


ELECTRICAL REGULATION SCHEME

EXAMPLE 1: RADIANT SYSTEM FOR HEATING AND COOLING OF 6 ZONES WITH DEHUMIDIFIER AND HEAT PUMP

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INDICATIONS FOR CHOOSING THE BUS CABLE

REG System devices require 12V DC power and the BUS connection, therefore a total of 4 wires. The REG bus uses the EIA-485 standard (formerly known as RS-485), so the first choice is to use cables specifically created for this type of bus.


The ideal installation is 2 × 1.5 sq mm red and black cable for power supply and a twisted and shielded cable specific for BUS EIA-485, such as for example:

- BELDEN, 9841 (see also <https://www.belden.com/products/cable/electronic-wire-cable/rs-485-cable>)
- CEAM, CPR 6003
- TASKER, C521
- FANTON, ACS 9841

Attention: these models are given as an example of cables that have suitable electrical characteristics; the electrical designer must verify the correspondence of the chosen cable to the system specific needs: type of installation, fire resistance, etc.; in particular, BELDEN has a whole family of EIA-485 cables, suitable for any type of installation.


The use of this type of cable and the “in / out” wiring compliance is mandatory!

BUS CABLE TYPES	PAGE	OF	DATE	CUSTOMER
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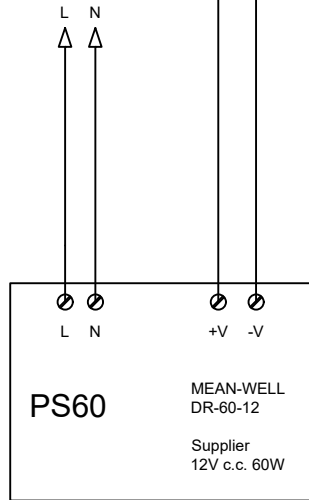


