



Alpha Climatic Installation & User Instructions

Part No 3.022144 (hard wired) - 3.022143 (RF)

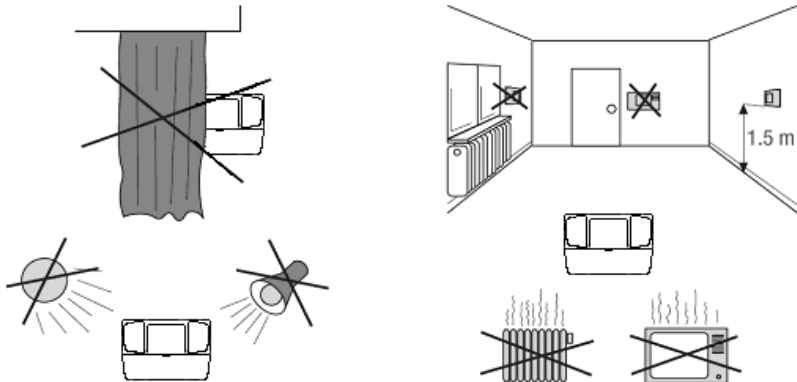
1. Description

The Alpha Climatic Programmable Modulating Boiler Energy Manager is a multi-channel time and temperature programmer with integrated thermostat and “BUS” system to transfer data between the boiler and controller, enabling full remote control of the boiler functions and display of information. With enhanced boiler control, the unit further increases boiler and system efficiency.

Within the governments Standard Assessment Process (SAP) the Alpha Climatic controls are classed as an “Enhanced Load Compensator” capable of measuring and maintaining the temperature inside the building by modulating and limiting the boiler flow temperature depending on the measured room temperature.

2. Mounting of the controller

The controller must be mounted in a position where it can not be influenced by direct sunlight, any device which might emit heat, near a door, window or be obstructed by curtains. It must be installed approximately 1.5m from the floor and any radiators within the same room must not have thermostatic radiator valves or any other thermostatic control fitted to them.



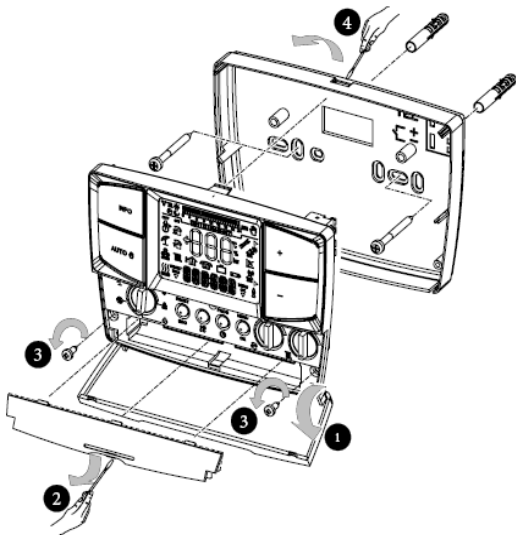
3. Wall Mounting

Using a small screwdriver press down on the tab at the top of the controller (4) and separate the front control panel from the rear case.

Hold the rear casing in its chosen position level against the wall and mark the fixing holes.

Drill two 5mm holes in the wall, insert the wall plugs provided and fix the rear case to the wall using the 30mm screws.

Hard wired models only - Connect the boiler data wire (not supplied) to the + and – terminals in the rear casing
Connections are not polarity sensitive.



Re-fit the front control panel, lower the control cover (1) and secure the control panel using the two 10mm screws provided (3).

Installing the batteries (RF Controller Only)

Using a small screw driver un-clip the bottom of the battery cover (2) and remove. Insert two Size AA batteries in the position shown in the back of the battery compartment and refit the battery cover

Note: The RF Climatic controller must not be programmed until the receiver unit is connected to the boiler and RF communication is established.

4. Connecting the Climatic controller

Controls connections are boiler specific, for further details or boiler models not shown please refer to boiler installation manual.

