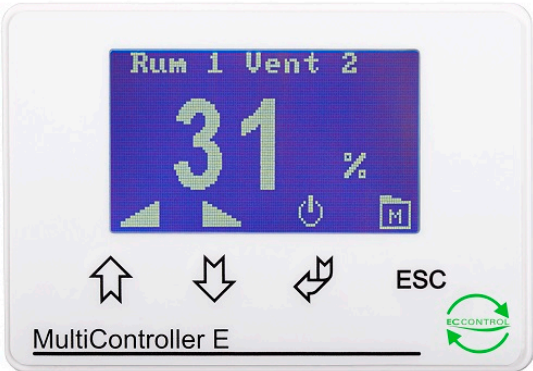


# MULTICONTROLLER

0664040





- page Description of set-up options:
- 3 Temperature 0-10V. Use this set-up if you want to regulate the ventilator with 0-10V.
  - 4 Temperature On-Off . Use this set-up for temp. control by on/off connected to a 5 step controller
  - 5 PTH Pressure Transmitter. Use this set-up if you want to maintain a constant pressure in the ventilation system/duct
  - 6 Humidity. Use this set-up if you want to ventilate to contain a certain Humidity level.
  - 7 CO2. Use this set-up if you want to ventilate to contain a certain Co2 ppm level in the room.
  - 8 CO2 + temp 0-10V. Use this set-up if you want to ventilate at a certain CO2 or/and temperature level in the room. (If either the CO2 level or the temperature becomes too high, the output signal will increase).

Reset Controller

9 Note! It is possible to connect a PIR sensor on set-up options 01 – 09. The PIR sensor will change between 2 set points. This may be used as a means of saving energy when a room is not occupied.

The PIR sensor must be connected to terminals 20 and 21.

The first time the controller is connected to power, the function of the controller is selected. Subsequently the operation parameters will be adjusted to a standard set-up. A new quick set-up can be done by resetting the unit (D4).

MultiController selection:	Output:
<b>01</b> Temperature	0-10V output
<del>02</del> Temperature 1 heating element:	<del>1 pulse output 0/10V</del>
<del>03</del> Temperature 2 heating elements:	<del>2 pulse output 0/10V</del>
<b>04</b> Temperature on/off	Relay
<del>05</del> Constant flow	<del>0-10V output</del>
<b>06</b> Constant pressure	0-10V output
<b>07</b> Constant humidity	0-10V output
<b>08</b> Constant CO2	0-10V output
<b>09</b> CO2 +Temp	0-10V output
<del>10</del> Temp + Temp	<del>0-10V output</del>

## Controller setup for Temp 0-10V

On first start-up choose function **01 temperature 0-10V**.

1. Press menu. (ESC)
2. Select **C User** by pressing arrow down. (↓)
3. Press enter. (↵)
4. Select **CI Regulator I Norm Setpoint** by pressing arrow down. (↓)
5. Press enter. (↵)
6. Now change the temp. °C value by pressing arrow up or down to increase or decrease the value to your preference.
7. Press enter to confirm. (↵)
8. Press esc once to go back to the main menu. (ESC)
9. Select **E Service** by pressing the arrow down. (↓)
10. Press enter. (↵)
11. Enter the code **5550** by pressing the arrow up button (↑) and confirm it with enter (↵) to set the numbers.
12. When in service menu select **E2 Reg I direction** with the arrow down button. (↓)
13. Press enter. (↵)
14. Select **inverted** by pressing the arrow up button. (↑)
15. Press enter to confirm. (↵)
16. Press esc (ESC) twice to leave the menu, your controller is now operational.

### **Schedule on page 11**

Controller behavior:

Temp. 0-10V ;

When the temp. exceeds the set point the voltage will increase as the temp keeps rising the controller will increase the output voltage and enhances the fan rpm. When the temp stops rising but still higher than setpoint the output voltage will stay the same until the temp is at setpoint value.

Setpoint = the value at which the unit will start extracting air by variable capacity in the 0-10volt or by on/off function.

## Controller setup for Temp on/off

On first start-up choose function **01 temperature 0-10V**.