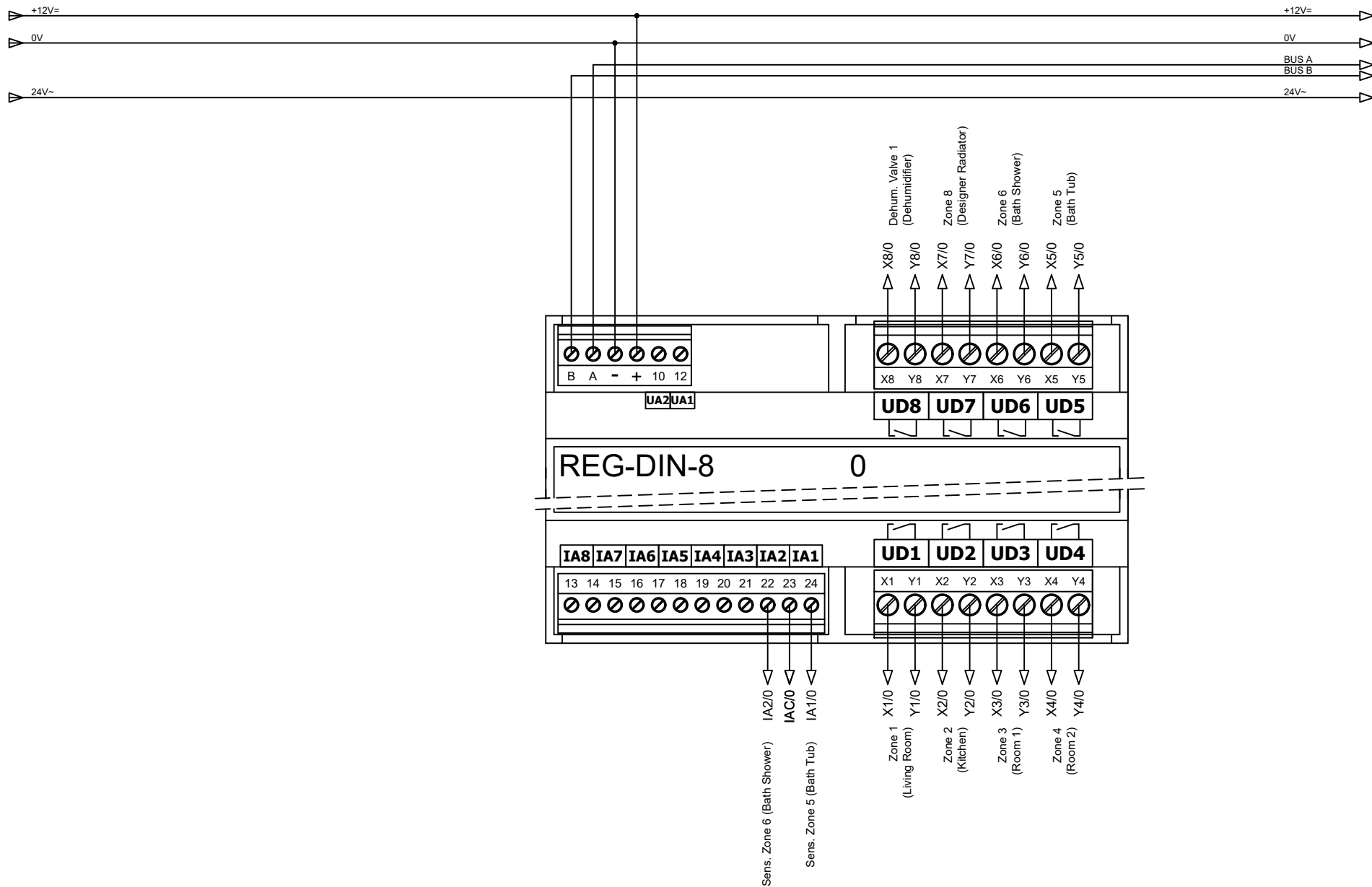
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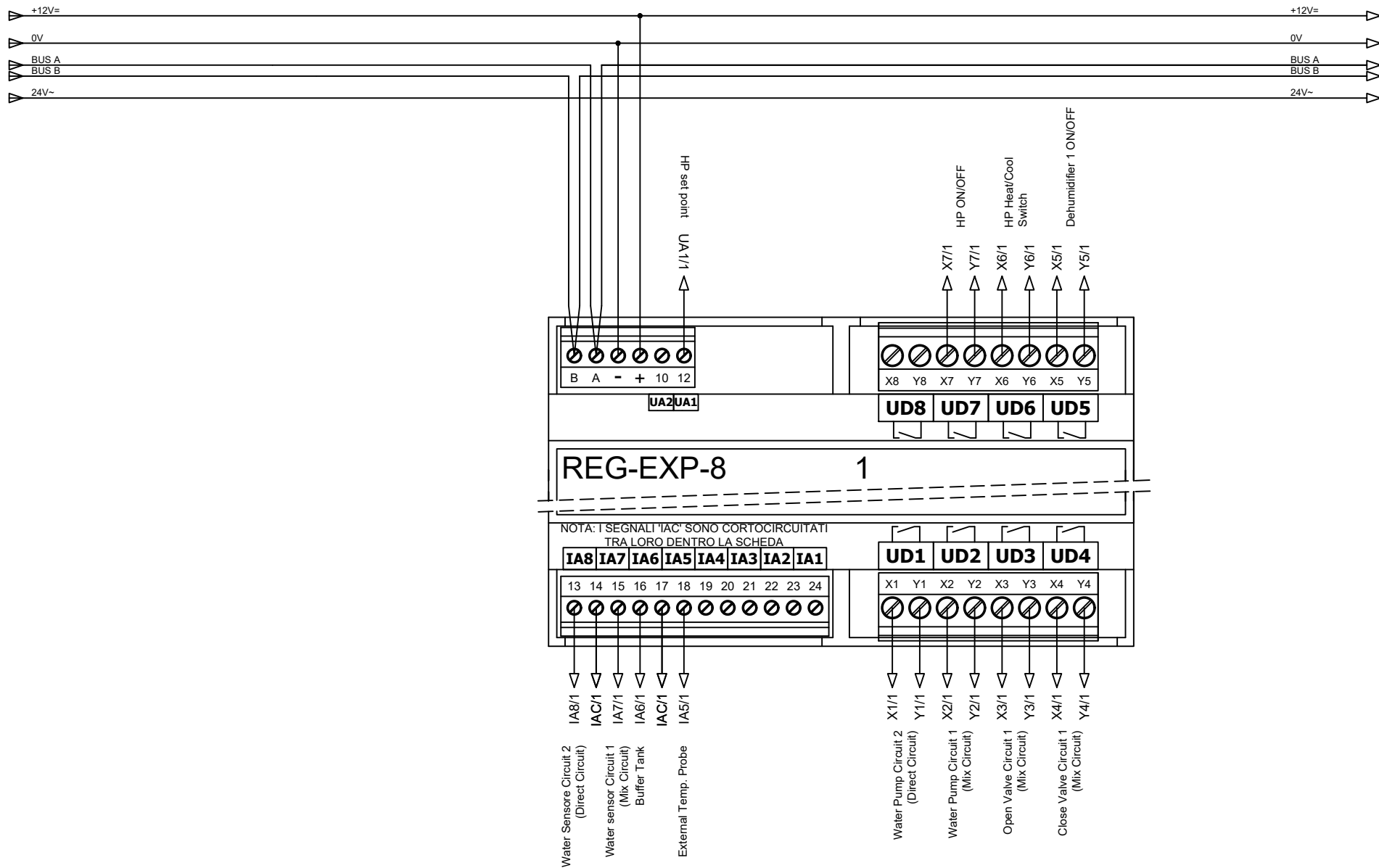
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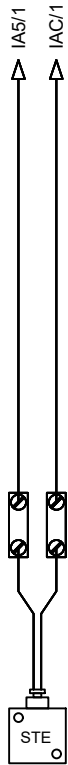
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SYSTEM POWER
SUPPLY
(CABLES PROTECTION AND
SIZING MUST BE DONE BY AN
ELECTRICAL DESIGNER)

