

# KaControl Cable routing plan

**Project Number:** KaCool D HY

**Version number:** 01

**Regulation:** KaControl MC



**Genau  
mein  
Klima.**

**KAMPMANN**

## **Information on cable laying:**

The following information on cable types and cable laying must be observed in compliance with VDE 0100.

The installation, operation and maintenance of these devices must comply with the country-specific applicable laws, standards, regulations and directives.

Without \*: NYM-J. The required number of cores incl. protective conductor is indicated on the cable. Cross sections are not indicated, as the cable length is included in the calculation of the cross section.

\*) : Shielded cable, J-Y(ST)Y 0.8mm. Lay separately from power lines.

\*\*) : Shielded cable stranded in pairs, e.g. UNITRONIC® BUS LD 2x2x0.22, UNITRONIC® BUS LD 3x2x0.22. Install separately from power lines.

- If other cable types are used, they must be at least equivalent.

- The connection terminals on the device are suitable for a maximum wire cross-section of 2.5 mm<sup>2</sup>.

- When using residual current circuit breakers, these must be at least mixed frequency sensitive (type F). For the design of the rated residual current, the specifications from DIN VDE 0100 Parts 400 and 500 must be observed.

- For the design of the on-site mains supply and fuse protection (C16A, max. 10 devices), the electrical data in the table below must be observed.

- Lines for data or bus signals are shown with shield connected at one end. Lines for analog signals are shown with the shield not connected. Due to structural or local conditions and depending on the type and level of interference, which can be caused by magnetic and/or electric fields in high and/or low frequency ranges, among other things, a different connection of the shield (connected at both ends or not connected) may be necessary. This must be checked by the customer and, if necessary, carried out deviating from the specifications in the documentation!

### **KaControl MC:**

- Cable length temperature sensor or switching contact: maximum 30m.

- The connection terminals on the Smartboard M are for a maximum wire cross-section of 1.5 mm<sup>2</sup>.

- Maximum number of devices in parallel: 10 units.


- Maximum BUS cable length from device 1 to device 10: 100 m.

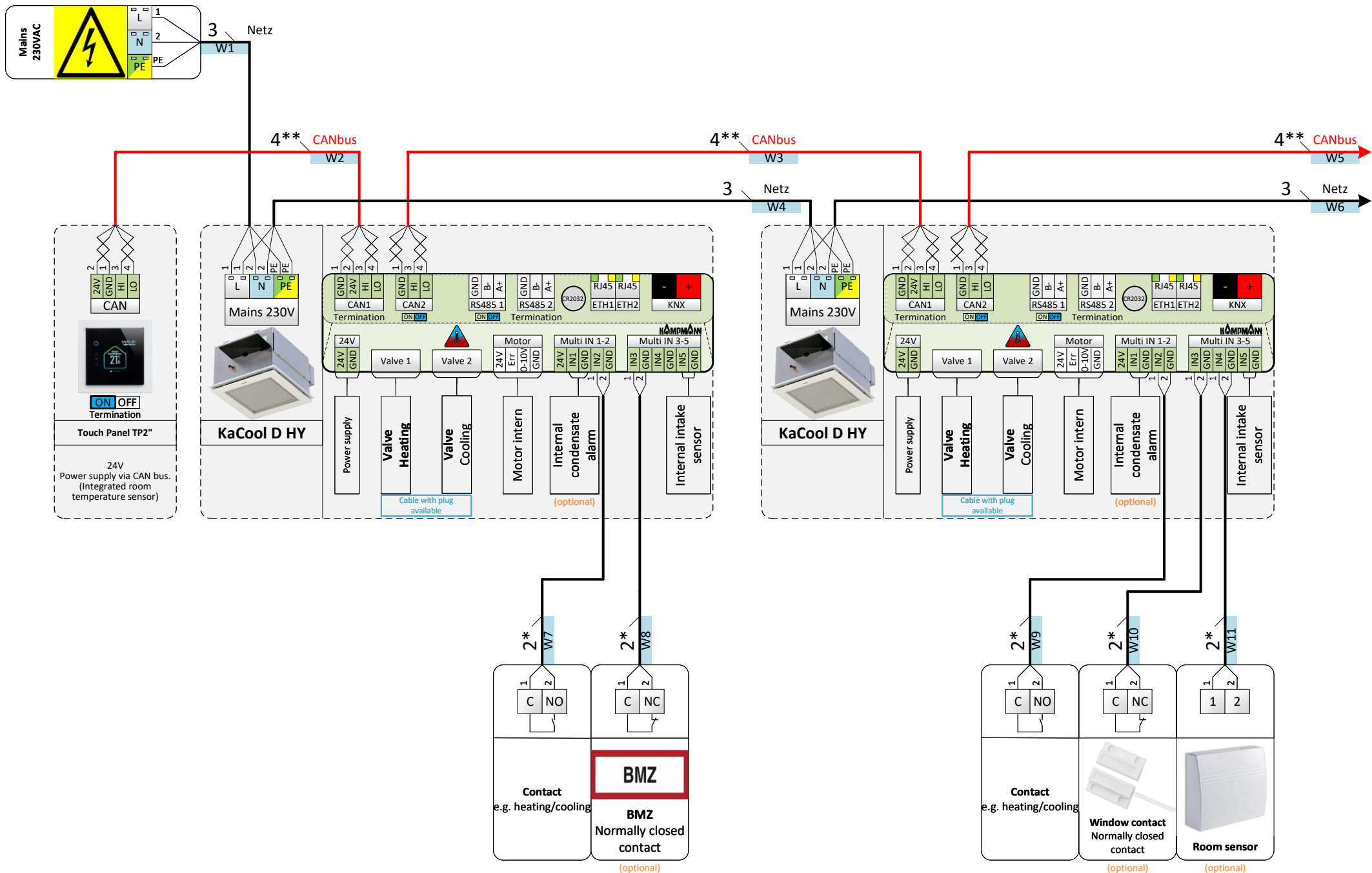
- Note CAN bus or Modbus/RTU: The resistor must be switched on via the slide switch on the first and last bus participant (device or operating unit) of the bus line!



