



# RCE10E



## INSTALLATION AND USE GUIDE

### INDEX

<b>1.0.0 USER GUIDE</b>	<b>2</b>
<b>1.1.0 GENERAL RECOMMENDATION</b>	<b>2</b>
<b>1.2.0 Description of the unit</b>	<b>3</b>
1.2.1 Setpoint knob (A)	3
1.2.2 Adjustment scale (B)	3
1.2.3 Setting switch (C)	3
1.2.4 Setting switch (D)	3
1.2.5 Setting switch (E)	3
1.2.6 Led mode (F)	3
1.2.7 Led filter (G)	3
1.2.8 Hidden button (SW1)	3
<b>1.3.0 Using the unit</b>	<b>3</b>
1.3.1 Cooling	3
1.3.2 Heating	3
1.3.3 Night function	3
<b>1.4.0 Warning of dirty filter</b>	<b>3</b>
1.4.1 Alarm indication	3
1.4.2 Information given by the leds	3
<b>1.0.0 INSTALLER GUIDE</b>	<b>4</b>
<b>2.1.0 General description</b>	<b>4</b>
<b>2.2.0 Technical data</b>	<b>4</b>
<b>2.3.0 Installation</b>	<b>4</b>
2.3.1 Installation position	4
2.3.2 Connections	5
<b>2.4.0 Description of inputs and outputs</b>	<b>5</b>
2.4.1 Analog inputs (External measurement sensors)	5
2.4.2 Installing and enabling the sensors	5
2.4.3 Digital inputs (clean contacts necessary)	6
2.4.4 Outputs	6
2.4.5 Anti-freeze function	6
<b>2.5.0 Methods of control</b>	<b>6</b>
2.5.1 Fan	6
2.5.2 Destratification cycle	6
<b>2.6.0 Applications</b>	<b>6</b>
2.6.1 2-pipe fan coil control	6
2.6.2 2-pipe fan coil control (heating with electric. heater only)	6
2.6.3 4-pipe fan coil heating and cooling control	7
2.6.4 2 or 4-pipe fan coil control	7
2.6.5 Starting sequence	7
<b>2.7.0 Table of parameters</b>	<b>7</b>
2.7.1 General description	7
2.7.2 Table of parameters	7
2.7.3 Setting and changing the parameters	7
2.7.4 Checking the set parameters	7
2.7.5 Configurable parameters	8
<b>2.8.0 Electric wiring diagram</b>	<b>9</b>

### 1.0.0 USER GUIDE

#### 1.1.0 GENERAL RECOMMENDATION

1. Keep this booklet in a readily accessible place for future reference.
2. Before touching the instrument, make sure that the electricity has been cut off.
3. Caution: the parts inside the instrument are live.
4. No parts inside the instrument are useable by the user.
5. This product must be installed by qualified personnel only, in compliance with current safety regulations.
6. The product has been designed according to current safety standards. Failure to comply with safety regulations and standards during installation as well as failure to comply with the instructions in this booklet could, however, reduce the safety level. The environmental conditions given under technical data must be observed in particular. Avoid contact with liquids, the formation of condensation, use of corrosive liquids and exposure to impact or excessive stress.
7. The product guarantees a level of immunity against interference in conformity with CE directives. Devices to be connected to the product and the electrical system in general must have characteristics that are compatible with the levels of immunity guaranteed for the product.
8. The product is not galvanically isolated from the mains voltage supply. All loads, accessories or sensors connected to it should therefore be considered as subjected to hazardous potential. The use of sensors with double insulation is recommended as well as the use of centralised controls or switches, which ensure double isolation for all parts accessible to the user.
9. The product may be connected to other similar products. Scrupulously comply with the envisaged connection instructions, observing all the polarities. Failure to comply with these instructions could cause short circuits, which are damaging for the product and hazardous for the user.
10. The outputs towards the loads are unprotected against short circuits or overtemperature. It is therefore recommended that all suitable measures are taken to avert these possibilities, such as correct dimensioning of the loads, protective fuses, overtemperature protectors, etc.
11. The power supply inputs are unprotected against incorrect paralleling of several products. The use of protective fuses, magnetothermal circuit breakers, etc. is therefore recommended to prevent short circuits caused by incorrect installation.

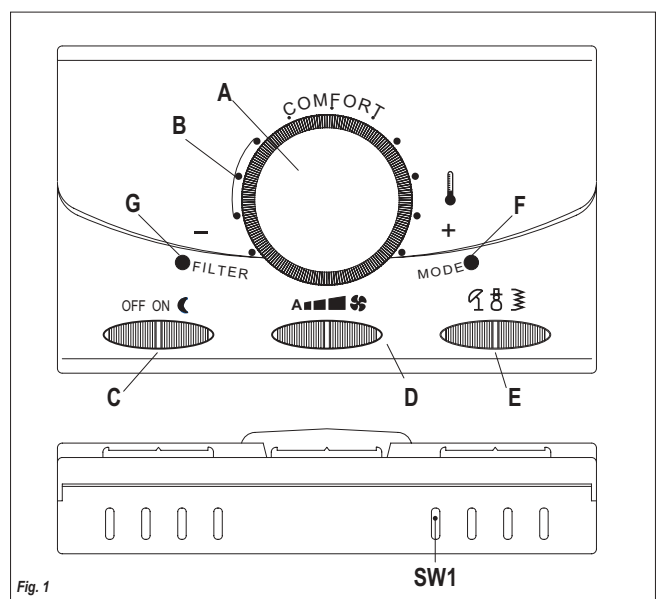


Fig. 1

## 1.2.0 DESCRIPTION OF UNIT CONTROLS

The following controls are be found on the unit (Fig. 1):

### 1.2.1 Setpoint knob (A).

This is used to change the desired temperature value (Setpoint) by +/- 5°C in relation to the preset Comfort value. The Comfort value is 20°C when the appliance is in the heating mode and 25°C in the cooling mode. The temperature may therefore be regulated between 15 and 25°C when heating and between 20 and 30°C when cooling.

