

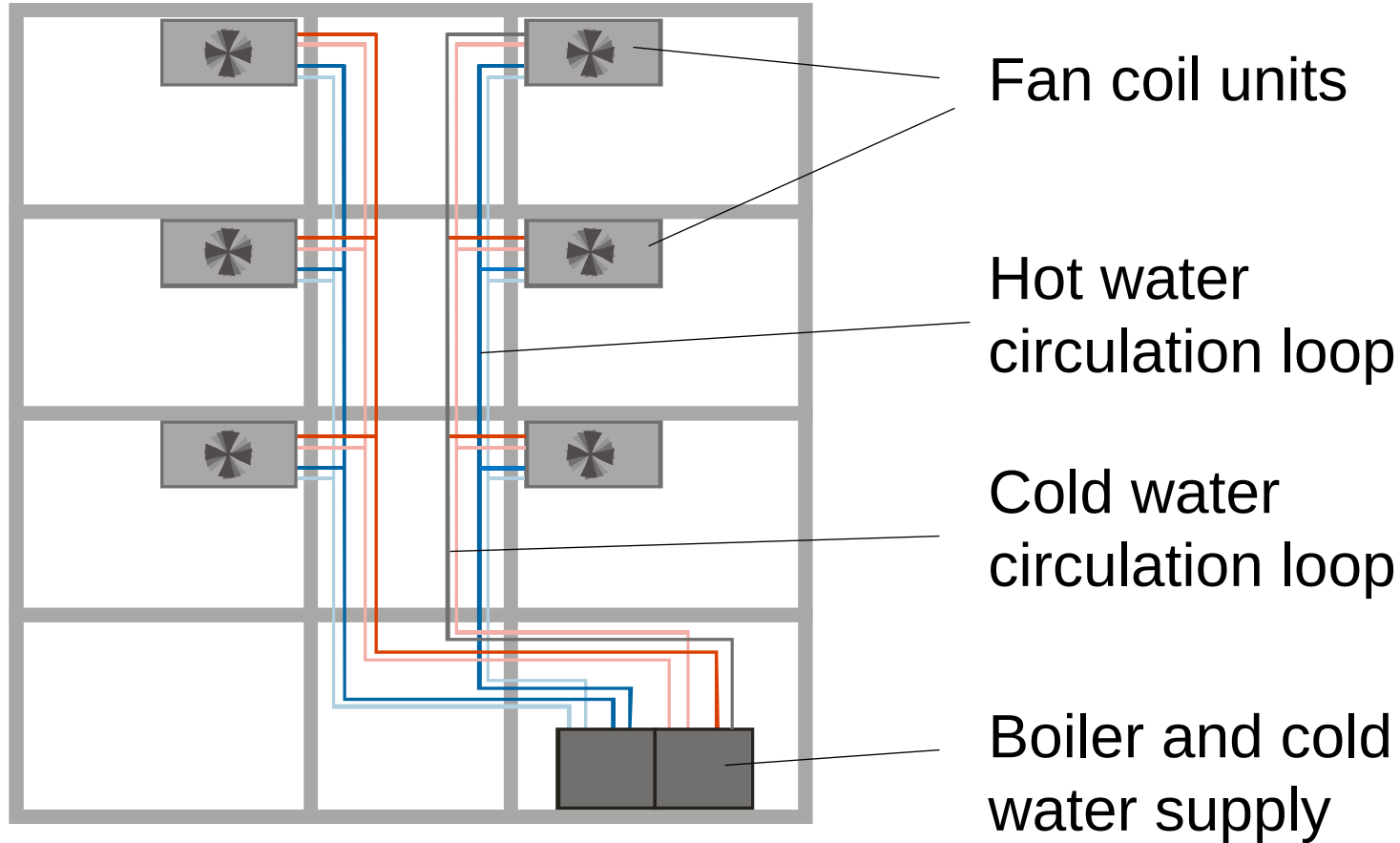
Fan Coil Controller FC/S 1.1



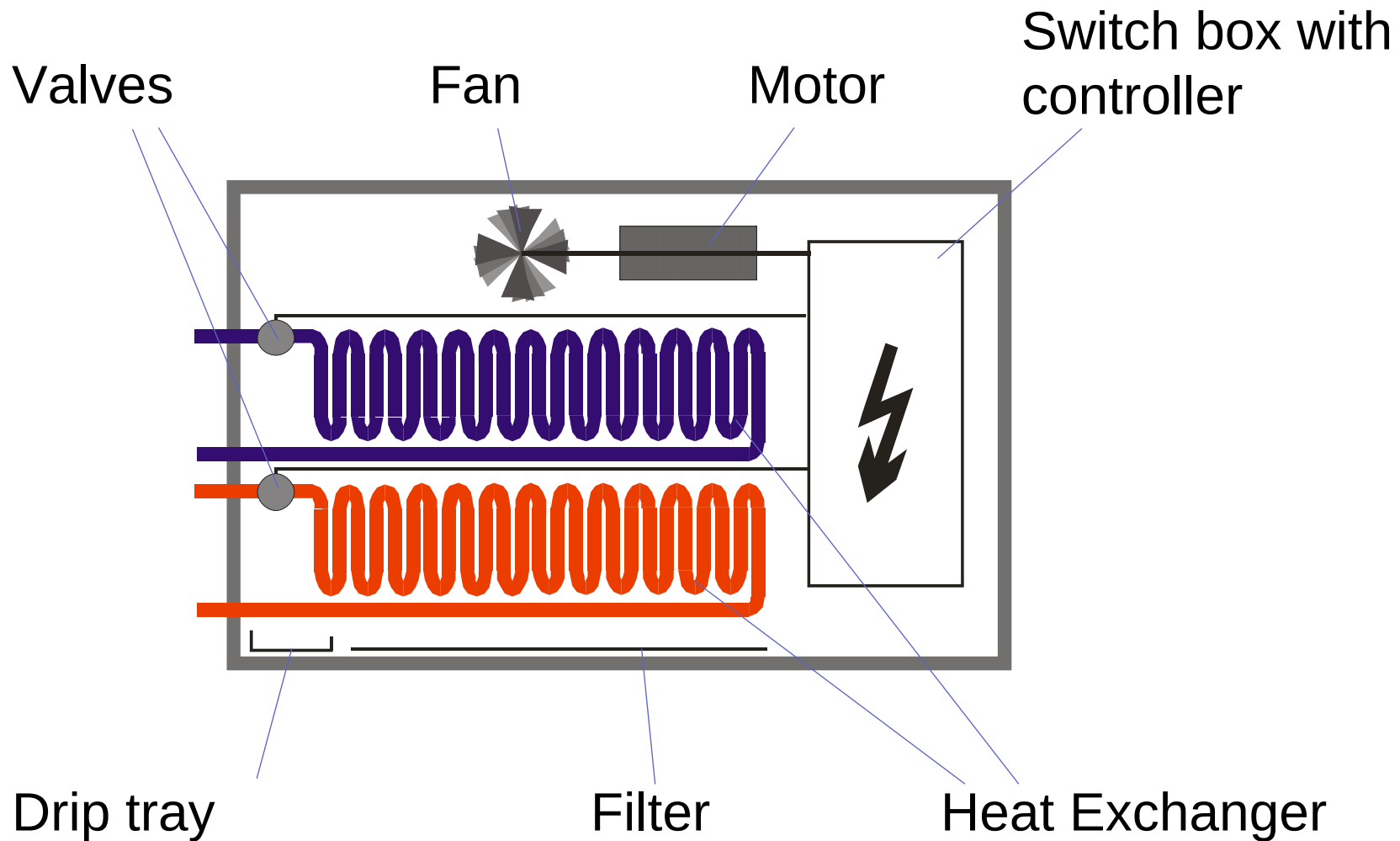


- Control of Fan Coil Units via EIB/KNX
- MDRC installation
- 6 modules width
- All connections: screw terminals
- Application: Heating and cooling with individual room temperature control
- Central boiler and cold water supply system

