

HEIDELBERG, APRIL 2021

# Valve Drive Controller VC/S and Room Control Unit SAR/A (Cooling)

Practical Learning Session – Competence Center Europe – Smart Buildings

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# Valve Drive Controller VC/S and Room Control Unit SAR/A (Cooling)

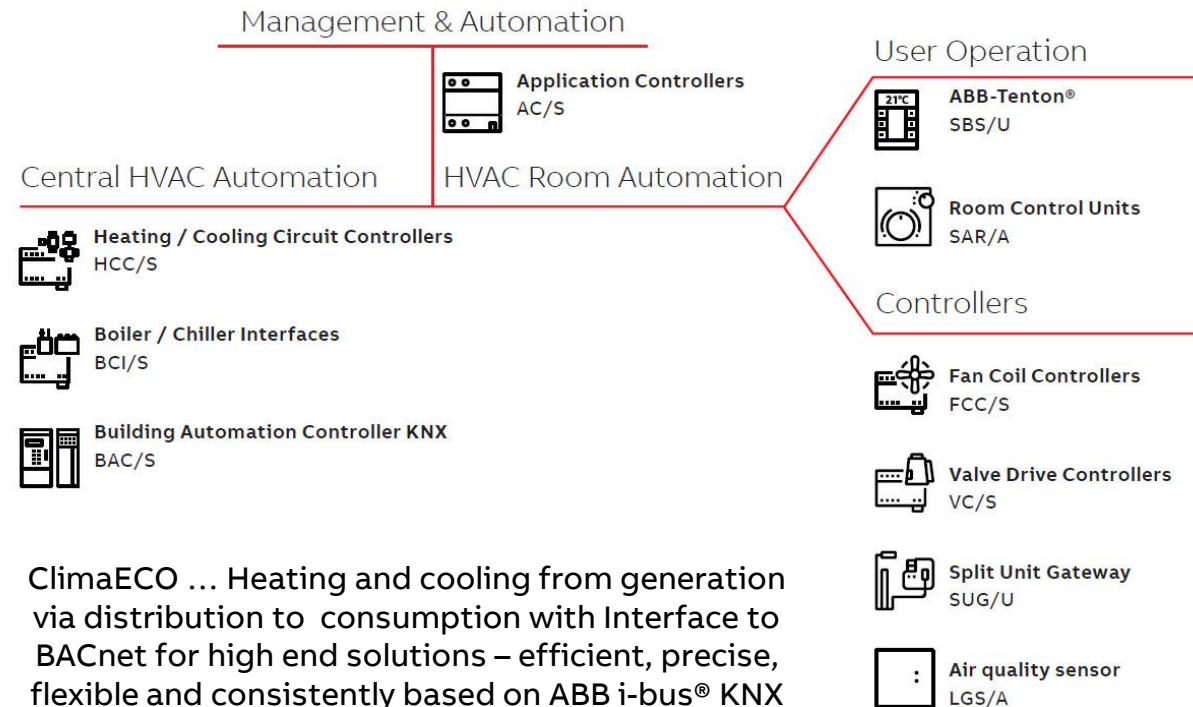
Practical Learning Session

# Valve Drive Controller VC/S and Room Control Unit SAR/A (Cooling)

## Practical Learning Session

### ClimaECO – Intelligent HVAC solutions with ABB i-bus® KNX

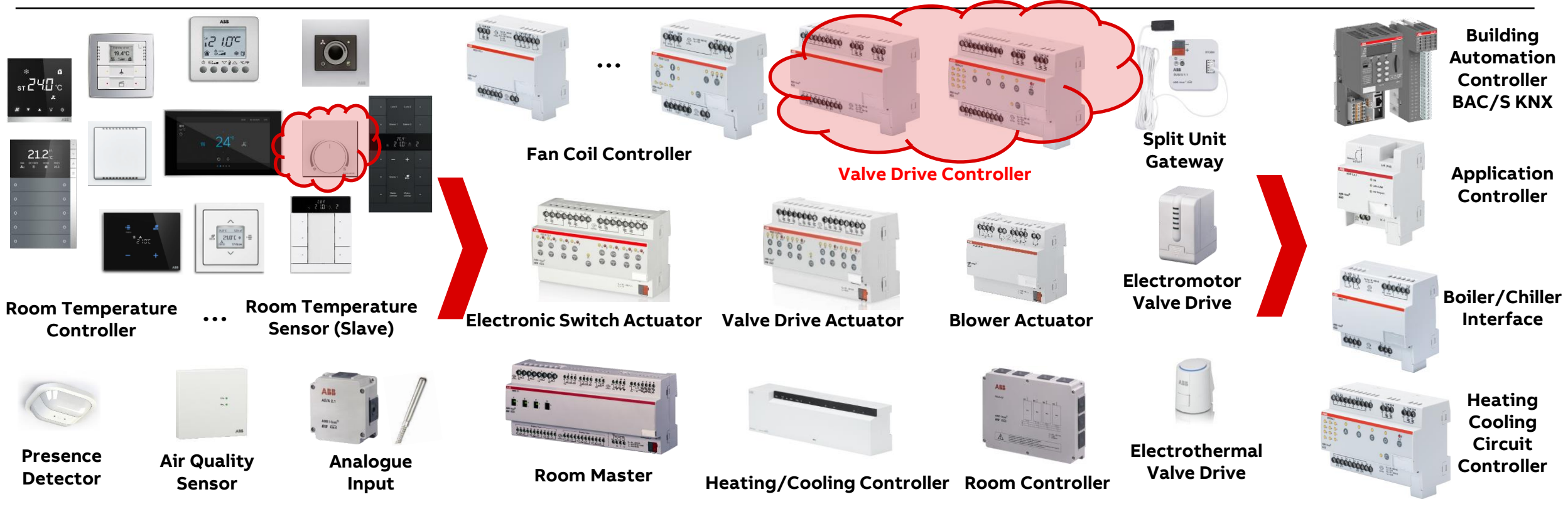
- ClimaECO is the holistic heating, ventilation and air-conditioning (HVAC) automation solution based on ABB i-bus® KNX
- A solution that seamlessly integrates room automation, distribution, central HVAC functions, management and automation into one system – a significant step towards increasing energy efficiency and reducing operational costs
- ABB's ClimaECO portfolio includes
  - ClimaECO® Sensors SBx/U and **Room Control Units SAx/A**
  - **Valve Drive Controllers VC/S**
  - Fan Coil Controller FCC/S
  - Heating/ Cooling Circuit Controllers HCC/S
  - Boiler/ Chiller Interface BCI/S
  - Application Controllers AC/S with Interface to BACnet
  - Building Automation Controller KNX BAC/S
- Slides & videos of Webinars, Learning Sessions → [T&Q Database](#)



# Valve Drive Controller VC/S and Room Control Unit SAR/A (Cooling)

Practical Learning Session

## Overview ABB i-bus® KNX HVAC Range



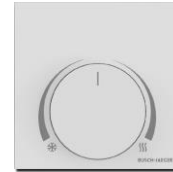
# Valve Drive Controller VC/S and Room Control Unit SAR/A (Cooling)