Actuator with symbol is for 4-pipe cooling or 2-pipe heating/cooling.

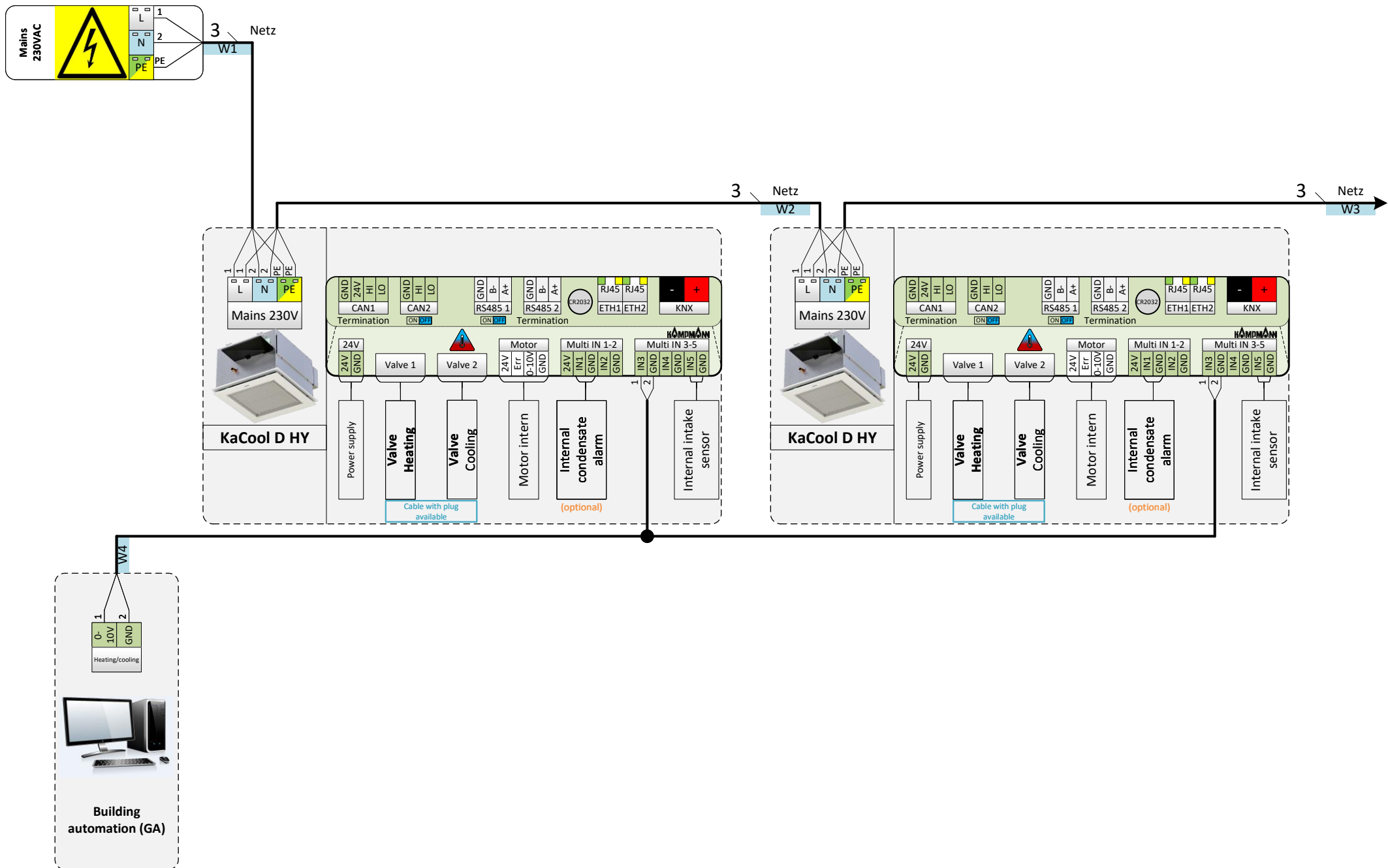
The multifunctional inputs can be flexibly configured so that any accessory can be connected to any input.