1. Press menu. (ESC)
2. Select **C User** by pressing arrow down. (M)
3. Press enter. (M)
4. Select **CI Regulator I Norm Setpoint** by pressing arrow down. (M)
5. Press enter. (M)
6. Now change the temp. °C value by pressing arrow up or down to increase or decrease the value to your preference.
7. Press enter to confirm. (M)
8. Press esc once to go back to the main menu.
9. Select **E Service** by pressing the arrow down. (M)
10. Press enter. (M)
11. Enter the code **5550** by pressing the arrow up button (M) and confirm it with enter (M) to set the numbers.
12. When in service menu select **E2 Reg I direction** with the arrow down button. (M)
13. Press enter. (M)
14. Select **inverted** by pressing the arrow up button. (M)
15. Press enter to confirm. (M)
16. Select **E10 PID P** with the arrow down button. (M)
17. Press enter. (M)
18. Now change the value to **1** by pressing the arrow down button. (M)
19. Press enter to confirm
20. Press esc (ESC)
21. Select **E10 PID reg time (H)** with the arrow down button. (M)
22. Press enter. (M)
23. Now change the value to **1** by pressing the arrow down button. (M)
24. Press enter to confirm. (M)
25. Press esc (ESC) twice to leave the menu, your controller is now operational.
26. The relay will close at when the setpoint is exceeded.

## Schedule on page 12














Controller behavior:

Temp. on/off ;

When the temp. exceeds the set point the voltage will increase as the temp keeps rising the controller will increase the output voltage and enhances the fan rpm. The Relay will close when the output voltage is 0.2v or higher, and will open below 0.2V. When the temp stops rising but still higher than setpoint the output voltage will stay the same until the temp in at setpoint value.

## Controller setup for Pressure transmitter PTH

On first start-up choose function **06 Constant pressure**.

1. Press menu. 
2. Select **C User** by pressing arrow down.
3. Press enter. 
4. Select **CI Regulator I Norm Setpoint** by pressing arrow down. 
5. Press enter. 
6. Now change the pressure Pa value by pressing arrow up or down to increase or decrease the value to your preference.
7. Press enter to confirm. 
8. Press esc once to go back to the main menu. 
9. Select **E Service** by pressing the arrow down. 
10. Press enter. 
11. Enter the code **5550** by pressing the arrow up button  and confirm it with enter  to set the numbers.
12. When in service menu select **EI 6 sensor I value at max** with the arrow down button.
13. Press enter. 
14. Now change the value by pressing arrow up or down to increase or decrease the value. (this value should be the same max pa value as the transmitter. (transmitter PTH default is 2500 to change read the manual)
15. Press enter to confirm. 
16. Press esc  twice to leave the menu, your controller is now operational.

### **Schedule on page 13**

Controller behavior:

Pressure. 0-10V ;

When the pa drops below the set point the voltage will increase and enhances the fans rpm. When the pressure is at set point the voltage output will stay steady until there occur a change in the system that increase or decreases the pressure.

Setpoint = the value at which the unit will start extracting air by variable capacity in the 0-10volt or by on/off function.

## Controller setup for Humidity

On first start-up choose function **07 Constant humidity**.

1. Press menu. (ESC)
2. Select **C User** by pressing arrow down.
3. Press enter. (↵)
4. Select **CI Regulator I Norm Setpoint** by pressing arrow down. (↓)
5. Press enter. (↵)
6. Now change the % humidity value by pressing arrow up or down to increase or decrease the value to your preference.
7. Press enter to confirm. (↵)
8. Press esc (ESC) twice to leave the menu, your controller is now operational.

### **Schedule on page 14**

Controller behavior:

Humidity. 0-10V ;

When the humidity % rises above the set point the voltage will increase and enhances the fans rpm.

When the humidity % is at set point the voltage output will stay steady until there occur a change .

## Controller setup for Co2

On first start-up choose function **08 Constant Co2**.

1. Press menu. (ESC)
2. Select **C User** by pressing arrow down.
3. Press enter. (↵)
4. Select **CI Regulator I Norm Setpoint** by pressing arrow down. (↓)
5. Press enter. (↵)
6. Now change the ppm value by pressing arrow up or down to increase or decrease the value to your preference .
7. Press enter to confirm. (↵)
8. Press esc (ESC) twice to leave the menu, your controller is now operational.

### **Schedule on page 15**

Controller behavior:

Co2. 0-10V ;

When the Co2 ppm rises above the set point the voltage will increase and enhances the fans rpm. When the Co2 ppm is at set point the voltage output will stay steady until there occur a change in the system that increase or decreases the Co2 ppm.

Setpoint = the value at which the unit will start extracting air by variable capacity in the 0-10volt or by on/off function.



## Controller setup for CO2 + temp 0-10V

On first start-up choose function **09 Co2+Temp.**

1. Press menu. (ESC)
2. Select **C User** by pressing arrow down.
3. Press enter. (↵)
4. Select **CI Regulator1 Norm Setpoint** by pressing arrow down. (↓)
5. Press enter. (↵)
6. Now change the ppm value by pressing arrow up or down to increase or decrease the value to your preference .
7. Press enter to confirm. (↵)
8. Select **CI I Regulator2 Norm Setpoint** by pressing arrow down. (↓)
9. Press enter. (↵)
10. Now change the temp. °C value by pressing arrow up or down to increase or decrease the value to your preference .
11. Press enter to confirm. (↵)
12. Press esc (ESC) twice to leave the menu, your controller is now operational.