## Practical Learning Session

### Exercise: Individual Room Temperature Control – Cooling

In a meeting room, the room temperature is controlled with KNX

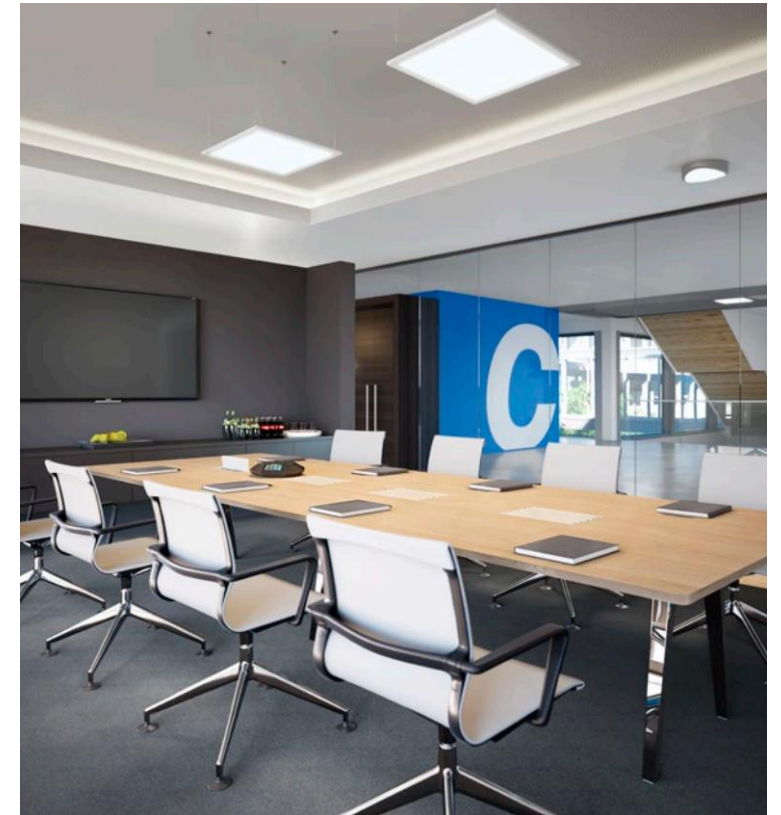
- A Valve Drive Controller VC/S controls the valve drives of chilled beams (internal controller function)
- The Room Control Unit SAR/A is used to measure the room temperature and to set the target temperature (setpoint)  
→ Simple and cost-efficient user interface but powerful system behind
- Operating mode switching with
  - Push button: Switch On/Off control
  - Presence detector: Switching to comfort mode
  - Window contact: Heat protection
  - Dew point alarm: Heat protection
  - Condensation/fill level alarm: Heat protection
  - Time switch: Switching between ECO (night)/standby mode
  - Visu/BMS: Switching between auto/heat protection mode