### 1.2.2 Adjustment scale (A).

This consists of points arranged in a circle and a central area shown as Comfort. Turn the knob to the left to decrease the temperature (each point = 1°C less) and to the right to increase the temperature (each point = 1°C more).

### 1.2.3 Setting switch (C)

- OFF: appliance switched off. The antifreeze function remains active.
- ON: appliance in operation with temperature adjusted according to the settings
- MOON: appliance operates in the Economy mode (night function).

### 1.2.4 Setting switch (D)

- A: Automatic. The appliance automatically varies the fan speed of rotation to optimise the Comfort state.
- 1: First speed. The fan (when on) always operates at minimum speed.
- 2: Second speed. The fan (when on) always operates at medium speed.
- 3: Third speed. The fan (when on) always operates at maximum speed.

### 1.2.5 Setting switch (E)

- **UMBRELLA** (summer): appliance operates in the cooling mode.
- **SNOWMAN** (winter): appliance operates in the heating mode;
- **HEATING ELEMENT**: appliance operates in the heating mode using the additional heating element;

**NOTE:** if the appliance has been programmed during installation for automatic or centralised switching between Heating and Cooling, the selector switch E may only be used for switching on the additional heating element. The Umbrella and Snowman positions are ignored.

**1.2.6 MODE LED (F):** this indicates the mode of operation of the appliance (see below for details).

**1.2.7 FILTER LED (G):** this indicates that the fan coil filter is dirty. It is also used to indicate an alarm in progress (see below).

**1.2.8 HIDDEN BUTTON (SW1)** (to be used during installation) for editing parameter programming.

## 1.3.0 USING THE UNIT

**1.3.1 Cooling:** put the selector switch E to the Umbrella symbol (summer)

Put the selector switch D to A (automatic).

Put the knob A to Comfort (25°C).

Put the selector switch C to ON.

The Mode LED first blinks with a green light, which then remains fixed. The fan coil starts to cool the room. The fan speed of rotation is adjusted automatically for maximum efficiency.

Upon reaching the Comfort temperature the Mode LED blinks with a yellow light once every 5 sec. Use knob A to change the temperature as desired. Use the selector switch D to change the motor speed of rotation manually.

**1.3.2 Heating:** put the selector switch E to the Snowman symbol (winter)

Put the selector switch D to A (automatic).

Put the knob A to Comfort (20°C).

Put the selector switch C to ON.

The Mode LED first blinks with a red light, which then remains fixed. The fan coil starts to heat the room. The fan speed of rotation is adjusted automatically for maximum efficiency.

Upon reaching the Comfort temperature the Mode LED blinks with a yellow light once every 5 sec. Use knob A to change the temperature as desired. Use the selector switch D to change the motor speed of rotation manually. If the additional heating element is installed, put the selector switch E to the Heating Element position to switch it on.

### 1.3.3 Night Function (Economy).

Put the selector switch C to the Moon position.

The Comfort temperature is reduced by 4°C in the heating mode and increased by 3°C in the cooling mode. This function allows energy consumption to be reduced at night or when there is no-one in the room.

### 1.4.0 WARNING OF DIRTY FILTER

During normal fan coil operation a filter retains the impurities present in the air. This filter must be cleaned periodically otherwise fan coil efficiency suffers. The FILTER LED warns that the filter must be cleaned by blinking slowly once every 5 seconds. Refer to the instructions given in the Fan Coil operating and maintenance manual. When the LED blinks:

- cut off the electricity supply to the fan coil;
- clean the filter.

After cleaning, reconnect the fan coil to the power supply and keep the key SW1 pressed for 5 seconds; the LED blinks quickly for 5 seconds and then goes out. The appliance starts operating as normal.

### 1.4.1 Alarm indication

If the appliance is malfunctioning, the Filter LED comes on with a fixed red light.

If this happens, contact the firm that installed the appliance.

### 1.4.2 Information given by the LEDs

#### LED MODE

Colour	System status
• Red continuous:	Active heat valve and fan
• Red blinking with fan on:	heat valve OFF, the fan is about to stop
• Red blinking with fan off:	heat valve ON, the fan is about to start
• Green continuous:	active cool valve and fan
• Green blinking with fan on:	cool valve OFF, the fan is about to stop
• Green blinking with fan off:	cool valve ON, the fan is about to start
• Orange blinking 1sec ON, 5sec OFF:	setpoint reached, Comfort mode
• Orange blinking 1sec ON, 1sec OFF:	setpoint reached, Economy mode

#### LED FILTER

• Red continuous:	alarm
• Red blinking 1sec ON, 1 sec OFF:	dirty filter

## TEMPERATURE CONTROLLER FOR FAN COIL UNIT

### 2.0 INSTALLER GUIDE

#### 2.1.0 GENERAL DESCRIPTION

The unit consists of 2 parts: the installation base and the control unit (see Fig. 2):

