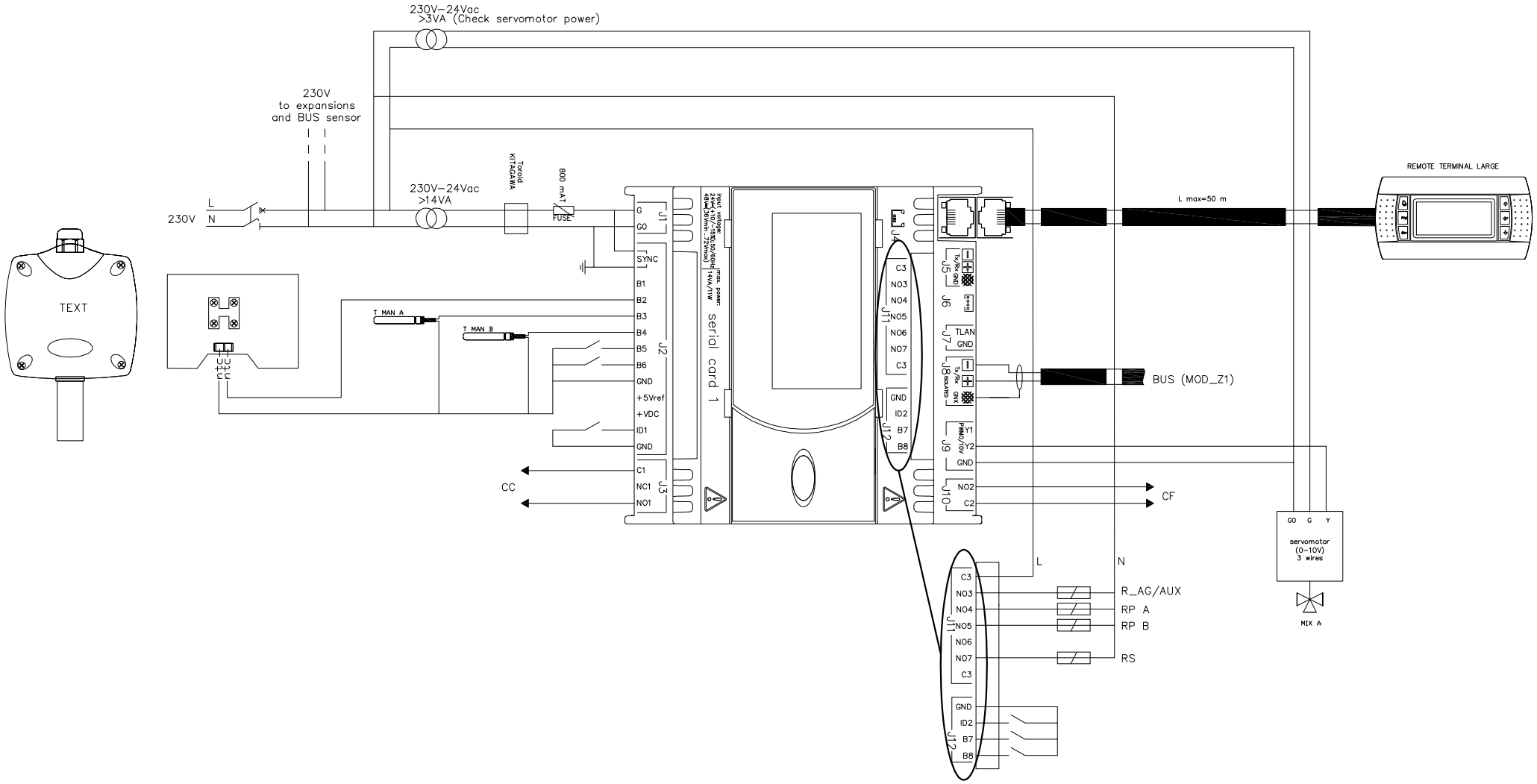


NOTE:

For the BUS connection Use a shielded pair cable twisted like BELDEN 8762 (max 500 m).