Room Control Unit SAR/A



Valve Drive Controller VC/S  
→ Controller

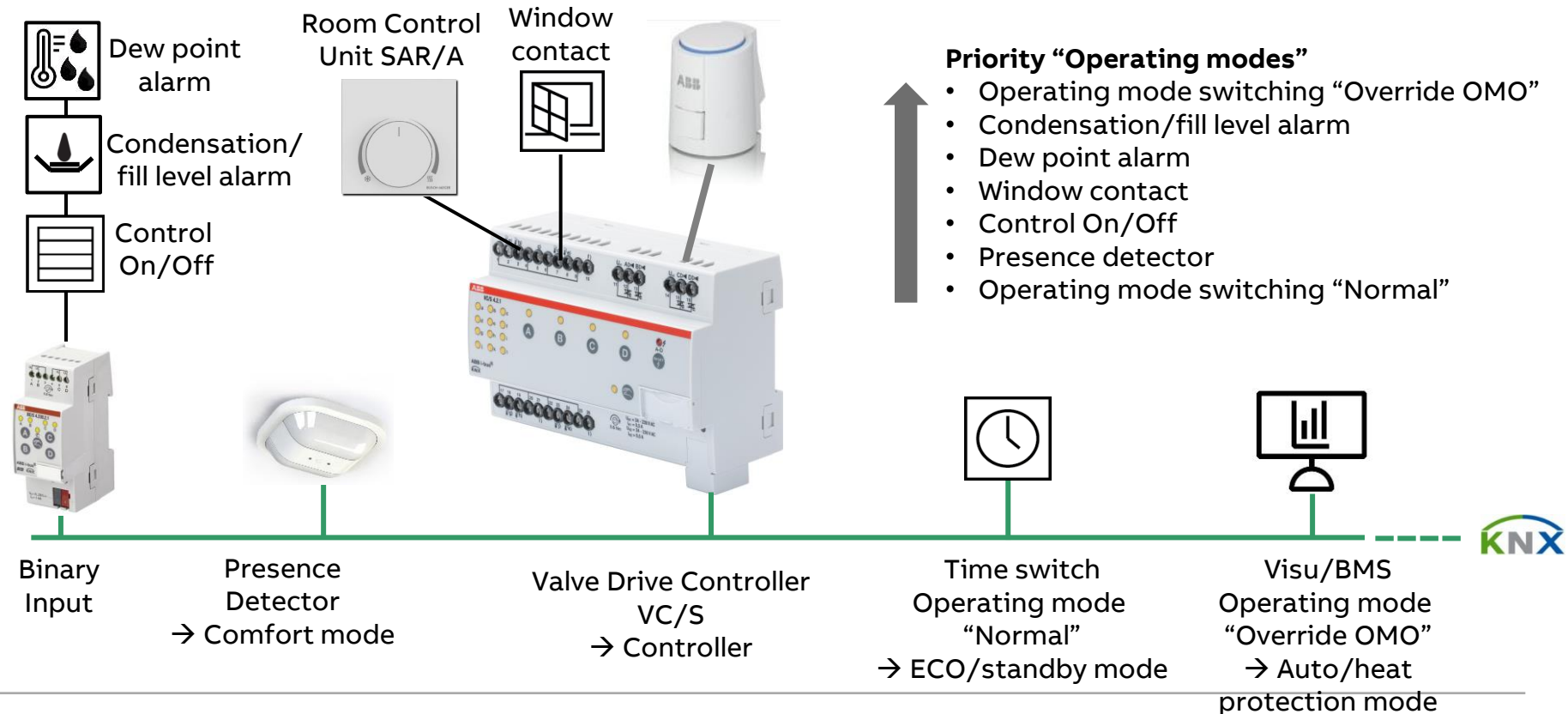




# Valve Drive Controller VC/S and Room Control Unit SAR/A (Cooling)

## Practical Learning Session

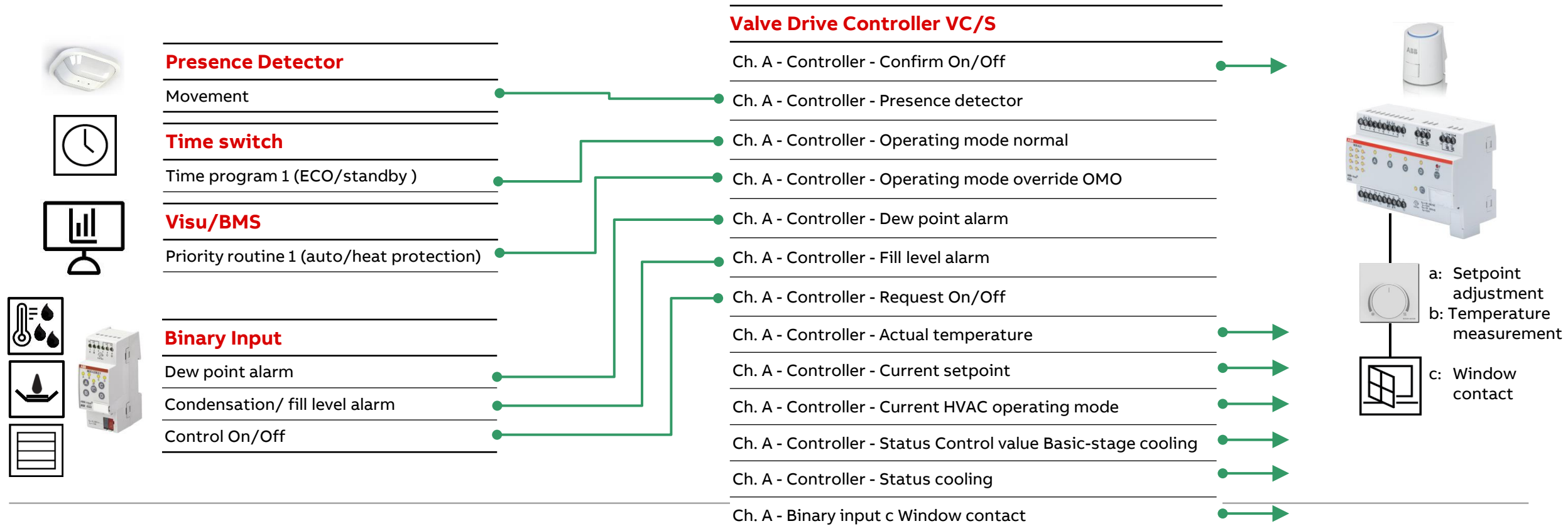
### Exercise: Individual Room Temperature Control in a meeting room