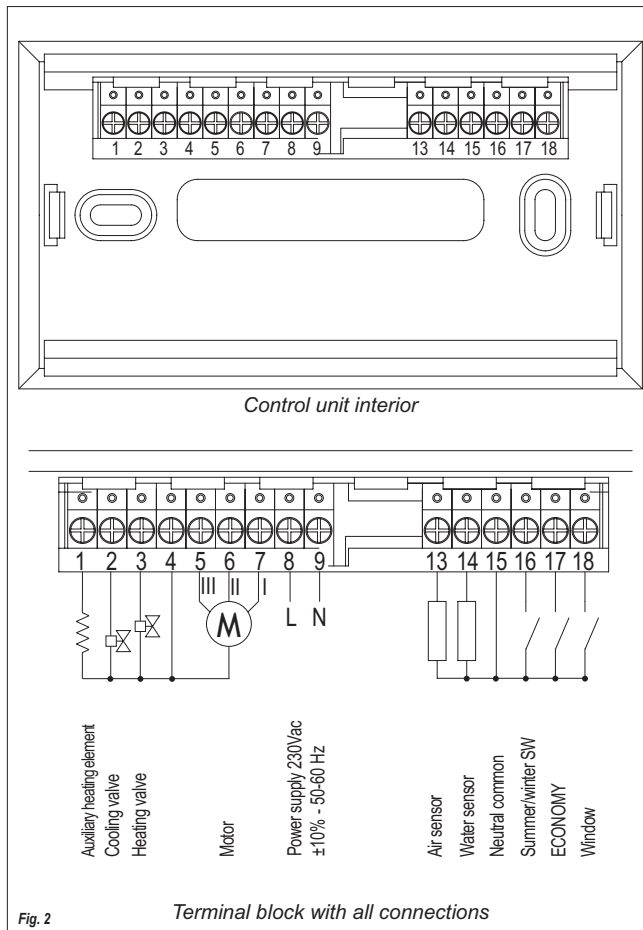
The installation base is wall mounted or fixed to a 503 module using two screws. The base has screw terminals for the electrical connections.

The control unit is fixed onto the base by an automatic coupling system (fig. 6).

The base terminals have the following functions (fig. 2):

- M1 Auxiliary output (auxiliary heating element)
- M2 Cooling valve output
- M3 Heating valve output (or primary heating element)
- M4 Phase for power outputs
- M5 Fan speed 3 output
- M6 Fan speed 2 output
- M7 Fan speed 1 output
- M8 Power supply input (Phase 230 Vac)
- M9 Power supply input (Neutral 230 Vac)
- M13 Remote air sensor input (AIR)
- M14 Water sensor input (AQ)
- M15 Analog and digital input common (Neutral)
- M16 Centralised S/W switching input
- M17 Economy input
- M18 Window contact input

- Auxiliary output: TRIAC 0.6A max
- Temperature adjustment range: +15...+30°C selectable with software parameters and knob (A) +/- 5°K
- Proportional band: selectable between: 2,3,4,5 °K
- Neutral area (dead zone): selectable between: 3,4,5°K
- Temperature sensors: NTC type sensors 10K +/- 0.3°K @ 25°C with double insulated cable, section 0.5 mm2 min, 1.5mm2 max, maximum length 20 m.
- Adjustment precision during normal operation: +/- 0.5°C in relation to 25°C room temperature setpoint
- Maximum variation in precision with room temperature: +/-0.3°C from 10 °C to 30°C
- Antifreeze temperature: 4°C
- Factory configuration: see Default parameters table
- Storage temperature: -20 ... +55°C
- Working temperature: +0 . +50°C, 0 . 95 % r.h.
- Housing protection rating: IP30
- Connections: screw terminals for wires with section of 1.5 sq. mm.
- CE conformity: LVD 73/23: standard EN 60730-1  
EMC:EN 55014-1 (or EN 50081-1)  
EN55014-2 (or EN 50082-1)
- Size: 122 x 68 x 29 mm (WxHxD) - fig. 4
- Weight: 120 grams