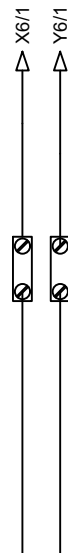






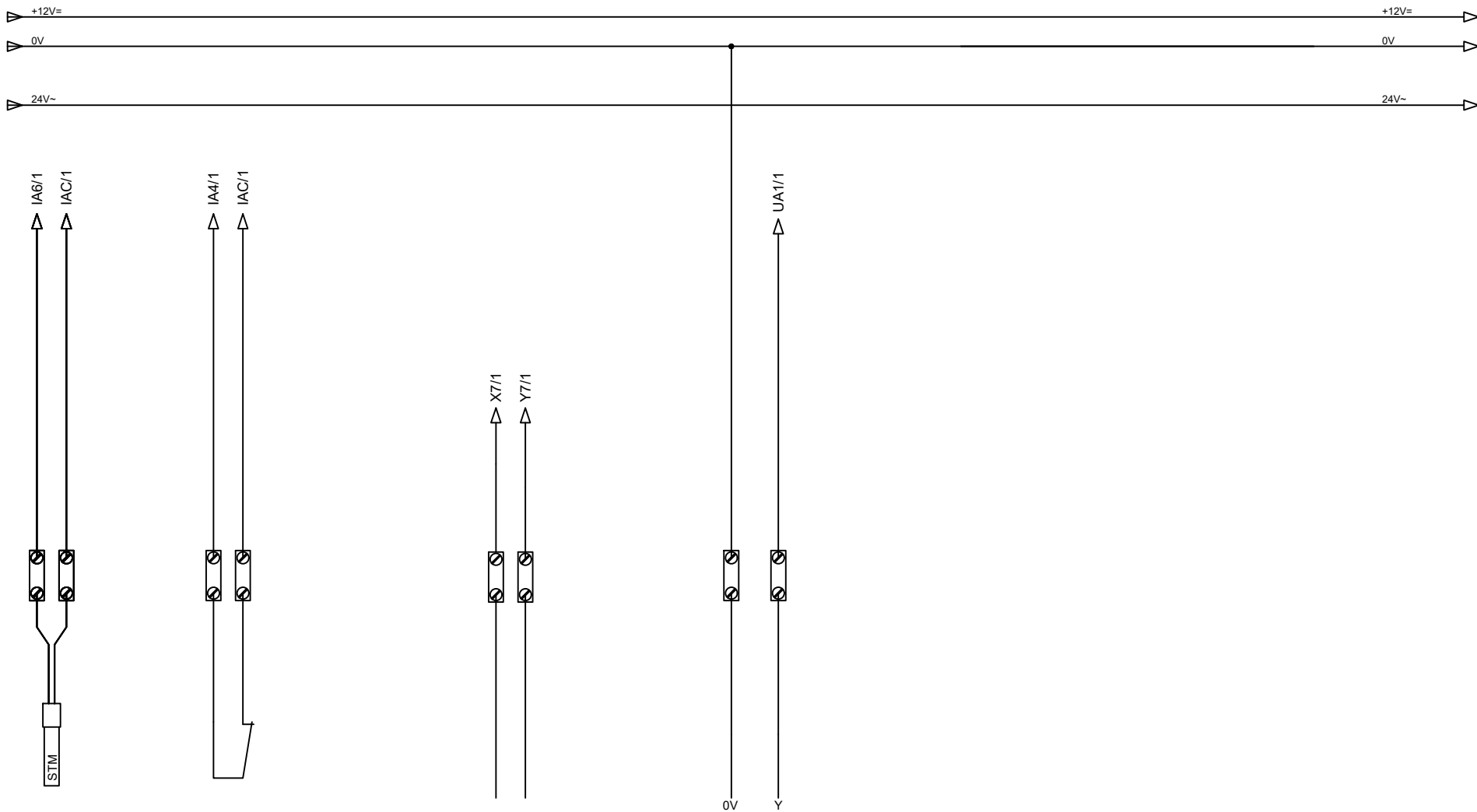


External Temp. Probe



HP Heat/Cool Switch

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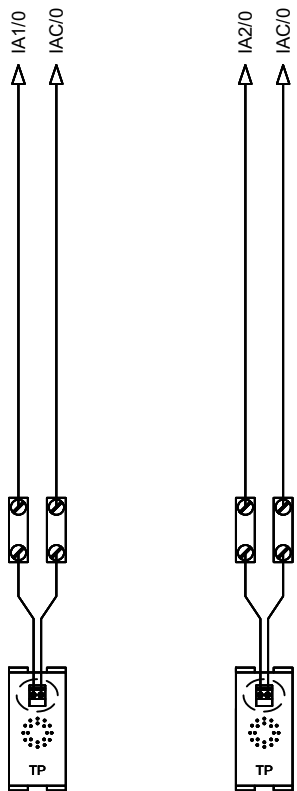


Buffer Tank

HP Signal Alarm

HP On/Off

HP Setpoint (0/10 V)



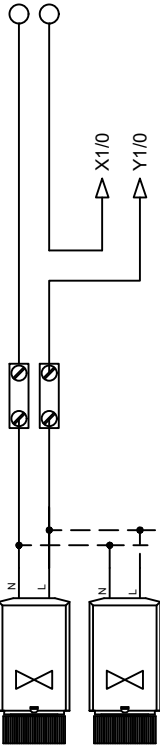
Sens. Zone 5 (Bath Tub)

Sens. Zone 6 (Bath Shower)

Zones Ambient Temperatura Probes

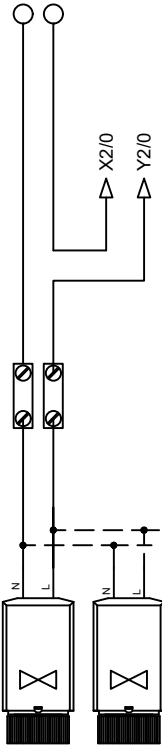
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POWER SUPPLY
(VOLTAGE, PROTECTION AND
CABLES SIZING MUST BE DONE
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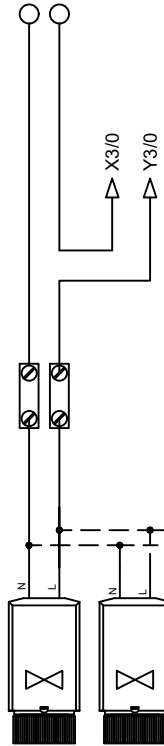
Output Zone 1
(Living Room)