# Valve Drive Controller VC/S and Room Control Unit SAR/A (Cooling)

## Practical Learning Session

### Exercise: Individual Room Temperature Control – Cooling (minimum connections of group objects)



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# Valve Drive Controller VC/S and Room Control Unit SAR/A (Cooling)

Practical Learning Session



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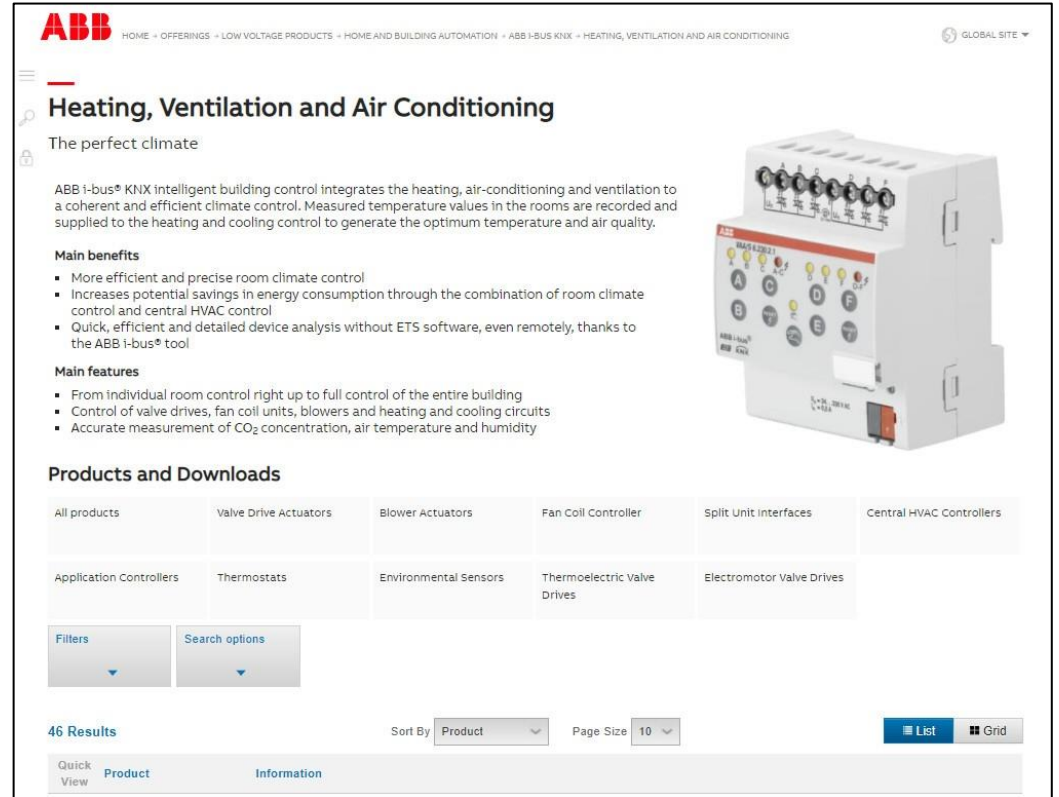
## Practical Learning Session

### Homepage

[www.abb.com/KNX](http://www.abb.com/KNX)

→ Products and Downloads  
→ Heating, Ventilation and Air Conditioning

- ETS Application
- ABB i-bus® Tool
- Product Manual
- Engineering Guides
- Installation and Operating Instructions
- Specification Text
- ...