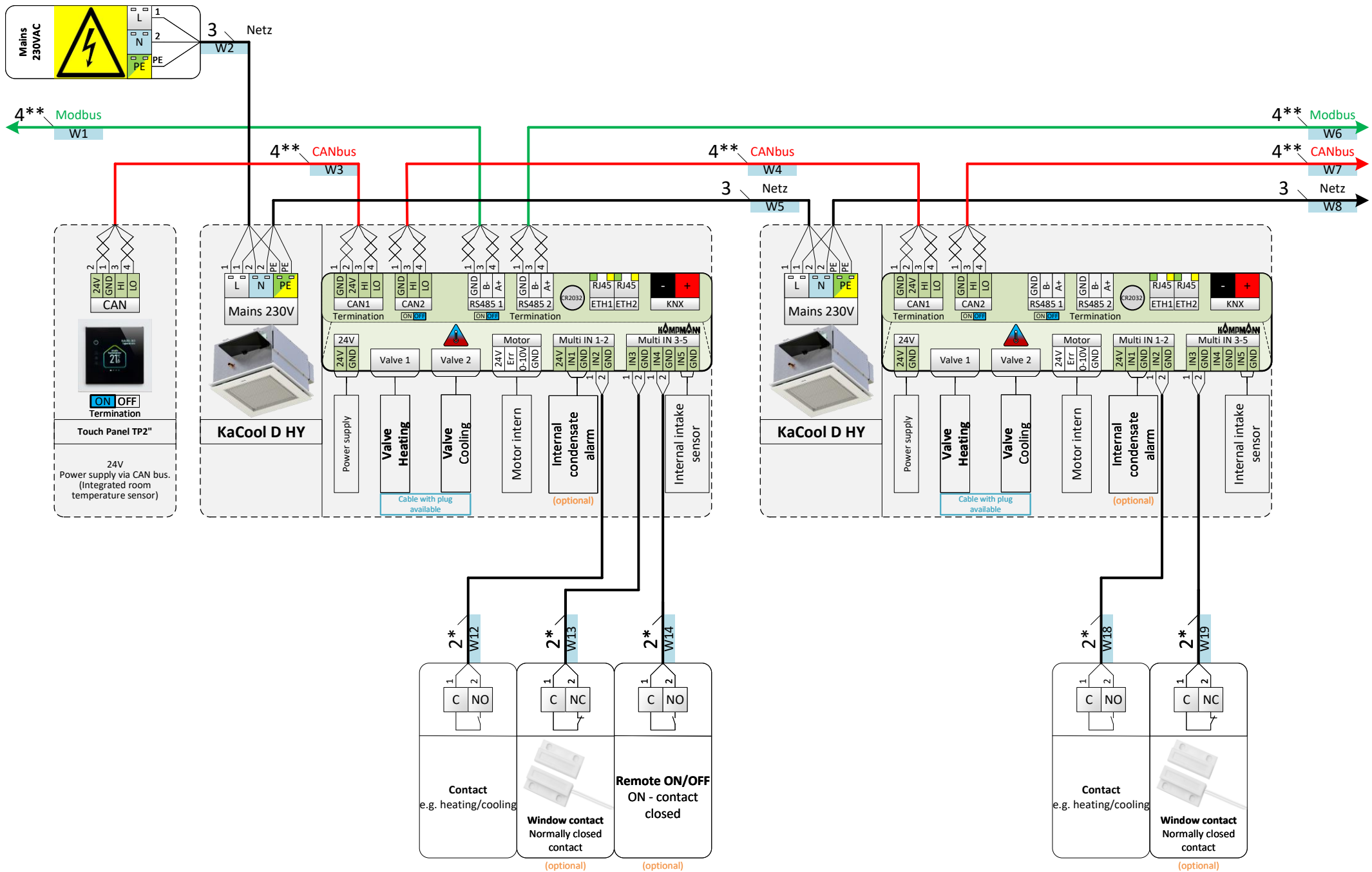
|  |               |              |                     |            |   |
|--|---------------|--------------|---------------------|------------|---|
|  | Bearbeiter:   | Projekt:     | General Information | Blatt-Nr.: |  |
|  | Erstelldatum: | Projekt-Nr.: |                     | 2 von 9    |   |



