Instructions for the Installation of the type TBLZ-4-50 Zone Control Box (X zone) GOLD

1. General

The zone control box consists of two or three IQlogic+ modules and one transformer (230 V AC/24 V AC) mounted inside a metallic enclosure.
Necessary wiring terminals are provided for connection to external components. The metallic enclosure has cable gland screw caps for cable entry.
See also the separate guide to the Xzone functions.

2. Range of Application

Sometimes more than one temperature zone is required in a ventilation system. Different temperature needs in various parts of a building may be due to the perimeter wall of the building facing north or south, diverse operations conducted inside or other reasons, for instance. The function is designed for one extra temperature zone, max.

3. Installation

Secure the zone control box to a wall, the air handling unit or the like by means of four screws.

4. Technical Data

Supply voltage	230 V AC or 400 V AC, max. 10 A
CE-approved to	EN 61000-6-2, EN 61000-6-3
Enclosure class	IP 65
Ambient temperature at relative humidity	-40 °C – +55 °C 10 – 95%
Relay contacts	2 A/AC3, 5 A/AC1
Weight	8 kg
Dimensions (Width x Height x Depth)	300 x 400 x 120 mm
Fuse protection	2-pin connector, 1 A, D characteristic
Transformer	24 V AC/24 VA

5. Function

5.1 Xzone heating (wiring terminals 101-114)

IQlogic+module 1 is used for the extra heating control zone function (function selector switch 1 is set to Position A).

The function can be enabled in the hand-held micro terminal of the GOLD unit or via a communication interface.

The module controls an electric air heater or an air heater for hot water.

Connect the 0-10 VDC control signal of electric air heater or valve actuator to the IQlogic+ module with an RJ 45 connector.

Connect the conductors from the pump, if fitted, to Terminals 101 and 102.

Connect the pump alarm, if required, to Terminals 103 and 104.

Connect the freeze guard sensor of the air heater for water to the IQlogic+-module with an RJ 45 connector.

Connect the conductors from the supply air temperature sensor (TBLZ-1-30) to wiring terminals 113 and 114.

See 6. Electrical connections on the next page.

5.2 Xzone cooling (wiring terminals 115-132)

IQlogic+module 2 is used for the extra cooling control zone function (function selector switch 2 is set to Position B). Always use this module for extract air control/room air control even if the room is not being cooled. However, there's no need to enable the cooling function in the hand-held micro terminal of the GOLD unit.

The function can be enabled in the hand-held micro terminal of the GOLD unit or via a communication interface.

The module controls a DX air cooler or an air cooler for chilled water.

Connect the 0-10 VDC control signal of valve actuator to the IQlogic+ module with an RJ 45 connector.

Connect the Cooling step 1/Pump 1 connectors (relay output) to Terminals 115 and 116.

Connect the Cooling step 2/Pump 2 connectors (relay output) to Terminals 117 and 118.

Connect the Cooling step 1/Pump 1 Alarm conductors to Terminals 119 and 120.

Connect the Cooling step 2/Pump 2 Alarm conductors to Terminals 121 and 122.

Connect the temperature sensor in the extract air duct (TBLZ-1-30), if required, to Terminals 131 and 132.

Connect room sensor, TBLZ-24-2 (1-4 sensors), if required, to the IQlogic+ module with RJ12 contact, see separate installation instructions.

See Section 6. Electric connections appear on the next page.

5.3 XZone combi coils (terminals 101-132)

IQlogic+ modules 1 and 2 can be used for the combi coil XZone function.

Function selector switch 1 is set to Position A and function selector switch 2 is set to Position B.

Activate the function in the GOLD air handling unit's hand-held terminal.

The function can be used for water coils in a 2-pipe system (one valve) or 4-pipe system (two valves).

It can also be used for a reversible heat pump or a common DX-coil.

Connect 0-10 V DC control signal for the heat pump to IQlogic+ module with RJ45 connector.

Connect the pump (relay output), if required, to terminals 101 and 102.

Connect switching between Cooling/Heating to terminals 103 and 104.

Connect the cooling/heating indications (relay output) to terminals 105 and 106.

Connect Pump alarm/Contactor response to terminals 107 and 108.