### **Schedule on page 16**

Controller behavior:

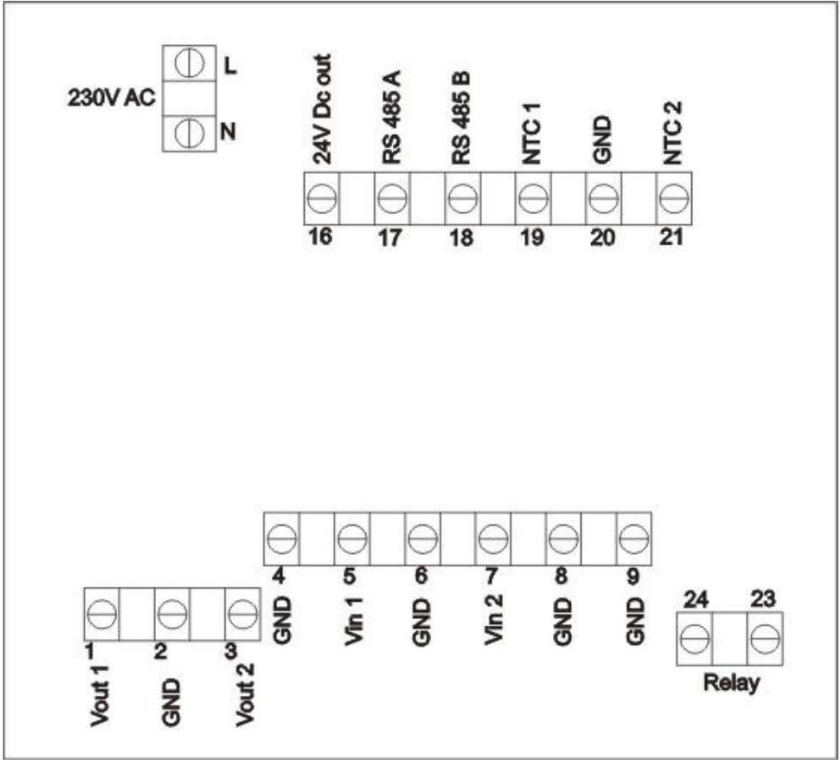
Co2+Temp. 0-10V ;

When the Co2 ppm or/and temp. °C rises above the set point the voltage will increase and enhances the fans rpm. When the Co2 ppm or/and temp. °C is at set point the voltage output will stay steady until there occur a change in the system that increase or decreases the Co2 ppm or/and temp. °C .