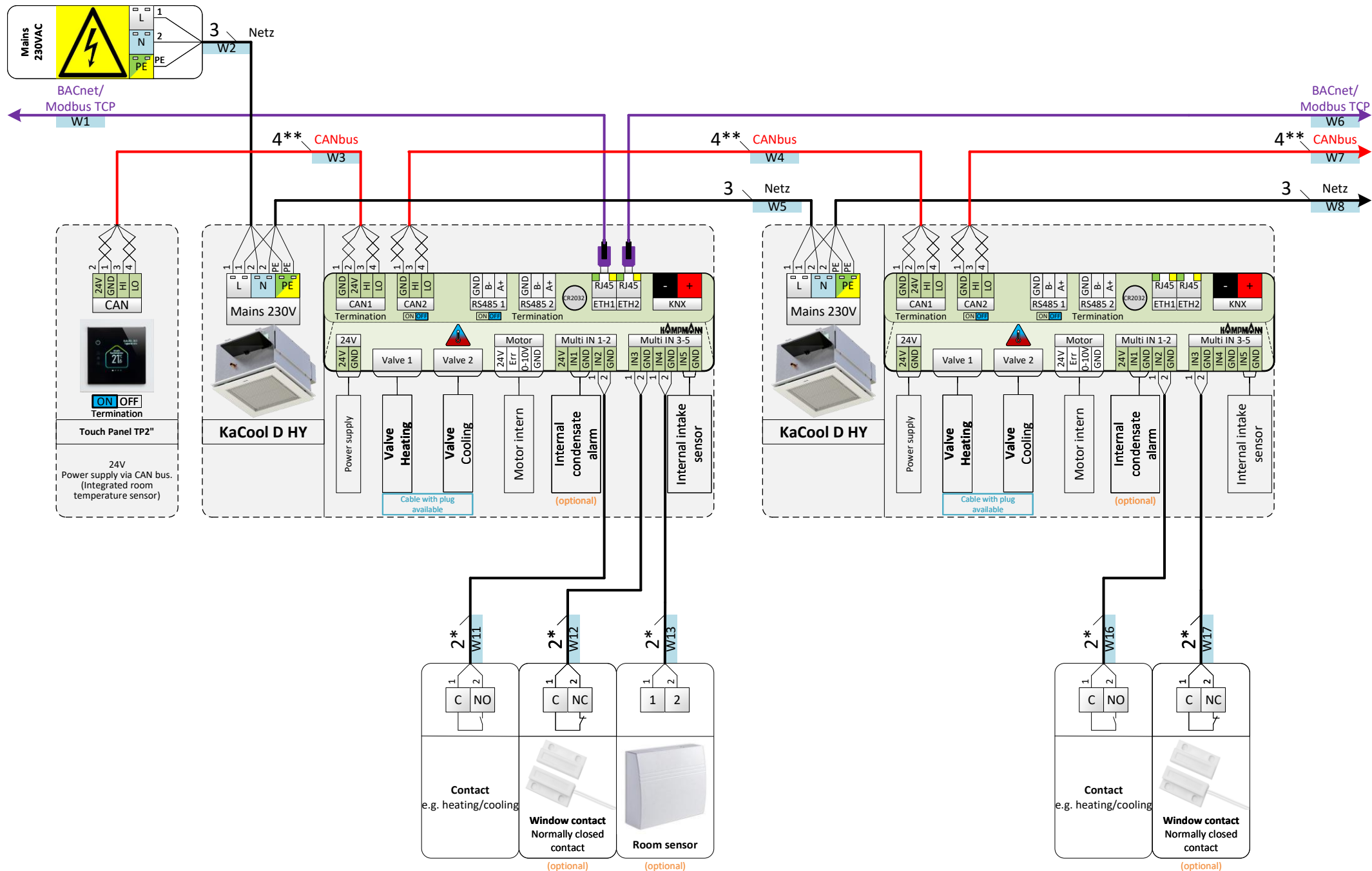
|  |               |              |   |                           |  |
|--|---------------|--------------|---|---------------------------|--|
|  | Bearbeiter:   | Projekt:     | KaCool D HY, 2-/4-wire, KaControl MC,<br>Valve actuator 24V DC, condensate pump optional,<br>Control via touch panel TP2" | Blatt-Nr.:<br><br>3 von 9 |  |
|  | Erstelldatum: | Projekt-Nr.: |   |                           |  |