**ABB** HOME + OFFERINGS + LOW VOLTAGE PRODUCTS + HOME AND BUILDING AUTOMATION + ABB I-BUS KNX + HEATING, VENTILATION AND AIR CONDITIONING GLOBAL SITE

## Heating, Ventilation and Air Conditioning

The perfect climate

ABB i-bus® KNX intelligent building control integrates the heating, air-conditioning and ventilation to a coherent and efficient climate control. Measured temperature values in the rooms are recorded and supplied to the heating and cooling control to generate the optimum temperature and air quality.

**Main benefits**

- More efficient and precise room climate control
- Increases potential savings in energy consumption through the combination of room climate control and central HVAC control
- Quick, efficient and detailed device analysis without ETS software, even remotely, thanks to the ABB i-bus® tool

**Main features**

- From individual room control right up to full control of the entire building
- Control of valve drives, fan coil units, blowers and heating and cooling circuits
- Accurate measurement of CO<sub>2</sub> concentration, air temperature and humidity

**Products and Downloads**

|                         |                       |                       |                             |                           |                          |
|-------------------------|-----------------------|-----------------------|-----------------------------|---------------------------|--------------------------|
| All products            | Valve Drive Actuators | Blower Actuators      | Fan Coil Controller         | Split Unit Interfaces     | Central HVAC Controllers |
| Application Controllers | Thermostats           | Environmental Sensors | Thermoelectric Valve Drives | Electromotor Valve Drives |                          |

Filters Search options

46 Results Sort By Product Page Size 10 List Grid

Quick View Product Information

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## Practical Learning Session

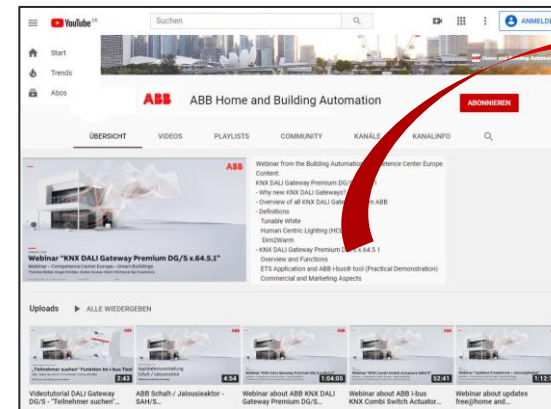
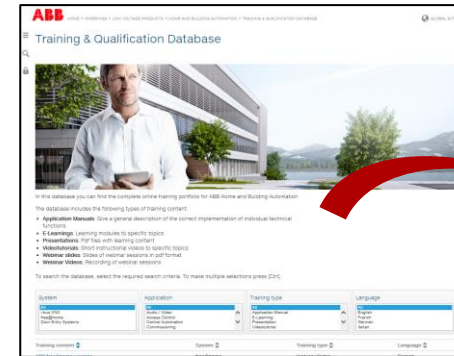
### Training Material

#### Training & Qualification Database

- The database contains extensive training content
  - Webinar, Learning Sessions, ... slides and videos
  - Presentations
  - Video tutorials
  - and more ...
  - <https://go.abb/ba-training>
  - [www.abb.com/knx](http://www.abb.com/knx) (→ Services & Tools → Training and Qualification → Training Database)

#### YouTube

- Channel “ABB Home and Building Automation”
  - <https://www.youtube.com/user/ABBibusKNX>



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