Connect temperature monitor cooling, if required, to terminals 109 and 110.

Connect temperature monitor heating, if required, to terminals 111 and 112.

Connect Supply air temperature sensor (TBLZ-1-30) to terminals 113 and 114.

Connect the cooling pump (relay output) to terminals 115 and 116.

Connect the heating/cooling indications (relay output) to terminals 117 and 118.

Connect the heating/cooling switching to terminals 119 and 120.

Connect the pump alarm/contactor response to terminals 121 and 122.

Connect the temperature sensor in the extract air duct (TBLZ-1-30), if required, to terminals 131 and 132.

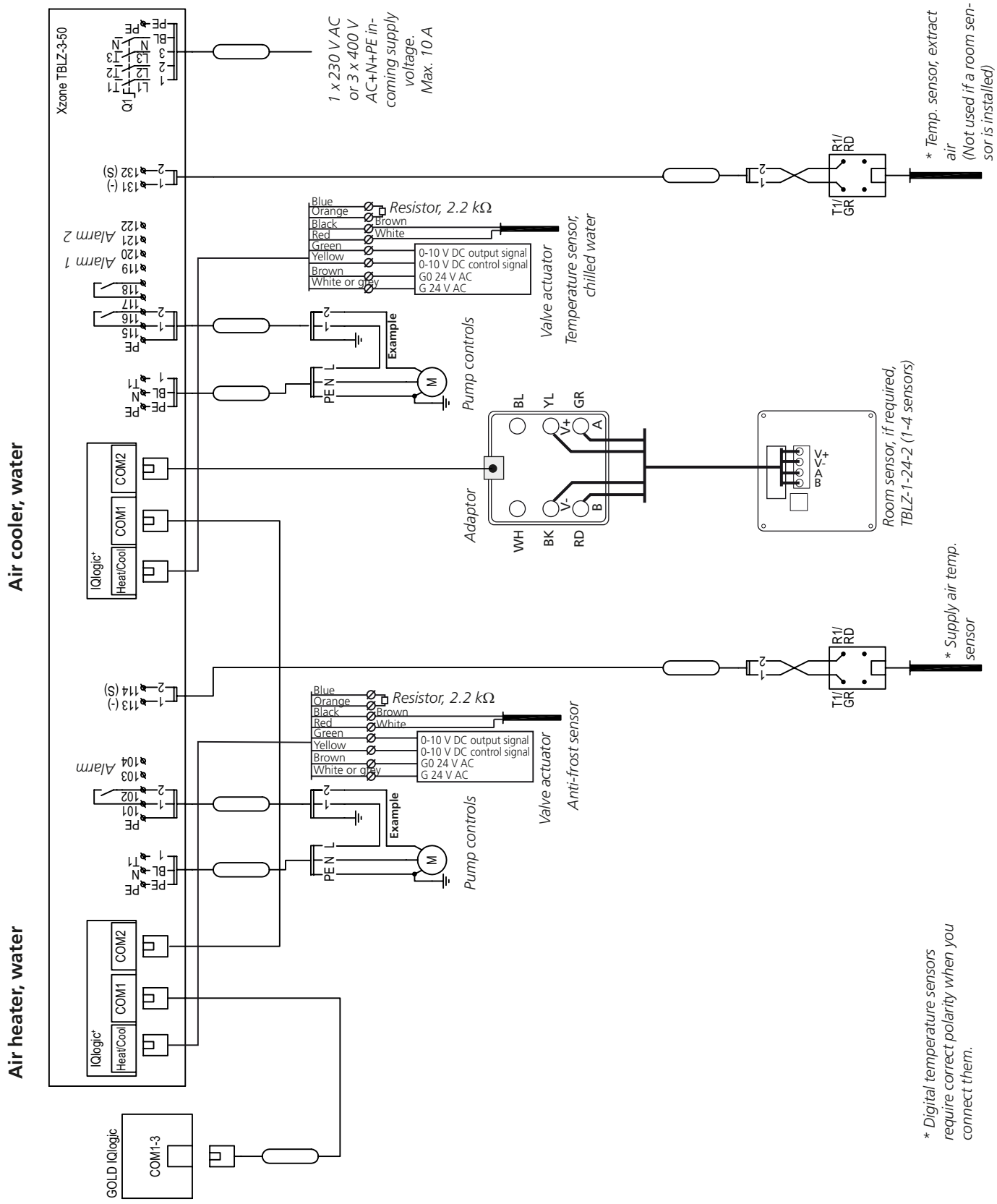
Connect room sensor TBLZ-24-2 (1-4 sensors), if required, to the IQlogic+ module with RJ45 connector, see separate installation instructions.