DO NOT connect Climatic controller to 230v terminals 1 & 2 within boiler control panel!

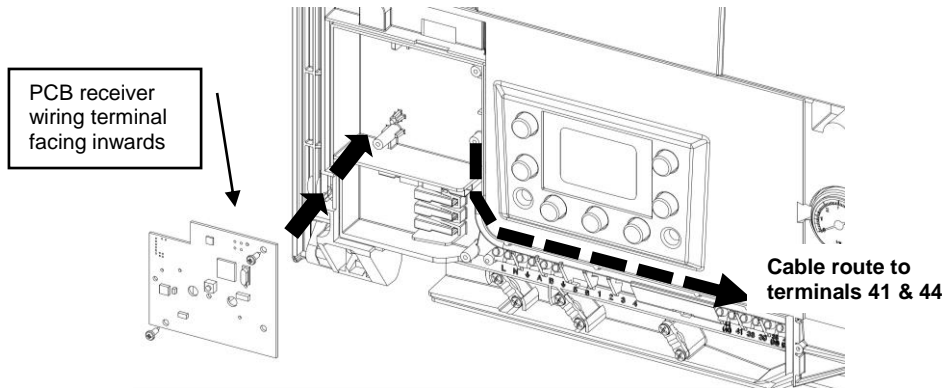
For Alpha E-Tec / Evoke – Hard Wired

- Gain access to the boiler terminal block as described in the boiler installation and service instructions.
- Pass the wire from the Climatic controller through the cable entry point in the terminal block cover and connect it to terminals **44 & 41** (wires can be connected either way round).
- Secure the wire under the cable clamp
- Remove link wire from terminals 1 & 2
(DO NOT connect Climatic wires into terminals 1 & 2!)
- Re-assemble in reverse order.

For Alpha E-Tec / Evoke – RF Wireless

- Gain access to the boiler terminal block as described in the boiler installation and service instructions.
- Plug the connecting wire (supplied with controller) onto the Climatic receiver PCB terminal marked “OT” only.
- Use the two screws provided from the fixing posts and fix the receiver PCB into position (Note: Wiring connector faces *inwards*)

- Route the wire along the groove in the control panel to terminal block connections **44 & 41** (the wires can be connected either way round).
- Remove link wire from terminals 1 & 2
- **(DO NOT connect Climatic wires into terminals 1 & 2!)**
- Re-assemble in reverse order.



RF Climatic PCB in Alpha E-Tec / Evoke boiler

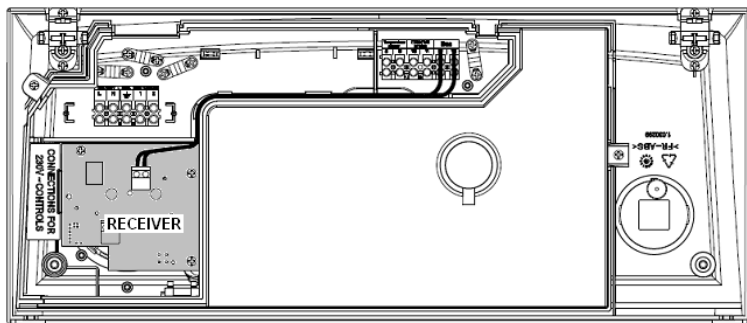
For Alpha Intec – Hard Wired

- Gain access to the boiler terminal block as described in the boiler installation and service instructions.
- Pass the wire from the Climatic controller through the rubber grommet in the terminal block cover
- Connect it to terminals **12 & 13**.
- Remove link wire from terminals 1 & 2
- **(DO NOT connect Climatic wires into terminals 1 & 2!)**
- Secure the wire under the cable clamp and re-assemble in reverse order.

For Alpha Intec – RF Wireless

- Gain access to the boiler terminal block as described in the boiler installation and service instructions.
- Remove the screws from the fixing posts in the back of the control panel, position the receiver and re-fit the screws to secure it in place.
- Connect the wires from the receiver terminal to the BUS connections **12 & 13** on the boiler terminal block (the wires can be connected either way round).