SW: 28162100F

RIF.	COM. N°	DESCRIZIONE	ESEGUITO	DATA
0	AD 7527	PRIMA ESECUZIONE	MC	19.03.15

EMMETI S.P.A

DENOMINAZIONE: ELECT DIAGRAM PCOC 41_07T/2H BUS SENSOR

CODICE: E60001760

FOGLIO: 1/6

NOTE: PCOC board

Key for electric diagram 41. 7T/2H for PCOC board

ID1 = External input: high temperature mixing line A
ID2 = External input: low temperature mixing line A
B5 = remote ON/OFF
B6 = Boiler alarm
B7 = Chiller alarm
B8 = Summer/Winter selector
Text = Outdoor temperature sensor
T man A = Flow temperature sensor mixing line A
T man B = Flow temperature sensor mixing line B

CC = Boiler interlock
CF = Chiller interlock
RP A = Pump A relay
RP B = Pump B relay
RS = Summer/Winter relay
R_AG/AUX = Frost protection relay/ Periodic auxiliary function relay
Y/Y2 = 0-10V signal for the mixing valve proportional servomotor
BUS = Bus for connection with expansion board MOD_Z1

NOTES:

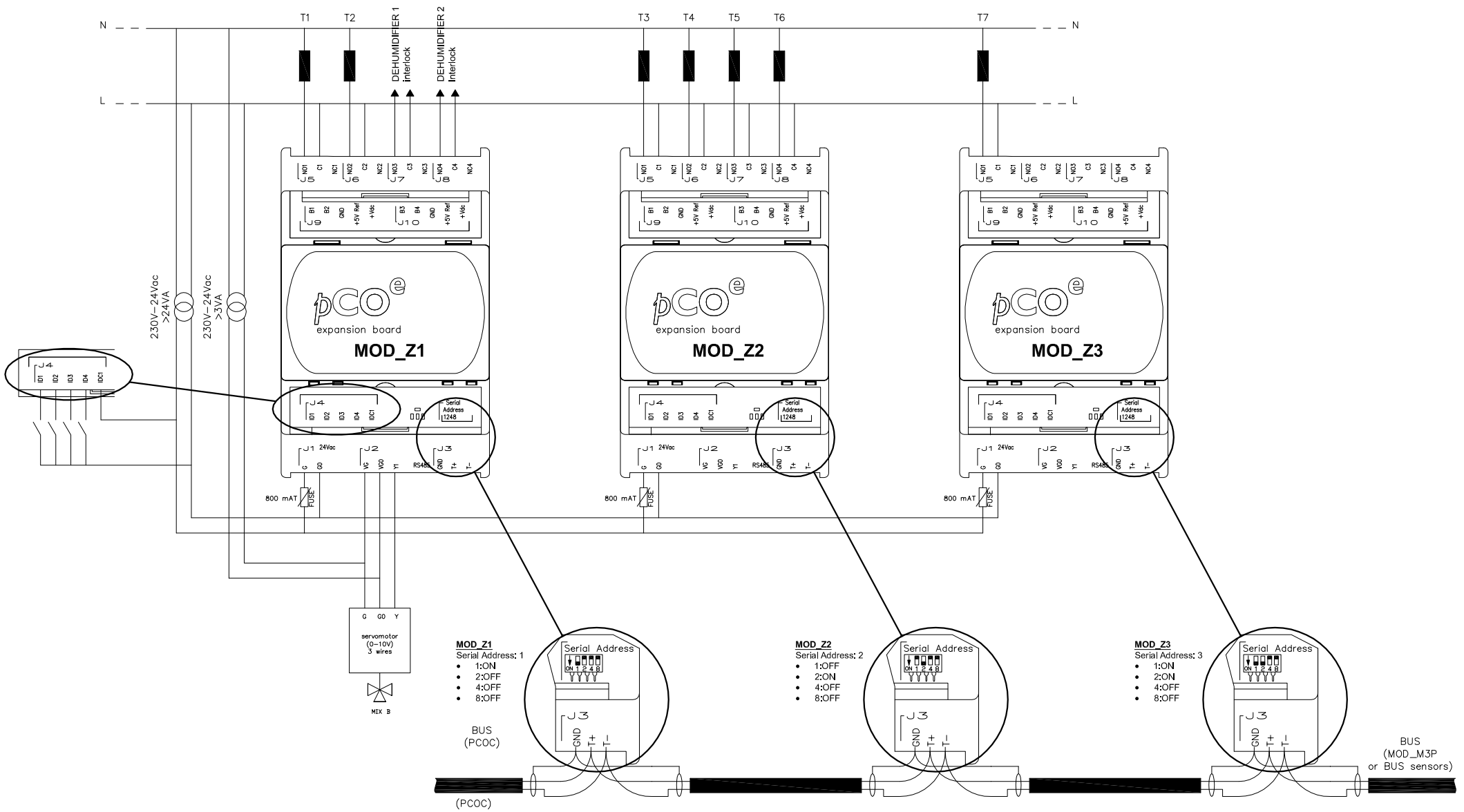
- If there is only one mixing line take into consideration mixing line A
- Output J3 - Boiler interlock - Contact rating 8 A - 250 Vac - cosϕ = 1
- Output J4 - PGD1 Large remote terminal connection via 6-wire telephone cable
- Output J10 - Chiller interlock - Contact rating 8 A - 250 Vac - cosϕ = 1
- Output J11 - Contact rating 5 A - 250 V AC - cosϕ = 1
- Output NO3 - Frost protection digital output, closed contact: frost protection function in progress. If the digital output is enabled from the advanced menu it is used for the periodic auxiliary function, closed contact: auxiliary function in progress. (The logic is invertible from the advanced menu)
- Output NO7 - Summer/Winter digital output, closed contact: Winter. (The logic is invertible from the advanced menu)
- Back-up relay always recommended. Also use change-over relays if you are using commons with different voltages