## Reset controller

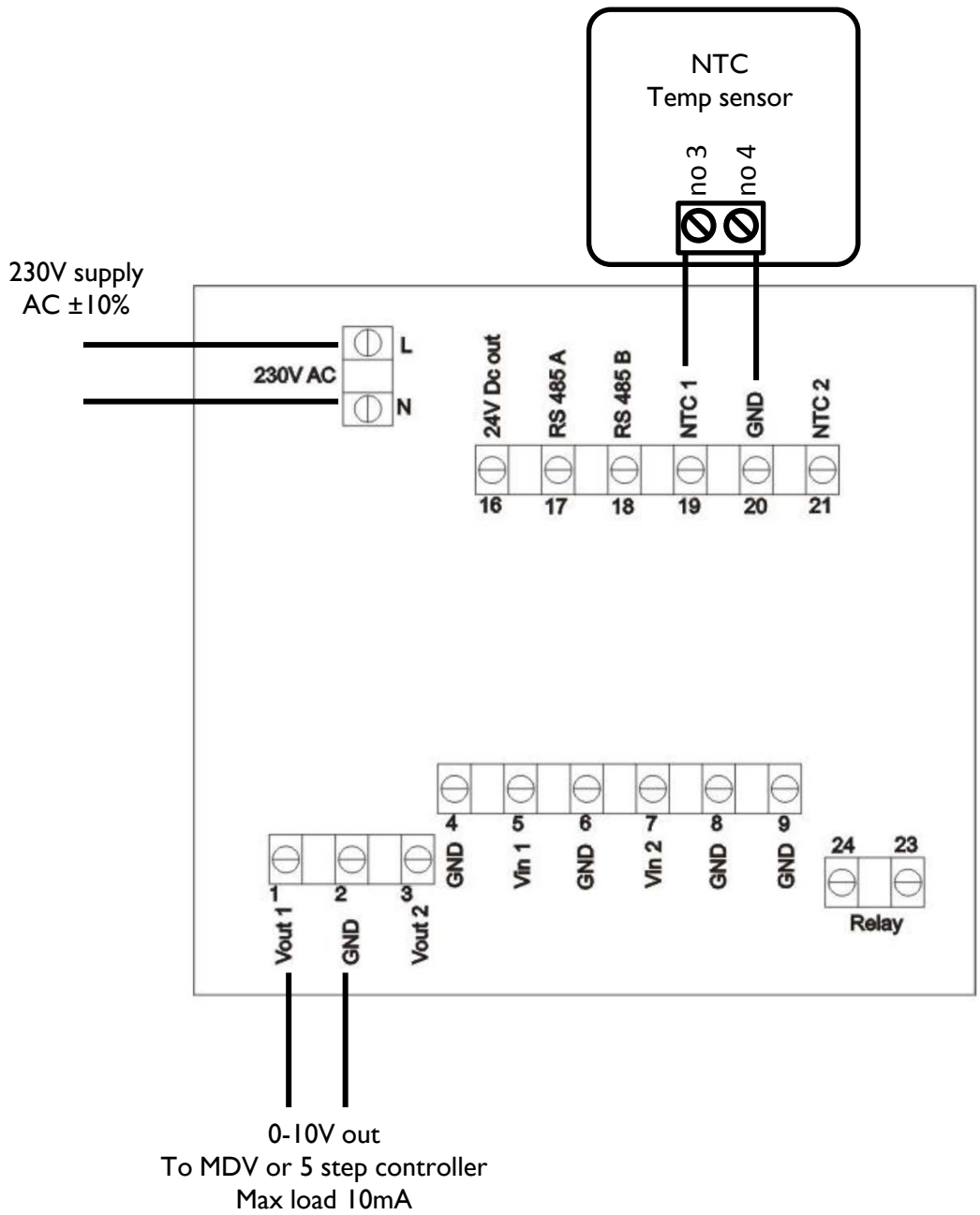
1. Press menu. 
2. Select **D Display** by pressing arrow down. 
3. Press enter. 
4. Enter the code **5550** by pressing the arrow up button  and confirm it with enter  to set the numbers.
5. Select **D4 factory reset** by pressing arrow down. 
6. Press enter. 
7. Confirm by pressing enter. 
8. Select English as restart language by pressing enter 
9. The controller will restart to the quick set up mode

Setpoint = the value at which the unit will start extracting air by variable capacity in the 0-10volt or by on/off function.

