high sp outlet speed 2 obje 63, 64, 65	n object is active when <b>Enabled</b> is selected is FA, Air inlet speed n object is active when <b>Enabled</b> is selected n object is active when <b>Enabled</b> is selected fA, Status air inlet fan speed value co FA, Status air inlet speed n object is active when <b>Enabled</b> is selected fact is used for ventilation inlet wind speed FA, Air outlet speed1/2/3 n object is active when <b>1 bit</b> is selected for the fact is used for outlet fan speed control (dat putlet speed 1 object sends the value 01 and lue 00; When the Ventilation system is at m A, Air outlet speed 1 and FA, Air outlet speed to be the FA, Air outlet speed 3 object sends facts send the value 00. FA, Status air outlet speed1/2/3	for the parameter "F eedback (data length 8-bit Value- Output for the parameter "F ntrol (data length 1 by 8-bit Value-Input for the parameter "F value status feedback On/Off-Output the parameter "Fan s ra length 1 bit). When I the FA, Air outlet species id speed, the FA, Air out 3 objects send the vas s the value 01 and the On/Off-Input	an inlet speed f 1 bit). 1 byte an speed contro (te). 1 byte an inlet speed f (data length 11 1 bit speed control for the Ventilation eed 2 and FA, A putlet speed 2 c alue 00; When t FA, Air outlet s	This         C, R, T, U         ol for air inlet".         C, R, W, T, U         Teedback". This         Output         C, R, T, U         Teedback". This         Output         C, R, T, U         The endback". This         Output         C, R, T, U         This         System is at low         ir outlet speed 3         Object sends the         Speed 1 and FA, Air         C, R, W, T, U
This communication is u 58 This communication This communication 59 This communication communication obj 60, 61, 62 This communication communication obj speed, the FA, Air of objects send the value 01 and the FA system is at high sp outlet speed 2 obje 63, 64, 65 This communication	n object is active when <b>Enabled</b> is selected is FA, Air inlet speed n object is active when <b>Enabled</b> is selected for ventilation inlet fan speed value co FA, Status air inlet speed n object is active when <b>Enabled</b> is selected for ventilation inlet wind speed FA, Air outlet speed1/2/3 n object is active when <b>1 bit</b> is selected for the fect is used for outlet fan speed control (dat putlet speed 1 object sends the value 01 and lue 00; When the Ventilation system is at m A, Air outlet speed 1 and FA, Air outlet speed peed, the FA, Air outlet speed 3 object sends for sects send the value 00. FA, Status air outlet speed1/2/3 on object is active when <b>Enabled</b> is selected	for the parameter "F eedback (data length 8-bit Value- Output for the parameter "F ntrol (data length 1by 8-bit Value-Input for the parameter "F value status feedback On/Off-Output the parameter "Fan s a length 1 bit). When I the FA, Air outlet spe id speed, the FA, Air out d3 objects send the va s the value 01 and the On/Off-Input for the parameter "	an inlet speed f 1 bit). 1 byte an speed contro /te). 1 byte an inlet speed f (data length 1) (data length 1)	Feedback" . This         C, R, T, U         ol for air inlet" .         C, R, W, T, U         Feedback" . This         byte).         C, R, T, U         or air outlet" . This         system is at low         ir outlet speed 3         object sends the         he Ventilation         speed 1 and FA, Air         C, R, W, T, U         d feedback" . This
This communication is u 58 This communication This communication 59 This communication communication obj 60, 61, 62 This communication communication obj speed, the FA, Air of objects send the var value 01 and the FA system is at high sp outlet speed 2 objet 63, 64, 65 This communication communication is u	n object is active when <b>Enabled</b> is selected is FA, Air inlet speed n object is active when <b>Enabled</b> is selected is n object is used for inlet fan speed value co FA, Status air inlet speed n object is active when <b>Enabled</b> is selected fect is used for ventilation inlet wind speed FA, Air outlet speed1/2/3 n object is active when <b>1 bit</b> is selected for the fect is used for outlet fan speed control (dat outlet speed 1 object sends the value 01 and lue 00; When the Ventilation system is at m A, Air outlet speed 1 and FA, Air outlet speed ects send the value 00. FA, Status air outlet speed1/2/3 on object is active when <b>Enabled</b> is selected for sects send the value 00. FA, Status air outlet speed 1/2/3 on object is active when <b>Enabled</b> is selected is selected for ventilation outlet speed 1/2/3	for the parameter "F eedback (data length 8-bit Value- Output for the parameter "F ntrol (data length 1by 8-bit Value-Input for the parameter "F value status feedback On/Off-Output the parameter "Fan s a length 1 bit). When I the FA, Air outlet spe id speed, the FA, Air out 3 objects send the va s the value 01 and the On/Off-Input for the parameter " a feedback (data length	an inlet speed f 1 bit). 1 byte an speed contro (te). 1 byte an inlet speed f (data length 11 1 bit speed control for the Ventilation eed 2 and FA, A putlet speed 2 c alue 00; When t FA, Air outlet spee 1 bit Fan outlet spee th 1 bit).	This         C, R, T, U         ol for air inlet".         C, R, W, T, U         Teedback". This         Oyte).         C, R, T, U         Or air outlet". This         system is at low         ir outlet speed 3         object sends the         he Ventilation         speed 1 and FA, Air         C, R, W, T, U         d feedback". This

