FCC/S in combination with SAx/A 1.0.1
Single room control

Liability Disclaimer:

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Introduction

Single room control can be implemented using the analog room control units (SAF/A or SAR/A), which can be connected directly to the Fan Coil Controllers. Depending on the device variant, the user has the option of local control of the setpoint and/or the fan stages. An integrated temperature sensor can be additionally included in the control system to measure the actual temperature.

Objectives of the document

The document is intended for all system administrators. It provides an overview and a rapid introduction to combining the analog control units with the FCC/S 1.x.x.1 in controller mode.

Content

Two analog room control unit device variants are available:

**SAR/A 1.0.1**
Setpoint adjustment/temperature measurement

**SAF/A 1.0.1**
Setpoint adjustment/temperature measurement/fan control
1. Hardware connection

Both device variants have two connection terminals.

**Terminal a:** Output of the room control unit. This must be connected to “Input a” of the FCC. *(Setpoint adjustment)*

**Terminal b:** Connection of the temperature sensor (see note for Fig. 5). Use is optional. *(Act. value detection)*

**Note:**
Only one analog room control unit SAx/A 1.0.1 can be connected per FCC/S! Terminals a+b are polarity free.

“No parallel connection!”

2. Software activation

The analog room control unit must first be activated in the “Setpoint adjustment” parameter.

**Activation automatically reserves “Input a” for the RCU.**

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<Fig. S5 SAx/A connection>
3. FCC/S as master (controller)

Setpoint adjustment:

The adjustment on the analog room control unit changes the setpoint display. The possible adjustment, e.g. ±5 K, is first defined in the parameters (Fig. 6). Absolute setpoint display of the master (controller) is via group object 97.

Another slave is not intended in this concept with the analog room control unit.

If setpoint adjustment was performed locally via the analog room control unit and the basic setpoint is then increased or decreased, the setpoint display is automatically adapted or updated.

Example:

Setpoint adjustment by 2 K via RCU with subsequent basic setpoint change.

![Fig. 8 Example of setpoint increase + change of the basic setpoint](image)

**Fan adjustment:**

When the FCC/S is operated in controller mode, a manual adjustment of the fan via the RCU directly affects the outputs.

The following status objects are output with manual fan adjustment.

![Fig. 9 Fan status objects](image)
Note:
If manual fan adjustment was set on the room control unit, all fan states that are received via KNX and calculated are saved in the background. Only when Auto mode is set on the room control unit itself again will all fan states saved in the background be updated. The automatic function cannot be influenced via KNX!

This behavior cannot be changed!

References to other documents

− FAQ Home and Building Automation
− FAQ Single room control
− Engineering Guide Database