

Training ClimaECO, 2020

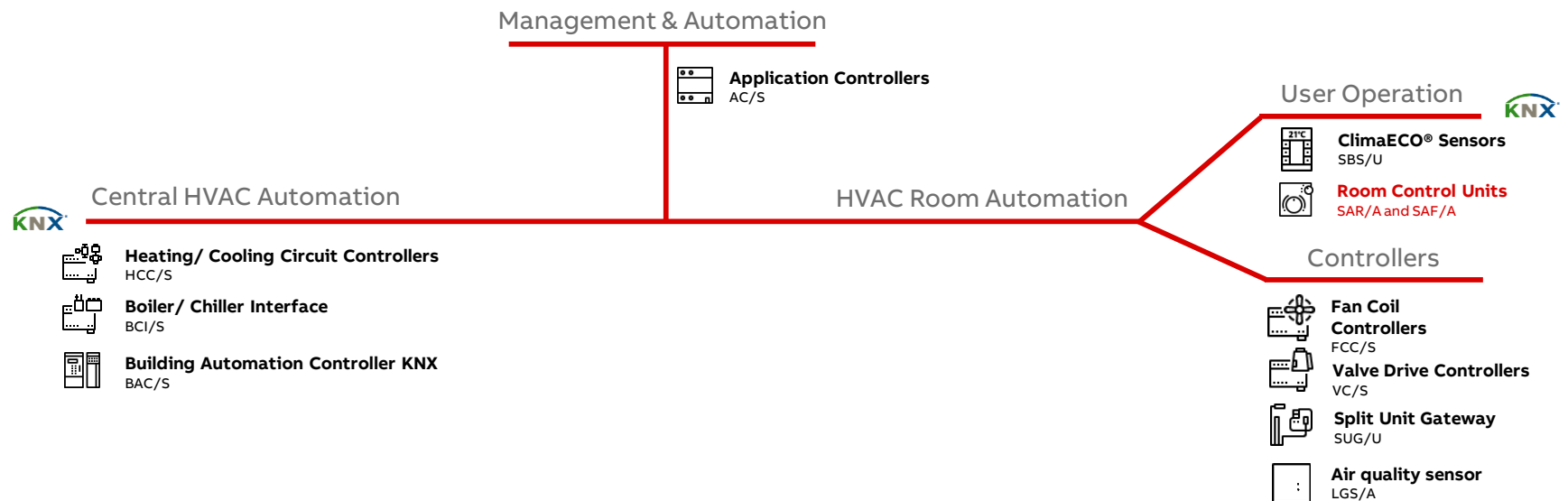
Room Control Units SAR/A , SAF/A

ClimaECO

Thorsten Reibel, Competence Center Europe

Room Control Unit SAR/A and SAF/A

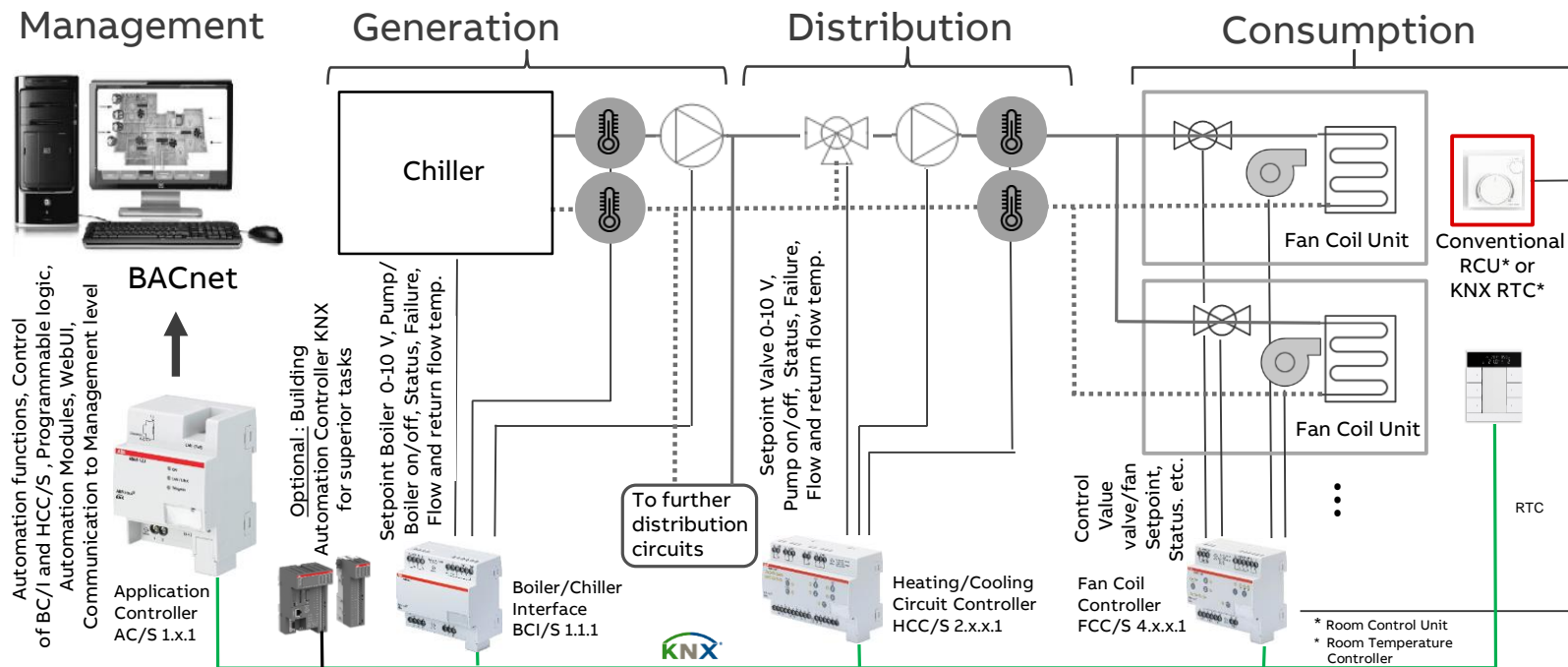
Overview ClimaECO: New Products



ClimaECO: A holistic HVAC Building Automation System, over 30 new devices

Room Control Unit SAR/A and SAF/A

Overview ClimaECO: ABB i-bus® KNX HVAC Solutions

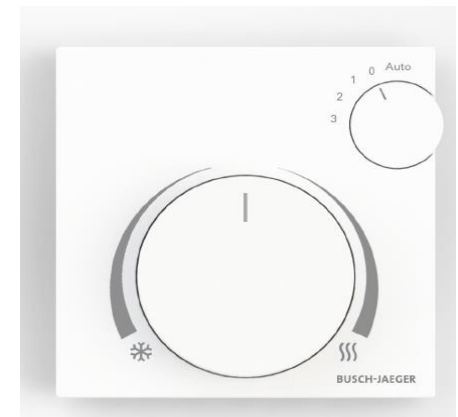


Room Control Unit SAR/A and SAF/A

Introduction

Motivation – Features

- Conventional operating element for room temperature/fan speed control
- Term: Room Control Unit (RCU)
- Simple to use
- Lower in price
- To be competitive in projects with demands for such a solution
- Simple and cost efficient user interface but powerful system behind (ClimaECO)
- Two different devices

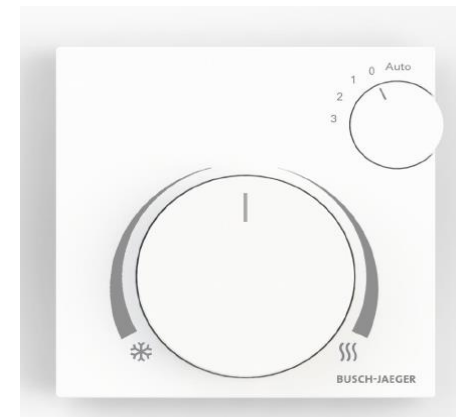


Room Control Unit SAR/A and SAF/A

Introduction

Motivation – Features

- SAR/A with set point control for radiators, floor heating and cooling ceiling
- SAF/A with set point and fan speed control for fan coil units
 - Integrated temperature sensor
 - White color
 - Surface mounted
- Controller has to be provided externally
- **No KNX device!**