Electricals



		Output		
This communication	n object is active when <b>Enabled</b> is selected	for the parameter "F	an speed contr	ol for air outlet".
This communication	n object is used for outlet fan speed value c	ontrol (data length 1k	oyte).	
67	FA, Status air outlet speed	8-bit Value-Input	1byte	C, R, W, T, U
This communication	n object is active when <b>Enabled</b> is selected	for the parameter "F	an outlet speed	feedback". This
communication obj	ect is used for ventilation outlet wind speed	d value status feedbac	k (data length	1byte).
70	FA, Recv setting inlet speed	8-bit Value-Input	1byte	C, R, W, T, U
This communication	n object is active when <b>Enabled</b> is selected	for the parameter "R	ecv setting fan	inlet speed"
under function Ven	tilation system. This communication object	is used to receive the	inlet fan speed	value.
71	FA, Send setting inlet speed	8-bit Value- Output	1byte	C, R, T, U
This communication	n object is active when <b>Enabled</b> is selected	for the parameter "S	end setting fan	inlet speed"
under function Ven	tilation system. This communication object	is used to send the fe	edback value fo	or setting the inlet
fan speed.				
72	FA, Recv setting outlet speed	8-bit Value-Input	1byte	C, R, W, T, U
This communication	n object is active when <b>Enabled</b> is selected	for the parameter "R	ecv setting fan	outlet speed"
under function Ven	tilation system. This communication object	is used to receive the	outlet fan spee	ed.
73	EA Send setting outlet speed	8-bit Value-	1byte	CRTH
	PA, Send setting outlet speed	Output	Tbyte	С, К, Т, О
This communication	n object is active when <b>Enabled</b> is selected i	for the parameter "S	end setting fan	outlet speed"
under function Ven	tilation system. This communication object	is used to receive the	outlet fan spee	ed. This
communication obj	ect is used to send feedback for setting the	speed setting of the	fan outlet	
74	FA, Recv setting switch	On/OFF-Input	1bit	C, R, W, T, U
This communication	n object is active when <b>Enabled</b> is selected i	for the parameter "R	ecv setting fun	ction switch"
under function Ven	tilation system. This communication object	is used to receive the	switch comma	nd of ventilation,
when the value 00 i	s received, it means the ventilation is off; w	hen the value 01 is re	ceived, it mean	s the ventilation is
on. The thermostat	panel indicates the current on/off status of	the ventilation accord	ding to the rece	eived value.
75	FA, Send setting switch	On/OFF-Output	1bit	C, R, T, U
This communication	n object is active when <b>Enabled</b> is selected i	for the parameter "S	end setting fur	nction switch"
under function Ven	tilation system. This communication object	is used to send the or	n/off command	or the on/off
status of the ventila	ation. When the value 00 is sent, the ventilat	tion is turned off; whe	n the value 01	is sent, the
ventilation is turned	d on. The communication object controls the	e on/off status of the	ventilation by s	sending the
corresponding valu	es.			
76	Pub, Recv main switch	On/OFF-Input	1bit	C, R, W, T, U
This communication	n object is active when <b>Enabled</b> is selected i	for the parameter "P	ublic function"	. This
communication obj	ect is used to set the public function switch	of air conditioner, flo	or heating and	ventilation. When
the value 00 is sent	, all functions are turned off; when the value	e 01 is sent, all functio	ons are turned o	on. The
communication obj	ect controls the state of the master switch b	by sending the corres	ponding value.	
78	Pub, Switch temperature unit	1-bit Value-Input	1bit	C, R, W, T, U
This communication	n object is active when <b>Enabled</b> is selected i	for the parameter "T	oggle tempera <sup>.</sup>	ture unit". This
communication obj	ect is used to switch the units of temperatu	re. The communication	on object switch	nes between Celsius
and Fahrenheit tem	perature units by sending the value 0/1.			
79	Pub, Status temperature unit	1-bit Value- Output	1bit	C, R, T, U
This communication	n object is active when <b>Enabled</b> is selected	for the parameter "S	end toggle tem	nperature unit".