POWER SUPPLY
(VOLTAGE, PROTECTION AND
CABLES SIZING MUST BE DONE
BY AN ELECTRICAL DESIGNER)



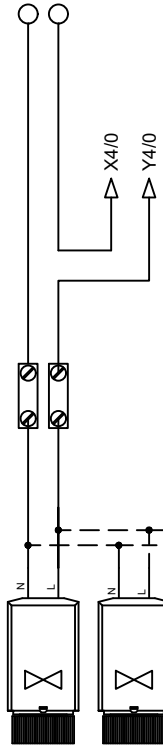
Output Zone 2
(Kitchen)

POWER SUPPLY
(VOLTAGE, PROTECTION AND
CABLES SIZING MUST BE DONE
BY AN ELECTRICAL DESIGNER)



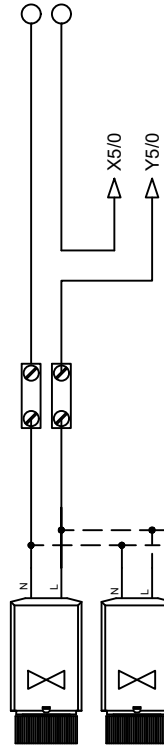
Output Zone 3
(Room 1)

POWER SUPPLY
(VOLTAGE, PROTECTION AND
CABLES SIZING MUST BE DONE
BY AN ELECTRICAL DESIGNER)



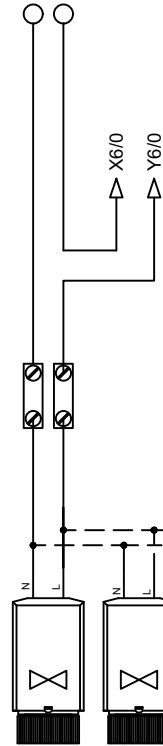
Output Zone 4
(Room 2)

POWER SUPPLY
(VOLTAGE, PROTECTION AND
CABLES SIZING MUST BE DONE
BY AN ELECTRICAL DESIGNER)



Output Zone 5
(Bath Tub)

POWER SUPPLY
(VOLTAGE, PROTECTION AND
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Output Zone 6
(Bath Shower)

Zones Output (Mix Circuit 1 Zones)

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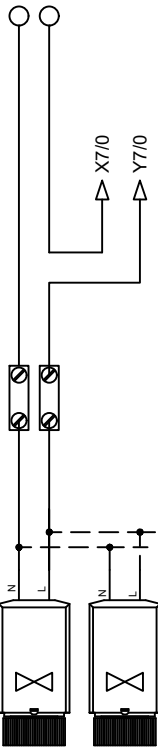
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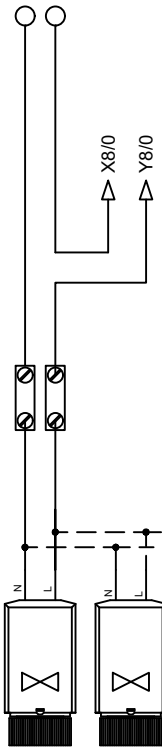
SETECNA
Elettronica Per il Comfort

POWER SUPPLY
 (VOLTAGE, PROTECTION AND
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Output Zone 8
 (Designer Radiator)