- Remove link wire from terminals 1 & 2
- **(DO NOT connect Climatic wires into terminals 1 & 2!)**
- Tuck the wire behind the tabs on the PCB cover and re-assemble in reverse order.

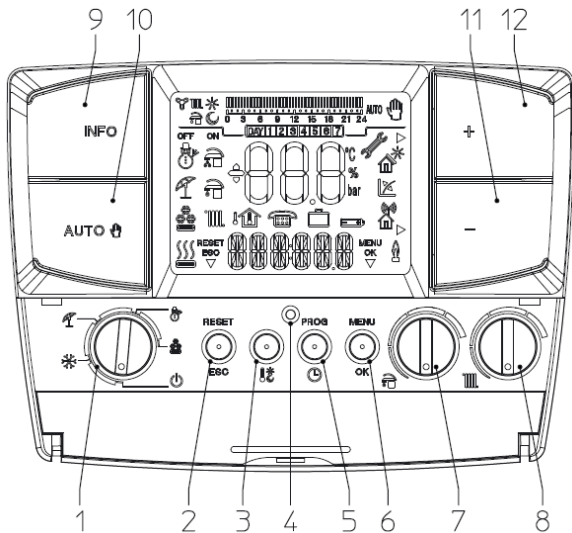


RF Climatic PCB in Alpha Intec boiler




















5. Control button functions.

1. Mode selection switch
2. Reset, previous display
3. Heating on/off temperatures
4. Reset to factory settings
5. Programming menu selection
6. Menu selection
7. DHW temperature set
8. CH temperature set
9. Information e.g. flow temperature
10. Auto/Manual override
11. Scroll/temperature adjust
12. Scroll/temperature adjust


Note: With a Climatic controller fitted, CH temp and DHW temp controls on the boiler will no longer be active.



6. Display Symbol Descriptions


Symbol	Description	Symbol	Description
	DHW and heating on		Outside temp. display
	DHW only		Inside temp. display
	Cooling and DHW modes enabled		Remote phone activation (not used)
	Request for heating or cooling		Holiday mode
	Cylinder heating in progress (if present)		Indicates it is possible to adjust a parameter using buttons 11 and 12
	Request for DHW	000:000	Describes current status
	Request for Heating		Anomaly or Fault
RESET ESC 	Reset/escape to previous screen		Solar active
	Displays room temp. and numerical data		External probe connected
	Functioning in wireless mode (RF models only)		Battery condition low (RF models only)


7. Climatic RF Communication

For the RF (Wireless) model the symbol  is shown to indicate communication between the Controller and the Receiver. If the symbol is not shown the connection has failed. If the symbol is flashing there is a weak signal or fault with the communication.

8. Programming

a. Set Time


Turn the mode selection switch to CH/DHW on .

Press the **PROG**  button to enter the time setting mode, then press OK and the hour will flash.

Using the +/- buttons adjust the time to the correct hour then press OK, the minutes will now flash, using the +/- buttons adjust the minutes then press OK.

The day of the week will flash, using the +/- buttons set to the correct day of the week and press OK then ESC to get back to main menu.

b. Set Heating Programme

Press the **PROG**  button and **TIME** will appear, press **+** and **CH PRG** will flash, press **OK** and **MONDAY** will appear.

Using the **+** button you can programme individual days or blocks of days then press **OK**.

On 1 will be displayed and the time will flash, using the **+/-** buttons you can select the time you wish the heating to turn on followed by **OK**,

Then using the **+/-** buttons you can set the time you wish the heating to turn off.


Press **OK** and the next on period will appear, repeat the previous procedure for the next on-off periods for the rest of the day to a maximum of four on periods.

After one minute the display will return to main menu or keep pressing **ESC**.

NOTE: if four on off periods are not required then set the unused periods on off times the same. E.g. On 23:00 off 23:00.

c Set Hot Water Programme

Note: The hot water programmes only need to be set for the following system types:
Alpha System Boiler & Diverter Kit or Alpha Flowsmart

Press the **PROG**  button and **TIME** will appear, press **+** twice and **HW PRG** will flash, press **OK** and **MONDAY** will appear.

