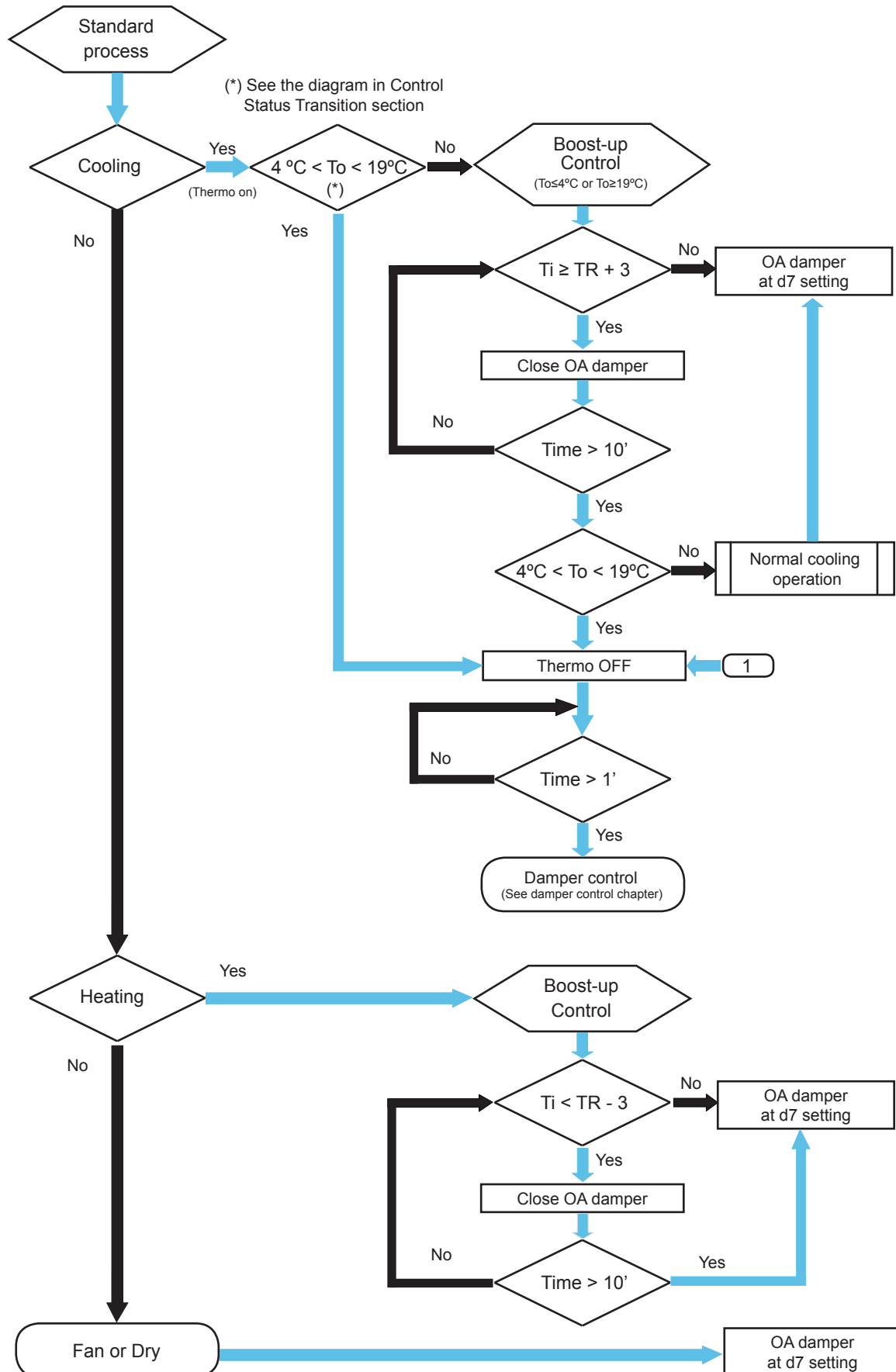


16.3 Standard Process (Economizer)