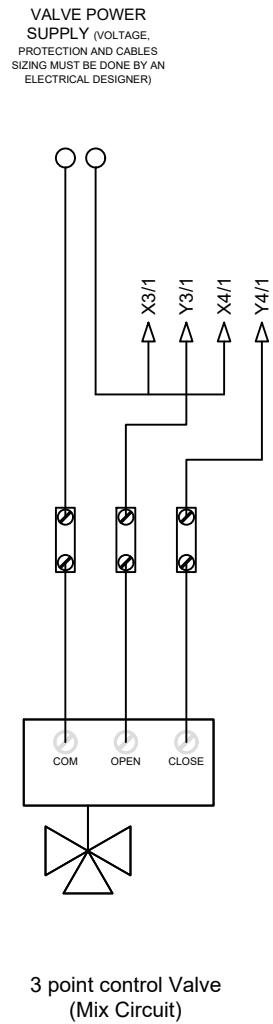
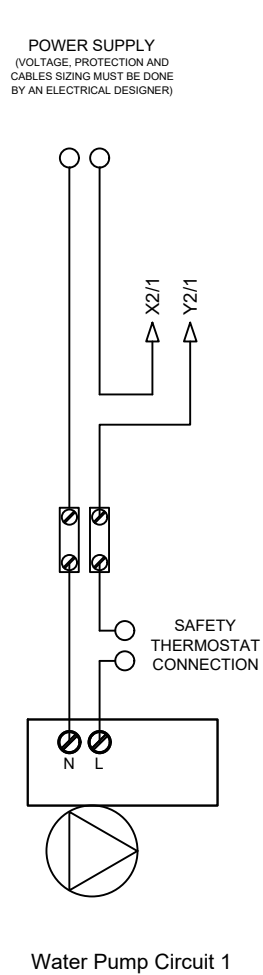
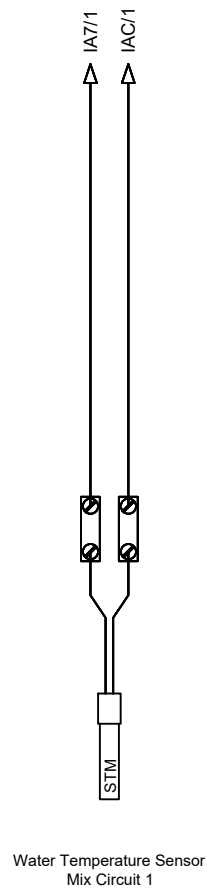
POWER SUPPLY
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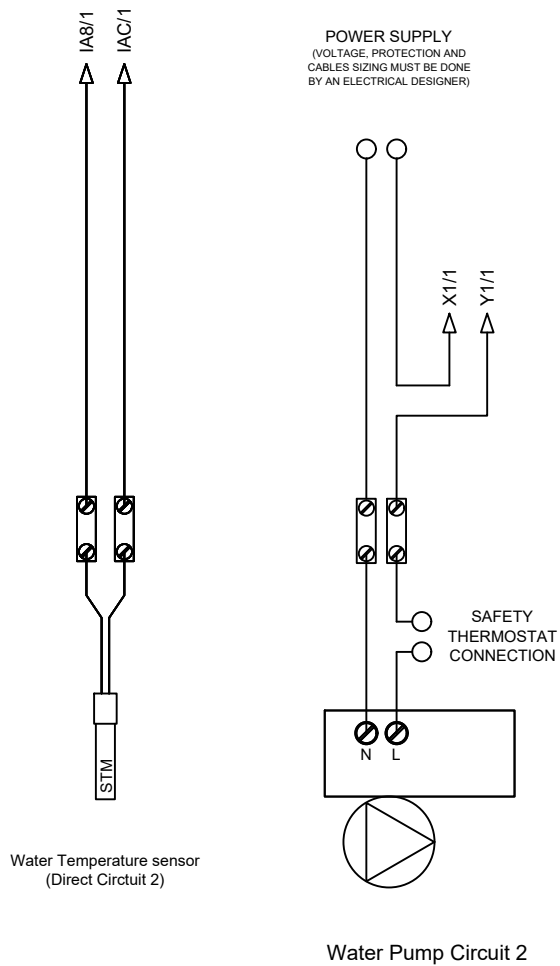


Dehumidifier Valve 1
 (Dehumidifier)

Zones Output (Direct Circuit 2 Zones)