This communication	This communication object is used to transfer the switching feedback value in temperature units.					
80	Pub, Child lock	1-bit Value-Input	1 bit	C, R, W, T, U		
This communication	n object is active when <b>Enabled</b> is selected t	for the parameter "ch	nild lock contro	l". This		
communication obj	ect is used to control the state of the child I	ock. The communicat	ion object turn	s the child lock		
on/off by sending t	he value 0/1.		,			
81	Pub Status child lock	1-bit Value-	1 hit	CRTH		
01	Fub, Status child lock	Output	Tort	C, IX, I, O		
This communication	n object is active when <b>Enabled</b> is selected t	for the parameter "Se	end child lock o	control". This		
communication obj	ect is used for status feedback of child lock	s				
82	Pub, Recv actual temperature	16-bit Value-Input	2bytes	C, R, W, T, U		
This communication	n object is active when <b>external KNX bus</b> is	selected for the para	meter "Source	e for actual		
temperature" und	er function Public func. This communication	object is used to trar	nsfer the actual	temperature value		
of the total function	n via the KNX bus.					
0.2	Dub Condectual temperature	16-bit Value-	Churton			
65	Pub, send actual temperature	Output	Zbytes	С, К, Т, О		
This communication	n object is active when <b>internal value</b> is sele	ected for the parameter	er "Source for	actual		
temperature" und	er function Public func. This communication	object is used to inte	ernally detect th	ne actual		
temperature value	of the total function.					
84	Pub, Recv actual humidity	16-bit Value-Input	2bytes	C, R, W, T, U		
This communication	n object is active when <b>Enabled</b> is selected t	for the parameter "A	ctual humidity"	under function		
Public func and <b>ext</b>	ernal KNX bus for parameter "Source for a	actual humidity" . Thi	s communicatio	on object is used to		
transfer the actual l	numidity value of the total function via the H	KNX bus.				
95	Dub Conductual humidity	16-bit Value-	Churton			
60	Pub, Send actual humidity	Output	Zbytes	С, К, Т, О		
This communication	n object is active when <b>Enabled</b> is selected t	for the parameter "A	ctual humidity"	under function		
Public func and <b>int</b>	ernal value for parameter "Source for actu	al humidity" . This co	mmunication o	bject is used to		
internally detect the	e actual humidity value of the total function					
86	Pub, Recv actual PM2.5	16-bit Value-Input	2bytes	C, R, W, T, U		
This communication	n object is active when <b>Enabled</b> is selected f	for the parameter "R	ecv actual PM2	.5" under function		
Public func. This co	mmunication object is used to receive the a	ctual PM2.5 data.				
87	Pub, Recv actual PM1.0	16-bit Value-Input	2bytes	C, R, W, T, U		
This communication	n object is active when <b>Enabled</b> is selected f	for the parameter "R	ecv actual PM1	.0" under function		
Public func. This co	mmunication object is used to receive the a	ctual PM1.0 data.				
88	Pub, Recv actual HCHO	16-bit Value-Input	2bytes	C, R, W, T, U		
This communication	n object is active when <b>Enabled</b> is selected t	for the parameter "R	ecv actual HCH	O" under function		
Public func. This co	mmunication object is used to receive the a	ctual HCHO data.				
89	Pub, Recv actual TVOC	16-bit Value-Input	2bytes	C, R, W, T, U		
This communication	n object is active when <b>Enabled</b> is selected t	for the parameter "R	ecv actual TVO	C" under function		
Public func. This co	mmunication object is used to receive the a	ctual TVOC data.				
90	Pub, Recv actual CO	16-bit Value-Input	2bytes	C, R, W, T, U		
This communication	n object is active when <b>Enabled</b> is selected t	for the parameter "R	ecv actual CO"	under function		
Public func. This co	mmunication object is used to receive the a	ctual CO data.				
91	Pub, Recv actual CO2	16-bit Value-Input	2bytes	C, R, W, T, U		
This communication	n object is active when <b>Enabled</b> is selected t	for the parameter "R	ecv actual CO2	" under function		