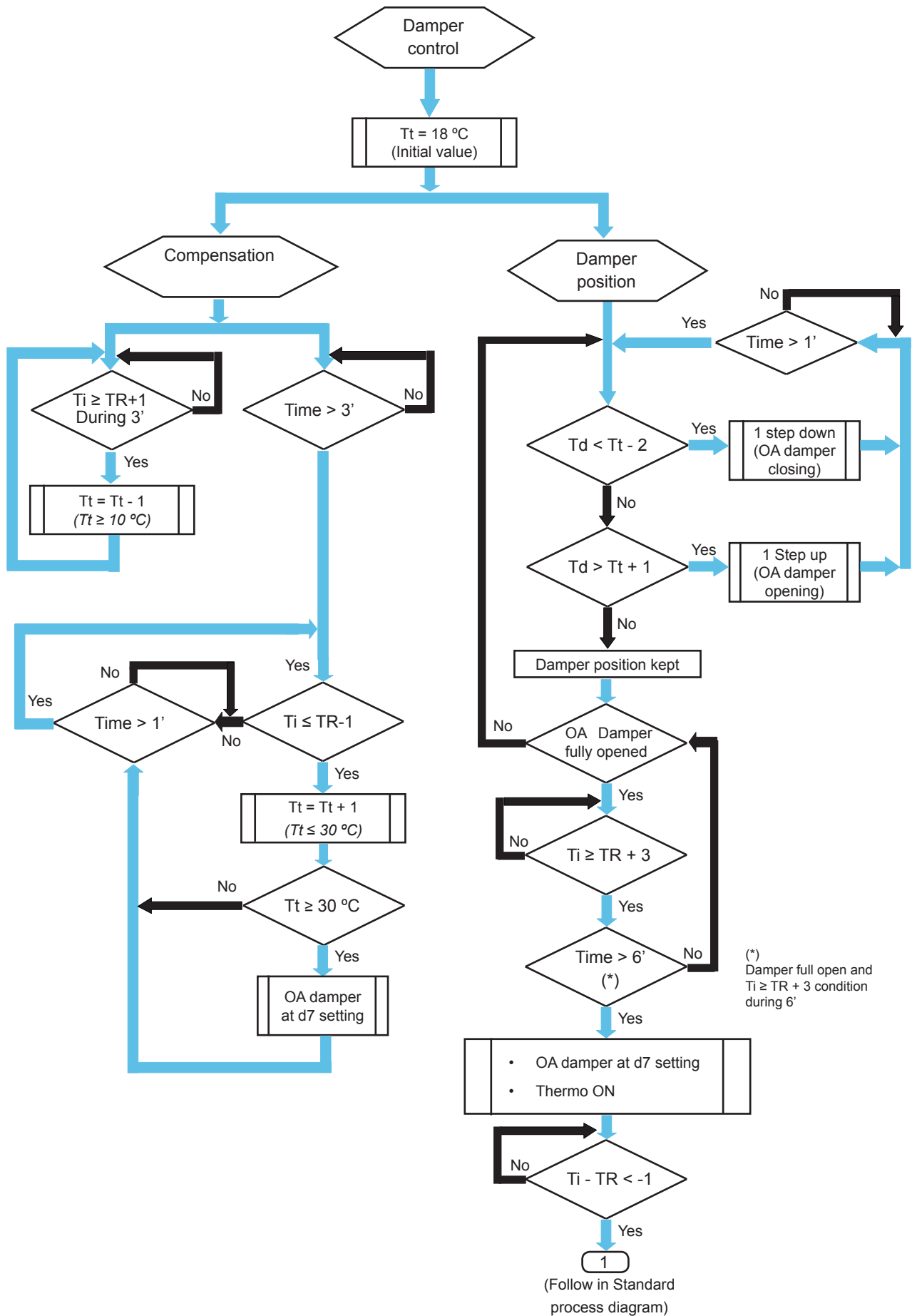
Optional signal configuration by remote control switch:

 Econofresh cooling mode – $E1 = 00$

 Econofresh sensor – $E2 = 00$

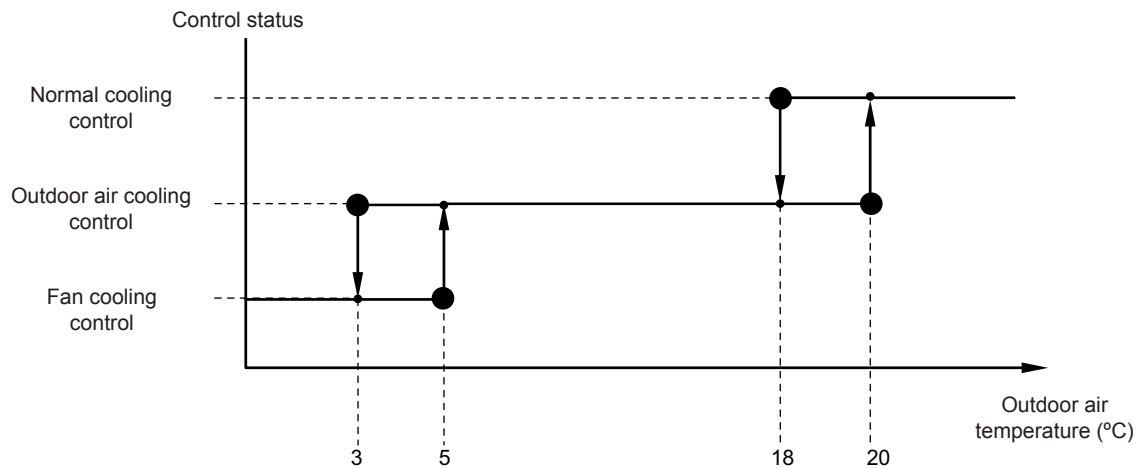
 CO₂ gas sensor: – $E4 = 00$


16.3.1 Damper control (Standard process)



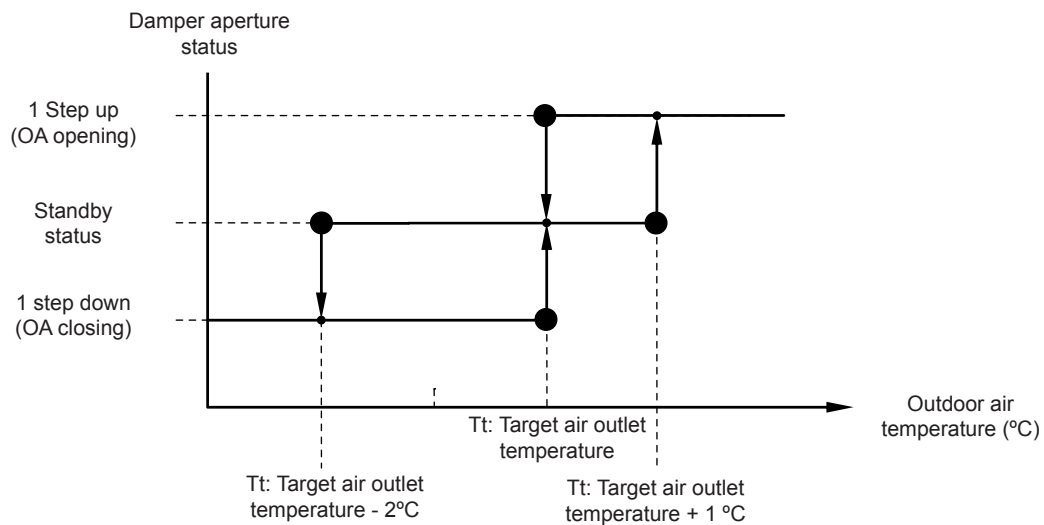
16.3.2 Control status transition

Control status transitions in standard process (economizer control) of cooling mode are as follows (in case that enthalpy or CO₂ sensors are not installed):



- Normal cooling control: Thermo ON and OA damper opening according to d7 setting.
- Outdoor air cooling control: Forced Thermo OFF or Thermo ON and OA Damper drive depending on temperature conditions.
- Fan cooling control: Forced thermo OFF and damper opening according to d7 setting.