Using the **+** button you can programme individual days or blocks of days then press **OK**.

On 1 will flash on the display with a time below it, using the **+/-** buttons you can select the time you wish the hot water to turn on followed by **OK**

Then using the **+/-** buttons you can set the time you wish the hot water to turn off. Press **OK** and the next on period will appear, repeat the previous procedure for the next on-off periods for the rest of the day to a maximum of four on periods.

After one minute the display will return to main menu or keep pressing **ESC**.


NOTE: If on/off periods are not required then set the unused period on/off times the same. e.g. On 23:00 off 23:00.


d. Setting the Temperature

Note: There are two temperature settings, comfort and economy.

The comfort temperature is the room temperature required during the heating on period.






The economy temperature is the minimum allowable room temperature, e.g. if the economy temperature is set to 10°C and the temperature drops below this during a heating off period the boiler will switch on to maintain the 10°C setting.

Press the  button and the word COMFOR will appear with the temperature flashing above and a * symbol. Using the +/- buttons set the temperature as required then press OK to store.

Press the  button twice and the word ECONOM will appear with the temperature flashing above and a ☾ symbol. Using the +/- buttons set the temperature as required then press OK to store.

9. Mode Selection

a. The mode selection switch (1) has five settings.

- a.  In this mode the control is switched off but the boiler frost protection is still active.
- b.  In this mode the control is switched off but provides frost protection for its immediate location.
- c.  This mode provides hot water only (summer setting).
- d.  This mode provides hot water and timed and temperature controlled heating (winter setting).
- e.  This mode is used in conjunction with an air conditioning unit to provide summer cooling control.

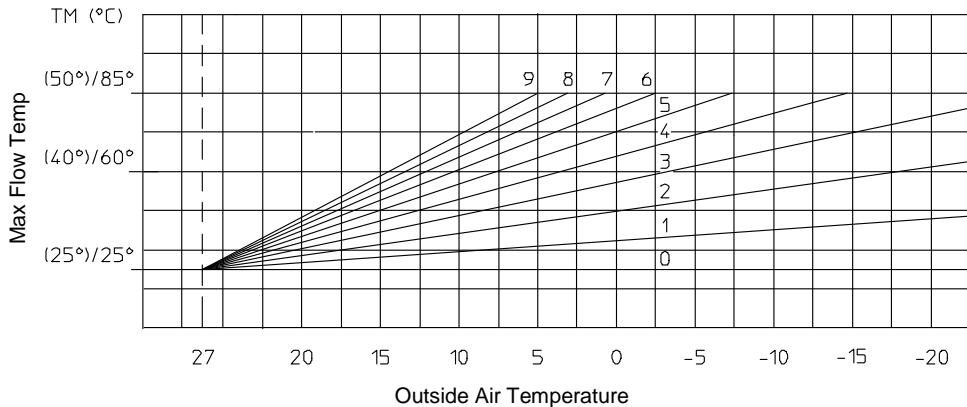
b. Central Heating Temperature setting (8)

The central heating temperature setting adjusts the primary heating water temperature to the user's requirement. In winter mode, when the dial is turned the temperature setting is displayed on the screen.

The primary flow temperature might not reach the temperature set by the user when in operation because the programmer will control the boiler output to give optimum performance to reach the required room temperature setting.

c. External weather compensation probe (optional)

When an optional external weather sensor is fitted the CH temperature control dial will no longer adjust by degrees °C, instead the display will show a scale of 1 to 9.