Structure of an HVAC system with fan coil units



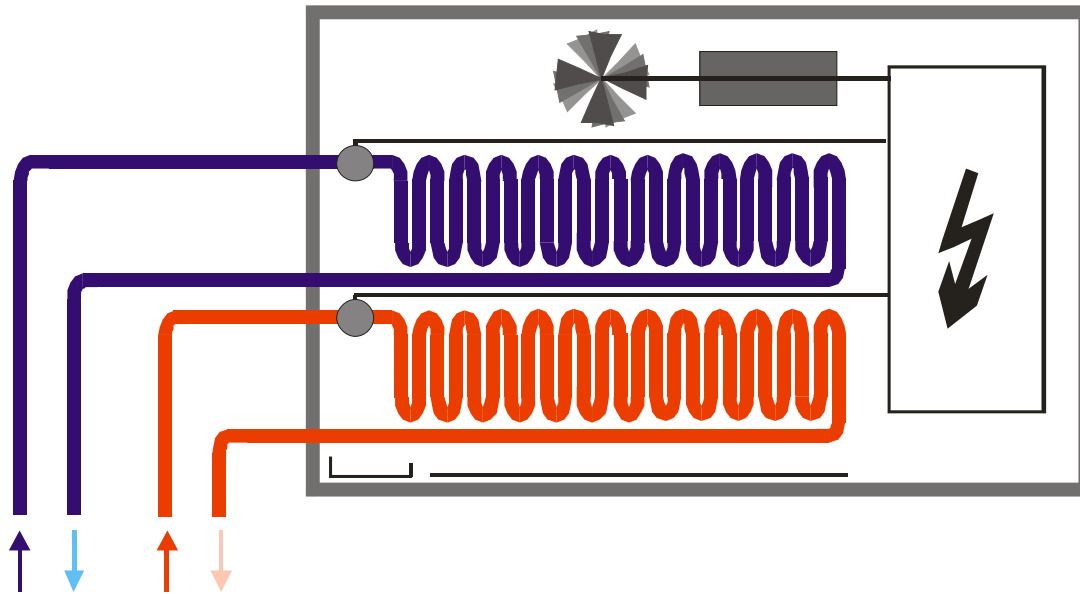
Structure of a fan coil unit



Variants – Water Systems I

4-pipe version

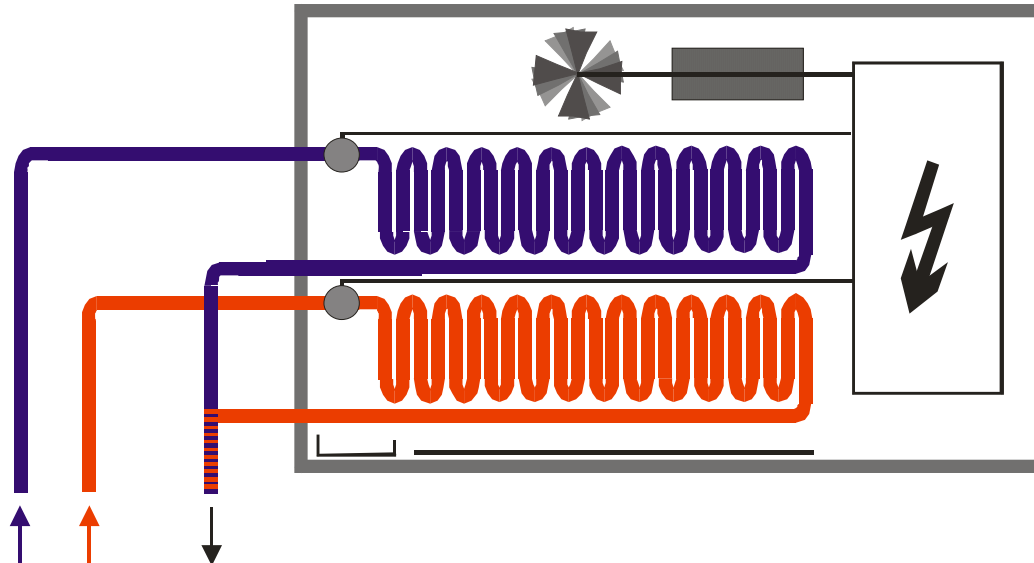
- Separate water circulation loops for hot and cold water