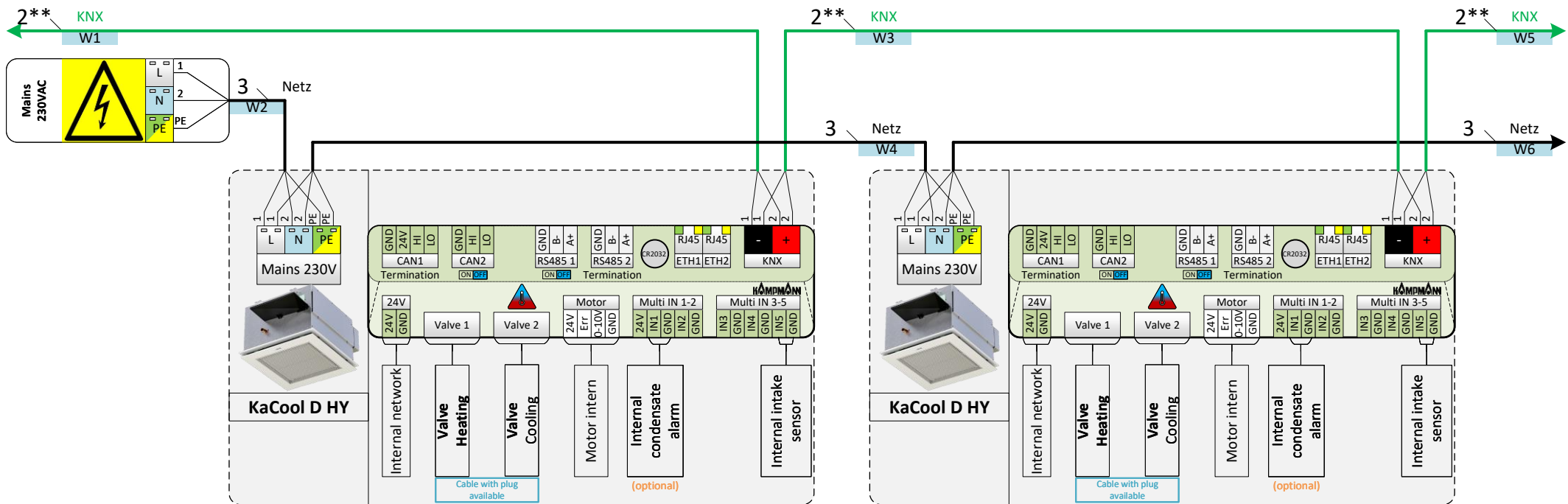




|  |               |              |  |                           |  |
|--|---------------|--------------|--|---------------------------|--|
|  | Bearbeiter:   | Projekt:     | KaCool D HY, 2-/4-wire, KaControl MC,<br>Valve drive 24V DC, condensate pump optional,<br>Control via Modbus RTU | Blatt-Nr.:<br><br>6 von 9 |  |
|  | Erstelldatum: | Projekt-Nr.: |  |                           |  |



|  |               |              |   |                           |  |
|--|---------------|--------------|---|---------------------------|--|
|  | Bearbeiter:   | Projekt:     | KaCool D HY, 2-/4-wire, KaControl MC,<br>Valve drive 24V DC, condensate pump optional,<br>Control via BACnet/Modbus TCP | Blatt-Nr.:<br><br>7 von 9 |  |
|  | Erstelldatum: | Projekt-Nr.: |   |                           |  |







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