- Digital input ID1 - When the contact closes it requests high temperature from the thermostat for mixing line A
- Digital input ID2 - When the contact closes while the function is in progress, it requests low temperature from the thermostat for mixing line A (if enabled)
- Digital input B5 - Allows the system to be switched on or off remotely, when selected in the PCOC menu
- Digital input B6 - For connection of a boiler alarm circuit, where fitted by the boiler manufacturer
- Digital input B7 - For connection of a chiller alarm circuit, where fitted by the chiller manufacturer
- Digital input B8 - Allows the system to be switched in heating or cooling mode remotely, when selected in the PCOC menu
- The logic of the inputs can be inverted from the advanced menu
- For PCOC regulator input and output connections, use cables with a section that is proportional to the load (1.5 mm2)
- The current supply for the regulator and the supply for the 0-10V servomotor must be galvanically isolated, using either two transformers or one with two independent secondary circuits.

WARNING!

For simplicity the common terminals of the sensors are shown schematically connected at the most convenient points.
When wiring, run all leads of the probes to the terminals of the device and make the common connections at that point.
This measure prevents electromagnetic disturbances which compromise correct signal transmission.

Avoid running the cables of the sensors and of the digital inputs together with the power cables.
It is advisable to use shielded cables for the connection of the sensors.

DENOMINAZIONE		
ELECT DIAGRAM PCOC 41_07T/2H BUS SENSOR		
CODICE	FOGLIO	NOTE
E60001760	2/6	PCOC board



NOTE:

For the BUS connection Use a shielded pair cable twisted like BELDEN 8762 (max 500 m). Connecting chain, in-out mode, between the boards according to the polarity.