Connect anti-freeze protection sensor for the air heater for hot water, if required, to the IQlogic+ module with RJ12 connector.

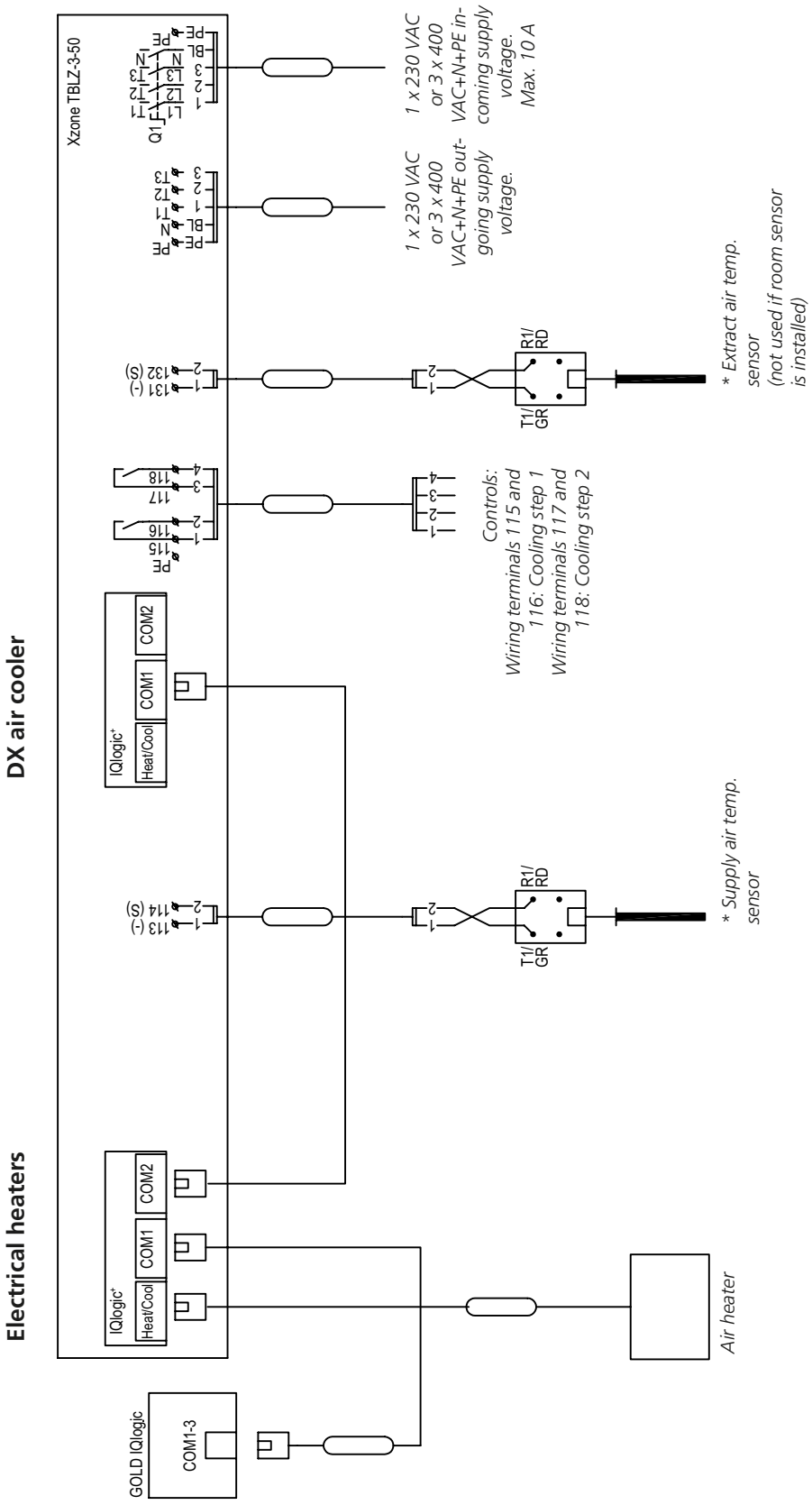
See Section 6. Electric connections appear on the next page.