#### 2.2.0 TECHNICAL DATA

- Power supply: 230Vac +/-10%, 50 – 60Hz
- Absorption: 0.8 VA +/- 15%

#### Outputs

- Fan: TRIAC 250Vac, 3(2.5)A max
- Valves: TRIAC 0.6A

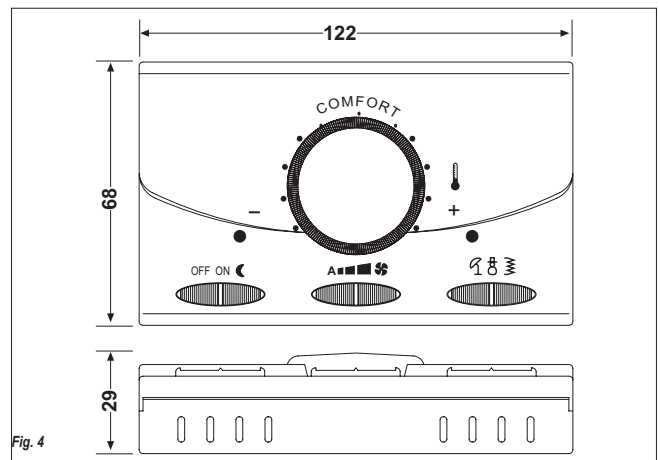
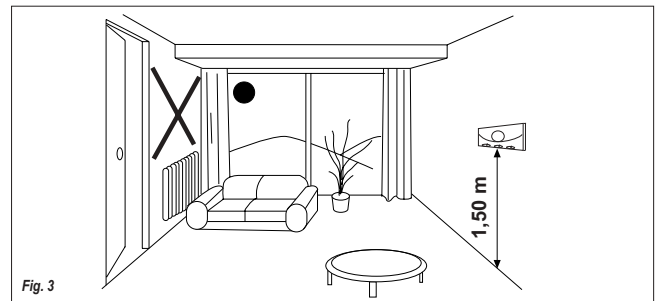
#### 2.3.0 INSTALLATION

##### 2.3.1 Installation position

The controller must be located 1.5 m from the floor in a position where there is good circulation of air.

It must not be affected by:

- currents or dead areas behind doors or in corners;
- hot or cold air from ducts;
- sunlight, household electrical appliances or unheated (non-cooled) areas, such as outside walls behind the thermostat, embedded pipes or flues (fig. 3).



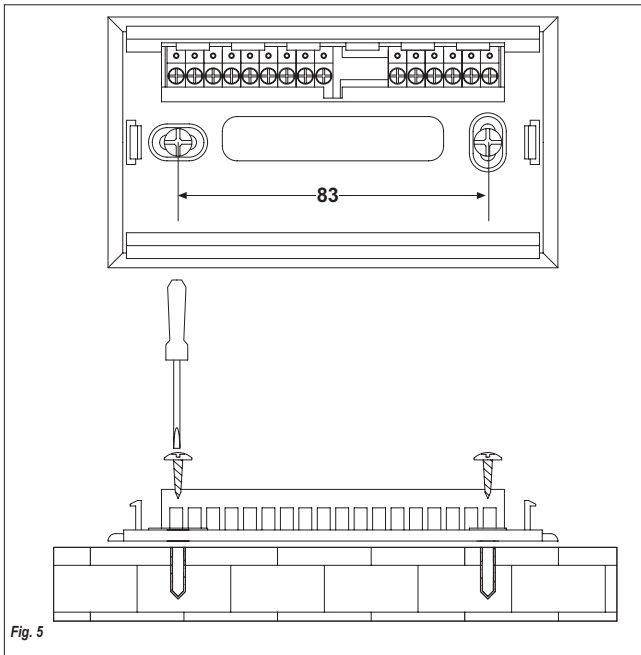


Fig. 5

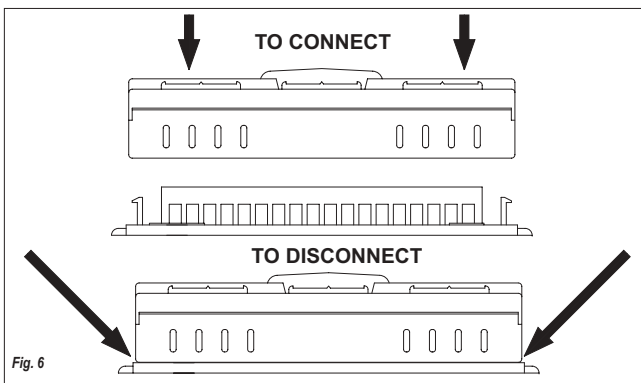


Fig. 6

### 2.3.2 Connections

Lay the necessary cables for connection between the control unit and the fan coil, including those for any sensors and auxiliary inputs, as specified below.

Fix the installation base to the wall or on top of a 503 box using 2 screws. Carry out the connections to the terminal block.

Carefully check the connections.

Place the control unit on top of the base, gently pushing it until the 2 parts lock together.

### Connecting cables between room unit and fan coil and between room unit and centralised controls.

The connecting cables must have the following characteristics:

#### between room unit and fan coil;

- section: 1.5mm<sup>2</sup>
- insulation: 250 Vac
- maximum length: 20 m

#### between room unit and centralised controls;

- section : 1.5 mm<sup>2</sup>
- insulation: 250 Vac
- maximum length: 20 m

It is advisable to lay the cables to the actuators and the power supply in conduits other than those for the sensor and centralised control cables.

## 2.4.0 DESCRIPTION OF INPUTS AND OUTPUTS

### 2.4.1 Analog inputs (External measurement sensors)

Temperature sensors with the characteristics described under Technical Data may be connected to the analog inputs M13 and M14. Sensors with other characteristics may not be connected. The air and water sensors are optional. The air sensor is used for measuring the room temperature for example on the air intake of the fan coil.

The water sensor is used to carry out the change of season in the automatic mode according to the temperature of water entering the fan coil or as minimum temperature acknowledgement for starting the fan coil both in the heating and the cooling modes.

### 2.4.2 Installing and enabling the sensors

#### Air sensor (M13-M15)

The appliance is fitted with an internal sensor for measuring the room temperature. If an external sensor is necessary, proceed as described below. The sensor is installed on the air intake of the fan coil. If connected, the instrument acknowledges this sensor as active, ignoring the internal sensor.

If it is not connected, the instrument acknowledges the internal sensor as active.