Variants – Water Systems II

3-pipe version

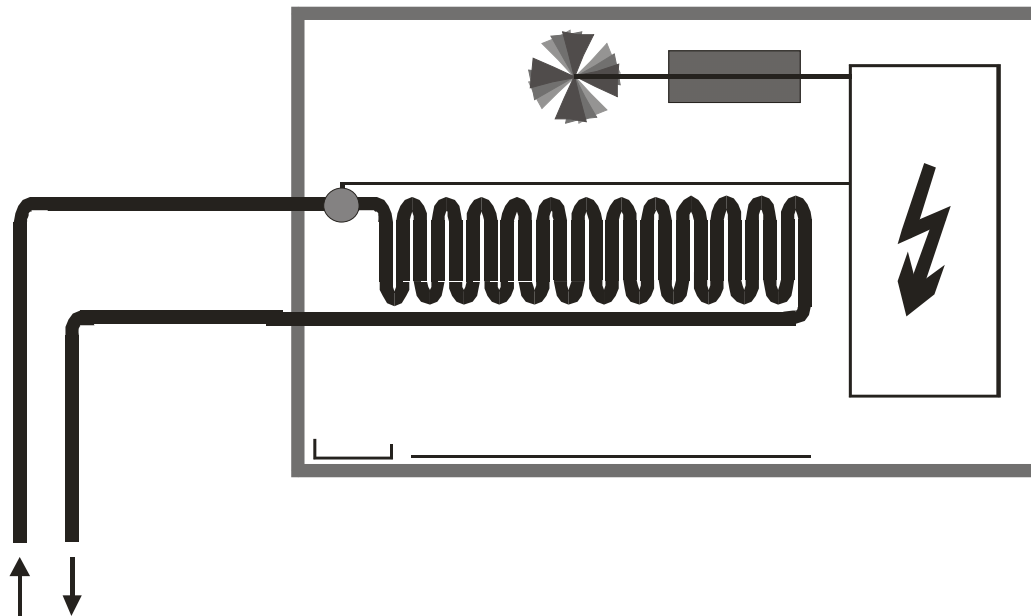
- Separate inlet for hot and cold water
- Common return flow



Variants – Water Systems III

2-pipe version

- One water circulation loop only
- Either hot or cold water depending on the time of the year or only cold water (heating via radiators)



Variants – Designs

- Compact units (including housing): upright, wall mounting, or ceiling mounting
- Built-in units (without housing): wall mounting, ceiling mounting, or floor mounting
- Circulating air units / mixed air units



Outputs

- 1 output for heating
1 output for cooling
(for electromotive or electrothermal valve drives)
- Output for fan motors with up to 3 speed levels via potential-free contacts

Inputs

- Temperature sensor TS/K 1.1
- 2 binary inputs 24 V AC for:
 - window contact
 - drip tray monitoring (condensated water)
- Potentiometer

Other connections

- 230 V AC Power supply
- 24 V AC Auxiliary voltage for binary inputs
- EIB/KNX



Operation Modes

- Fan Coil / Convector
(Heating and cooling)
 - Fan coil: Valve drive and fan control
 - Convector: only valve drive control
- 2-pipe / 4-pipe version
 - 4-pipe version: 2 separat valves for heating and cooling (two water circulation loops)
 - 2-pipe version: 1 common valve for heating and cooling (one water circulation loops)
(Valve is connected to heating output)