16.3.3 Damper control transition

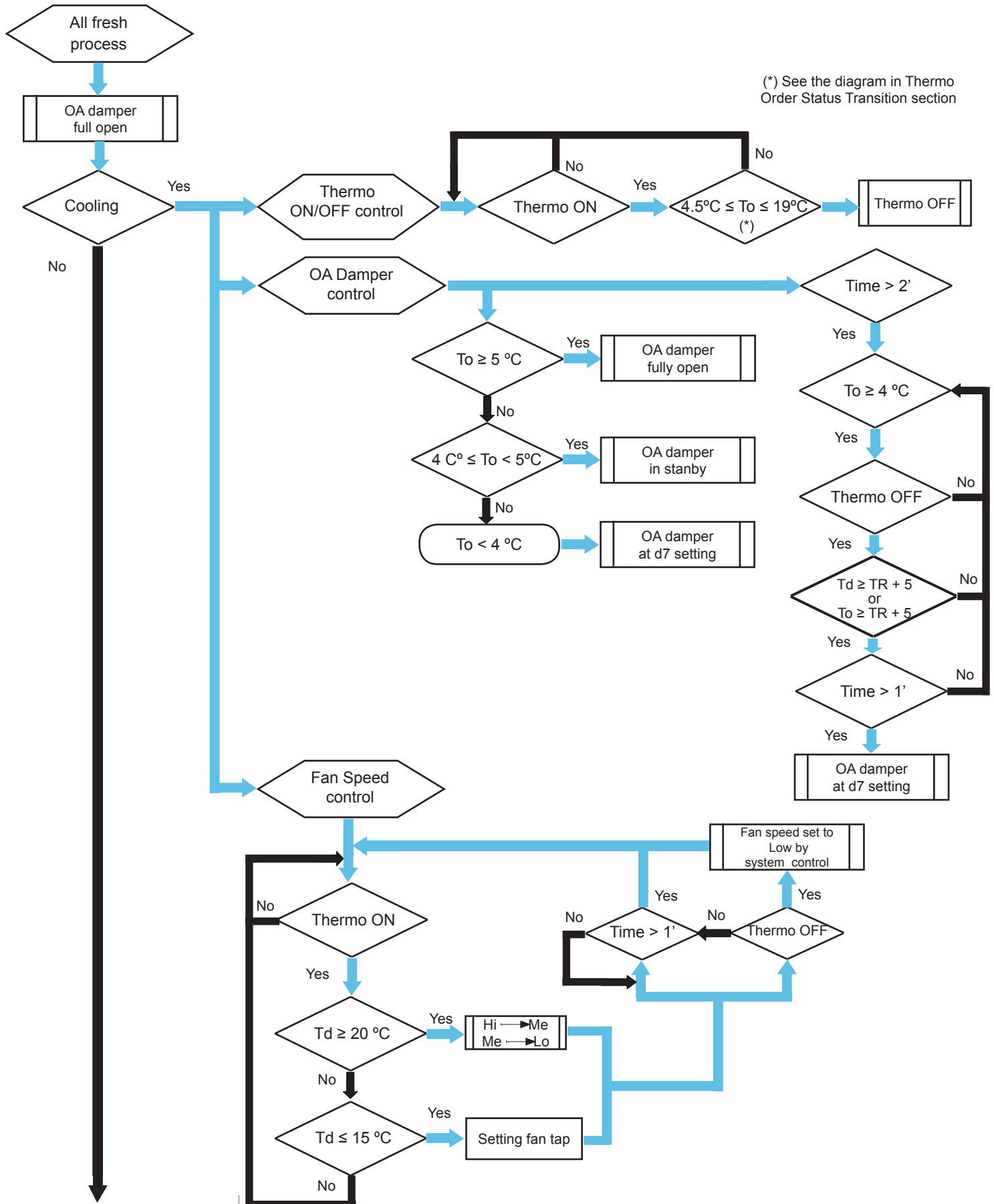


16.4 All fresh process