Each number 1-9 corresponds to a line on the graph (values in brackets are low temp. circuits). *Example: Setting 6 would give a maximum flow temperature of 60°C at an outside air temperature of 10°C.*



d. Domestic Hot Water Temperature setting (7)

The domestic hot water temperature setting adjusts the temperature of the water delivered to the hot tap to the user's requirement. When the dial is turned the temperature setting is displayed on the screen.

e. Continuous override

The override function is used to manually control the boiler, press the **AUTO**  button and use the +/- buttons to set the desired room temperature. To turn off the manual override press the **AUTO**  button.


f. Temporary override

To access Temporary override press the +/- buttons to set the desired temperature and the  symbol will flash in the top right hand corner of the display. The room temperature will be maintained until the next timed on or off period or press the **AUTO**  button to come out of temporary override.

g. Room frost protection

If the programmer detects an indoor temperature of 5°C the boiler will operate at minimum heating output until the room temperature has been raised to 5.6°C.

h. Cooling Mode

In this mode the programmer can be used to control an air-conditioning unit, turn the selector to  to enable.

NOTE: For more information please contact Alpha Heating Innovation.

i. Information

Pressing the INFO button allows the user to scroll through a menu showing various temperatures and the functioning state of the programmer.

With each press of the INFO button a value will be displayed e.g. DHW T 50°C, if a value is not present “- -” will be displayed. The display of the INFO is subject to the boiler model and the method of connection of the programmer.

To return to the main menu press ESC button or wait for 60 seconds.

The displayed information parameters are as follows;

EXT T: External temperature (if external probe is fitted).

RH%: Relative room humidity (with optional probe fitted) – NOT USED

HF TMP: Primary flow temperature.

HR TMP: Primary return temperature.

DWIN T: DHW input temperature.

DHW T: DHW output temperature.

PAN T: Solar collector temperature.

CH PRS: Primary system pressure.

SERVIC: Days remaining before a boiler service is required.

VER "X": "X" identifies the type of communication protocol with the boiler in use:


VER PI = IMG-Bus. The display shows the software version of the programmer remote control.

ZONE: Not used on this model.

j. Faults diagnostics and errors

The Climatic remote control continually controls the functioning of the boiler and signals any anomalies, stating the corresponding error code on the display.

The error codes are listed in the boiler installation manual.

If a fault occurs it will be displayed as “ERR-XX” where the “XX” represents a number that identifies the code as well as a flashing  symbol. The climatic also checks its own functioning state, indicating any malfunction.

Code	Description
ERR>CM	Communication error between the Alpha Climatic remote controller and the boiler receiver
ERR>TP	Error in reading the room temperature or value measured off scale (below 0°C or over 50°C)

k. Reset errors

In the event of a resettable boiler lock out RESET will flash on the display. By pressing and holding the relevant button for 5 seconds, it is possible to reset the boiler.

It is possible to reset the boiler up to 5 times then one hour must elapse until 5 more attempts can be made.

I. Reset Climatic remote control

By pressing the reset button the climatic remote control hardware can be reset without losing the user setting, such as time, date and timed programmes.

If the Climatic remote control original factory settings are to be restored, it can be done as follows.

Press and release the small reset button whilst holding the larger RESET button down.

This will restore the factory set data, keeping current time and day; however the language will revert to Italian and must be changed back to English.

m. Special functions

By pressing the MENU button, a list of options can be accessed, by pressing the +/- buttons you can scroll through the various options and to select press OK.

m1. Language - Allows the user to choose between Italian and English.

m2. Regult (management of regulation parameters)

This allows you to customise the functioning parameters.

CH MIN allows adjustment of the minimum central heating flow temperature. This value is used to calculate the curves used for the external probe. Values that are too high can cause flow temperatures that are too high on average for room central heating.

OFFSET (regulation constant), constant that can be regulated from -15°C to $+15^{\circ}\text{C}$ and which in the presence of the optional external probe modifies the set flow temperature set as standard at 0°C .

NOTE; if the self-learning function is enabled the offset value could be modified automatically.

BUILD (dimension and build inertia), adjustable from 1 to 20, default setting is 10. It establishes the reaction speed of the system depending on the type of system present. Example:

Value	System type
5	System with little heat inertia e.g. small property
10	System with normal inertia e.g. average house type
15	System with high heat inertia e.g. large property


AUTO A (self learning), defines the activation of self learning, as per standard set at OFF. This function allows the Climatic remote control to vary the offset, adapting it to the room in which it is installed.