RIF.	COM. N°	DESCRIZIONE	ESEGUITO	DATA
0	AD 7527	PRIMA ESECUZIONE	MC	19.03.15

EMMETI S.P.A

DENOMINAZIONE: ELECT DIAGRAM PCOC 41_07T/2H BUS SENSOR

CODICE: E60001760

FOGLIO: 3/6

NOTE: PCOE Expansions

Key for electric diagram 41. 7T/2H for EXPANSIONS boards

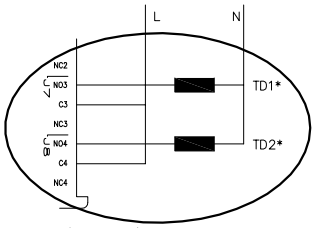
To configure the PCOE module as: expansion MOD_Z1 set 1 as the serial address, expansion MOD_Z2 set 2 as the serial address, expansion MOD_Z3 set 3 as the serial address.See diagram on how to set the DIP switches.

ID1 = Dehumidifier 1 Alarm
ID2 = Dehumidifier 2 Alarm
ID3 = External input: high temperature mixing line B
ID4 = External input: low temperature mixing line B
T1 = Zone 1 electrothermic head
T2 = Zone 2 electrothermic head
T3 = Zone 3 electrothermic head
T4 = Zone 4 electrothermic head
T5 = Zone 5 electrothermic head
T6 = Zone 6 electrothermic head
T7 = Zone 7 electrothermic head

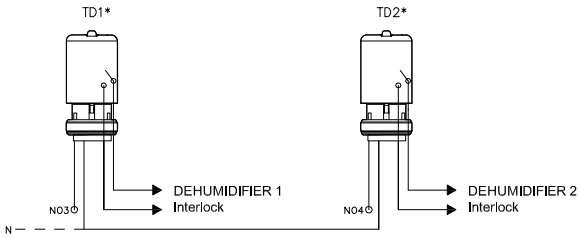
BUS = Bus for the connection from PCOC to expansions boards MOD_Z1, MOD_Z2, MOD_Z3. Then the BUS must be connected to the expansion module MOD_M3P, if provided, or directly to the BUS sensors.

NOTES:

- If there is only one mixing line take into consideration mixing line A
- Output J5, J6, J7, J8 - Contact rating 8 A - 250 V AC - cosϕ = 1
- Digital input ID1 - A closed contact indicates the alarm for dehumidifier 1
- Digital input ID2 - A closed contact indicates the alarm for dehumidifier 2
- Digital input ID3 - When the contact closes it requests high temperature from the thermostat for mixing line B
- Digital input ID4 - If the contact closes while the function is in progress, low temperature will be requested from the thermostat for mixing line B (if enabled)
- The PCOC controller of the inputs can be inverted from the advanced menu
- For regulator input and output connections, use cables with a section that is proportional to the load (1.5 mm2)
- The current supply for the regulator and the supply for the 0-10V servomotor must be galvanically isolated, using either two transformers or one with two independent secondary circuits
- If dehumidification is only carried out during the summer season every dehumidifier should be switched on from a corresponding electrothermic head equipped with a micro switch. When there is a request for dehumidification the electrothermic head is powered. When it opens the micro switch closes, in this way the dehumidifier switch on. (See the following diagram by way of example)