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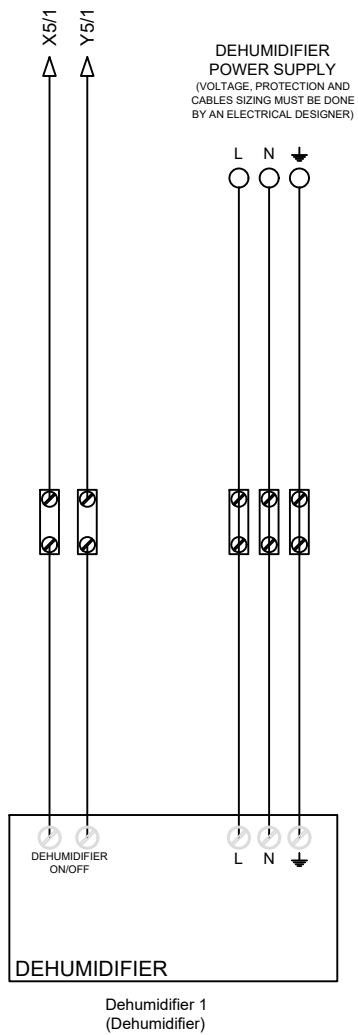


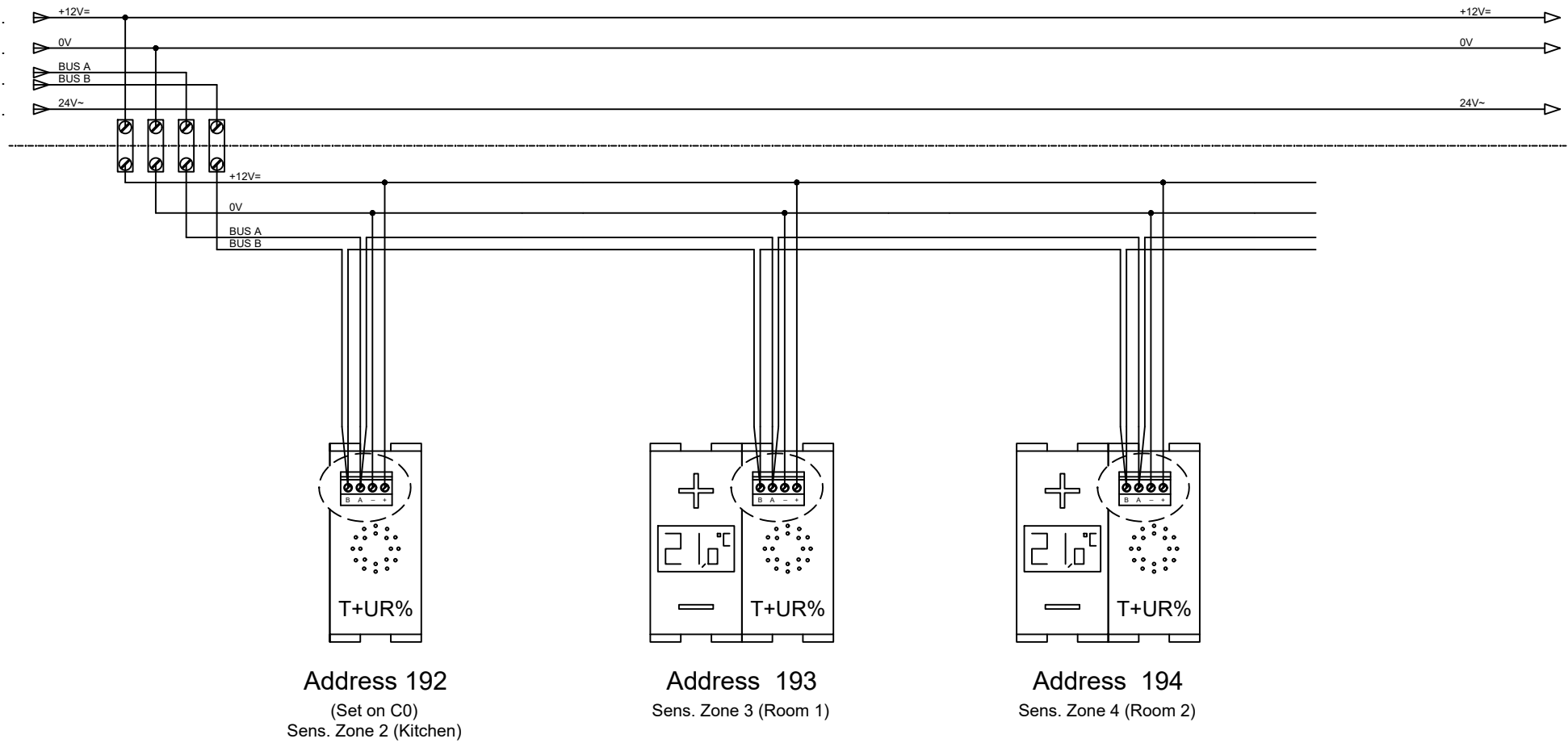
Circuit 2 Components
(Direct Circuit)