S RH% (room humidity) enables the desired room humidity to be adjusted during the cooling phase, which is adjustable from 20-90%, default value 60%. This value is adjustable only if a room humidity probe is present (optional). NOT USED

m3. Holiday Mode

During winter mode function it is possible to deactivate both the hot water and central heating for a defined number of days (1 to 99). When the set number of days has past normal function will resume.

When the holiday mode is set a flashing  will be displayed and the number of days it is enabled for.

To set the holiday mode press OK then the + button until HOLIDY appears then OK to accept. **Off** will be displayed and by pressing the + button the number of days can be set, press OK then ESC twice to get to main menu and the  symbol and set number of days will flash at the bottom of the screen.

This function can be deactivated by pressing the **AUTO**  button.

NOTE; the frost protection function is still active during holiday mode.

m4 Legion (anti-Legionella function)

The anti-Legionella function raises the temperature of the hot water storage cylinder to a pre-set temperature for 20 minutes to kill Legionella bacteria.

It is possible to set this function once a day at 2am (ON 24H), every Monday at 2am (ON 7 DAYS) or deactivate it (OFF standard function).

NOTE; this function must only be activated when a cylinder is present and a thermostatically controlled blending valve must be fitted to the cylinder hot water outlet.

m5 Remote (telephone control) – NOT USED

m6 FUNCTIONS PROTECTED BY CODE (CODE)

These functions control the way the Climatic controller operates and must only be changed by a competent person. (Code: 1122).

Access the engineers menu by pressing menu followed by the minus button to get to the CODE function. (The engineer's code is 1122).

Press OK and four zero's will appear with the first flashing. Press plus button until the first zero is at 1 then press OK to go to the next zero, again press plus until this is at 1 and OK. Repeat for the next two but pressing plus until they are at 2 (1122), you can scroll through the following features using the + and – buttons followed by OK to select.

m6.1 AMB (room probe)

This allows activation or deactivation of the room probe present in the Climatic controller.

- AMB set at ON (standard value) it is possible to select and set the following sub-parameters:

- AMB CR: room probe reading correction, the room probe range reading can be corrected within a range of + 3.0 - 3.0°C.

- MODUL: This allows the Climatic probe to be turned on or off.

Set at ON, the flow temperature is varied depending on the room temperature set. Set at OFF, the flow temperature will be kept constant until the desired room temperature is reached. (the off setting can be used when multiple zones are present).

N.B.: If an external temperature probe is present, the flow temperature will be set depending on the relative functioning curve.

- AMB set at OFF, the system will not function, regulating the room temperature but only depending on the time program set.

m6.2 REDUCT (functioning in reduced mode)

If activated with AMB parameter at "OFF", it defines by how much the flow temperature must be reduced in Economy period.

- REDUCT OFF: in functioning periods in reduced mode, the boiler is switched-off.
- REDUCT ON: in functioning periods in economy mode, it reduces the flow temperature by an amount equal to that set (adjustable from -1°C to -40°C).

m6.3 FRO PR (anti-freeze level)

Allows to set the room temperature for activation of the anti-freeze function. Can be regulated from 0°C to 10°C and is set at 5°C as standard.

m6.4 ZONE (function not present on this model)

m6.5 SERVIC (programmed maintenance)

This feature allows you to set a service interval reminder and store the phone number of a preferred service engineer (can be set from 6 to 24 months or "Off"). When the set service period is reached the display will alert the user by showing "service", "calls", followed by the stored phone number.

RF SIGNAL RECOMMISSIONING FEATURE

Access the engineer's menu by pressing menu followed by the minus button to get to the CODE function. The engineer's code is 9977.

Press OK and four zeros will appear with the first flashing.

Press plus repeatedly until the first zero is at 9 then press OK to go to the next zero, again press plus until this is at 9 and OK.

Repeat for the next two but pressing plus until they are at 7 (9977).