Room Control Unit SAR/A and SAF/A

Application

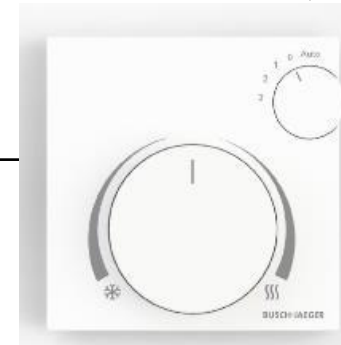
Fan Coil Controller FCC/S linked with RCU

FCC/S 1.x.x.1
Working as **controller**



Direct link
Set point and room temperature
One way communication

SAF/A
Room Control Unit (non KNX)



Room Control Unit SAR/A and SAF/A

Application

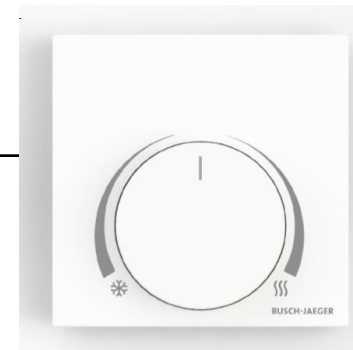
Valve Drive Controller VC/S linked with RCU

VC/S 4.x.1
Working as **controller**



Direct link
Set point and room temperature
One way communication

SAR/A
Room Control Unit (non KNX)



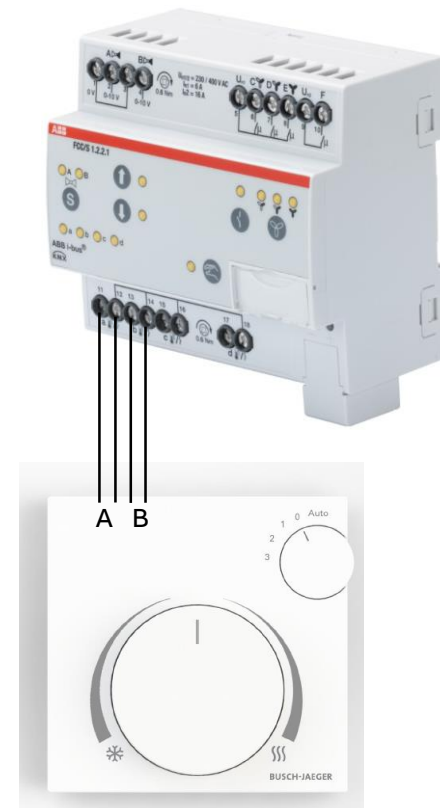
Room Control Unit SAR/A and SAF/A

Application

Connection FCC/S - RCU

4 wires required

- 2 wires for setpoint input A (mandatory)
 - Input in FCC/S is parametrized as 'used as analogue RCU input'
- 2 wires for room temperature input B, C or D
 - optional, can come also from another sensor, e.g. presence detector
 - ETS parameter of input in FCC/S to be adjusted as temperature sensor
 - Type of temperature sensor NTC, NTC type NTC20
- Fan speed signal detection via different resistor levels on setpoint wires in addition to the NTC resistance of setpoint