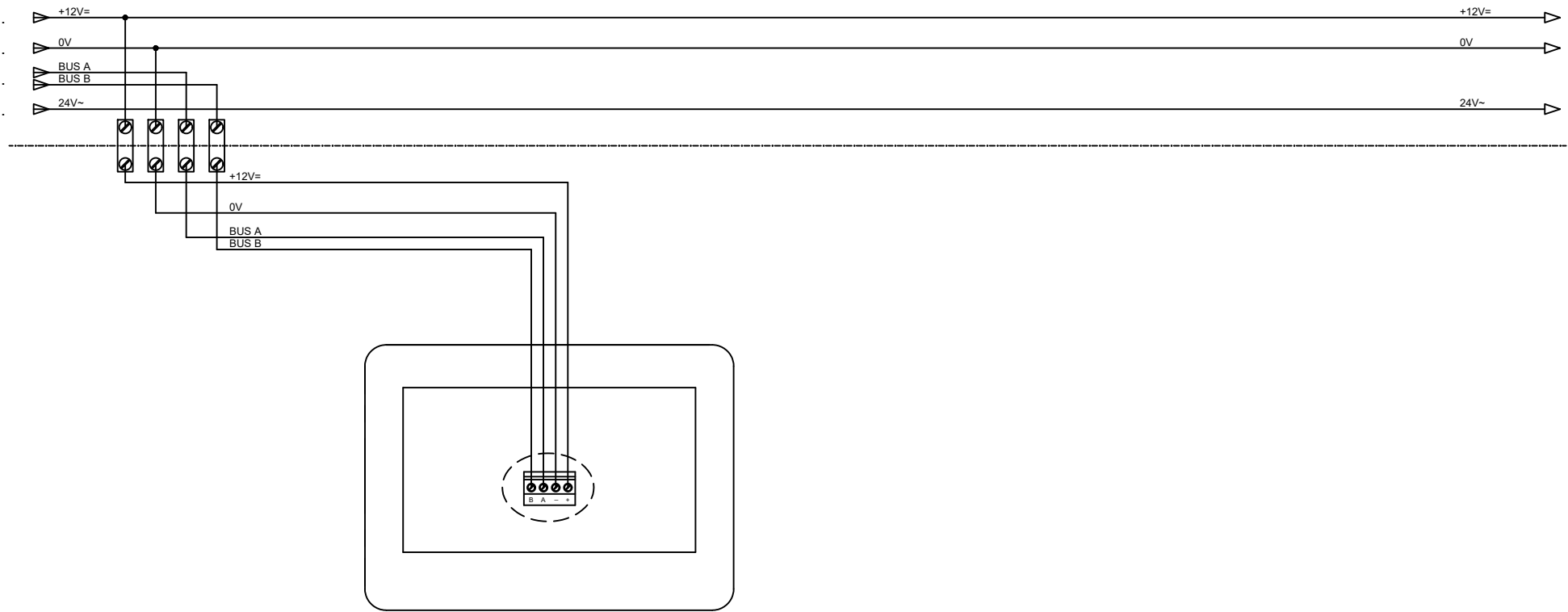
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REG - DOT-B
 Address 223
 Sens. Zone 1 (Living Room)

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