#### Water sensor (M14-M15)

- This measures the water outlet temperature for the automatic Cooling/Heating switching (only on 2-pipe systems).

Install the sensor upstream of the regulating valve, as shown in figure 7. *Note: the valve must be 3 way.*

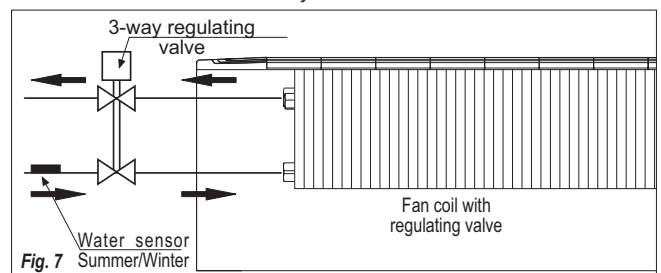


Fig. 7

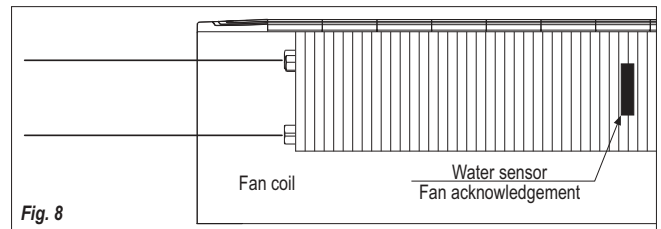


Fig. 8

- If the regulating valve is not installed, the water sensor may be used for the automatic Summer/Winter switching and Acknowledgement for Fan Start (both in the summer and winter modes). Put the sensor between the exchanger fins as shown in figure 8. A thermostat (TC) may be used instead of the water sensor for the sole function of fan acknowledgement:

- open contact= summer fan acknowledgement;
- closed contact= winter fan acknowledgement.

In a double coiled fan coil (4-pipe system), the water sensor may only be used as acknowledgement for fan start in the heating mode. Put the sensor between the heat exchanger fins. To change the assigned function of the water sensor, the parameters 2, 9, 10 must be set as indicated in table 1.

Parameter 2 to define the type of system.

Parameter 9 to define whether or not the switching must depend on the water sensor.

Parameter 10 to define the function of the water sensor. Some examples for 2-pipe systems (See table 1).

## TEMPERATURE CONTROLLER FOR FAN COIL UNIT

### • No sensor, set:

Parameter 2= 2 pipes + 1 sol.v.  
Parameter 9= manual  
Parameter 10= absent

### • For automatic Summer/Winter switching, set:

Parameter 2= 2 pipes + 1 sol.v.  
Parameter 9= H2O/Cont  
Parameter 10= S/W switching

### • For acknowledgment of fan activation only, set:

Parameter 2= 2 pipes + 1 sol.v.  
Parameter 9= manual  
Parameter 10= fan ack.

### 2.4.3 Digital inputs (clean contacts necessary)

• **Digital inputs 16-17-18 may be paralleled with other products** provided all the polarities are strictly observed.

• **Economy Function (M15 and M17).**

• **open contact = comfort status.**

The temperature is adjusted according to the position of knob A.

• **closed contact = economy status** (Heating = value set with the knob -4°C/ cooling = set value +3°C). A timer may be connected to the input to make this function automatic.

• **Window contact (M15 and M18).**

• **closed contact:** the valve(s) close(s), the fan stops and the heating element switches off thereby saving energy, The anti-freeze function remains active.

• **open contact:** normal operation (comfort)

A timer may be connected to inputs M15 and M18 to make this function automatic.

• The function of the contact may be reversed (see parameter 5)

• **Summer/Winter switching (M15 and M16).**

This input is used for the centralised Summer/Winter switching rather than manual selection using the switch E.

To activate the function it is necessary to set:

Parameter 9= H2O/Cont and  
Parameter 10= Absent

If these parameters are not configured in this way, the input is ignored.

• **open contact:** heating mode (WINTER)

• **closed contact:** cooling mode (SUMMER).

### 2.4.4 Outputs

• **Fan (M4 - M5 - M6 - M7):**

For fan with three speeds, 230 Vac, 50-60 Hz

Maximum current: 3 A

• **Heat valve (M3 - M4):**

for actuator control at 230 Vac, 50-60Hz

with regulation: ON-OFF, PWM, HEAT (parameter 4)

• **Cool valve (M2 - M4):**

for actuator control at 230 Vac, 50-60Hz with regulation: ON-OFF, PWM, HEAT (parameter 4). The maximum current absorbed by the actuators must be 0.8 A.

• **Auxiliary output (M1 - M4):** an electric heating element may be connected to this output (through a power relay) to boost the heating function obtainable with the heat exchanger of the fan coil. It may control a load at 230Vac, 50-60 Hz.

The absorbed current must be between 10 mA and 0.8A inclusive. The following may be connected as an alternative to the heating element:

• A humidifier

• A motor for external air intake damper

• A motor for the fan coil airflow outlet louvers

To enable the function, see parameter 6.

### 2.4.5 Anti-freeze function

The anti-freeze function is always active. When the room temperature falls below 4°C, the heat valve opens thereby preventing any damage to the water circuit. This function does not enable the fan.

## 2.5.0 METHODS OF CONTROL

### 2.5.1 Fan

Fan operation is regulated to ensure a correct flow of heated (or chilled) air during the various operating phases.