Public func. This communication object is used to receive the actual CO2 data.							
92	Overwrite brightness, Backlight	8-bit Value	1byte	C, R, W, T, U			
This communication	n object is active when <b>Always</b> is selected fo	or the parameter "Ba	cklight mode"	and <b>Yes</b> for			
parameter "Overw	rite backlight brightness via object". This c	ommunication object	is used to over	write the backlight			
brightness.							
93	Overwrite brightness, Waking backlight	8-bit Value	1byte	C, R, W, T, U			
This communication	n object is active when <b>Delay</b> is selected for	the parameter "Bacl	klight mode" a	and <b>Yes</b> for			
parameter "Overw	rite waking backlight via object". This com	munication object is u	used to overwri	te the brightness			
value when waking	up the backlight.						
94	Overwrite brightness, Sleeping backlight	8-hit Value	1hvte	CRWTU			
	8-bit Value	o bit value	Toyte	C, I(, <b>VV</b> , I, O			
This communication	n object is active when <b>Delay</b> is selected for	the parameter "Bacl	klight mode" a	and <b>Yes</b> for			
parameter "Overw	rite sleeping backlight via object". This cor	nmunication object is	used to overw	rite the backlight			
brightness during s	leeping.						
95	Input from master, Control own	On/Off	1bit				
	backlight	Onyon	TBIC	C, I(, W, I, O			
This communication	n object is active when <b>Delay</b> is selected for	the parameter "Bacl	klight mode" a	and <b>delay</b>			
according to mast	<b>er device</b> for parameter "Delay time after v	vaking backlight". Th	nis communicat	ion object is used			
to delay the closing	time according to the switch signal from th	ne master device.					
96	Master output, Control other's backlight	On/Off	1bit	C, R, W, T, U			
This communicatio	n object is active when <b>Delay</b> is selected	for the parameter	"Backlight sett	ings" and <b>Yes</b> for			
parameter "Maste	r output for controlling other's backlight" .	This communication	object is used f	or the main output			
to control other bac	cklights						
97	Input-triggering, Waking backlight	On/Off	1bit	C, R, W, T, U			
This communicatio	n object is active when <b>Delay</b> is selected	for the parameter	"Backlight sett	ings" and <b>Yes</b> for			
parameter "Wake	up backlight via object". This communication	on object is used to w	ake up the bac	klight by object.			
98	Triggering output, Waking backlight	On/Off	1bit	C, R, W, T, U			
This communication	n object is active when <b>Delay</b> is selected for	the parameter "Bacl	klight settings"	and <b>Yes</b> for			
parameter "Outpu	t triggering signal for waking backlight" $.$ T	his communication of	oject is used to	wake up the			
backlight output tri	backlight output trigger signal.						

# 8. Safety Information and Maintenance

- (1) Read all instructions in detail before using.
- (2) Create a good ventilation environment.
- (3) In using process, pay attention to moisture-proof, shock-proof, dust-proof.
- (4) Strictly forbid to rain, contact with other liquids or corrosive gases.
- (5) If it is wet or attacked by liquid, it should be dried in time.
- (6) When the machine fails, please contact professional maintenance personnel or our company.

# 9. Contact

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