RF>CHK will appear on the screen press OK and RF>REM will appear if they are already commissioned or RF>INS will appear if they are not commissioned.

Press OK again and RF>>>> will appear meaning the unit is searching for the receiver.

During this process the transmit button on the receiver PCB must also be pressed for four seconds and the light is flashing.

Once completed RF>REM should appear, then wait for the screen to return to the normal mode following this procedure.

Wait a further minute for the communication process to establish before using the controller.

Once completed IF only RF>INS appears then the transmitter cannot communicate with the receiver.

Remember the receiver must have the button pressed and the light flashing for the commissioning to work.

Repeat the process if necessary to retry the commissioning.

10. Technical characteristics

a. Alpha Climatic HW

- Dimensions (LxHxD): 142 x 103 x 31mm
- Power Supply: 18V nominal via twin-wire Bus
- IMG_BUS protocol max power supply voltage: 18 Vdc.
- IMG_BUS protocol max input: 23 mA - 250 mW.
- Functioning room temperature: 0 - +40°C
- Warehouse temperature: -10 - +50°C
- Protection rating according to EN 60730: II
- Protection rating according to EN 60529: IP 20
- Connection technique: 2 polarised wires
- Load reserve time: 8 hours for hourly count (with at least 2 hours of charge)
- Connection cable: 0.5mm² min - 1.5 mm² max)
- Connection cable length: 50 m (with cable of 2x0.75mm²)
- Precision indication room temp.: +/- 0.5°C a 25°C
- NTC room temp. sensor: 50 k at 25°C
- Clock indication diversion: +/- 15 minutes/year

b. Alpha Climatic RF

Receiver data:

- Base Power Supply: 18V nominal via Twin-wire communication bus
- RF communication: 868,4 MHz, GFSK modulation
- RF Communication Distance: Max100 m (depending on the environment)
- IMG_BUS protocol maximum power supply voltage: 18 Vdc.
- IMG_BUS protocol maximum input: 23 mA - 250 mW.
- Power and duty cycle: Power Tx < 10 dBm.
- Duty cycle: < 0.1%in one hour (in normal functioning mode)
- Connection cables: 2 non-polarised wires
- Connection cable (supplied): 280 mm (with cable of 2 x 0.35mm²)

c. Controller data:

Dimensions (LxHxD):

142 x 103 x 31mm

• Power Supply:

2 x 1.5 V, AA batteries

• Functioning room temperature:

0 - +40°C

• Warehouse temperature:

-10 - +50°C

• Protection rating according to EN 60730:

II

• Protection rating according to EN 60529:

IP 20

• Precision indication room temp.:

.+/- 0.5°C at 25°C*

• NTC room temp. sensor:

50 k at 25°C

• Clock indication diversion:

+/- 15 minutes/year

* = the indication of the room temperature can be affected by the point of installation of the remote control (e.g. hot wall, cold wall, height from the ground, etc.)

d. Factory Settings

Central Heating Comfort Temperature	20.0 °C
Central Heating Economy Temperature	16.0 °C
Cooling Comfort Temperature	25 °C
Cooling Economy Temperature.....	40 °C
Room Temperature in Manual	20 °C
Anti Freeze	5.0 °C
Holiday Program.....	HOLIDY = OFF
Offset	OFFSET = 0 °C
Building Inertia	BUILD = 10
Self Learning	AUTO A = OFF
Room Humidity Value.....	SRH% = 60
Room Probe.....	AMB = ON
Reading Correction.....	AMB CR = 0.0 °C
Reduction	REDUCT = OFF
Modulation	MODUL = ON
Telephone Control	REMOTE = ON
Anti-Legionella.....	LEGION = OFF

ErP Directive Commission Delegated Regulation (EU) No 811/2013

Product Classification	Configuration
V	With Standard Climatic Controller Fitted as supplied.
VI	With the Climatic Controller and Outside sensor Fitted

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These instructions have been carefully prepared but we reserve the right to alter the specification at any time in the interest of product improvement.

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