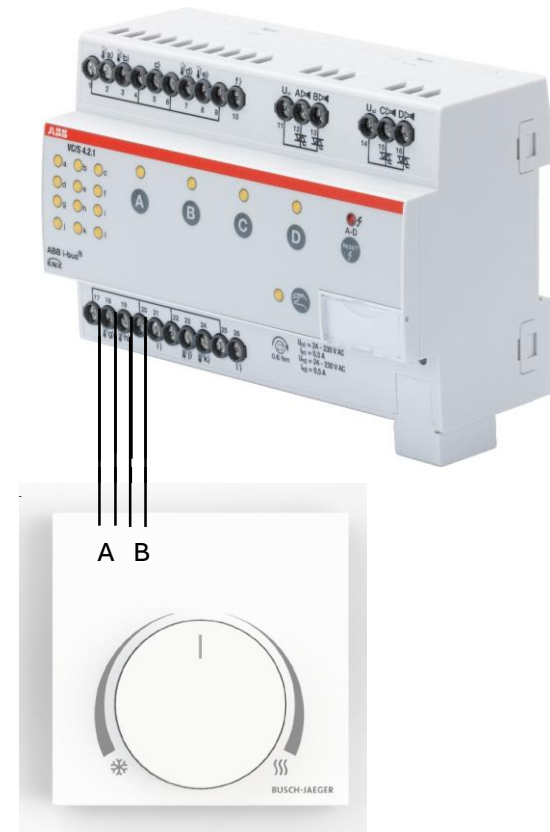
Room Control Unit SAR/A and SAF/A

Application

Connection VC/S - RCU

4 wires required

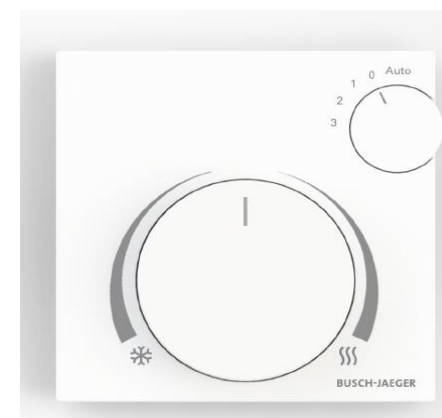
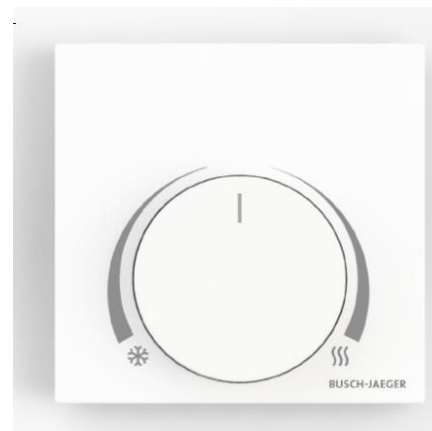
- 2 wires for setpoint input A (mandatory)
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Fan Coil Controller FCC/S 1.x.x.1

Overview

Function/Device	SAR/A	SAF/A
Integrated Controller	-	-
Radiator or Floor Heating	X	-
Cooling Ceiling	X	-
Fan Coil Unit	-	X
Fan Speed Adjustment	-	X
Temperature Measurement	X	X
Temp. Setpoint Adjustment	X	X
Display	-	-
LED	-	-
Surface Mounted	X	X
White Color	X	X
For FCC/S 1.x.x.1	-	X
For VC/S 4.x.1	X	-
4 wire connection	X	X
KNX device	-	-



Room Control Unit SAR/A and SAF/A

Products

SAR/A1.0.11-24

- Room control unit with set point control for radiators, floor heating and cooling ceiling
- Color white



Room Control Unit SAR/A and SAF/A

Products

SAF/A1.0.11-24

- Room control unit with set point control and fan speed control for Fan Coil Units
- Speed 1, 2 or 3
- Speed 0: Fan off and valve closed
- Color white



Room Control Unit SAR/A and SAF/A

Which answer is correct?

Question 1

Which statement is right related to Room Control Unit sensors?

- A** It is only made for ClimaECO solutions (HVAC)
- B** It is available in many colours
- C** Every Room Control Unit has an integrated temperature sensor

Room Control Unit SAR/A and SAF/A

Which answer is correct?

Question 1

Which statement is right related to Room Control Unit sensors?

- ☒ **A** It is only made for ClimaECO solutions (HVAC)
- ☐ **B** It is available in many colours
- ☐ **C** Every Room Control Units has an integrated temperature sensor

Room Control Unit SAR/A and SAF/A

Which answer is correct?

Question 2

What are the features of the Room Control Units?

- A** Integrated controller
- B** Integrated temperature-, CO₂- and humidity-sensor
- C** Setpoint- and fan speed adjustment (SAF/A)

Room Control Unit SAR/A and SAF/A

Which answer is correct?

Question 2

What are the features of the Room Control Units?

- ☐ A Integrated controller
- ☐ B Integrated temperature-, CO₂- and humidity-sensor
- ☒ C Setpoint- and fan speed adjustment (SAF/A)

Room Control Unit SAR/A and SAF/A

Which answer is correct?

Question 3

What is true? Room Control Units ...

- ☒ **A** ... have a KNX connection
- ☐ **B** ... have a 2-wires connection for setpoint
- ☐ **C** ... have to be supplied with 12 V DC

Room Control Unit SAR/A and SAF/A

Which answer is correct?

Question 3

What is true? Room Control Units ...

- ☐ A ... have a KNX connection
- ☒ B ... have a 2-wires connection for setpoint
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