Fan operation may be:

• Thermostat-controlled: when set point is reached, the fan switches off.

• Continuous: the fan is always active, even when setpoint is reached.

The fan speed may be:

• Constant: the selector switch D is put to position 1 or 2 or 3.

• Automatic: the selector switch D is put to position A. In this case the speed changes automatically in relation to the room temperature, as indicated in fig. 9.

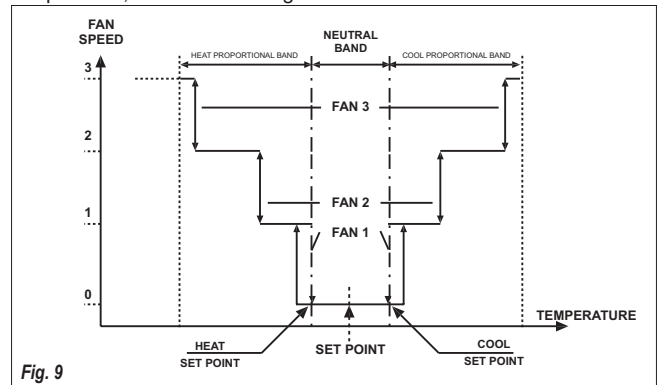


Fig. 9

The thermostat controls ventilation in an intelligent way in order to:

• prevent frequent changes in speed

• avoid unwanted ventilation

• prevent condensation or overheating of the systems

### 2.5.2 Destratification cycle

When ventilation is thermostat-controlled, upon reaching setpoint a destratification cycle is activated to improve the precision of adjustment. The fan operates for 2 minutes at minimum speed every 15 minutes.

## 2.6.0 APPLICATIONS

### 2.6.1 2-pipe fan coil control

(cooling + heating with water coil and regulating valve+ possible additional heating element) - Fig. 10. Set Parameter 2= 2 pipes + 1 SOL.V. The control commands an electrothermal actuator and the fan coil fan. The actuator must be connected to terminals 3-4.

The fan is controlled as indicated in paragraph 2.6.1

• If a heating element is connected to the auxiliary output terminals (M1 - M4), the heating element activates in the heating mode to boost heating when the selector switch E is in the heating element position and  $T_{amb} < Setpoint$

### 2.6.2 2-pipe fan coil control

(cooling with water coil and regulating valve, heating with electrical heating element only) - Fig. 11.

Set Parameter 2= 2 pipes with heating by elect. heat. el. only.

For cooling, the control commands an electrothermal actuator.

For heating, the control commands a heating element.

The actuator must be connected to terminals 2-4.

The electrical heating element must be connected to terminals 3-4.

The fan is controlled as indicated in paragraph 2.6.1.

If a second heating element is connected to the auxiliary output terminals (M1 - M4), the heating element boosts the main element in the heating mode when the selector switch E is in the heating element position and  $T_{amb} < Setpoint$ .

### 2.6.3 4-pipe fan coil heating and cooling control

(+ 2 heat/cool regulating valves) - Fig. 12.

Set Parameter 2 = 4 pipes + SOL. V

The cooling/heating switching may be automatic, manual or centralised.

• Automatic switching with neutral area.

The control automatically controls the heat valve to start heating and the cool valve to start cooling.

Set Parameter 9= T ambient (room temp).

The width of the neutral zone may be changed with parameter 1.

The Cooling/Heating switching is automatic according to the room temperature and the neutral zone.

The fan is controlled as indicated in paragraph 2.6.1.

- Manual switching.

In this case the Cooling/Heating switching is manual (using selector switch E)

Set Parameter 9 = Manual

The fan is controlled as indicated in paragraph 2.6.1

- Centralised switching.

In this case the Cooling/Heating switching is accomplished using the input M16

Set Parameter 9 = H2O/contact.

Set Parameter 10 = Absent.

The fan is controlled as indicated in paragraph 2.6.1

- If a heating element is connected to the auxiliary output terminals (M1 – M4), the heating element activates in the heating mode to boost heating when the selector switch E is in the heating element position and Tamb<Setpoint.

## 2.6.4 2 or 4 pipe fan coil control

(without regulating valve + possible electrical heating element) – Fig. 13.

Set Parameter 2= Fan only

- The control is already set for control of just the fan
- The cooling/heating switching may be automatic, manual or centralised.
- Manual switching.

Set Parameter 9 = Manual.

The Cooling/Heating switching is manual using selector switch E

- Centralised switching.

Set Parameter 9 = H2O/cont.

Set Parameter 10 = Absent.

In this case the Cooling/Heating switching is accomplished using the input M16

- Automatic Summer/Winter switching (for 2 pipe systems only)

Set

Parameter 9=H2O/Contact M16

Parameter 10 = S/W switching

In this case the Cooling/Heating switching depends on the temperature of the outflowing water.

If a heating element is connected to the auxiliary output terminals (M1 – M4), the heating element activates in the heating mode to boost heating when the selector switch E is in the heating element position and Tamb<Setpoint.