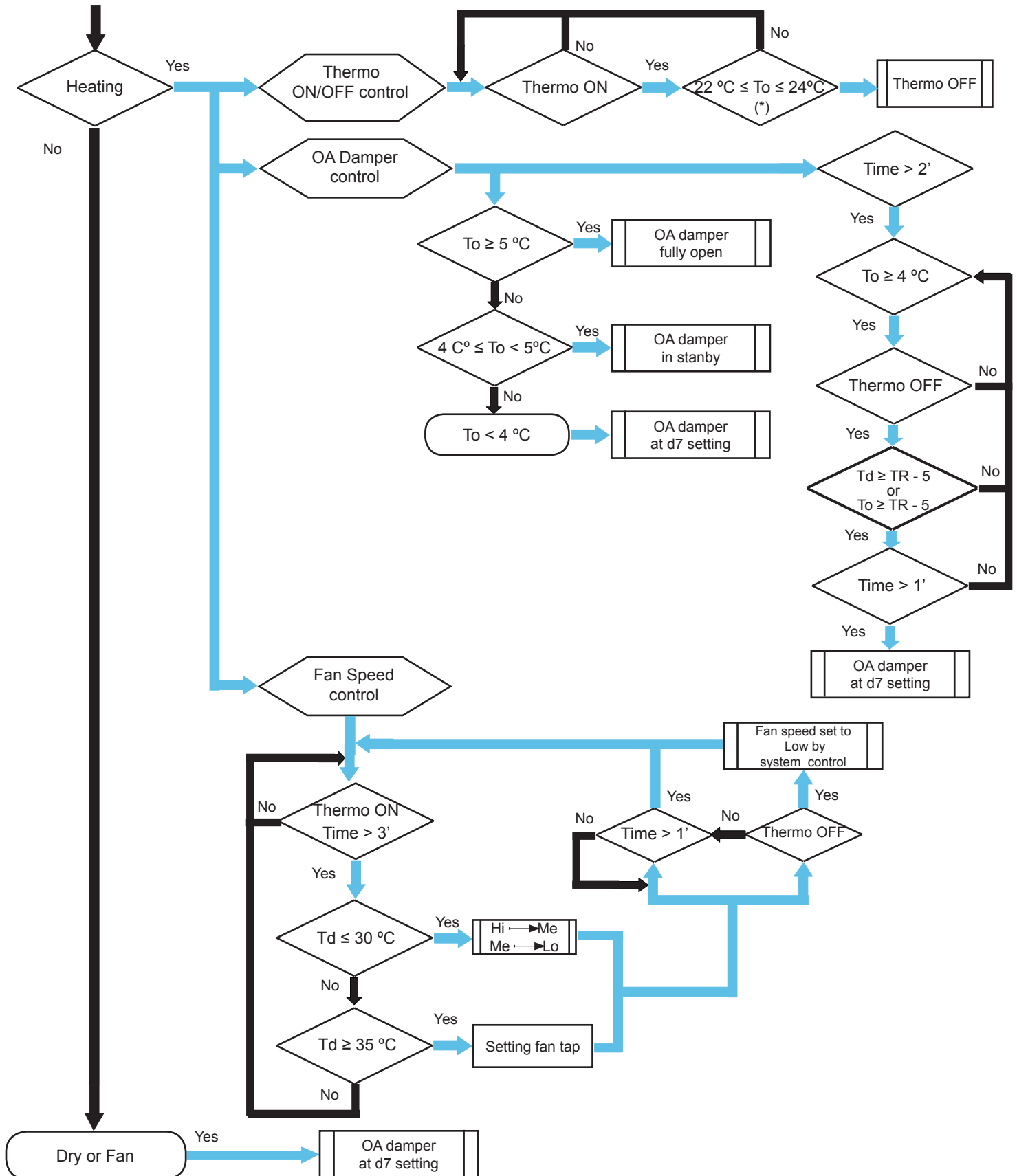
Optional signal configuration by remote control switch:

 Econofresh cooling mode – $E1 = 01/02$

 Econofresh sensor – $E2 = 00$

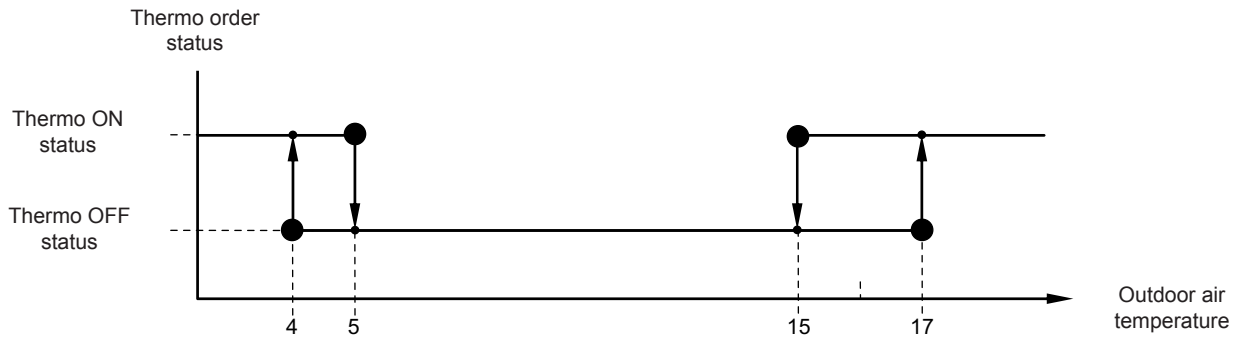
 CO₂ gas sensor: – $E4 = 00$


(*) See the diagram in Thermo Order Status Transition section

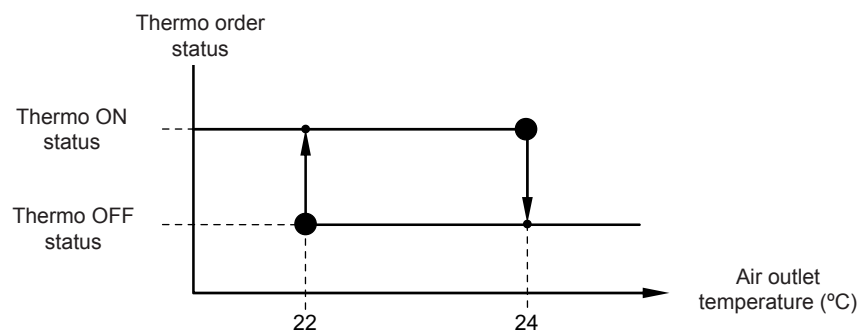


16.4.1 Thermo order status transition

In cooling mode

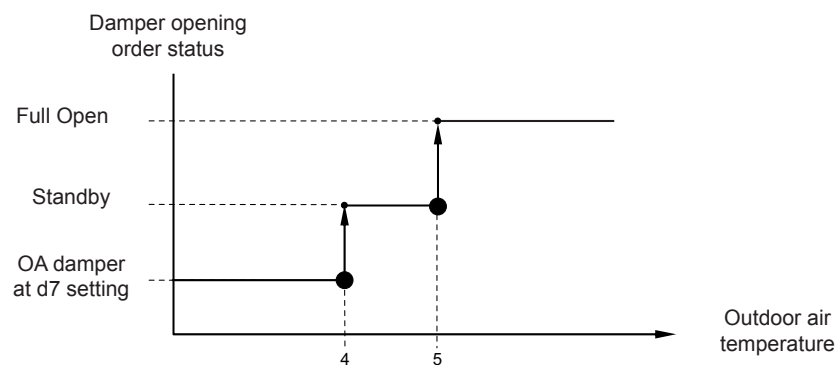
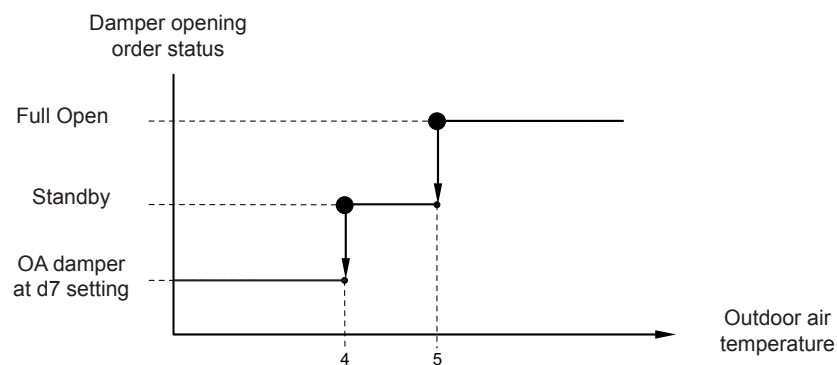