6. Electrical connections

6.1 Air heater/air cooler, water

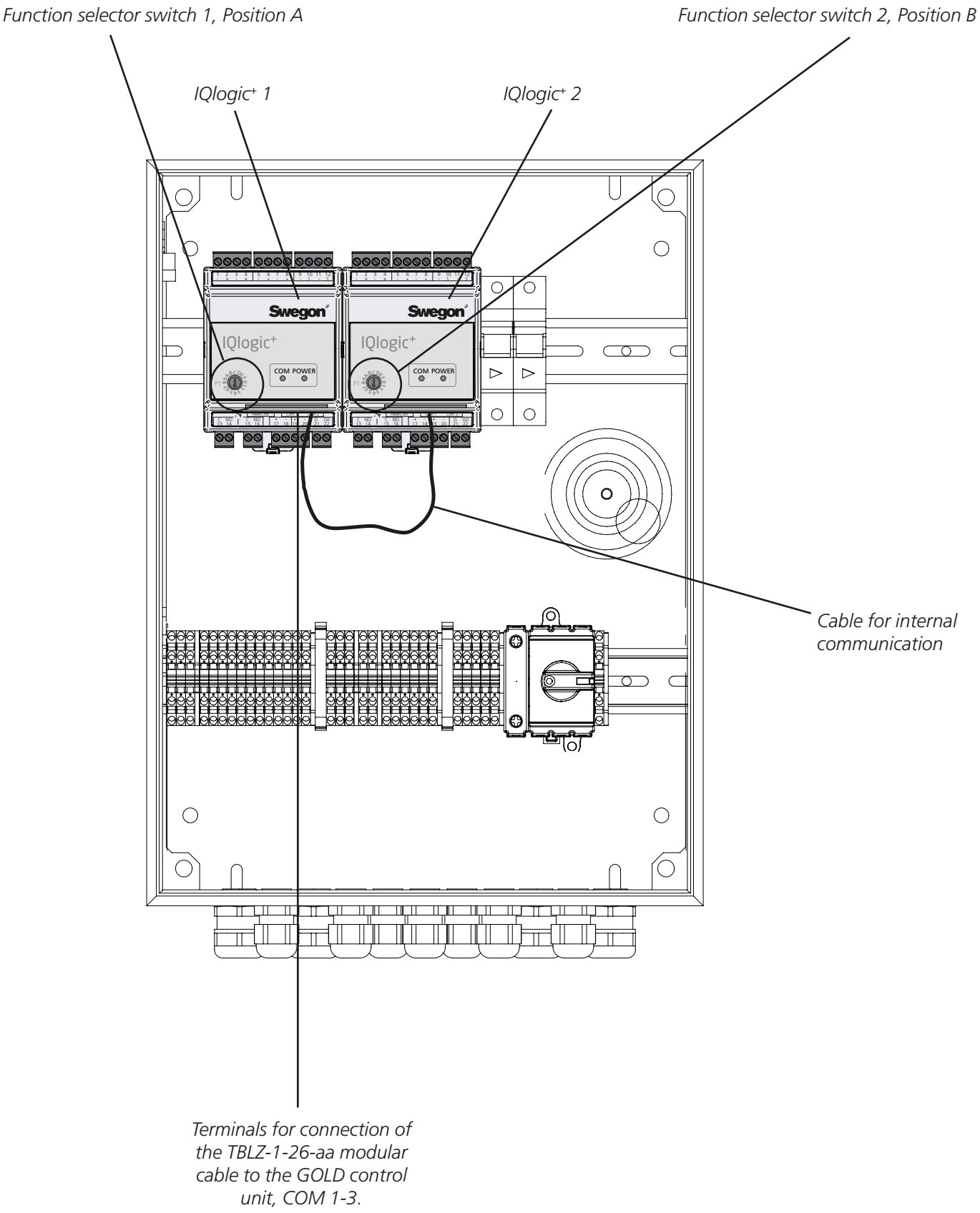


6.2 Electric air heater/air cooler, DX