## 2.6.5 Starting sequence

To carry out a first test of all the functions upon completion of installation, proceed as follows:

- Put the Setpoint knob to +5 °C (fully to the right)
- Put C to OFF, D to 3, E to Heating Element
- Press SW1 for approx. 5 seconds until the MODE LED blinks red and green alternately and the FILTER LED blinks fast
- Fan speed 1 activates for 10 seconds
- Fan speed 2 activates for 10 seconds
- Fan speed 3 activates for 10 seconds
- Fan speed 1 activates again
- The heat valve actuator activates for a time T and then stops
- The cool valve actuator activates for a time T and then stops
- The auxiliary output activates for 5 seconds.
- The sequence ends automatically at the end of the cycle. It can also be stopped by pressing the button SW1 at any time.

N.B. The actuator control time T is:

- 5 seconds when parameter 4= ON/OFF and PWM
- 180 seconds parameter 4= Thermal

Upon completion of the sequence, the controller returns to normal operation. If a selector switch is activated during the sequence, the sequence stops and normal operation is resumed.

## 2.7.0 TABLE OF PARAMETERS

### 2.7.1 General description

- The controller has a series of configurable parameters, which make it suitable for various applications.
- The parameters may be configured directly on the thermostat following the procedure described in 2.8.3.

### 2.7.2 Table of parameters.

- An arbitrary parameter called RESET also appears in the table, which may be used to reset all the factory parameters with one action (factory settings column)

### 2.7.3 Setting and changing the parameters.

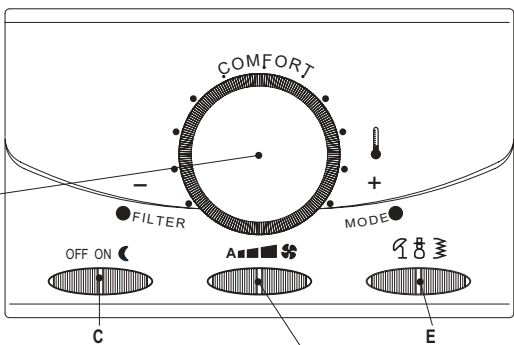
- The control has a button (SW1) in the lower right part, for accessing the parameter programming mode and to enter the selection (ENTER).
- The central knob of Setpoint (A) is used to select the type of parameter (from 1 to 10) – see table of parameters.
- The selector switch D is used to set the value of the selected parameter (see table of parameters).
- The LED on the right (MODE) visually indicates with green or red the value at which the parameter selected with D has been set.
- The LED on the left (FILTER) blinks fast in the parameter programming mode.

To enter the parameter programming mode, proceed as follows:

- Turn A fully counter-clockwise (position – 5 degrees).
- Put C to OFF.
- Put D (“fan speed selector”) to AUTO.
- Put E (“season change selector”) to SUMMER.
- Press the button SW1 for at least 5 seconds. The “FILTER” LED blinks for the whole time that the user remains in the parameter programming mode.
- 3 seconds after entering the parameter mode, the “MODE” LED comes on with a green light if the actual parameter corresponds to the value selected by D. The LED comes on with a red light if the actual parameter is not the same as the set one (see table1).
- To enter a new value, place D on the selected value, (the “MODE” LED comes on with a red light) press the button SW1 and wait for the “MODE” LED to come on with a green light.
- Proceed in the same way for all the parameters to be changed.
- To save the new settings in the permanent storage of the system, press SW1 for at least 5 seconds. The MODE LED blinks 3 times with a green light to confirm that the new parameters have been saved.
- Upon completion of storage, the controller exits from the parameter setting mode automatically.

### 2.7.4 Checking the set parameters

- Shift A to select the required parameters
- Upon moving D, if the “MODE” LED turns green = the corresponding value in the table of parameters is currently active
- Upon moving D, if the “MODE” LED turns red = the corresponding value in the table of parameters is not currently active.
- To exit from the parameter checking mode, wait for 2 minutes without touching the button SW1.



N.º	PARAMETER TO BE SET	DESCRIPTION OF PARAMETERS	SELE. A	POSITION "D"				FACTORY SET POINT
				POSITION A	POSITION SPEED 1	POSITION SPEED 2	POSITION SPEED 3	
1	Wint. / Sum. setpoint	W/S Setpoint value setting	-5	20/25 (d.z.= 5)	20/24 (d.z.=4)	21/23 (d.z.= 2)	-	20/25 (d.z.= 5)
2	Type of system	Defines the type of system	-4	2 pipes + 1 SOL. V.	4 pipes + 2 SOL. V.	2 pipes with heat only Heat. El.	Fan only (2/4 pipes) w/out SOL.V.	2 pipes+1 SOL.V.
3	Fan	Defines if the fan is thermostat-controlled or continuous	-3	Thermostat-controlled	Wint. therm/Sum. cont.	Continuous in W/S	Sum. therm./Wint. cont.	Thermostat-controlled
4	Type of outputs	Defines the actuator control mode	-2	Thermal	On/OFF	PWM	-	Thermal
5	Window contact	Defines if the window contact is active when closed or open	C	Closed=Active	Open=Active	-	-	Closed=Active
6	Aux. output function	Defines the auxiliary output function	F	Heating el.	Humid./Dehumid.	Damper	Grille	Heat. el.
7	Temperature offset	Corrects the temperature value read by the air sensor	T	0	-2	+1	+2	0
8	Set variation limit	Limits the Setpoint variation for the user turning the knob	+2	±5 °C	±2°C	±3°C	±4°C	±5 °C
9	S/W switching	Switching between Cooling and Heating	+3	Manual	H2O sensor/contact M16	From room temp.	-	Manual
10	Water sensor	Fixes the function of the water sensor (AQ)	+4	Fan acknowledgement	Absent	S/W switching	-	Fan acknowledgement
	Reset	Resets all parameters to factory values (default)	+5	-	Reset	-	-	-