In heating mode



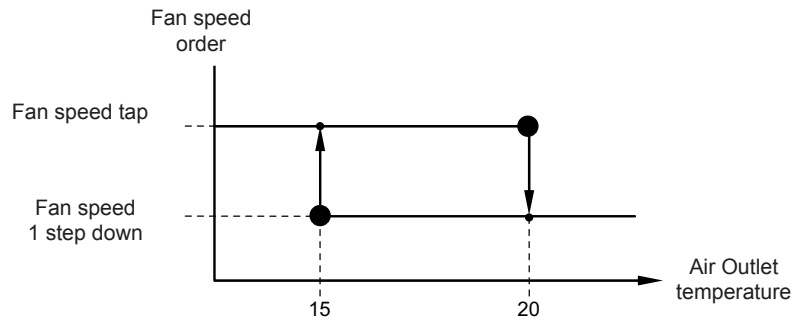
16.4.2 Damper control transition

In cooling mode



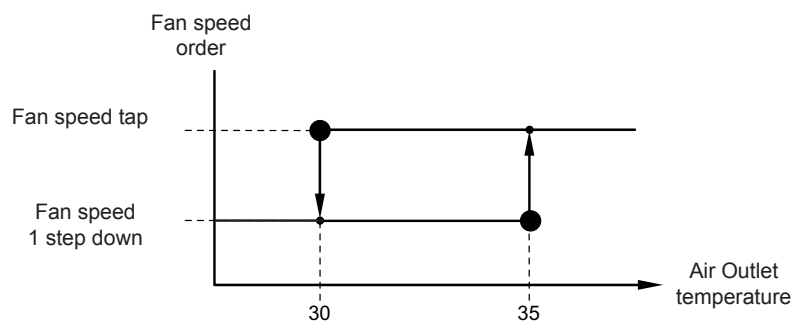
16.4.3 Transition of fan speed order

In Cooling mode



Limits: If fan speed is set to low, it remains as low even if Econofresh control requests to lower it down.

In Heating mode



Limits: If fan speed is set to low, it remains as low even if Econofresh control requests to lower it down.



NOTE

If fan speed tap is set to "Auto", then it is considered to be always set to high speed, even if Econofresh control requests to lower it down.

Fan speed remains at the fan speed tap while in Thermo OFF status.