Actual temperature

- Room temperature
 - local via temperature sensor TS/K 1.1
(can be sent via EIB/KNX, cyclically or on change of value)
 - from room temperature controller via EIB/KNX
(cyclically monitored)
- Outside temperature
 - via EIB/KNX
(cyclically monitored)
 - for adjusting of set temperature

Setpoint values I

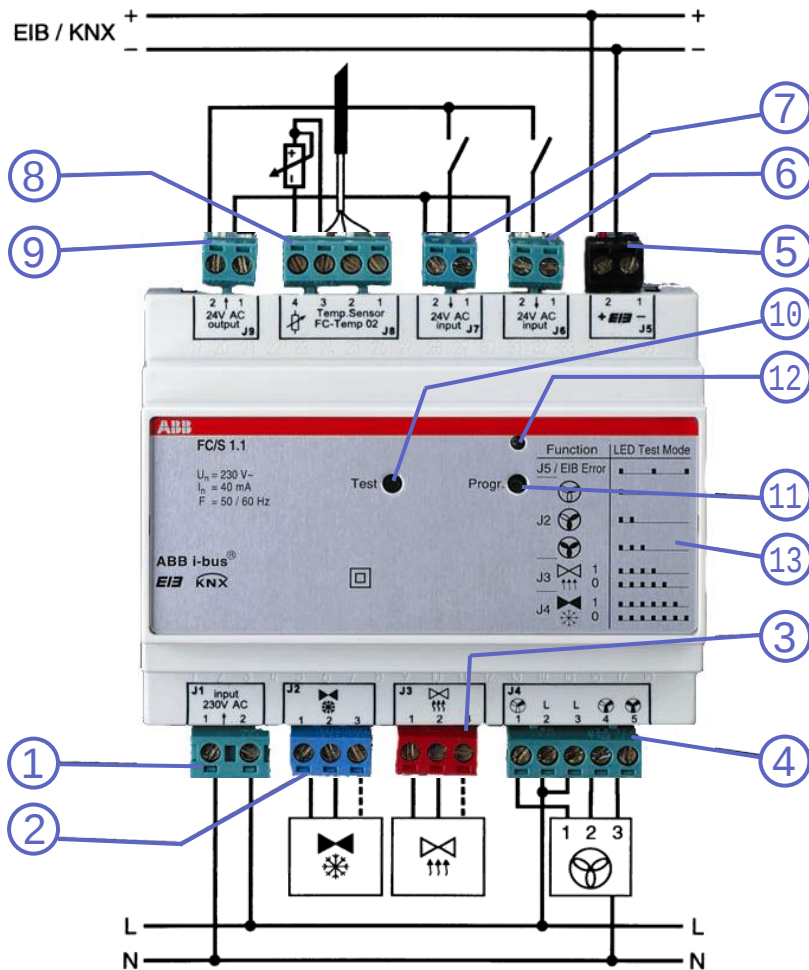
- Base setpoint temperature
(via parameter or communication object)
- Setpoint adjustment
(via EIB/KNX or local via potentiometer)
- Optional: Setpoint correction depending on external temperature for cooling
- Insensitive zone between heating and cooling

Setpoint values II

- Reduced heating / increased cooling setpoint temperature for:
 - standby mode
 - night setback
- Temperature thresholds for frost and heat protection mode
- Limit setpoint values for heating and cooling
- Switching between comfort mode, standby mode and night setback via EIB/KNX

Fan Coil Controller, MDRC

FC/S 1.1



Connections

1. Power supply 230 V AC
2. Cooling valve
3. Heating valve
4. Fan (up to 3 levels)
5. EIB/KNX
- 6.+7. 2 binary inputs 24 V AC
8. Temp. Sensor + Potentiometer
9. Auxiliary voltage 24 V AC for binary inputs
10. Test push button
11. Programming push button
12. Programming LED / Test LED
13. Test table



ABB