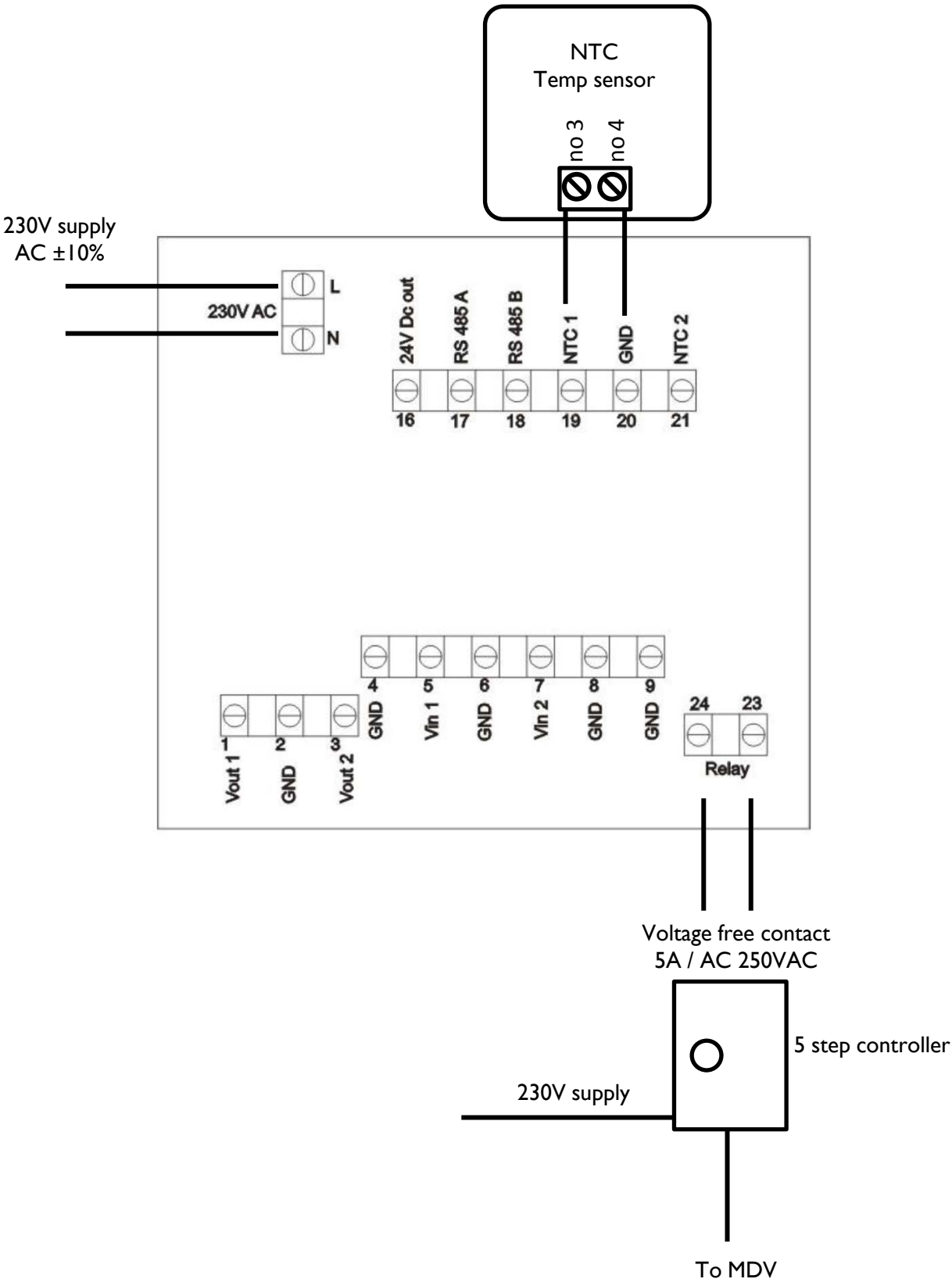


Terminal nos	Description	Comments
1 and 2 (Vout1)	0-10V output 1	Load max 10mA
3 and 4 (Vout2)	0-10V output 2	Load max 10mA
5 and 6 (Vin1)	0-10V input 1	7k ohm input impedance
7 og 8 (Vin2)	0-10V indgang 2	7k ohm input impedance
L and N	Connection of power supply	230V AC $\pm$ 10%
16	24V power outlet	+24VDC max 100mA
17 and 18	RS 485 Modbus	
19 and 20	NTC1 temperature sensor	22K NTC
21 and 20	NTC2 temperature sensor / Alarm input / PIR input	22K NTC / switch
2,4,6,8,9,20	0V, GND	
23 and 24	Voltage free contact. Function depending on model.	5A-AC1, 250VAC