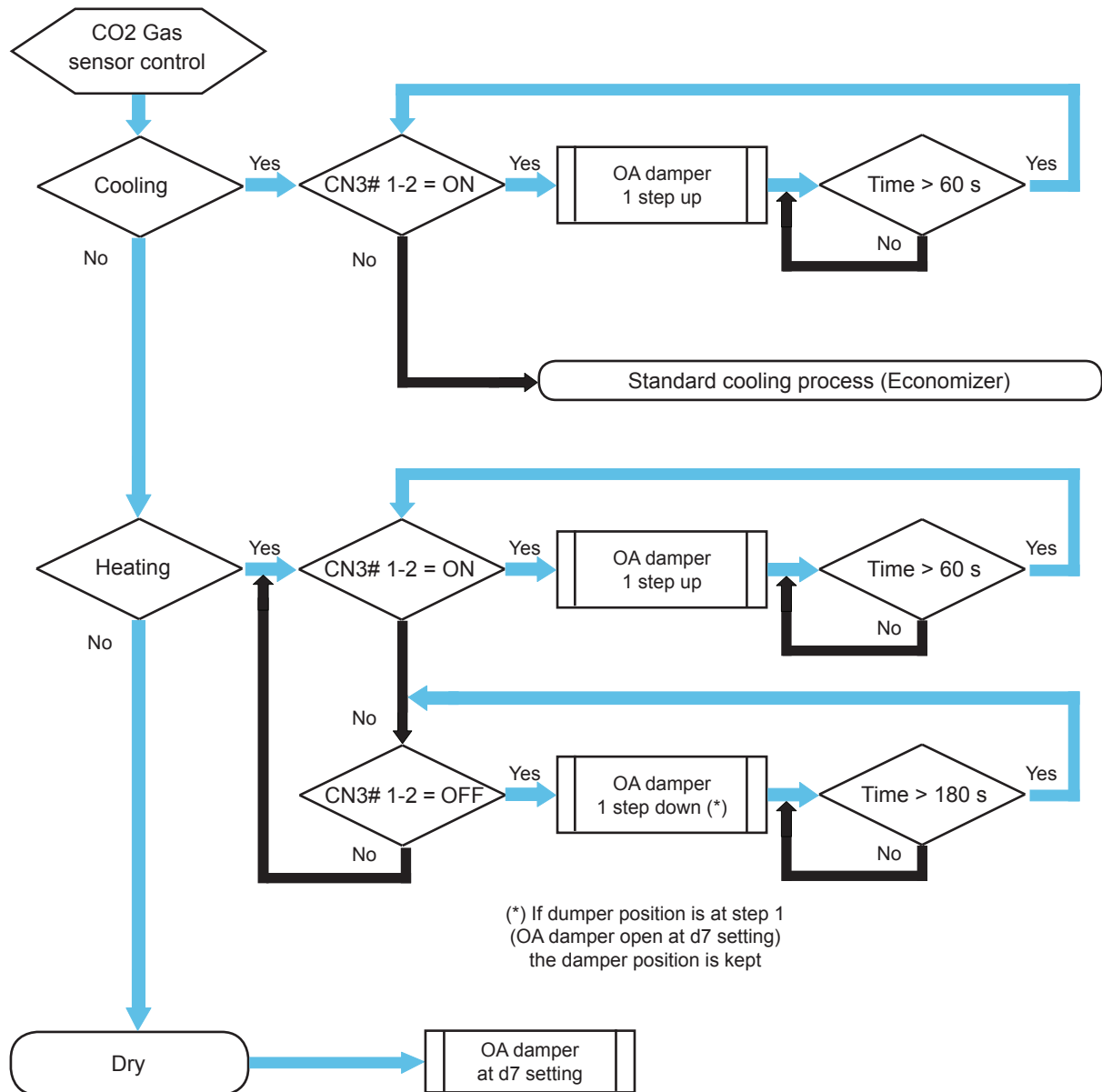
16.5 CO₂ Gas sensor control process

Optional signal configuration by remote control switch: Econofresh CO₂ sensor – E₄ = 01/02

CO₂ gas sensor control should be connected to CN3 connector, pin 1 and 2, of RPI indoor unit PCB

CN3# 1-2 = ON when contact is closed, the damper is activated and the room CO₂ quantity is reduced

CN3# 1-2 = OFF when contact is open, then CO₂ reduction is not necessary.



16.6 Enthalpy sensor control process

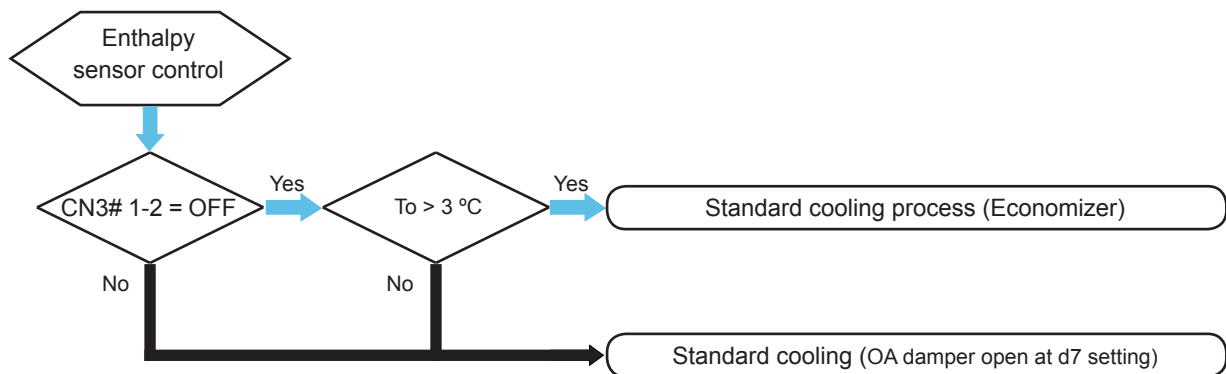
Optional signal configuration by remote control switch: Econofresh enthalpy sensor – $E2 = 01$

Enthalpy sensor control should be connected to CN3 connector, pin 1 and 2, of RPI indoor unit PCB.

Enthalpy sensor is installed outside to detect if external ambient humidity is too high.

CN3# 1-2 = ON when contact is closed, then not outside air is accepted due to humidity level is too high.

CN3# 1-2 = OFF when contact is open, then outside air can be used due to humidity level is accepted



17. Maintenance

◆ Econofresh



DANGER

Wear gloves to avoid injuries when handling components.



CAUTION

- Clean the air filter more than once a year.
- Clean the heat exchanger unit once or more every two years

Turn off the power supply switches before starting maintenance work and fit the appropriate safety locks and warnings.

Wait 5 minutes after turning off the power supply switches.

Clean the exchanger and/or air filter.



CAUTION

- Do not start the system without the air filter.
- Turn on the power supply after completing the maintenance work.