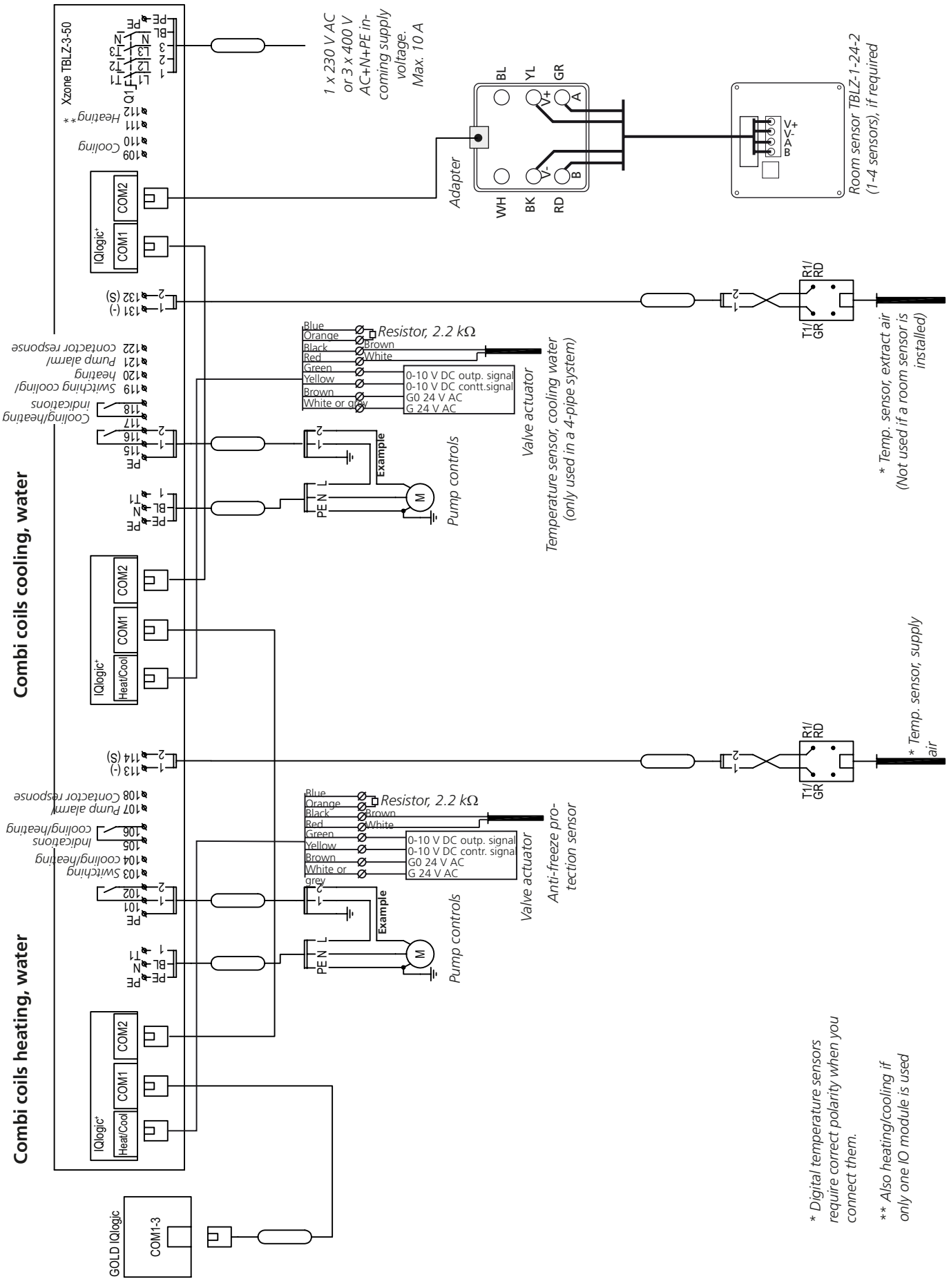


** Digital temperature sensors require correct polarity. Be careful when you wire the conductors.*

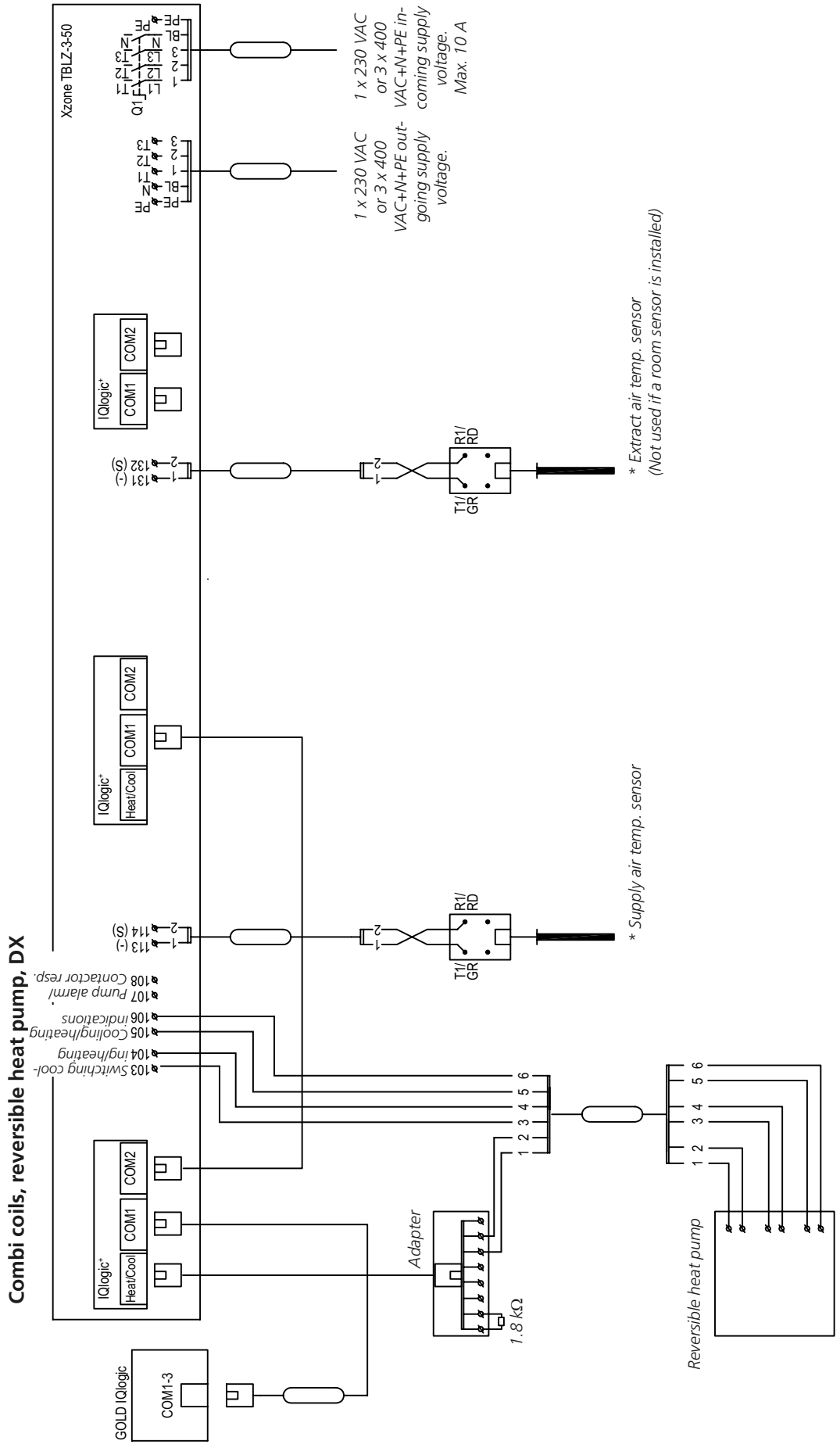
6.3 Control box for separate air heater/air cooler



6.4 Combi coils, water



6.5 Combi coils, DX



6.6 Control box for combi coils