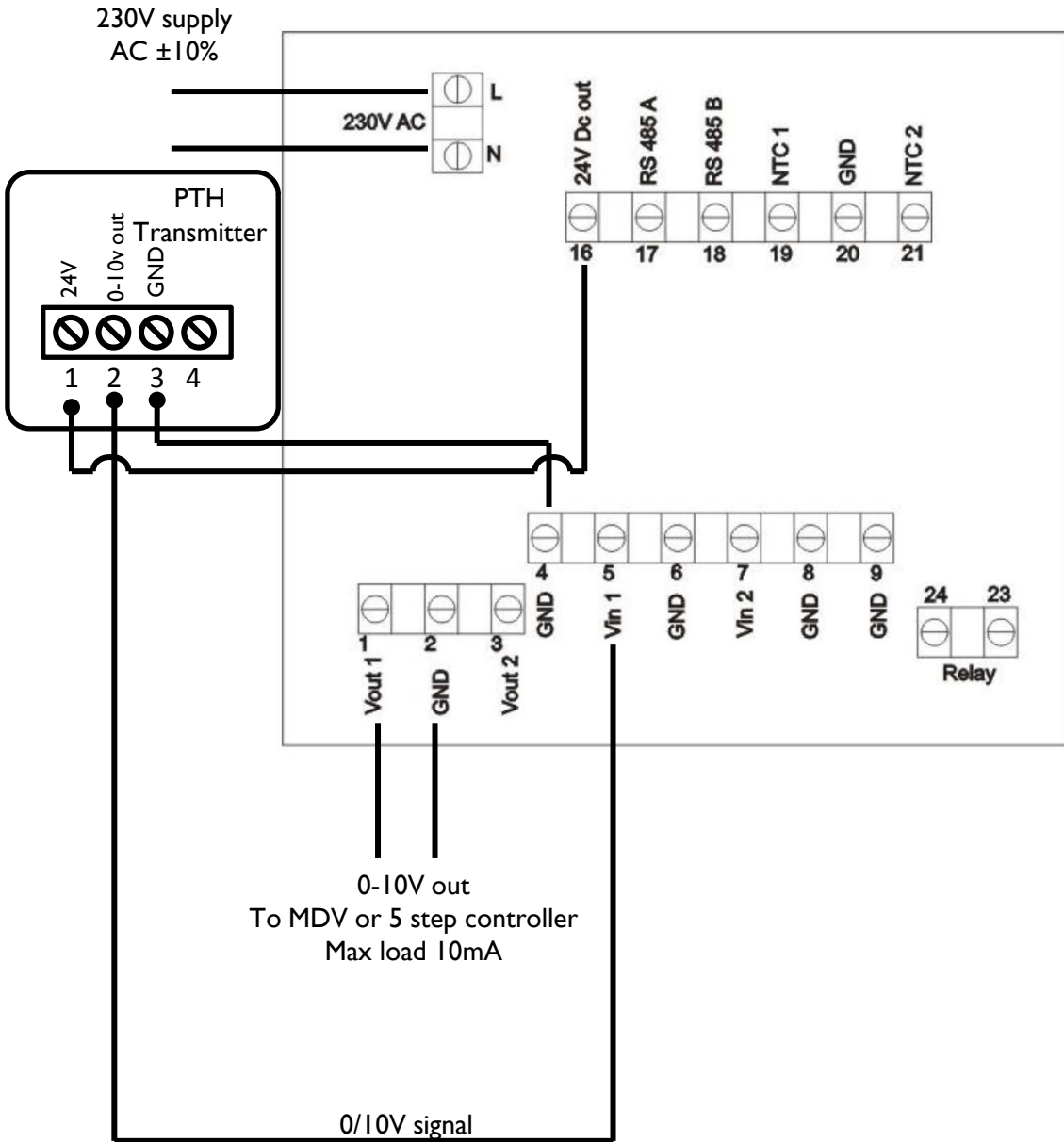
# Temperature 0-10V



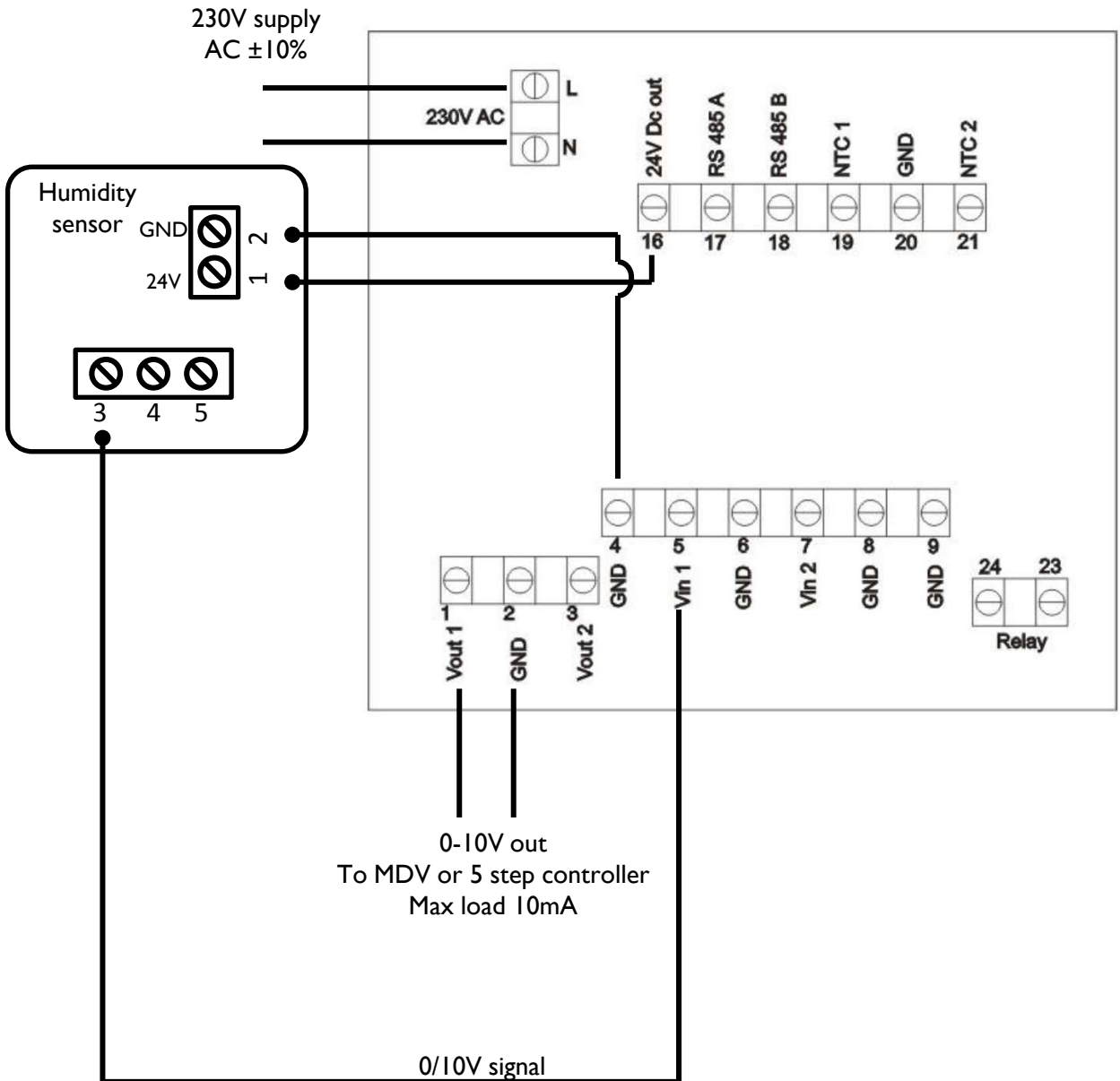