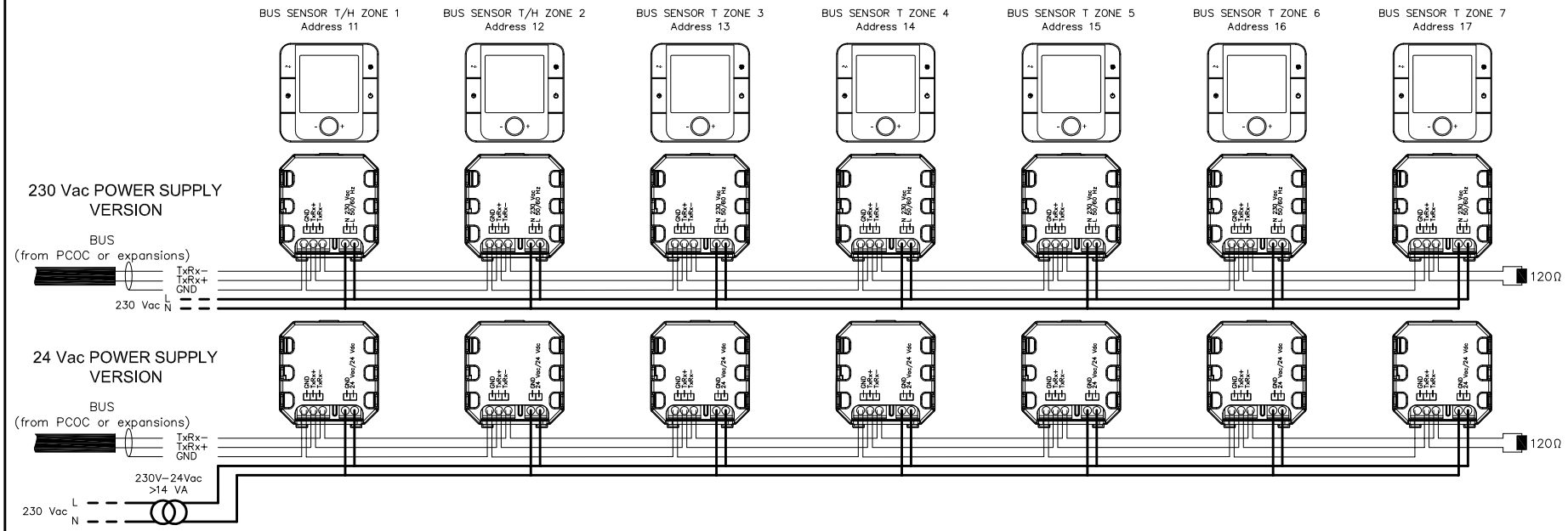
Notes: TD1* =Dehumidifier 1 electrothermic head;
TD2* =Dehumidifier 2 electrothermic head.



WARNING!

Avoid running the cables of the digital inputs together with the power cables.

DENOMINAZIONE		
ELECT DIAGRAM PCOC 41_07T/2H BUS SENSOR		
CODICE	FOGLIO	NOTE
E60001760	4/6	PCOE Expansions



NOTE:

For the BUS connection Use a shielded pair cable twisted like BELDEN 8762 (max 500 m). Connecting chain, in-out mode, between the BUS sensors according to the polarity. The BUS sensor that occupies the last position on the supervision serial line it must be connected to a line closing resistance, with a value of 120Ω - 1/4W

RIF.	COM. N°	DESCRIZIONE	ESEGUITO	DATA
0	AD 7527	PRIMA ESECUZIONE	MC	19.03.15

EMMETI S.P.A

DENOMINAZIONE: ELECT DIAGRAM PCOC 41_07T/2H BUS SENSOR

CODICE: E60001760

FOGLIO: 5/6

NOTE: BUS Sensors

Key for electric diagram 41. 7T/2H for BUS Sensors

For each BUS sensor set, during configuration, the serial address corresponding to the zone in which it is installed, see references on the diagram.

BUS SENSOR T/H = Room temp./humidity BUS sensor
BUS SENSOR T = Room temperature BUS sensor

GENERAL NOTES ON THE POWER SUPPLY

It is possible to power all of the boards (PCOC, MOD_Z1, MOD_Z2, MOD_Z3) with a single transformer providing a power supply of 24 Vac +10/-15% 50/60 Hz and a power of at least 52 VA. Alternatively, it is possible to use a transformer that provides a power supply of 28Vdc +10/-20% and a power of at least 43 W. Use the same polarity (G, G0) for the power supply for all the boards and similarly the same polarity (GND, 24 V) for all probes BUS.

The power supply for PCOC and PCOE controls must be separate from the power supply of the 0-10V servomotor(s).

IMPORTANT: The power supply of the BUS sensors must come from the same PCOC regulator power supply, switch on or switch off the PCOC regulator must, respectively, switch on or switch off, at the same time, all the BUS sensors.

DENOMINAZIONE		
ELECT DIAGRAM PCOC 41_07T/2H BUS SENSOR		
CODICE	FOGLIO	NOTE
E60001760	6/6	BUS Sensors