Table 1



## 2.8.0 ELECTRIC WIRING DIAGRAM

**Fan coil with 2 pipes + 1 valve (cooling + heating with water coil and regulating valve) + possible additional heating element**

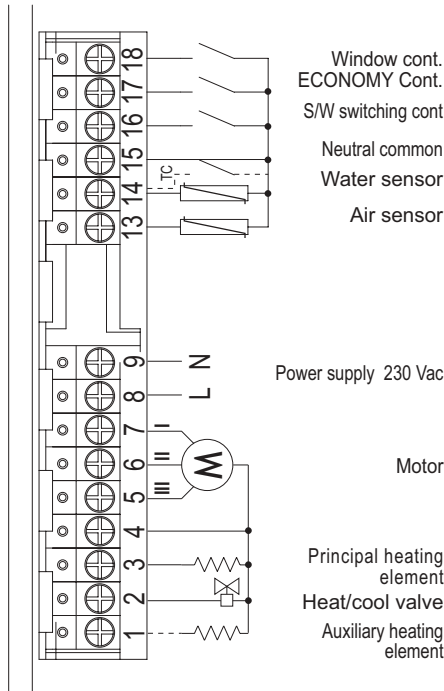


Fig. 11

**Fan coil with 2 or 4 pipes (without regulating valve) possible heating element**

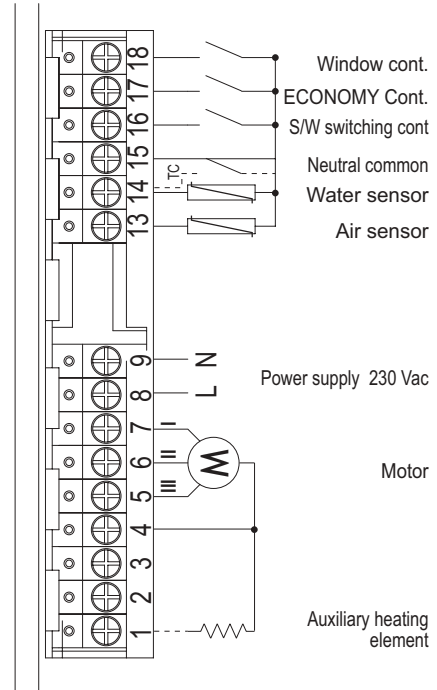


Fig. 13

**Fan coil with 2 pipes + 1 cool only valve (cooling with water coil and regulating valve, heating with electrical heating element only)**

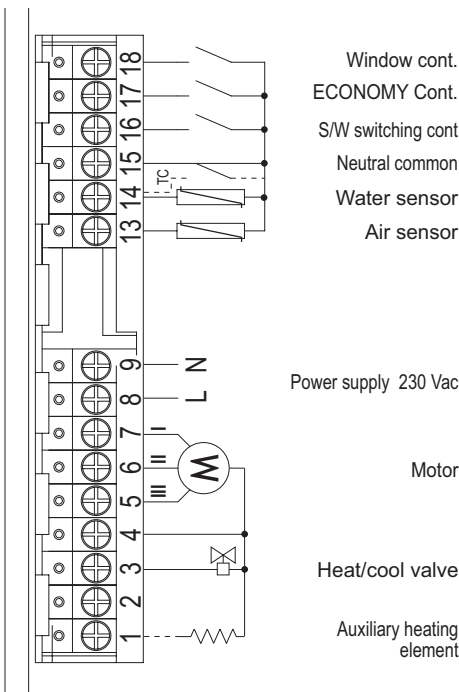


Fig. 10

**Fan coil with 4 pipes for cooling and heating (+ 2 heat/cool regulating valves)**

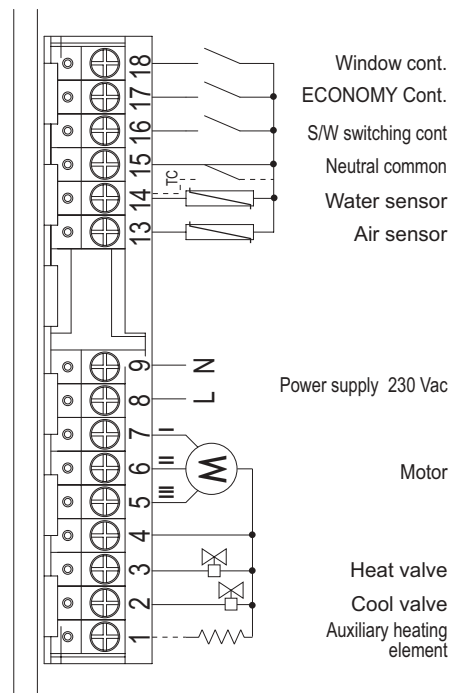


Fig. 12





All data in this technical manual are no binding for Eden S.r.l. company who takes the right, without advance notice obligation, to provide to any modification for product improvements.



**EDEN s.r.l.**

Via dell'Artigianato, 11 - 31010 Fonte (TV) - ITALY

Tel. (0039) 0423 567 774 r.a. - Fax (0039) 0423 567 985

www.eden-clima.com - e-mail: [info@eden-clima.com](mailto:info@eden-clima.com)