# Temperature on/off



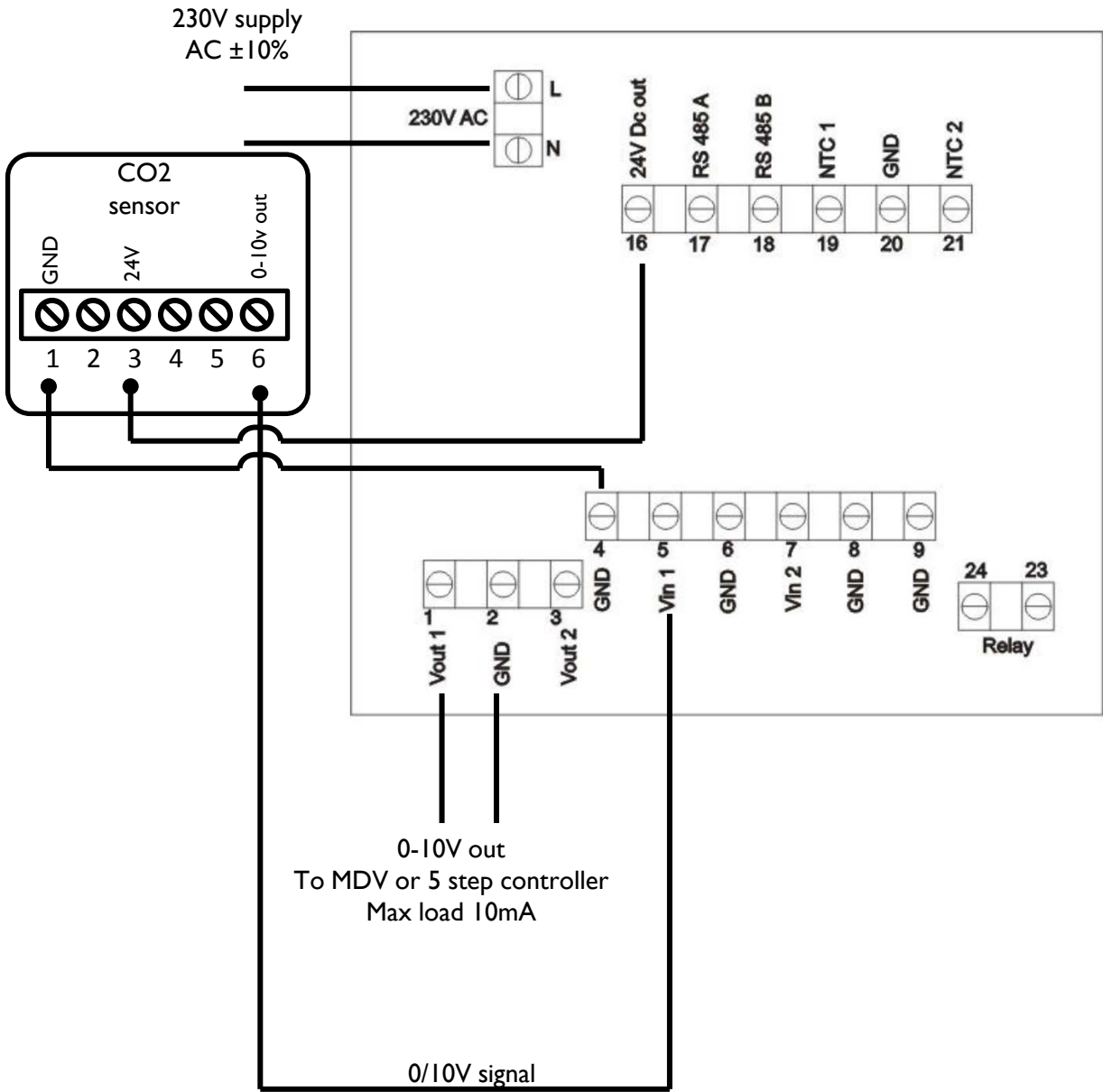
# Pressure transmitter



# Humidity

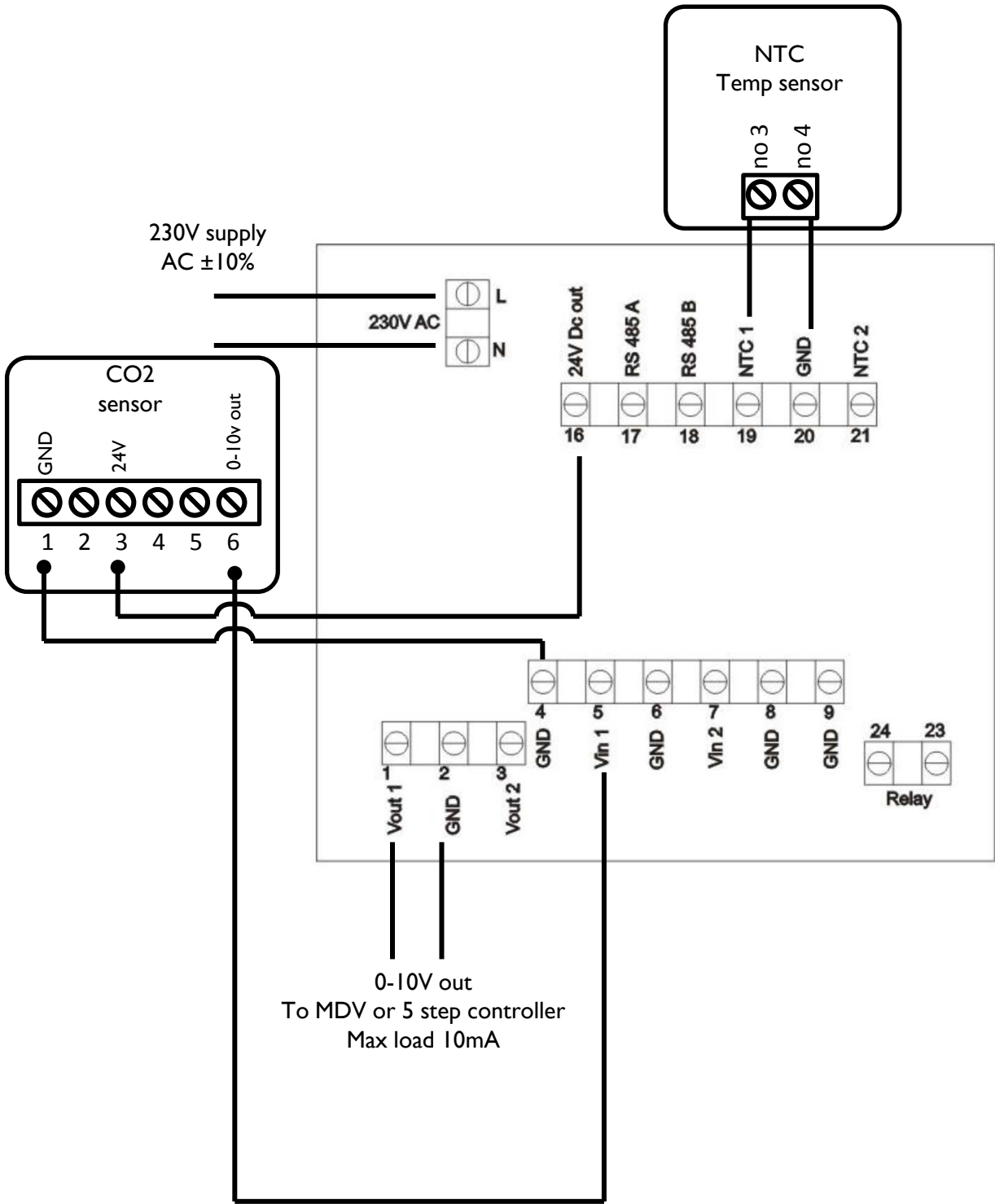


# CO2





# CO2 + Temp.







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